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Air Toxics

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# Electronic Comprehensive Validation Package (eCVP)

*Vera Belitsky*

Vera Belitsky

07-30-2021

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**WORK ORDER #: 2107284**

Work Order Summary

**CLIENT:** Mr. Robert Kohlhardt  
 AECOM  
 2020 L Street, Suite 400  
 Sacramento, CA 95811

**BILL TO:** Mr. Jerry Montgomery  
 SWPPQueen  
 7202 Gloria Drive #25  
 Sacramento, CA 95831

**PHONE:** 916-679-2000  
**FAX:** 916-679-2900  
**DATE RECEIVED:** 07/14/2021  
**DATE COMPLETED:** 07/28/2021

**P.O. #**  
**PROJECT #** 606327936 SMUD 59th ST  
**CONTACT:** Monica Tran

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SG-VW57A-02	TO-15	5.7 "Hg	9.9 psi
02A	SG-VW56B-02	TO-15	5.9 "Hg	10.1 psi
03A	SG-VW56A-02	TO-15	6.3 "Hg	9.8 psi
04A	SG-VW39B-02	TO-15	7.8 "Hg	10 psi
05A	SG-VW39A-02	TO-15	5.7 "Hg	9.8 psi
06A	SG-VW38B-03	TO-15	6.1 "Hg	9.8 psi
07A	SG-VW38A-02	TO-15	8.6 "Hg	9.9 psi
08A	SG-VW38A-03	TO-15	8.4 "Hg	9.9 psi
09A	SG-VW15-02	TO-15	9 "Hg	9.6 psi
10A	SG-VW15-03	TO-15	8.2 "Hg	10 psi
11A	SG-VW33A-02	TO-15	10.2 "Hg	9.9 psi
12A	SG-VW33B-02	TO-15	9.8 "Hg	10 psi
13A	SG-VW34A-02	TO-15	7.8 "Hg	9.9 psi
14A	SG-VW34A-03	TO-15	8.4 "Hg	9.9 psi
15A	SG-VW34B-02	TO-15	9 "Hg	10 psi
16A	SG-VW55B-02	TO-15	6.5 "Hg	9.9 psi
17A	SG-VW60A-01	TO-15	5.5 "Hg	9.8 psi
18A	SG-VW60B-01	TO-15	4.9 "Hg	10 psi
19A	SG-VW54B-02	TO-15	7.6 "Hg	10 psi
20A	SG-VW24B-02	TO-15	9.2 "Hg	10 psi
21A	SG-VW58A-01	TO-15	7.1 "Hg	10 psi
22A	SG-VW58B-01	TO-15	7.3 "Hg	9.9 psi
23A	SG-VW23B-02	TO-15	6.3 "Hg	10 psi

Continued on next page

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<b>CLIENT:</b>	Mr. Robert Kohlhardt AECOM 2020 L Street, Suite 400 Sacramento, CA 95811	<b>BILL TO:</b>	Mr. Jerry Montgomery SWPPQueen 7202 Gloria Drive #25 Sacramento, CA 95831
<b>PHONE:</b>	916-679-2000	<b>P.O. #</b>	
<b>FAX:</b>	916-679-2900	<b>PROJECT #</b>	606327936 SMUD 59th ST
<b>DATE RECEIVED:</b>	07/14/2021	<b>CONTACT:</b>	Monica Tran
<b>DATE COMPLETED:</b>	07/28/2021		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
24A	SG-VW22A-02	TO-15	6.9 "Hg	10 psi
25A	SG-VW22B-02	TO-15	6.7 "Hg	9.9 psi
26A	SG-VW20A-02	TO-15	6.5 "Hg	10.1 psi
27A	Lab Blank	TO-15	NA	NA
27B	Lab Blank	TO-15	NA	NA
28A	CCV	TO-15	NA	NA
28B	CCV	TO-15	NA	NA
29A	LCS	TO-15	NA	NA
29AA	LCSD	TO-15	NA	NA
29B	LCS	TO-15	NA	NA
29BB	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 07/28/21

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE  
EPA Method TO-15  
AECOM  
Workorder# 2107284**

Twenty-six 1 Liter Summa Canister samples were received on July 14, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

The US EPA released a document on December 17, 2010 outlining possible data quality concerns for Acrolein measured by EPA Method TO-15. As a result, Acrolein is reported as estimated. Please refer to EPA document titled "Data Quality Evaluation Guidelines for Ambient Air Acrolein Measurements December 17, 2010" located on-line at [www.epa.gov/ttn/amtic/airtox.html](http://www.epa.gov/ttn/amtic/airtox.html) for complete details.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

**Definition of Data Qualifying Flags**

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates

as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Table 1								
Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample	Date Analyzed	Sample Extract	Sample Condition
					Holding Time (Days)		Holding Time (Days)	
SG-VW57A-02	2107284-01A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW56B-02	2107284-02A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW56A-02	2107284-03A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW39B-02	2107284-04A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW39A-02	2107284-05A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW38B-03	2107284-06A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW38A-02	2107284-07A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW38A-03	2107284-08A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW15-02	2107284-09A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW15-03	2107284-10A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW33A-02	2107284-11A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW33B-02	2107284-12A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW34A-02	2107284-13A	07/14/2021	07/14/2021	NA	12	07/26/2021	NA	GOOD
SG-VW34A-03	2107284-14A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW34B-02	2107284-15A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW55B-02	2107284-16A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW60A-01	2107284-17A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW60B-01	2107284-18A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW54B-02	2107284-19A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW24B-02	2107284-20A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW58A-01	2107284-21A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW58B-01	2107284-22A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW23B-02	2107284-23A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW22A-02	2107284-24A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW22B-02	2107284-25A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
SG-VW20A-02	2107284-26A	07/14/2021	07/14/2021	NA	13	07/27/2021	NA	GOOD
Lab Blank	2107284-27A	NA	NA	NA	NA	07/26/2021	NA	GOOD
Lab Blank	2107284-27B	NA	NA	NA	NA	07/27/2021	NA	GOOD
CCV	2107284-28A	NA	NA	NA	NA	07/26/2021	NA	GOOD
CCV	2107284-28B	NA	NA	NA	NA	07/27/2021	NA	GOOD
LCS	2107284-29A	NA	NA	NA	NA	07/26/2021	NA	GOOD
LCSD	2107284-29AA	NA	NA	NA	NA	07/26/2021	NA	GOOD
LCS	2107284-29B	NA	NA	NA	NA	07/27/2021	NA	GOOD
LCSD	2107284-29BB	NA	NA	NA	NA	07/27/2021	NA	GOOD

## **Sample Results and Raw Data**

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW57A-02**

**Lab ID#: 2107284-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.1	5.1	10	12
Hexane	1.0	2.7	3.6	9.5
Tetrachloroethene	1.0	14	7.0	92

**Client Sample ID: SG-VW56B-02**

**Lab ID#: 2107284-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,2,4-Trimethylbenzene	1.0	2.5	5.2	12
1,3,5-Trimethylbenzene	1.0	1.3	5.2	6.2
4-Ethyltoluene	1.0	1.5	5.2	7.2
m,p-Xylene	1.0	2.0	4.6	8.6
Naphthalene	2.1	2.2	11	11
Tetrachloroethene	1.0	2.9	7.1	20

**Client Sample ID: SG-VW56A-02**

**Lab ID#: 2107284-03A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Tetrachloroethene	1.0	4.5	7.2	31

**Client Sample ID: SG-VW39B-02**

**Lab ID#: 2107284-04A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Tetrachloroethene	1.1	2.3	7.7	16
Toluene	1.1	3.2	4.3	12

**Client Sample ID: SG-VW39A-02**

**Lab ID#: 2107284-05A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
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**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW39A-02**

**Lab ID#: 2107284-05A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Tetrachloroethene	1.0	3.2	7.0	22

**Client Sample ID: SG-VW38B-03**

**Lab ID#: 2107284-06A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Chloroform	1.0	1.5	5.1	7.2
Tetrachloroethene	1.0	5.2	7.1	35
Toluene	1.0	5.3	3.9	20

**Client Sample ID: SG-VW38A-02**

**Lab ID#: 2107284-07A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Tetrachloroethene	1.2	19	7.9	130

**Client Sample ID: SG-VW38A-03**

**Lab ID#: 2107284-08A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.6	4.7	11	11
Acetone	12	13	28	31
Tetrachloroethene	1.2	18	7.9	120

**Client Sample ID: SG-VW15-02**

**Lab ID#: 2107284-09A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Acetone	12	14	28	33
Tetrahydrofuran	1.2	3.2	3.5	9.6



**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW15-03**

**Lab ID#: 2107284-10A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trimethylbenzene	1.2	10	5.7	50
1,3,5-Trimethylbenzene	1.2	2.0	5.7	9.7
2-Propanol	4.6	4.7	11	12
4-Ethyltoluene	1.2	3.4	5.7	17
Acetone	12	18	27	42
Carbon Disulfide	4.6	15	14	46
Ethyl Benzene	1.2	5.0	5.0	22
m,p-Xylene	1.2	3.2	5.0	14
Propylbenzene	1.2	2.2	5.7	11

**Client Sample ID: SG-VW33A-02**

**Lab ID#: 2107284-11A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	13	15	30	35
Carbon Disulfide	5.1	6.8	16	21
Tetrachloroethene	1.3	2.2	8.6	15
Toluene	1.3	2.0	4.8	7.5

**Client Sample ID: SG-VW33B-02**

**Lab ID#: 2107284-12A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	5.0	5.5	12	14
Chloroform	1.2	1.7	6.1	8.2
Freon 12	1.2	1.6	6.2	7.9
Tetrachloroethene	1.2	8.5	8.5	57

**Client Sample ID: SG-VW34A-02**

**Lab ID#: 2107284-13A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW34A-02**

**Lab ID#: 2107284-13A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Tetrachloroethene	1.1	3.1	7.7	21

**Client Sample ID: SG-VW34A-03**

**Lab ID#: 2107284-14A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Tetrachloroethene	1.2	3.1	7.9	21

**Client Sample ID: SG-VW34B-02**

**Lab ID#: 2107284-15A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	1.2	1.9	5.9	9.3
Tetrachloroethene	1.2	3.8	8.1	26

**Client Sample ID: SG-VW55B-02**

**Lab ID#: 2107284-16A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Tetrachloroethene	1.1	1.3	7.2	9.1

**Client Sample ID: SG-VW60A-01**

**Lab ID#: 2107284-17A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,1-Difluoroethane	4.1	8300 E	11	22000 E
1,2,4-Trimethylbenzene	1.0	1.2	5.0	6.1
1,3,5-Trimethylbenzene	1.0	1.3	5.0	6.4
2,2,4-Trimethylpentane	1.0	130	4.8	630
2-Propanol	4.1	13	10	33
4-Ethyltoluene	1.0	2.2	5.0	11
Acetone	10	32	24	76

### Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: SG-VW60A-01**

**Lab ID#: 2107284-17A**

Benzene	1.0	31	3.2	98
Carbon Disulfide	4.1	12	13	38
Cyclohexane	1.0	6.5	3.5	22
Ethyl Benzene	1.0	9.6	4.4	42
Heptane	1.0	9.0	4.2	37
Hexane	1.0	100	3.6	360
m,p-Xylene	1.0	22	4.4	93
o-Xylene	1.0	7.4	4.4	32
Tetrachloroethene	1.0	13	6.9	87
Tetrahydrofuran	1.0	3.4	3.0	10
Toluene	1.0	91	3.8	340
TPH ref. to Gasoline (MW=100)	100	1800	420	7400

**Client Sample ID: SG-VW60B-01**

**Lab ID#: 2107284-18A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	4.0	37	11	100
2-Propanol	4.0	15	9.9	37
Freon 12	1.0	2.6	5.0	13
Hexane	1.0	62	3.5	220
Tetrachloroethene	1.0	21	6.8	140

**Client Sample ID: SG-VW54B-02**

**Lab ID#: 2107284-19A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	5.8	5.6	29
Tetrachloroethene	1.1	6.8	7.6	46

**Client Sample ID: SG-VW24B-02**

**Lab ID#: 2107284-20A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW24B-02**

**Lab ID#: 2107284-20A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	7.8	12	19
Freon 12	1.2	4.2	6.0	20
Tetrachloroethene	1.2	50	8.2	340

**Client Sample ID: SG-VW58A-01**

**Lab ID#: 2107284-21A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	4.4	370	12	1000
1,2,4-Trimethylbenzene	1.1	3.1	5.4	15
1,3,5-Trimethylbenzene	1.1	2.1	5.4	10
2,2,4-Trimethylpentane	1.1	5.8	5.1	27
2-Propanol	4.4	18	11	44
4-Ethyltoluene	1.1	4.0	5.4	20
4-Methyl-2-pentanone	1.1	1.7	4.5	6.9
Acetone	11	40	26	95
Benzene	1.1	7.1	3.5	23
Carbon Disulfide	4.4	9.8	14	31
Ethyl Benzene	1.1	8.5	4.8	37
Heptane	1.1	1.5	4.5	6.1
Hexane	1.1	24	3.9	84
m,p-Xylene	1.1	24	4.8	110
o-Xylene	1.1	8.5	4.8	37
Tetrachloroethene	1.1	26	7.5	180
Tetrahydrofuran	1.1	1.8	3.2	5.3
Toluene	1.1	56	4.1	210
TPH ref. to Gasoline (MW=100)	110	360	450	1500

**Client Sample ID: SG-VW58B-01**

**Lab ID#: 2107284-22A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	4.4	3000 E	12	8000 E

### Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: SG-VW58B-01**

**Lab ID#: 2107284-22A**

2-Propanol	4.4	15	11	36
Hexane	1.1	24	3.9	86
Tetrachloroethene	1.1	51	7.5	350
Toluene	1.1	1.1	4.2	4.3

**Client Sample ID: SG-VW23B-02**

**Lab ID#: 2107284-23A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	4.3	8.8	12	24
2-Propanol	4.3	5.2	10	13
Carbon Disulfide	4.3	6.8	13	21
Tetrachloroethene	1.1	21	7.2	140

**Client Sample ID: SG-VW22A-02**

**Lab ID#: 2107284-24A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trimethylbenzene	1.1	3.2	5.4	16
2-Propanol	4.4	4.3 J	11	11 J
4-Ethyltoluene	1.1	2.7	5.4	13
Chloroform	1.1	2.4	5.3	12
Ethyl Benzene	1.1	1.5	4.7	6.5
m,p-Xylene	1.1	4.2	4.7	18
o-Xylene	1.1	2.4	4.7	10
Tetrachloroethene	1.1	17	7.4	110
Toluene	1.1	6.9	4.1	26
Trichloroethene	1.1	1.2	5.8	6.7

**Client Sample ID: SG-VW22B-02**

**Lab ID#: 2107284-25A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	4.3	18	12	48

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW22B-02**

**Lab ID#: 2107284-25A**

2-Propanol	4.3	4.9	10	12
Acetone	11	19	26	46
Chloroform	1.1	5.2	5.2	26
Ethanol	11	21	20	39
Tetrachloroethene	1.1	22	7.3	150
-----				
Toluene	1.1	6.1	4.0	23
Trichloroethene	1.1	2.1	5.8	11

**Client Sample ID: SG-VW20A-02**

**Lab ID#: 2107284-26A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,1-Difluoroethane	4.3	180	12	490
Acetone	11	23	26	54
Tetrachloroethene	1.1	5.8	7.3	39

Client Sample ID: SG-VW57A-02

Lab ID#: 2107284-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072609	Date of Collection:	7/14/21 7:07:00 AM
Dil. Factor:	2.07	Date of Analysis:	7/26/21 03:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
1,1-Difluoroethane	4.1	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.1	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2-Dibromo-3-chloropropane	4.1	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.0	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected
2-Propanol	4.1	5.1	10	12
3-Chloropropene	4.1	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.1	Not Detected	9.5	Not Detected
Acrylonitrile	4.1	Not Detected	9.0	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected



Air Toxics

Client Sample ID: SG-VW57A-02

Lab ID#: 2107284-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072609	Date of Collection:	7/14/21 7:07:00 AM
Dil. Factor:	2.07	Date of Analysis:	7/26/21 03:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
Dibromomethane	4.1	Not Detected	29	Not Detected
Ethanol	10	Not Detected	20	Not Detected
Ethyl Acetate	4.1	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Ethyl-tert-butyl ether	4.1	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 113	1.0	Not Detected	7.9	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Hexachloroethane	4.1	Not Detected	40	Not Detected
Hexane	1.0	2.7	3.6	9.5
Iodomethane	10	Not Detected	60	Not Detected
Isopropyl ether	4.1	Not Detected	17	Not Detected
m,p-Xylene	1.0	Not Detected	4.5	Not Detected
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
Propylene	4.1	Not Detected	7.1	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
tert-Amyl methyl ether	4.1	Not Detected	17	Not Detected
tert-Butyl alcohol	4.1	Not Detected	12	Not Detected
Tetrachloroethene	1.0	14	7.0	92
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Vinyl Acetate	4.1	Not Detected	14	Not Detected
Vinyl Bromide	4.1	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister



**Client Sample ID: SG-VW57A-02**
**Lab ID#: 2107284-01A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072609</b>	<b>Date of Collection: 7/14/21 7:07:00 AM</b>
<b>Dil. Factor:</b>	<b>2.07</b>	<b>Date of Analysis: 7/26/21 03:16 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	95	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072609.d  
 Lab Smp Id: 2107284-01A  
 Inj Date : 26-JUL-2021 15:16  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL N5590  
 Misc Info : 5.7 Hg->9.9 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
 Meth Date : 28-Jul-2021 12:16 uexa Quant Type: ISTD  
 Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
 Als bottle: 1  
 Dil Factor: 2.07000  
 Integrator: HP RTE Compound Sublist: AEC25677.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	242600	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	189074			48.46- 108.46	77.94
5.284	5.284	(1.000)	49	338606			120.39- 180.39	139.57
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.180	6.166	(1.000)	114	853349	25.0000		80.00- 120.00	100.00
6.180	6.166	(1.000)	88	125691			0.00- 45.52	14.73
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.619	8.612	(1.000)	117	731637	25.0000		80.00- 120.00	100.00
8.612	8.612	(1.000)	82	383663			25.46- 85.46	52.44
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	345064	25.8465	25.846	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	168469			21.66- 81.66	48.82
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.195)	98	805792	22.9257	22.926	80.00- 120.00	100.00
7.387	7.387	(1.195)	70	88584			0.00- 41.47	10.99

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	527595			36.47- 96.47	65.48
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.114)	174	461433	23.8440	23.844	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	520992			93.06- 153.06	112.91
9.601	9.601	(1.114)	176	425404			62.87- 122.87	92.19
-----								
52 2-Propanol								
						CAS #: 67-63-0		
3.424	3.395	(0.648)	45	36075	2.46589	5.104	80.00- 120.00	100.00
3.424	3.395	(0.648)	43	8574			0.00- 48.61	23.77
-----								
67 Hexane								
						CAS #: 110-54-3		
4.179	4.179	(0.791)	57	17491	1.30196	2.695	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	10414			32.99- 92.99	59.54
4.179	4.179	(0.791)	86	3602			0.00- 42.56	20.60
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.882	7.881	(0.914)	166	75335	6.57263	13.605	80.00- 120.00	100.00
7.882	7.881	(0.914)	129	58961			48.71- 108.71	78.26
7.882	7.881	(0.914)	131	56017			46.55- 106.55	74.36
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072609.d  
 Lab Smp Id: 2107284-01A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 5.7 Hg->9.9 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	242600	-8.10
108 1,4-Difluorobenze	833448	500069	1166827	853349	2.39
153 Chlorobenzene-d5	741338	444803	1037873	731637	-1.31

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-01A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 5.7 Hg->9.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	25.846	103.39	70-130
\$ 134 Toluene-d8	25.000	22.926	91.70	70-130
\$ 170 4-Bromofluorobenz	25.000	23.844	95.38	70-130

Date : 26-JUL-2021 15:16

Client ID:

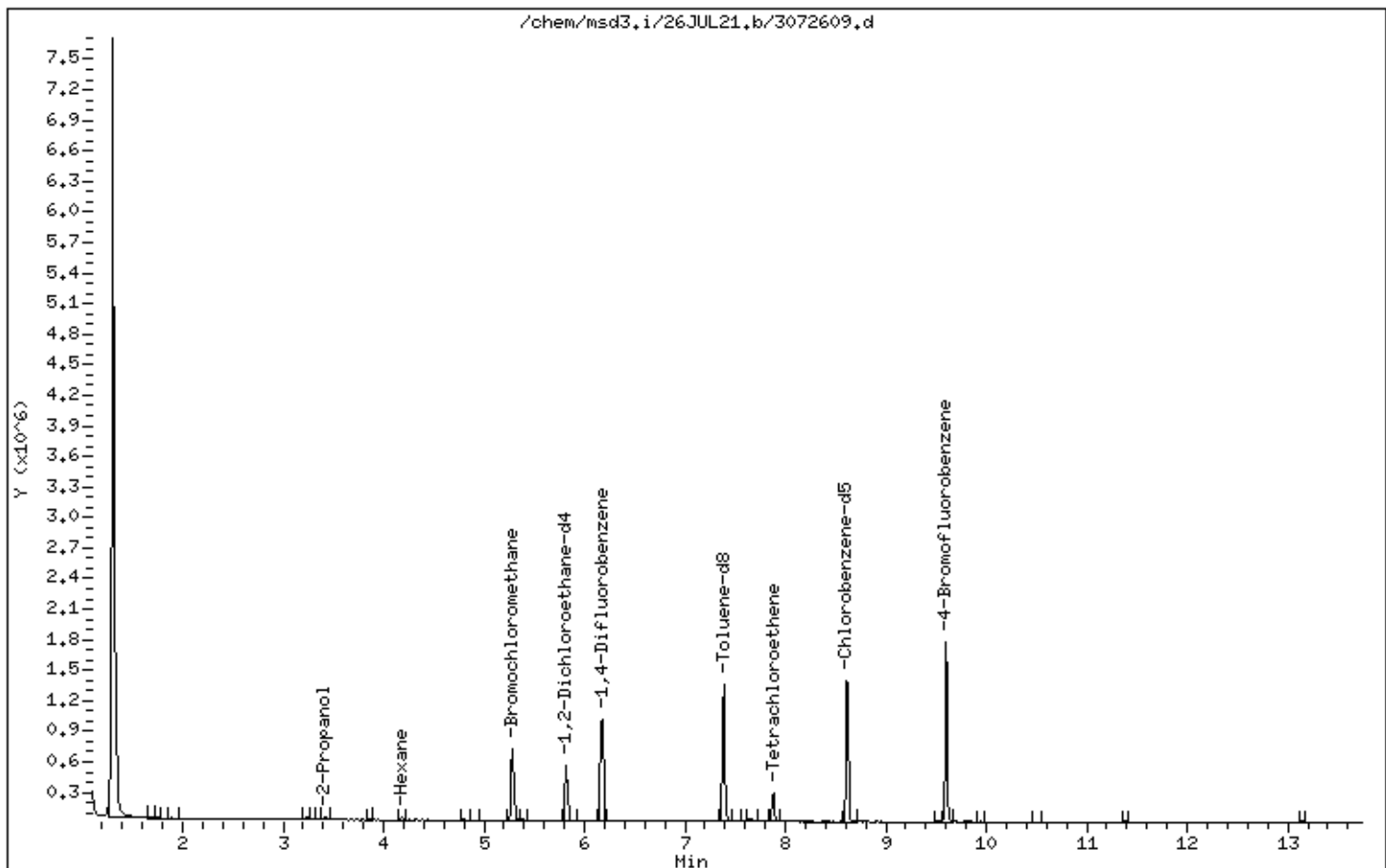
Instrument: msd3,i

Sample Info: 200mL N5590

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 15:16

Client ID:

Instrument: msd3,i

Sample Info: 200mL N5590

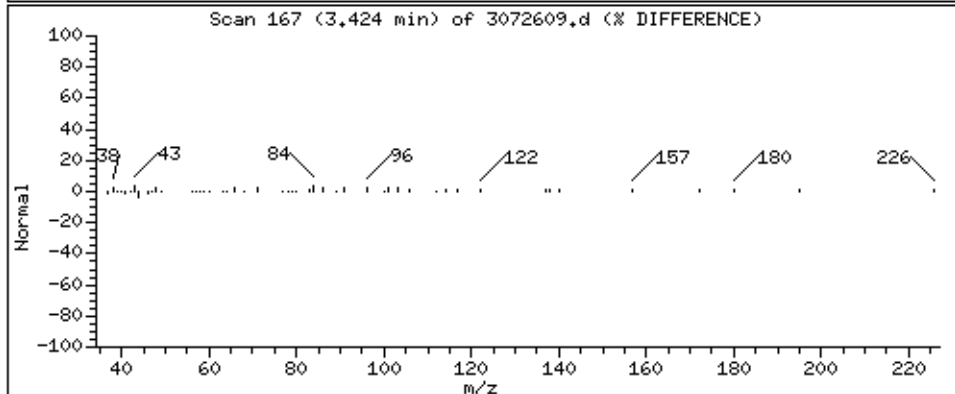
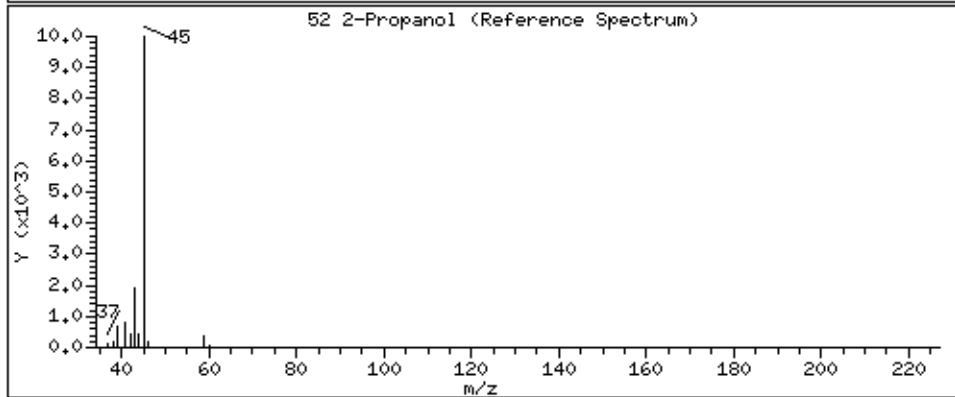
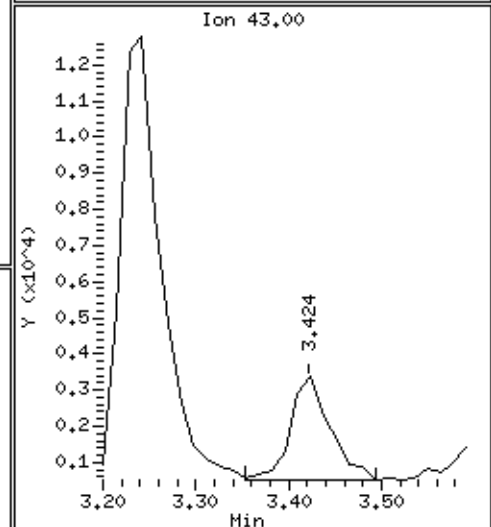
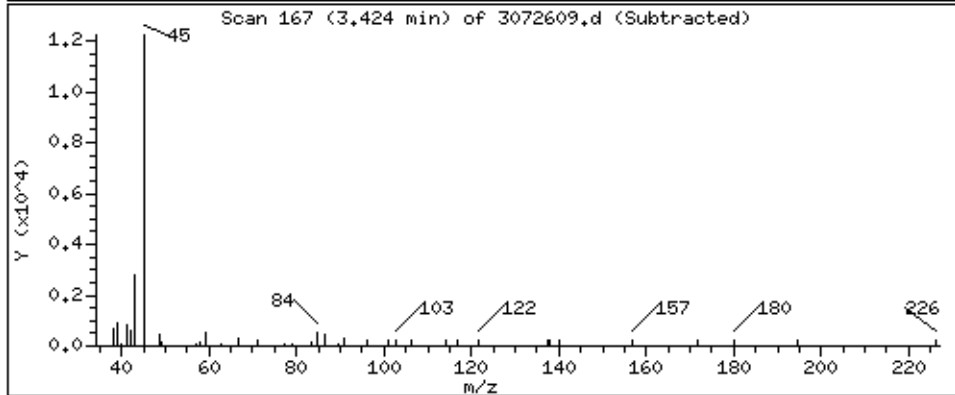
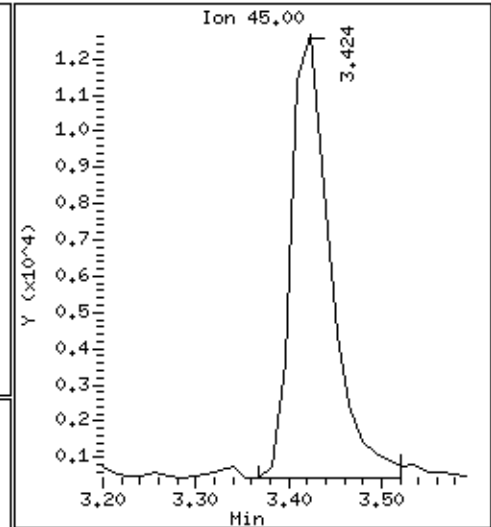
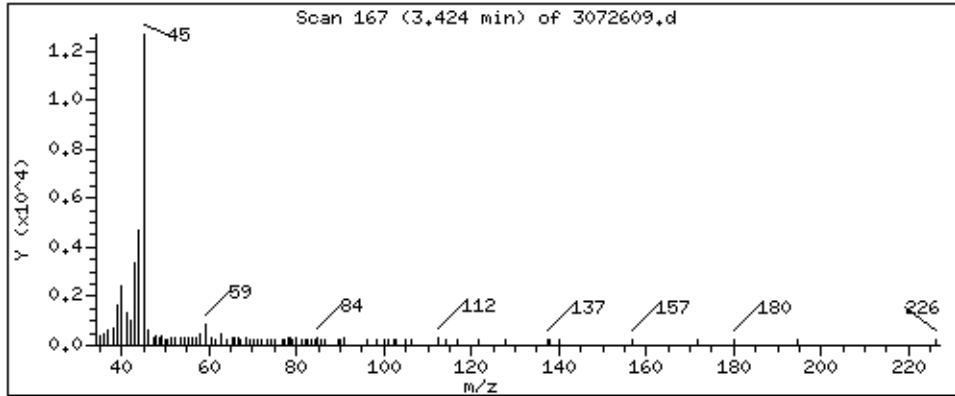
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 5,104 PPBV



Date : 26-JUL-2021 15:16

Client ID:

Instrument: msd3,i

Sample Info: 200mL N5590

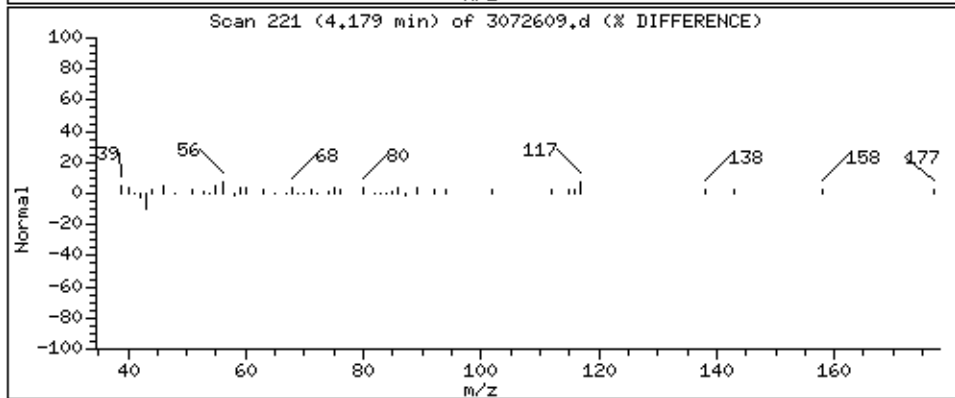
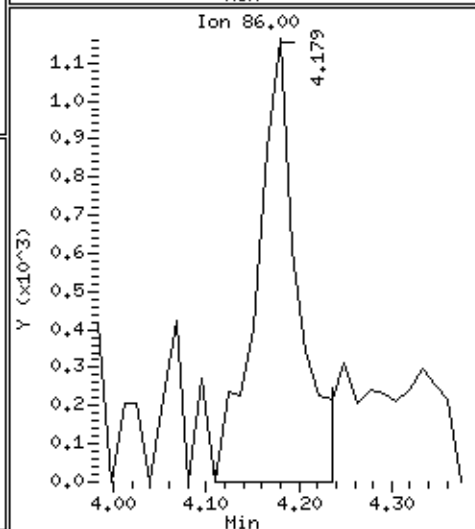
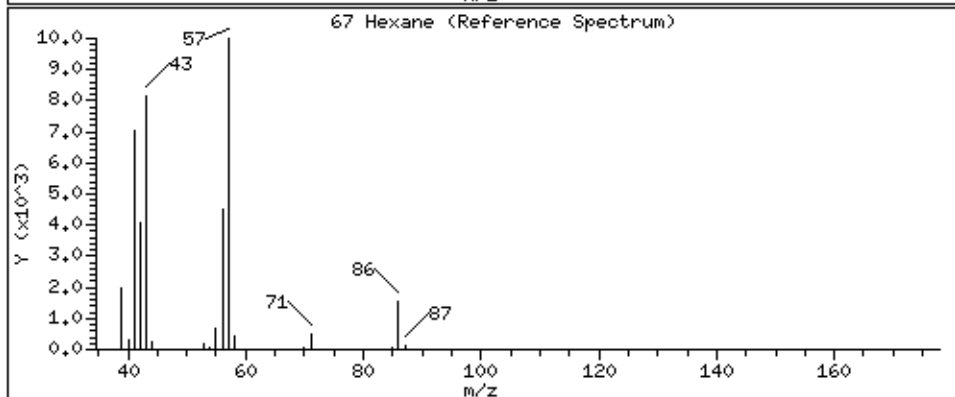
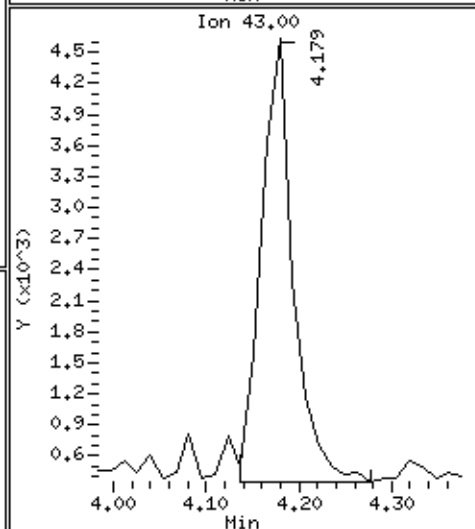
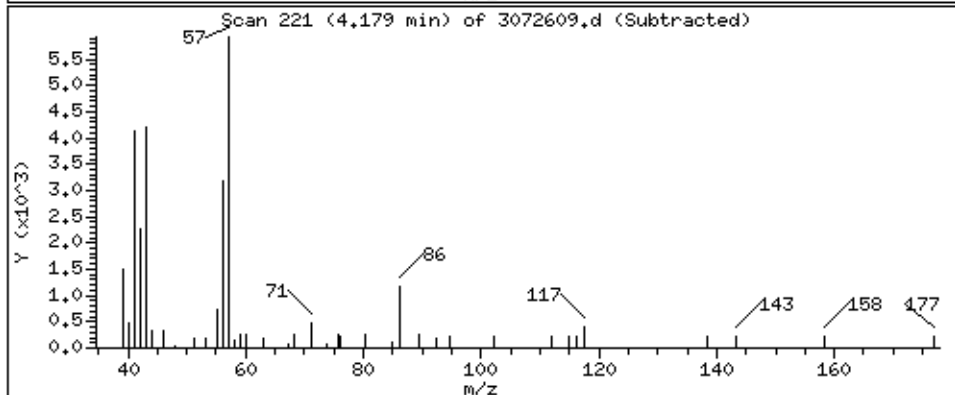
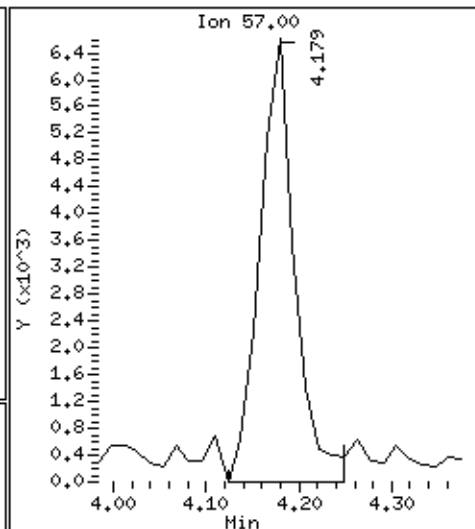
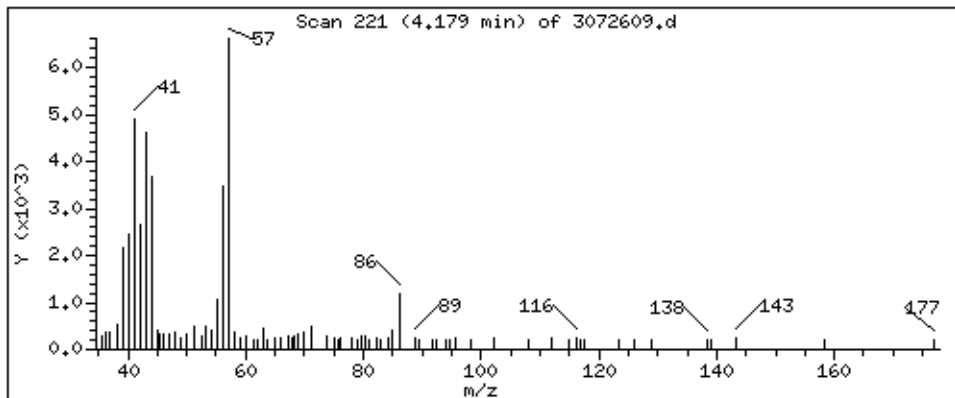
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 2,695 PPBV





Date : 26-JUL-2021 15:16

Client ID:

Instrument: msd3,i

Sample Info: 200mL N5590

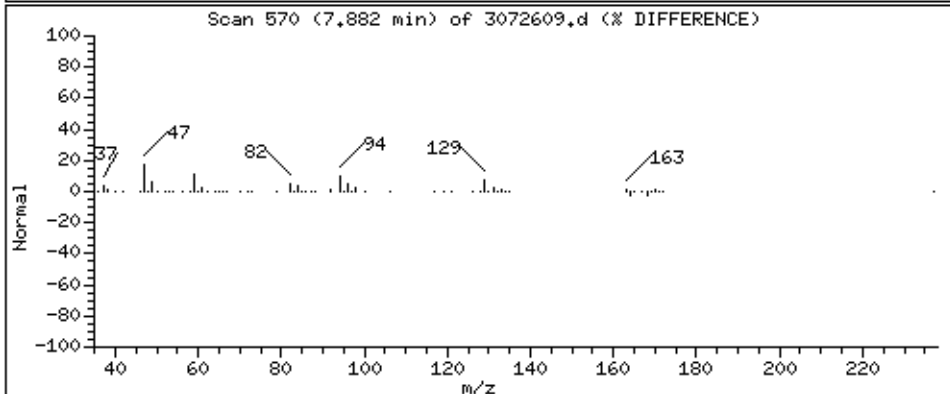
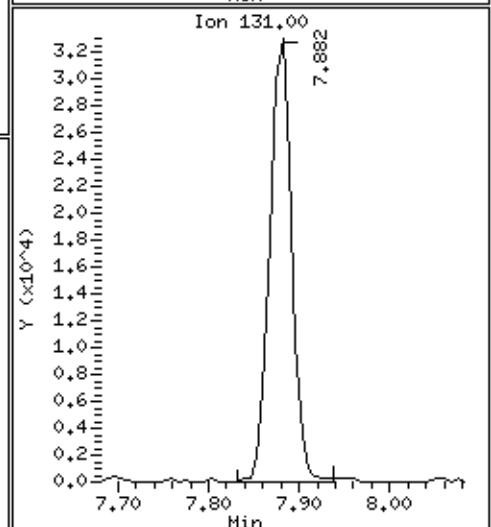
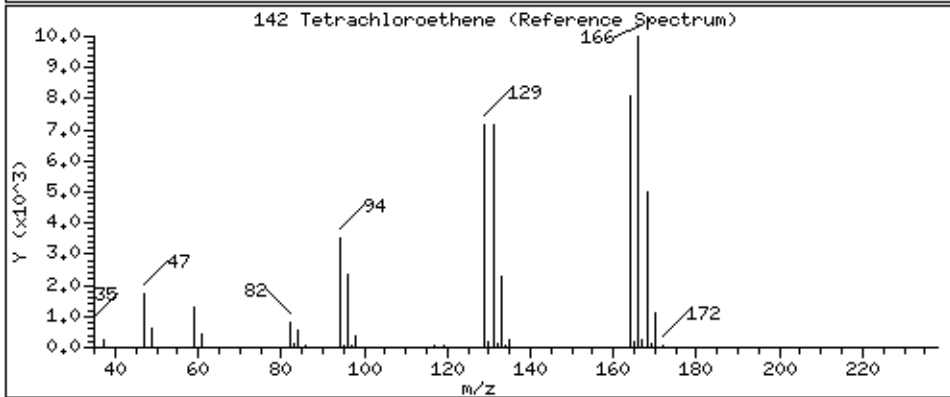
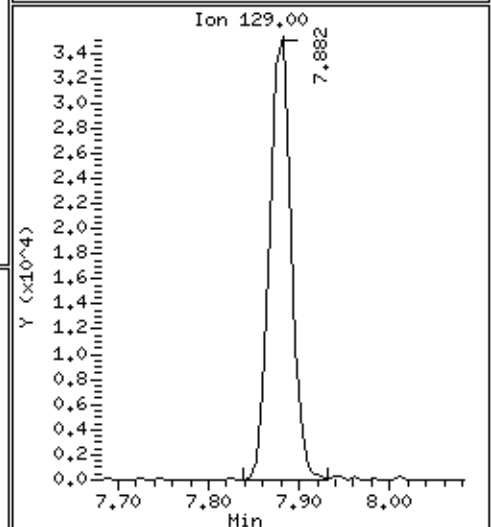
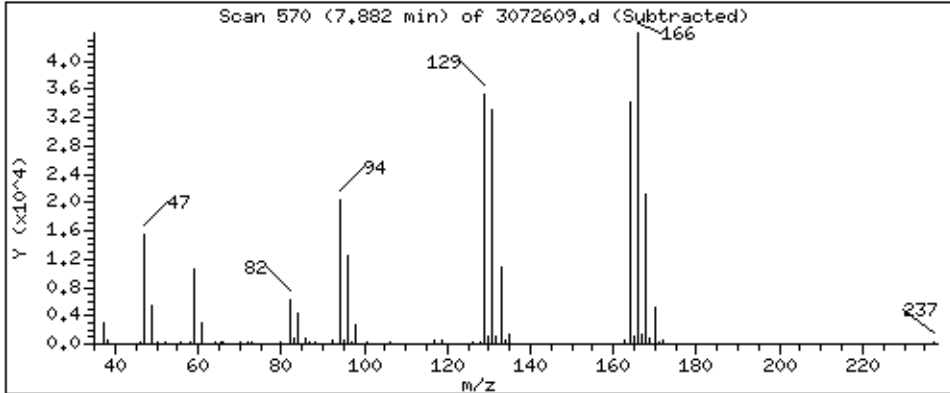
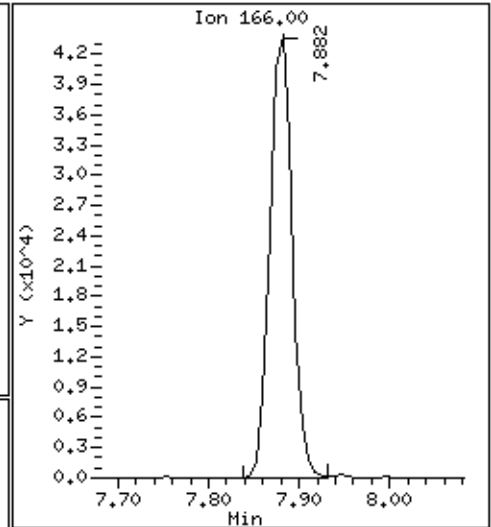
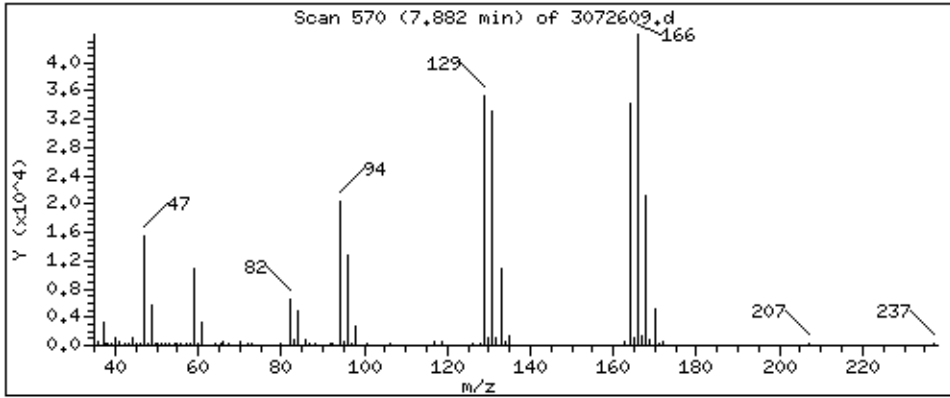
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 13,605 PPBV



Client Sample ID: SG-VW56B-02

Lab ID#: 2107284-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072610	Date of Collection:	7/14/21 7:42:00 AM
Dil. Factor:	2.10	Date of Analysis:	7/26/21 03:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.2	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	2.5	5.2	12
1,2-Dibromo-3-chloropropane	4.2	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	1.3	5.2	6.2
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected
2-Propanol	4.2	Not Detected	10	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	1.5	5.2	7.2
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Acetone	10	Not Detected	25	Not Detected
Acrolein	4.2	Not Detected	9.6	Not Detected
Acrylonitrile	4.2	Not Detected	9.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
Chloromethane	10	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected



Air Toxics

Client Sample ID: SG-VW56B-02

Lab ID#: 2107284-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072610	Date of Collection:	7/14/21 7:42:00 AM
Dil. Factor:	2.10	Date of Analysis:	7/26/21 03:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
Dibromomethane	4.2	Not Detected	30	Not Detected
Ethanol	10	Not Detected	20	Not Detected
Ethyl Acetate	4.2	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.2	Not Detected	18	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 12	1.0	Not Detected	5.2	Not Detected
Freon 113	1.0	Not Detected	8.0	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Freon 134a	4.2	Not Detected	18	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected
Hexachloroethane	4.2	Not Detected	41	Not Detected
Hexane	1.0	Not Detected	3.7	Not Detected
Iodomethane	10	Not Detected	61	Not Detected
Isopropyl ether	4.2	Not Detected	18	Not Detected
m,p-Xylene	1.0	2.0	4.6	8.6
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	2.2	11	11
o-Xylene	1.0	Not Detected	4.6	Not Detected
Propylbenzene	1.0	Not Detected	5.2	Not Detected
Propylene	4.2	Not Detected	7.2	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
tert-Amyl methyl ether	4.2	Not Detected	18	Not Detected
tert-Butyl alcohol	4.2	Not Detected	13	Not Detected
Tetrachloroethene	1.0	2.9	7.1	20
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Toluene	1.0	Not Detected	4.0	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	430	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Vinyl Acetate	4.2	Not Detected	15	Not Detected
Vinyl Bromide	4.2	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW56B-02**
**Lab ID#: 2107284-02A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072610</b>	<b>Date of Collection: 7/14/21 7:42:00 AM</b>
<b>Dil. Factor:</b>	<b>2.10</b>	<b>Date of Analysis: 7/26/21 03:45 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	95	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072610.d  
Lab Smp Id: 2107284-02A  
Inj Date : 26-JUL-2021 15:45  
Operator : LD  
Smp Info : 200mL F1981  
Misc Info : 5.9 Hg->10.1 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 2  
Dil Factor: 2.10000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.285	5.284	(1.000)	130	253852	25.0000	80.00- 120.00	100.00		
5.285	5.284	(1.000)	128	198050		48.46- 108.46	78.02		
5.285	5.284	(1.000)	49	356869		120.39- 180.39	140.58		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.180	6.166	(1.000)	114	877954	25.0000	80.00- 120.00	100.00		
6.180	6.166	(1.000)	88	129535		0.00- 45.52	14.75		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
8.612	8.612	(1.000)	117	760464	25.0000	80.00- 120.00	100.00		
8.612	8.612	(1.000)	82	394533		25.46- 85.46	51.88		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
5.816	5.816	(1.101)	65	341847	24.4705	24.470 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	164271		21.66- 81.66	48.05		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.387	7.387	(1.195)	98	859332	23.7638	23.764 80.00- 120.00	100.00		
7.387	7.387	(1.195)	70	97227		0.00- 41.47	11.31		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	569499			36.47- 96.47	66.27
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	476080	23.6683	23.668	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	539016			93.06- 153.06	113.22
9.601	9.601	(1.115)	176	444971			62.87- 122.87	93.47
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.882	7.881	(0.915)	166	16413	1.37768	2.893	80.00- 120.00	100.00
7.882	7.881	(0.915)	129	12728			48.71- 108.71	77.54
7.882	7.881	(0.915)	131	12564			46.55- 106.55	76.55
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
8.784	8.784	(1.020)	106	12224	0.94542	1.985	80.00- 120.00	100.00
8.784	8.784	(1.020)	91	23335			171.36- 231.36	190.90
-----								
183 4-Ethyltoluene								
						CAS #: 622-96-8		
9.830	9.851	(1.141)	120	8217	0.70007	1.470	80.00- 120.00	100.00
9.830	9.851	(1.141)	105	27580			296.79- 356.79	335.64
-----								
185 1,3,5-Trimethylbenzene								
						CAS #: 108-67-8		
9.902	9.901	(1.150)	120	9975	0.60507	1.271	80.00- 120.00	100.00
9.902	9.901	(1.150)	105	19637			176.40- 236.40	196.86
-----								
190 1,2,4-Trimethylbenzene								
						CAS #: 95-63-6		
10.224	10.224	(1.187)	105	38904	1.19676	2.513	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	18502			16.58- 76.58	47.56
-----								
216 Naphthalene								
						CAS #: 91-20-3		
12.552	12.559	(1.457)	128	47809	1.03283	2.169	80.00- 120.00	100.00
12.552	12.559	(1.457)	127	6104			0.00- 43.10	12.77
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072610.d  
Lab Smp Id: 2107284-02A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 5.9 Hg->10.1 psi

Calibration Date: 26-JUL-2021  
Calibration Time: 10:10  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	253852	-3.84
108 1,4-Difluorobenze	833448	500069	1166827	877954	5.34
153 Chlorobenzene-d5	741338	444803	1037873	760464	2.58

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.

Report Date: 28-Jul-2021 12:22

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-02A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 5.9 Hg->10.1 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.470	97.88	70-130
\$ 134 Toluene-d8	25.000	23.764	95.06	70-130
\$ 170 4-Bromofluorobenz	25.000	23.668	94.67	70-130



Date : 26-JUL-2021 15:45

Client ID:

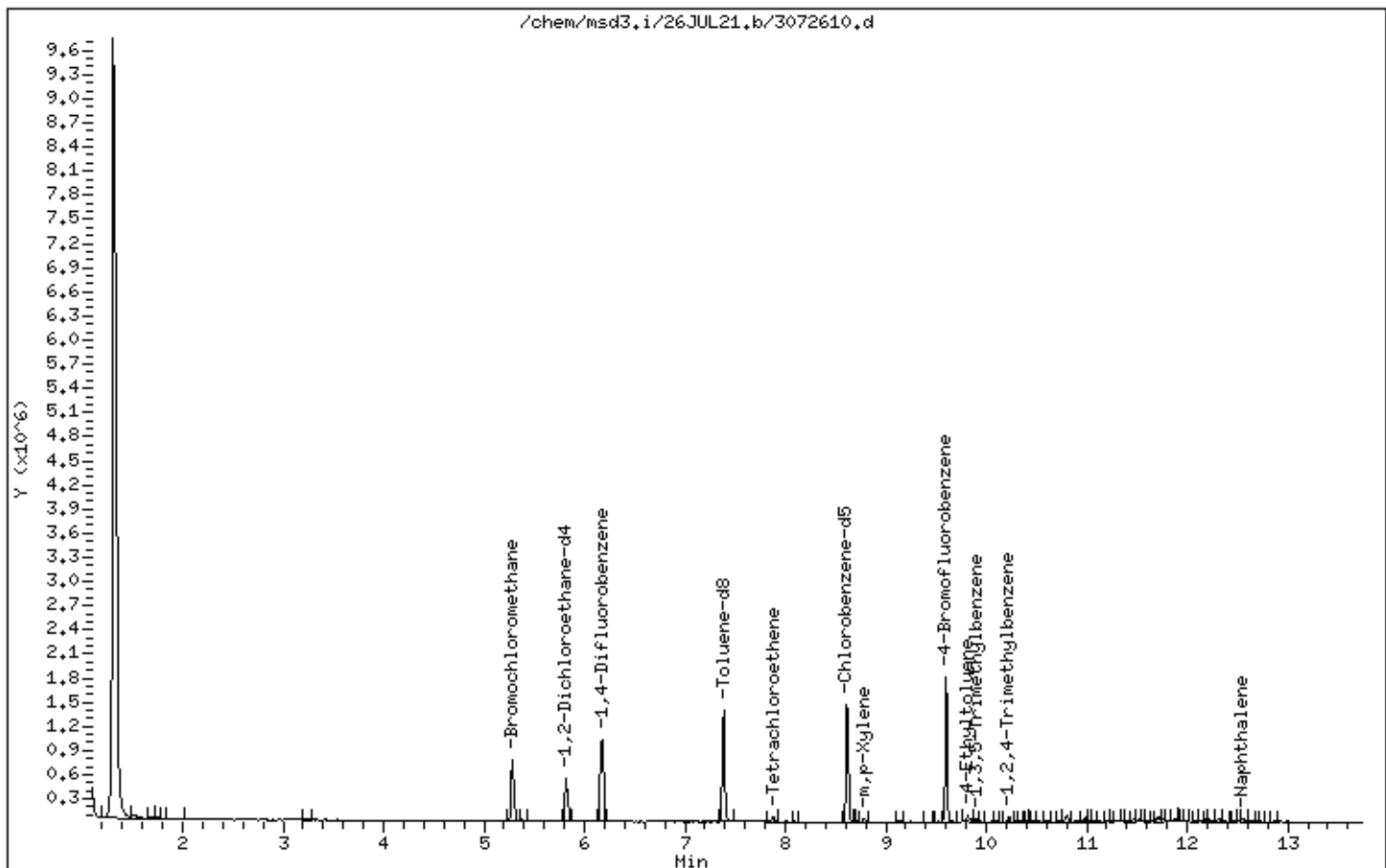
Instrument: msd3,i

Sample Info: 200mL F1981

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 15:45

Client ID:

Instrument: msd3,i

Sample Info: 200mL F1981

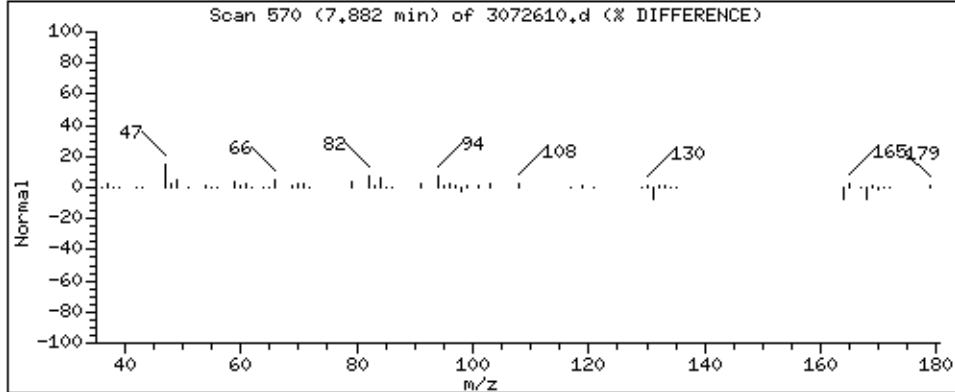
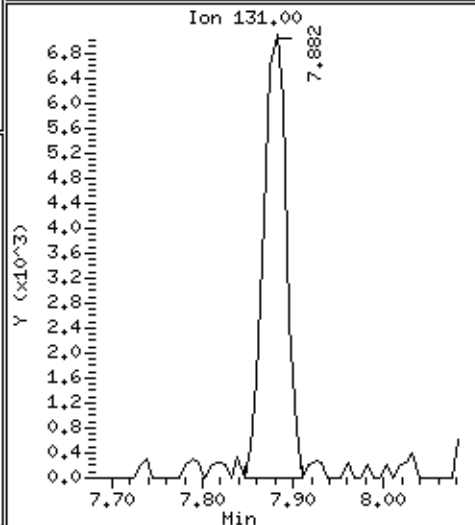
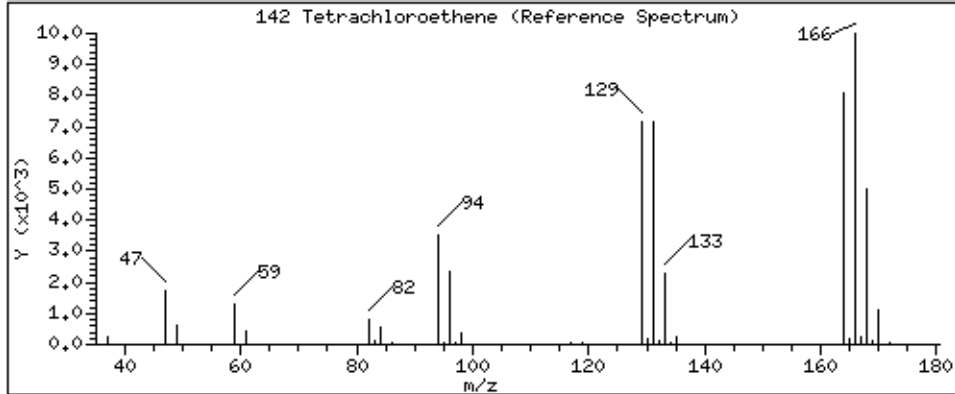
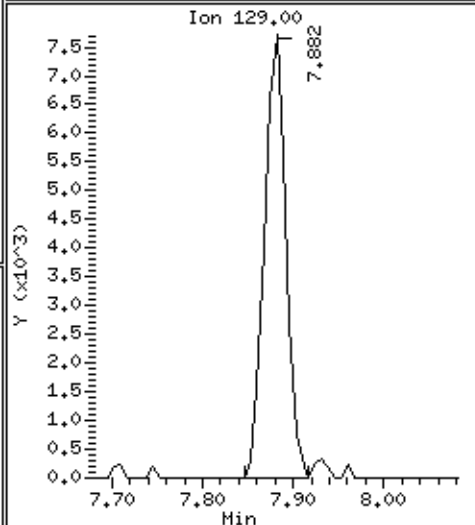
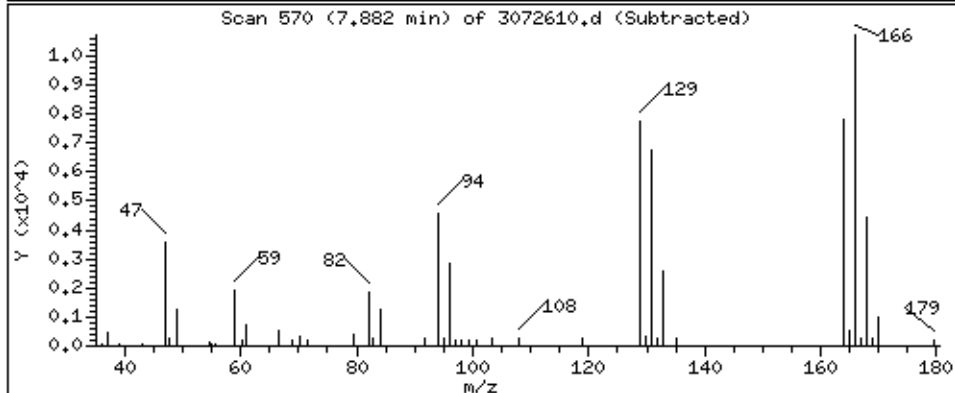
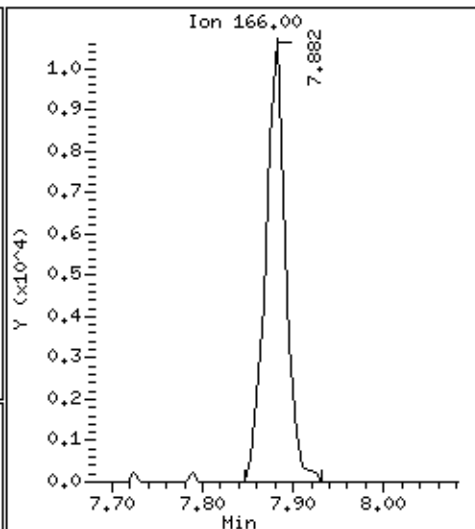
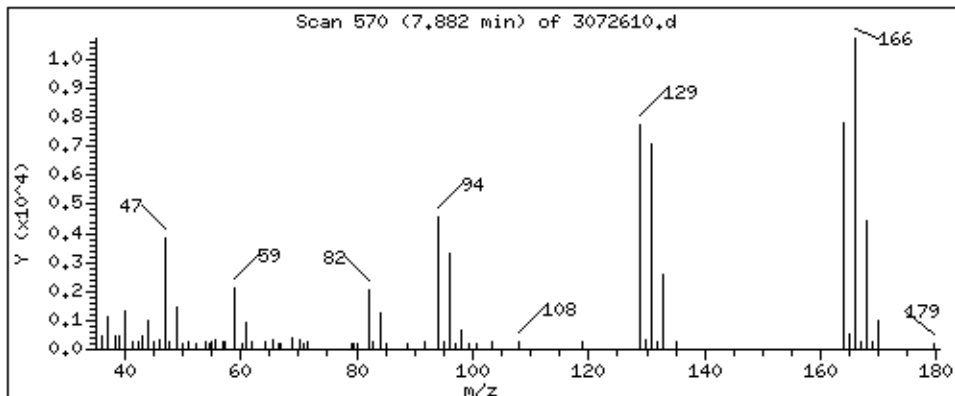
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 2,893 PPBV



Date : 26-JUL-2021 15:45

Client ID:

Instrument: msd3,i

Sample Info: 200mL F1981

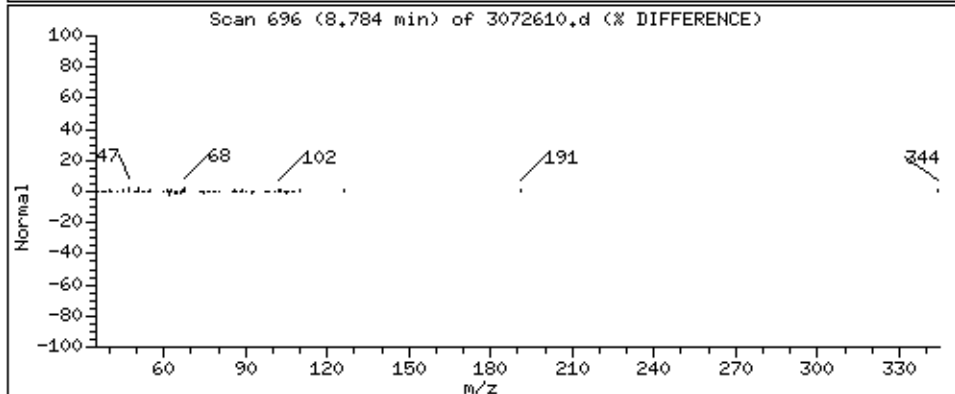
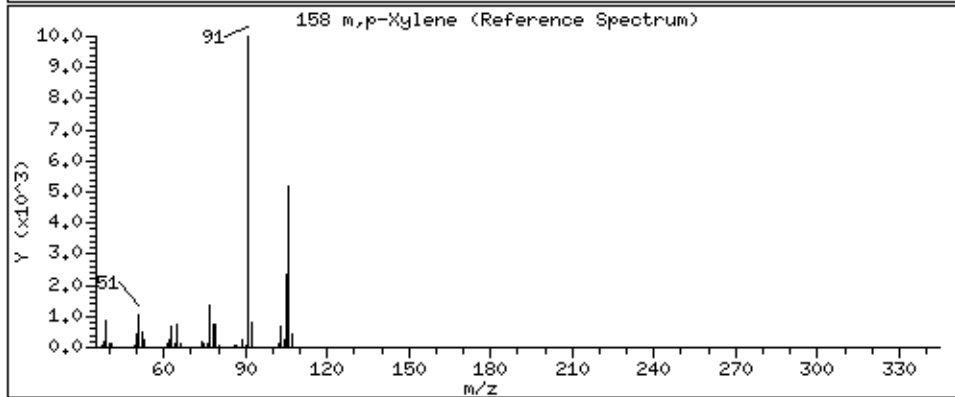
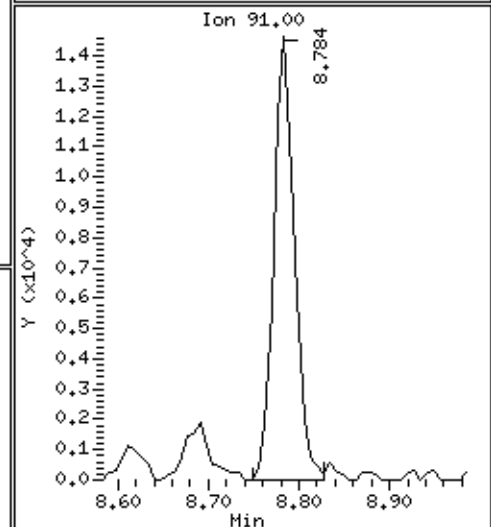
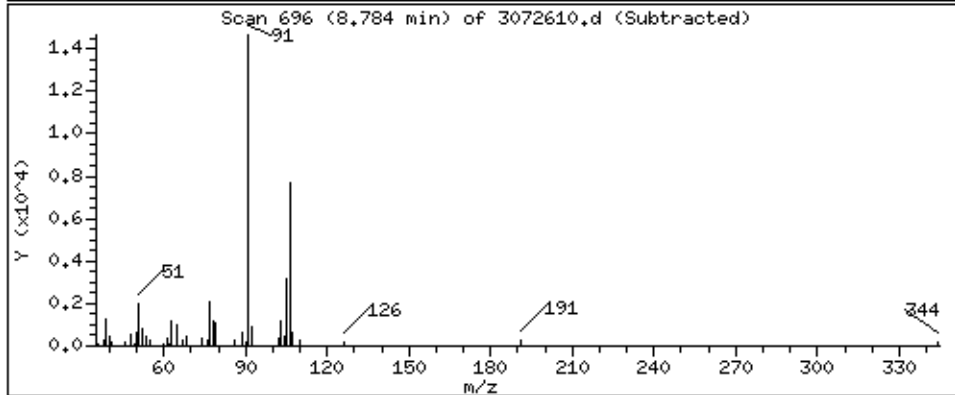
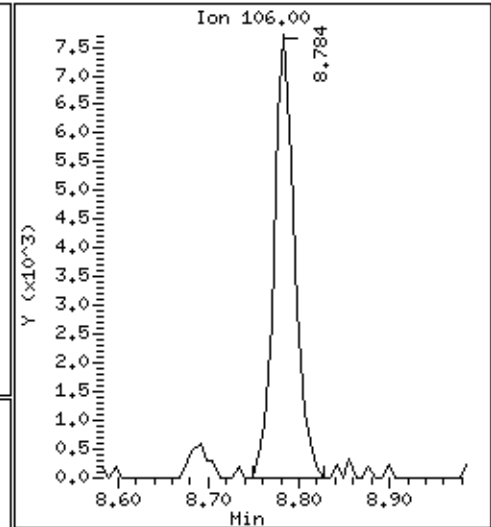
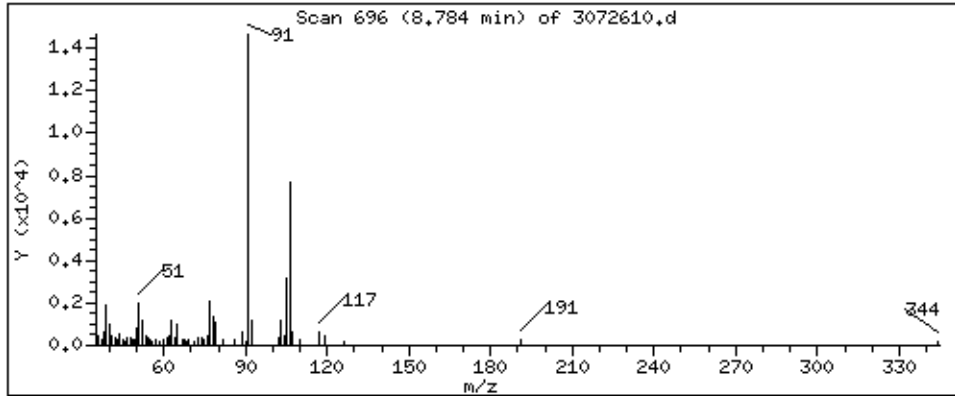
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 1,985 PPBV



Date : 26-JUL-2021 15:45

Client ID:

Instrument: msd3.i

Sample Info: 200mL F1981

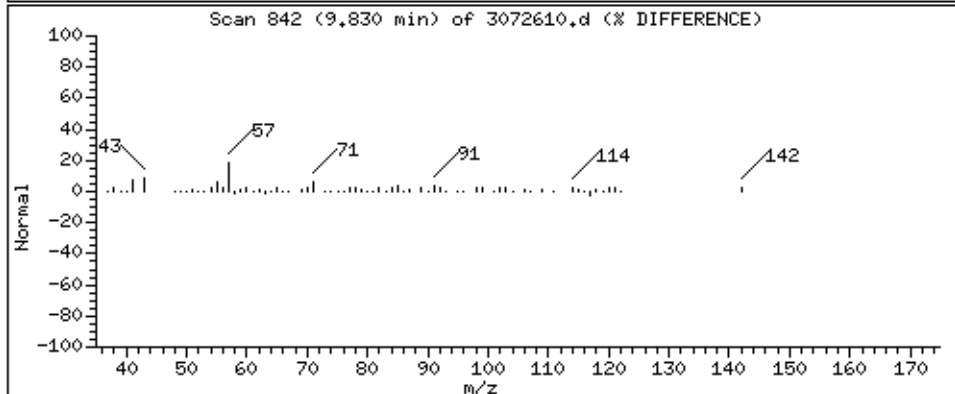
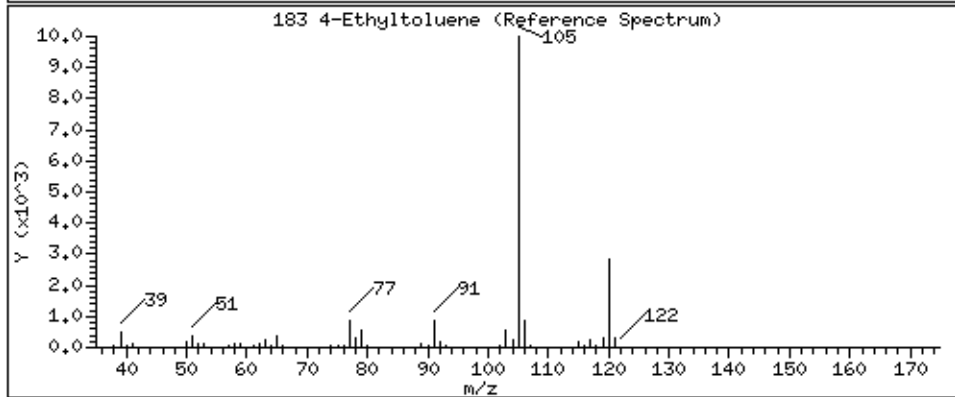
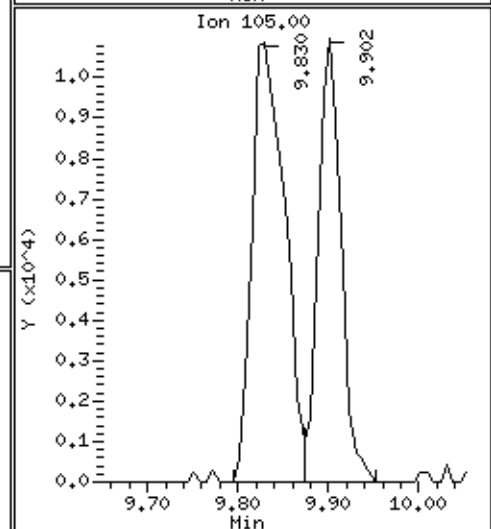
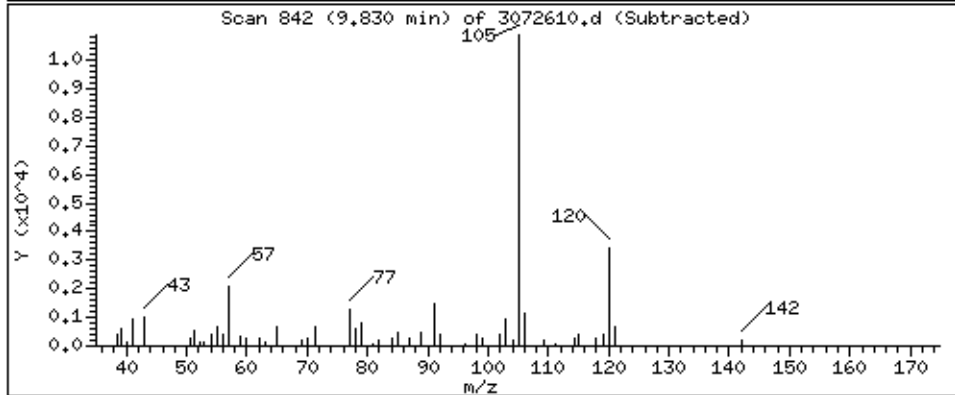
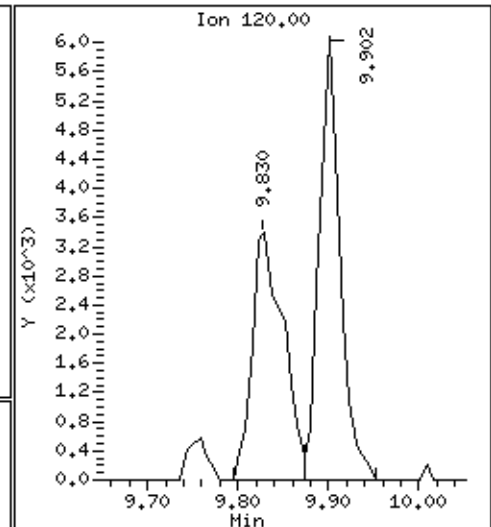
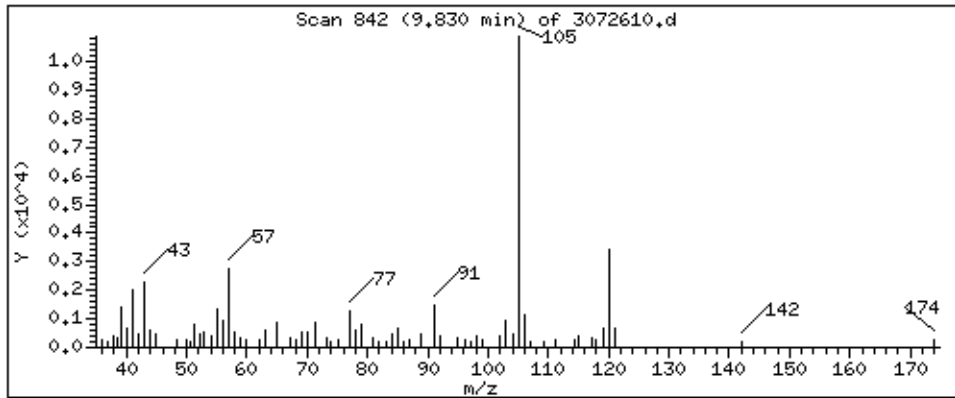
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 1.470 PPBV



Date : 26-JUL-2021 15:45

Client ID:

Instrument: msd3,i

Sample Info: 200mL F1981

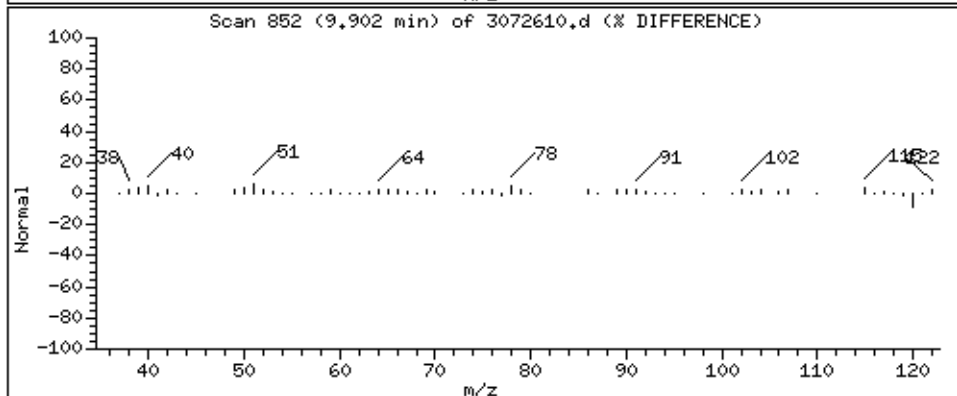
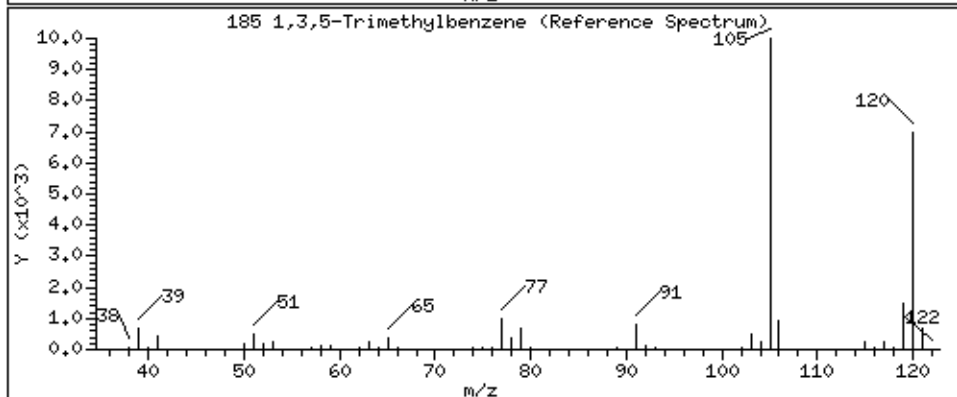
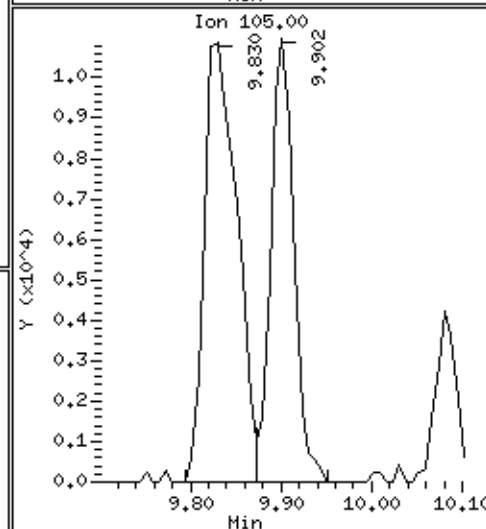
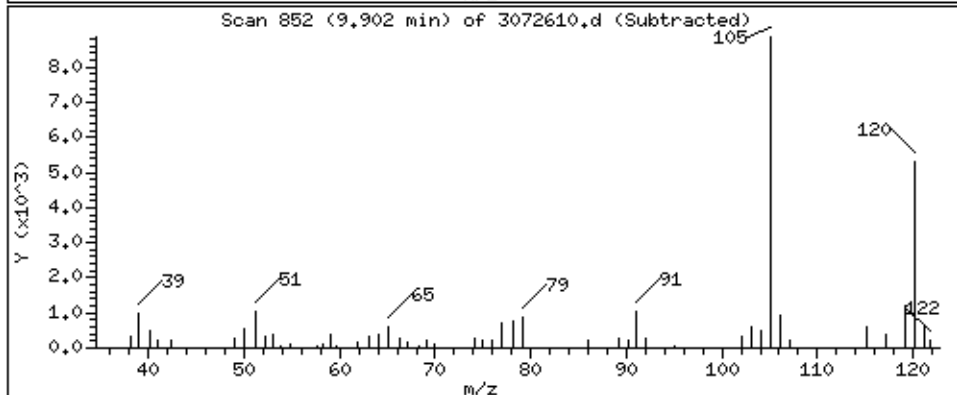
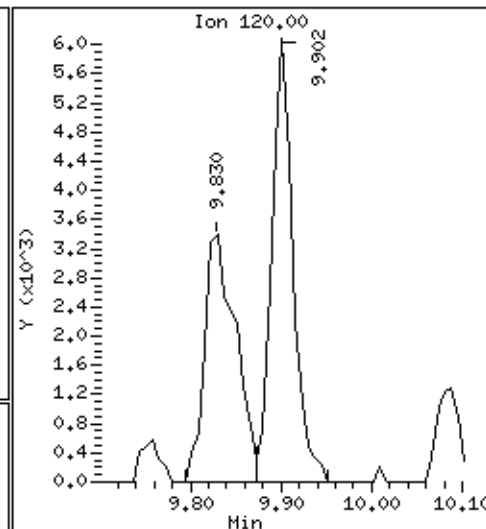
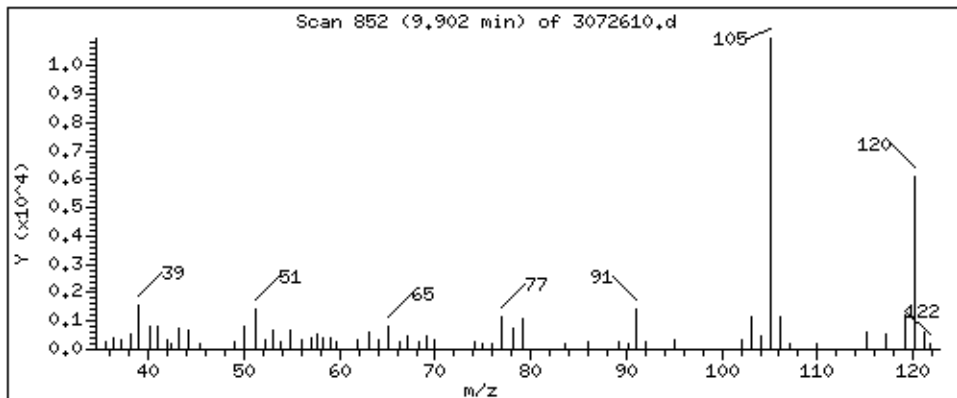
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

185 1,3,5-Trimethylbenzene

Concentration: 1.271 PPBV



Date : 26-JUL-2021 15:45

Client ID:

Instrument: msd3,i

Sample Info: 200mL F1981

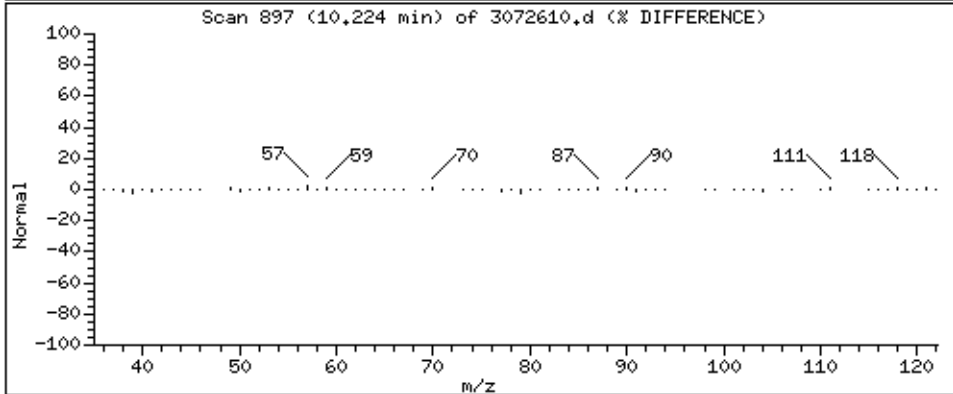
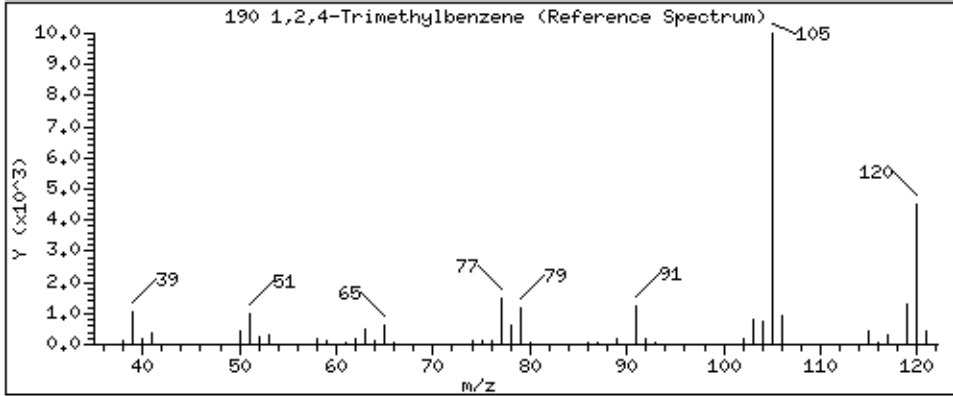
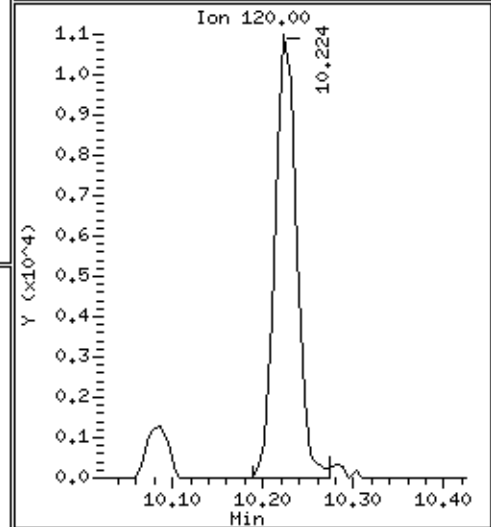
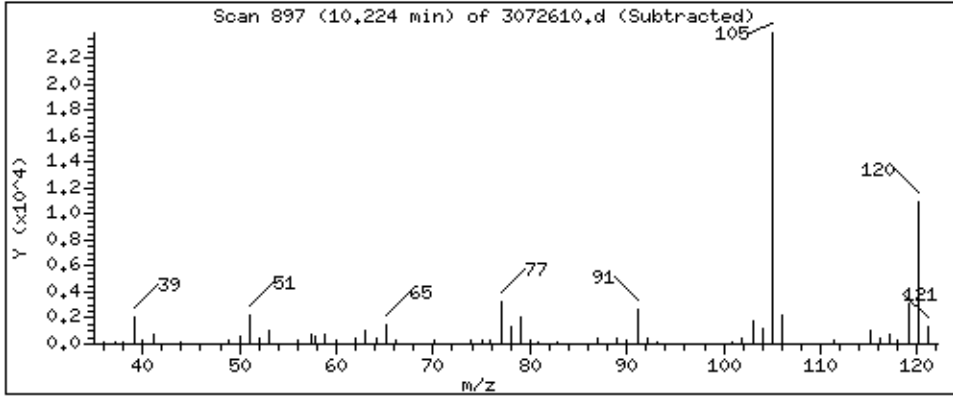
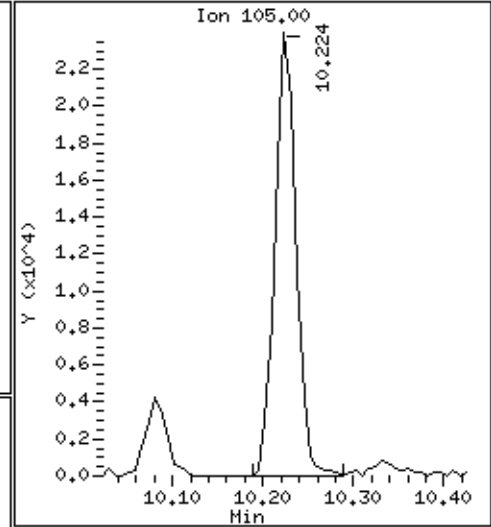
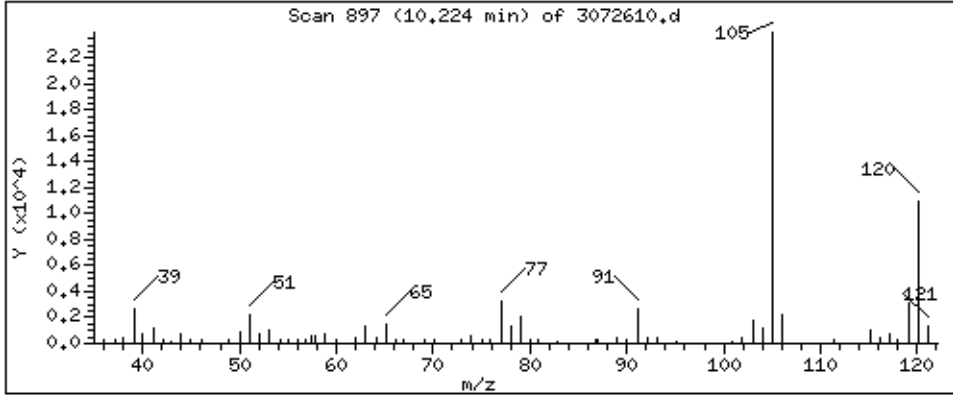
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 2,513 PPBV



Date : 26-JUL-2021 15:45

Client ID:

Instrument: msd3,i

Sample Info: 200mL F1981

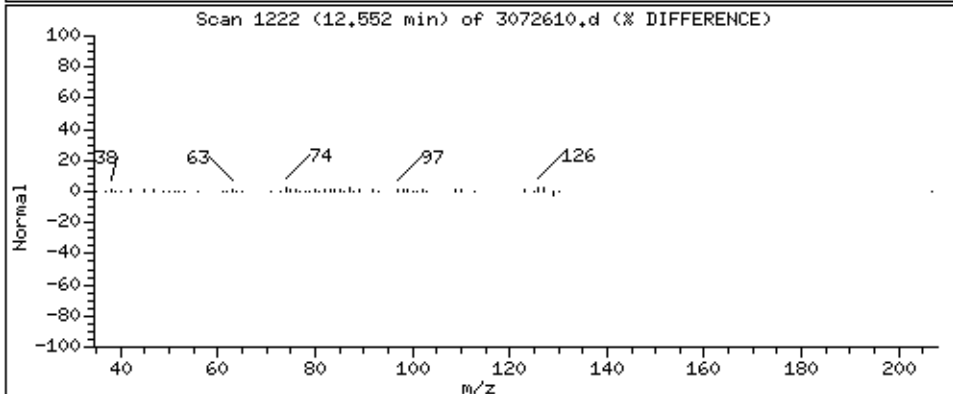
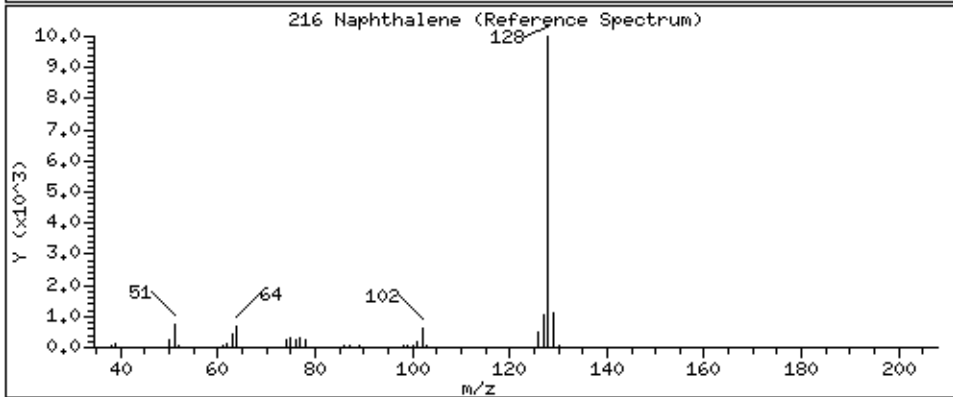
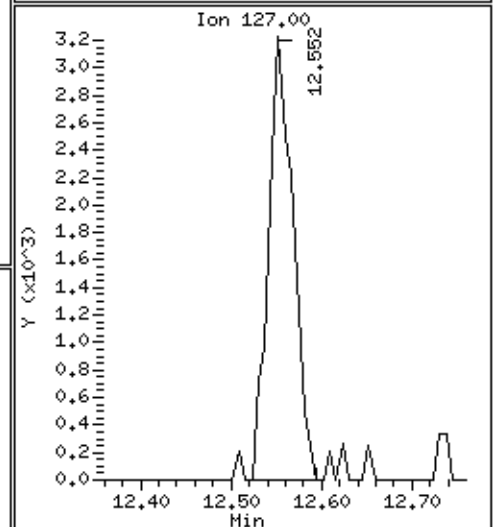
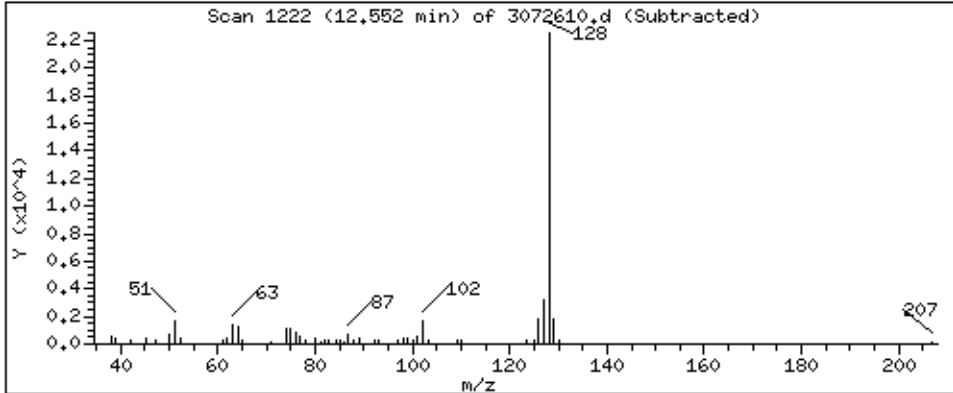
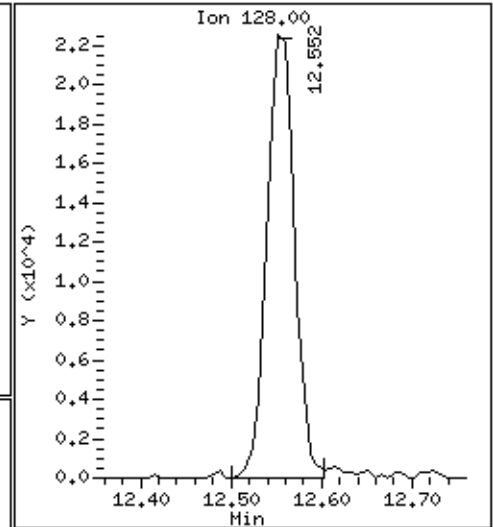
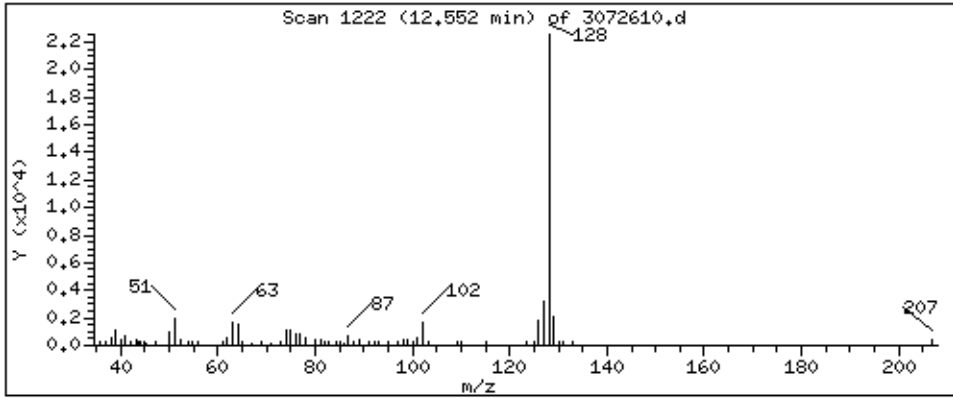
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

216 Naphthalene

Concentration: 2,169 PPBV



Client Sample ID: SG-VW56A-02

Lab ID#: 2107284-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072611	Date of Collection:	7/14/21 8:13:00 AM
Dil. Factor:	2.11	Date of Analysis:	7/26/21 04:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.8	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.3	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.2	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,2-Dibromo-3-chloropropane	4.2	Not Detected	41	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.3	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.9	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected
2-Propanol	4.2	Not Detected	10	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Acetone	10	Not Detected	25	Not Detected
Acrolein	4.2	Not Detected	9.7	Not Detected
Acrylonitrile	4.2	Not Detected	9.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.5	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
Bromodichloromethane	1.0	Not Detected	7.1	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.2	Not Detected
Chloromethane	10	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected





Air Toxics

Client Sample ID: SG-VW56A-02

Lab ID#: 2107284-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072611	Date of Collection:	7/14/21 8:13:00 AM
Dil. Factor:	2.11	Date of Analysis:	7/26/21 04:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Dibromochloromethane	1.0	Not Detected	9.0	Not Detected
Dibromomethane	4.2	Not Detected	30	Not Detected
Ethanol	10	Not Detected	20	Not Detected
Ethyl Acetate	4.2	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.2	Not Detected	18	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 12	1.0	Not Detected	5.2	Not Detected
Freon 113	1.0	Not Detected	8.1	Not Detected
Freon 114	1.0	Not Detected	7.4	Not Detected
Freon 134a	4.2	Not Detected	18	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected
Hexachloroethane	4.2	Not Detected	41	Not Detected
Hexane	1.0	Not Detected	3.7	Not Detected
Iodomethane	10	Not Detected	61	Not Detected
Isopropyl ether	4.2	Not Detected	18	Not Detected
m,p-Xylene	1.0	Not Detected	4.6	Not Detected
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	37	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.6	Not Detected
Propylbenzene	1.0	Not Detected	5.2	Not Detected
Propylene	4.2	Not Detected	7.3	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
tert-Amyl methyl ether	4.2	Not Detected	18	Not Detected
tert-Butyl alcohol	4.2	Not Detected	13	Not Detected
Tetrachloroethene	1.0	4.5	7.2	31
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Toluene	1.0	Not Detected	4.0	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	430	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Trichloroethene	1.0	Not Detected	5.7	Not Detected
Vinyl Acetate	4.2	Not Detected	15	Not Detected
Vinyl Bromide	4.2	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW56A-02**
**Lab ID#: 2107284-03A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072611</b>	<b>Date of Collection: 7/14/21 8:13:00 AM</b>
<b>Dil. Factor:</b>	<b>2.11</b>	<b>Date of Analysis: 7/26/21 04:14 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	95	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072611.d  
Lab Smp Id: 2107284-03A  
Inj Date : 26-JUL-2021 16:14  
Operator : LD  
Smp Info : 200mL N3412  
Misc Info : 6.3 Hg->9.8 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 3  
Dil Factor: 2.11000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5									
5.284	5.284	(1.000)	130	263761	25.0000	80.00- 120.00	100.00		
5.284	5.284	(1.000)	128	202740		48.46- 108.46	76.86		
5.284	5.284	(1.000)	49	360829		120.39- 180.39	136.80		
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.180	6.166	(1.000)	114	826121	25.0000	80.00- 120.00	100.00		
6.180	6.166	(1.000)	88	121439		0.00- 45.52	14.70		
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
8.619	8.612	(1.000)	117	736783	25.0000	80.00- 120.00	100.00		
8.619	8.612	(1.000)	82	382952		25.46- 85.46	51.98		
-----									
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
5.816	5.816	(1.101)	65	331649	22.8486	22.849 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	161385		21.66- 81.66	48.66		
-----									
\$ 134 Toluene-d8 CAS #: 2037-26-5									
7.387	7.387	(1.195)	98	810195	23.8107	23.811 80.00- 120.00	100.00		
7.387	7.387	(1.195)	70	90083		0.00- 41.47	11.12		

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		RESPONSE	TARGET RANGE	RATIO	
				ON-COL	FINAL				
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 134 Toluene-d8 (continued)									
7.387	7.387	(1.195)	100	532264		36.47-	96.47	65.70	
-----									
\$ 170 4-Bromofluorobenzene									
					CAS #: 460-00-4				
9.601	9.601	(1.114)	174	461930	23.7030	23.703	80.00-	120.00	100.00
9.601	9.601	(1.114)	95	517023			93.06-	153.06	111.93
9.601	9.601	(1.114)	176	423584			62.87-	122.87	91.70
-----									
142 Tetrachloroethene									
					CAS #: 127-18-4				
7.881	7.881	(0.914)	166	24745	2.14381	4.523	80.00-	120.00	100.00
7.881	7.881	(0.914)	129	19791			48.71-	108.71	79.98
7.881	7.881	(0.914)	131	19111			46.55-	106.55	77.23
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072611.d  
 Lab Smp Id: 2107284-03A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 6.3 Hg->9.8 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	263761	-0.08
108 1,4-Difluorobenze	833448	500069	1166827	826121	-0.88
153 Chlorobenzene-d5	741338	444803	1037873	736783	-0.61

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-03A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 6.3 Hg->9.8 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	22.849	91.39	70-130
\$ 134 Toluene-d8	25.000	23.811	95.24	70-130
\$ 170 4-Bromofluorobenz	25.000	23.703	94.81	70-130

Date : 26-JUL-2021 16:14

Client ID:

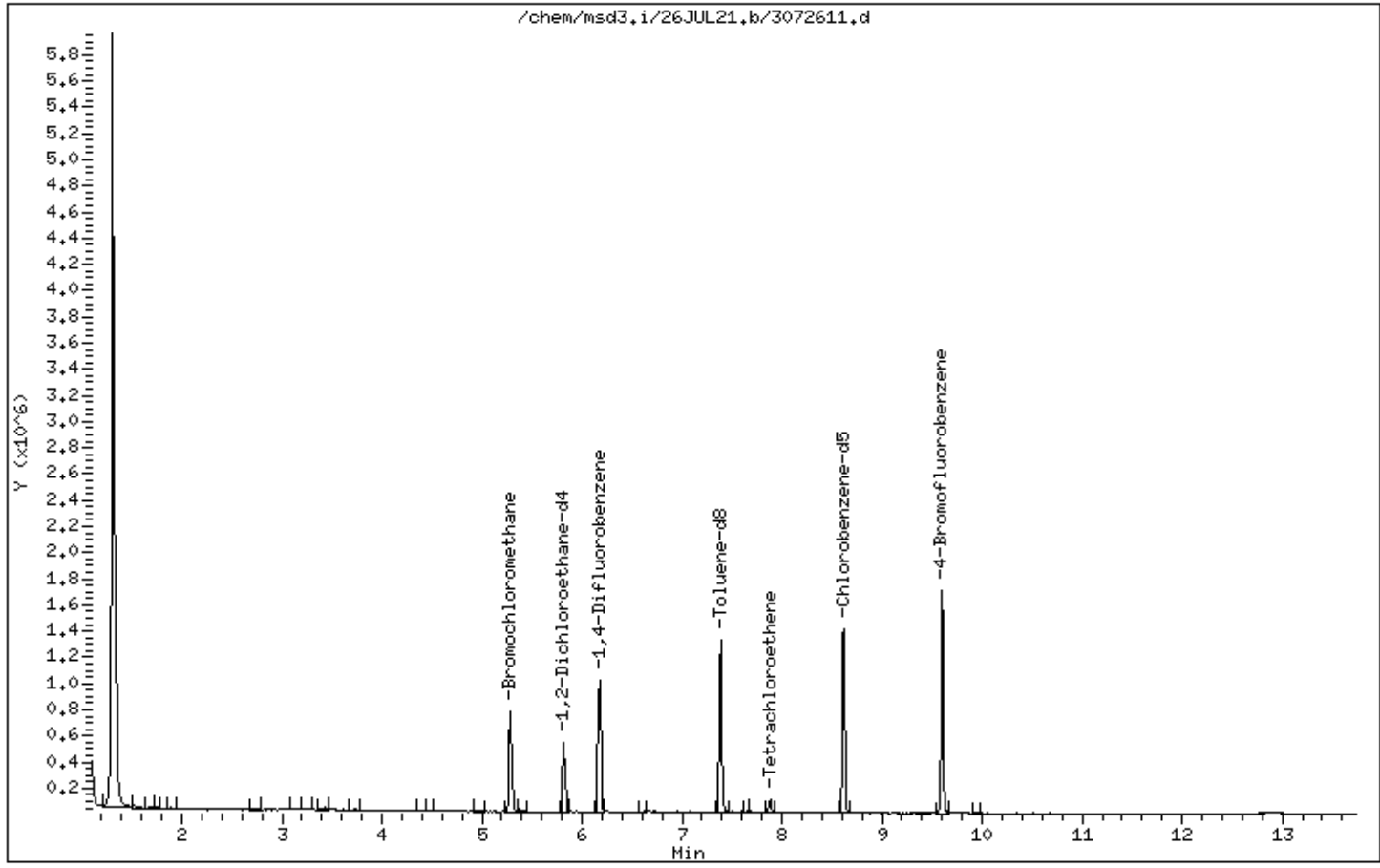
Instrument: msd3,i

Sample Info: 200mL N3412

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 16:14

Client ID:

Instrument: msd3,i

Sample Info: 200mL N3412

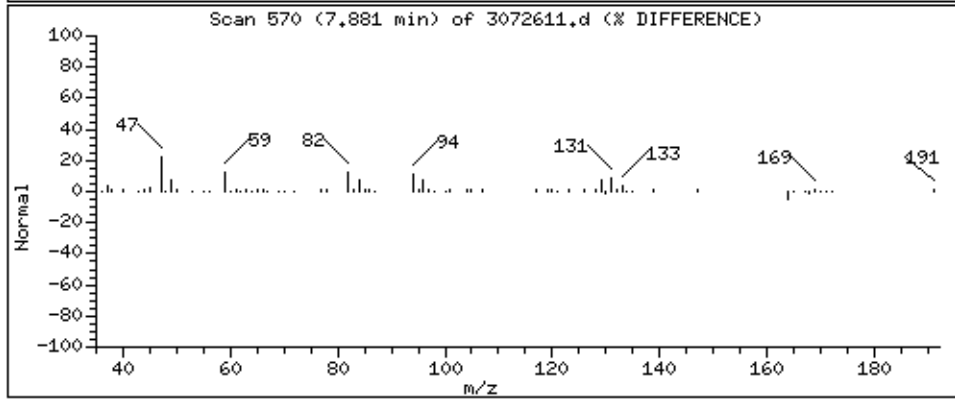
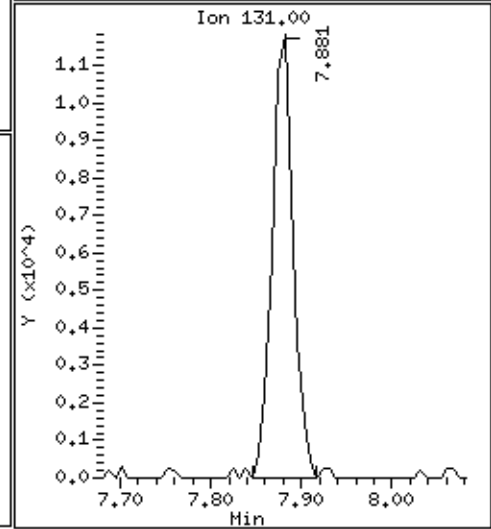
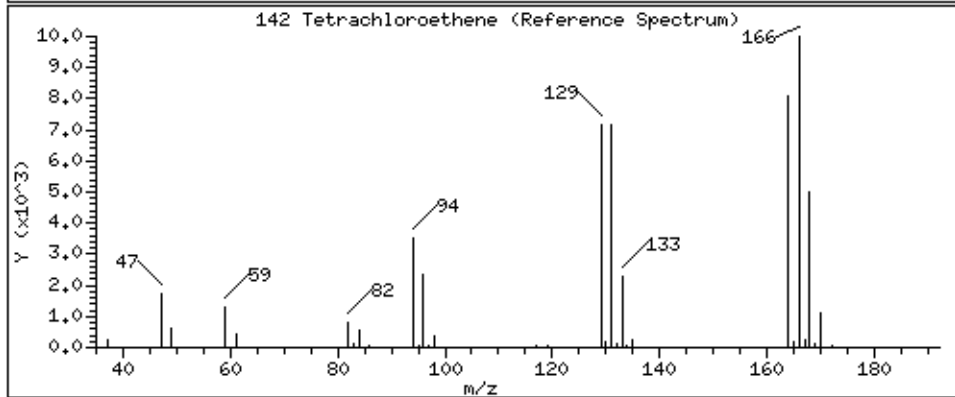
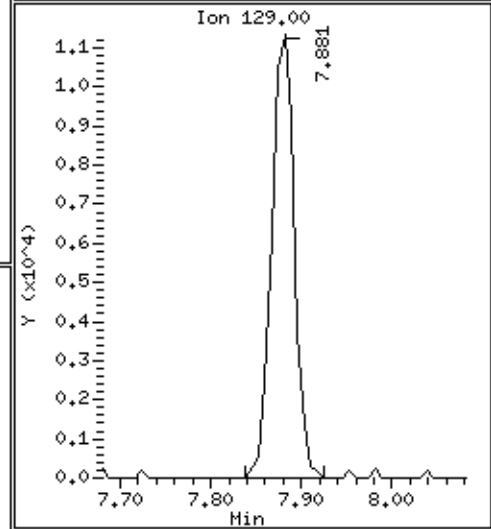
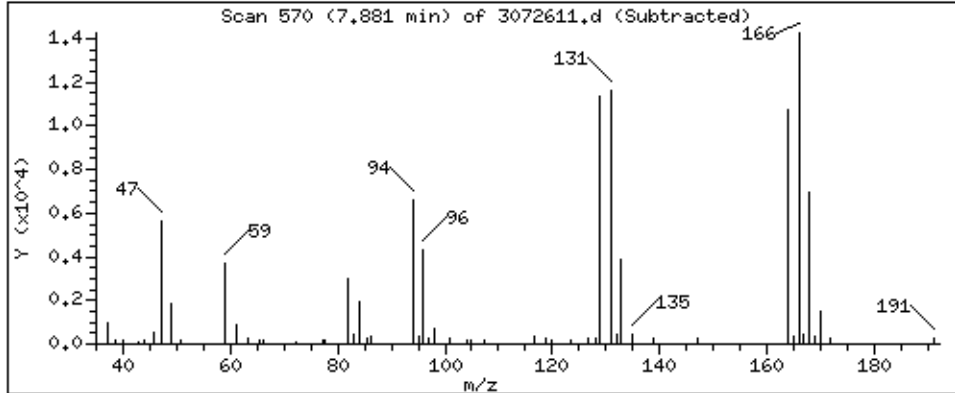
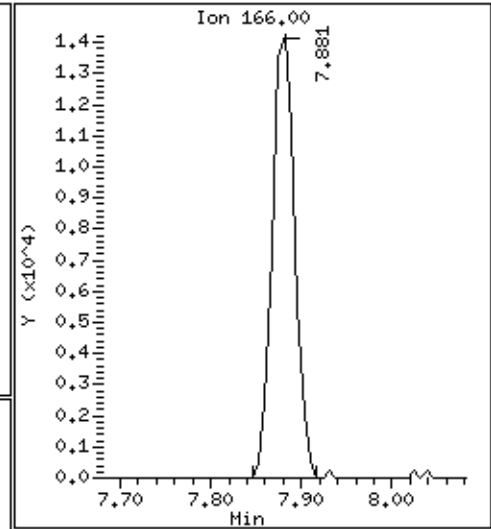
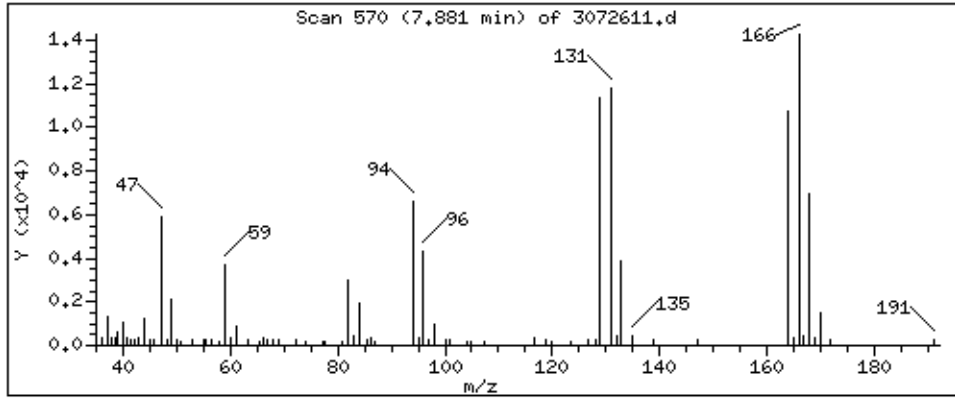
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 4,523 PPBV





Client Sample ID: SG-VW39B-02

Lab ID#: 2107284-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072612	Date of Collection:	7/14/21 8:41:00 AM
Dil. Factor:	2.27	Date of Analysis:	7/26/21 04:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.5	Not Detected	31	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.8	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
1,1-Difluoroethane	4.5	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.5	Not Detected	27	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	34	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2-Dibromo-3-chloropropane	4.5	Not Detected	44	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.7	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
2-Hexanone	4.5	Not Detected	18	Not Detected
2-Propanol	4.5	Not Detected	11	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Acetone	11	Not Detected	27	Not Detected
Acrolein	4.5	Not Detected	10	Not Detected
Acrylonitrile	4.5	Not Detected	9.8	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
Bromodichloromethane	1.1	Not Detected	7.6	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.1	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected

Client Sample ID: SG-VW39B-02

Lab ID#: 2107284-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072612	Date of Collection:	7/14/21 8:41:00 AM
Dil. Factor:	2.27	Date of Analysis:	7/26/21 04:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
Cumene	1.1	Not Detected	5.6	Not Detected
Cyclohexane	1.1	Not Detected	3.9	Not Detected
Dibromochloromethane	1.1	Not Detected	9.7	Not Detected
Dibromomethane	4.5	Not Detected	32	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Ethyl Acetate	4.5	Not Detected	16	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
Ethyl-tert-butyl ether	4.5	Not Detected	19	Not Detected
Freon 11	1.1	Not Detected	6.4	Not Detected
Freon 12	1.1	Not Detected	5.6	Not Detected
Freon 113	1.1	Not Detected	8.7	Not Detected
Freon 114	1.1	Not Detected	7.9	Not Detected
Freon 134a	4.5	Not Detected	19	Not Detected
Heptane	1.1	Not Detected	4.6	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
Hexachloroethane	4.5	Not Detected	44	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
Iodomethane	11	Not Detected	66	Not Detected
Isopropyl ether	4.5	Not Detected	19	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Naphthalene	2.3	Not Detected	12	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected
Propylbenzene	1.1	Not Detected	5.6	Not Detected
Propylene	4.5	Not Detected	7.8	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
tert-Amyl methyl ether	4.5	Not Detected	19	Not Detected
tert-Butyl alcohol	4.5	Not Detected	14	Not Detected
Tetrachloroethene	1.1	2.3	7.7	16
Tetrahydrofuran	1.1	Not Detected	3.3	Not Detected
Toluene	1.1	3.2	4.3	12
TPH ref. to Gasoline (MW=100)	110	Not Detected	460	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
Trichloroethene	1.1	Not Detected	6.1	Not Detected
Vinyl Acetate	4.5	Not Detected	16	Not Detected
Vinyl Bromide	4.5	Not Detected	20	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW39B-02**
**Lab ID#: 2107284-04A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072612</b>	<b>Date of Collection: 7/14/21 8:41:00 AM</b>
<b>Dil. Factor:</b>	<b>2.27</b>	<b>Date of Analysis: 7/26/21 04:43 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	95	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072612.d  
 Lab Smp Id: 2107284-04A  
 Inj Date : 26-JUL-2021 16:43  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL O1060  
 Misc Info : 7.8 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
 Meth Date : 28-Jul-2021 12:16 uexa Quant Type: ISTD  
 Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
 Als bottle: 4  
 Dil Factor: 2.27000  
 Integrator: HP RTE Compound Sublist: AEC25677.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	291710	25.0000	80.00- 120.00	100.00	
5.284	5.284	(1.000)	128	227616		48.46- 108.46	78.03	
5.284	5.284	(1.000)	49	405114		120.39- 180.39	138.88	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.166	6.166	(1.000)	114	967521	25.0000	80.00- 120.00	100.00	
6.166	6.166	(1.000)	88	143133		0.00- 45.52	14.79	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.612	8.612	(1.000)	117	866593	25.0000	80.00- 120.00	100.00	
8.612	8.612	(1.000)	82	452733		25.46- 85.46	52.24	
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	394254	24.5594	24.559 80.00- 120.00	100.00	
5.816	5.816	(1.101)	67	185617		21.66- 81.66	47.08	
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.198)	98	952998	23.9143	23.914 80.00- 120.00	100.00	
7.380	7.387	(1.197)	70	107430		0.00- 41.47	11.27	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.198)	100	623314			36.47- 96.47	65.41
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.600	9.601	(1.115)	174	544505	23.7549	23.755	80.00- 120.00	100.00
9.600	9.601	(1.115)	95	617388			93.06- 153.06	113.39
9.600	9.601	(1.115)	176	508687			62.87- 122.87	93.42
-----								
137 Toluene								
						CAS #: 108-88-3		
7.437	7.437	(1.206)	91	41174	1.38985	3.155	80.00- 120.00	100.00
7.444	7.437	(1.207)	92	24255			28.30- 88.30	58.91
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.874	7.881	(0.914)	166	14022	1.03284	2.344	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	10600			48.71- 108.71	75.60
7.874	7.881	(0.914)	131	11132			46.55- 106.55	79.39
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072612.d  
Lab Smp Id: 2107284-04A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 7.8 Hg->10 psi

Calibration Date: 26-JUL-2021  
Calibration Time: 10:10  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	291710	10.50
108 1,4-Difluorobenze	833448	500069	1166827	967521	16.09
153 Chlorobenzene-d5	741338	444803	1037873	866593	16.90

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.17	-0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-04A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 7.8 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.559	98.24	70-130
\$ 134 Toluene-d8	25.000	23.914	95.66	70-130
\$ 170 4-Bromofluorobenz	25.000	23.755	95.02	70-130

Date : 26-JUL-2021 16:43

Client ID:

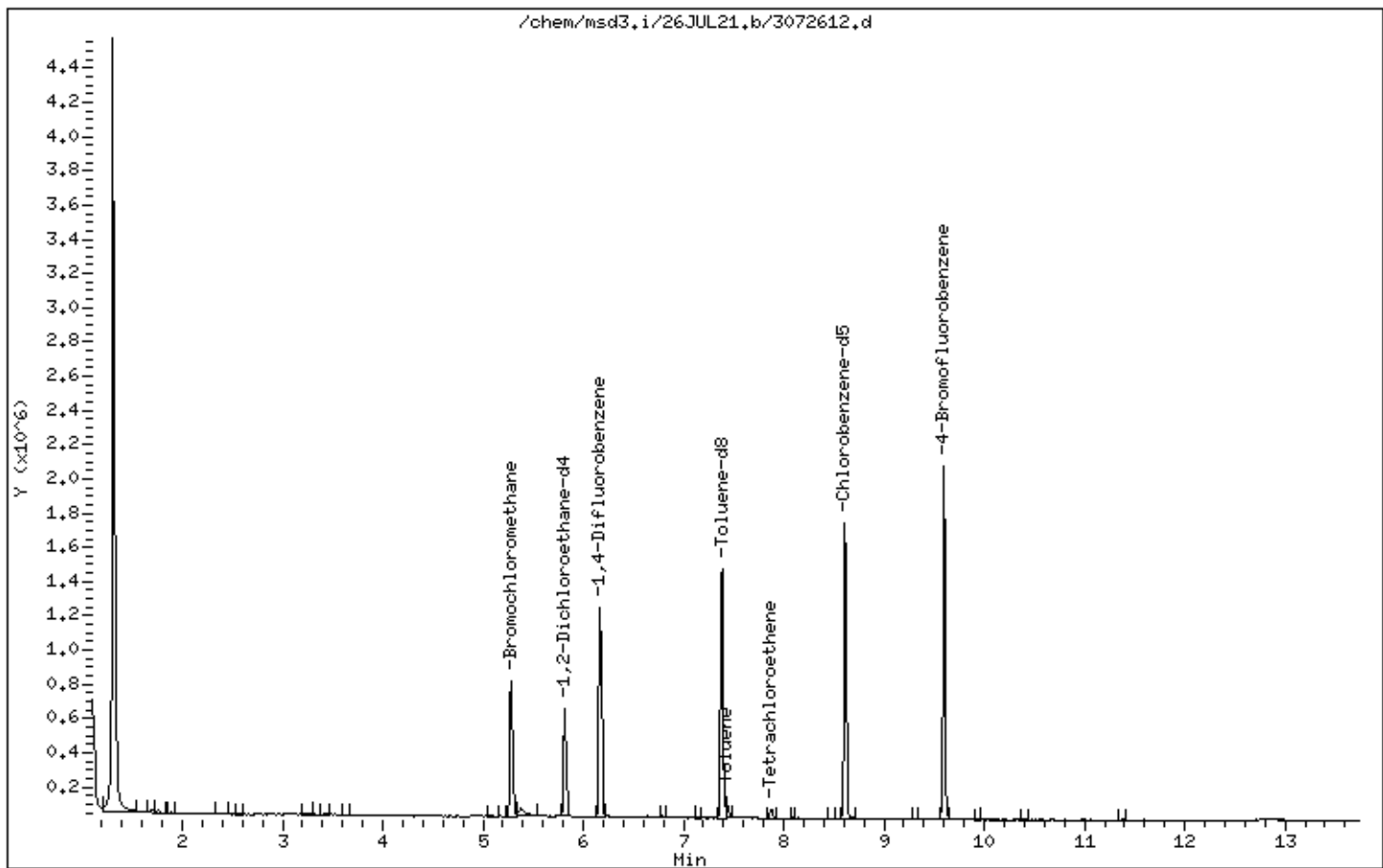
Instrument: msd3,i

Sample Info: 200mL 01060

Operator: LD

Column phase: RTX-624

Column diameter: 0.25





Date : 26-JUL-2021 16:43

Client ID:

Instrument: msd3.i

Sample Info: 200mL 01060

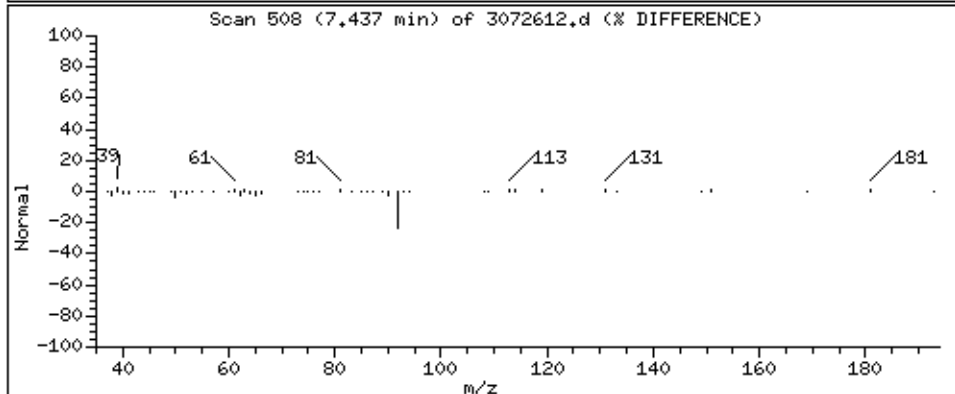
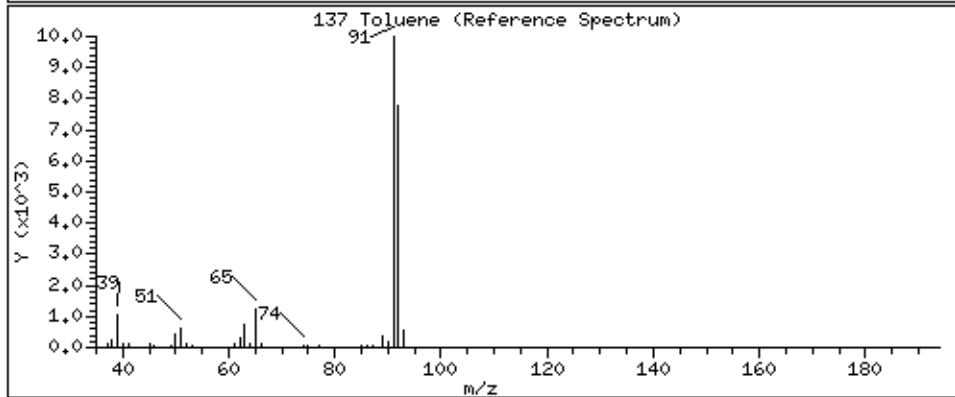
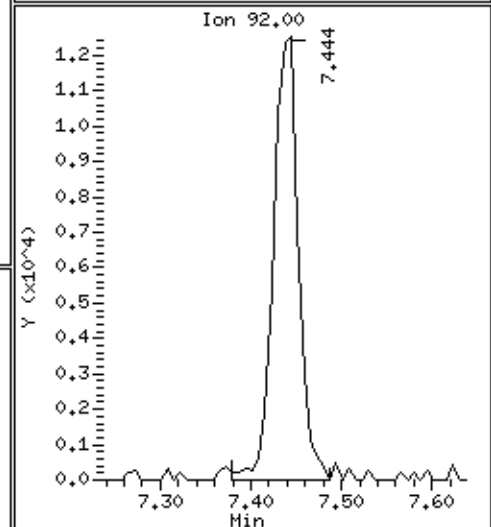
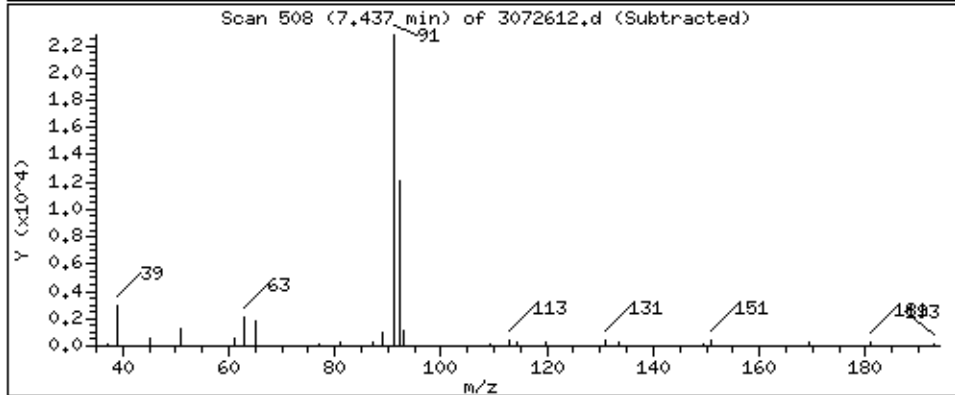
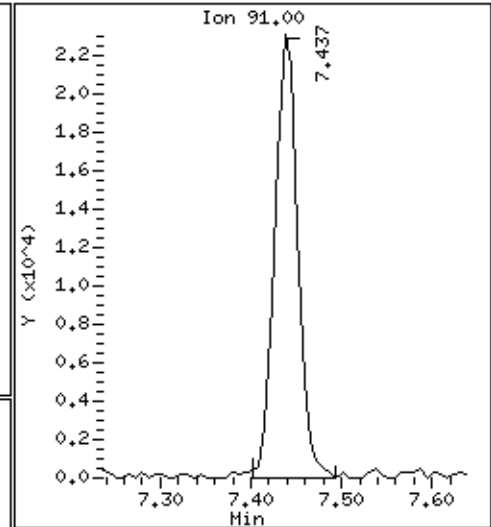
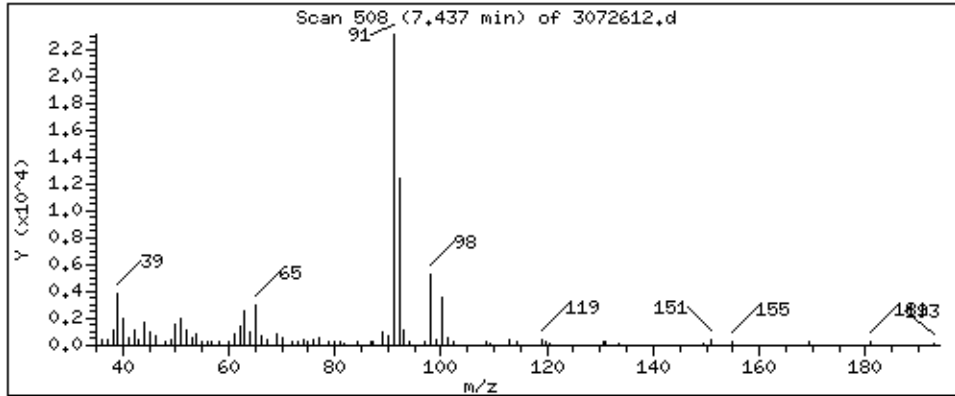
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 3.155 PPBV



Date : 26-JUL-2021 16:43

Client ID:

Instrument: msd3,i

Sample Info: 200mL 01060

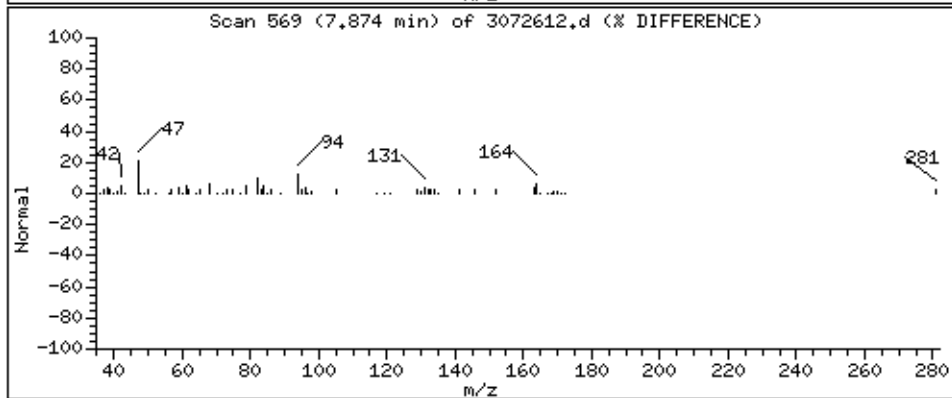
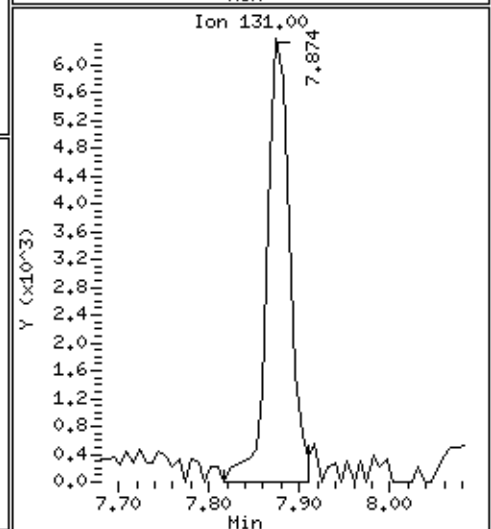
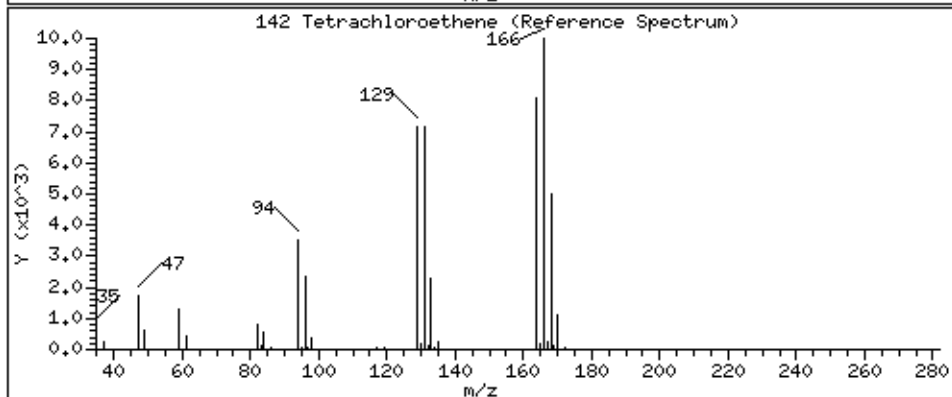
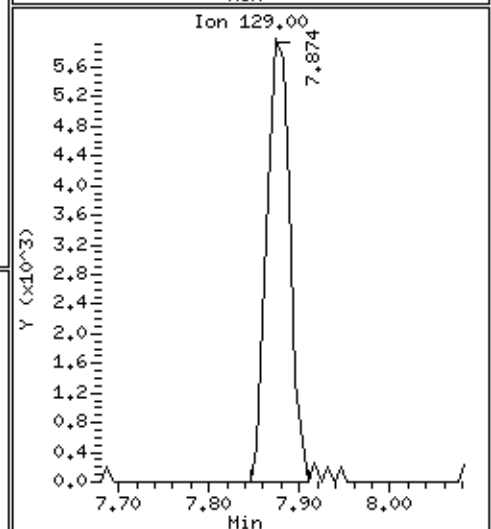
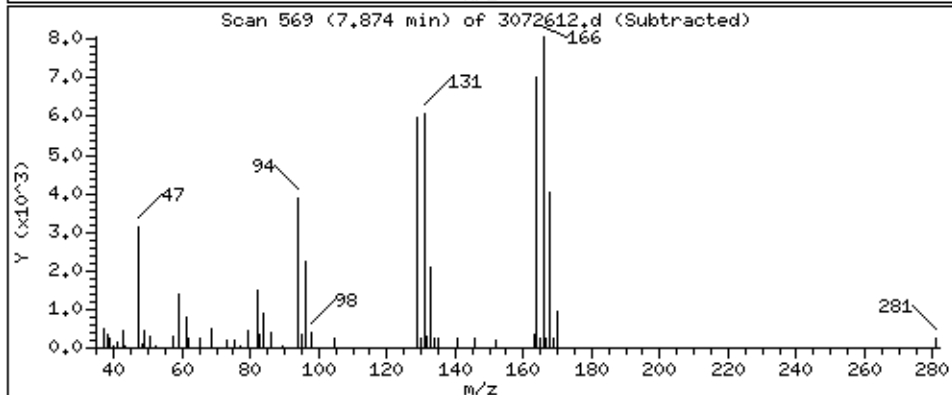
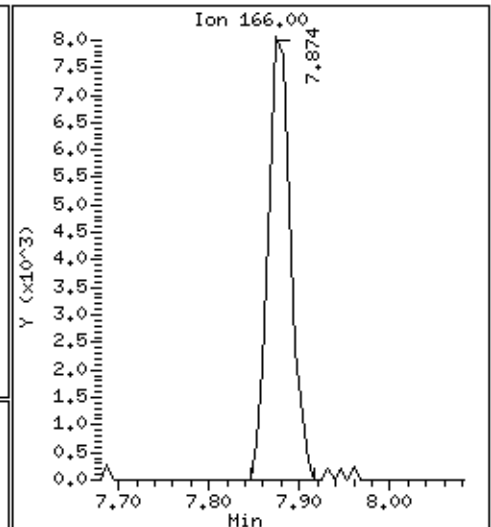
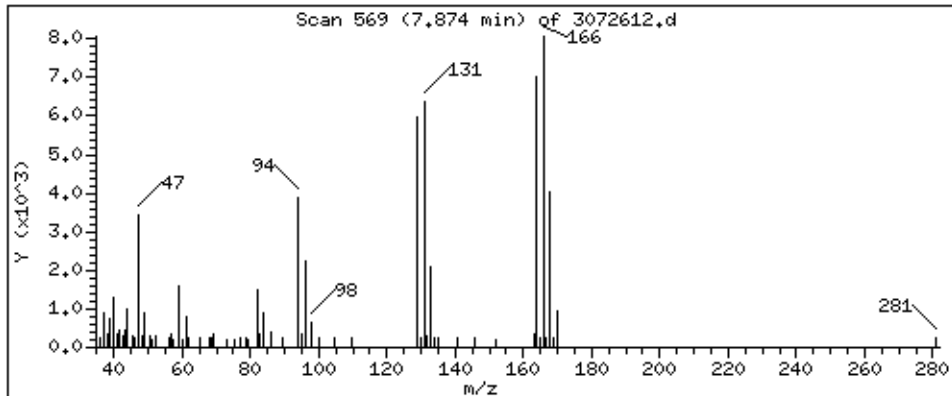
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 2,344 PPBV





Air Toxics

Client Sample ID: SG-VW39A-02

Lab ID#: 2107284-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072613	Date of Collection:	7/14/21 9:16:00 AM
Dil. Factor:	2.06	Date of Analysis:	7/26/21 05:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
1,1-Difluoroethane	4.1	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.1	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2-Dibromo-3-chloropropane	4.1	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected
2-Propanol	4.1	Not Detected	10	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.1	Not Detected	9.4	Not Detected
Acrylonitrile	4.1	Not Detected	8.9	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected



Air Toxics

Client Sample ID: SG-VW39A-02

Lab ID#: 2107284-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072613	Date of Collection:	7/14/21 9:16:00 AM
Dil. Factor:	2.06	Date of Analysis:	7/26/21 05:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
Dibromomethane	4.1	Not Detected	29	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Ethyl Acetate	4.1	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Ethyl-tert-butyl ether	4.1	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 113	1.0	Not Detected	7.9	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Hexachloroethane	4.1	Not Detected	40	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
Iodomethane	10	Not Detected	60	Not Detected
Isopropyl ether	4.1	Not Detected	17	Not Detected
m,p-Xylene	1.0	Not Detected	4.5	Not Detected
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
Propylene	4.1	Not Detected	7.1	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
tert-Amyl methyl ether	4.1	Not Detected	17	Not Detected
tert-Butyl alcohol	4.1	Not Detected	12	Not Detected
Tetrachloroethene	1.0	3.2	7.0	22
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
Vinyl Acetate	4.1	Not Detected	14	Not Detected
Vinyl Bromide	4.1	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW39A-02**
**Lab ID#: 2107284-05A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072613</b>	<b>Date of Collection: 7/14/21 9:16:00 AM</b>
<b>Dil. Factor:</b>	<b>2.06</b>	<b>Date of Analysis: 7/26/21 05:13 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	89	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	94	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072613.d  
Lab Smp Id: 2107284-05A  
Inj Date : 26-JUL-2021 17:13  
Operator : LD  
Smp Info : 200mL N3824  
Misc Info : 5.7 Hg->9.8 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 5  
Dil Factor: 2.06000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE		RATIO	
				ON-COL	FINAL	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 90	Bromochloromethane					CAS #: 74-97-5			
5.284	5.284	(1.000)	130	229460	25.0000	80.00-	120.00	100.00	
5.284	5.284	(1.000)	128	180233		48.46-	108.46	78.55	
5.284	5.284	(1.000)	49	316441		120.39-	180.39	137.91	
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.180	6.166	(1.000)	114	818801	25.0000	80.00-	120.00	100.00	
6.180	6.166	(1.000)	88	118598		0.00-	45.52	14.48	
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
8.619	8.612	(1.000)	117	677990	25.0000	80.00-	120.00	100.00	
8.619	8.612	(1.000)	82	353174		25.46-	85.46	52.09	
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
5.816	5.816	(1.101)	65	329401	26.0862	26.086	80.00-	120.00	100.00
5.816	5.816	(1.101)	67	159162		21.66-	81.66	48.32	
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.387	7.387	(1.195)	98	750420	22.2511	22.251	80.00-	120.00	100.00
7.387	7.387	(1.195)	70	84622		0.00-	41.47	11.28	

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		RESPONSE	TARGET RANGE	RATIO	
				ON-COL	FINAL				
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 134 Toluene-d8 (continued)									
7.387	7.387	(1.195)	100	488169		36.47-	96.47	65.05	
-----									
\$ 170 4-Bromofluorobenzene									
					CAS #: 460-00-4				
9.601	9.601	(1.114)	174	421928	23.5278	23.528	80.00-	120.00	100.00
9.601	9.601	(1.114)	95	475028			93.06-	153.06	112.59
9.601	9.601	(1.114)	176	390386			62.87-	122.87	92.52
-----									
142 Tetrachloroethene									
					CAS #: 127-18-4				
7.882	7.881	(0.914)	166	16589	1.56183	3.217	80.00-	120.00	100.00
7.882	7.881	(0.914)	129	12731			48.71-	108.71	76.75
7.882	7.881	(0.914)	131	12396			46.55-	106.55	74.73
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072613.d  
 Lab Smp Id: 2107284-05A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 5.7 Hg->9.8 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	229460	-13.08
108 1,4-Difluorobenze	833448	500069	1166827	818801	-1.76
153 Chlorobenzene-d5	741338	444803	1037873	677990	-8.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.



US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-05A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 5.7 Hg->9.8 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	26.086	104.34	70-130
\$ 134 Toluene-d8	25.000	22.251	89.00	70-130
\$ 170 4-Bromofluorobenz	25.000	23.528	94.11	70-130

Date : 26-JUL-2021 17:13

Client ID:

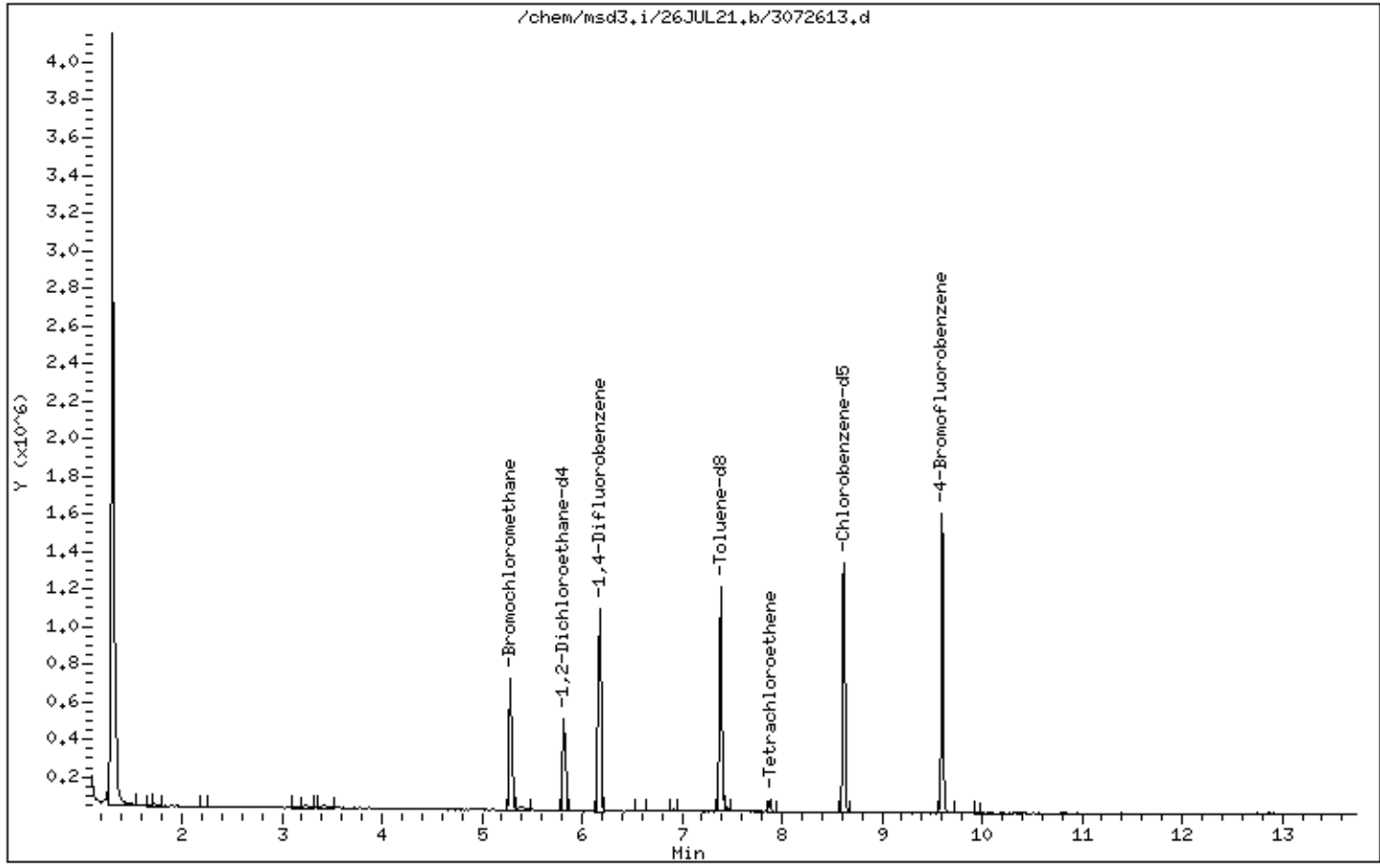
Instrument: msd3,i

Sample Info: 200mL N3824

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 17:13

Client ID:

Instrument: msd3,i

Sample Info: 200mL N3824

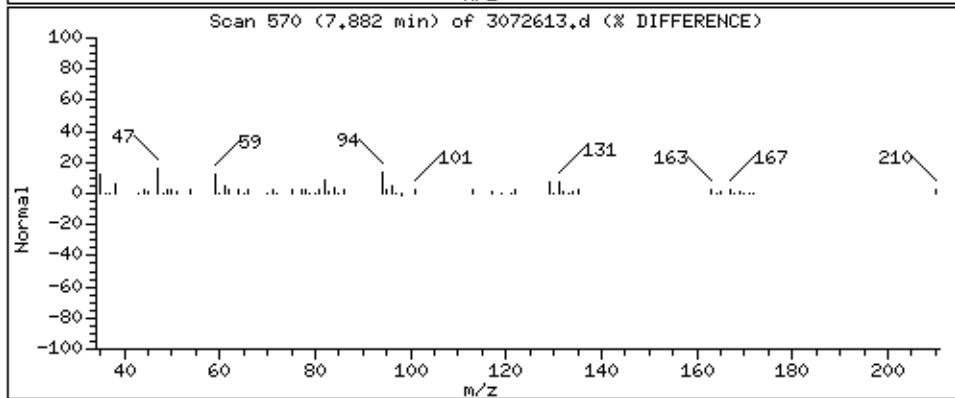
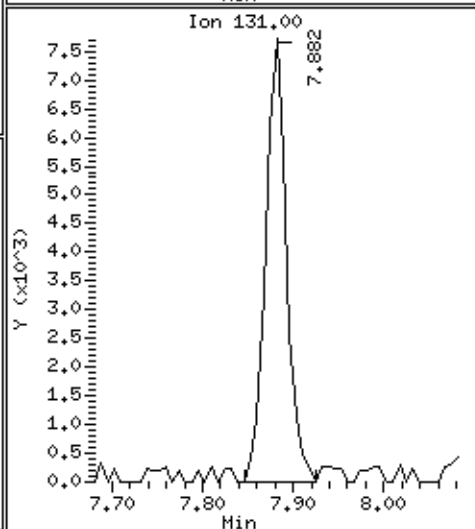
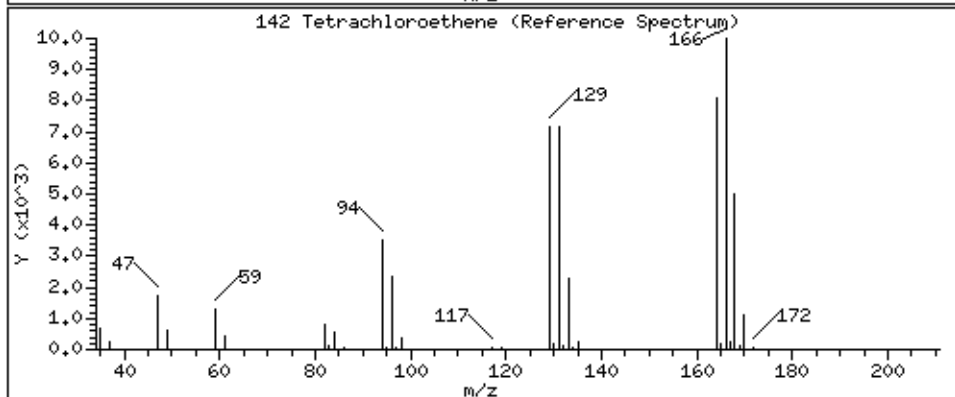
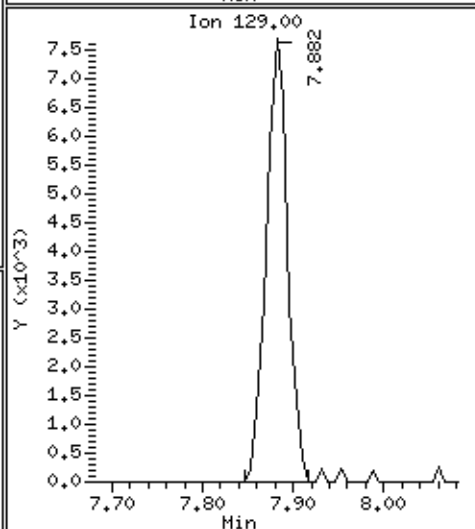
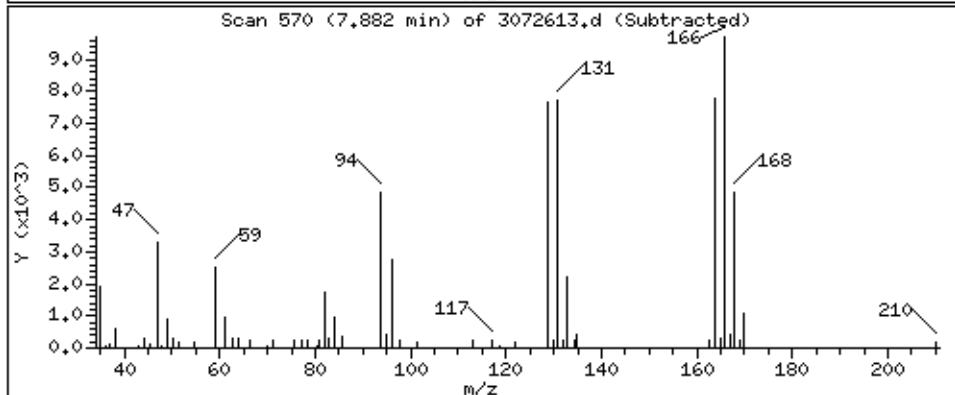
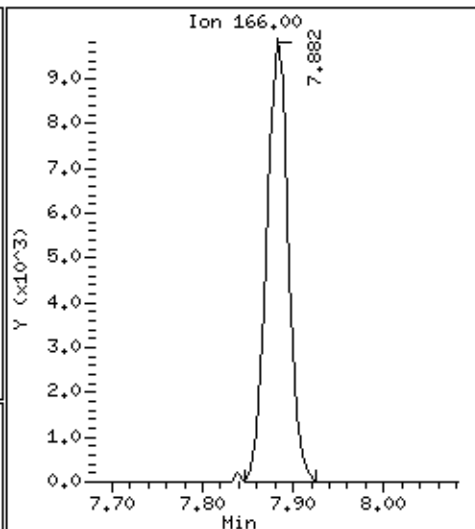
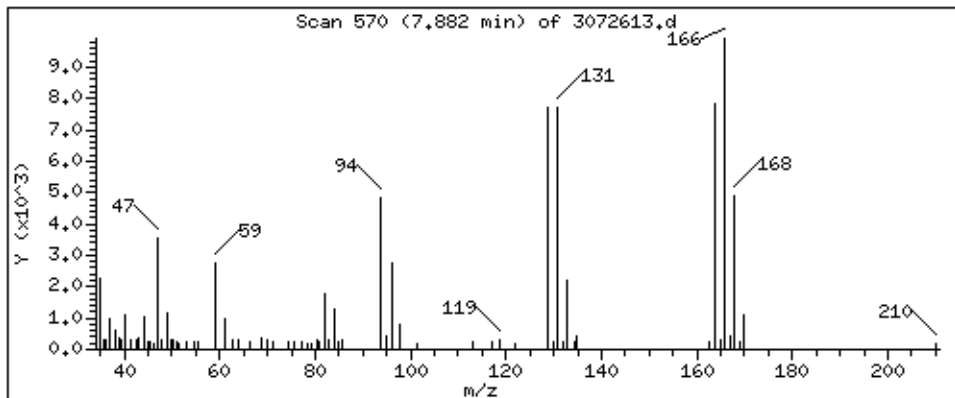
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 3.217 PPBV



Client Sample ID: SG-VW38B-03

Lab ID#: 2107284-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072614	Date of Collection:	7/14/21 9:42:00 AM
Dil. Factor:	2.09	Date of Analysis:	7/26/21 05:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
1,1-Difluoroethane	4.2	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2-Dibromo-3-chloropropane	4.2	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.0	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected
2-Propanol	4.2	Not Detected	10	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Acetone	10	Not Detected	25	Not Detected
Acrolein	4.2	Not Detected	9.6	Not Detected
Acrylonitrile	4.2	Not Detected	9.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Chloroform	1.0	1.5	5.1	7.2
Chloromethane	10	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected



Air Toxics

Client Sample ID: SG-VW38B-03

Lab ID#: 2107284-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072614	Date of Collection:	7/14/21 9:42:00 AM
Dil. Factor:	2.09	Date of Analysis:	7/26/21 05:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
Dibromomethane	4.2	Not Detected	30	Not Detected
Ethanol	10	Not Detected	20	Not Detected
Ethyl Acetate	4.2	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Ethyl-tert-butyl ether	4.2	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 12	1.0	Not Detected	5.2	Not Detected
Freon 113	1.0	Not Detected	8.0	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Freon 134a	4.2	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Hexachlorobutadiene	4.2	Not Detected	44	Not Detected
Hexachloroethane	4.2	Not Detected	40	Not Detected
Hexane	1.0	Not Detected	3.7	Not Detected
Iodomethane	10	Not Detected	61	Not Detected
Isopropyl ether	4.2	Not Detected	17	Not Detected
m,p-Xylene	1.0	Not Detected	4.5	Not Detected
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
Propylene	4.2	Not Detected	7.2	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
tert-Amyl methyl ether	4.2	Not Detected	17	Not Detected
tert-Butyl alcohol	4.2	Not Detected	13	Not Detected
Tetrachloroethene	1.0	5.2	7.1	35
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Toluene	1.0	5.3	3.9	20
TPH ref. to Gasoline (MW=100)	100	Not Detected	430	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Vinyl Acetate	4.2	Not Detected	15	Not Detected
Vinyl Bromide	4.2	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW38B-03**
**Lab ID#: 2107284-06A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072614</b>	<b>Date of Collection: 7/14/21 9:42:00 AM</b>
<b>Dil. Factor:</b>	<b>2.09</b>	<b>Date of Analysis: 7/26/21 05:42 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	94	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072614.d  
 Lab Smp Id: 2107284-06A  
 Inj Date : 26-JUL-2021 17:42  
 Operator : LD  
 Smp Info : 200mL 34000754  
 Misc Info : 6.1 Hg->9.8 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
 Meth Date : 28-Jul-2021 12:16 uexa  
 Cal Date : 23-JUN-2021 00:09  
 Als bottle: 6  
 Dil Factor: 2.09000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msd3.i  
 Quant Type: ISTD  
 Cal File: 3062223.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
* 90 Bromochloromethane CAS #: 74-97-5								
5.270	5.284	(1.000)	130	299708	25.0000		80.00- 120.00	100.00
5.270	5.284	(1.000)	128	229408			48.46- 108.46	76.54
5.270	5.284	(1.000)	49	418255			120.39- 180.39	139.55
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.166	6.166	(1.000)	114	972248	25.0000		80.00- 120.00	100.00
6.166	6.166	(1.000)	88	144819			0.00- 45.52	14.90
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.612	8.612	(1.000)	117	893423	25.0000		80.00- 120.00	100.00
8.612	8.612	(1.000)	82	477418			25.46- 85.46	53.44
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.104)	65	389768	23.6320	23.632	80.00- 120.00	100.00
5.816	5.816	(1.104)	67	188523			21.66- 81.66	48.37
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.380	7.387	(1.197)	98	1009666	25.2131	25.213	80.00- 120.00	100.00
7.380	7.387	(1.197)	70	111941			0.00- 41.47	11.09

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.380	7.387	(1.197)	100	659550			36.47- 96.47	65.32
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.600	9.601	(1.115)	174	554109	23.4479	23.448	80.00- 120.00	100.00
9.600	9.601	(1.115)	95	635283			93.06- 153.06	114.65
9.600	9.601	(1.115)	176	512541			62.87- 122.87	92.50
-----								
92 Chloroform								
						CAS #: 67-66-3		
5.340	5.340	(1.013)	83	13294	0.70747	1.479	80.00- 120.00	100.00
5.340	5.340	(1.013)	85	8831			34.71- 94.71	66.43
-----								
137 Toluene								
						CAS #: 108-88-3		
7.437	7.437	(1.206)	91	75161	2.52476	5.277	80.00- 120.00	100.00
7.437	7.437	(1.206)	92	42665			28.30- 88.30	56.76
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.874	7.881	(0.914)	166	34834	2.48877	5.202	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	27900			48.71- 108.71	80.09
7.874	7.881	(0.914)	131	26974			46.55- 106.55	77.43
-----								



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 26-JUL-2021
Lab File ID: 3072614.d	Calibration Time: 10:10
Lab Smp Id: 2107284-06A	
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m	
Misc Info: 6.1 Hg->9.8 psi	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	299708	13.53
108 1,4-Difluorobenze	833448	500069	1166827	972248	16.65
153 Chlorobenzene-d5	741338	444803	1037873	893423	20.51

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.27	-0.27
108 1,4-Difluorobenze	6.17	5.84	6.50	6.17	-0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-06A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 6.1 Hg->9.8 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	23.632	94.53	70-130
\$ 134 Toluene-d8	25.000	25.213	100.85	70-130
\$ 170 4-Bromofluorobenz	25.000	23.448	93.79	70-130

Date : 26-JUL-2021 17:42

Client ID:

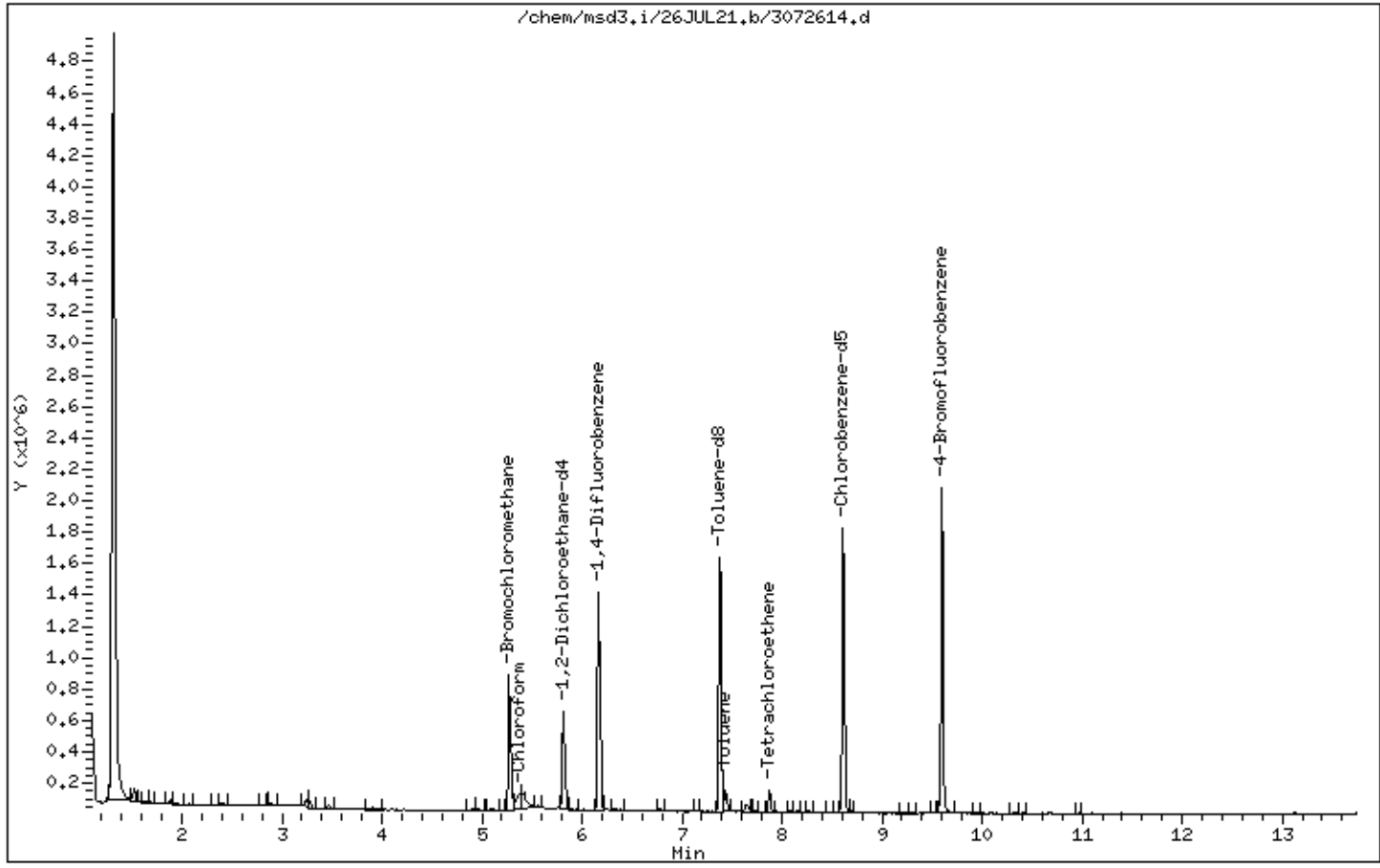
Instrument: msd3,i

Sample Info: 200mL 34000754

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 17:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 34000754

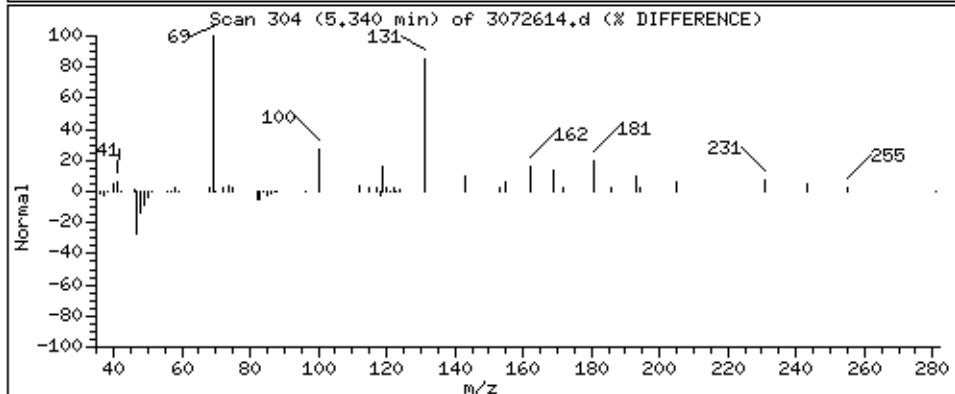
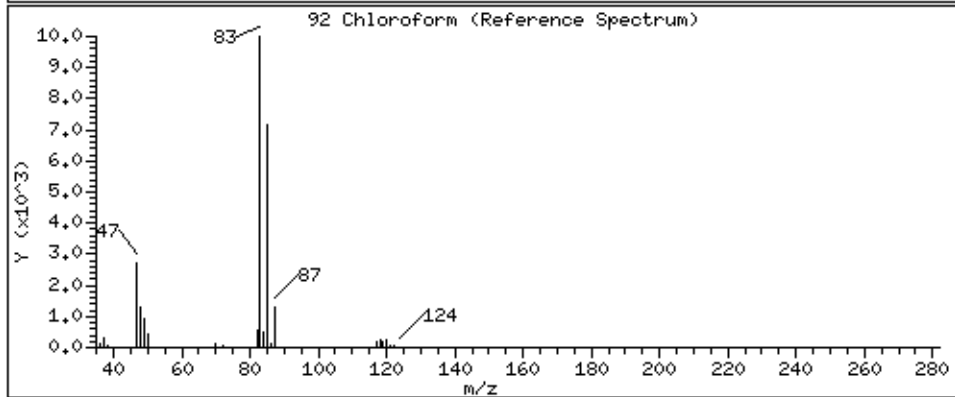
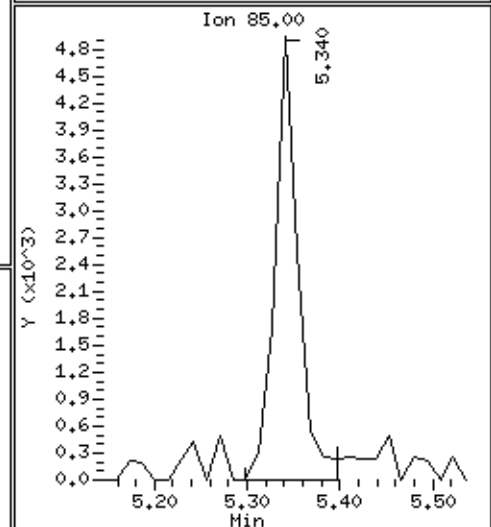
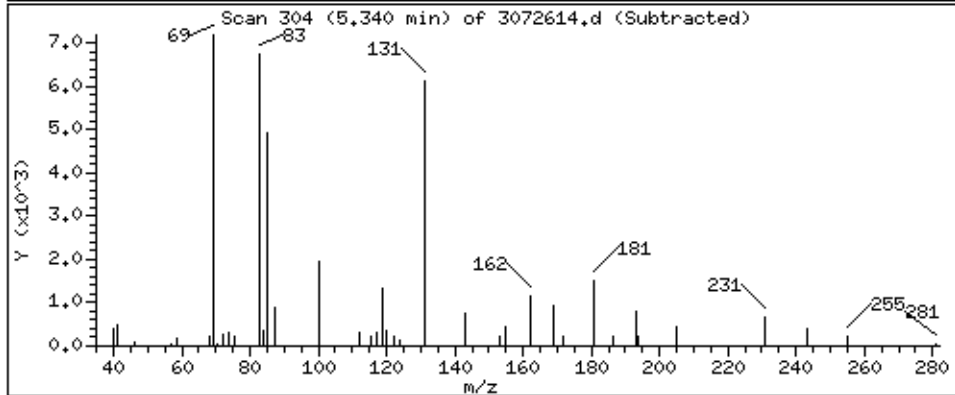
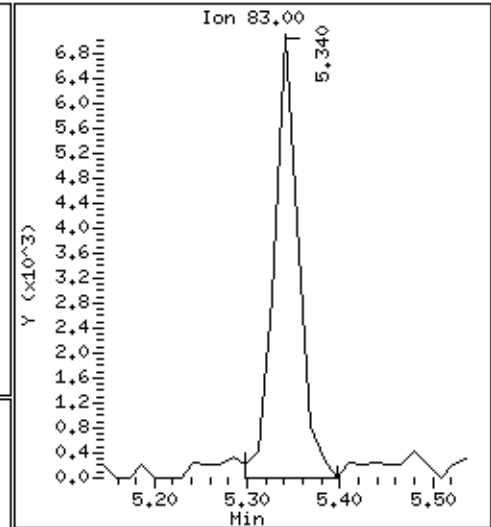
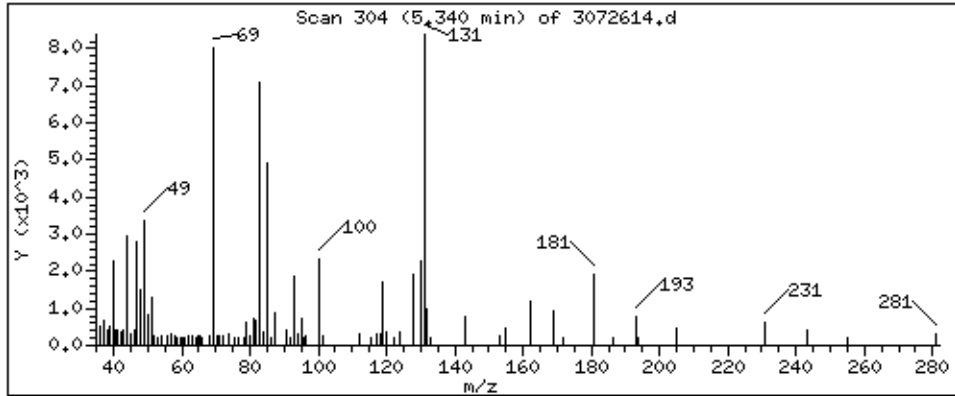
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 1,479 PPBV



Date : 26-JUL-2021 17:42

Client ID:

Instrument: msd3.i

Sample Info: 200mL 34000754

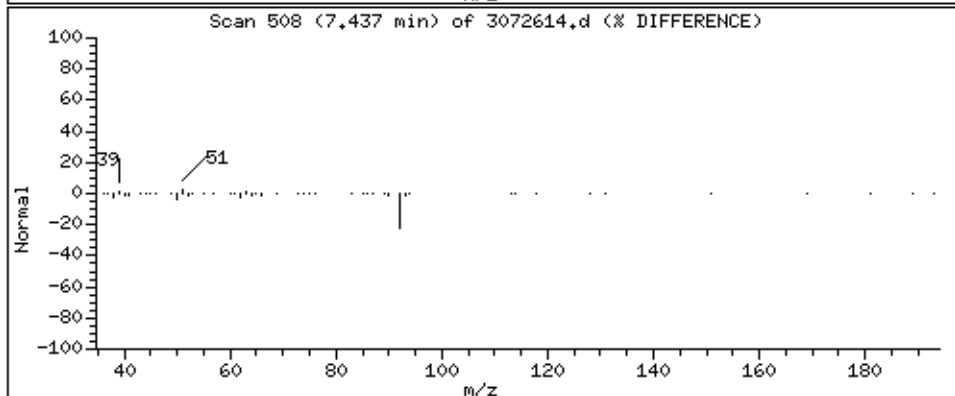
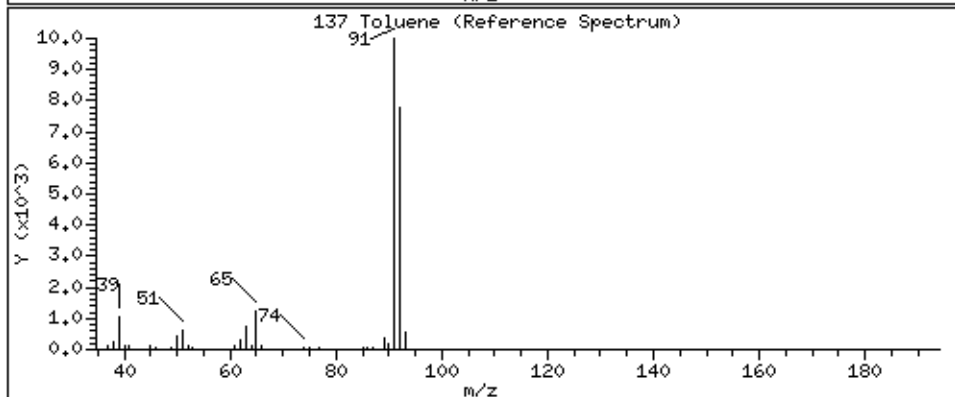
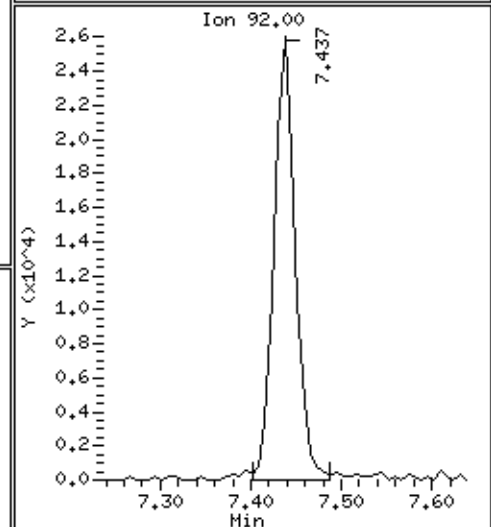
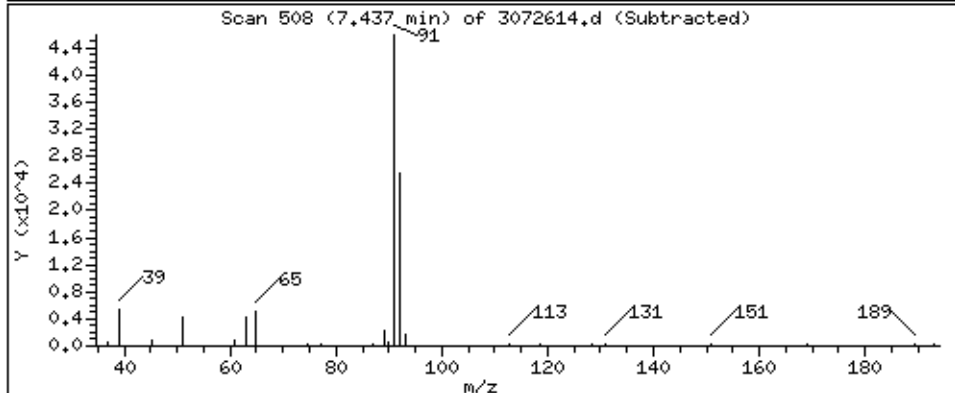
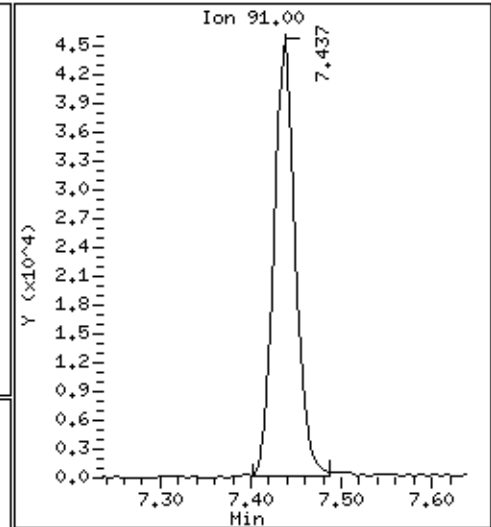
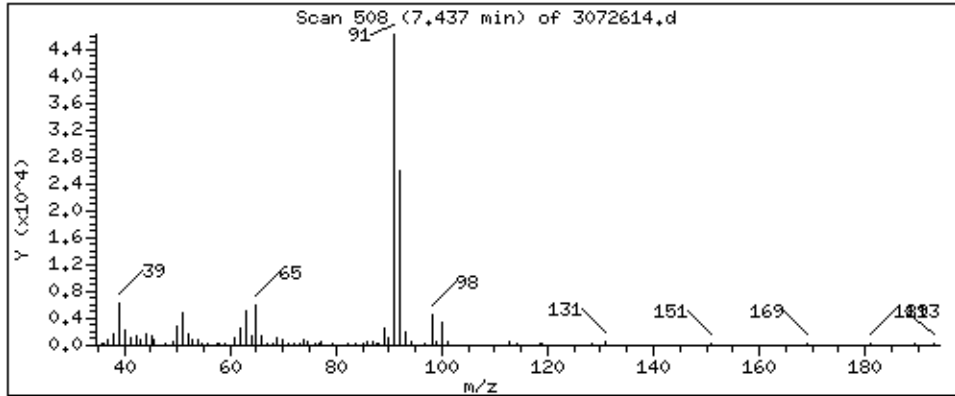
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 5.277 PPBV



Date : 26-JUL-2021 17:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 34000754

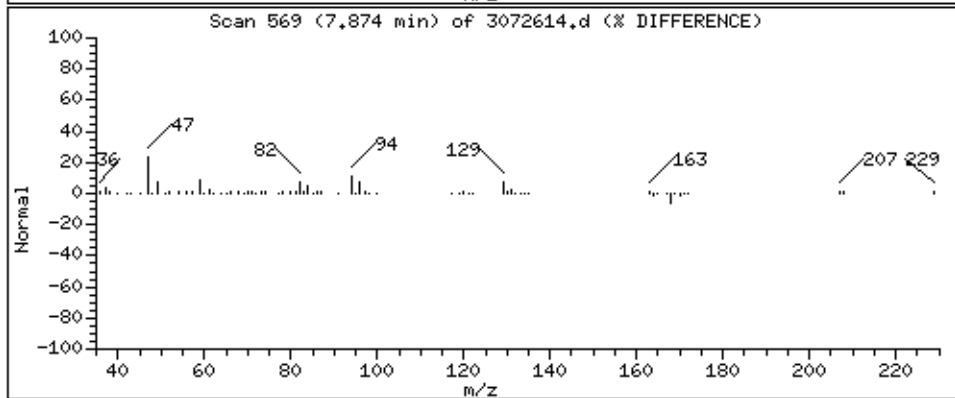
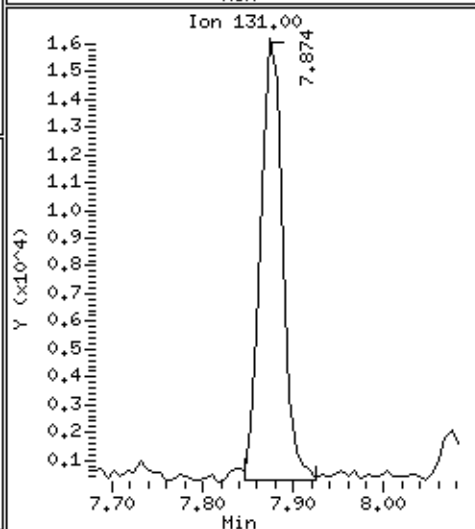
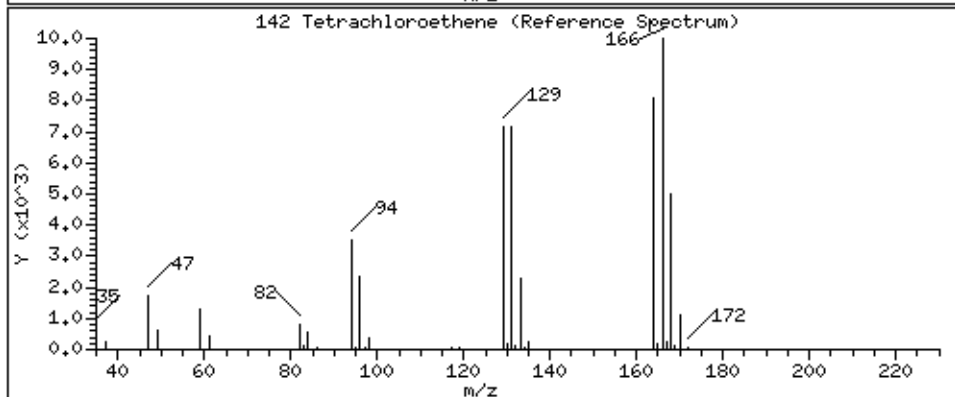
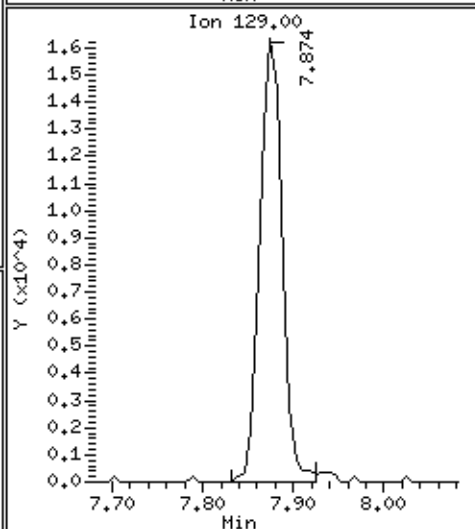
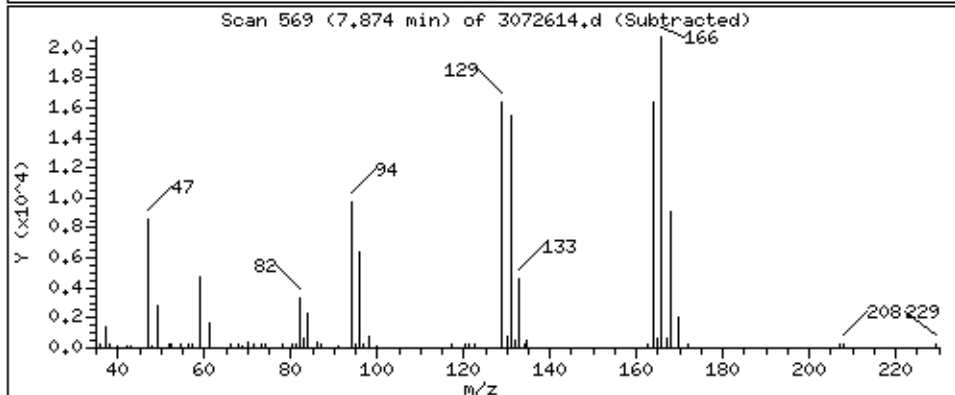
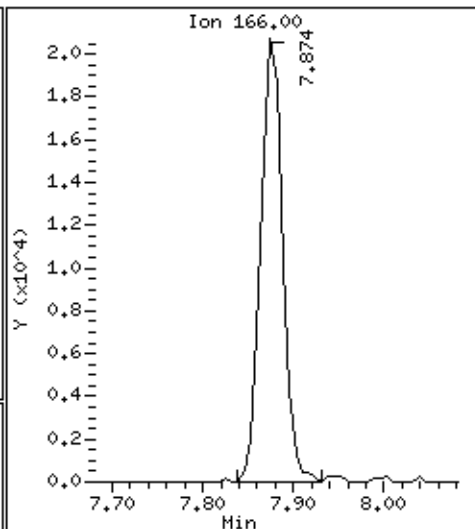
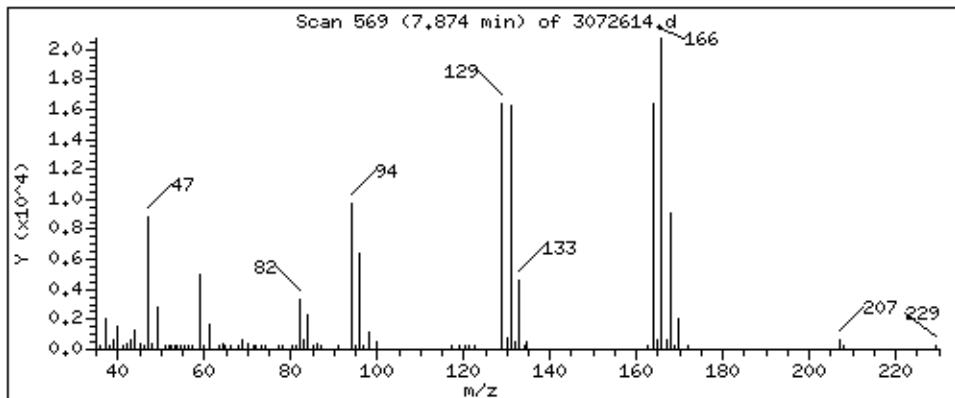
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 5.202 PPBV



Client Sample ID: SG-VW38A-02

Lab ID#: 2107284-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072615	Date of Collection:	7/14/21 10:24:00 AM
Dil. Factor:	2.34	Date of Analysis:	7/26/21 06:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.7	Not Detected	32	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
1,1-Difluoroethane	4.7	Not Detected	13	Not Detected
1,2,3-Trichloropropane	4.7	Not Detected	28	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2-Dibromo-3-chloropropane	4.7	Not Detected	45	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected
2-Propanol	4.7	Not Detected	12	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Acetone	12	Not Detected	28	Not Detected
Acrolein	4.7	Not Detected	11	Not Detected
Acrylonitrile	4.7	Not Detected	10	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Carbon Disulfide	4.7	Not Detected	14	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected



Air Toxics

Client Sample ID: SG-VW38A-02

Lab ID#: 2107284-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072615	Date of Collection:	7/14/21 10:24:00 AM
Dil. Factor:	2.34	Date of Analysis:	7/26/21 06:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Cumene	1.2	Not Detected	5.8	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
Dibromomethane	4.7	Not Detected	33	Not Detected
Ethanol	12	Not Detected	22	Not Detected
Ethyl Acetate	4.7	Not Detected	17	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
Ethyl-tert-butyl ether	4.7	Not Detected	20	Not Detected
Freon 11	1.2	Not Detected	6.6	Not Detected
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Freon 134a	4.7	Not Detected	20	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
Hexachloroethane	4.7	Not Detected	45	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Iodomethane	12	Not Detected	68	Not Detected
Isopropyl ether	4.7	Not Detected	20	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Naphthalene	2.3	Not Detected	12	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
Propylene	4.7	Not Detected	8.0	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
tert-Amyl methyl ether	4.7	Not Detected	20	Not Detected
tert-Butyl alcohol	4.7	Not Detected	14	Not Detected
Tetrachloroethene	1.2	19	7.9	130
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	480	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
Vinyl Acetate	4.7	Not Detected	16	Not Detected
Vinyl Bromide	4.7	Not Detected	20	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister



**Client Sample ID: SG-VW38A-02**
**Lab ID#: 2107284-07A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072615</b>	<b>Date of Collection: 7/14/21 10:24:00 AM</b>
<b>Dil. Factor:</b>	<b>2.34</b>	<b>Date of Analysis: 7/26/21 06:11 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	96	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072615.d  
Lab Smp Id: 2107284-07A  
Inj Date : 26-JUL-2021 18:11  
Operator : LD  
Smp Info : 200mL 1L1747  
Misc Info : 8.6 Hg->9.9 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 7  
Dil Factor: 2.34000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5									
5.284	5.284	(1.000)	130	223936	25.0000	80.00- 120.00	100.00		
5.284	5.284	(1.000)	128	178311		48.46- 108.46	79.63		
5.270	5.284	(1.000)	49	311015		120.39- 180.39	138.89		
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.180	6.166	(1.000)	114	721096	25.0000	80.00- 120.00	100.00		
6.180	6.166	(1.000)	88	106008		0.00- 45.52	14.70		
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
8.619	8.612	(1.000)	117	655650	25.0000	80.00- 120.00	100.00		
8.619	8.612	(1.000)	82	349101		25.46- 85.46	53.25		
-----									
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
5.816	5.816	(1.101)	65	295582	23.9854	23.985 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	144429		21.66- 81.66	48.86		
-----									
§ 134 Toluene-d8 CAS #: 2037-26-5									
7.387	7.387	(1.195)	98	749804	25.2453	25.245 80.00- 120.00	100.00		
7.387	7.387	(1.195)	70	85465		0.00- 41.47	11.40		

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		RESPONSE	TARGET RANGE	RATIO	
				ON-COL	FINAL				
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 134 Toluene-d8 (continued)									
7.387	7.387	(1.195)	100	504128		36.47-	96.47	67.23	
-----									
\$ 170 4-Bromofluorobenzene									
					CAS #: 460-00-4				
9.600	9.601	(1.114)	174	415168	23.9397	23.940	80.00-	120.00	100.00
9.600	9.601	(1.114)	95	462577			93.06-	153.06	111.42
9.600	9.601	(1.114)	176	382768			62.87-	122.87	92.20
-----									
142 Tetrachloroethene									
					CAS #: 127-18-4				
7.881	7.881	(0.914)	166	84074	8.18517	19.153	80.00-	120.00	100.00
7.881	7.881	(0.914)	129	65707			48.71-	108.71	78.15
7.881	7.881	(0.914)	131	62025			46.55-	106.55	73.77
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072615.d  
 Lab Smp Id: 2107284-07A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 8.6 Hg->9.9 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	223936	-15.17
108 1,4-Difluorobenze	833448	500069	1166827	721096	-13.48
153 Chlorobenzene-d5	741338	444803	1037873	655650	-11.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

Report Date: 28-Jul-2021 12:39

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-07A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 8.6 Hg->9.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	23.985	95.94	70-130
\$ 134 Toluene-d8	25.000	25.245	100.98	70-130
\$ 170 4-Bromofluorobenz	25.000	23.940	95.76	70-130

Date : 26-JUL-2021 18:11

Client ID:

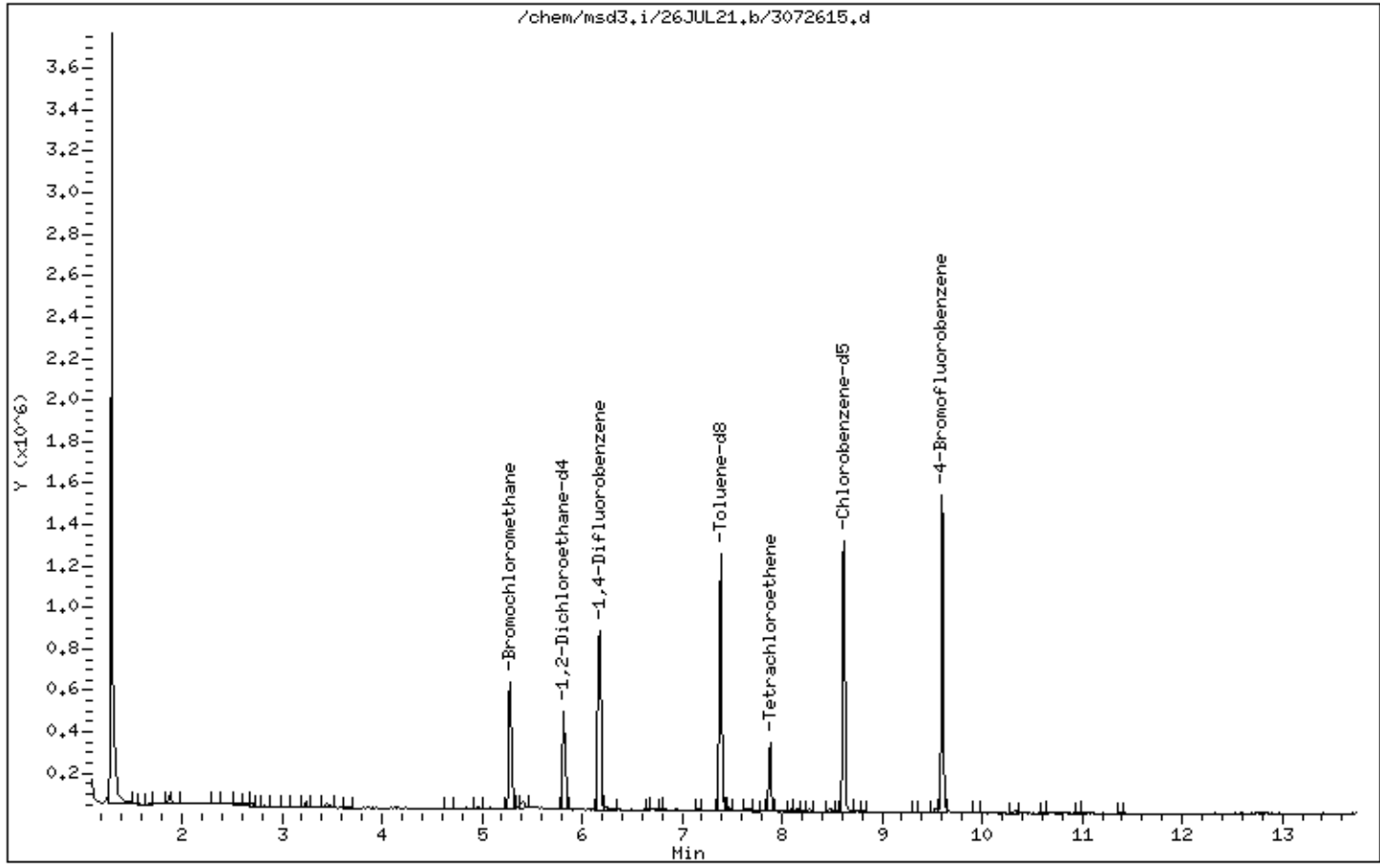
Instrument: msd3,i

Sample Info: 200mL 1L1747

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 18:11

Client ID:

Instrument: msd3,i

Sample Info: 200mL 1L1747

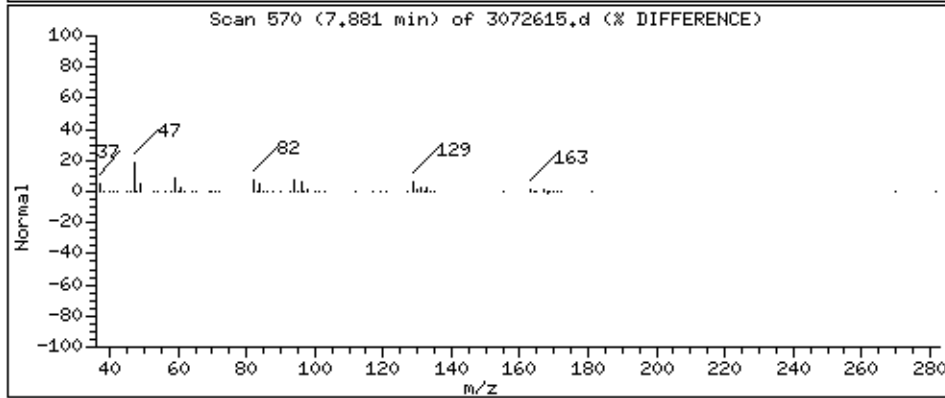
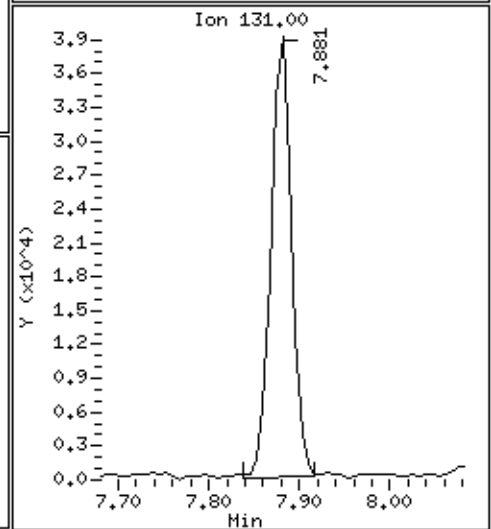
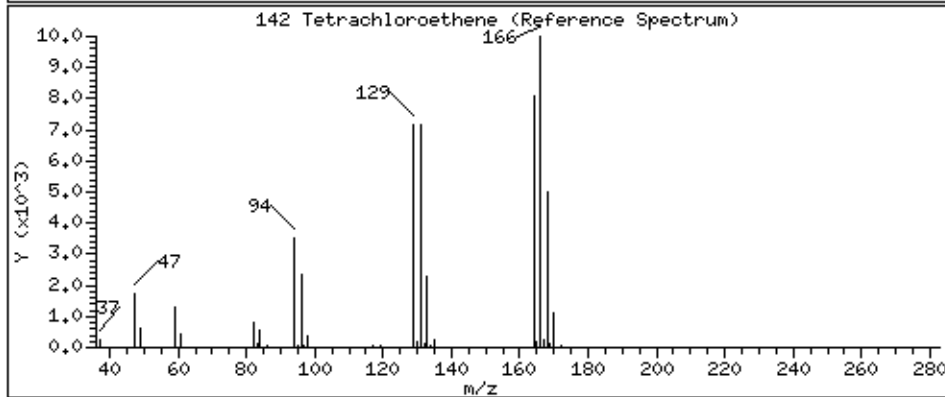
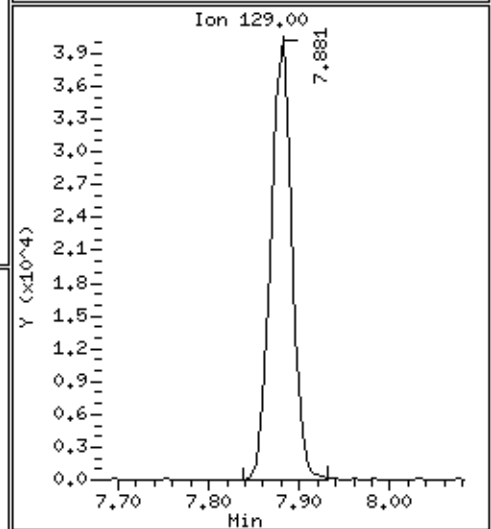
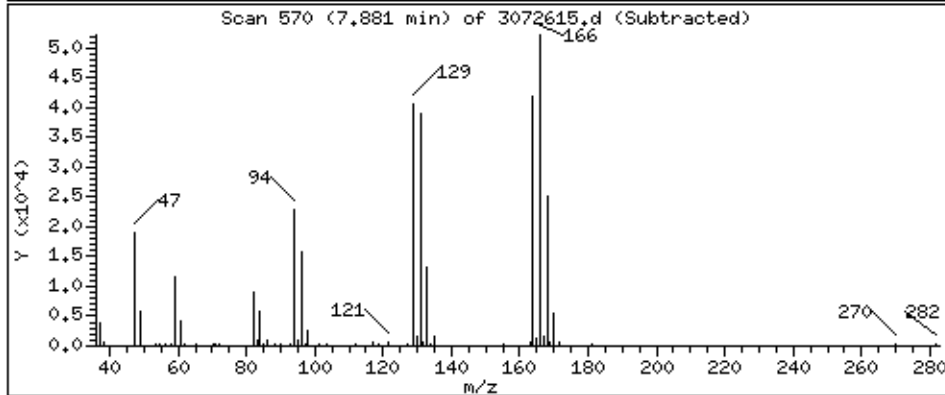
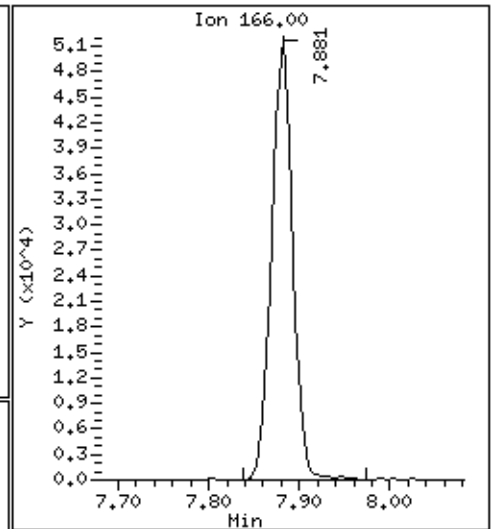
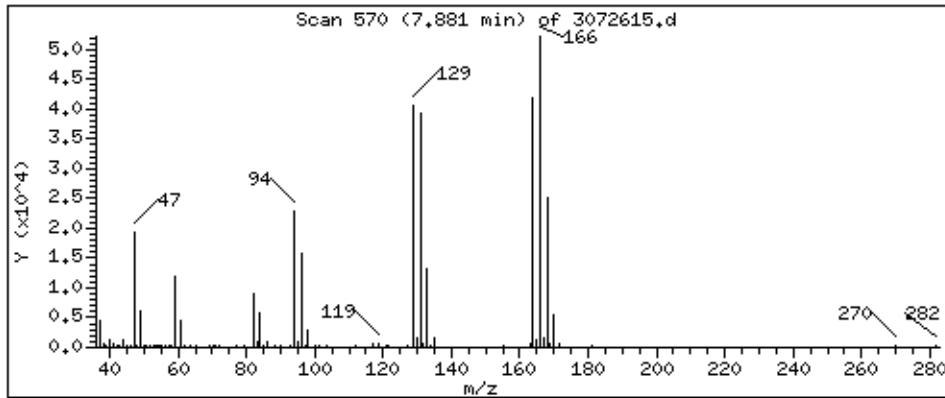
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 19,153 PPBV



Client Sample ID: SG-VW38A-03

Lab ID#: 2107284-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072616	Date of Collection:	7/14/21 10:24:00 AM
Dil. Factor:	2.32	Date of Analysis:	7/26/21 06:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.6	Not Detected	32	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.6	Not Detected	28	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2-Dibromo-3-chloropropane	4.6	Not Detected	45	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
2-Hexanone	4.6	Not Detected	19	Not Detected
2-Propanol	4.6	4.7	11	11
3-Chloropropene	4.6	Not Detected	14	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Acetone	12	13	28	31
Acrolein	4.6	Not Detected	11	Not Detected
Acrylonitrile	4.6	Not Detected	10	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected





Air Toxics

Client Sample ID: SG-VW38A-03

Lab ID#: 2107284-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072616	Date of Collection:	7/14/21 10:24:00 AM
Dil. Factor:	2.32	Date of Analysis:	7/26/21 06:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
Dibromomethane	4.6	Not Detected	33	Not Detected
Ethanol	12	Not Detected	22	Not Detected
Ethyl Acetate	4.6	Not Detected	17	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
Ethyl-tert-butyl ether	4.6	Not Detected	19	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Freon 134a	4.6	Not Detected	19	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
Hexachloroethane	4.6	Not Detected	45	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Iodomethane	12	Not Detected	67	Not Detected
Isopropyl ether	4.6	Not Detected	19	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	17	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Naphthalene	2.3	Not Detected	12	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
Propylene	4.6	Not Detected	8.0	Not Detected
Styrene	1.2	Not Detected	4.9	Not Detected
tert-Amyl methyl ether	4.6	Not Detected	19	Not Detected
tert-Butyl alcohol	4.6	Not Detected	14	Not Detected
Tetrachloroethene	1.2	18	7.9	120
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	470	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
Vinyl Bromide	4.6	Not Detected	20	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW38A-03**
**Lab ID#: 2107284-08A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072616</b>	<b>Date of Collection: 7/14/21 10:24:00 AM</b>
<b>Dil. Factor:</b>	<b>2.32</b>	<b>Date of Analysis: 7/26/21 06:40 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	94	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072616.d  
Lab Smp Id: 2107284-08A  
Inj Date : 26-JUL-2021 18:40  
Operator : LD  
Smp Info : 200mL 3009  
Misc Info : 8.4 Hg->9.9 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 8  
Dil Factor: 2.32000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5									
5.270	5.284	(1.000)	130	302092	25.0000	80.00- 120.00	100.00		
5.270	5.284	(1.000)	128	235512		48.46- 108.46	77.96		
5.270	5.284	(1.000)	49	423571		120.39- 180.39	140.21		
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.166	6.166	(1.000)	114	992557	25.0000	80.00- 120.00	100.00		
6.166	6.166	(1.000)	88	146149		0.00- 45.52	14.72		
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
8.612	8.612	(1.000)	117	885330	25.0000	80.00- 120.00	100.00		
8.612	8.612	(1.000)	82	466915		25.46- 85.46	52.74		
-----									
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
5.816	5.816	(1.104)	65	398934	23.9968	23.997 80.00- 120.00	100.00		
5.816	5.816	(1.104)	67	193241		21.66- 81.66	48.44		
-----									
\$ 134 Toluene-d8 CAS #: 2037-26-5									
7.380	7.387	(1.197)	98	981582	24.0103	24.010 80.00- 120.00	100.00		
7.380	7.387	(1.197)	70	110363		0.00- 41.47	11.24		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.380	7.387	(1.197)	100	641357			36.47- 96.47	65.34
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	551469	23.5495	23.550	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	620047			93.06- 153.06	112.44
9.601	9.601	(1.115)	176	511197			62.87- 122.87	92.70
-----								
47 Acetone								
						CAS #: 67-64-1		
3.242	3.214	(0.615)	58	28430	5.61255	13.021	80.00- 120.00	100.00
3.242	3.214	(0.615)	43	98938			299.66- 359.66	348.00
-----								
52 2-Propanol								
						CAS #: 67-63-0		
3.451	3.395	(0.655)	45	36717	2.01551	4.676	80.00- 120.00	100.00
3.451	3.395	(0.655)	43	8186			0.00- 48.61	22.29
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.874	7.881	(0.914)	166	108319	7.80975	18.119	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	83127			48.71- 108.71	76.74
7.874	7.881	(0.914)	131	79731			46.55- 106.55	73.61
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 26-JUL-2021
Lab File ID: 3072616.d	Calibration Time: 10:10
Lab Smp Id: 2107284-08A	
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m	
Misc Info: 8.4 Hg->9.9 psi	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	302092	14.44
108 1,4-Difluorobenze	833448	500069	1166827	992557	19.09
153 Chlorobenzene-d5	741338	444803	1037873	885330	19.42

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.27	-0.26
108 1,4-Difluorobenze	6.17	5.84	6.50	6.17	0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-08A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 8.4 Hg->9.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	23.997	95.99	70-130
\$ 134 Toluene-d8	25.000	24.010	96.04	70-130
\$ 170 4-Bromofluorobenz	25.000	23.550	94.20	70-130

Date : 26-JUL-2021 18:40

Client ID:

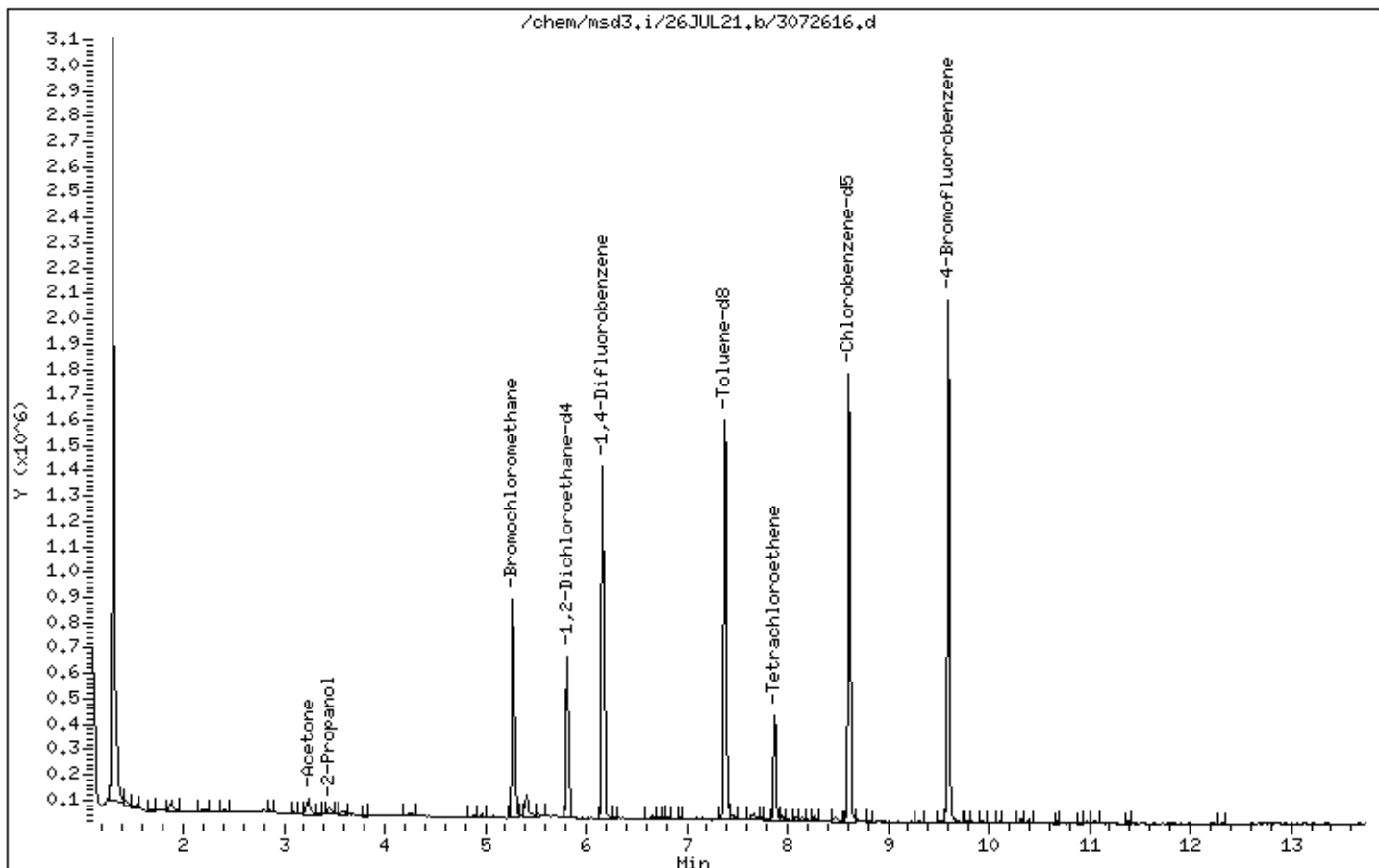
Instrument: msd3,i

Sample Info: 200mL 3009

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 18:40

Client ID:

Instrument: msd3,i

Sample Info: 200mL 3009

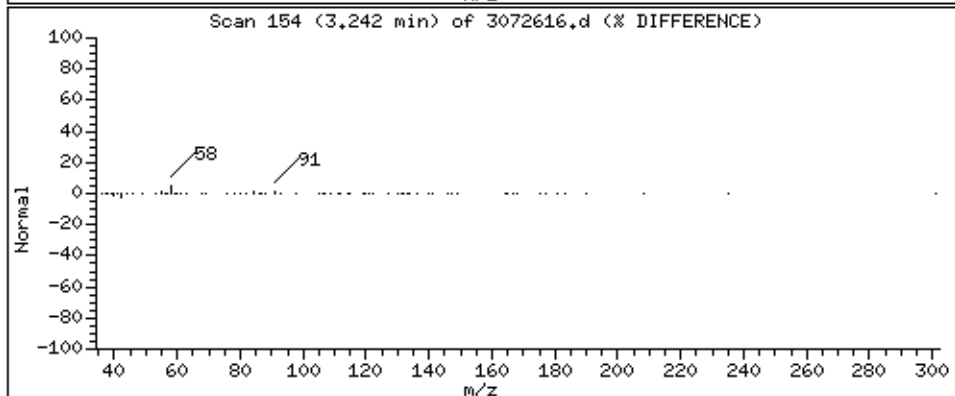
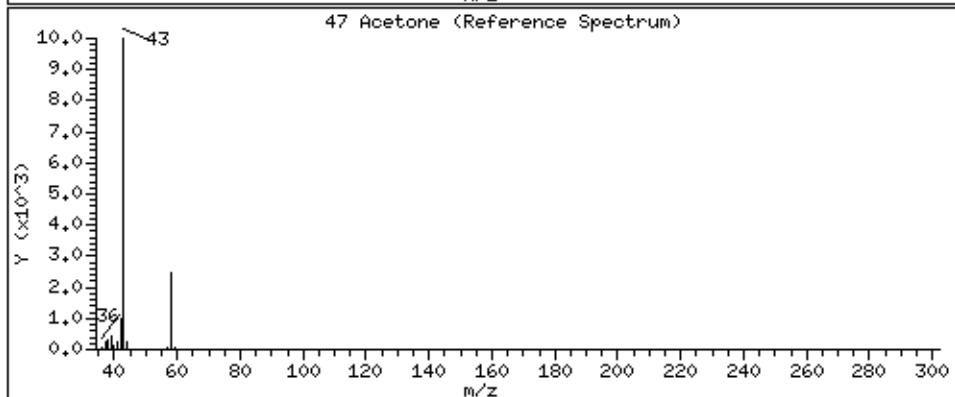
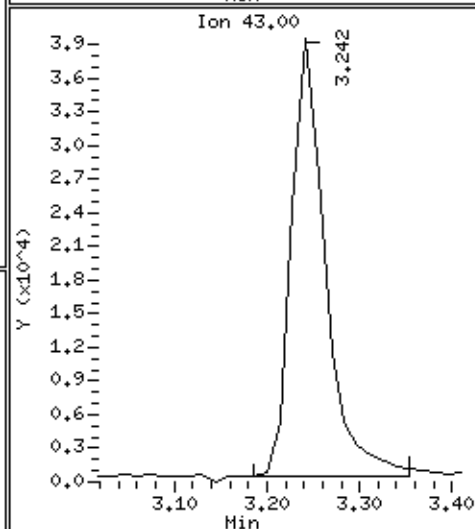
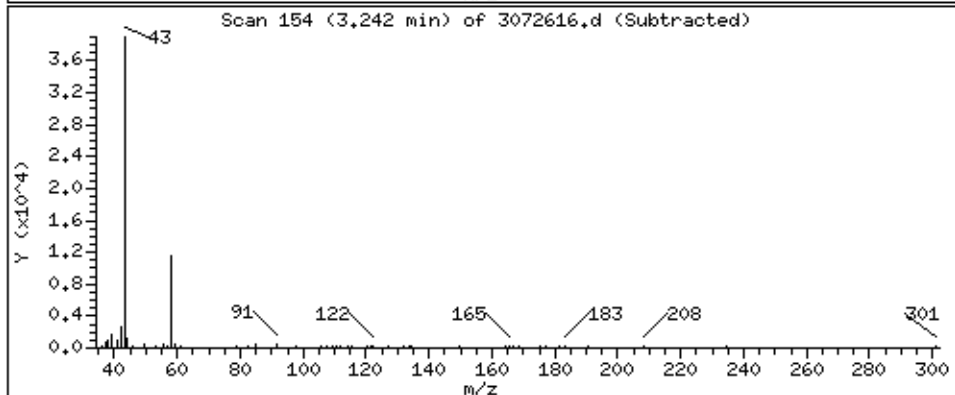
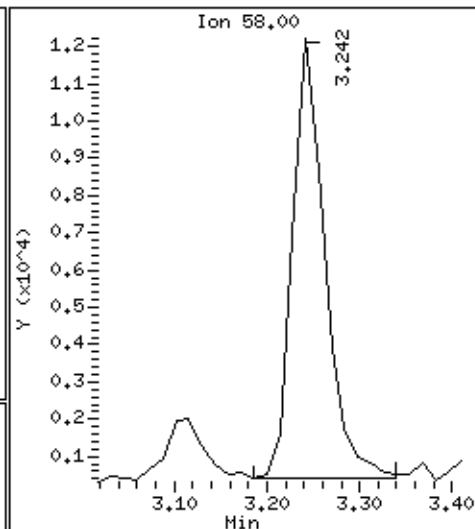
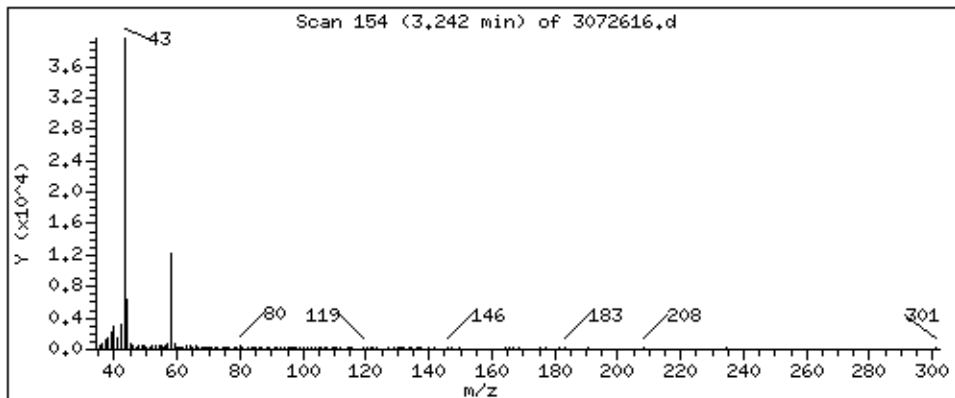
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 13,021 PPBV





Date : 26-JUL-2021 18:40

Client ID:

Instrument: msd3,i

Sample Info: 200mL 3009

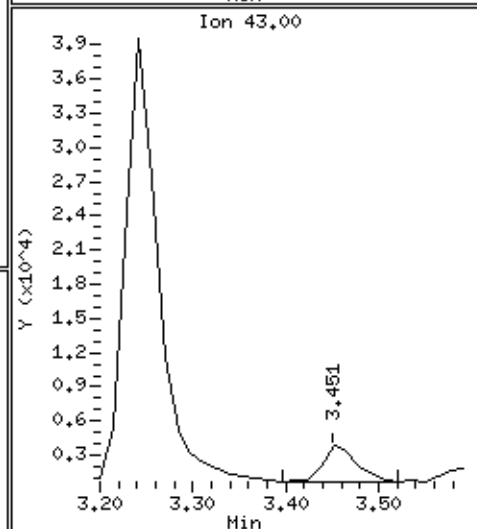
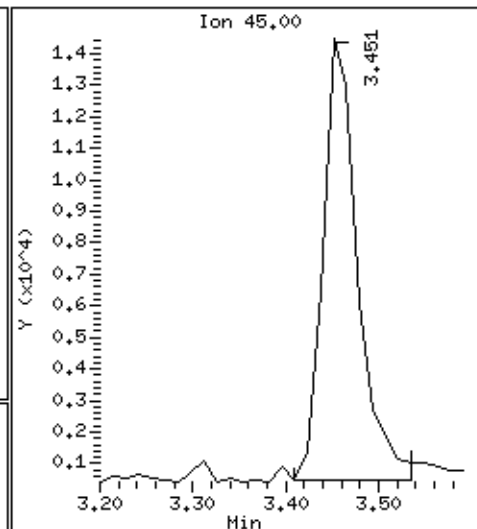
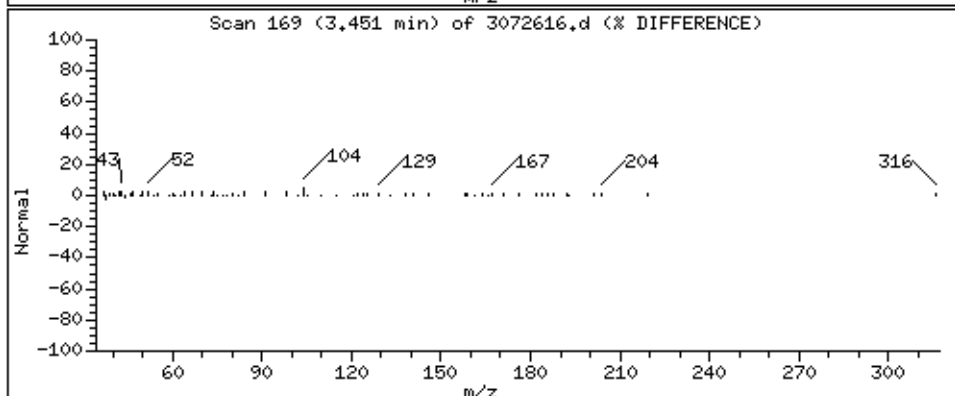
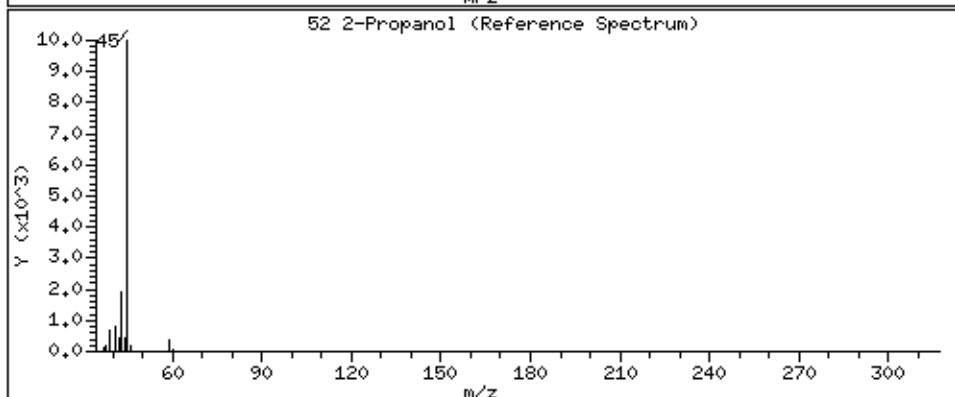
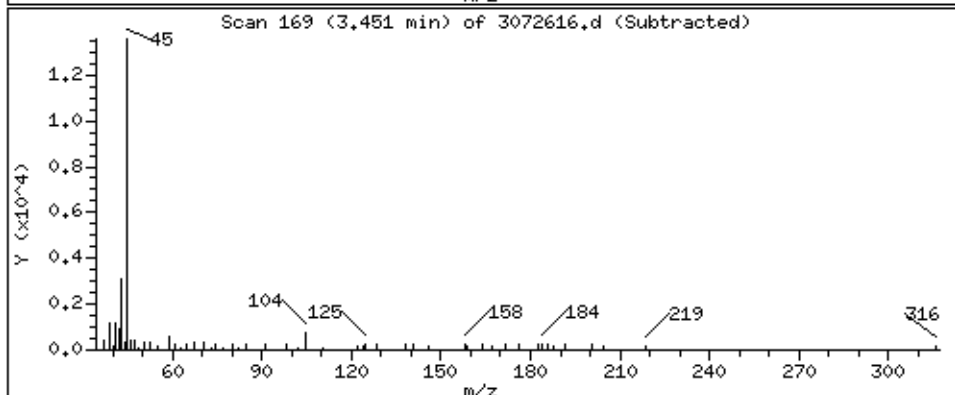
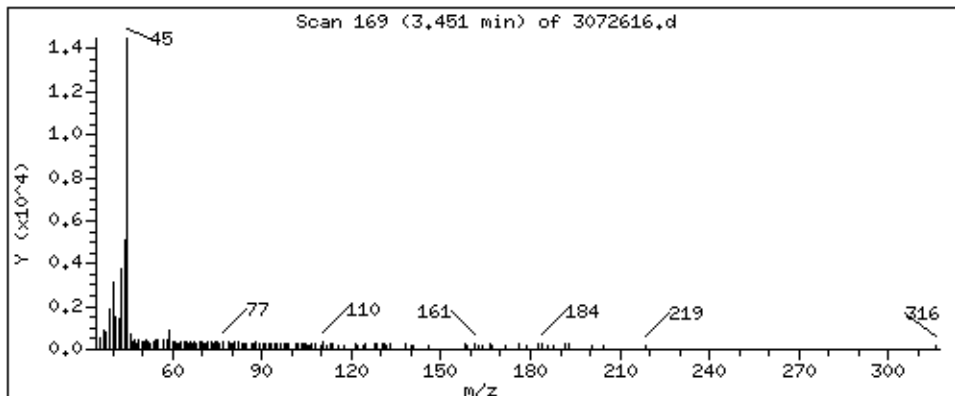
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 4.676 PPBV



Date : 26-JUL-2021 18:40

Client ID:

Instrument: msd3,i

Sample Info: 200mL 3009

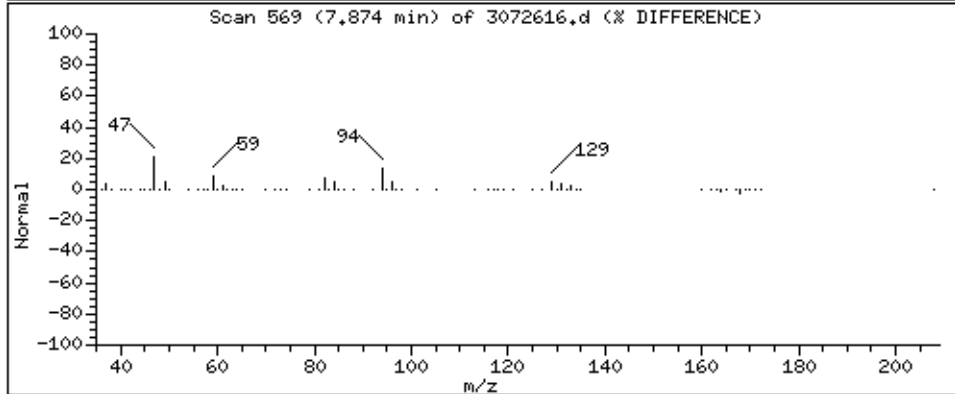
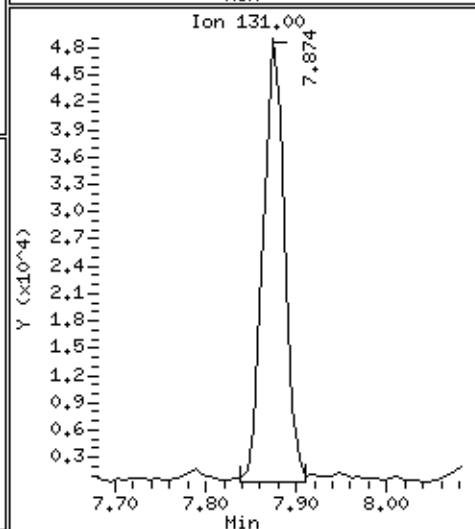
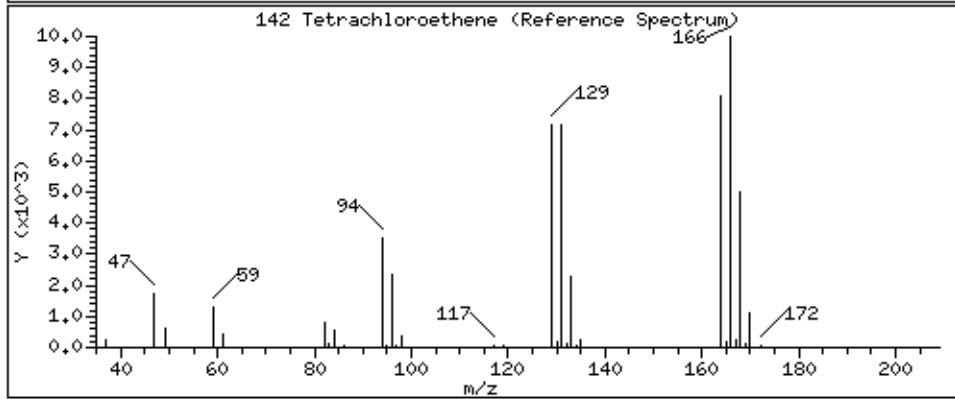
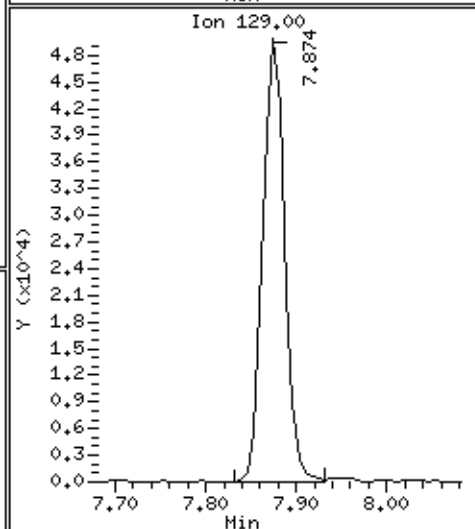
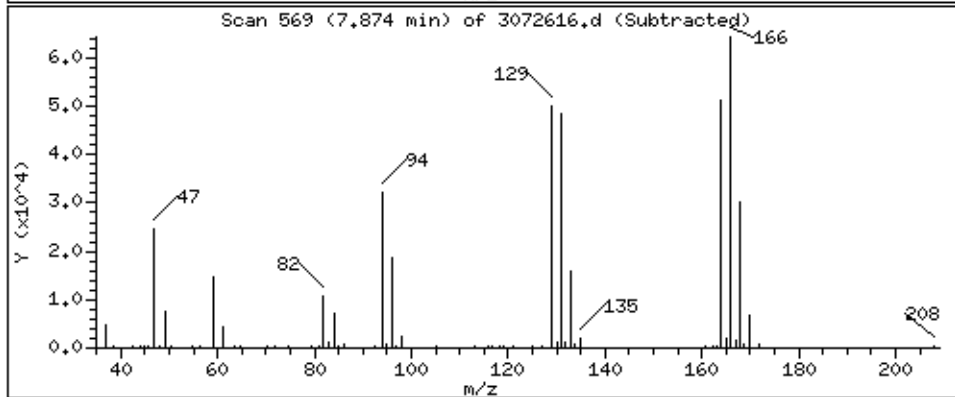
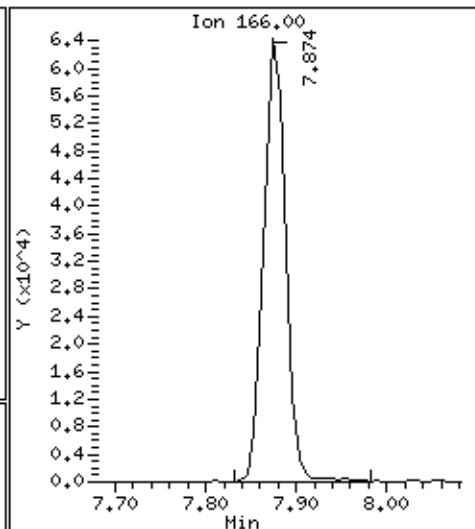
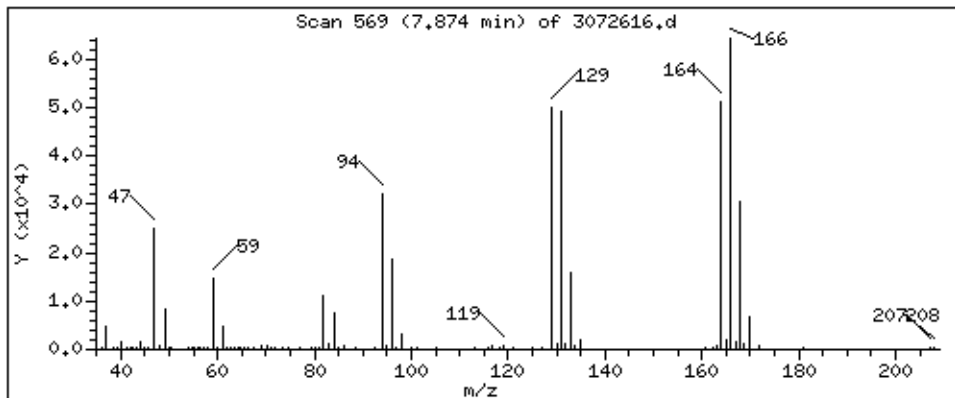
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 18,119 PPBV



Client Sample ID: SG-VW15-02

Lab ID#: 2107284-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072617	Date of Collection:	7/14/21 11:34:00 AM
Dil. Factor:	2.36	Date of Analysis:	7/26/21 07:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.7	Not Detected	32	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
1,1-Difluoroethane	4.7	Not Detected	13	Not Detected
1,2,3-Trichloropropane	4.7	Not Detected	28	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2-Dibromo-3-chloropropane	4.7	Not Detected	46	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected
2-Propanol	4.7	Not Detected	12	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Acetone	12	14	28	33
Acrolein	4.7	Not Detected	11	Not Detected
Acrylonitrile	4.7	Not Detected	10	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected



Air Toxics

Client Sample ID: SG-VW15-02

Lab ID#: 2107284-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072617	Date of Collection:	7/14/21 11:34:00 AM
Dil. Factor:	2.36	Date of Analysis:	7/26/21 07:09 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
Cumene	1.2	Not Detected	5.8	Not Detected
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
Dibromomethane	4.7	Not Detected	34	Not Detected
Ethanol	12	Not Detected	22	Not Detected
Ethyl Acetate	4.7	Not Detected	17	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
Ethyl-tert-butyl ether	4.7	Not Detected	20	Not Detected
Freon 11	1.2	Not Detected	6.6	Not Detected
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Freon 134a	4.7	Not Detected	20	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
Hexachloroethane	4.7	Not Detected	46	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
Iodomethane	12	Not Detected	68	Not Detected
Isopropyl ether	4.7	Not Detected	20	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Naphthalene	2.4	Not Detected	12	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
Propylene	4.7	Not Detected	8.1	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
tert-Amyl methyl ether	4.7	Not Detected	20	Not Detected
tert-Butyl alcohol	4.7	Not Detected	14	Not Detected
Tetrachloroethene	1.2	Not Detected	8.0	Not Detected
Tetrahydrofuran	1.2	3.2	3.5	9.6
Toluene	1.2	Not Detected	4.4	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	480	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
Vinyl Acetate	4.7	Not Detected	17	Not Detected
Vinyl Bromide	4.7	Not Detected	21	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW15-02

Lab ID#: 2107284-09A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072617	Date of Collection: 7/14/21 11:34:00 AM
Dil. Factor:	2.36	Date of Analysis: 7/26/21 07:09 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	97	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072617.d  
 Lab Smp Id: 2107284-09A  
 Inj Date : 26-JUL-2021 19:09  
 Operator : LD  
 Smp Info : 200mL 1L1812  
 Misc Info : 9 Hg->9.6 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
 Meth Date : 28-Jul-2021 12:16 uexa  
 Cal Date : 23-JUN-2021 00:09  
 Als bottle: 9  
 Dil Factor: 2.36000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msd3.i  
 Quant Type: ISTD  
 Cal File: 3062223.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.285	5.284	(1.000)	130	273053	25.0000		80.00- 120.00	100.00
5.285	5.284	(1.000)	128	213816			48.46- 108.46	78.31
5.285	5.284	(1.000)	49	387328			120.39- 180.39	141.85
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.180	6.166	(1.000)	114	868301	25.0000		80.00- 120.00	100.00
6.166	6.166	(1.000)	88	125335			0.00- 45.52	14.43
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.612	8.612	(1.000)	117	767029	25.0000		80.00- 120.00	100.00
8.612	8.612	(1.000)	82	407716			25.46- 85.46	53.16
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	362758	24.1414	24.141	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	176718			21.66- 81.66	48.72
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.195)	98	843834	23.5946	23.595	80.00- 120.00	100.00
7.387	7.387	(1.195)	70	97186			0.00- 41.47	11.52

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE		RATIO	
				( PPBV)	( PPBV)				
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
-----									
\$ 134 Toluene-d8 (continued)									
7.387	7.387	(1.195)	100	562790		36.47-	96.47	66.69	
-----									
\$ 170 4-Bromofluorobenzene									
					CAS #: 460-00-4				
9.601	9.601	(1.115)	174	490170	24.1603	24.160	80.00-	120.00	100.00
9.601	9.601	(1.115)	95	554901			93.06-	153.06	113.21
9.601	9.601	(1.115)	176	451532			62.87-	122.87	92.12
-----									
47 Acetone									
					CAS #: 67-64-1				
3.228	3.214	(0.611)	58	27180	5.93642	14.010	80.00-	120.00	100.00
3.228	3.214	(0.611)	43	94905			299.66-	359.66	349.17
-----									
89 Tetrahydrofuran									
					CAS #: 109-99-9				
5.285	5.270	(1.000)	42	14965	1.37441	3.244	80.00-	120.00	100.00
5.285	5.270	(1.000)	71	6547			2.92-	62.92	43.75
5.285	5.270	(1.000)	72	6266			3.54-	63.54	41.87
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072617.d  
 Lab Smp Id: 2107284-09A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 9 Hg->9.6 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	273053	3.44
108 1,4-Difluorobenze	833448	500069	1166827	868301	4.18
153 Chlorobenzene-d5	741338	444803	1037873	767029	3.47

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.



US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-09A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 9 Hg->9.6 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.141	96.57	70-130
\$ 134 Toluene-d8	25.000	23.595	94.38	70-130
\$ 170 4-Bromofluorobenz	25.000	24.160	96.64	70-130

Date : 26-JUL-2021 19:09

Client ID:

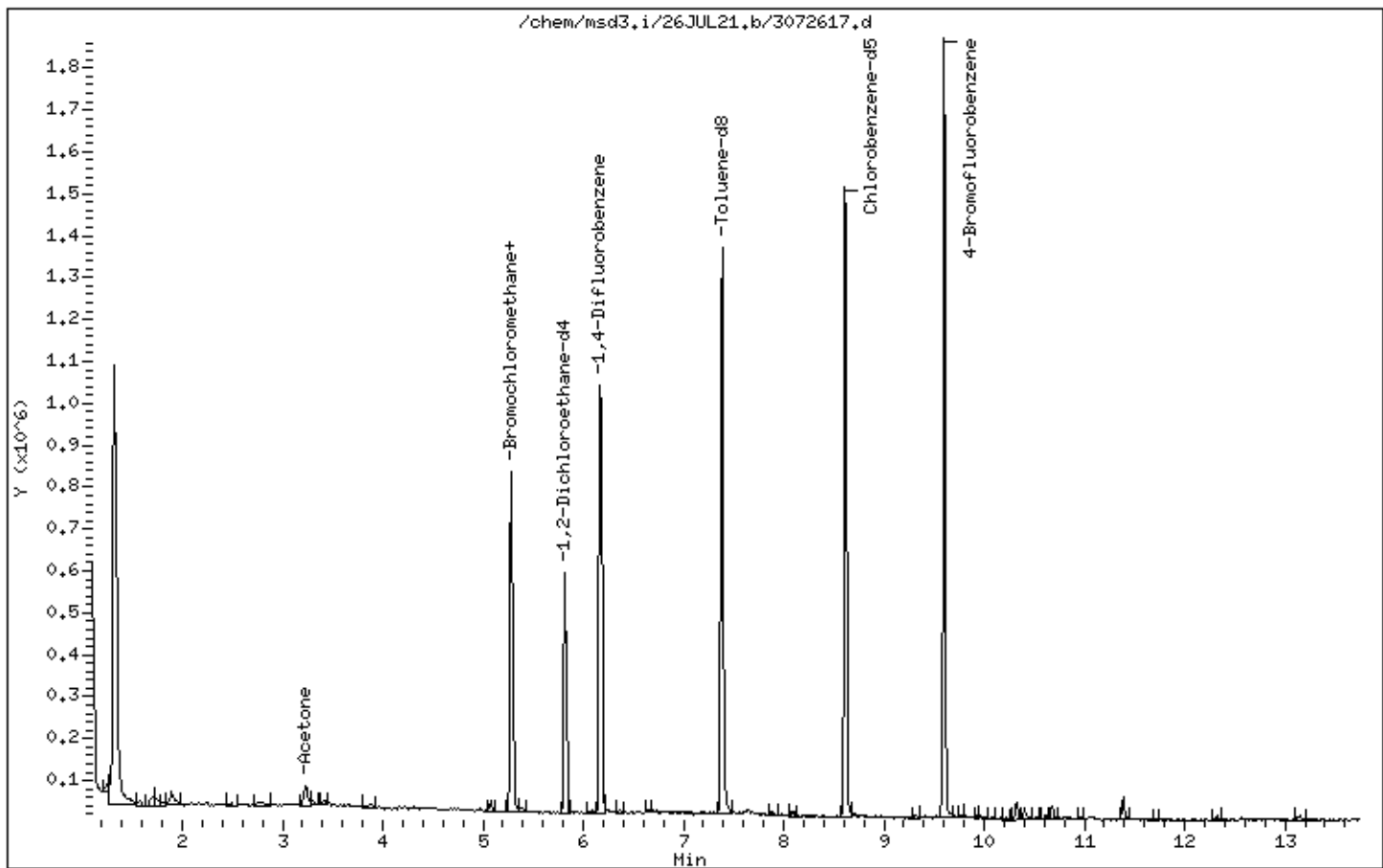
Instrument: msd3,i

Sample Info: 200mL 1L1812

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 19:09

Client ID:

Instrument: msd3,i

Sample Info: 200mL 1L1812

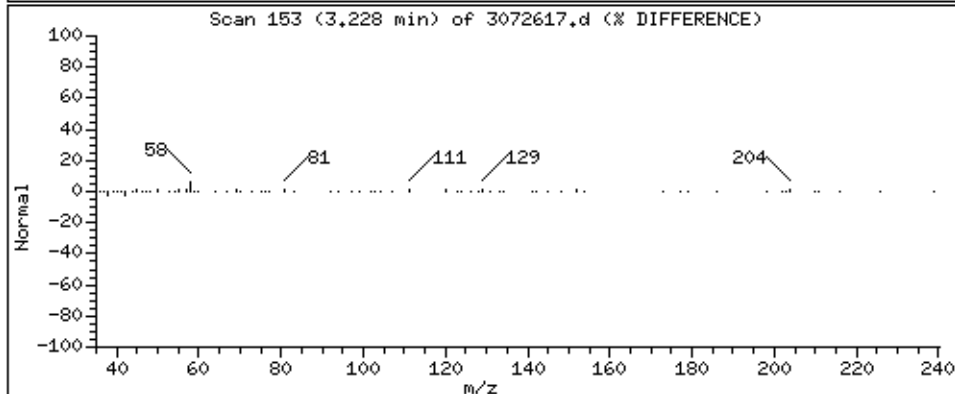
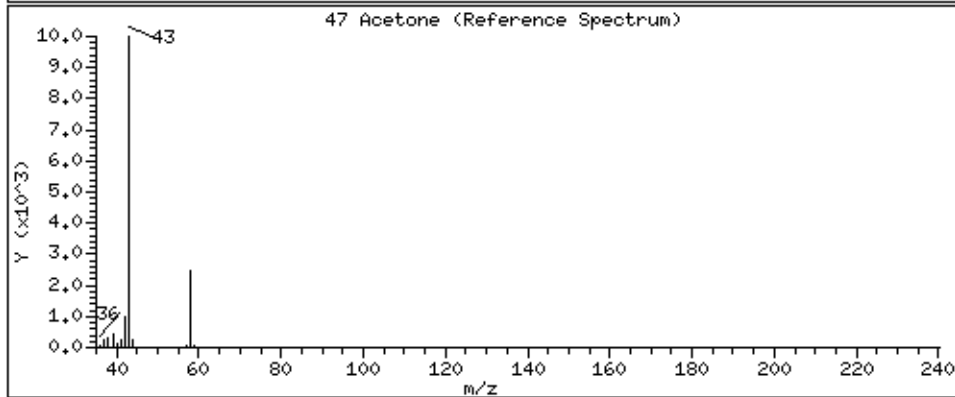
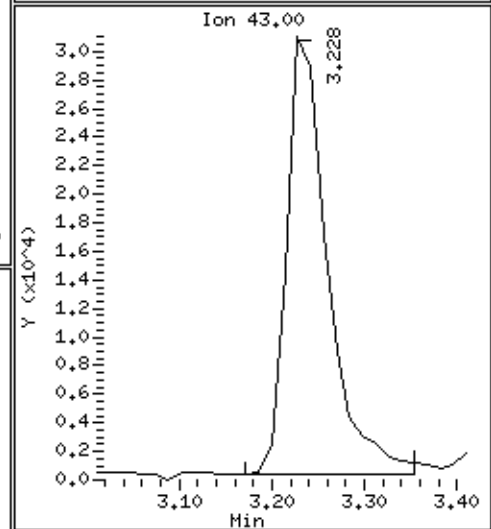
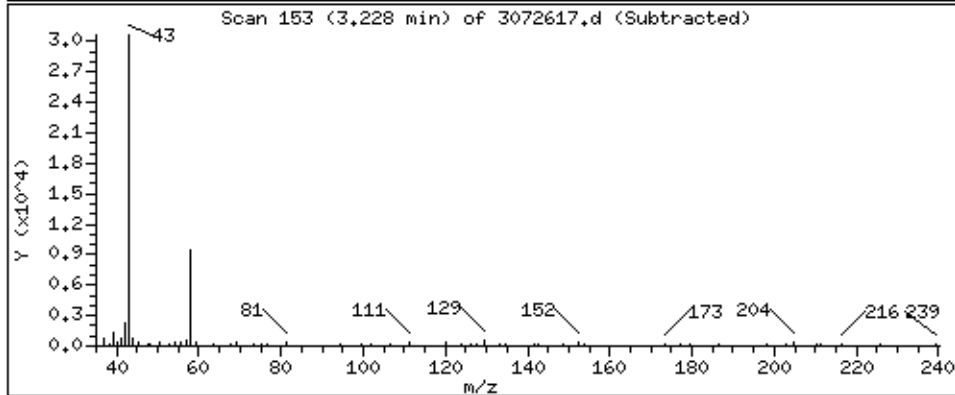
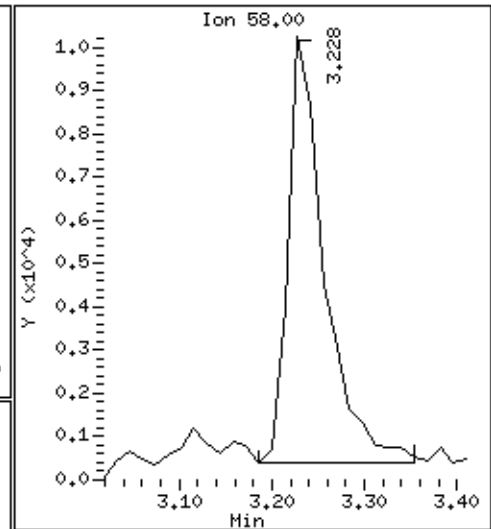
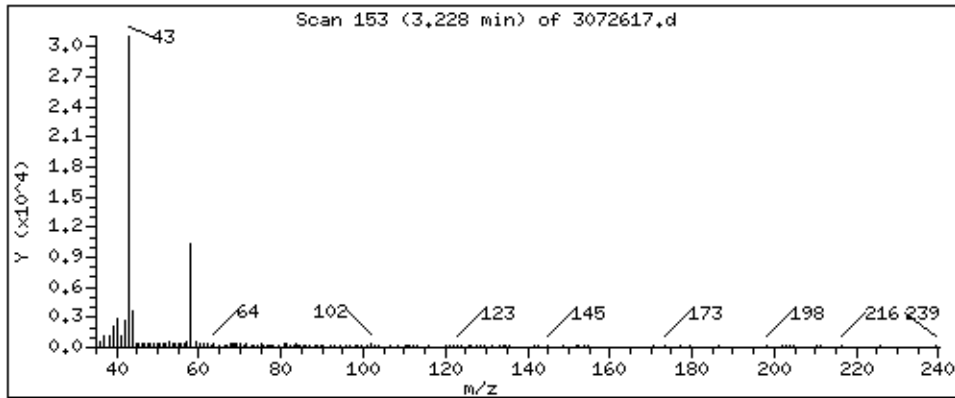
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 14,010 PPBV



Date : 26-JUL-2021 19:09

Client ID:

Instrument: msd3,i

Sample Info: 200mL 1L1812

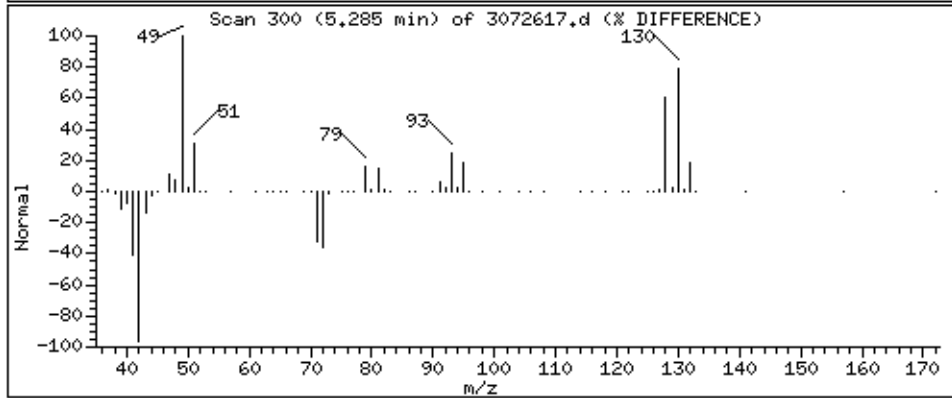
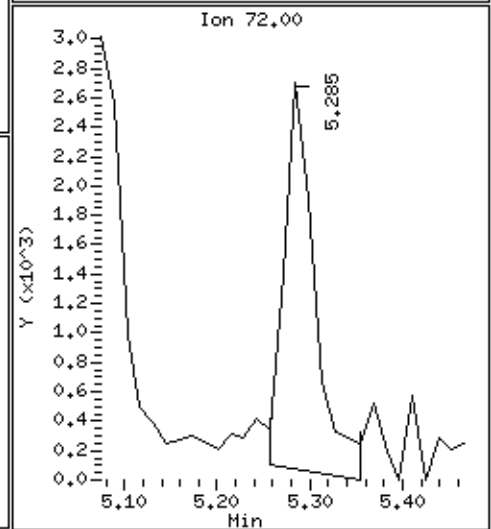
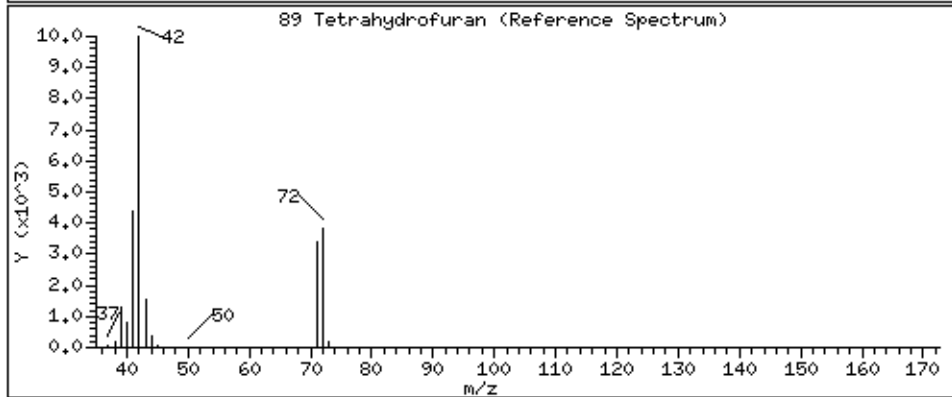
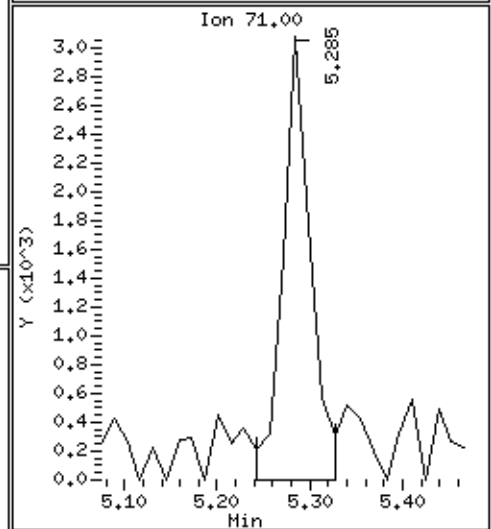
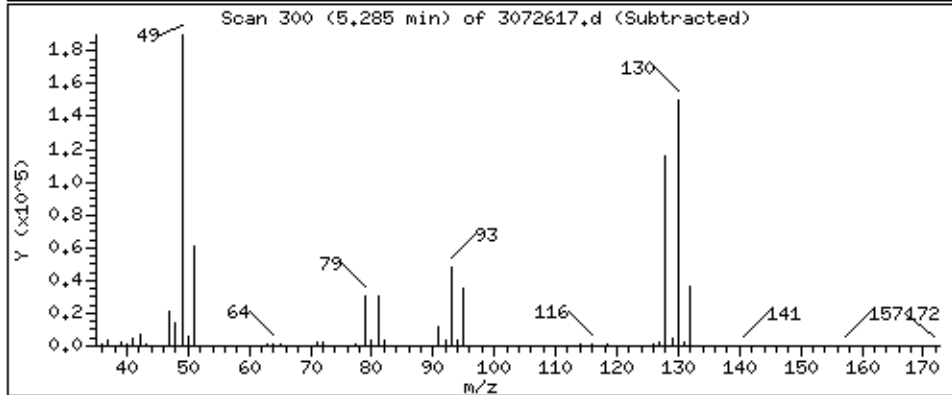
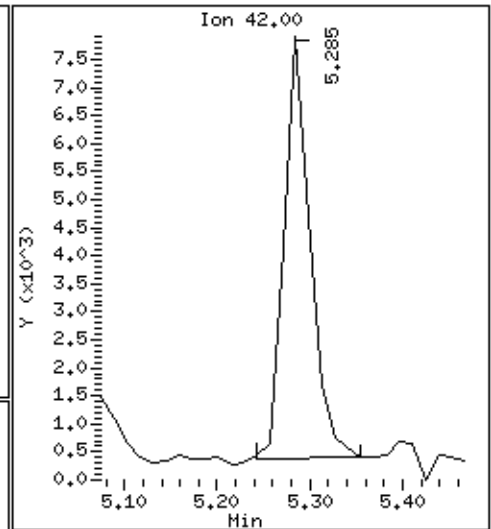
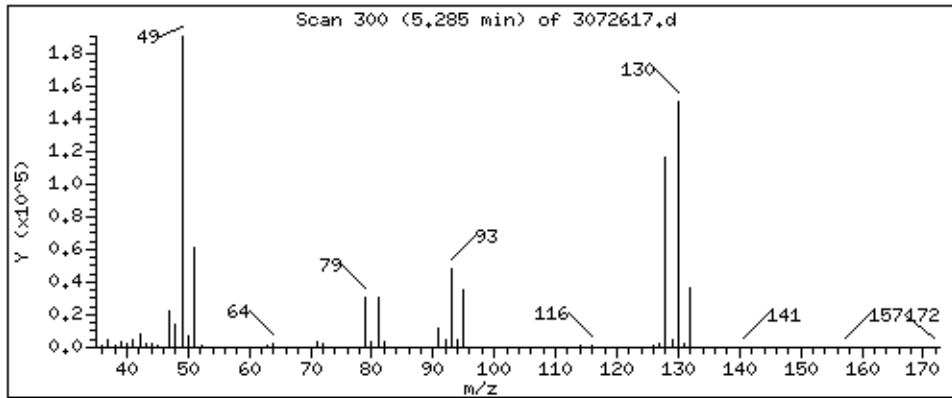
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

89 Tetrahydrofuran

Concentration: 3.244 PPBV





Air Toxics

Client Sample ID: SG-VW15-03

Lab ID#: 2107284-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072618	Date of Collection:	7/14/21 11:34:00 AM
Dil. Factor:	2.31	Date of Analysis:	7/26/21 10:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.6	Not Detected	32	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	7.9	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.6	Not Detected	28	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
1,2,4-Trimethylbenzene	1.2	10	5.7	50
1,2-Dibromo-3-chloropropane	4.6	Not Detected	45	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.3	Not Detected
1,3,5-Trimethylbenzene	1.2	2.0	5.7	9.7
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
2-Hexanone	4.6	Not Detected	19	Not Detected
2-Propanol	4.6	4.7	11	12
3-Chloropropene	4.6	Not Detected	14	Not Detected
4-Ethyltoluene	1.2	3.4	5.7	17
4-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
Acetone	12	18	27	42
Acrolein	4.6	Not Detected	10	Not Detected
Acrylonitrile	4.6	Not Detected	10	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Bromodichloromethane	1.2	Not Detected	7.7	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Carbon Disulfide	4.6	15	14	46
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Chloroform	1.2	Not Detected	5.6	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected



Air Toxics

Client Sample ID: SG-VW15-03

Lab ID#: 2107284-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072618	Date of Collection:	7/14/21 11:34:00 AM
Dil. Factor:	2.31	Date of Analysis:	7/26/21 10:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Dibromochloromethane	1.2	Not Detected	9.8	Not Detected
Dibromomethane	4.6	Not Detected	33	Not Detected
Ethanol	12	Not Detected	22	Not Detected
Ethyl Acetate	4.6	Not Detected	17	Not Detected
Ethyl Benzene	1.2	5.0	5.0	22
Ethyl-tert-butyl ether	4.6	Not Detected	19	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 113	1.2	Not Detected	8.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Freon 134a	4.6	Not Detected	19	Not Detected
Heptane	1.2	Not Detected	4.7	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
Hexachloroethane	4.6	Not Detected	45	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Iodomethane	12	Not Detected	67	Not Detected
Isopropyl ether	4.6	Not Detected	19	Not Detected
m,p-Xylene	1.2	3.2	5.0	14
Methyl tert-butyl ether	4.6	Not Detected	17	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Naphthalene	2.3	Not Detected	12	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Propylbenzene	1.2	2.2	5.7	11
Propylene	4.6	Not Detected	8.0	Not Detected
Styrene	1.2	Not Detected	4.9	Not Detected
tert-Amyl methyl ether	4.6	Not Detected	19	Not Detected
tert-Butyl alcohol	4.6	Not Detected	14	Not Detected
Tetrachloroethene	1.2	Not Detected	7.8	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	470	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
Vinyl Bromide	4.6	Not Detected	20	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW15-03

Lab ID#: 2107284-10A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072618	Date of Collection: 7/14/21 11:34:00 AM
Dil. Factor:	2.31	Date of Analysis: 7/26/21 10:27 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	94	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072618.d  
 Lab Smp Id: 2107284-10A  
 Inj Date : 26-JUL-2021 22:27  
 Operator : DF  
 Smp Info : 200mL N2667  
 Misc Info : 8.2 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
 Meth Date : 28-Jul-2021 12:16 uexa  
 Cal Date : 23-JUN-2021 00:09  
 Als bottle: 1  
 Dil Factor: 2.31000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msd3.i  
 Quant Type: ISTD  
 Cal File: 3062223.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	239694	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	190491			48.46- 108.46	79.47
5.284	5.284	(1.000)	49	346972			120.39- 180.39	144.76
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.180	6.166	(1.000)	114	811222	25.0000		80.00- 120.00	100.00
6.180	6.166	(1.000)	88	117158			0.00- 45.52	14.44
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.619	8.612	(1.000)	117	717699	25.0000		80.00- 120.00	100.00
8.612	8.612	(1.000)	82	376312			25.46- 85.46	52.43
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	326856	24.7795	24.779	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	157454			21.66- 81.66	48.17
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.195)	98	809581	24.2296	24.230	80.00- 120.00	100.00
7.387	7.387	(1.195)	70	91781			0.00- 41.47	11.34



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	532424			36.47- 96.47	65.77
-----								
§ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.114)	174	444317	23.4055	23.405	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	503832			93.06- 153.06	113.39
9.601	9.601	(1.114)	176	413156			62.87- 122.87	92.99
-----								
47 Acetone								
						CAS #: 67-64-1		
3.228	3.214	(0.611)	58	30456	7.57771	17.504	80.00- 120.00	100.00
3.228	3.214	(0.611)	43	106140			299.66- 359.66	348.50
-----								
48 Carbon Disulfide								
						CAS #: 75-15-0		
3.311	3.298	(0.627)	76	115312	6.37133	14.718	80.00- 120.00	100.00
-----								
52 2-Propanol								
						CAS #: 67-63-0		
3.423	3.395	(0.648)	45	29642	2.05073	4.737	80.00- 120.00	100.00
3.423	3.395	(0.648)	43	7586			0.00- 48.61	25.59
-----								
155 Ethyl Benzene								
						CAS #: 100-41-4		
8.684	8.684	(1.007)	106	21282	2.16974	5.012	80.00- 120.00	100.00
8.684	8.684	(1.007)	91	63212			282.48- 342.48	297.02
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
8.784	8.784	(1.019)	106	16711	1.36946	3.163	80.00- 120.00	100.00
8.784	8.784	(1.019)	91	34005			171.36- 231.36	203.49
-----								
178 Propylbenzene								
						CAS #: 103-65-1		
9.758	9.751	(1.132)	91	40910	0.95729	2.211	80.00- 120.00	100.00
9.758	9.751	(1.132)	120	10208			0.00- 53.77	24.95
9.758	9.751	(1.132)	105	1584			0.00- 33.81	3.87
-----								
183 4-Ethyltoluene								
						CAS #: 622-96-8		
9.830	9.851	(1.140)	120	16280	1.46967	3.395	80.00- 120.00	100.00
9.830	9.851	(1.140)	105	52167			296.79- 356.79	320.43
-----								
185 1,3,5-Trimethylbenzene								
						CAS #: 108-67-8		
9.901	9.901	(1.149)	120	13261	0.85232	1.969	80.00- 120.00	100.00
9.901	9.901	(1.149)	105	27230			176.40- 236.40	205.33
-----								
190 1,2,4-Trimethylbenzene								
						CAS #: 95-63-6		
10.224	10.224	(1.186)	105	136102	4.43622	10.248	80.00- 120.00	100.00
10.224	10.224	(1.186)	120	64084			16.58- 76.58	47.09
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072618.d  
 Lab Smp Id: 2107284-10A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: DF  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 8.2 Hg->10 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	239694	-9.20
108 1,4-Difluorobenze	833448	500069	1166827	811222	-2.67
153 Chlorobenzene-d5	741338	444803	1037873	717699	-3.19

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

Report Date: 28-Jul-2021 12:43

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-10A  
Level: LOW Operator: DF  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 8.2 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.779	99.12	70-130
\$ 134 Toluene-d8	25.000	24.230	96.92	70-130
\$ 170 4-Bromofluorobenz	25.000	23.405	93.62	70-130

Date : 26-JUL-2021 22:27

Client ID:

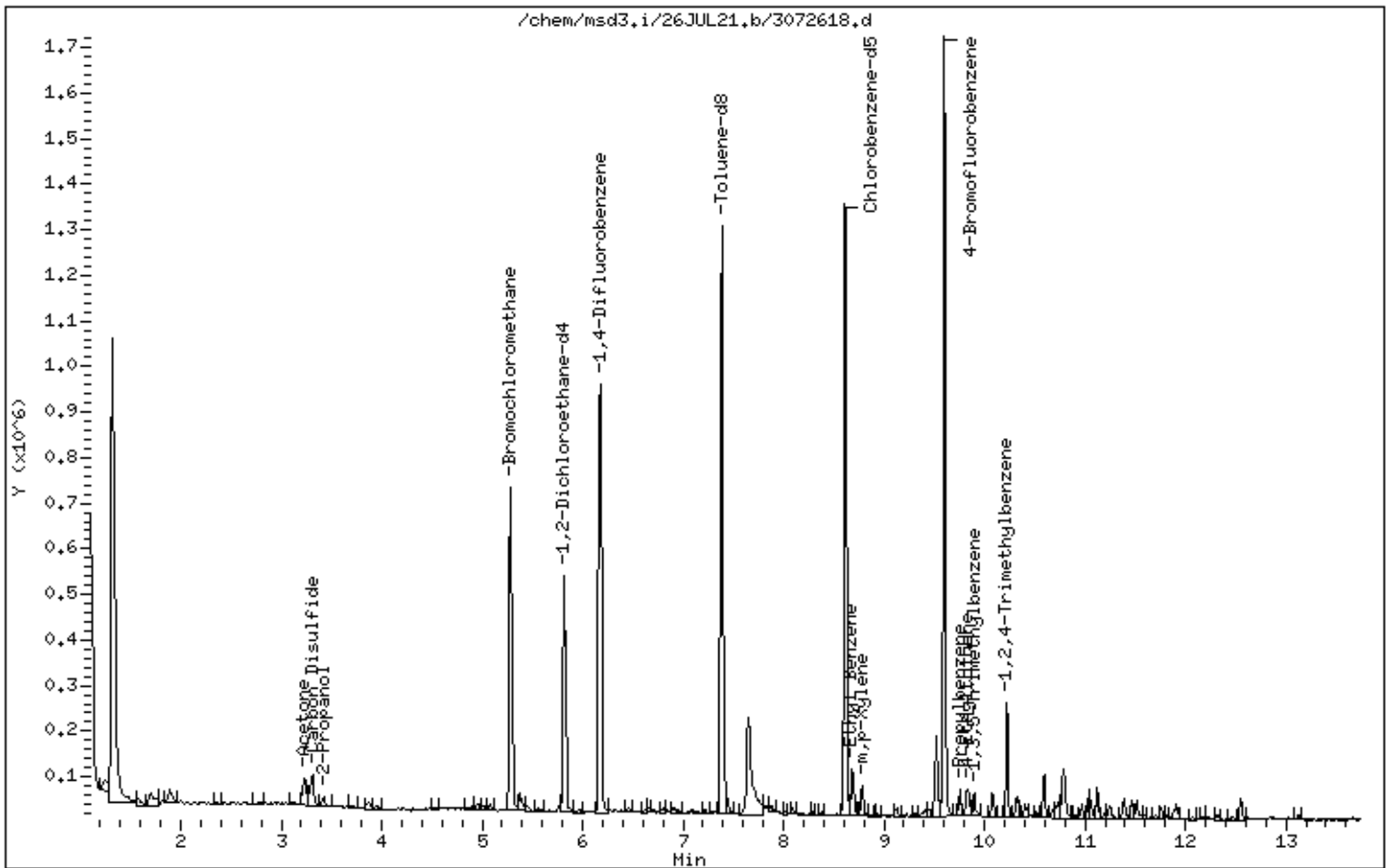
Instrument: msd3,i

Sample Info: 200mL N2667

Operator: DF

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 22:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2667

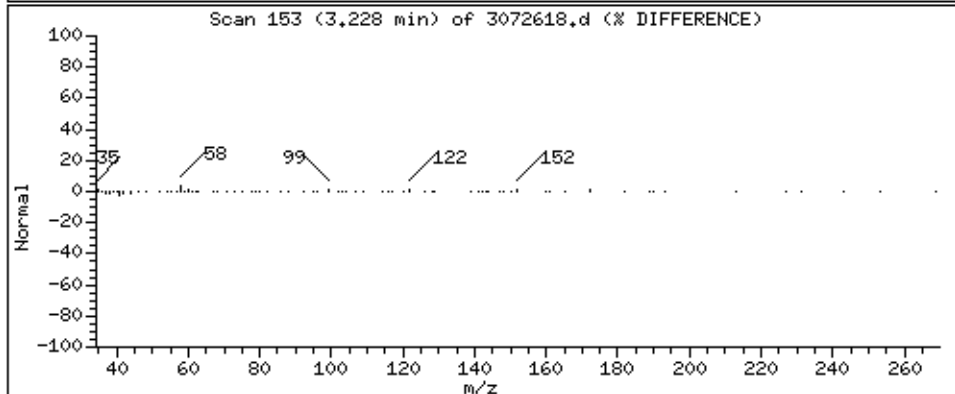
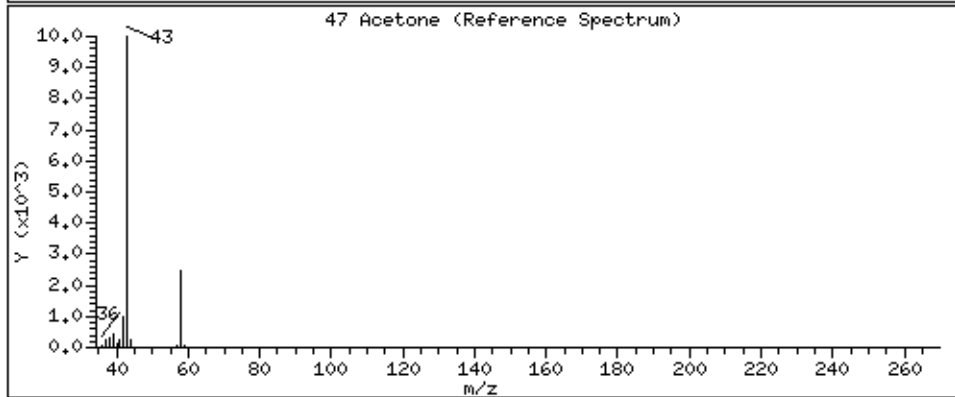
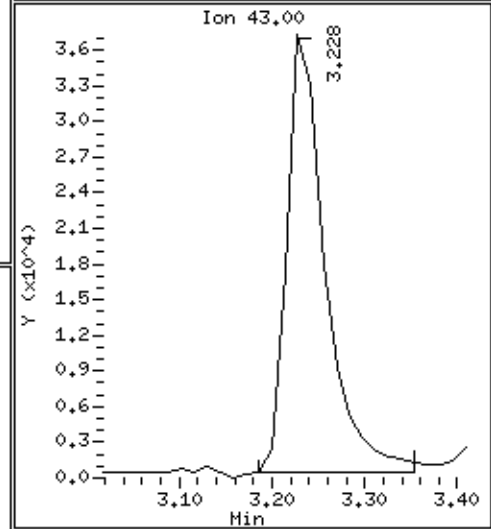
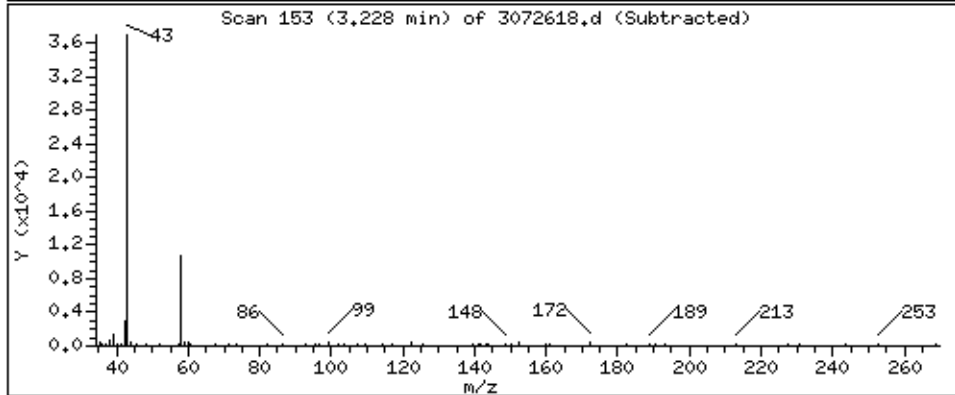
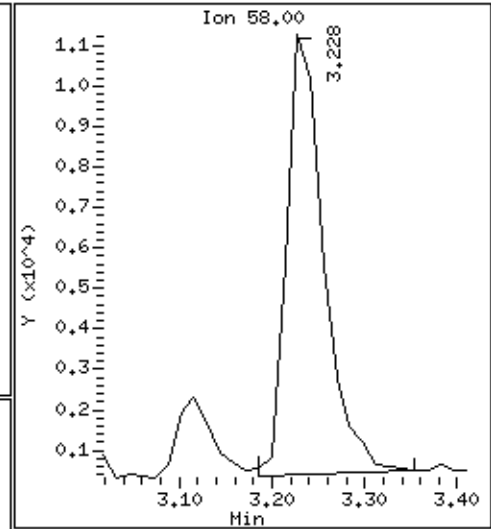
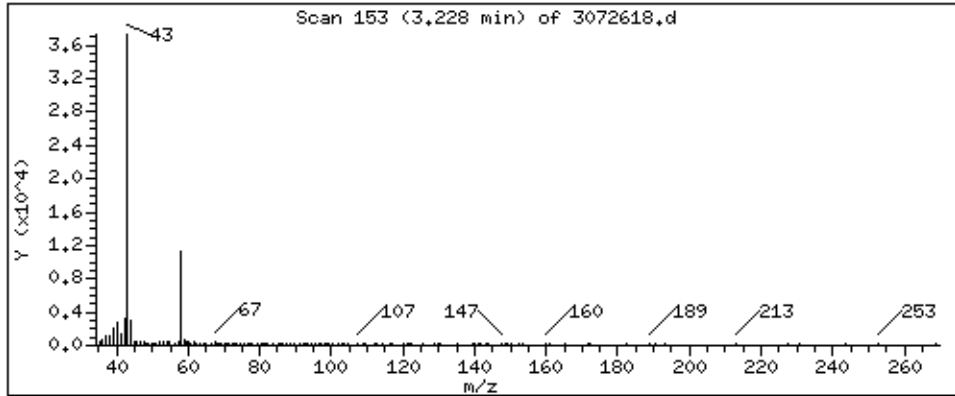
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 17,504 PPBV



Date : 26-JUL-2021 22:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2667

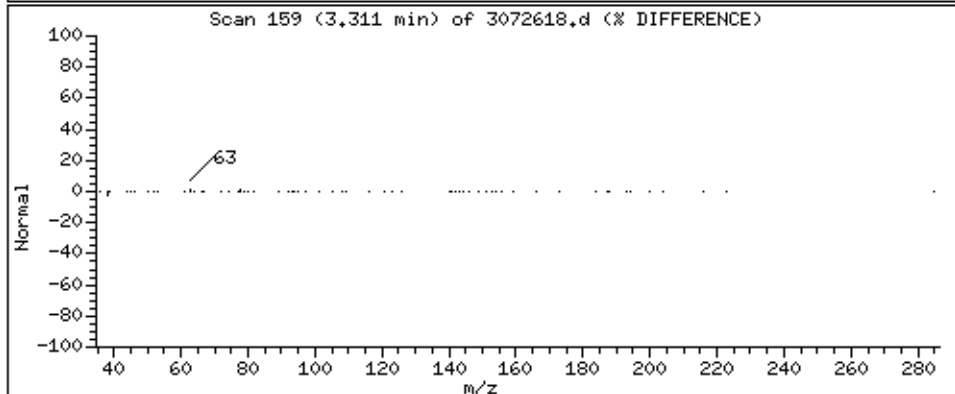
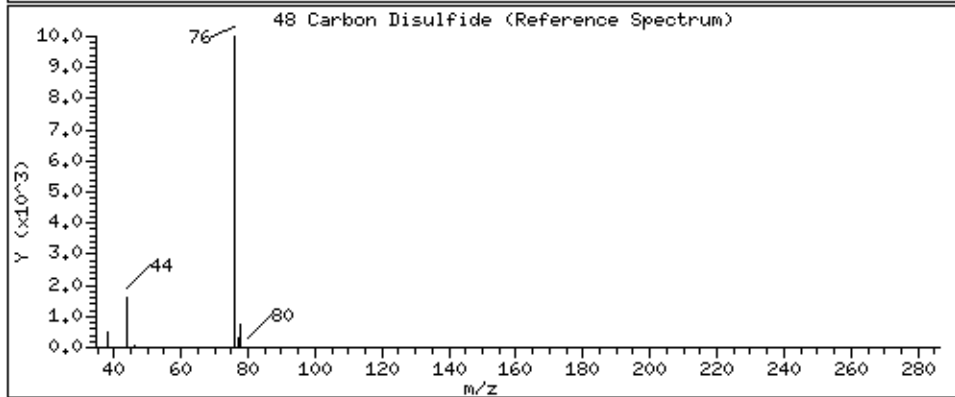
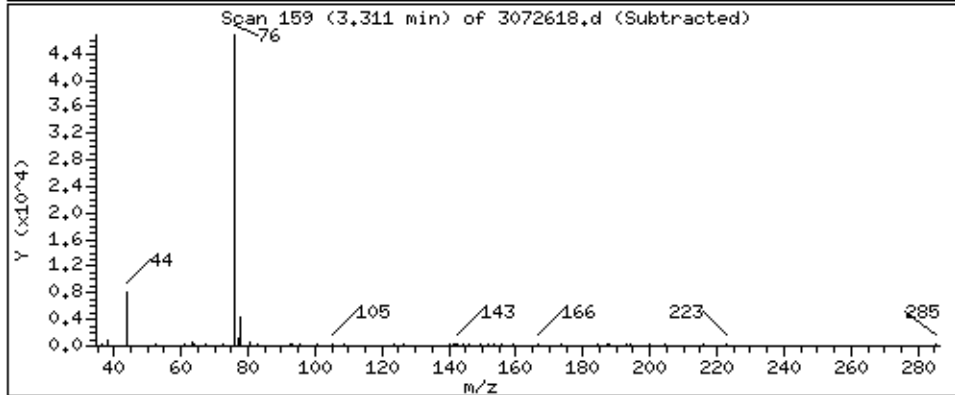
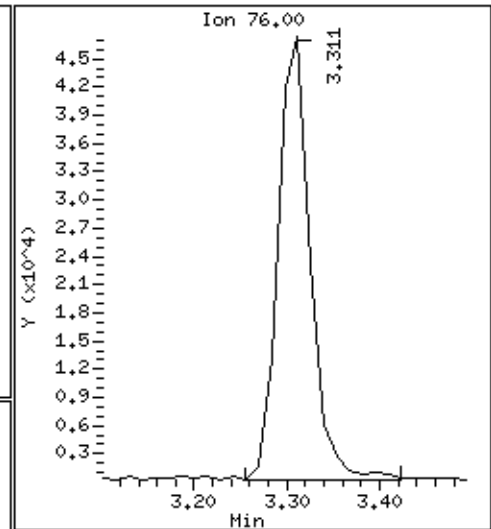
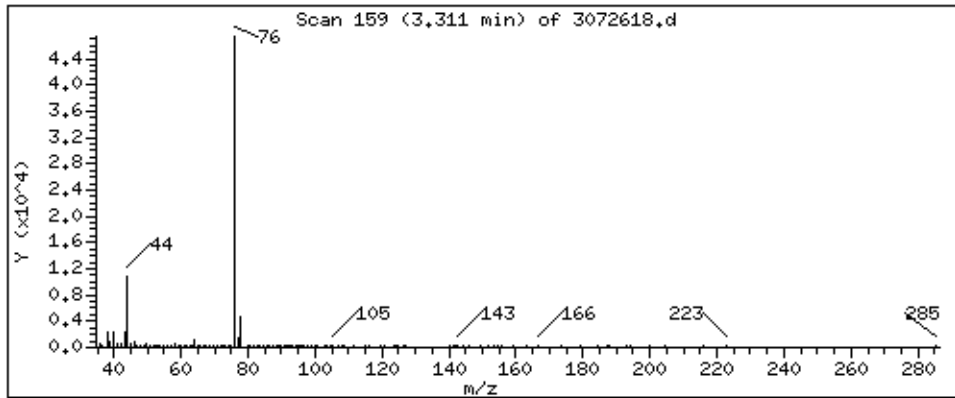
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

48 Carbon Disulfide

Concentration: 14,718 PPBV



Date : 26-JUL-2021 22:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2667

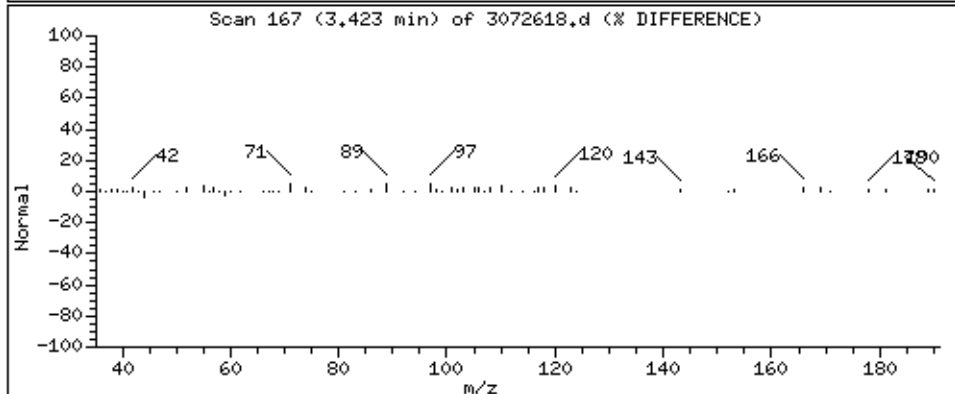
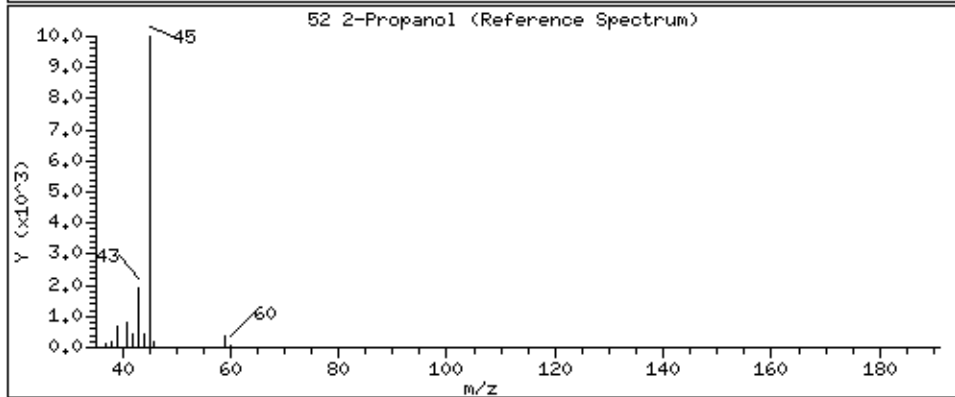
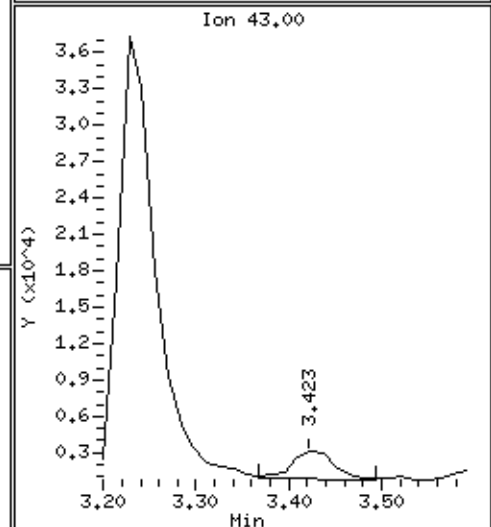
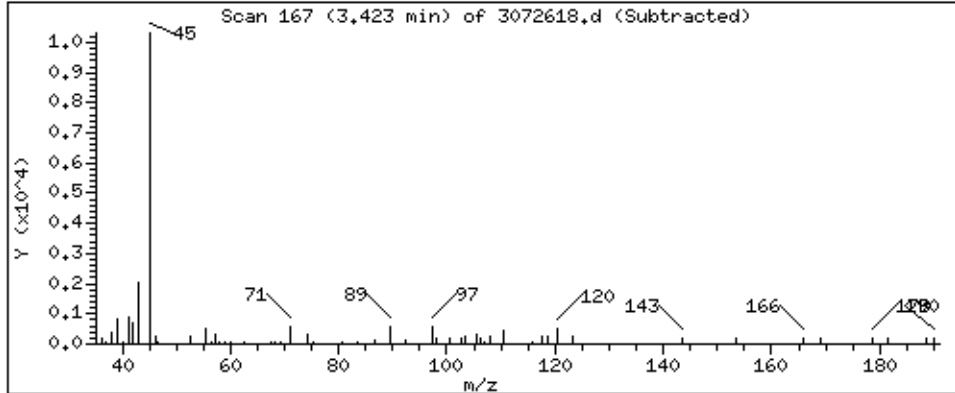
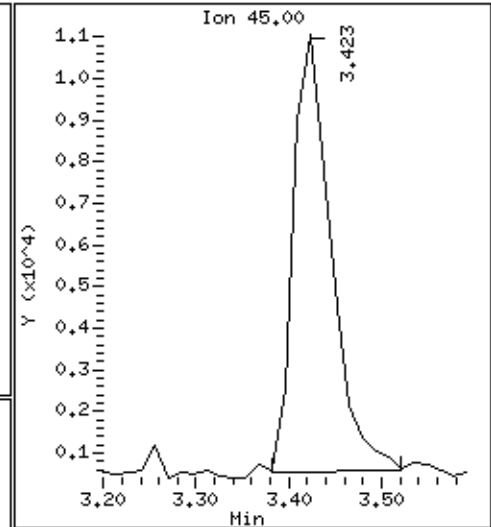
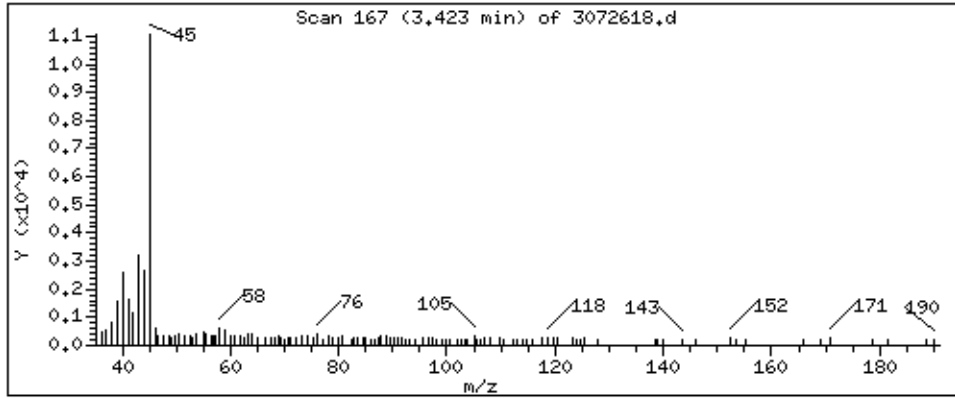
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 4.737 PPBV



Date : 26-JUL-2021 22:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2667

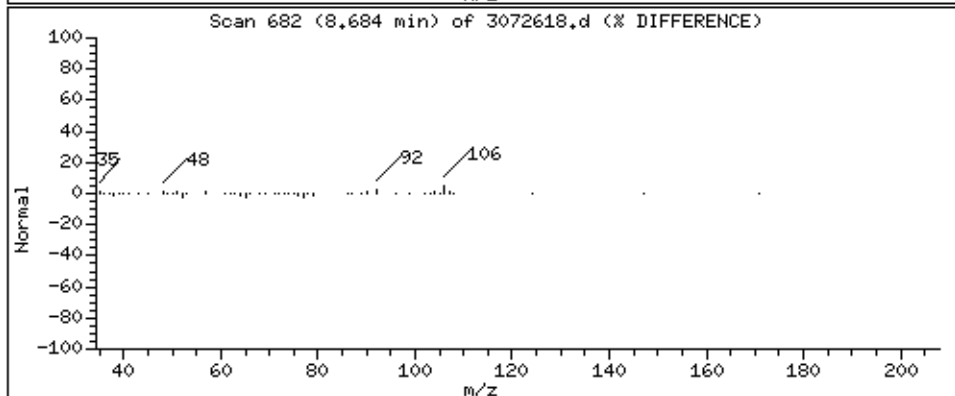
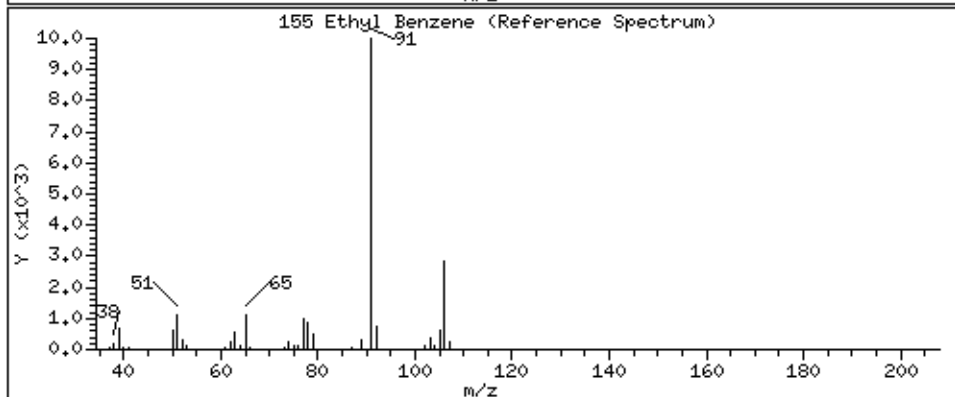
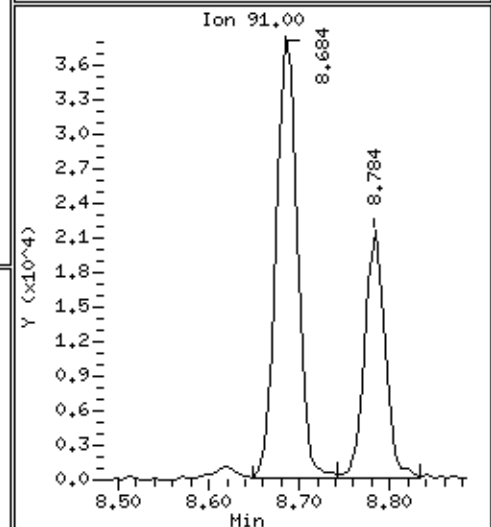
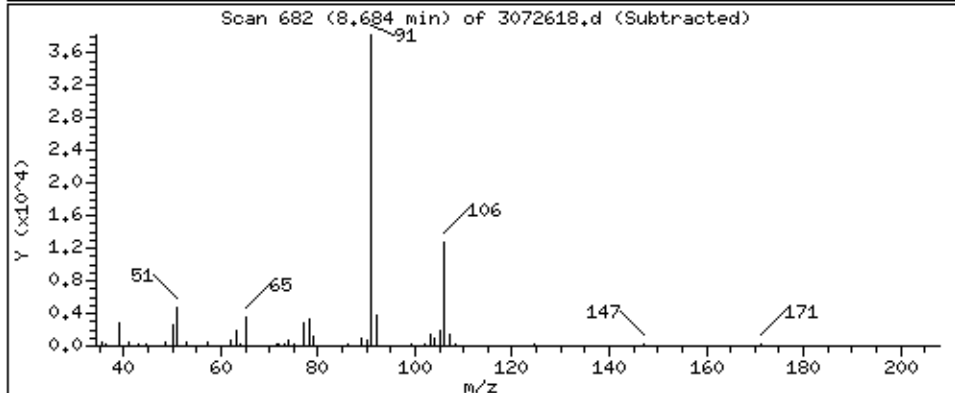
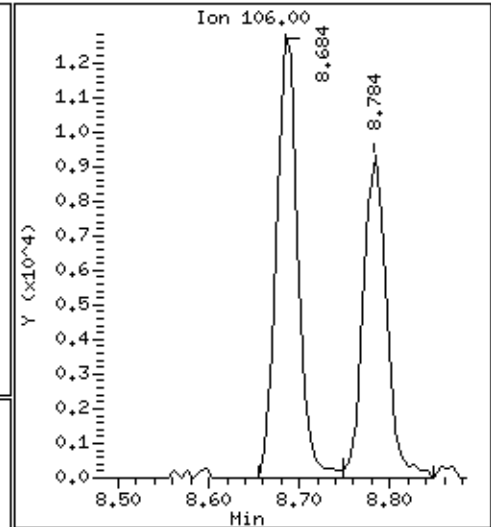
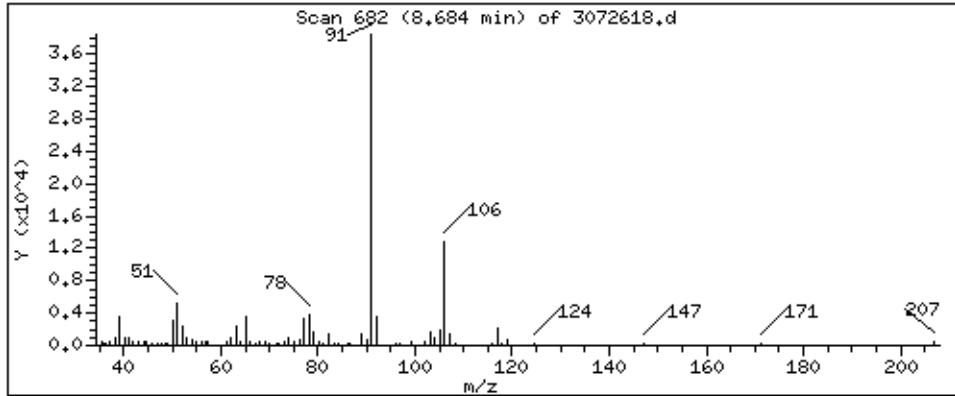
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 5.012 PPBV





Date : 26-JUL-2021 22:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2667

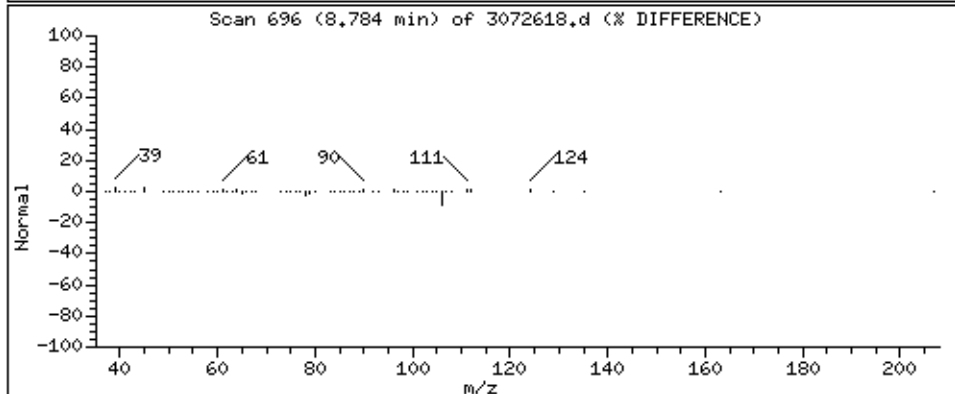
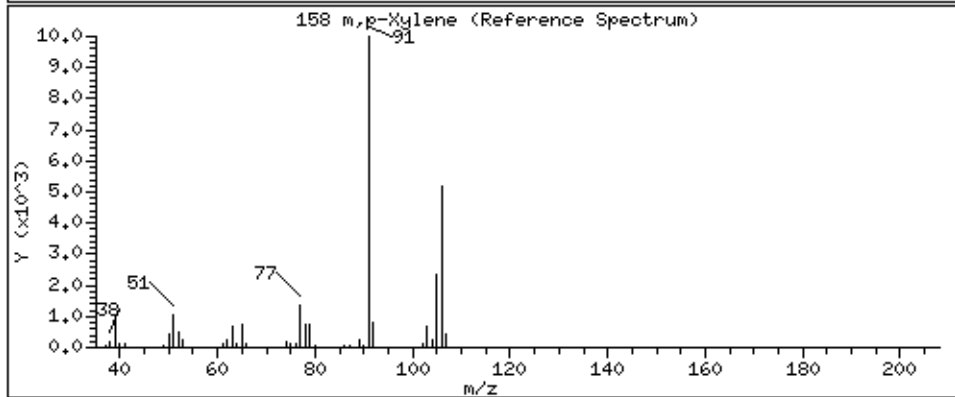
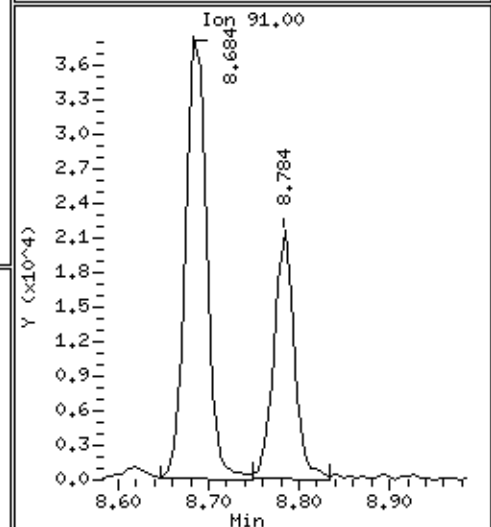
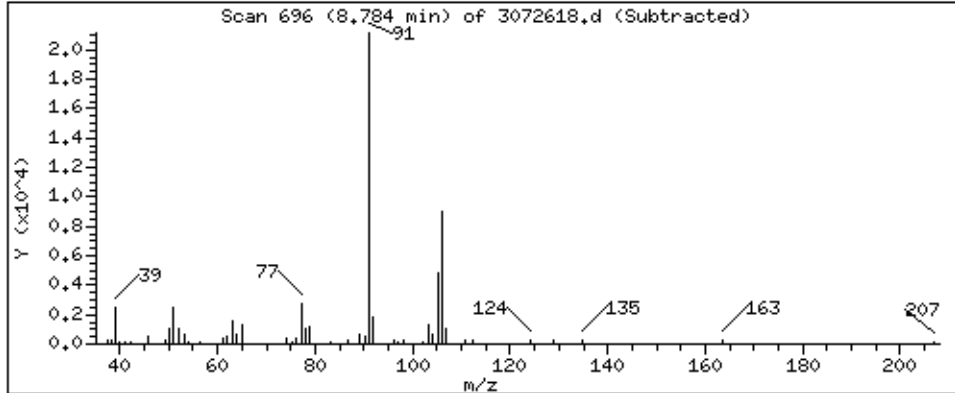
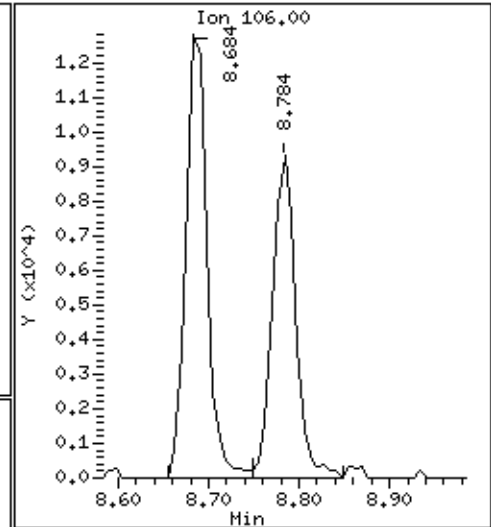
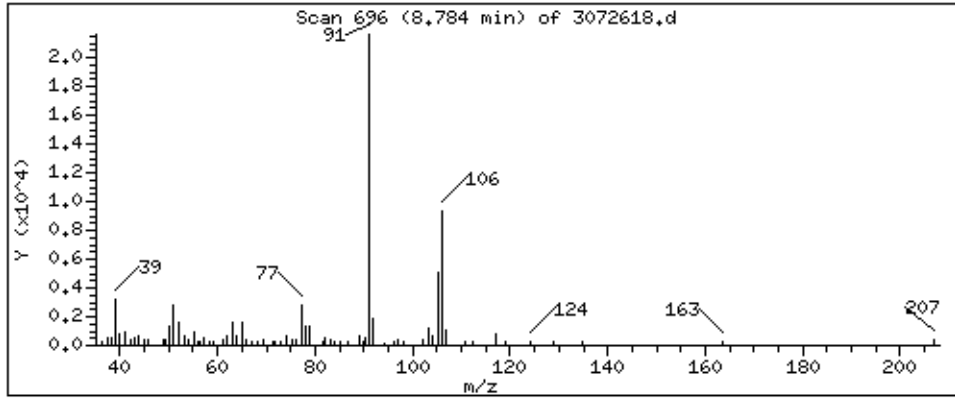
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 3.163 PPBV



Date : 26-JUL-2021 22:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2667

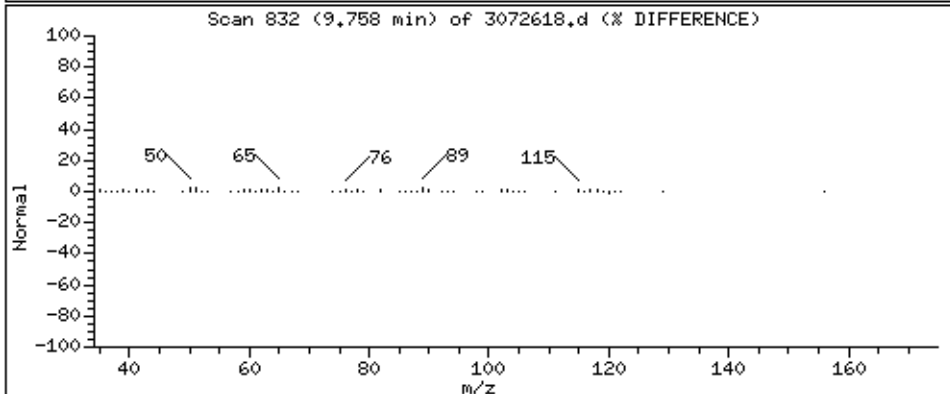
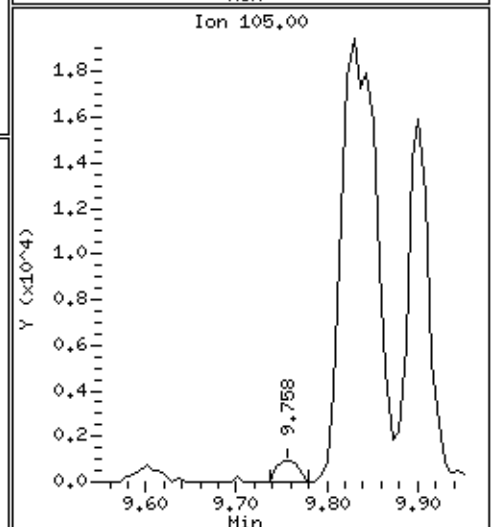
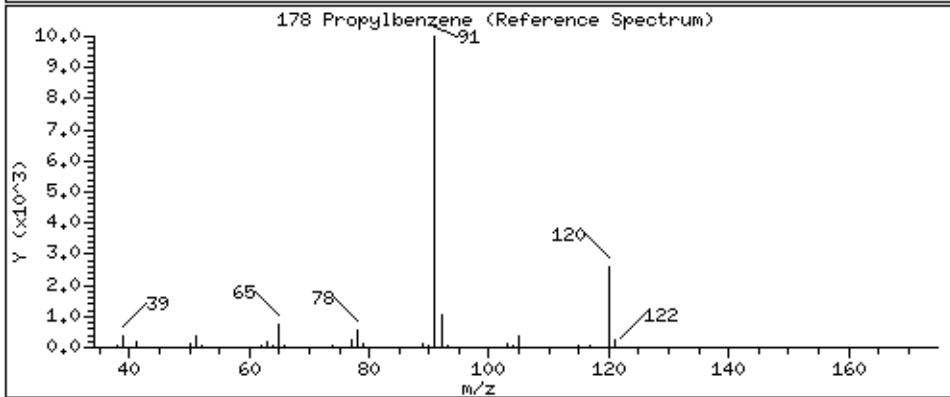
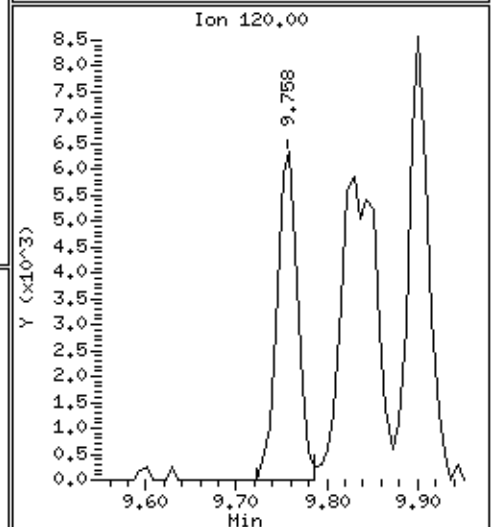
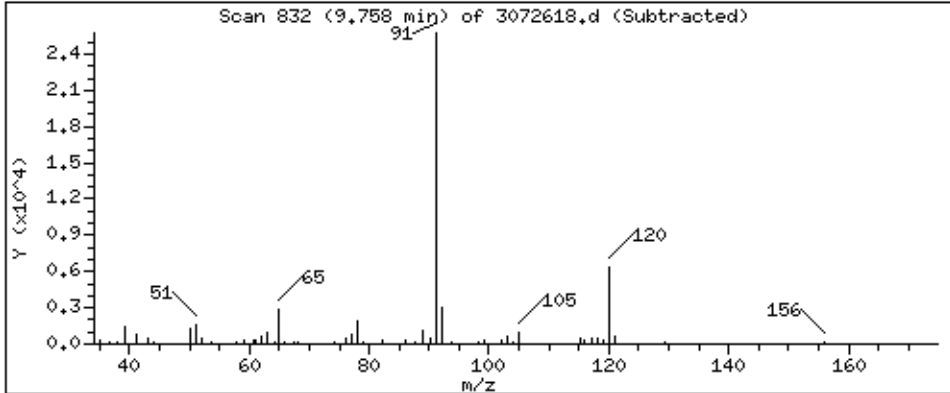
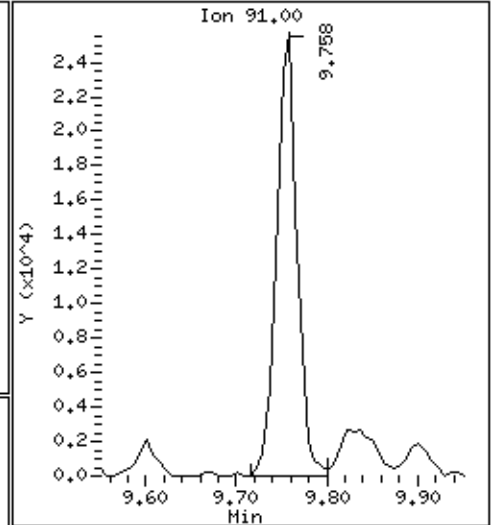
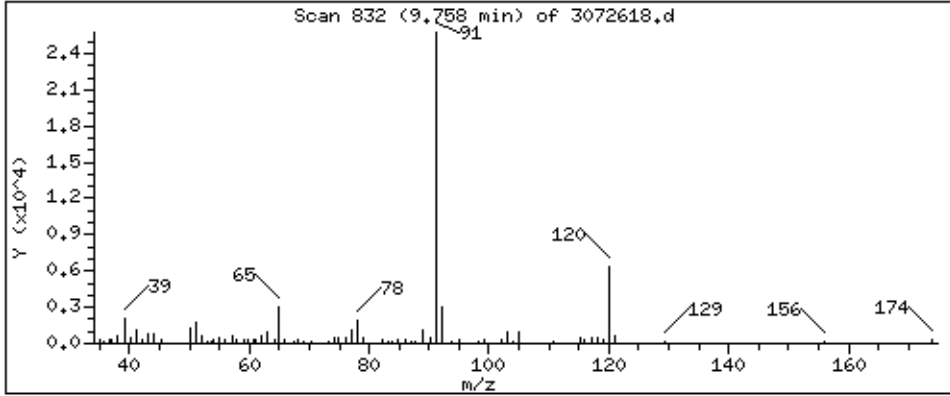
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

178 Propylbenzene

Concentration: 2.211 PPBV



Date : 26-JUL-2021 22:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2667

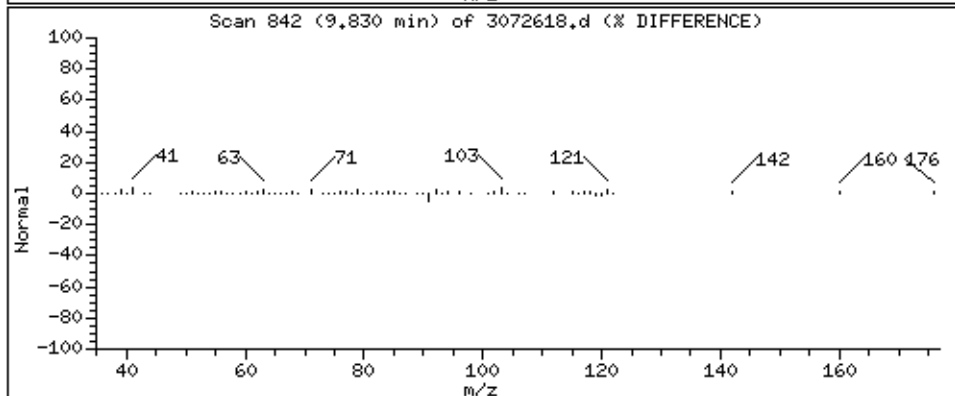
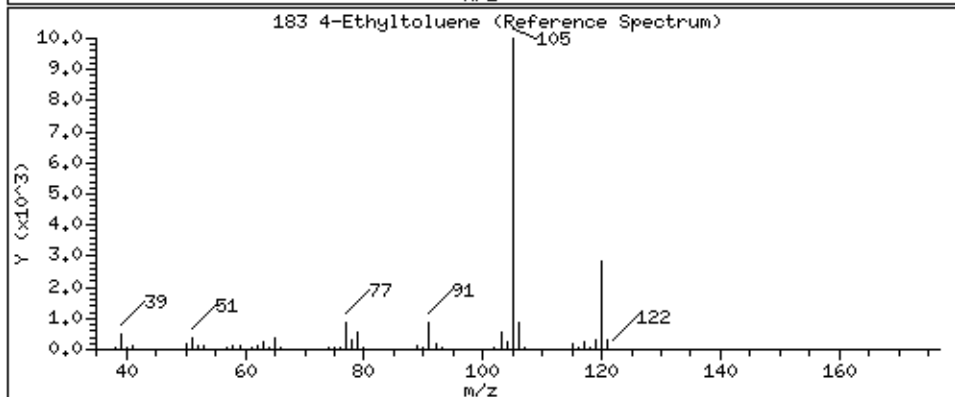
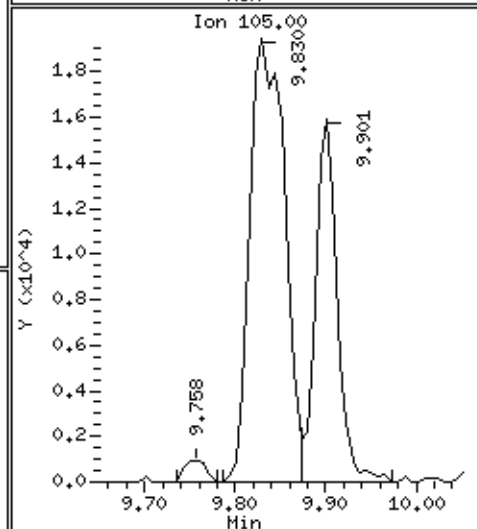
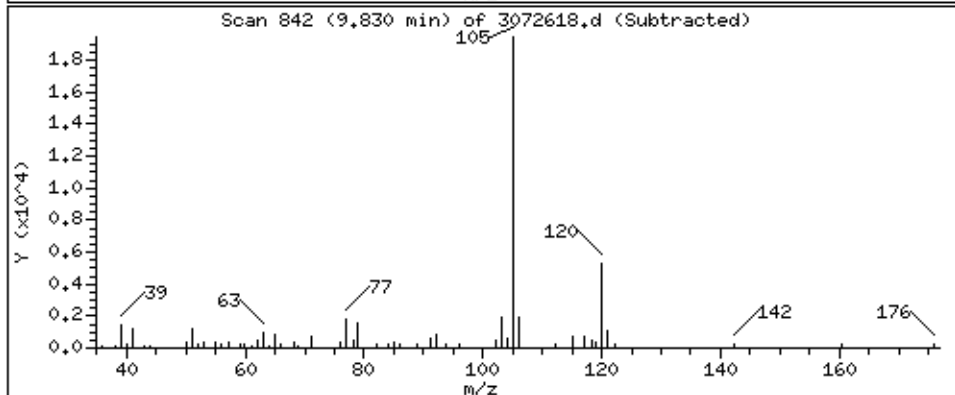
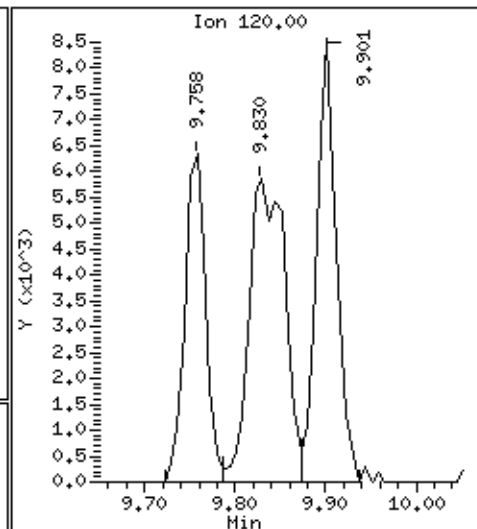
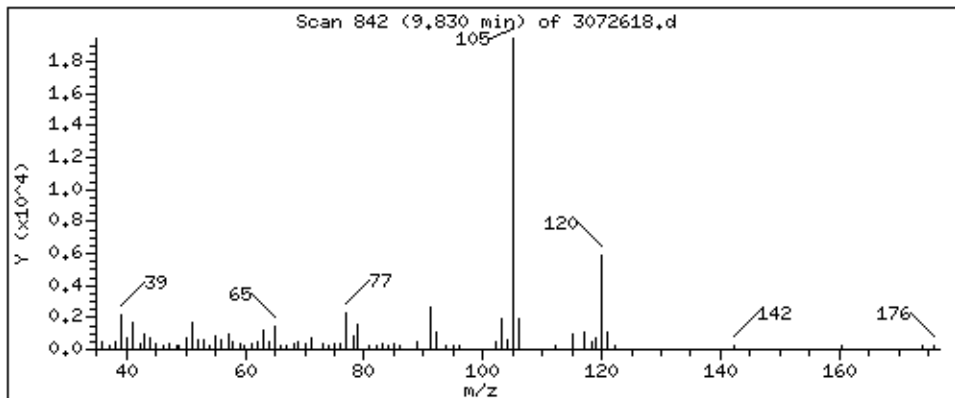
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 3.395 PPBV



Date : 26-JUL-2021 22:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2667

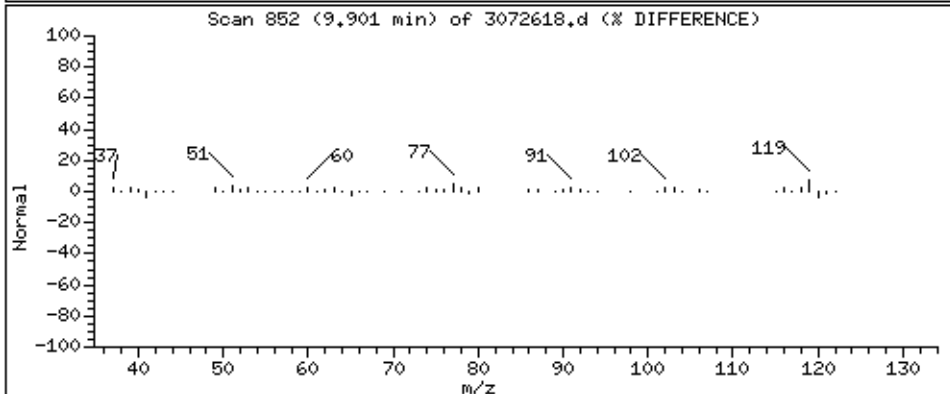
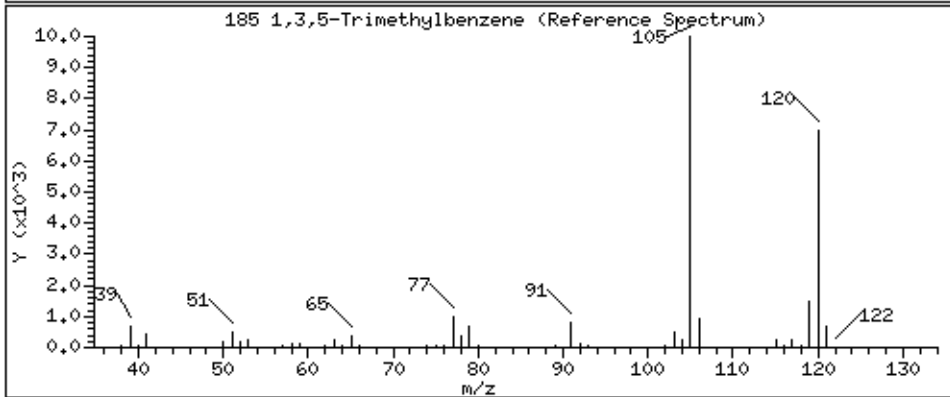
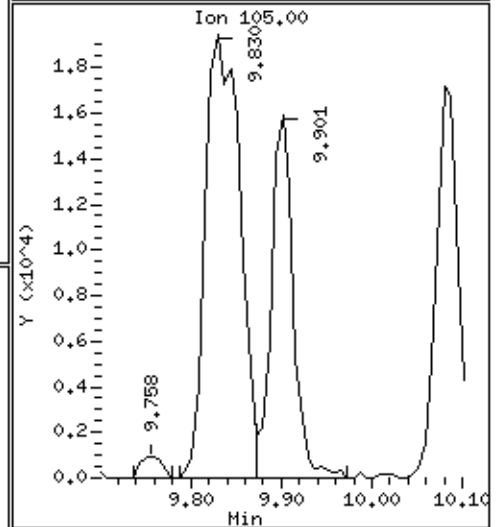
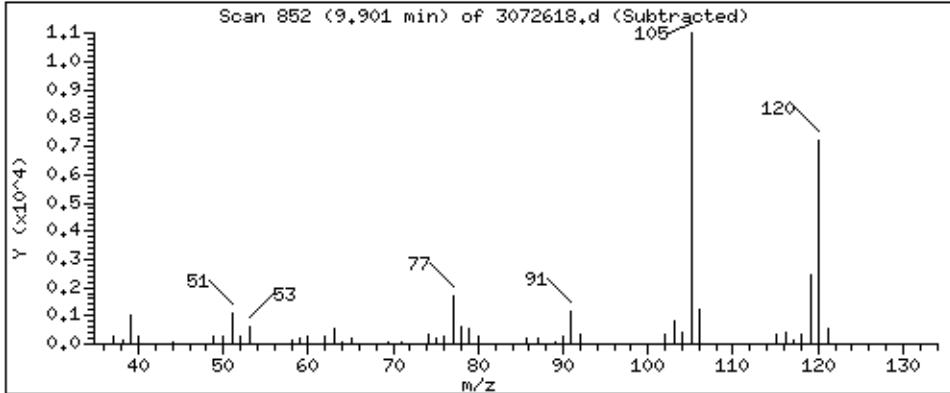
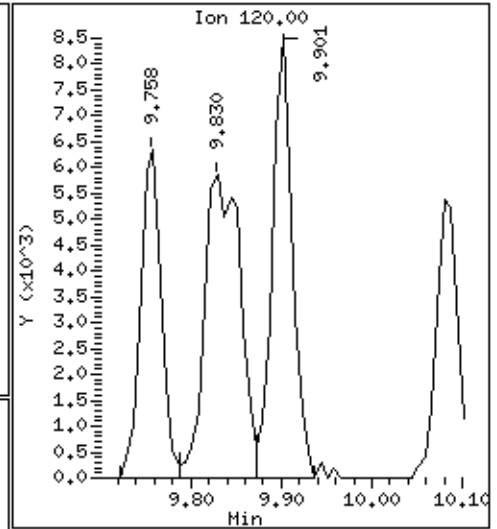
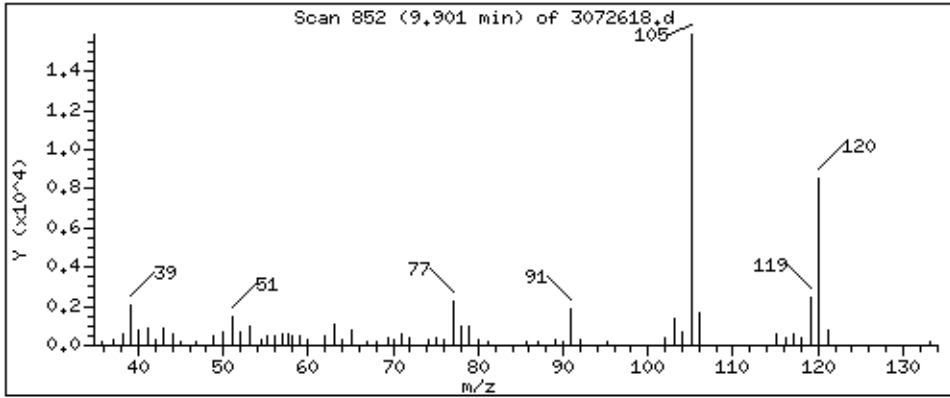
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

185 1,3,5-Trimethylbenzene

Concentration: 1.969 PPBV



Date : 26-JUL-2021 22:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2667

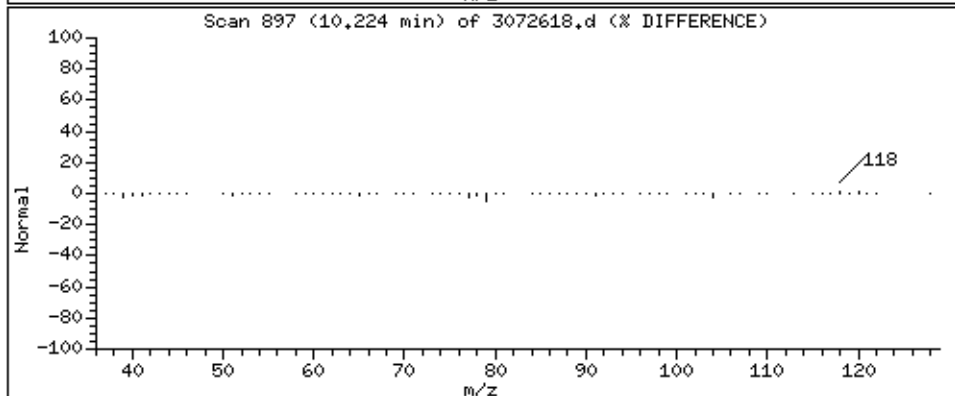
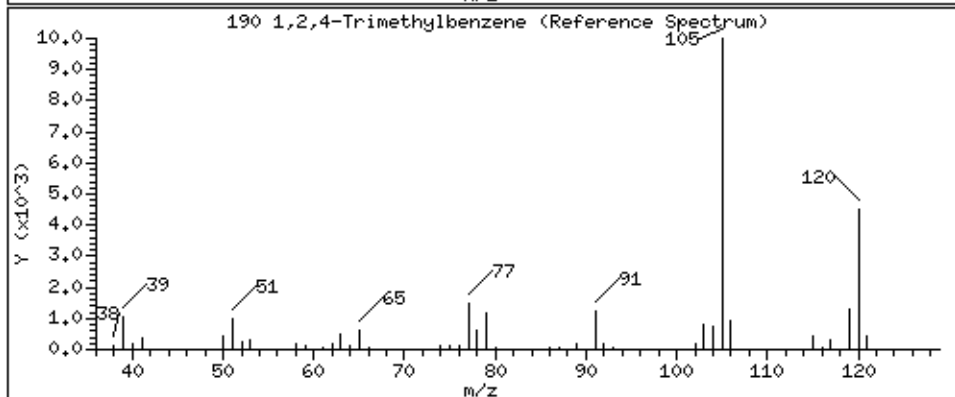
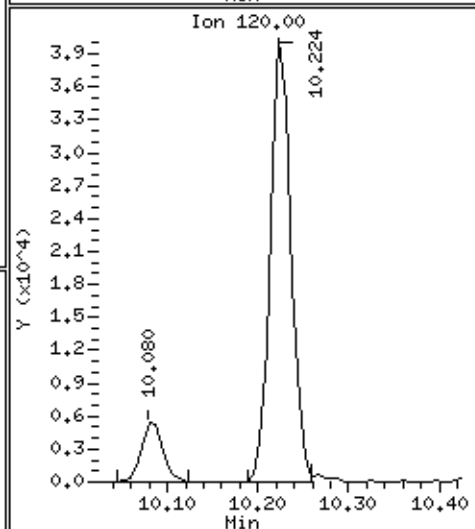
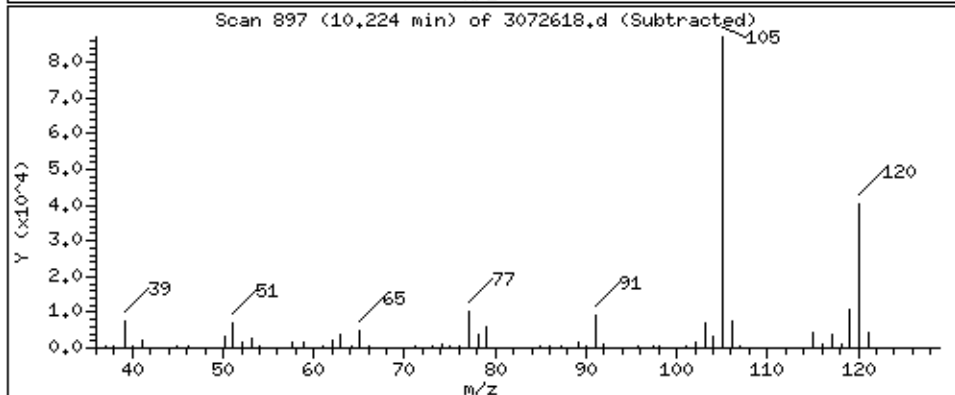
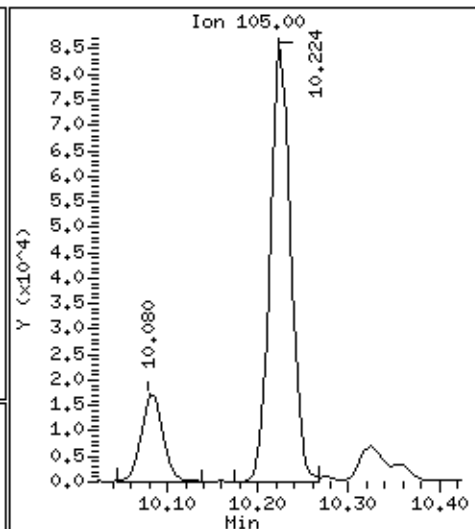
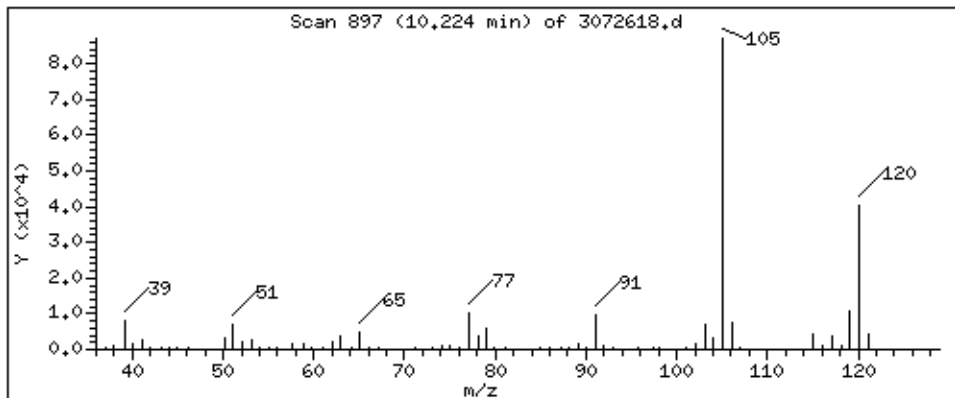
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 10,248 PPBV



Client Sample ID: SG-VW33A-02

Lab ID#: 2107284-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072619	Date of Collection:	7/14/21 12:18:00 PM
Dil. Factor:	2.54	Date of Analysis:	7/26/21 10:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	5.1	Not Detected	35	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	6.9	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.7	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
1,1-Difluoroethane	5.1	Not Detected	14	Not Detected
1,2,3-Trichloropropane	5.1	Not Detected	31	Not Detected
1,2,4-Trichlorobenzene	5.1	Not Detected	38	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,2-Dibromo-3-chloropropane	5.1	Not Detected	49	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.8	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
1,2-Dichloropropane	1.3	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,3-Butadiene	1.3	Not Detected	2.8	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,4-Dioxane	5.1	Not Detected	18	Not Detected
2,2,4-Trimethylpentane	1.3	Not Detected	5.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.1	Not Detected	15	Not Detected
2-Hexanone	5.1	Not Detected	21	Not Detected
2-Propanol	5.1	Not Detected	12	Not Detected
3-Chloropropene	5.1	Not Detected	16	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.2	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.2	Not Detected
Acetone	13	15	30	35
Acrolein	5.1	Not Detected	12	Not Detected
Acrylonitrile	5.1	Not Detected	11	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.6	Not Detected
Benzene	1.3	Not Detected	4.0	Not Detected
Bromodichloromethane	1.3	Not Detected	8.5	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
Bromomethane	13	Not Detected	49	Not Detected
Carbon Disulfide	5.1	6.8	16	21
Carbon Tetrachloride	1.3	Not Detected	8.0	Not Detected
Chlorobenzene	1.3	Not Detected	5.8	Not Detected
Chloroethane	5.1	Not Detected	13	Not Detected
Chloroform	1.3	Not Detected	6.2	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected



Air Toxics

Client Sample ID: SG-VW33A-02

Lab ID#: 2107284-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072619	Date of Collection:	7/14/21 12:18:00 PM
Dil. Factor:	2.54	Date of Analysis:	7/26/21 10:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
Cumene	1.3	Not Detected	6.2	Not Detected
Cyclohexane	1.3	Not Detected	4.4	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
Dibromomethane	5.1	Not Detected	36	Not Detected
Ethanol	13	Not Detected	24	Not Detected
Ethyl Acetate	5.1	Not Detected	18	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
Ethyl-tert-butyl ether	5.1	Not Detected	21	Not Detected
Freon 11	1.3	Not Detected	7.1	Not Detected
Freon 12	1.3	Not Detected	6.3	Not Detected
Freon 113	1.3	Not Detected	9.7	Not Detected
Freon 114	1.3	Not Detected	8.9	Not Detected
Freon 134a	5.1	Not Detected	21	Not Detected
Heptane	1.3	Not Detected	5.2	Not Detected
Hexachlorobutadiene	5.1	Not Detected	54	Not Detected
Hexachloroethane	5.1	Not Detected	49	Not Detected
Hexane	1.3	Not Detected	4.5	Not Detected
Iodomethane	13	Not Detected	74	Not Detected
Isopropyl ether	5.1	Not Detected	21	Not Detected
m,p-Xylene	1.3	Not Detected	5.5	Not Detected
Methyl tert-butyl ether	5.1	Not Detected	18	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
Naphthalene	2.5	Not Detected	13	Not Detected
o-Xylene	1.3	Not Detected	5.5	Not Detected
Propylbenzene	1.3	Not Detected	6.2	Not Detected
Propylene	5.1	Not Detected	8.7	Not Detected
Styrene	1.3	Not Detected	5.4	Not Detected
tert-Amyl methyl ether	5.1	Not Detected	21	Not Detected
tert-Butyl alcohol	5.1	Not Detected	15	Not Detected
Tetrachloroethene	1.3	2.2	8.6	15
Tetrahydrofuran	1.3	Not Detected	3.7	Not Detected
Toluene	1.3	2.0	4.8	7.5
TPH ref. to Gasoline (MW=100)	130	Not Detected	520	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
Trichloroethene	1.3	Not Detected	6.8	Not Detected
Vinyl Acetate	5.1	Not Detected	18	Not Detected
Vinyl Bromide	5.1	Not Detected	22	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW33A-02**
**Lab ID#: 2107284-11A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072619</b>	<b>Date of Collection: 7/14/21 12:18:00 PM</b>
<b>Dil. Factor:</b>	<b>2.54</b>	<b>Date of Analysis: 7/26/21 10:56 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	92	70-130



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072619.d  
Lab Smp Id: 2107284-11A  
Inj Date : 26-JUL-2021 22:56  
Operator : DF  
Smp Info : 200mL O0849  
Misc Info : 10.2 Hg->9.9 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 2  
Dil Factor: 2.54000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.270	5.284	(1.000)	130	233678	25.0000	80.00- 120.00	100.00	
5.270	5.284	(1.000)	128	193637		48.46- 108.46	82.87	
5.270	5.284	(1.000)	49	339784		120.39- 180.39	145.41	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.166	6.166	(1.000)	114	792586	25.0000	80.00- 120.00	100.00	
6.166	6.166	(1.000)	88	115650		0.00- 45.52	14.59	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.612	8.612	(1.000)	117	737935	25.0000	80.00- 120.00	100.00	
8.612	8.612	(1.000)	82	380911		25.46- 85.46	51.62	
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.104)	65	314554	24.4607	24.461 80.00- 120.00	100.00	
5.816	5.816	(1.104)	67	154808		21.66- 81.66	49.22	
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.380	7.387	(1.197)	98	815264	24.9734	24.973 80.00- 120.00	100.00	
7.380	7.387	(1.197)	70	90630		0.00- 41.47	11.12	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.380	7.387	(1.197)	100	532063			36.47- 96.47	65.26
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	449004	23.0038	23.004	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	510730			93.06- 153.06	113.75
9.601	9.601	(1.115)	176	415891			62.87- 122.87	92.63
-----								
47 Acetone								
						CAS #: 67-64-1		
3.242	3.214	(0.615)	58	23006	5.87145	14.913	80.00- 120.00	100.00
3.242	3.214	(0.615)	43	68448			299.66- 359.66	297.52
-----								
48 Carbon Disulfide								
						CAS #: 75-15-0		
3.284	3.298	(0.623)	76	47211	2.67570	6.796	80.00- 120.00	100.00
-----								
137 Toluene								
						CAS #: 108-88-3		
7.437	7.437	(1.206)	91	18947	0.78072	1.983	80.00- 120.00	100.00
7.437	7.437	(1.206)	92	11436			28.30- 88.30	60.36
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.874	7.881	(0.914)	166	10243	0.88603	2.250	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	8677			48.71- 108.71	84.71
7.874	7.881	(0.914)	131	7923			46.55- 106.55	77.35
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072619.d  
 Lab Smp Id: 2107284-11A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: DF  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 10.2 Hg->9.9 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	233678	-11.48
108 1,4-Difluorobenze	833448	500069	1166827	792586	-4.90
153 Chlorobenzene-d5	741338	444803	1037873	737935	-0.46

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.27	-0.26
108 1,4-Difluorobenze	6.17	5.84	6.50	6.17	0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-11A  
Level: LOW Operator: DF  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 10.2 Hg->9.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.461	97.84	70-130
\$ 134 Toluene-d8	25.000	24.973	99.89	70-130
\$ 170 4-Bromofluorobenz	25.000	23.004	92.02	70-130

Date : 26-JUL-2021 22:56

Client ID:

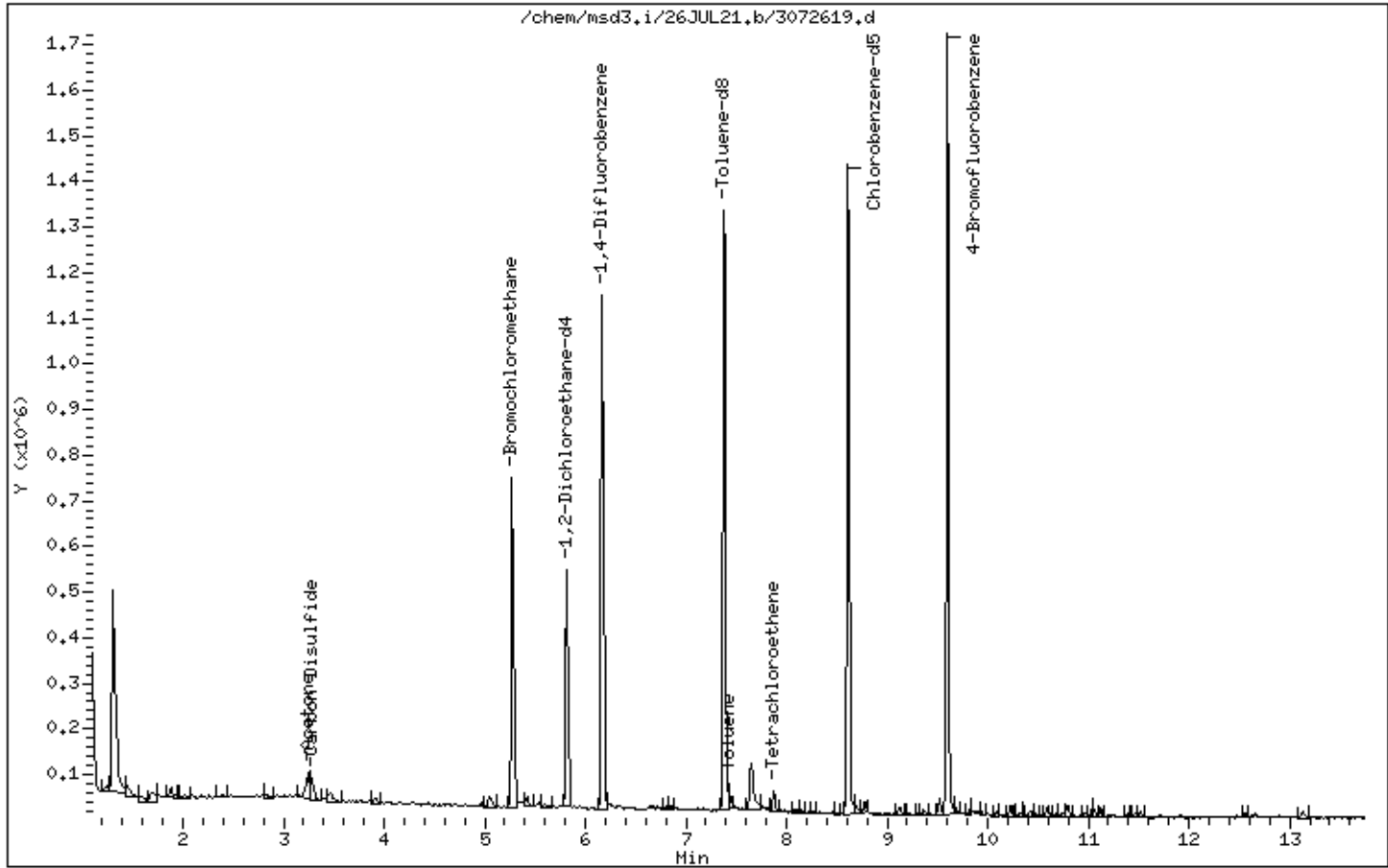
Instrument: msd3,i

Sample Info: 200mL 00849

Operator: DF

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 22:56

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00849

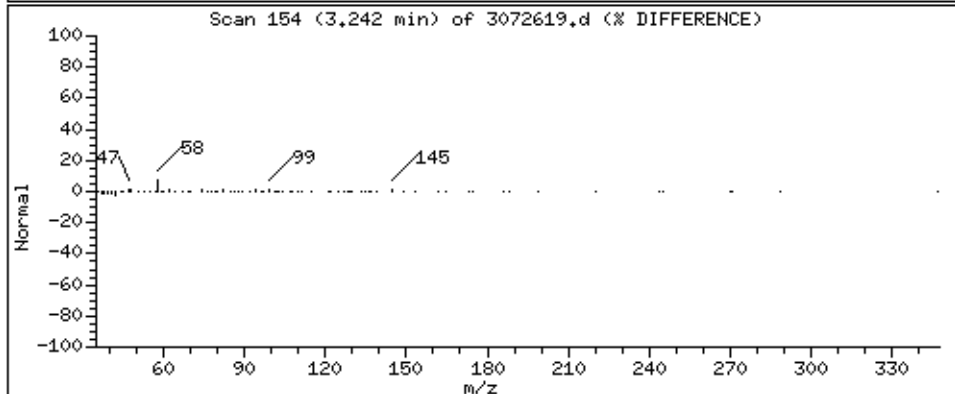
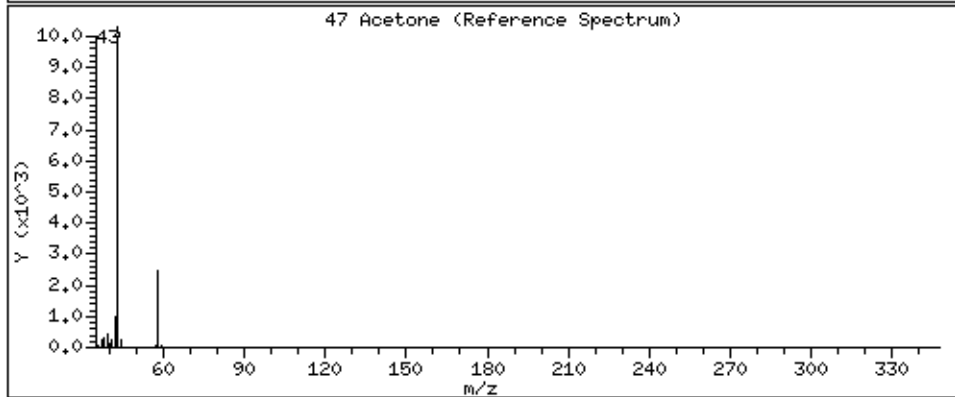
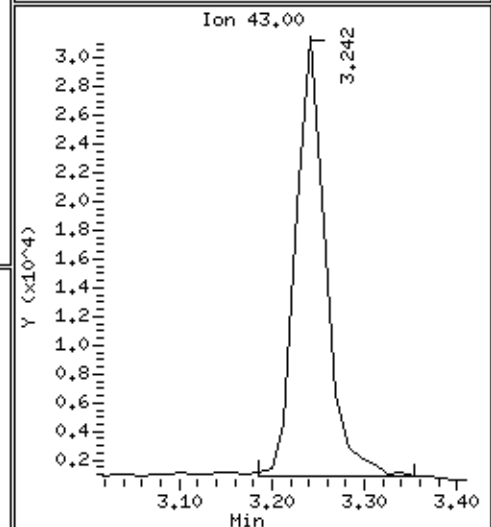
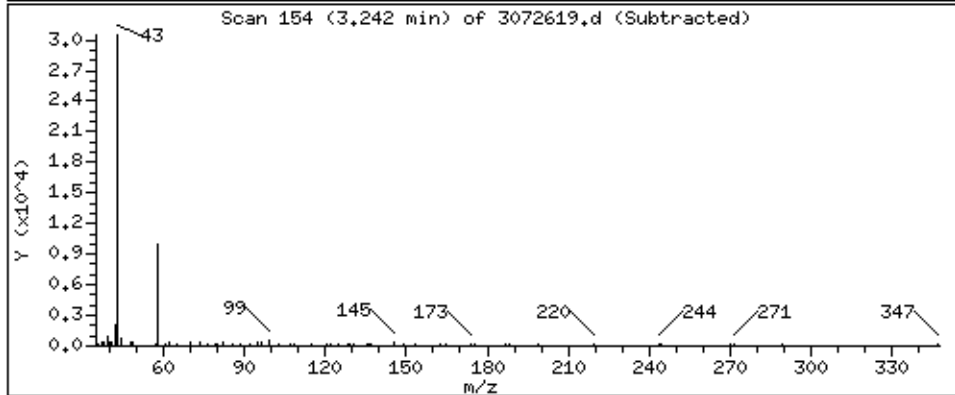
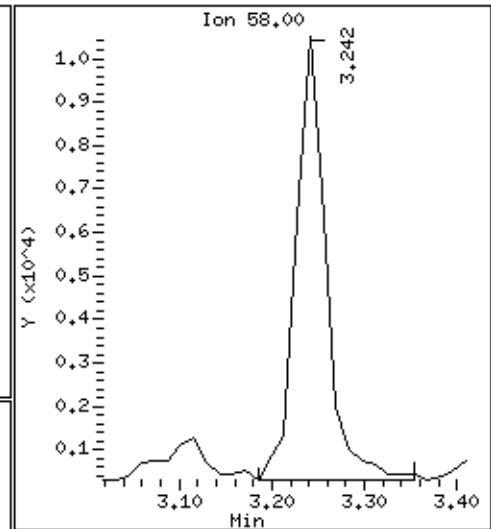
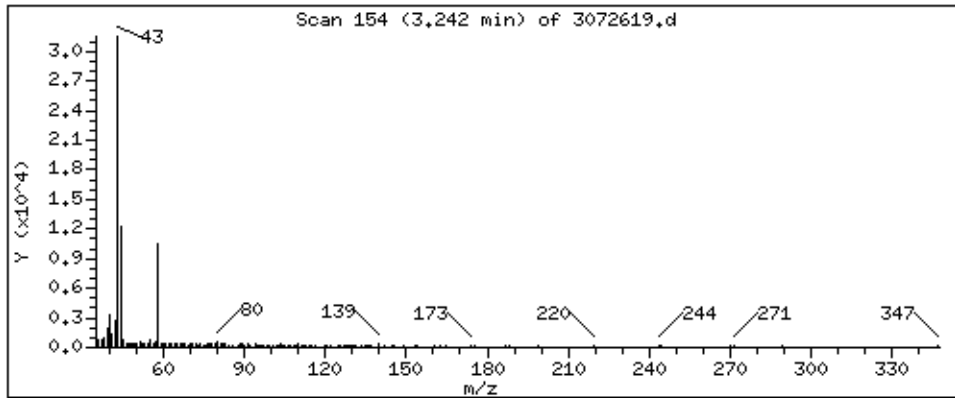
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 14,913 PPBV



Date : 26-JUL-2021 22:56

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00849

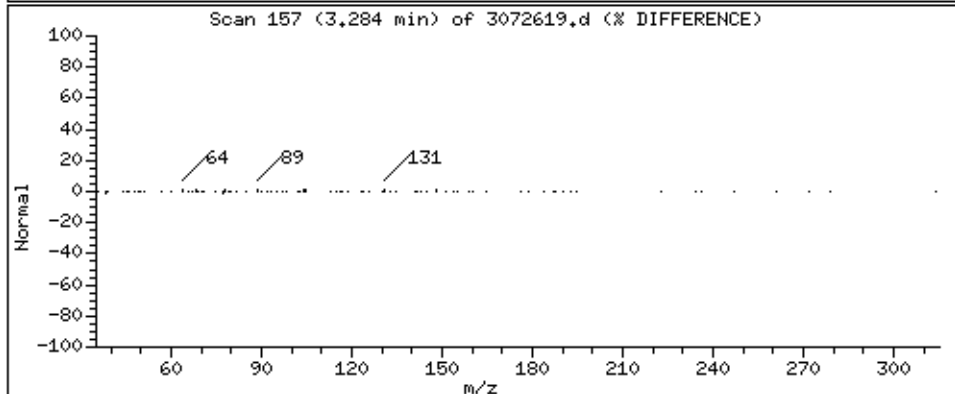
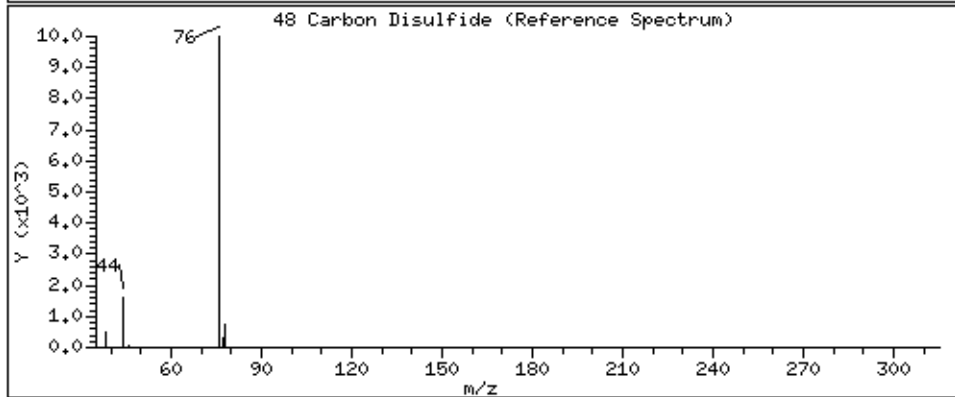
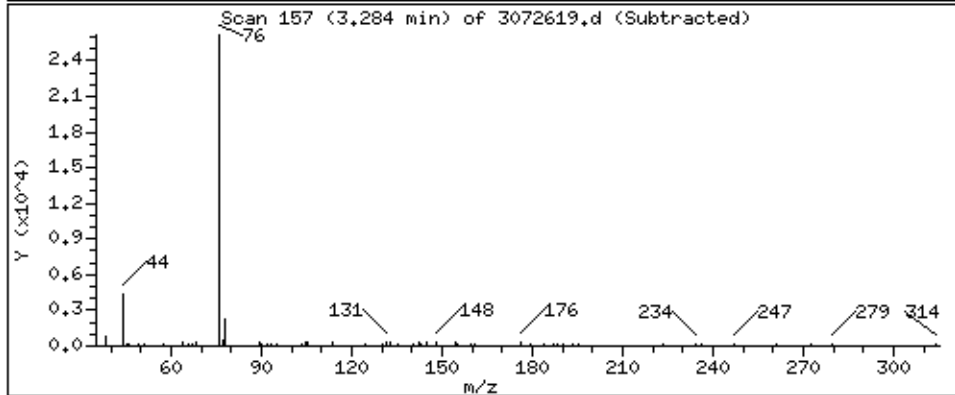
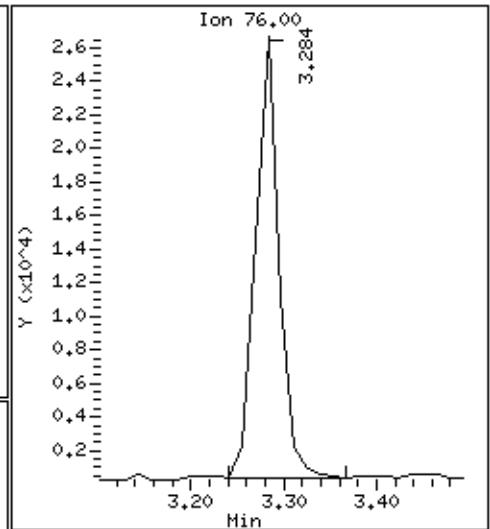
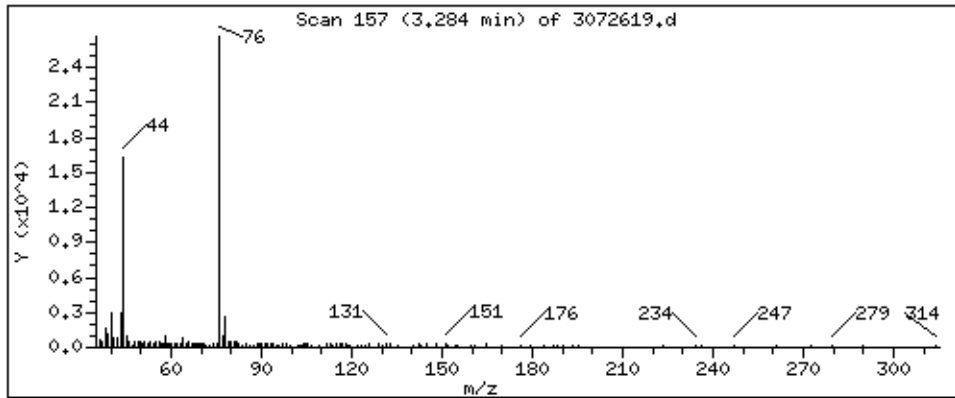
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

48 Carbon Disulfide

Concentration: 6.796 PPBV



Date : 26-JUL-2021 22:56

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00849

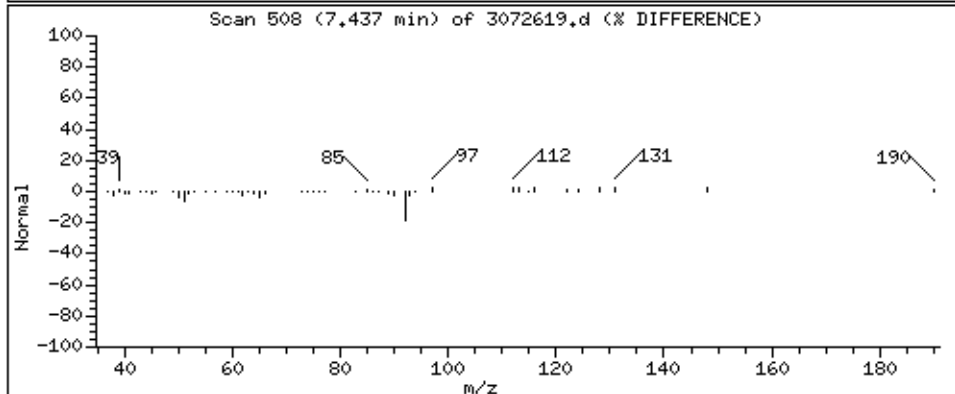
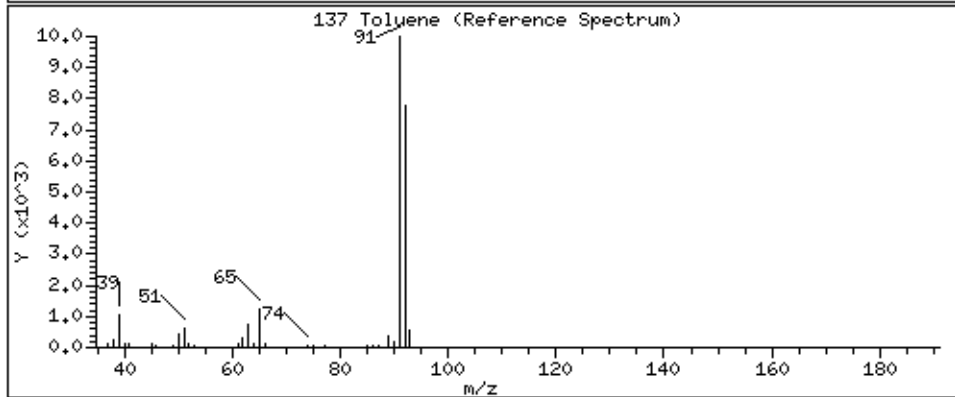
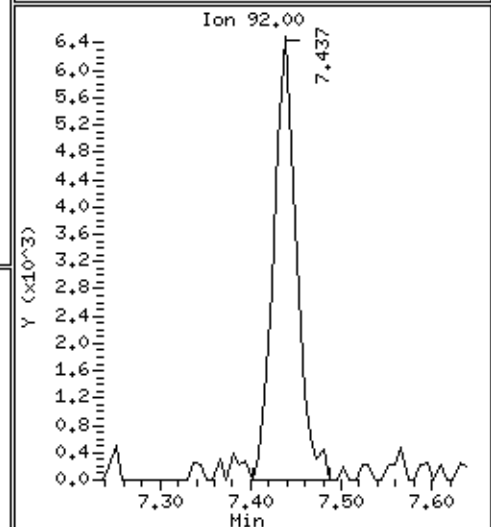
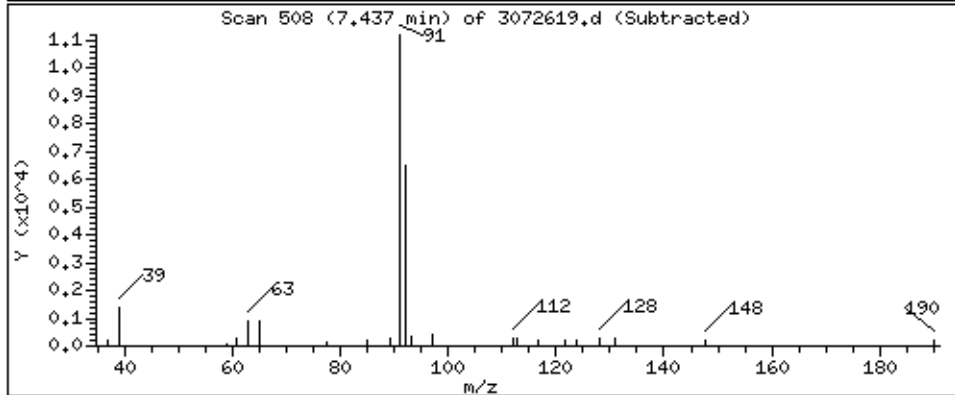
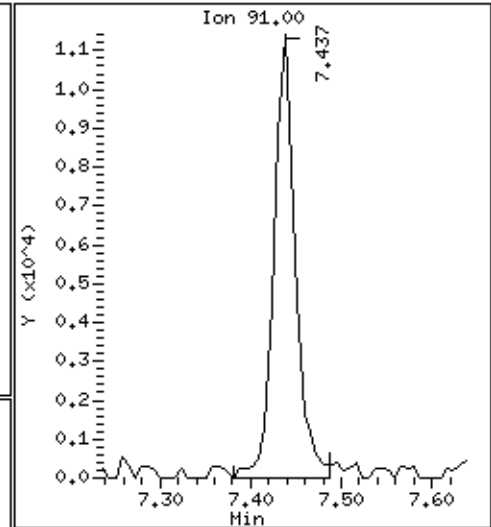
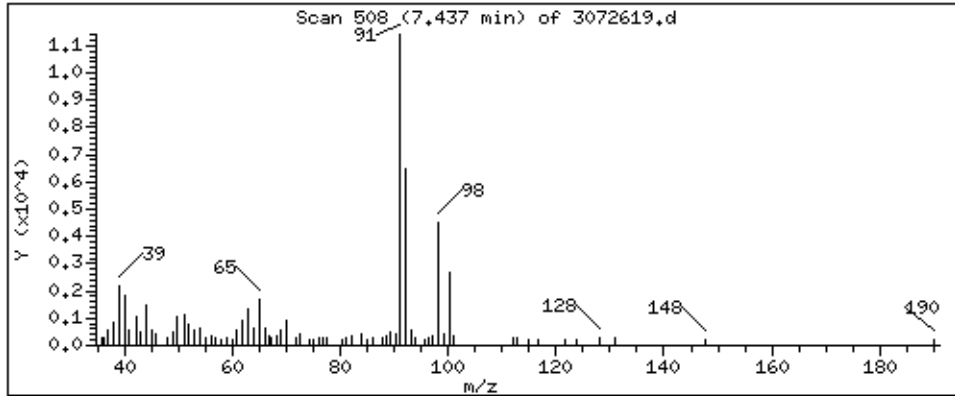
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 1,983 PPBV





Date : 26-JUL-2021 22:56

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00849

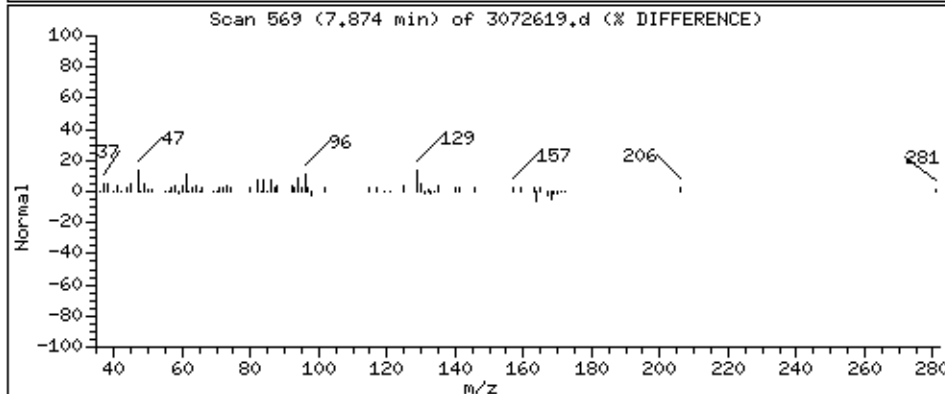
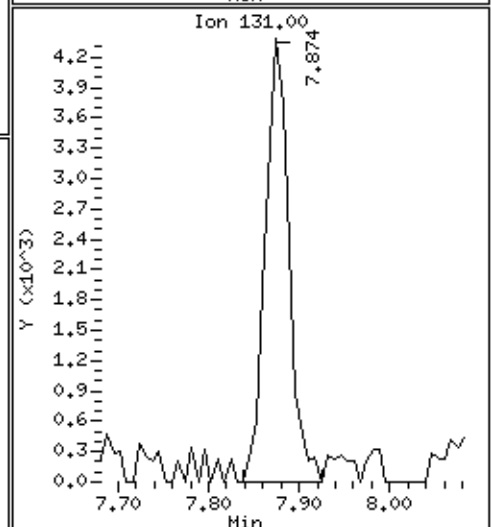
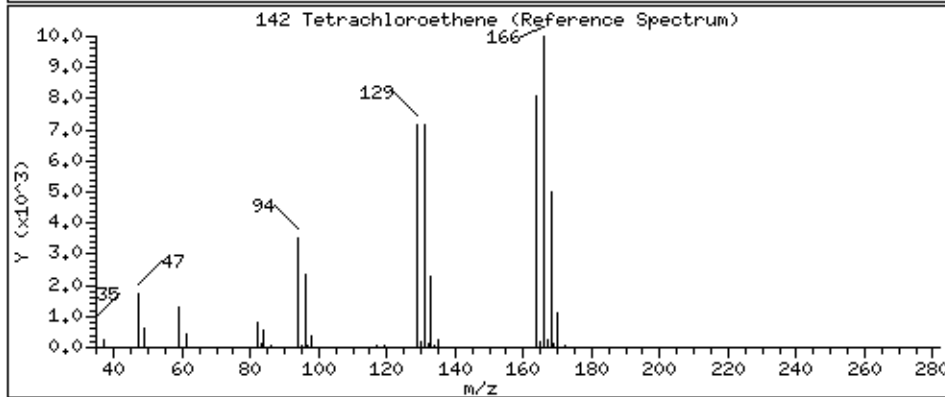
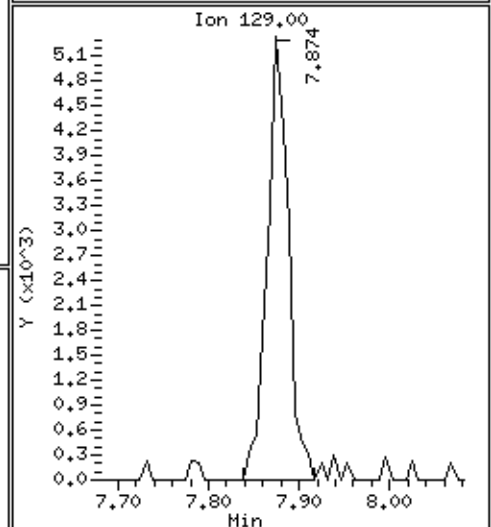
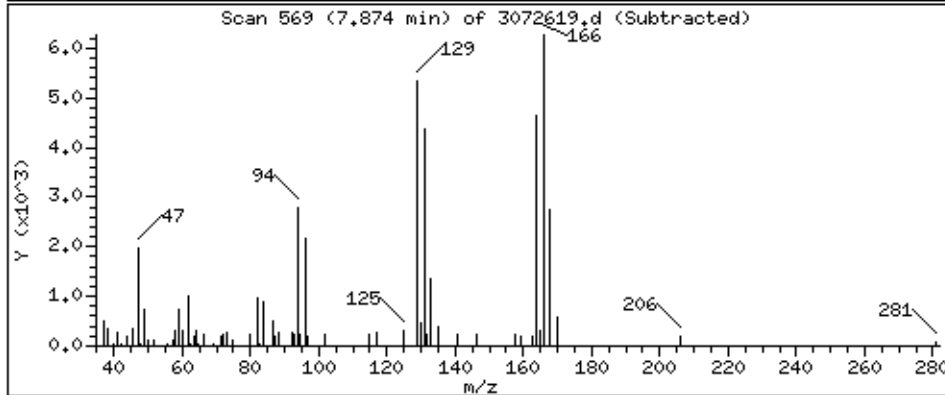
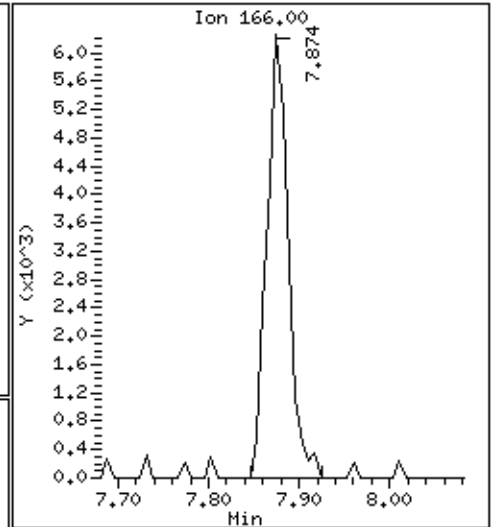
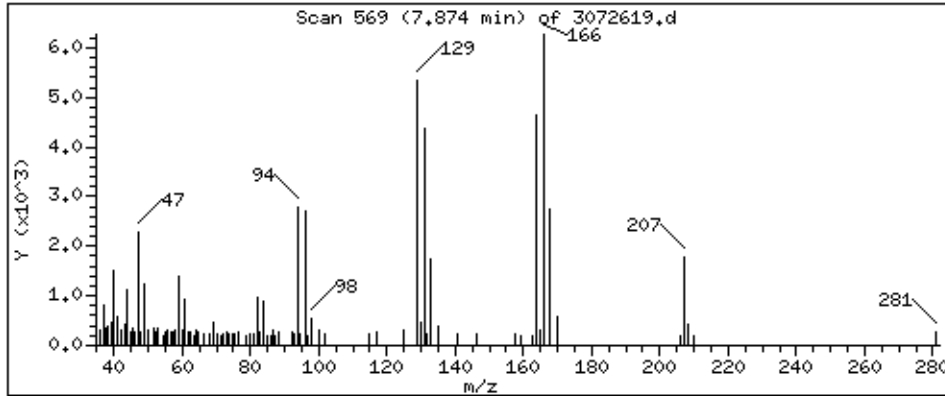
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 2.250 PPBV



Client Sample ID: SG-VW33B-02

Lab ID#: 2107284-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072620	Date of Collection:	7/14/21 12:41:00 PM
Dil. Factor:	2.50	Date of Analysis:	7/26/21 11:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	5.0	Not Detected
1,1-Difluoroethane	5.0	Not Detected	14	Not Detected
1,2,3-Trichloropropane	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2-Dibromo-3-chloropropane	5.0	Not Detected	48	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.6	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Butadiene	1.2	Not Detected	2.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	Not Detected	15	Not Detected
2-Hexanone	5.0	Not Detected	20	Not Detected
2-Propanol	5.0	5.5	12	14
3-Chloropropene	5.0	Not Detected	16	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Acetone	12	Not Detected	30	Not Detected
Acrolein	5.0	Not Detected	11	Not Detected
Acrylonitrile	5.0	Not Detected	11	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.5	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
Bromodichloromethane	1.2	Not Detected	8.4	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.9	Not Detected
Chlorobenzene	1.2	Not Detected	5.8	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Chloroform	1.2	1.7	6.1	8.2
Chloromethane	12	Not Detected	26	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	5.0	Not Detected



Air Toxics

Client Sample ID: SG-VW33B-02

Lab ID#: 2107284-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072620	Date of Collection:	7/14/21 12:41:00 PM
Dil. Factor:	2.50	Date of Analysis:	7/26/21 11:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
Cumene	1.2	Not Detected	6.1	Not Detected
Cyclohexane	1.2	Not Detected	4.3	Not Detected
Dibromochloromethane	1.2	Not Detected	11	Not Detected
Dibromomethane	5.0	Not Detected	36	Not Detected
Ethanol	12	Not Detected	24	Not Detected
Ethyl Acetate	5.0	Not Detected	18	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
Ethyl-tert-butyl ether	5.0	Not Detected	21	Not Detected
Freon 11	1.2	Not Detected	7.0	Not Detected
Freon 12	1.2	1.6	6.2	7.9
Freon 113	1.2	Not Detected	9.6	Not Detected
Freon 114	1.2	Not Detected	8.7	Not Detected
Freon 134a	5.0	Not Detected	21	Not Detected
Heptane	1.2	Not Detected	5.1	Not Detected
Hexachlorobutadiene	5.0	Not Detected	53	Not Detected
Hexachloroethane	5.0	Not Detected	48	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
Iodomethane	12	Not Detected	72	Not Detected
Isopropyl ether	5.0	Not Detected	21	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Naphthalene	2.5	Not Detected	13	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
Propylbenzene	1.2	Not Detected	6.1	Not Detected
Propylene	5.0	Not Detected	8.6	Not Detected
Styrene	1.2	Not Detected	5.3	Not Detected
tert-Amyl methyl ether	5.0	Not Detected	21	Not Detected
tert-Butyl alcohol	5.0	Not Detected	15	Not Detected
Tetrachloroethene	1.2	8.5	8.5	57
Tetrahydrofuran	1.2	Not Detected	3.7	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	510	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	5.0	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
Trichloroethene	1.2	Not Detected	6.7	Not Detected
Vinyl Acetate	5.0	Not Detected	18	Not Detected
Vinyl Bromide	5.0	Not Detected	22	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW33B-02

Lab ID#: 2107284-12A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072620	Date of Collection: 7/14/21 12:41:00 PM
Dil. Factor:	2.50	Date of Analysis: 7/26/21 11:26 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	95	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072620.d  
 Lab Smp Id: 2107284-12A  
 Inj Date : 26-JUL-2021 23:26  
 Operator : DF  
 Smp Info : 200mL 33637  
 Misc Info : 9.8 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
 Meth Date : 28-Jul-2021 12:16 uexa  
 Cal Date : 23-JUN-2021 00:09  
 Als bottle: 3  
 Dil Factor: 2.50000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msd3.i  
 Quant Type: ISTD  
 Cal File: 3062223.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL ( PPBV)	FINAL ( PPBV)		
* 90 Bromochloromethane CAS #: 74-97-5							
5.284	5.284 (1.000)	130	280054	25.0000		80.00- 120.00	100.00
5.284	5.284 (1.000)	128	219343			48.46- 108.46	78.32
5.284	5.284 (1.000)	49	397741			120.39- 180.39	142.02
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.166	6.166 (1.000)	114	930245	25.0000		80.00- 120.00	100.00
6.166	6.166 (1.000)	88	137202			0.00- 45.52	14.75
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
8.612	8.612 (1.000)	117	824737	25.0000		80.00- 120.00	100.00
8.612	8.612 (1.000)	82	434206			25.46- 85.46	52.65
-----							
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0							
5.816	5.816 (1.101)	65	378919	24.5865	24.586	80.00- 120.00	100.00
5.816	5.816 (1.101)	67	181002			21.66- 81.66	47.77
-----							
§ 134 Toluene-d8 CAS #: 2037-26-5							
7.387	7.387 (1.198)	98	908211	23.7037	23.704	80.00- 120.00	100.00
7.387	7.387 (1.198)	70	99613			0.00- 41.47	10.97

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.198)	100	596409			36.47- 96.47	65.67
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.600	9.601	(1.115)	174	517510	23.7230	23.723	80.00- 120.00	100.00
9.600	9.601	(1.115)	95	580945			93.06- 153.06	112.26
9.600	9.601	(1.115)	176	477995			62.87- 122.87	92.36
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.464	1.465	(0.277)	85	12489	0.64017	1.600	80.00- 120.00	100.00
1.464	1.465	(0.277)	87	4940			2.63- 62.63	39.56
-----								
52 2-Propanol								
						CAS #: 67-63-0		
3.423	3.395	(0.648)	45	37442	2.21705	5.543	80.00- 120.00	100.00
3.423	3.395	(0.648)	43	9305			0.00- 48.61	24.85
-----								
92 Chloroform								
						CAS #: 67-66-3		
5.340	5.340	(1.011)	83	11849	0.67482	1.687	80.00- 120.00	100.00
5.340	5.340	(1.011)	85	6734			34.71- 94.71	56.83
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.881	7.881	(0.915)	166	43783	3.38866	8.472	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	33450			48.71- 108.71	76.40
7.881	7.881	(0.915)	131	32521			46.55- 106.55	74.28
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072620.d  
Lab Smp Id: 2107284-12A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: DF

Calibration Date: 26-JUL-2021  
Calibration Time: 10:10

Level: LOW  
Sample Type: AIR

Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 9.8 Hg->10 psi

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	280054	6.09
108 1,4-Difluorobenze	833448	500069	1166827	930245	11.61
153 Chlorobenzene-d5	741338	444803	1037873	824737	11.25

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.17	-0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	-0.00

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.

Report Date: 28-Jul-2021 13:44

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-12A  
Level: LOW Operator: DF  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 9.8 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.586	98.35	70-130
\$ 134 Toluene-d8	25.000	23.704	94.81	70-130
\$ 170 4-Bromofluorobenz	25.000	23.723	94.89	70-130



Date : 26-JUL-2021 23:26

Client ID:

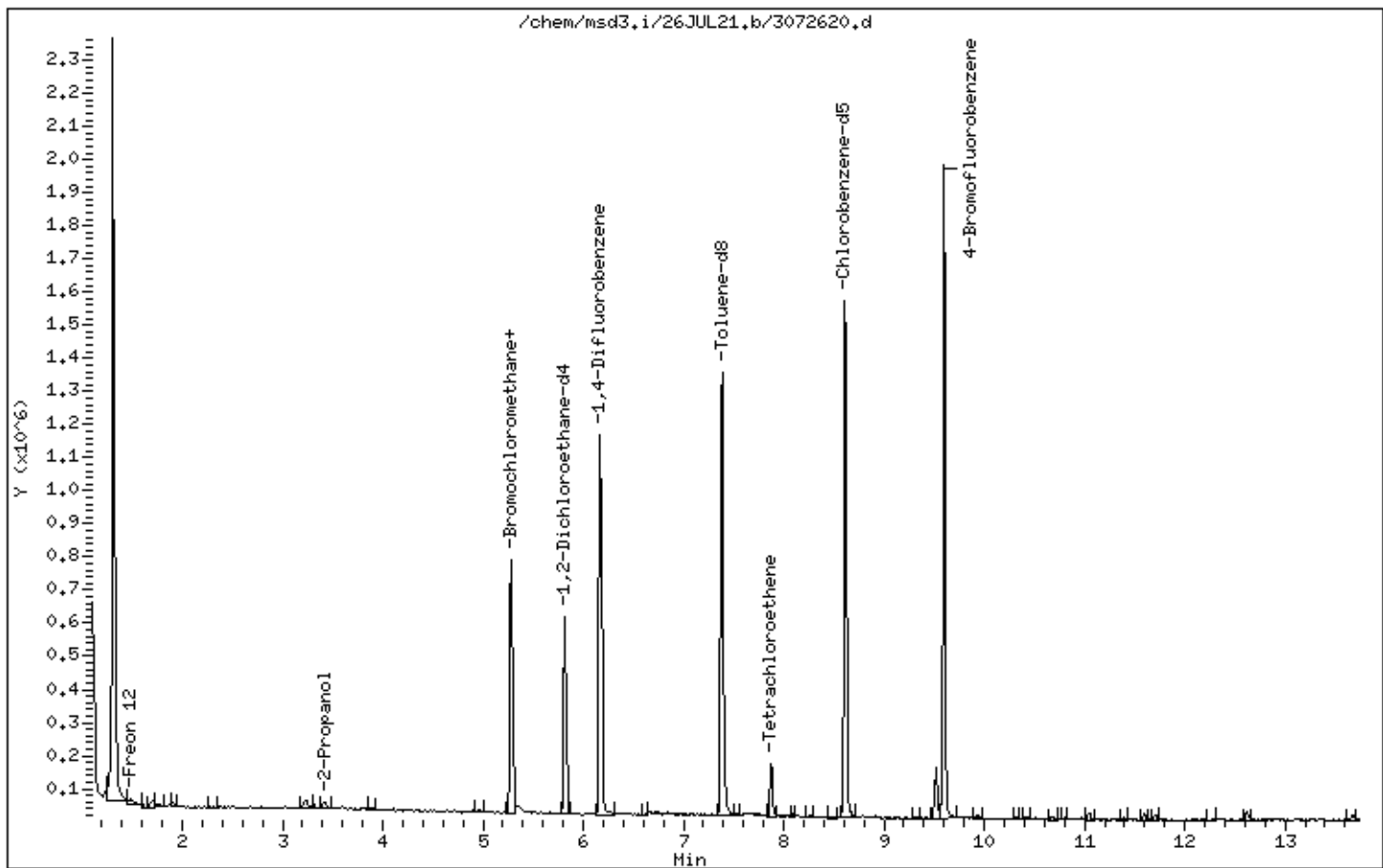
Instrument: msd3,i

Sample Info: 200mL 33637

Operator: DF

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 23:26

Client ID:

Instrument: msd3,i

Sample Info: 200mL 33637

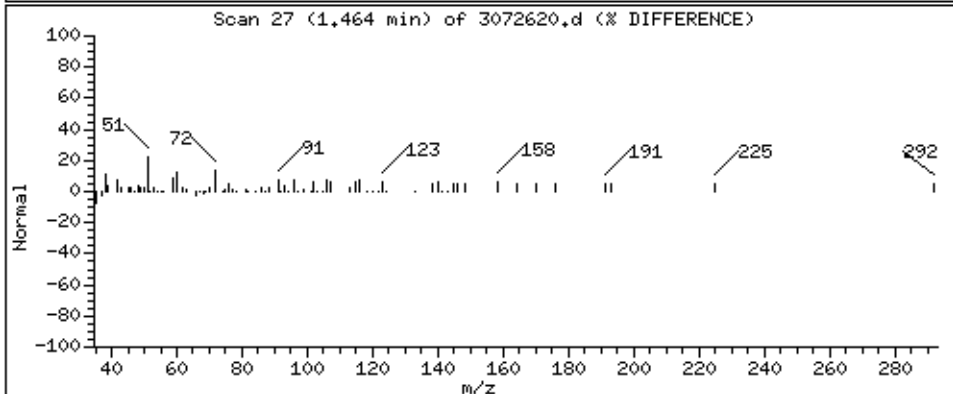
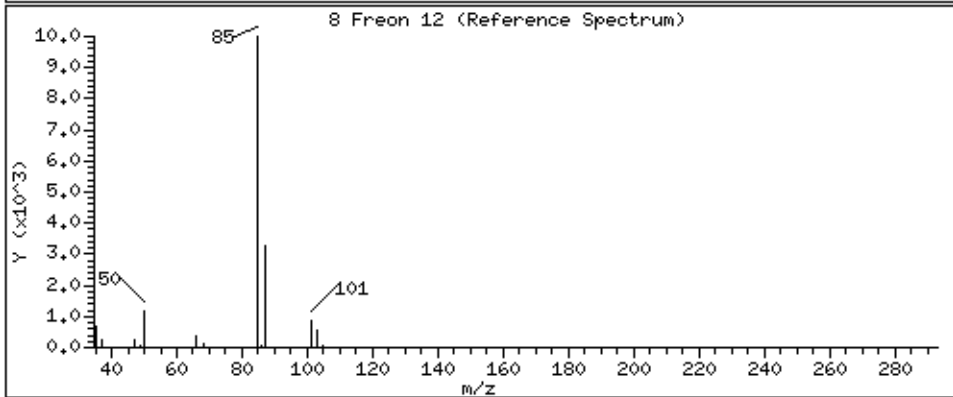
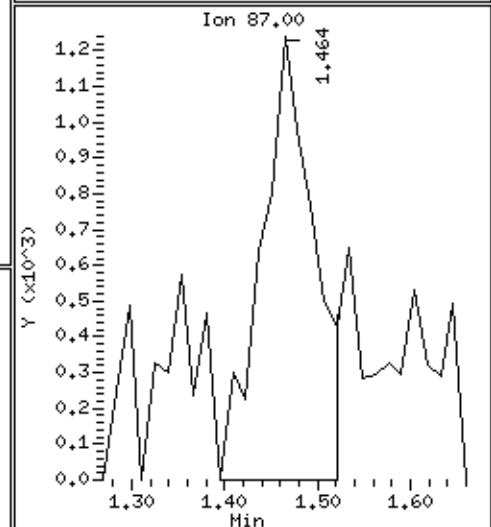
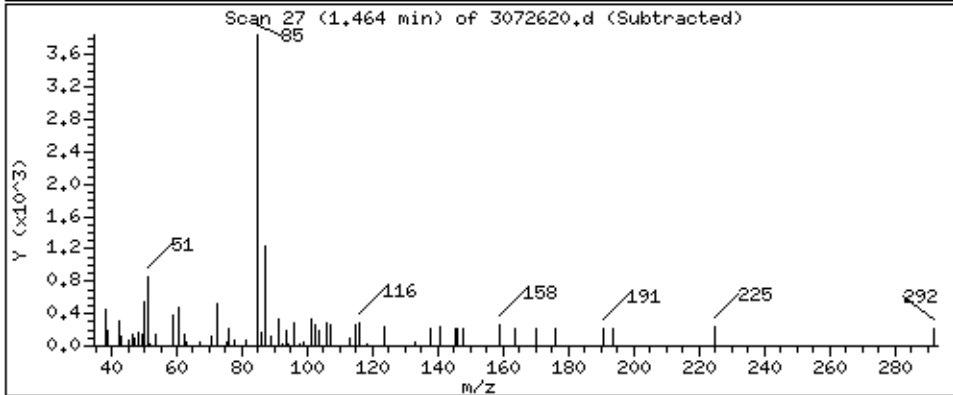
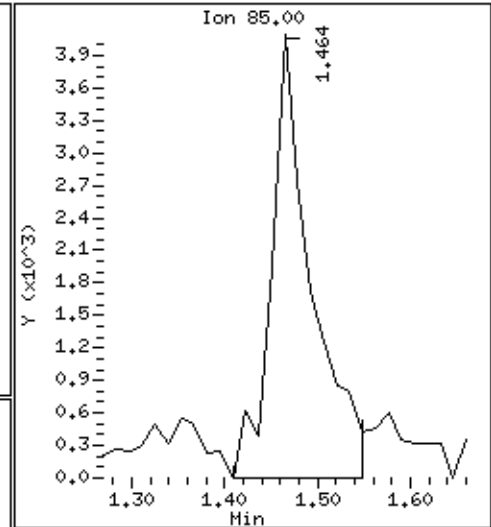
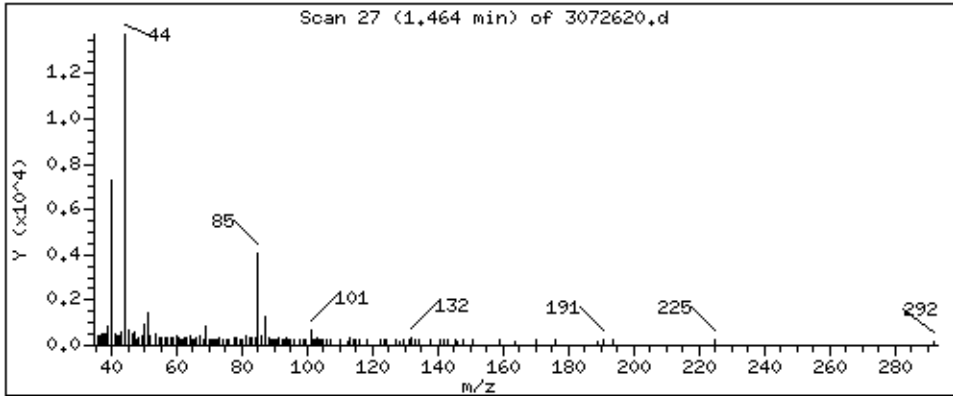
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 1,600 PPBV



Date : 26-JUL-2021 23:26

Client ID:

Instrument: msd3,i

Sample Info: 200mL 33637

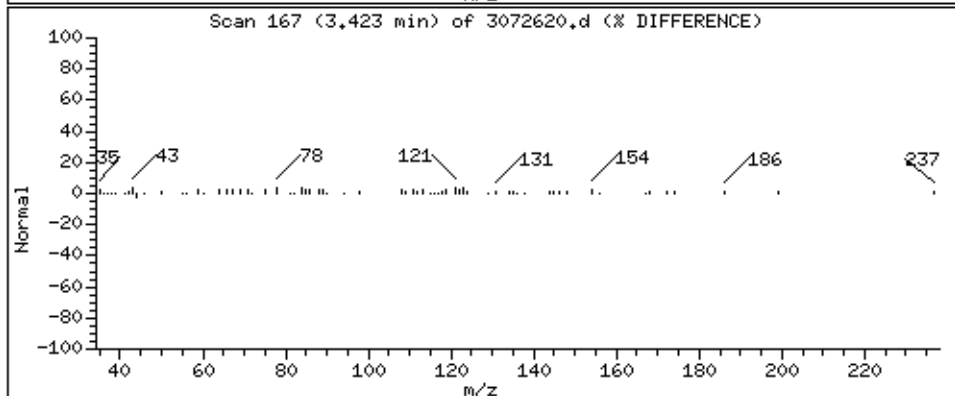
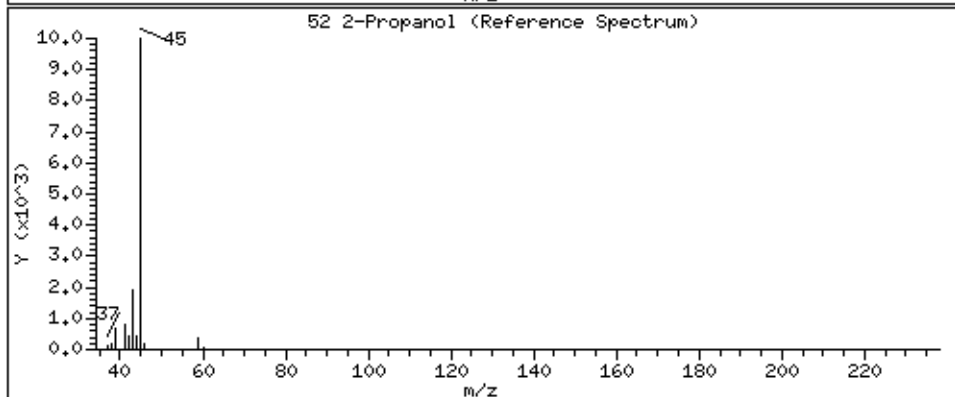
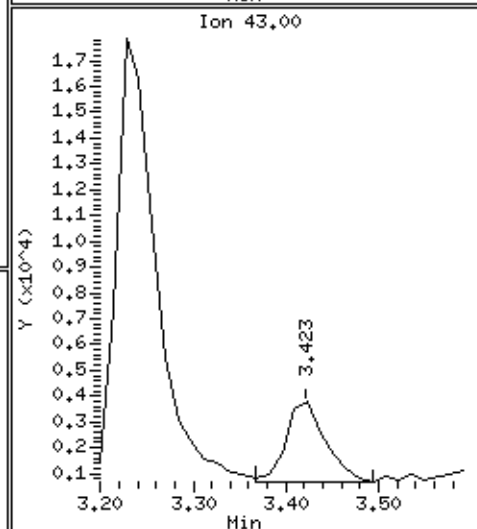
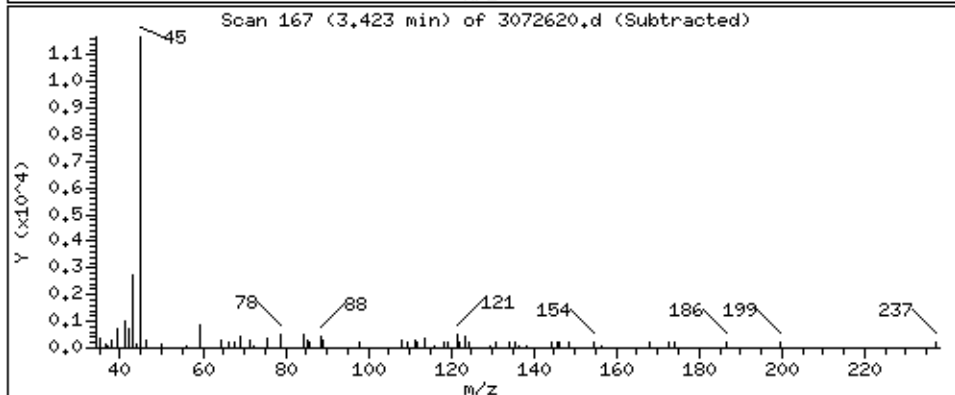
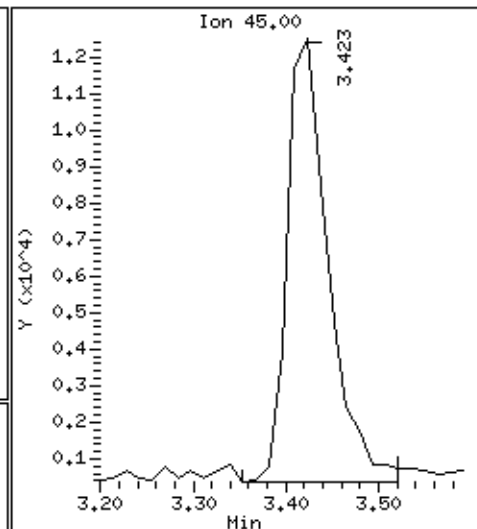
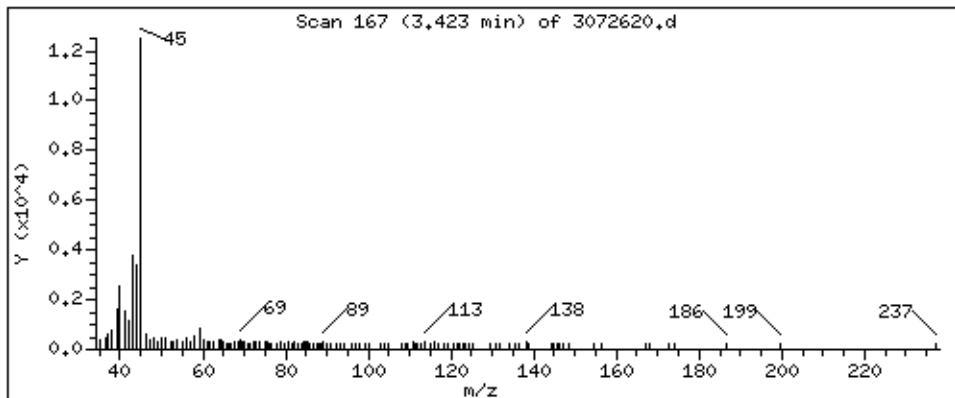
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 5.543 PPBV



Date : 26-JUL-2021 23:26

Client ID:

Instrument: msd3,i

Sample Info: 200mL 33637

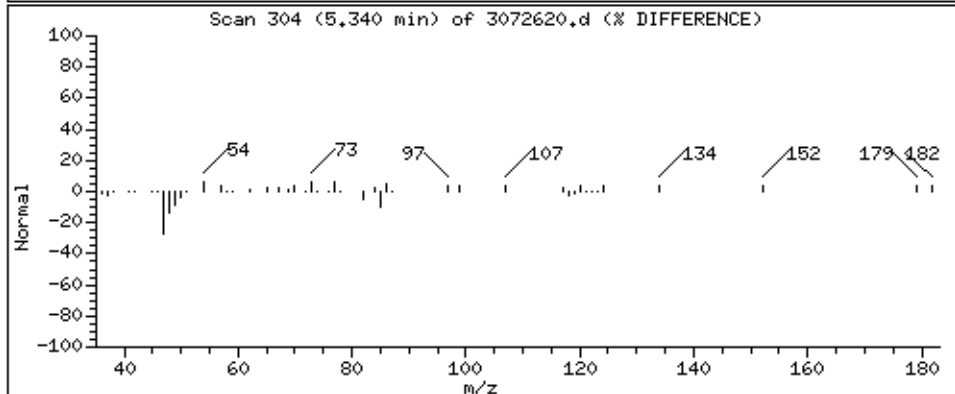
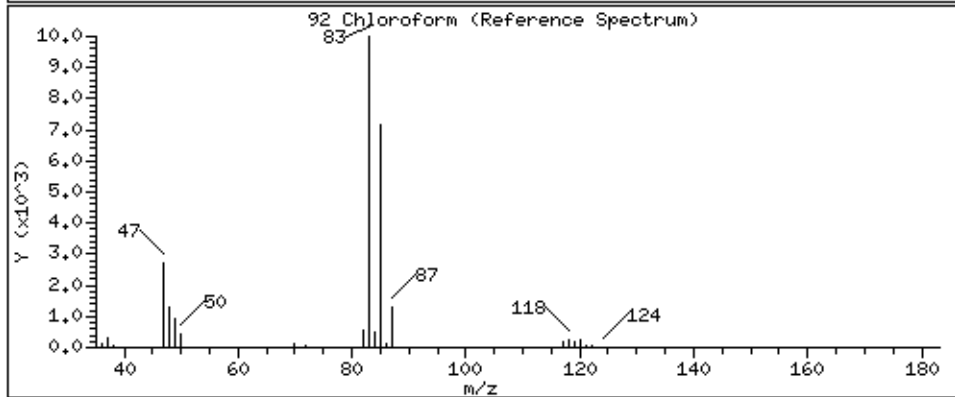
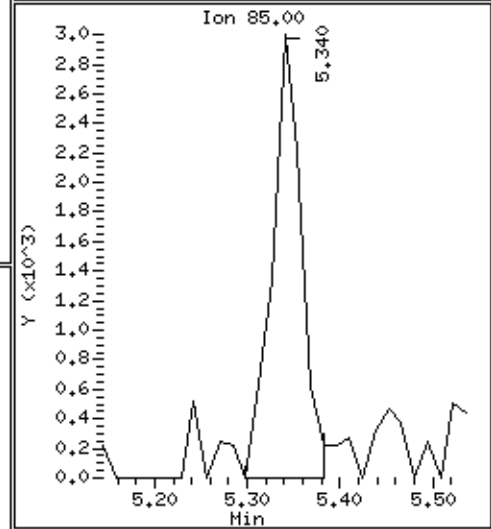
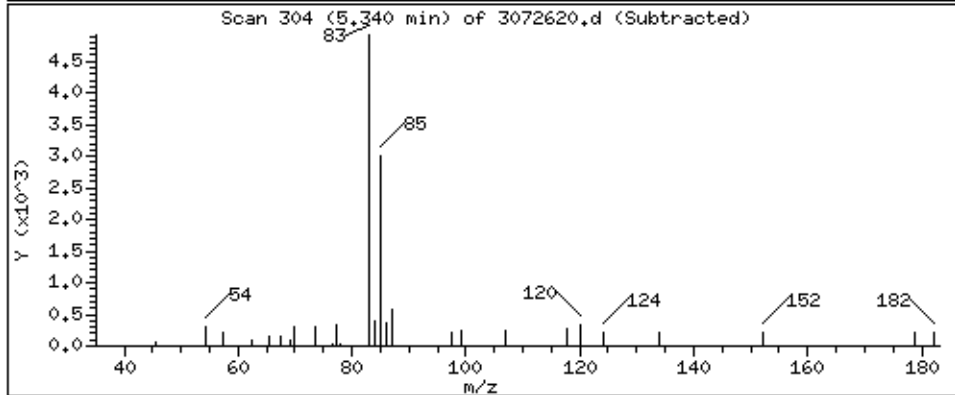
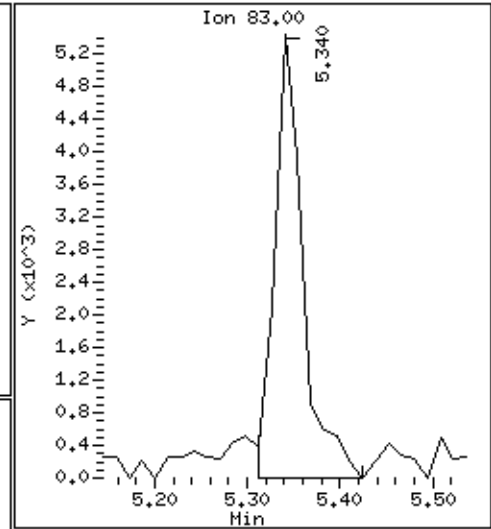
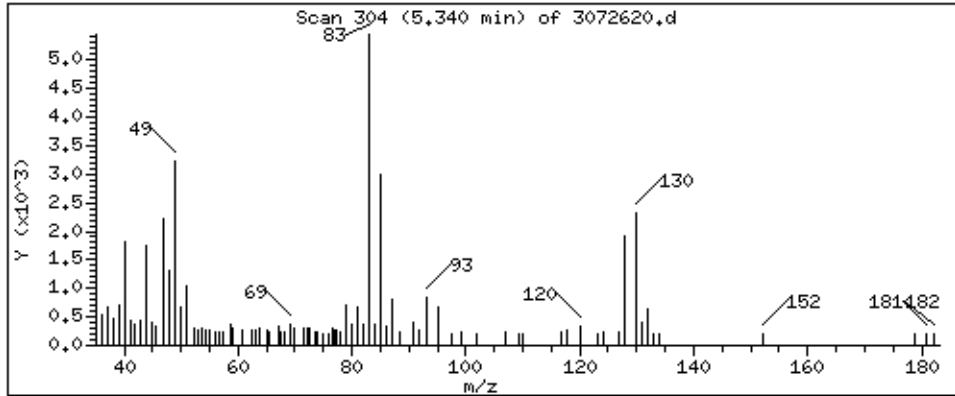
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 1,687 PPBV



Date : 26-JUL-2021 23:26

Client ID:

Instrument: msd3,i

Sample Info: 200mL 33637

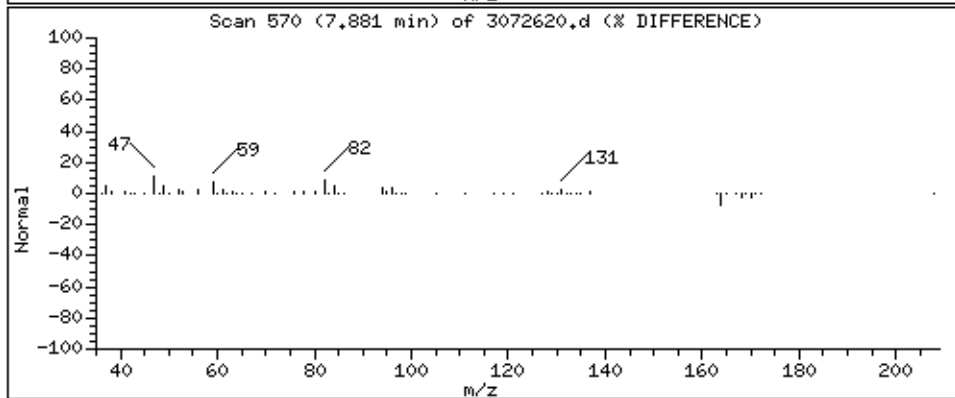
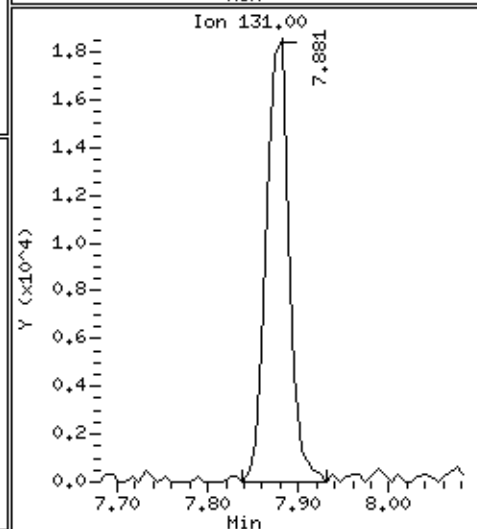
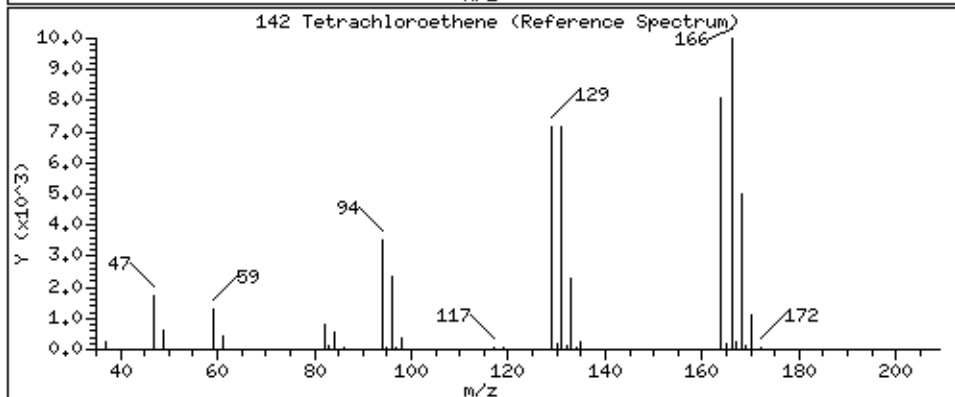
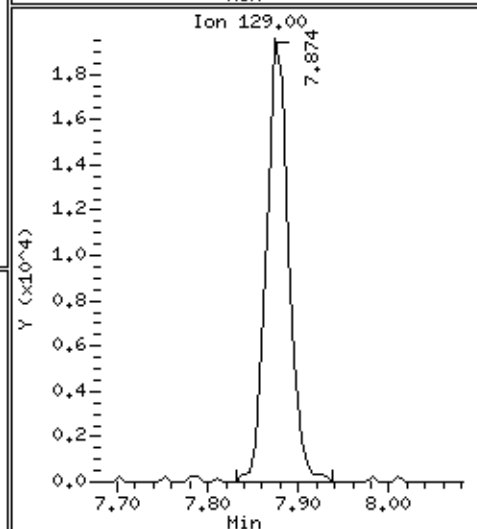
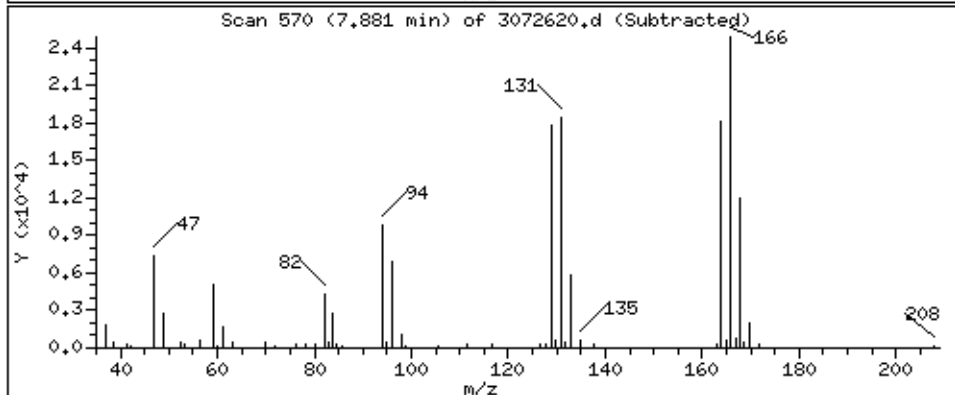
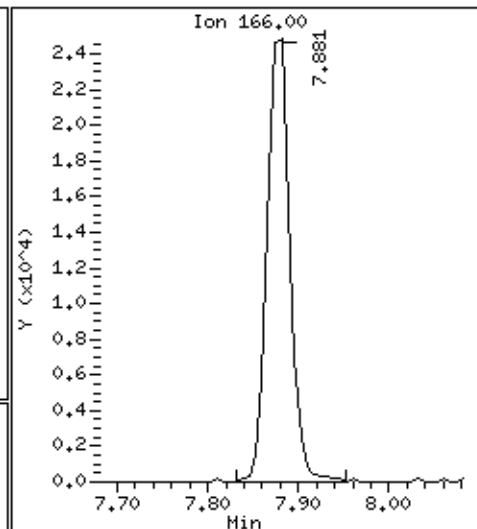
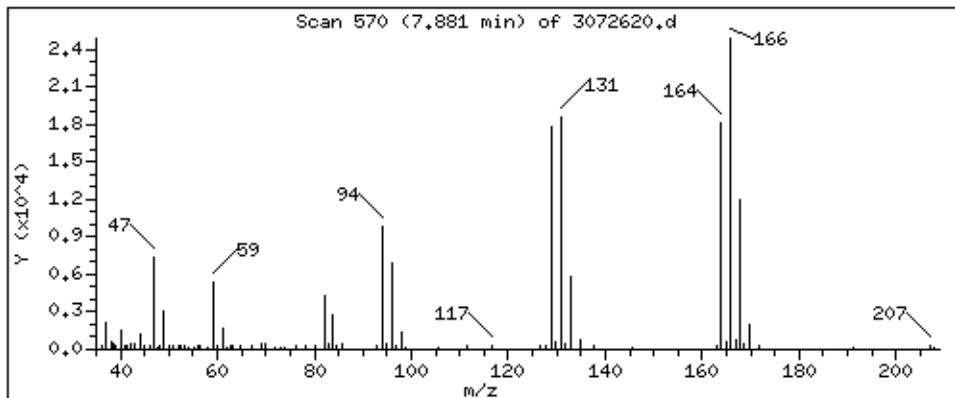
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 8.472 PPBV



Client Sample ID: SG-VW34A-02

Lab ID#: 2107284-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072621	Date of Collection:	7/14/21 1:30:00 PM
Dil. Factor:	2.26	Date of Analysis:	7/26/21 11:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.5	Not Detected	31	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.8	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
1,1-Difluoroethane	4.5	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.5	Not Detected	27	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	34	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2-Dibromo-3-chloropropane	4.5	Not Detected	44	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.7	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
2-Hexanone	4.5	Not Detected	18	Not Detected
2-Propanol	4.5	Not Detected	11	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Acetone	11	Not Detected	27	Not Detected
Acrolein	4.5	Not Detected	10	Not Detected
Acrylonitrile	4.5	Not Detected	9.8	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
Bromodichloromethane	1.1	Not Detected	7.6	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.1	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected

Client Sample ID: SG-VW34A-02

Lab ID#: 2107284-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072621	Date of Collection:	7/14/21 1:30:00 PM
Dil. Factor:	2.26	Date of Analysis:	7/26/21 11:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
Cumene	1.1	Not Detected	5.6	Not Detected
Cyclohexane	1.1	Not Detected	3.9	Not Detected
Dibromochloromethane	1.1	Not Detected	9.6	Not Detected
Dibromomethane	4.5	Not Detected	32	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Ethyl Acetate	4.5	Not Detected	16	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
Ethyl-tert-butyl ether	4.5	Not Detected	19	Not Detected
Freon 11	1.1	Not Detected	6.3	Not Detected
Freon 12	1.1	Not Detected	5.6	Not Detected
Freon 113	1.1	Not Detected	8.7	Not Detected
Freon 114	1.1	Not Detected	7.9	Not Detected
Freon 134a	4.5	Not Detected	19	Not Detected
Heptane	1.1	Not Detected	4.6	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
Hexachloroethane	4.5	Not Detected	44	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
Iodomethane	11	Not Detected	66	Not Detected
Isopropyl ether	4.5	Not Detected	19	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Naphthalene	2.3	Not Detected	12	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected
Propylbenzene	1.1	Not Detected	5.6	Not Detected
Propylene	4.5	Not Detected	7.8	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
tert-Amyl methyl ether	4.5	Not Detected	19	Not Detected
tert-Butyl alcohol	4.5	Not Detected	14	Not Detected
Tetrachloroethene	1.1	3.1	7.7	21
Tetrahydrofuran	1.1	Not Detected	3.3	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
TPH ref. to Gasoline (MW=100)	110	Not Detected	460	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
Trichloroethene	1.1	Not Detected	6.1	Not Detected
Vinyl Acetate	4.5	Not Detected	16	Not Detected
Vinyl Bromide	4.5	Not Detected	20	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW34A-02

Lab ID#: 2107284-13A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072621	Date of Collection: 7/14/21 1:30:00 PM
Dil. Factor:	2.26	Date of Analysis: 7/26/21 11:55 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	88	70-130



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072621.d  
 Lab Smp Id: 2107284-13A  
 Inj Date : 26-JUL-2021 23:55  
 Operator : DF  
 Smp Info : 200mL 1L2705  
 Misc Info : 7.8 Hg->9.9 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
 Meth Date : 28-Jul-2021 12:16 uexa  
 Cal Date : 23-JUN-2021 00:09  
 Als bottle: 4  
 Dil Factor: 2.26000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msd3.i  
 Quant Type: ISTD  
 Cal File: 3062223.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL ( PPBV)	FINAL ( PPBV)		
* 90 Bromochloromethane CAS #: 74-97-5							
5.284	5.284 (1.000)	130	213616	25.0000		80.00- 120.00	100.00
5.284	5.284 (1.000)	128	169362			48.46- 108.46	79.28
5.284	5.284 (1.000)	49	299952			120.39- 180.39	140.42
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.180	6.166 (1.000)	114	724580	25.0000		80.00- 120.00	100.00
6.180	6.166 (1.000)	88	106696			0.00- 45.52	14.73
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
8.619	8.612 (1.000)	117	671260	25.0000		80.00- 120.00	100.00
8.619	8.612 (1.000)	82	350406			25.46- 85.46	52.20
-----							
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0							
5.816	5.816 (1.101)	65	285216	24.2623	24.262	80.00- 120.00	100.00
5.816	5.816 (1.101)	67	141690			21.66- 81.66	49.68
-----							
§ 134 Toluene-d8 CAS #: 2037-26-5							
7.387	7.387 (1.195)	98	749450	25.1121	25.112	80.00- 120.00	100.00
7.387	7.387 (1.195)	70	85151			0.00- 41.47	11.36

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		CONCENTRATIONS		TARGET RANGE	RATIO
				( PPBV)	( PPBV)	ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)									
7.387	7.387	(1.195)	100	496596			36.47-	96.47	66.26
-----									
\$ 170 4-Bromofluorobenzene									
						CAS #: 460-00-4			
9.601	9.601	(1.114)	174	390475	21.9922	21.992	80.00-	120.00	100.00
9.601	9.601	(1.114)	95	439842			93.06-	153.06	112.64
9.601	9.601	(1.114)	176	357670			62.87-	122.87	91.60
-----									
142 Tetrachloroethene									
						CAS #: 127-18-4			
7.882	7.881	(0.914)	166	14360	1.36553	3.086	80.00-	120.00	100.00
7.882	7.881	(0.914)	129	10917			48.71-	108.71	76.03
7.882	7.881	(0.914)	131	11922			46.55-	106.55	83.02
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072621.d  
 Lab Smp Id: 2107284-13A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: DF  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 7.8 Hg->9.9 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	213616	-19.08
108 1,4-Difluorobenze	833448	500069	1166827	724580	-13.06
153 Chlorobenzene-d5	741338	444803	1037873	671260	-9.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

Report Date: 28-Jul-2021 13:44

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: 2107284-13A  
 Level: LOW Operator: DF  
 Data Type: MS DATA SampleType: SAMPLE  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AEC25677.sub  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 7.8 Hg->9.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.262	97.05	70-130
\$ 134 Toluene-d8	25.000	25.112	100.45	70-130
\$ 170 4-Bromofluorobenz	25.000	21.992	87.97	70-130

Date : 26-JUL-2021 23:55

Client ID:

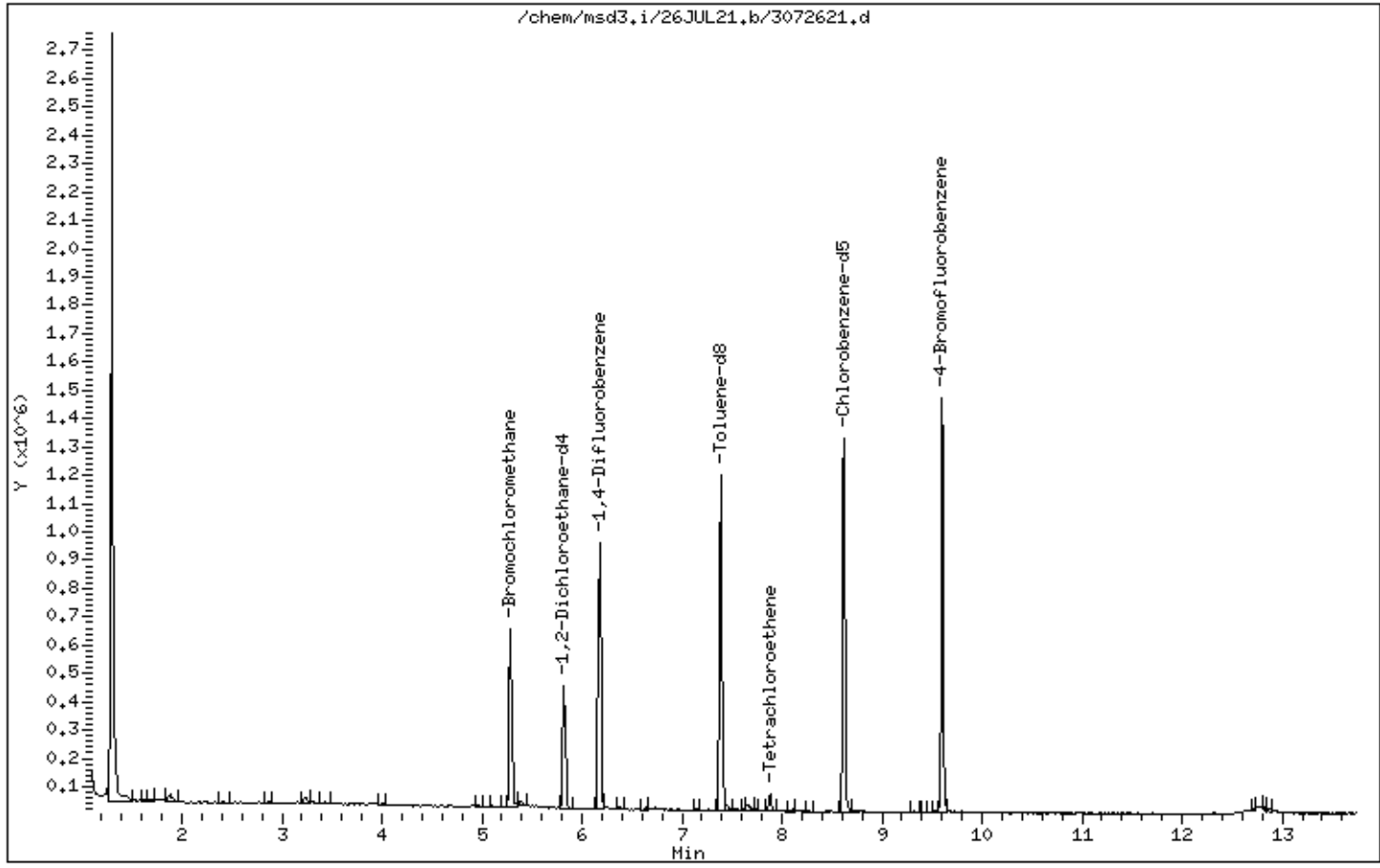
Instrument: msd3,i

Sample Info: 200mL 1L2705

Operator: DF

Column phase: RTX-624

Column diameter: 0.25



Date : 26-JUL-2021 23:55

Client ID:

Instrument: msd3,i

Sample Info: 200mL 1L2705

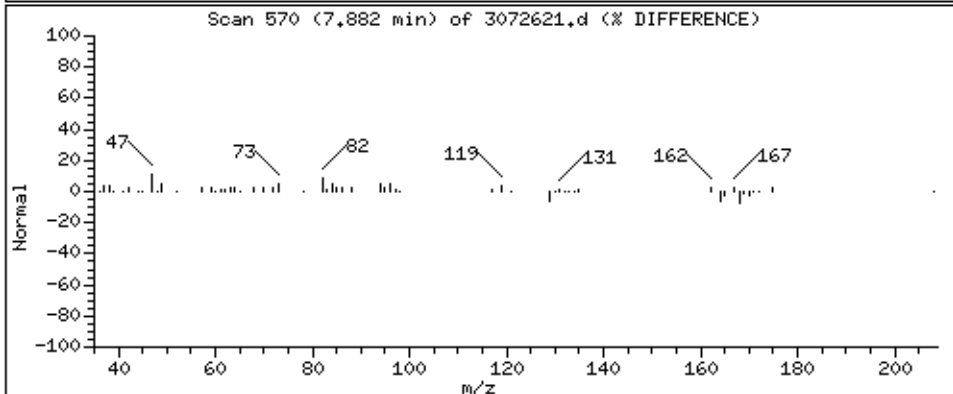
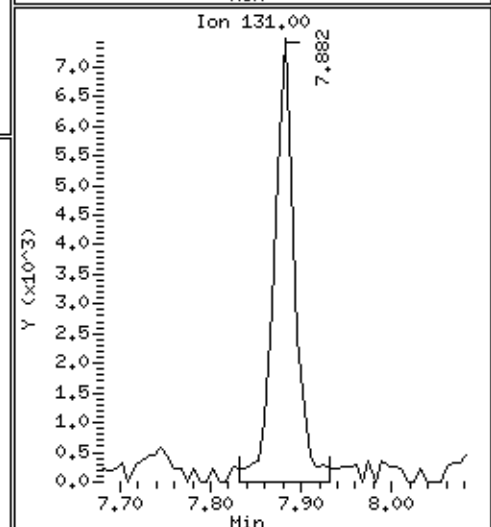
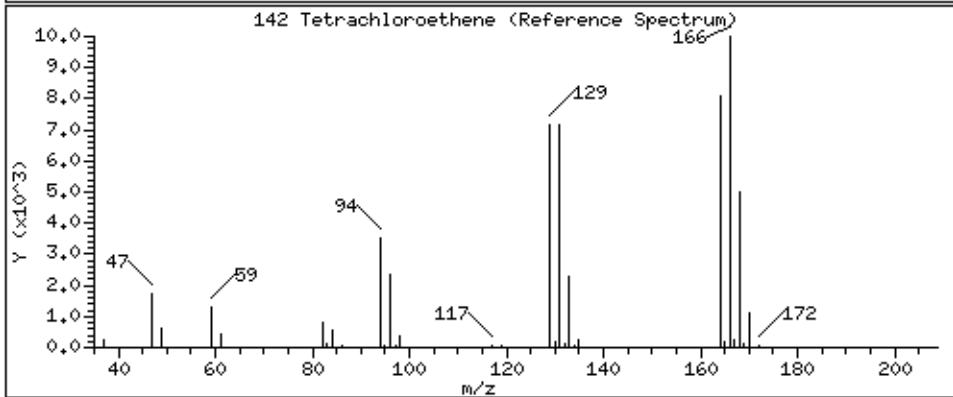
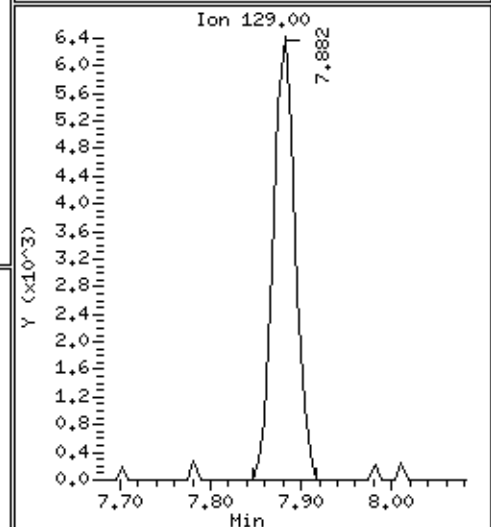
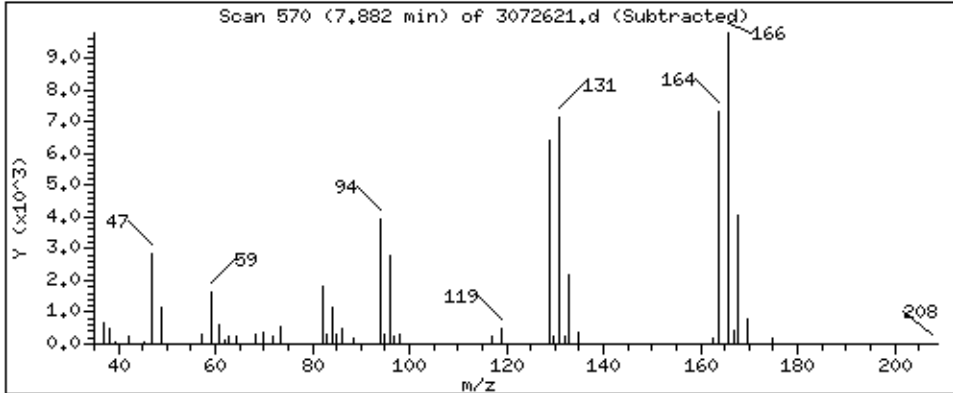
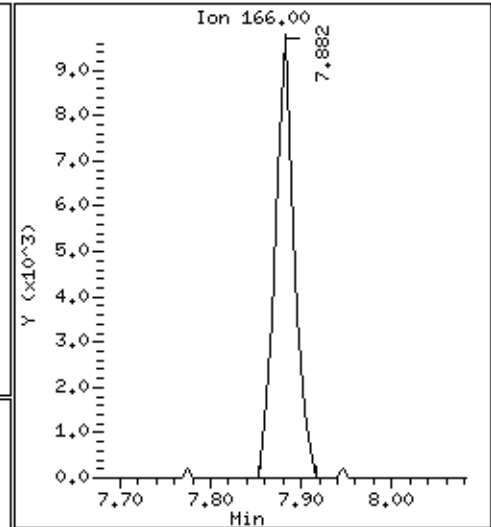
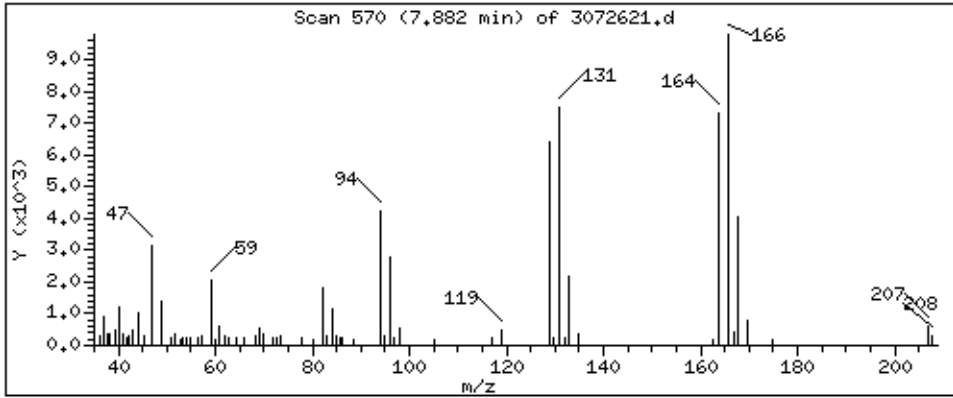
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 3,086 PPBV



Client Sample ID: SG-VW34A-03

Lab ID#: 2107284-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072622	Date of Collection:	7/14/21 1:30:00 PM
Dil. Factor:	2.32	Date of Analysis:	7/27/21 12:24 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.6	Not Detected	32	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.6	Not Detected	28	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2-Dibromo-3-chloropropane	4.6	Not Detected	45	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
2-Hexanone	4.6	Not Detected	19	Not Detected
2-Propanol	4.6	Not Detected	11	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Acetone	12	Not Detected	28	Not Detected
Acrolein	4.6	Not Detected	11	Not Detected
Acrylonitrile	4.6	Not Detected	10	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected



Air Toxics

Client Sample ID: SG-VW34A-03

Lab ID#: 2107284-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072622	Date of Collection:	7/14/21 1:30:00 PM
Dil. Factor:	2.32	Date of Analysis:	7/27/21 12:24 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
Dibromomethane	4.6	Not Detected	33	Not Detected
Ethanol	12	Not Detected	22	Not Detected
Ethyl Acetate	4.6	Not Detected	17	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
Ethyl-tert-butyl ether	4.6	Not Detected	19	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Freon 134a	4.6	Not Detected	19	Not Detected
Heptane	1.2	Not Detected	4.8	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
Hexachloroethane	4.6	Not Detected	45	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Iodomethane	12	Not Detected	67	Not Detected
Isopropyl ether	4.6	Not Detected	19	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	17	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Naphthalene	2.3	Not Detected	12	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
Propylene	4.6	Not Detected	8.0	Not Detected
Styrene	1.2	Not Detected	4.9	Not Detected
tert-Amyl methyl ether	4.6	Not Detected	19	Not Detected
tert-Butyl alcohol	4.6	Not Detected	14	Not Detected
Tetrachloroethene	1.2	3.1	7.9	21
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	470	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
Vinyl Bromide	4.6	Not Detected	20	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister



**Client Sample ID: SG-VW34A-03**
**Lab ID#: 2107284-14A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072622</b>	<b>Date of Collection: 7/14/21 1:30:00 PM</b>
<b>Dil. Factor:</b>	<b>2.32</b>	<b>Date of Analysis: 7/27/21 12:24 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	93	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072622.d  
Lab Smp Id: 2107284-14A  
Inj Date : 27-JUL-2021 00:24  
Operator : DF  
Smp Info : 200mL N3851  
Misc Info : 8.4 Hg->9.9 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 5  
Dil Factor: 2.32000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5									
5.284	5.284	(1.000)	130	226058	25.0000	80.00- 120.00	100.00		
5.284	5.284	(1.000)	128	177906		48.46- 108.46	78.70		
5.284	5.284	(1.000)	49	324037		120.39- 180.39	143.34		
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.180	6.166	(1.000)	114	718680	25.0000	80.00- 120.00	100.00		
6.180	6.166	(1.000)	88	104016		0.00- 45.52	14.47		
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
8.619	8.612	(1.000)	117	659768	25.0000	80.00- 120.00	100.00		
8.619	8.612	(1.000)	82	351119		25.46- 85.46	53.22		
-----									
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
5.816	5.816	(1.101)	65	296487	23.8330	23.833 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	144071		21.66- 81.66	48.59		
-----									
§ 134 Toluene-d8 CAS #: 2037-26-5									
7.387	7.387	(1.195)	98	712472	24.0690	24.069 80.00- 120.00	100.00		
7.387	7.387	(1.195)	70	80210		0.00- 41.47	11.26		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	471305			36.47- 96.47	66.15
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.608	9.601	(1.115)	174	407775	23.3666	23.367	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	461112			93.06- 153.06	113.08
9.608	9.601	(1.115)	176	375142			62.87- 122.87	92.00
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.881	7.881	(0.914)	166	13680	1.32353	3.070	80.00- 120.00	100.00
7.881	7.881	(0.914)	129	11542			48.71- 108.71	84.37
7.881	7.881	(0.914)	131	11208			46.55- 106.55	81.93
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072622.d  
 Lab Smp Id: 2107284-14A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: DF  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 8.4 Hg->9.9 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	226058	-14.37
108 1,4-Difluorobenze	833448	500069	1166827	718680	-13.77
153 Chlorobenzene-d5	741338	444803	1037873	659768	-11.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

Report Date: 28-Jul-2021 13:44

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-14A  
Level: LOW Operator: DF  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 8.4 Hg->9.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	23.833	95.33	70-130
\$ 134 Toluene-d8	25.000	24.069	96.28	70-130
\$ 170 4-Bromofluorobenz	25.000	23.367	93.47	70-130

Date : 27-JUL-2021 00:24

Client ID:

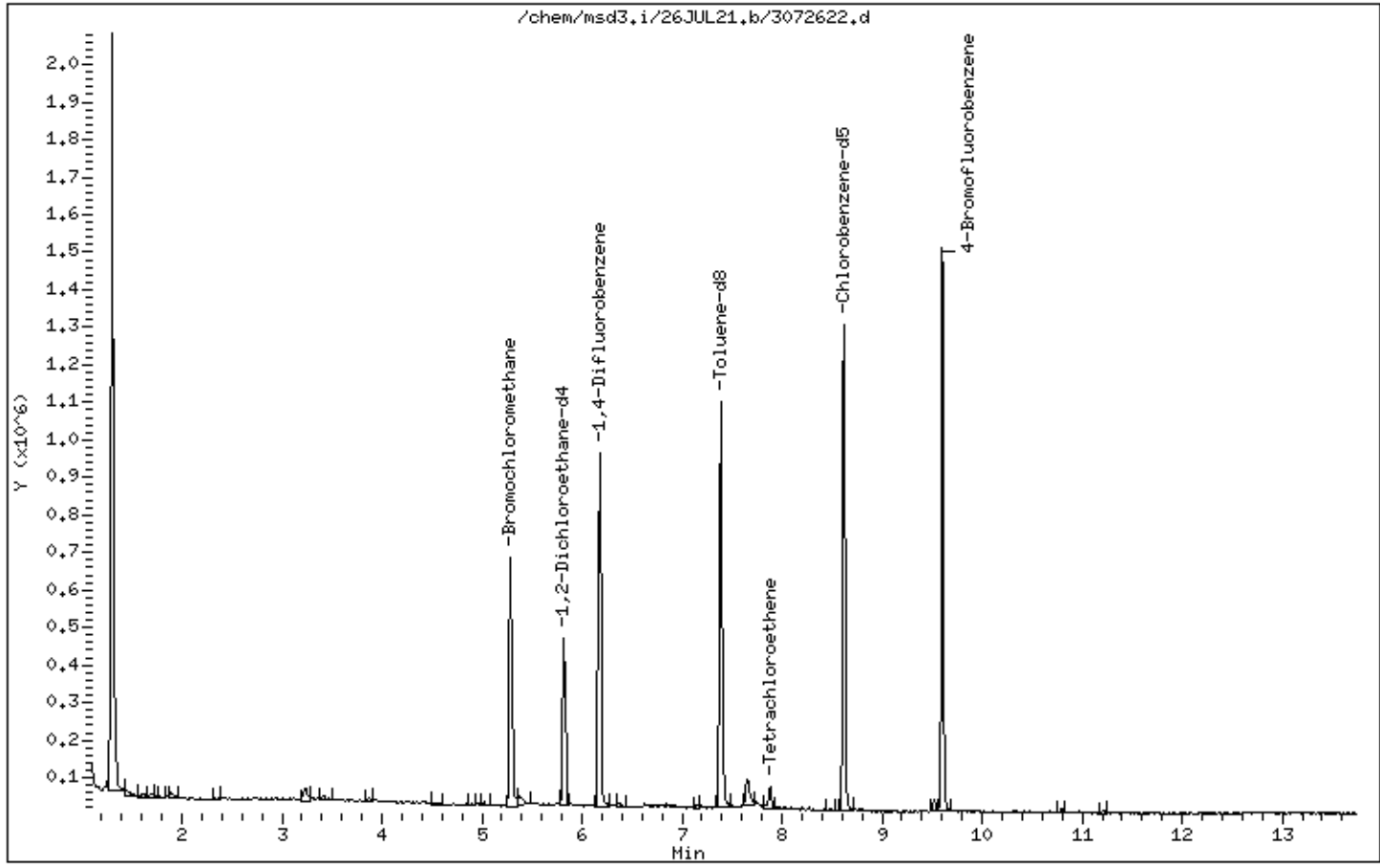
Instrument: msd3,i

Sample Info: 200mL N3851

Operator: DF

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 00:24

Client ID:

Instrument: msd3,i

Sample Info: 200mL N3851

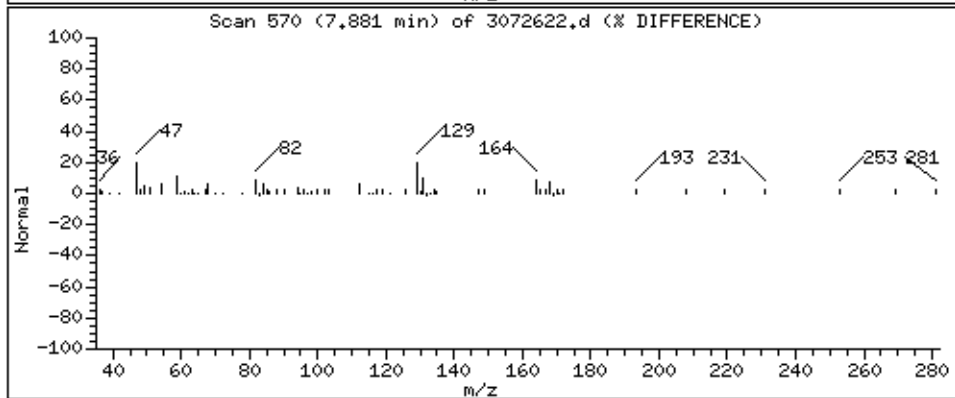
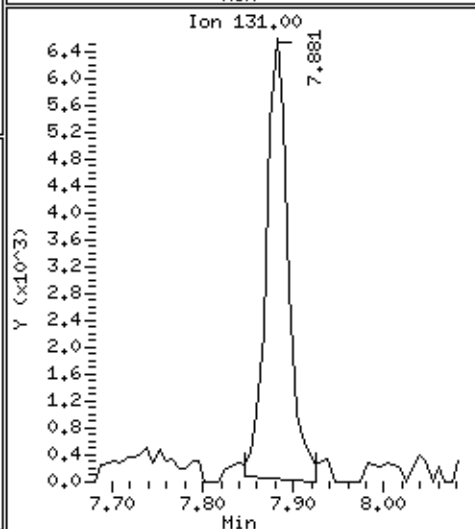
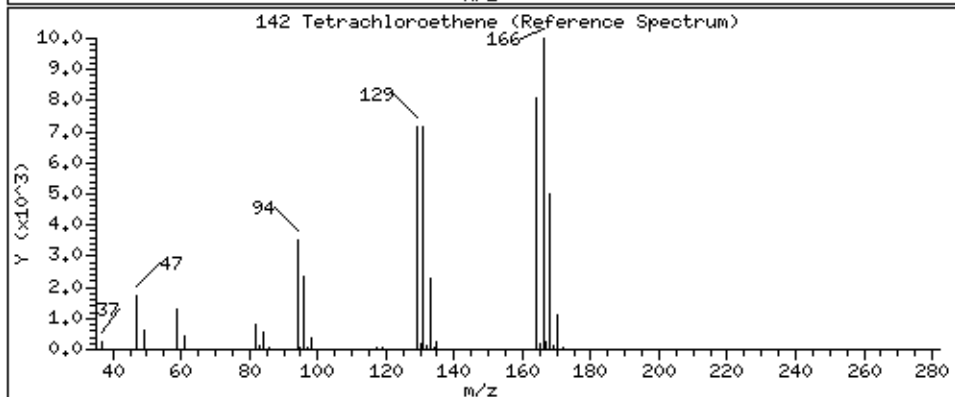
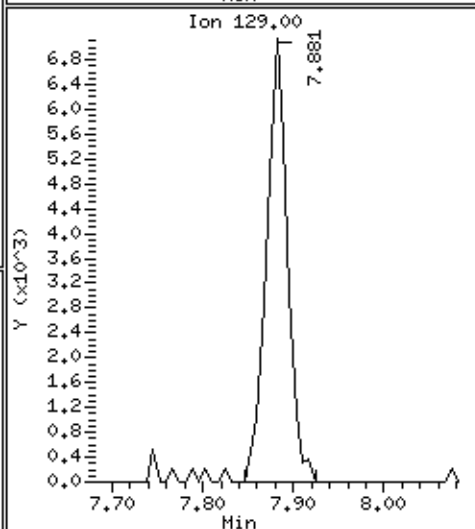
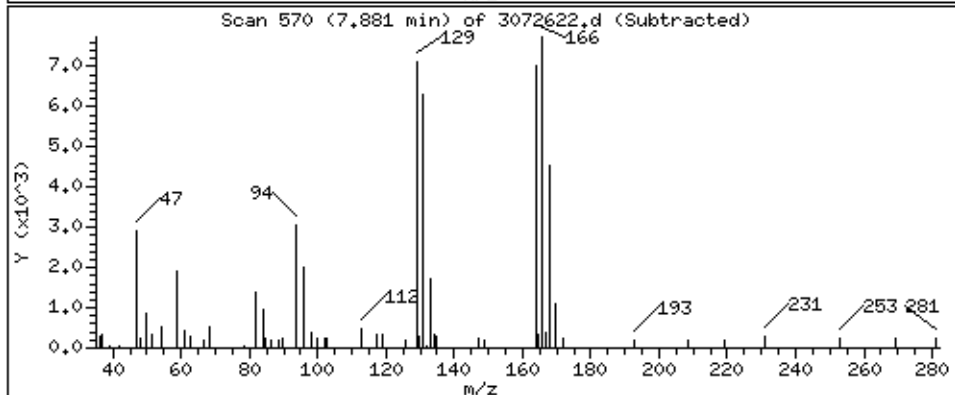
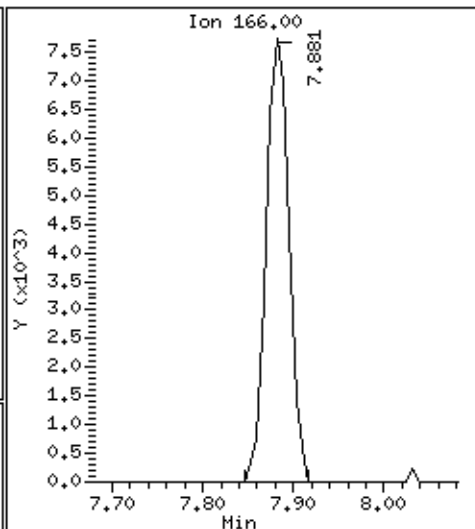
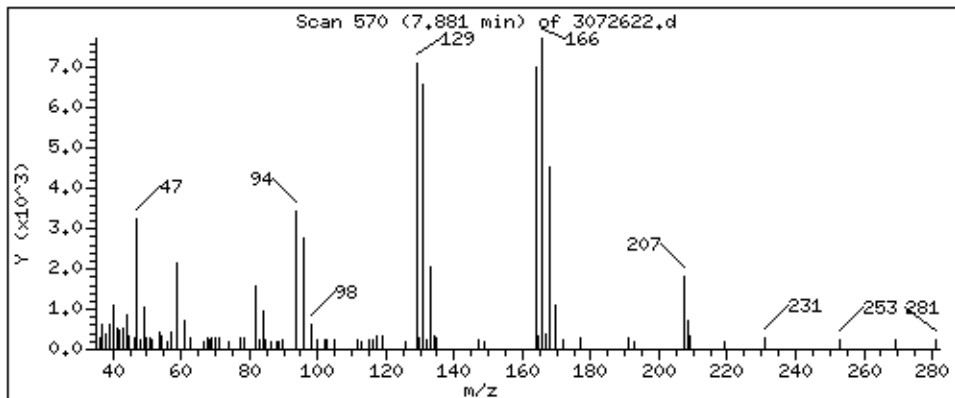
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 3,070 PPBV



Client Sample ID: SG-VW34B-02

Lab ID#: 2107284-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072623	Date of Collection:	7/14/21 2:11:00 PM
Dil. Factor:	2.40	Date of Analysis:	7/27/21 12:53 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.8	Not Detected	33	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
1,2,3-Trichloropropane	4.8	Not Detected	29	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2-Dibromo-3-chloropropane	4.8	Not Detected	46	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
2-Hexanone	4.8	Not Detected	20	Not Detected
2-Propanol	4.8	Not Detected	12	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Acetone	12	Not Detected	28	Not Detected
Acrolein	4.8	Not Detected	11	Not Detected
Acrylonitrile	4.8	Not Detected	10	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected





Air Toxics

Client Sample ID: SG-VW34B-02

Lab ID#: 2107284-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072623	Date of Collection:	7/14/21 2:11:00 PM
Dil. Factor:	2.40	Date of Analysis:	7/27/21 12:53 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
Dibromomethane	4.8	Not Detected	34	Not Detected
Ethanol	12	Not Detected	23	Not Detected
Ethyl Acetate	4.8	Not Detected	17	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
Ethyl-tert-butyl ether	4.8	Not Detected	20	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 12	1.2	1.9	5.9	9.3
Freon 113	1.2	Not Detected	9.2	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Freon 134a	4.8	Not Detected	20	Not Detected
Heptane	1.2	Not Detected	4.9	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
Hexachloroethane	4.8	Not Detected	46	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
Iodomethane	12	Not Detected	70	Not Detected
Isopropyl ether	4.8	Not Detected	20	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Naphthalene	2.4	Not Detected	12	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
Propylene	4.8	Not Detected	8.3	Not Detected
Styrene	1.2	Not Detected	5.1	Not Detected
tert-Amyl methyl ether	4.8	Not Detected	20	Not Detected
tert-Butyl alcohol	4.8	Not Detected	14	Not Detected
Tetrachloroethene	1.2	3.8	8.1	26
Tetrahydrofuran	1.2	Not Detected	3.5	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	490	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
Vinyl Bromide	4.8	Not Detected	21	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW34B-02**
**Lab ID#: 2107284-15A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072623</b>	<b>Date of Collection: 7/14/21 2:11:00 PM</b>
<b>Dil. Factor:</b>	<b>2.40</b>	<b>Date of Analysis: 7/27/21 12:53 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	94	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072623.d  
 Lab Smp Id: 2107284-15A  
 Inj Date : 27-JUL-2021 00:53  
 Operator : DF  
 Smp Info : 200mL N2640  
 Misc Info : 9 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
 Meth Date : 28-Jul-2021 12:16 uexa  
 Cal Date : 23-JUN-2021 00:09  
 Als bottle: 6  
 Dil Factor: 2.40000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msd3.i  
 Quant Type: ISTD  
 Cal File: 3062223.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
RT	EXP RT (REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====
-----							
* 90	Bromochloromethane					CAS #: 74-97-5	
5.284	5.284 (1.000)	130	292342	25.0000		80.00- 120.00	100.00
5.284	5.284 (1.000)	128	226202			48.46- 108.46	77.38
5.284	5.284 (1.000)	49	410988			120.39- 180.39	140.58
-----							
* 108	1,4-Difluorobenzene					CAS #: 540-36-3	
6.166	6.166 (1.000)	114	957918	25.0000		80.00- 120.00	100.00
6.166	6.166 (1.000)	88	137578			0.00- 45.52	14.36
-----							
* 153	Chlorobenzene-d5					CAS #: 3114-55-4	
8.612	8.612 (1.000)	117	911515	25.0000		80.00- 120.00	100.00
8.612	8.612 (1.000)	82	477076			25.46- 85.46	52.34
-----							
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0	
5.816	5.816 (1.101)	65	388054	24.1209	24.121	80.00- 120.00	100.00
5.816	5.816 (1.101)	67	189170			21.66- 81.66	48.75
-----							
\$ 134	Toluene-d8					CAS #: 2037-26-5	
7.387	7.387 (1.198)	98	925797	23.4646	23.465	80.00- 120.00	100.00
7.387	7.387 (1.198)	70	102885			0.00- 41.47	11.11

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.198)	100	609656			36.47- 96.47	65.85
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	564481	23.4127	23.413	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	647716			93.06- 153.06	114.75
9.601	9.601	(1.115)	176	525686			62.87- 122.87	93.13
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.465	1.465	(0.277)	85	15952	0.78331	1.880	80.00- 120.00	100.00
1.465	1.465	(0.277)	87	6056			2.63- 62.63	37.97
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.881	7.881	(0.915)	166	22647	1.58593	3.806	80.00- 120.00	100.00
7.881	7.881	(0.915)	129	17018			48.71- 108.71	75.14
7.874	7.881	(0.914)	131	16957			46.55- 106.55	74.87
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072623.d  
Lab Smp Id: 2107284-15A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: DF  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 9 Hg->10 psi

Calibration Date: 26-JUL-2021  
Calibration Time: 10:10  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	292342	10.74
108 1,4-Difluorobenze	833448	500069	1166827	957918	14.93
153 Chlorobenzene-d5	741338	444803	1037873	911515	22.96

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.17	0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.

Report Date: 28-Jul-2021 13:44

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: 2107284-15A  
 Level: LOW Operator: DF  
 Data Type: MS DATA SampleType: SAMPLE  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AEC25677.sub  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 9 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.121	96.48	70-130
\$ 134 Toluene-d8	25.000	23.465	93.86	70-130
\$ 170 4-Bromofluorobenz	25.000	23.413	93.65	70-130

Date : 27-JUL-2021 00:53

Client ID:

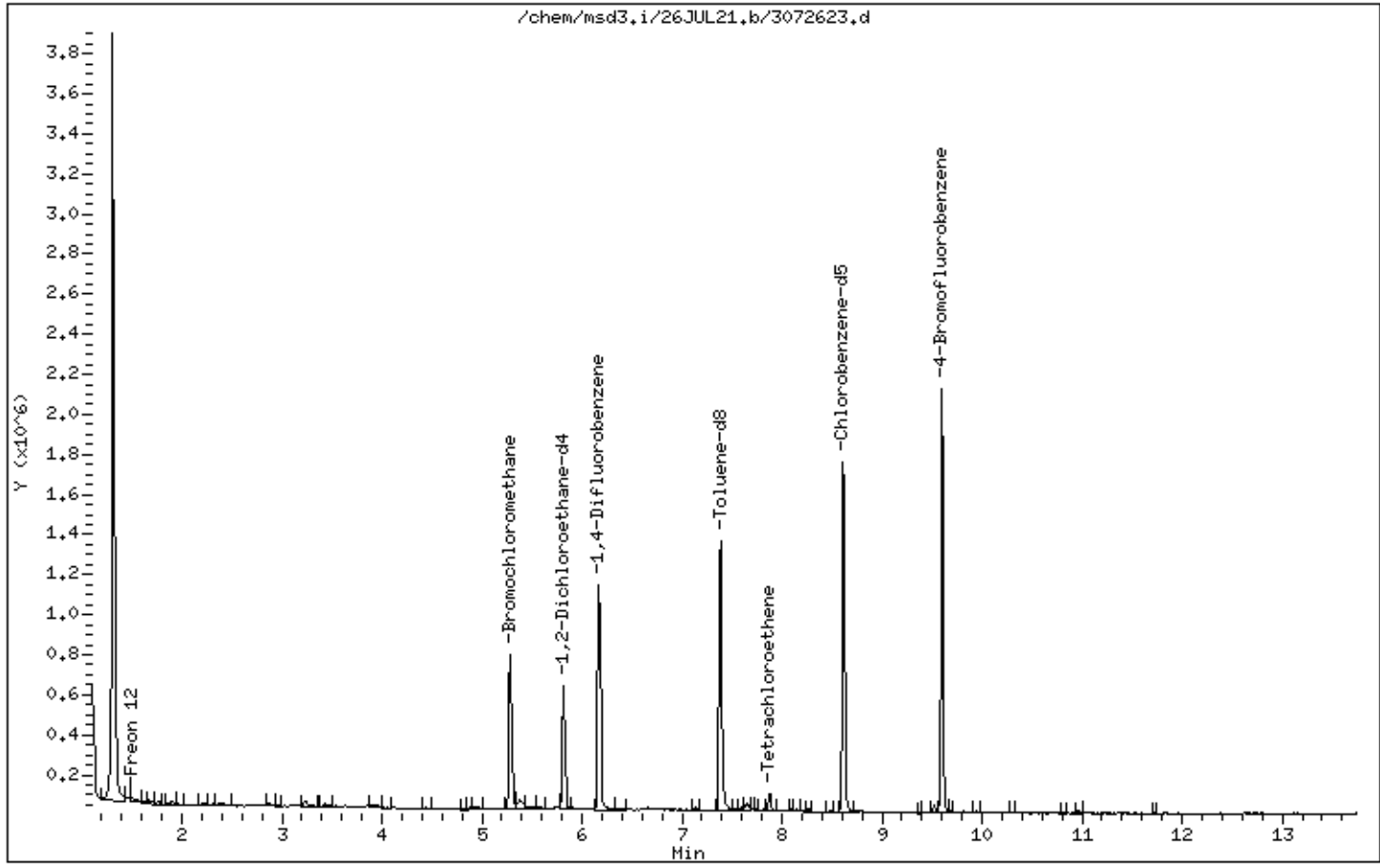
Instrument: msd3,i

Sample Info: 200mL N2640

Operator: DF

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 00:53

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2640

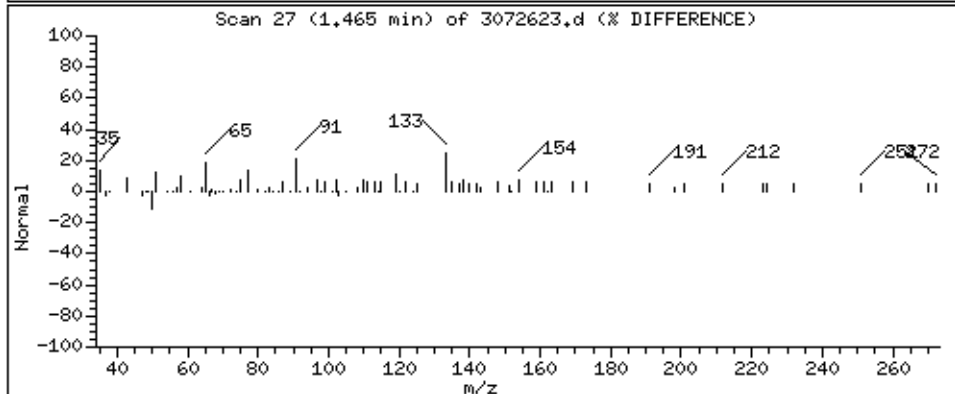
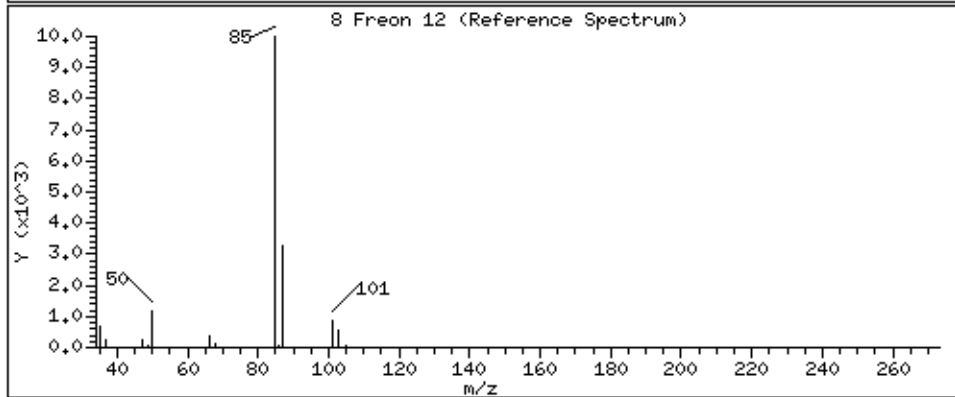
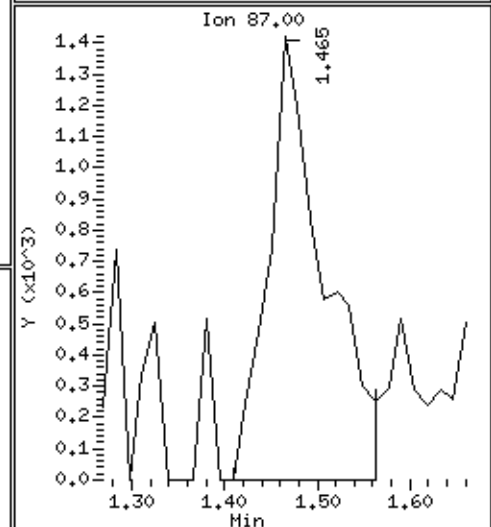
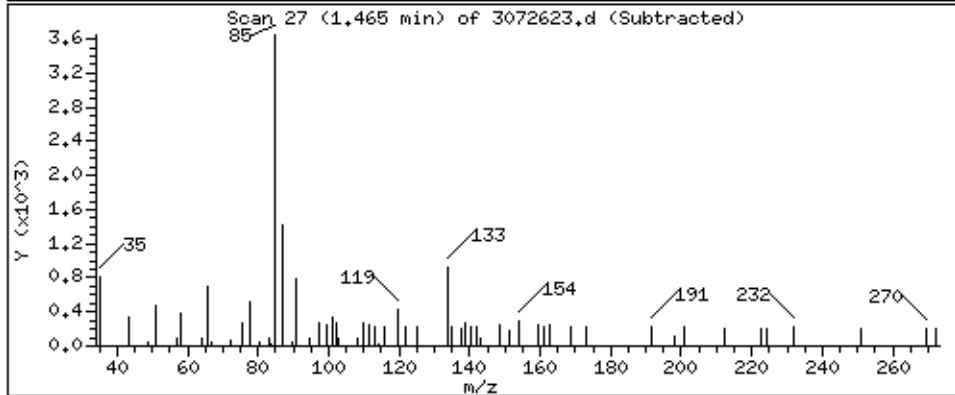
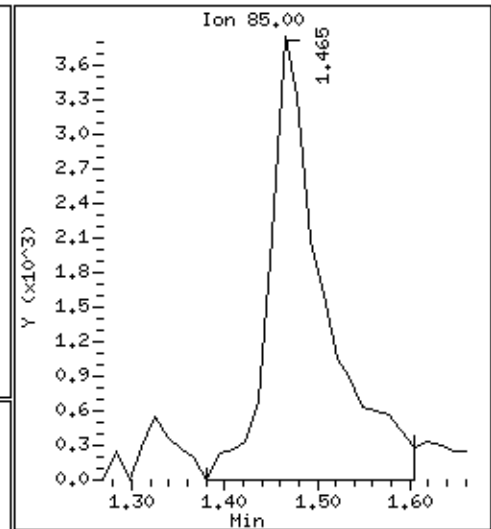
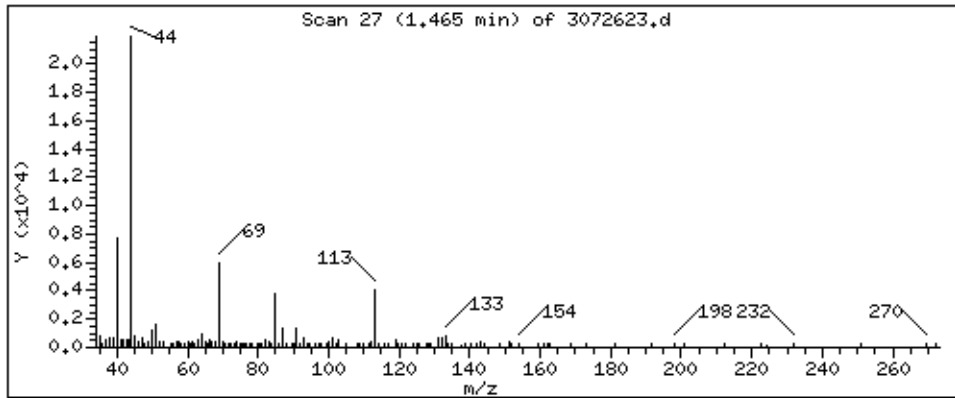
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 1,880 PPBV





Date : 27-JUL-2021 00:53

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2640

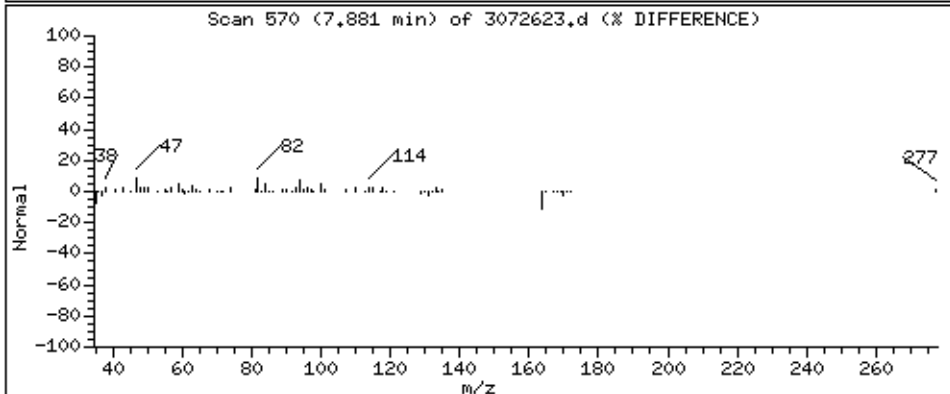
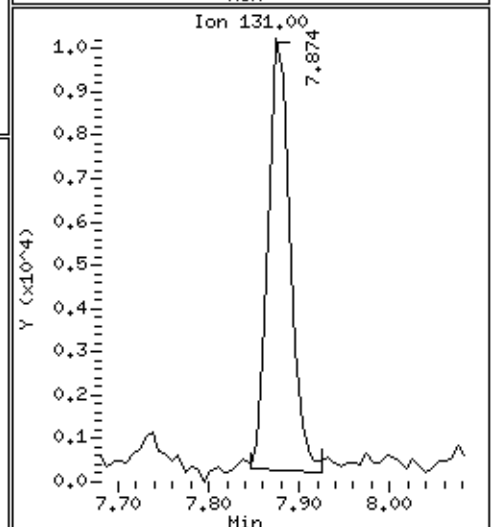
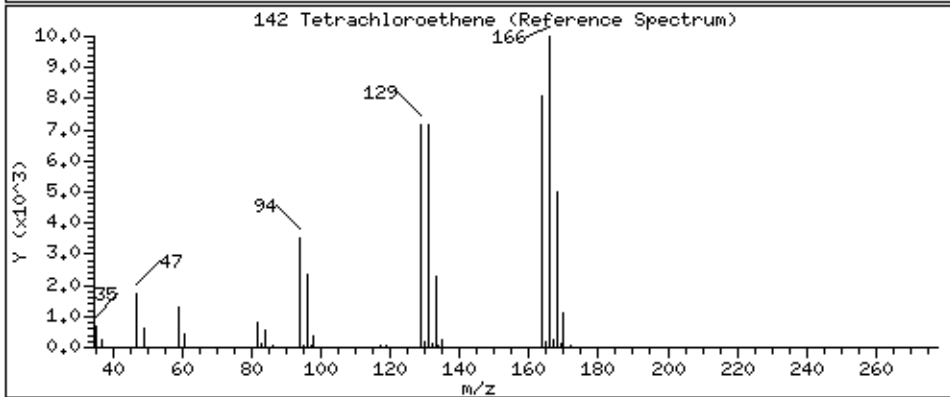
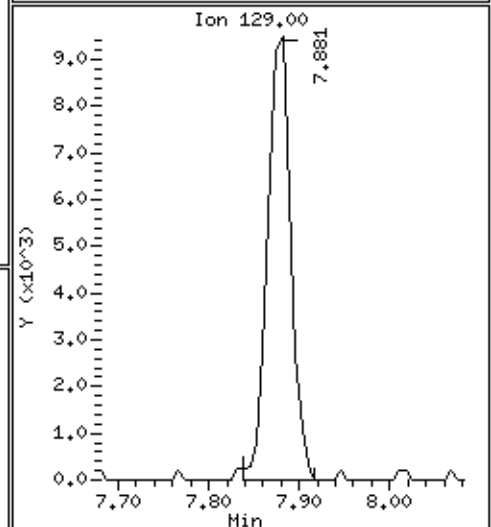
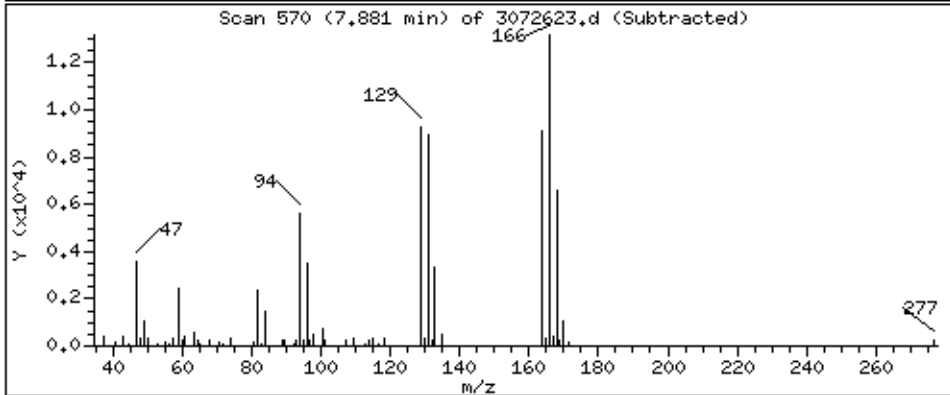
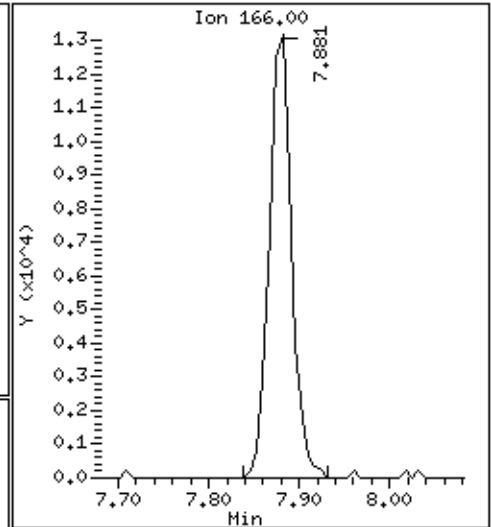
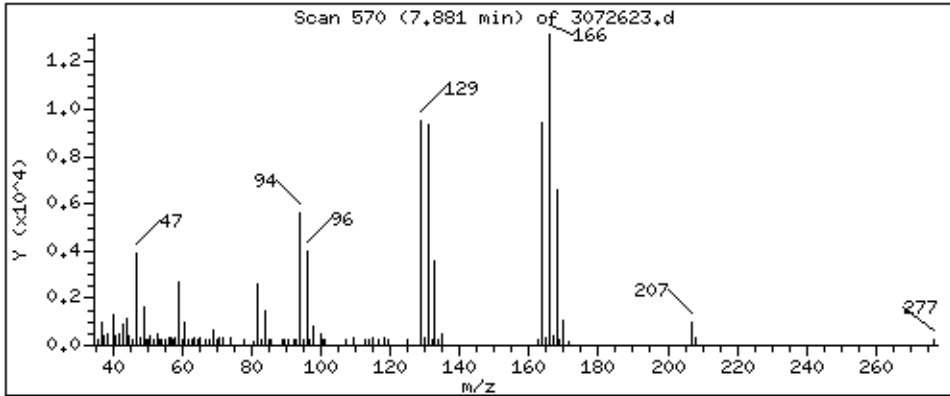
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 3.806 PPBV



Client Sample ID: SG-VW55B-02

Lab ID#: 2107284-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072624	Date of Collection:	7/14/21 2:40:00 PM
Dil. Factor:	2.14	Date of Analysis:	7/27/21 01:22 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.3	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.3	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.3	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,2-Dibromo-3-chloropropane	4.3	Not Detected	41	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	13	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected
2-Propanol	4.3	Not Detected	10	Not Detected
3-Chloropropene	4.3	Not Detected	13	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Acetone	11	Not Detected	25	Not Detected
Acrolein	4.3	Not Detected	9.8	Not Detected
Acrylonitrile	4.3	Not Detected	9.3	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.5	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Carbon Disulfide	4.3	Not Detected	13	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Chloroform	1.1	Not Detected	5.2	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected



Air Toxics

Client Sample ID: SG-VW55B-02

Lab ID#: 2107284-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072624	Date of Collection:	7/14/21 2:40:00 PM
Dil. Factor:	2.14	Date of Analysis:	7/27/21 01:22 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
Cumene	1.1	Not Detected	5.2	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
Dibromomethane	4.3	Not Detected	30	Not Detected
Ethanol	11	Not Detected	20	Not Detected
Ethyl Acetate	4.3	Not Detected	15	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.3	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
Freon 114	1.1	Not Detected	7.5	Not Detected
Freon 134a	4.3	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected
Hexachloroethane	4.3	Not Detected	41	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
Iodomethane	11	Not Detected	62	Not Detected
Isopropyl ether	4.3	Not Detected	18	Not Detected
m,p-Xylene	1.1	Not Detected	4.6	Not Detected
Methyl tert-butyl ether	4.3	Not Detected	15	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected
Propylbenzene	1.1	Not Detected	5.3	Not Detected
Propylene	4.3	Not Detected	7.4	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
tert-Amyl methyl ether	4.3	Not Detected	18	Not Detected
tert-Butyl alcohol	4.3	Not Detected	13	Not Detected
Tetrachloroethene	1.1	1.3	7.2	9.1
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
TPH ref. to Gasoline (MW=100)	110	Not Detected	440	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
Vinyl Acetate	4.3	Not Detected	15	Not Detected
Vinyl Bromide	4.3	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW55B-02**
**Lab ID#: 2107284-16A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072624</b>	<b>Date of Collection: 7/14/21 2:40:00 PM</b>
<b>Dil. Factor:</b>	<b>2.14</b>	<b>Date of Analysis: 7/27/21 01:22 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	94	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072624.d  
Lab Smp Id: 2107284-16A  
Inj Date : 27-JUL-2021 01:22  
Operator : DF  
Smp Info : 200mL O0882  
Misc Info : 6.5 Hg->9.9 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 7  
Dil Factor: 2.14000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i

Quant Type: ISTD

Cal File: 3062223.d

Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	232873	25.0000	80.00- 120.00	100.00	
5.284	5.284	(1.000)	128	179537		48.46- 108.46	77.10	
5.284	5.284	(1.000)	49	332404		120.39- 180.39	142.74	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.180	6.166	(1.000)	114	751650	25.0000	80.00- 120.00	100.00	
6.180	6.166	(1.000)	88	108235		0.00- 45.52	14.40	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.619	8.612	(1.000)	117	675437	25.0000	80.00- 120.00	100.00	
8.619	8.612	(1.000)	82	351361		25.46- 85.46	52.02	
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	309811	24.1752	24.175 80.00- 120.00	100.00	
5.816	5.816	(1.101)	67	149007		21.66- 81.66	48.10	
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.195)	98	735949	23.7716	23.772 80.00- 120.00	100.00	
7.387	7.387	(1.195)	70	82246		0.00- 41.47	11.18	

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)									
7.387	7.387	(1.195)	100	483831		36.47- 96.47	65.74		
-----									
\$ 170 4-Bromofluorobenzene									
				CAS #: 460-00-4					
9.608	9.601	(1.115)	174	420428	23.5328	23.533	80.00- 120.00	100.00	
9.601	9.601	(1.114)	95	477687			93.06- 153.06	113.62	
9.608	9.601	(1.115)	176	393846			62.87- 122.87	93.68	
-----									
142 Tetrachloroethene									
				CAS #: 127-18-4					
7.881	7.881	(0.914)	166	6637	0.62723	1.342	80.00- 120.00	100.00	
7.881	7.881	(0.914)	129	5913			48.71- 108.71	89.09	
7.881	7.881	(0.914)	131	5621			46.55- 106.55	84.69	
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072624.d  
 Lab Smp Id: 2107284-16A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: DF  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 6.5 Hg->9.9 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	232873	-11.78
108 1,4-Difluorobenze	833448	500069	1166827	751650	-9.81
153 Chlorobenzene-d5	741338	444803	1037873	675437	-8.89

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

Report Date: 28-Jul-2021 13:45

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: 2107284-16A  
 Level: LOW Operator: DF  
 Data Type: MS DATA SampleType: SAMPLE  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AEC25677.sub  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 6.5 Hg->9.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.175	96.70	70-130
\$ 134 Toluene-d8	25.000	23.772	95.09	70-130
\$ 170 4-Bromofluorobenz	25.000	23.533	94.13	70-130



Date : 27-JUL-2021 01:22

Client ID:

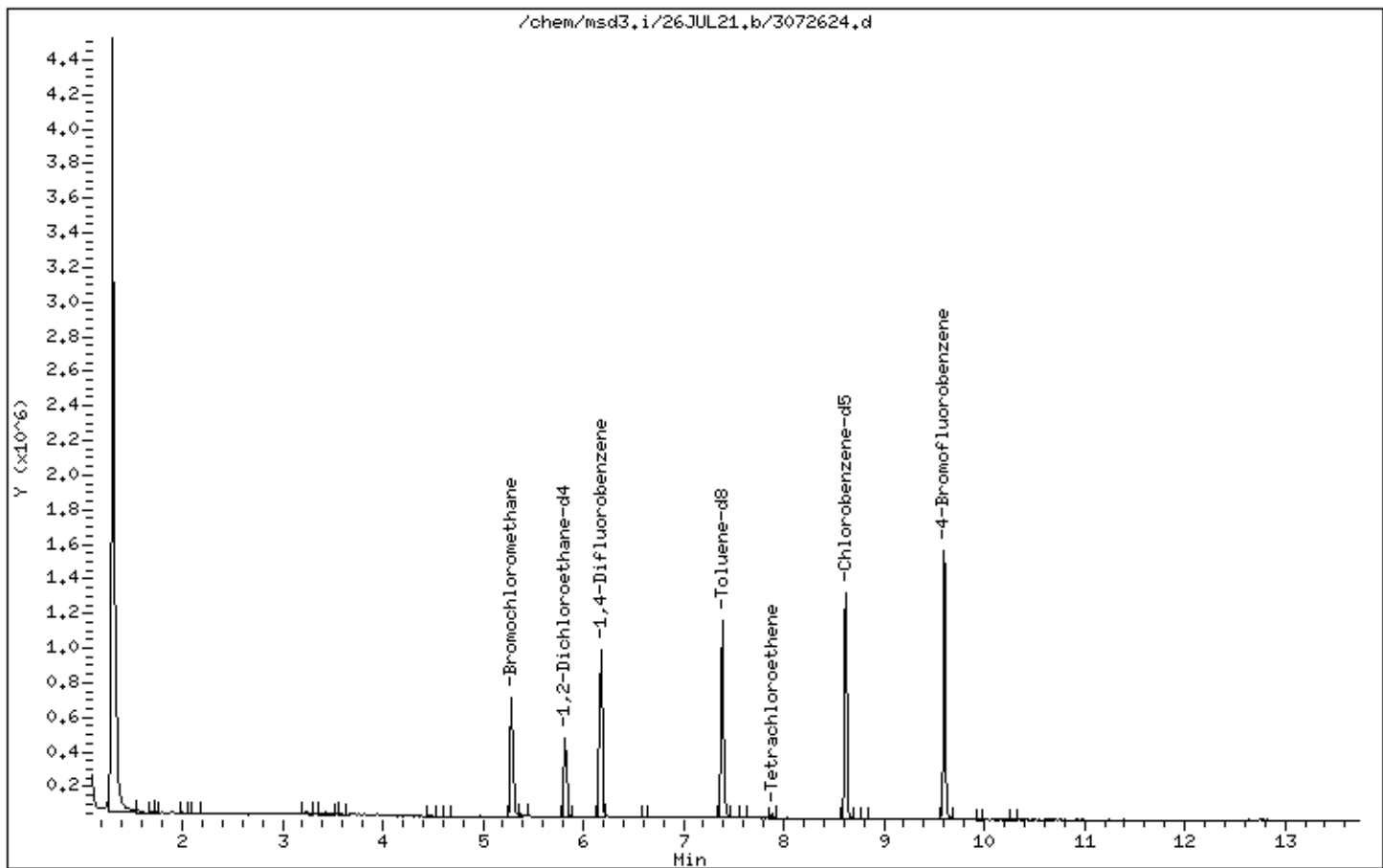
Instrument: msd3,i

Sample Info: 200mL 00882

Operator: DF

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 01:22

Client ID:

Instrument: msd3.i

Sample Info: 200mL 00882

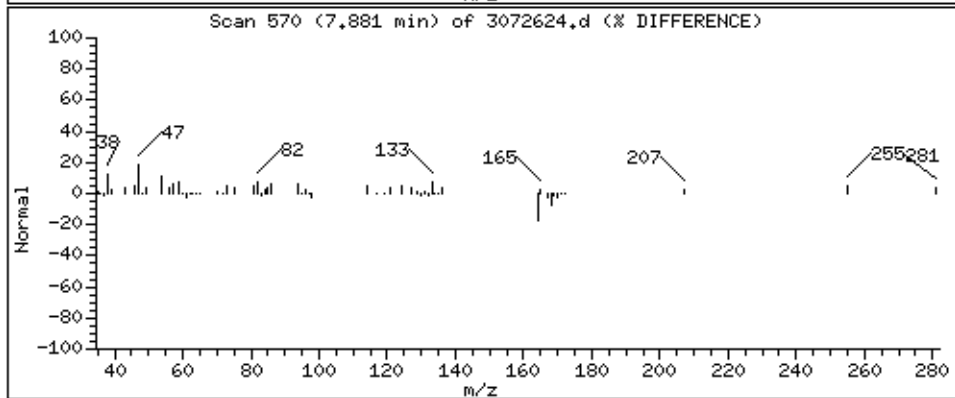
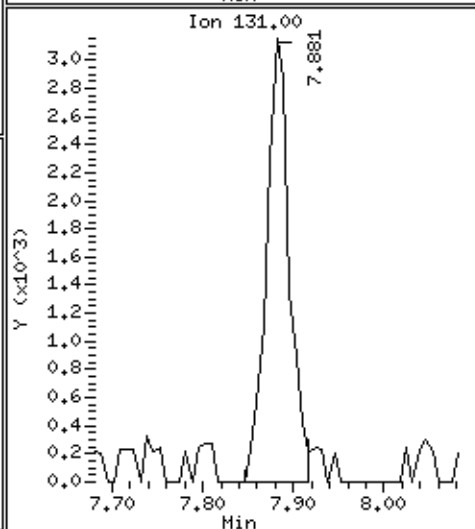
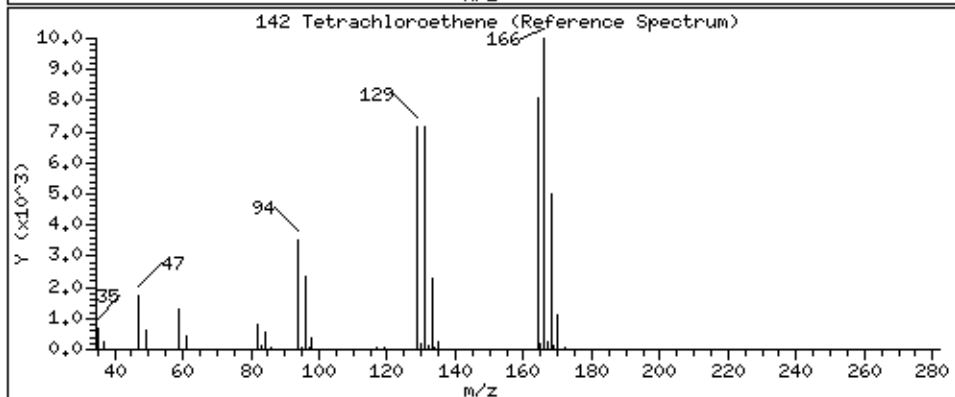
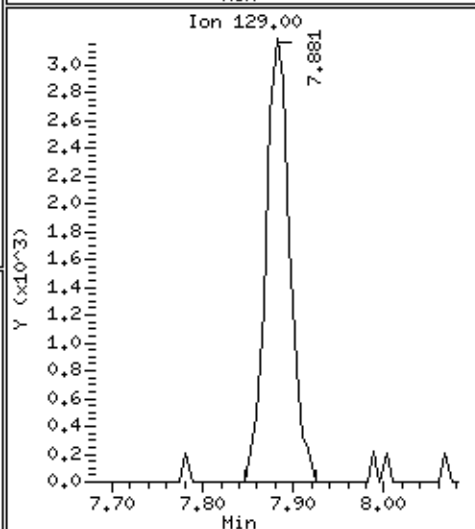
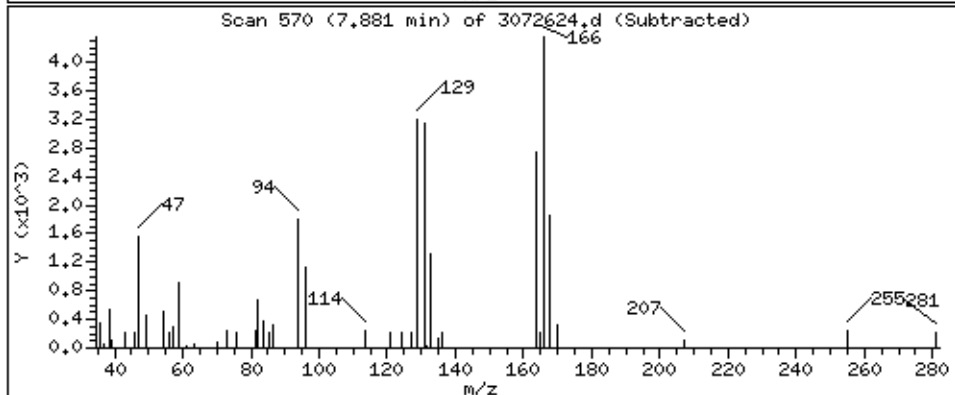
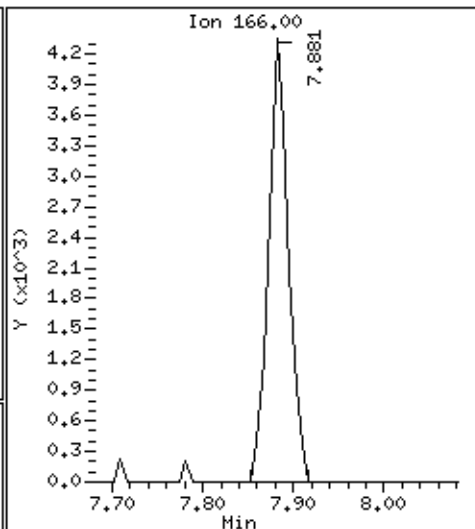
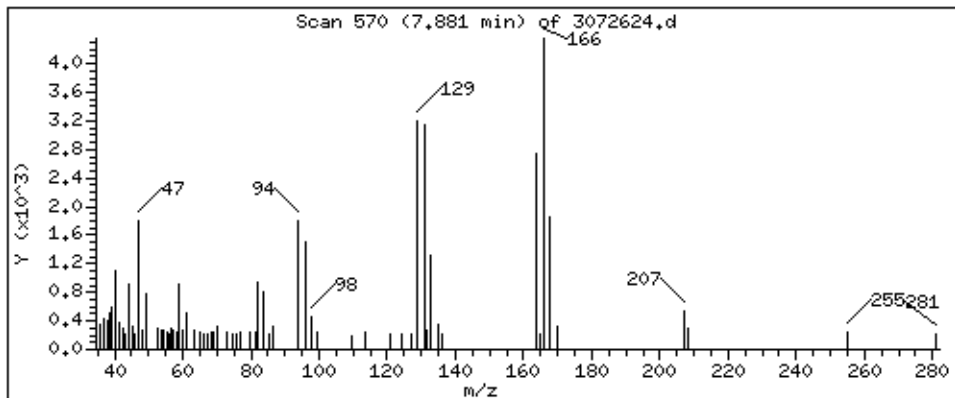
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 1,342 PPBV



Client Sample ID: SG-VW60A-01

Lab ID#: 2107284-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072625	Date of Collection:	7/14/21 7:34:00 AM
Dil. Factor:	2.04	Date of Analysis:	7/27/21 01:51 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.0	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
1,1-Difluoroethane	4.1	8300 E	11	22000 E
1,2,3-Trichloropropane	4.1	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	1.2	5.0	6.1
1,2-Dibromo-3-chloropropane	4.1	Not Detected	39	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	1.0	1.3	5.0	6.4
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	130	4.8	630
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected
2-Propanol	4.1	13	10	33
3-Chloropropene	4.1	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	2.2	5.0	11
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Acetone	10	32	24	76
Acrolein	4.1	Not Detected	9.4	Not Detected
Acrylonitrile	4.1	Not Detected	8.8	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
Benzene	1.0	31	3.2	98
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Carbon Disulfide	4.1	12	13	38
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected

Client Sample ID: SG-VW60A-01

Lab ID#: 2107284-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072625	Date of Collection:	7/14/21 7:34:00 AM
Dil. Factor:	2.04	Date of Analysis:	7/27/21 01:51 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
Cyclohexane	1.0	6.5	3.5	22
Dibromochloromethane	1.0	Not Detected	8.7	Not Detected
Dibromomethane	4.1	Not Detected	29	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Ethyl Acetate	4.1	Not Detected	15	Not Detected
Ethyl Benzene	1.0	9.6	4.4	42
Ethyl-tert-butyl ether	4.1	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Freon 12	1.0	Not Detected	5.0	Not Detected
Freon 113	1.0	Not Detected	7.8	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected
Heptane	1.0	9.0	4.2	37
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Hexachloroethane	4.1	Not Detected	40	Not Detected
Hexane	1.0	100	3.6	360
Iodomethane	10	Not Detected	59	Not Detected
Isopropyl ether	4.1	Not Detected	17	Not Detected
m,p-Xylene	1.0	22	4.4	93
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Naphthalene	2.0	Not Detected	11	Not Detected
o-Xylene	1.0	7.4	4.4	32
Propylbenzene	1.0	Not Detected	5.0	Not Detected
Propylene	4.1	Not Detected	7.0	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
tert-Amyl methyl ether	4.1	Not Detected	17	Not Detected
tert-Butyl alcohol	4.1	Not Detected	12	Not Detected
Tetrachloroethene	1.0	13	6.9	87
Tetrahydrofuran	1.0	3.4	3.0	10
Toluene	1.0	91	3.8	340
TPH ref. to Gasoline (MW=100)	100	1800	420	7400
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
Vinyl Acetate	4.1	Not Detected	14	Not Detected
Vinyl Bromide	4.1	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected



Air Toxics

Client Sample ID: SG-VW60A-01

Lab ID#: 2107284-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072625	Date of Collection: 7/14/21 7:34:00 AM
Dil. Factor:	2.04	Date of Analysis: 7/27/21 01:51 AM

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	89	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	98	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072625.d  
Lab Smp Id: 2107284-17A  
Inj Date : 27-JUL-2021 01:51  
Operator : DF  
Smp Info : 200mL N1981  
Misc Info : 5.5 Hg->9.8 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 8  
Dil Factor: 2.04000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5									
5.284	5.284	(1.000)	130	237508	25.0000	80.00- 120.00	100.00		
5.284	5.284	(1.000)	128	180819		48.46- 108.46	76.13		
5.284	5.284	(1.000)	49	336522		120.39- 180.39	141.69		
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.180	6.166	(1.000)	114	799627	25.0000	80.00- 120.00	100.00		
6.180	6.166	(1.000)	88	117668		0.00- 45.52	14.72		
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
8.619	8.612	(1.000)	117	663097	25.0000	80.00- 120.00	100.00		
8.619	8.612	(1.000)	82	352243		25.46- 85.46	53.12		
-----									
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
5.816	5.816	(1.101)	65	338129	25.8700	25.870 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	173143		21.66- 81.66	51.21		
-----									
\$ 134 Toluene-d8 CAS #: 2037-26-5									
7.387	7.387	(1.195)	98	735505	22.3318	22.332 80.00- 120.00	100.00		
7.387	7.387	(1.195)	70	83339		0.00- 41.47	11.33		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	488334			36.47- 96.47	66.39
-----								
\$ 170 4-Bromofluorobenzene CAS #: 460-00-4								
9.608	9.601	(1.115)	174	431397	24.5961	24.596	80.00- 120.00	100.00
9.600	9.601	(1.114)	95	486962			93.06- 153.06	112.88
9.608	9.601	(1.115)	176	399045			62.87- 122.87	92.50
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.450	1.451	(0.274)	65	15301763	4091.76	8347.2	80.00- 120.00	100.00(A)
1.450	1.493	(0.274)	51	32897624			321.86- 381.86	214.99
1.450	1.451	(0.274)	47	7817574			45.34- 105.34	51.09
-----								
47 Acetone CAS #: 67-64-1								
3.227	3.214	(0.611)	58	62163	15.6090	31.842	80.00- 120.00	100.00
3.227	3.214	(0.611)	43	215107			299.66- 359.66	346.04
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.311	3.298	(0.627)	76	105893	5.90475	12.046	80.00- 120.00	100.00
-----								
52 2-Propanol CAS #: 67-63-0								
3.423	3.395	(0.648)	45	94059	6.56719	13.397	80.00- 120.00	100.00
3.409	3.395	(0.645)	43	16634			0.00- 48.61	17.68
-----								
67 Hexane CAS #: 110-54-3								
4.179	4.179	(0.791)	57	659622	50.1522	102.31	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	401657			32.99- 92.99	60.89
4.179	4.179	(0.791)	86	80130			0.00- 42.56	12.15
-----								
89 Tetrahydrofuran CAS #: 109-99-9								
5.284	5.270	(1.000)	42	15872	1.67587	3.419	80.00- 120.00	100.00
5.284	5.270	(1.000)	71	5642			2.92- 62.92	35.55
5.284	5.270	(1.000)	72	5663			3.54- 63.54	35.68
-----								
94 Cyclohexane CAS #: 110-82-7								
5.438	5.438	(1.029)	84	30054	3.19304	6.514	80.00- 120.00	100.00
5.466	5.438	(1.034)	56	242763			120.40- 180.40	807.73
5.466	5.438	(1.034)	41	161484			54.20- 114.20	537.30
-----								
101 2,2,4-Trimethylpentane CAS #: 540-84-1								
5.774	5.774	(1.093)	57	2712381	65.9458	134.53	80.00- 120.00	100.00
5.774	5.774	(1.093)	56	923534			1.12- 61.12	34.05
5.774	5.774	(1.093)	41	822287			0.00- 57.49	30.32
-----								
102 Benzene CAS #: 71-43-2								
5.788	5.788	(0.937)	78	275945	15.1225	30.850	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene (continued)								
5.802	5.788	(0.939)	77	73302			0.00- 53.80	26.56
-----								
107 Heptane					CAS #: 142-82-5			
5.942	5.942	(0.962)	71	31743	4.41658	9.010	80.00- 120.00	100.00
5.942	5.942	(0.962)	43	65490			179.02- 239.02	206.31
5.942	5.942	(0.962)	57	54919			84.85- 144.85	173.01
-----								
137 Toluene					CAS #: 108-88-3			
7.444	7.437	(1.205)	91	1091860	44.5947	90.973	80.00- 120.00	100.00
7.444	7.437	(1.205)	92	626381			28.30- 88.30	57.37
-----								
142 Tetrachloroethene					CAS #: 127-18-4			
7.881	7.881	(0.914)	166	65572	6.31218	12.877	80.00- 120.00	100.00
7.881	7.881	(0.914)	129	50339			48.71- 108.71	76.77
7.881	7.881	(0.914)	131	48454			46.55- 106.55	73.89
-----								
155 Ethyl Benzene					CAS #: 100-41-4			
8.691	8.684	(1.008)	106	42560	4.69638	9.581	80.00- 120.00	100.00
8.691	8.684	(1.008)	91	130566			282.48- 342.48	306.78
-----								
158 m,p-Xylene					CAS #: 108-38-3			
8.784	8.784	(1.019)	106	118897	10.5459	21.514	80.00- 120.00	100.00
8.784	8.784	(1.019)	91	238814			171.36- 231.36	200.86
-----								
164 o-Xylene					CAS #: 95-47-6			
9.128	9.121	(1.059)	106	38636	3.60981	7.364	80.00- 120.00	100.00
9.128	9.121	(1.059)	91	77551			179.99- 239.99	200.72
-----								
183 4-Ethyltoluene					CAS #: 622-96-8			
9.830	9.851	(1.140)	120	10904	1.06541	2.173	80.00- 120.00	100.00
9.830	9.851	(1.140)	105	33564			296.79- 356.79	307.80
-----								
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
9.908	9.901	(1.150)	120	9252	0.64362	1.313	80.00- 120.00	100.00
9.901	9.901	(1.149)	105	18876			176.40- 236.40	204.03
-----								
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
10.224	10.224	(1.186)	105	17381	0.61318	1.251	80.00- 120.00	100.00
10.224	10.224	(1.186)	120	8234			16.58- 76.58	47.37
-----								

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072625.d  
Lab Smp Id: 2107284-17A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: DF  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 5.5 Hg->9.8 psi

Calibration Date: 26-JUL-2021  
Calibration Time: 10:10  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	237508	-10.03
108 1,4-Difluorobenze	833448	500069	1166827	799627	-4.06
153 Chlorobenzene-d5	741338	444803	1037873	663097	-10.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-17A  
Level: LOW Operator: DF  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 5.5 Hg->9.8 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	25.870	103.48	70-130
\$ 134 Toluene-d8	25.000	22.332	89.33	70-130
\$ 170 4-Bromofluorobenz	25.000	24.596	98.38	70-130

Date : 27-JUL-2021 01:51

Client ID:

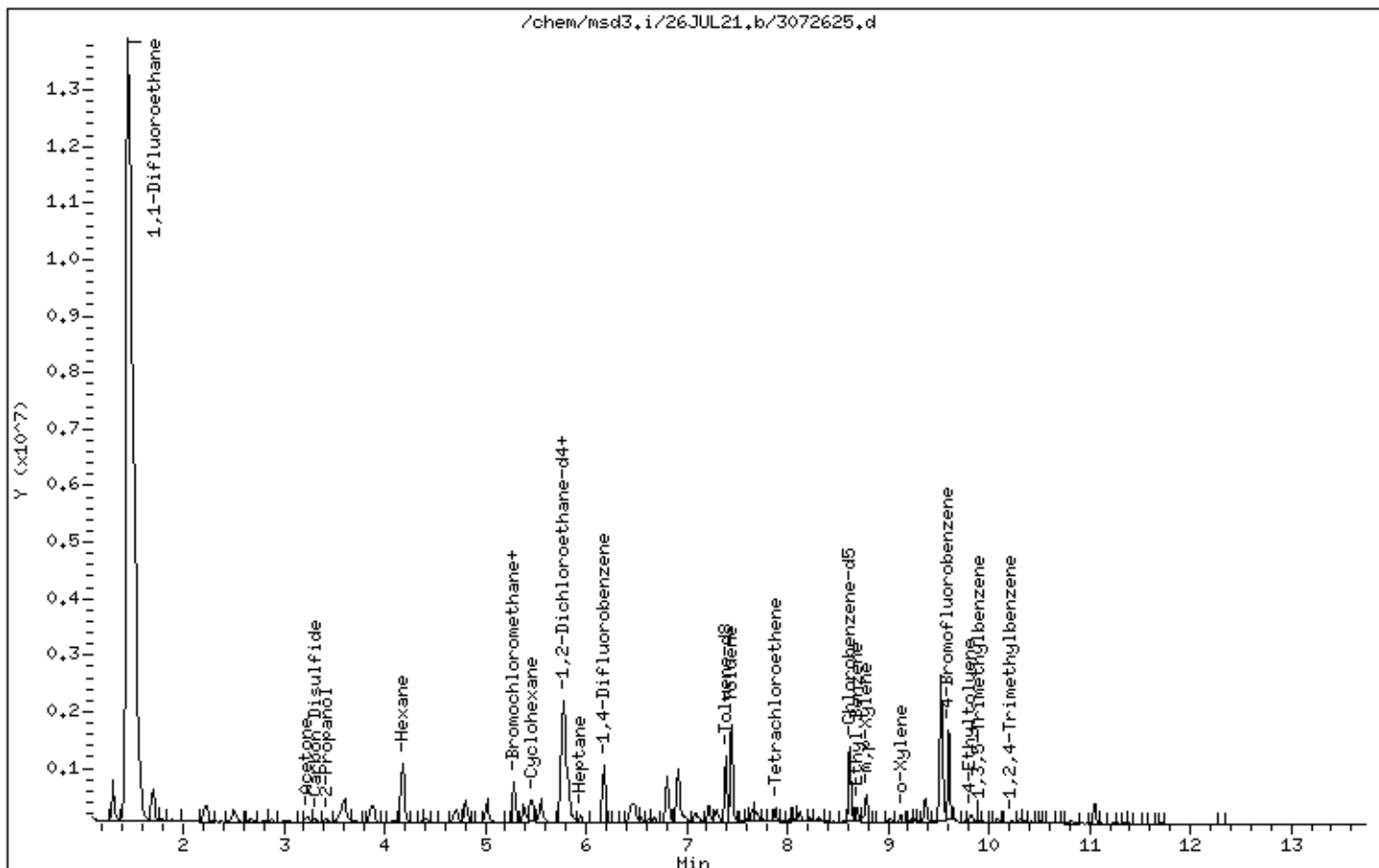
Instrument: msd3,i

Sample Info: 200mL N1981

Operator: DF

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

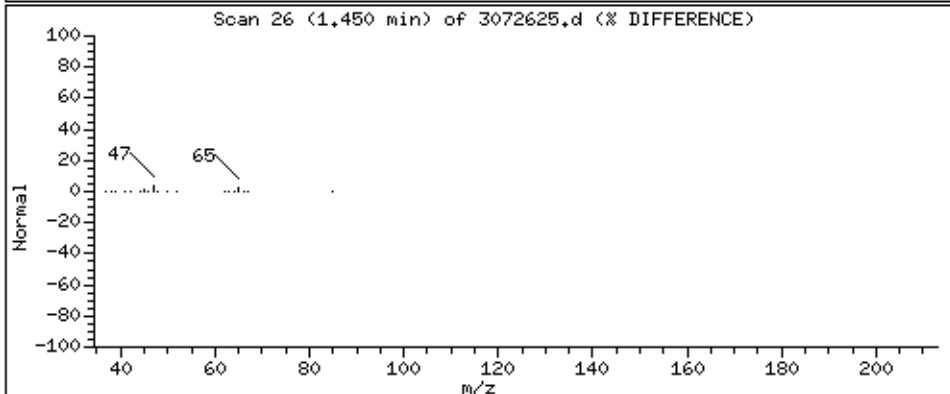
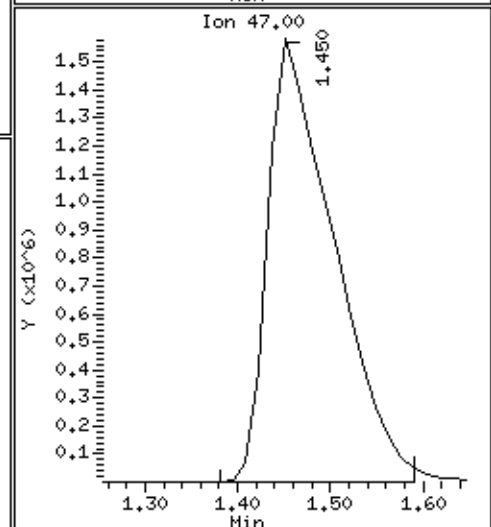
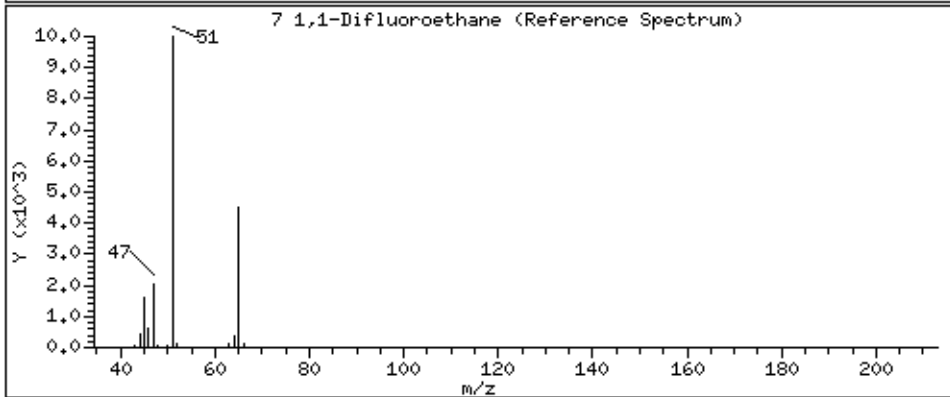
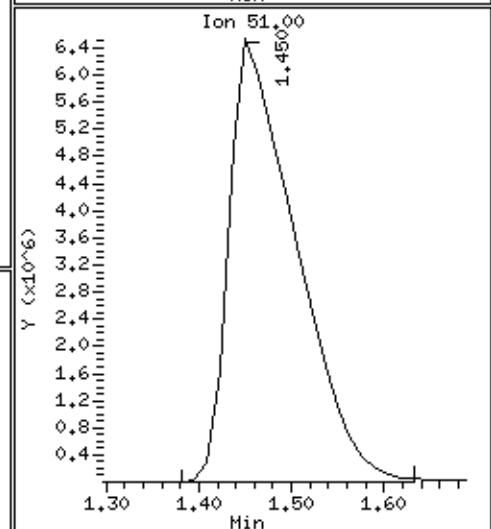
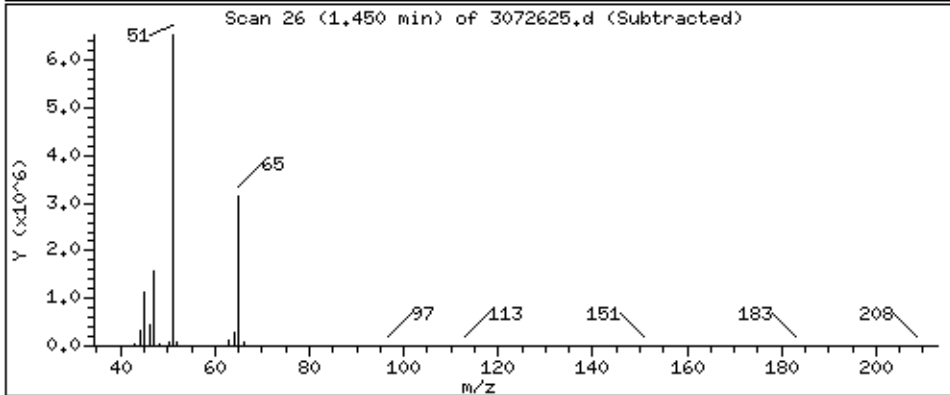
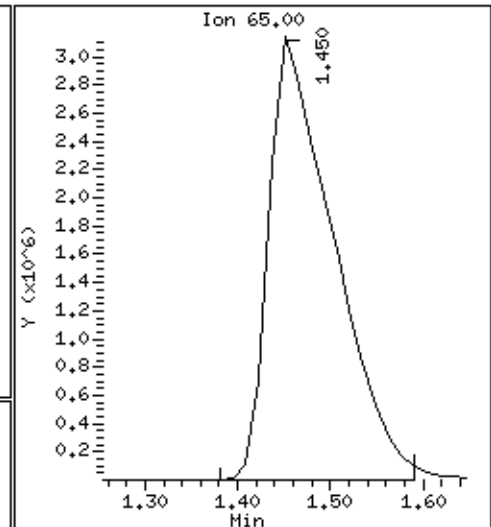
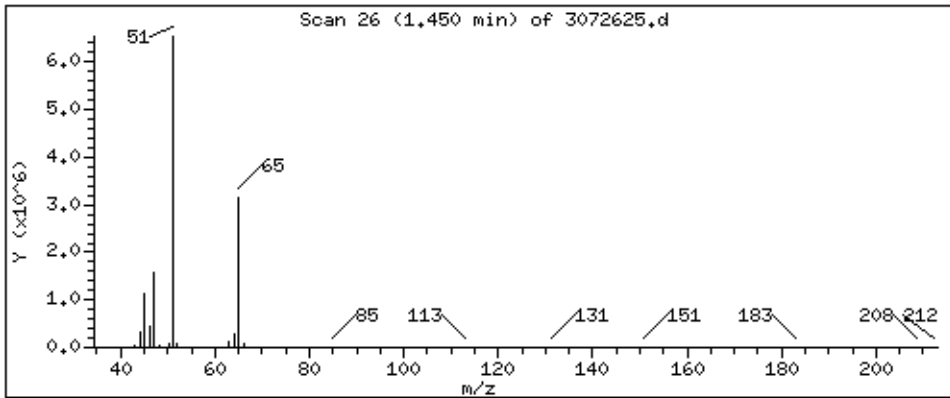
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 8347.2 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

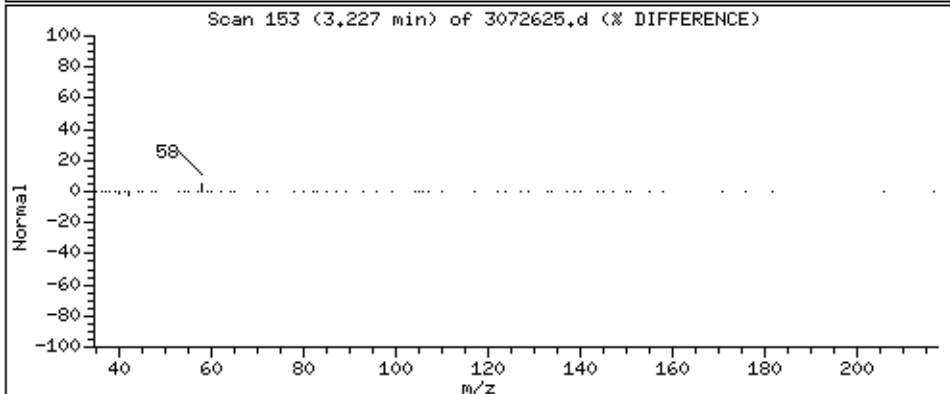
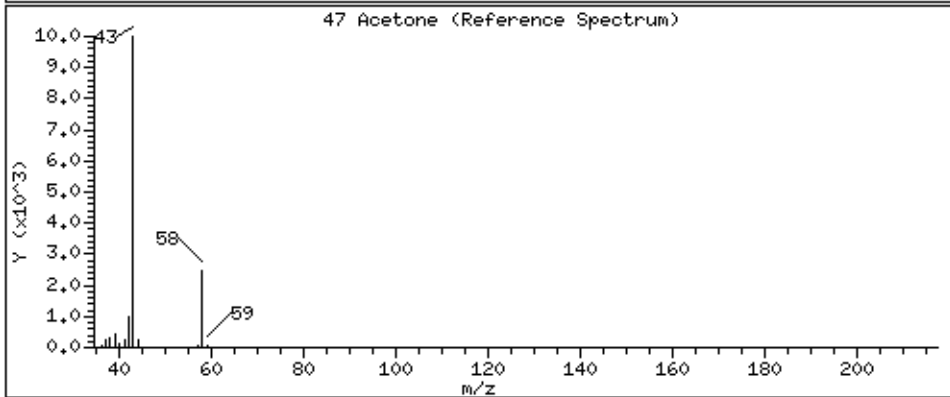
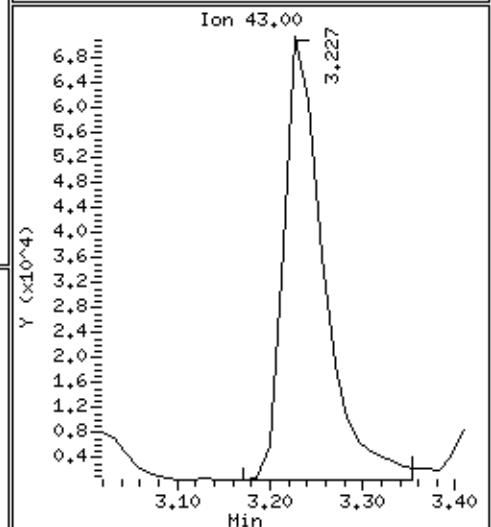
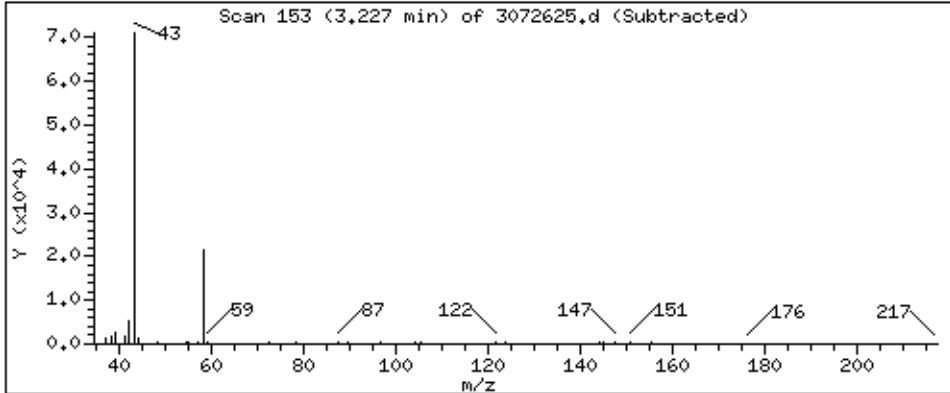
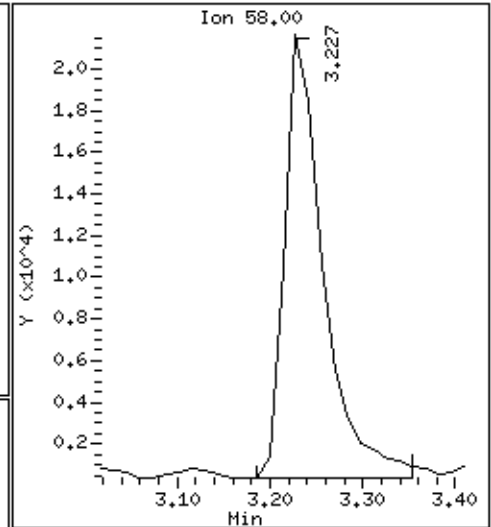
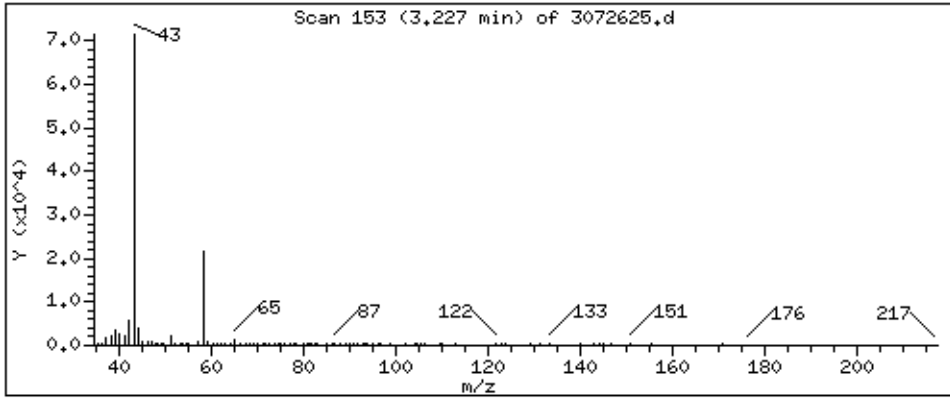
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 31,842 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

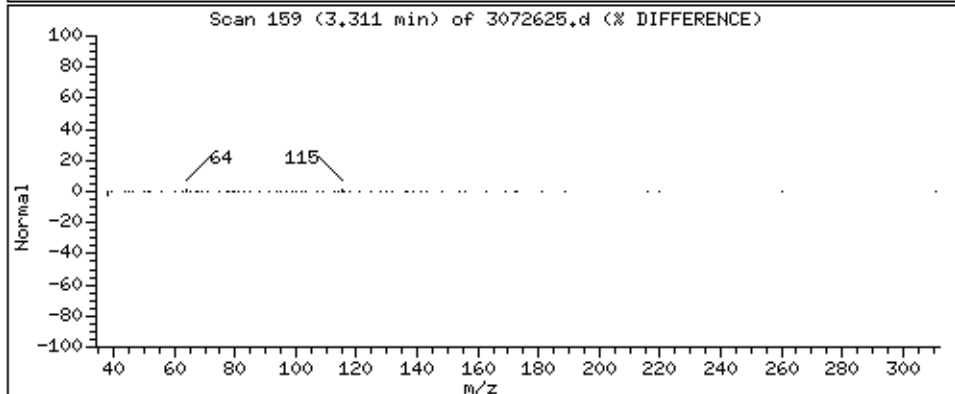
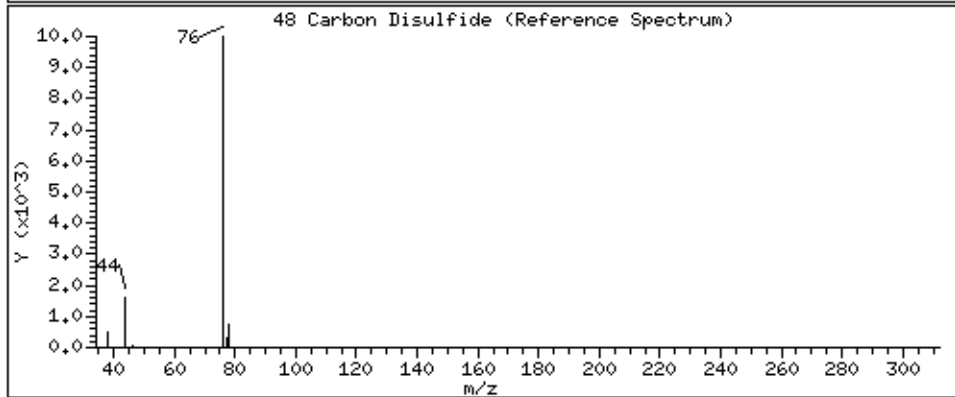
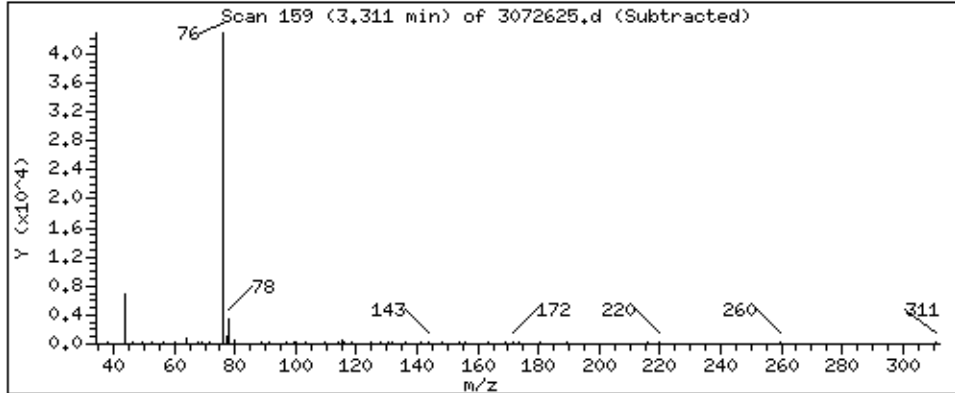
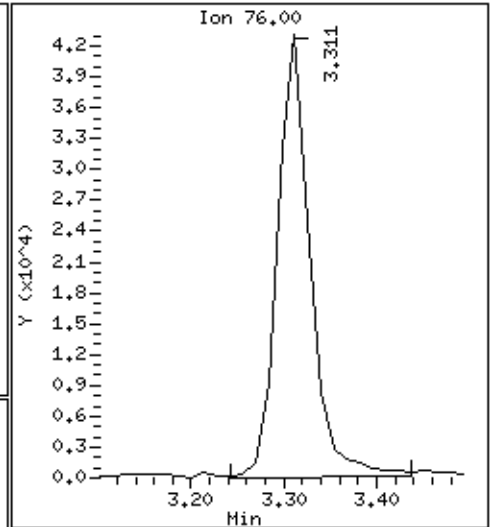
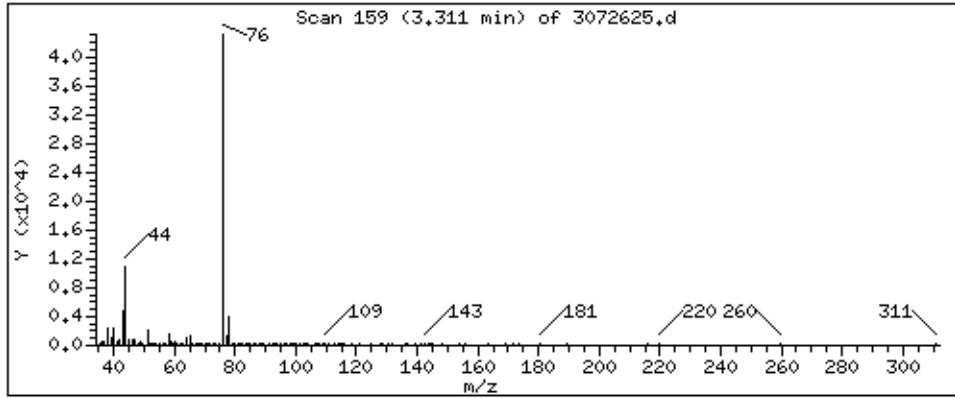
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

48 Carbon Disulfide

Concentration: 12,046 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

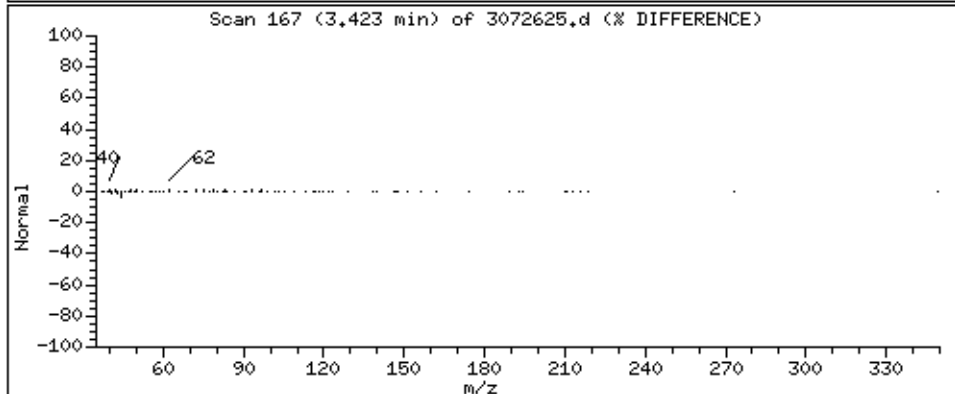
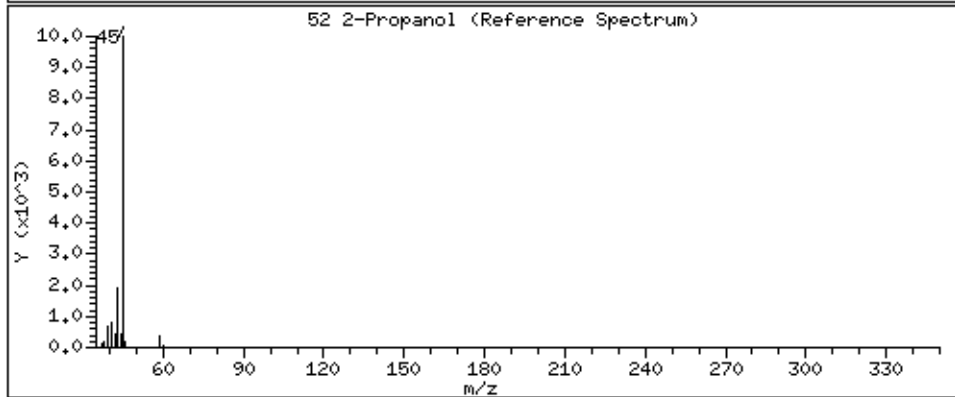
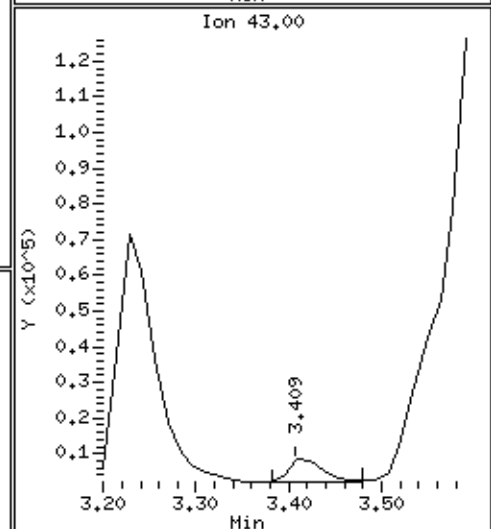
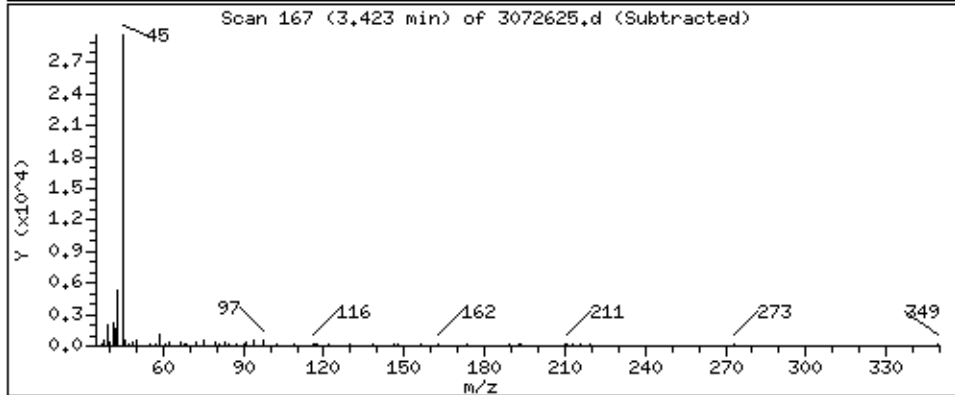
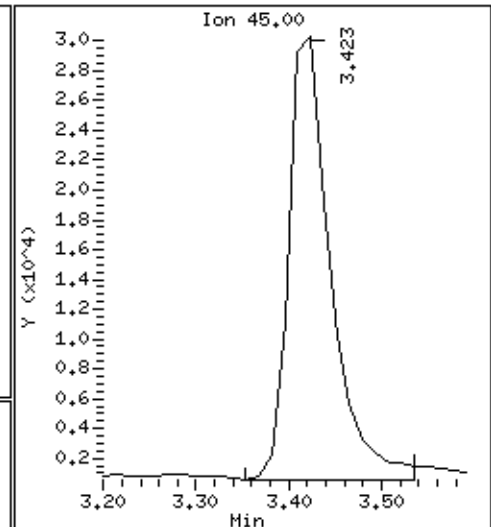
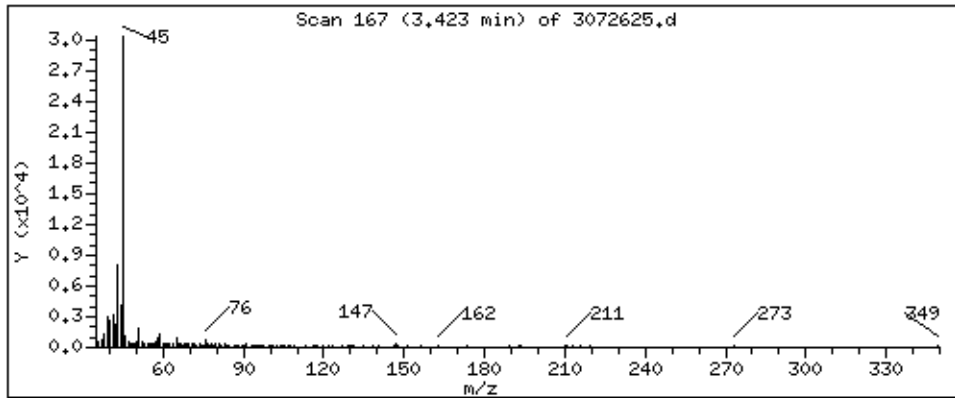
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 13,397 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

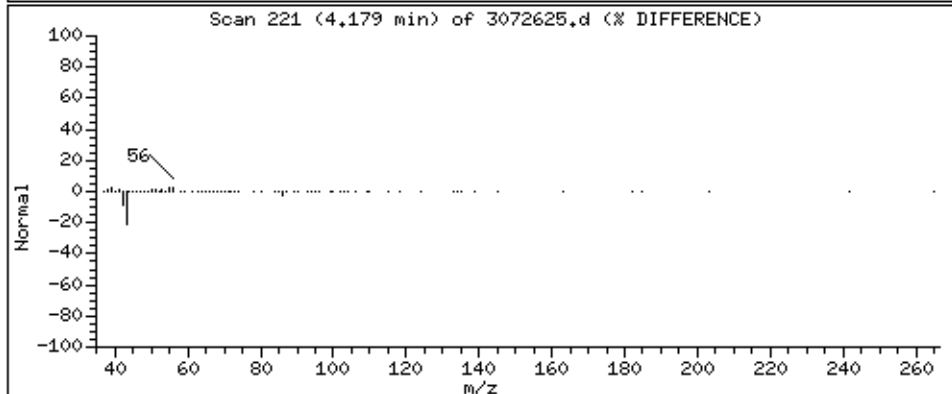
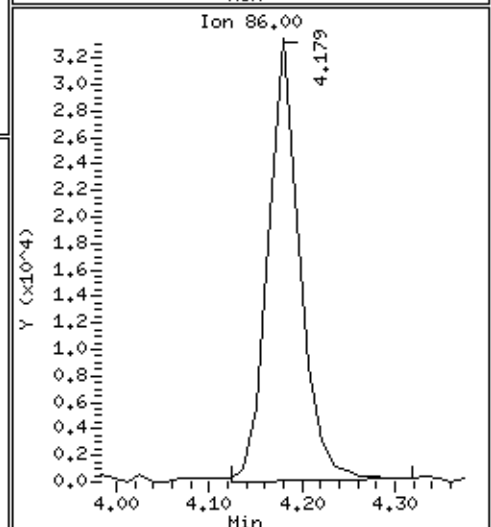
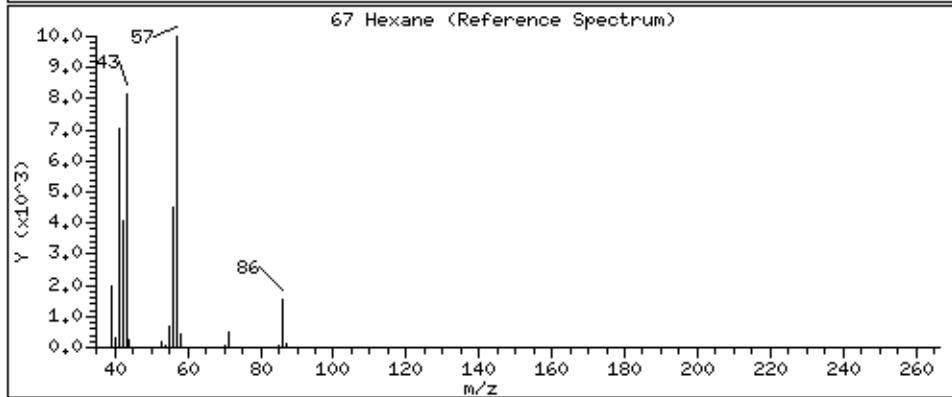
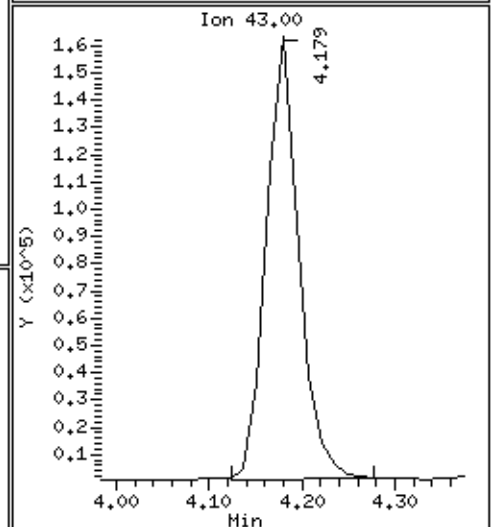
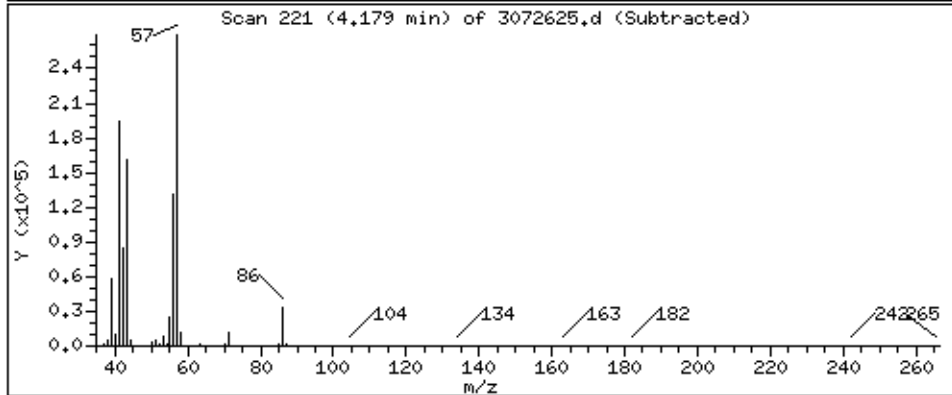
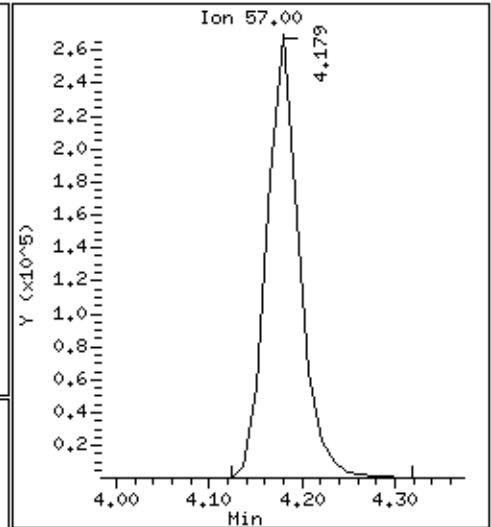
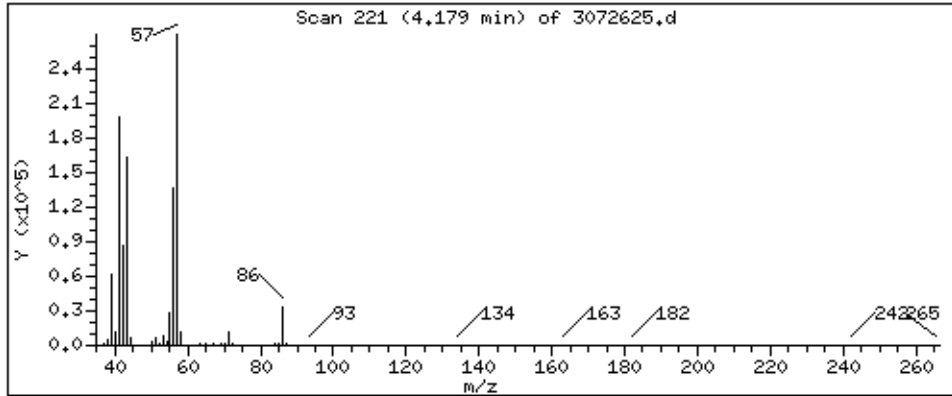
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 102.31 PPBW





Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

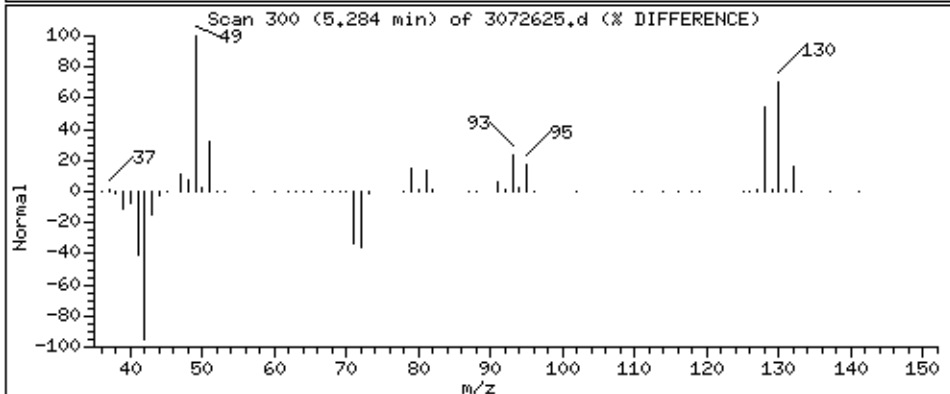
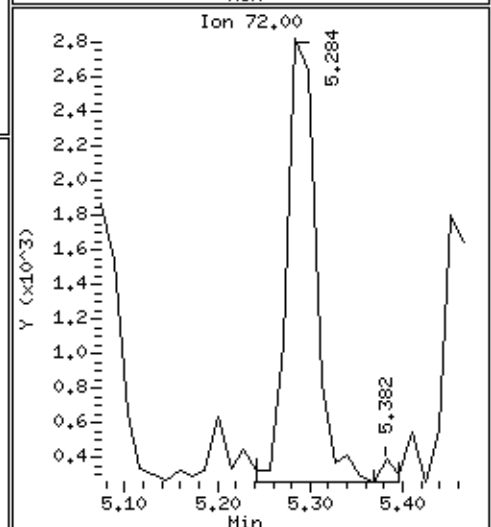
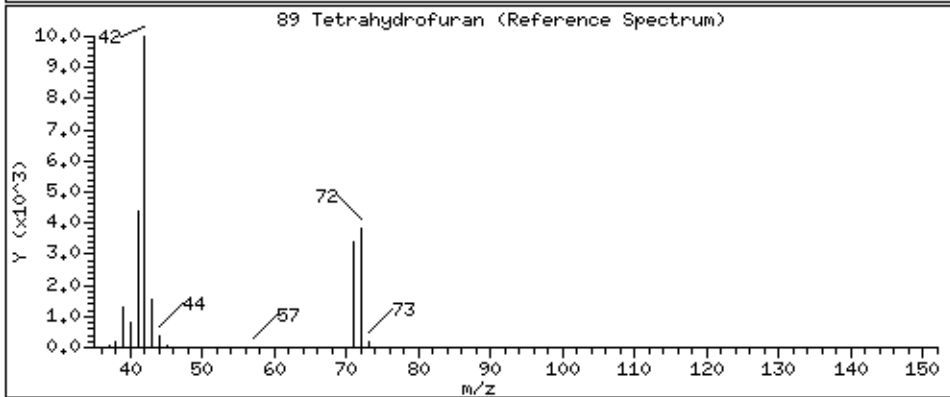
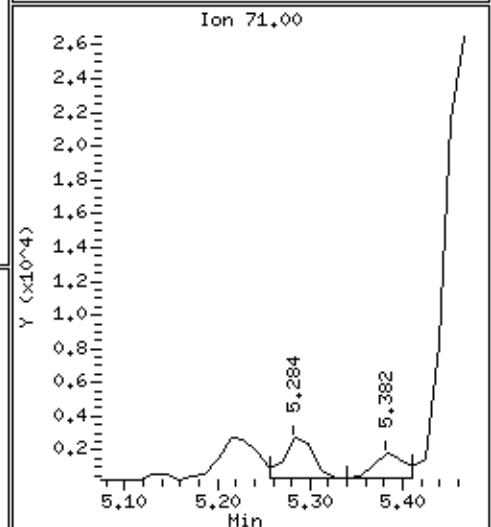
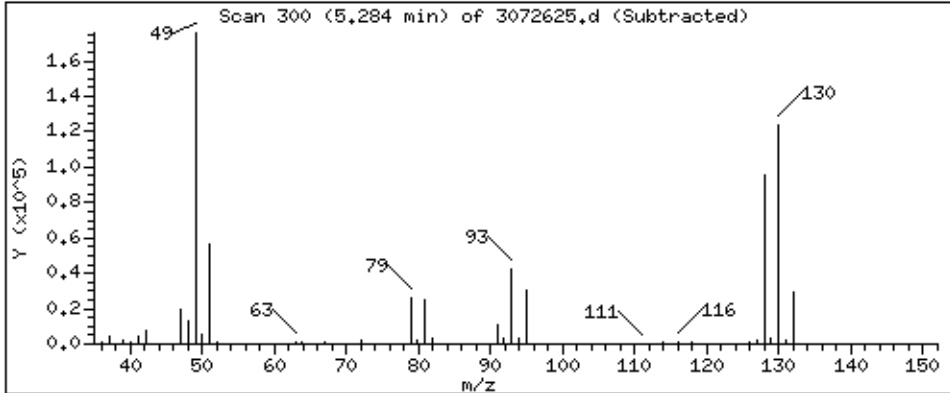
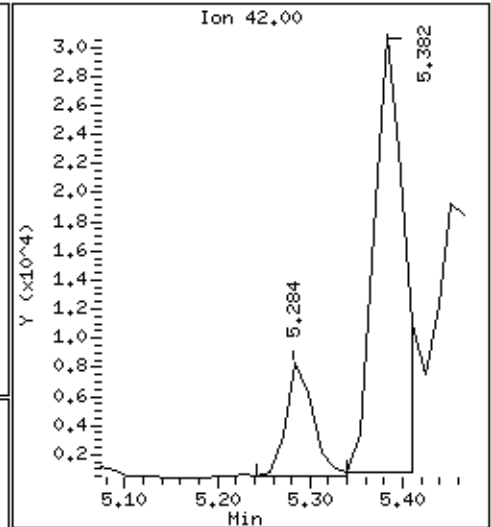
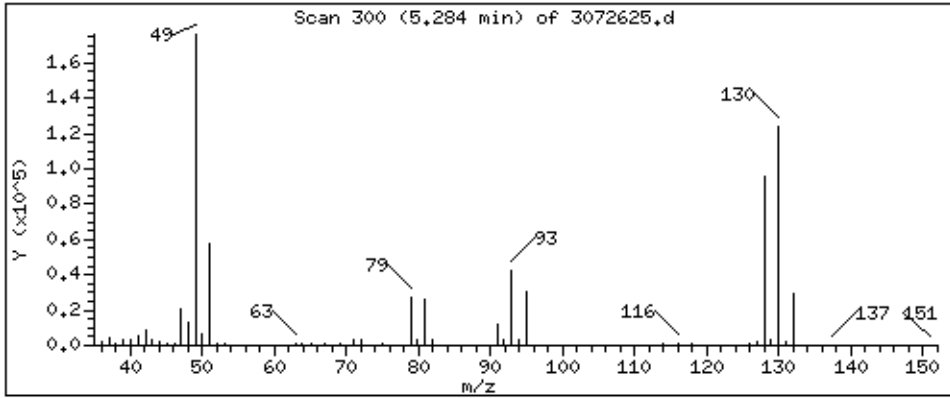
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

89 Tetrahydrofuran

Concentration: 3.419 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

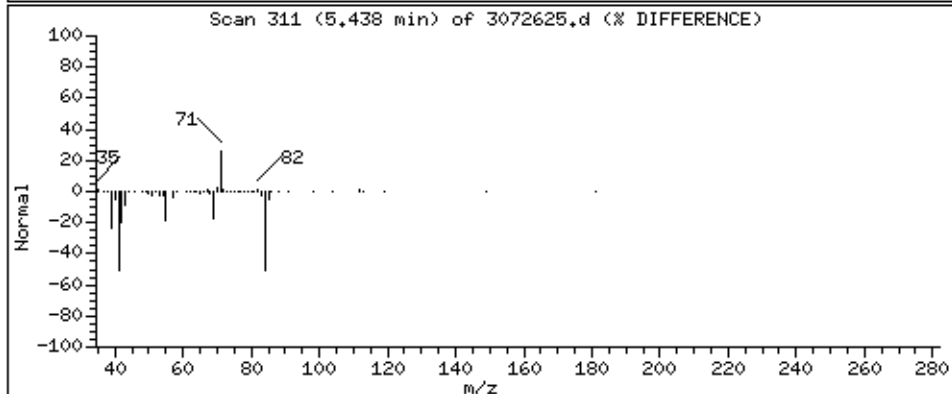
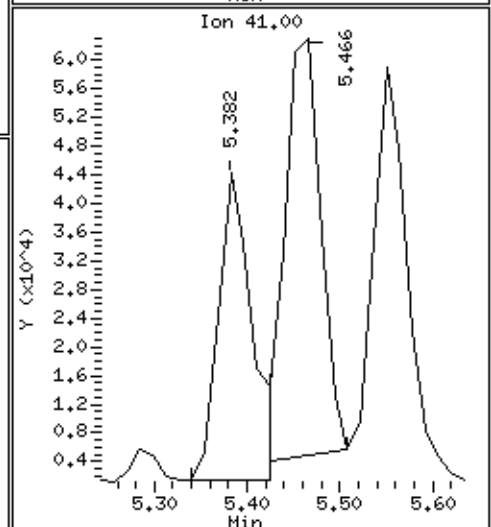
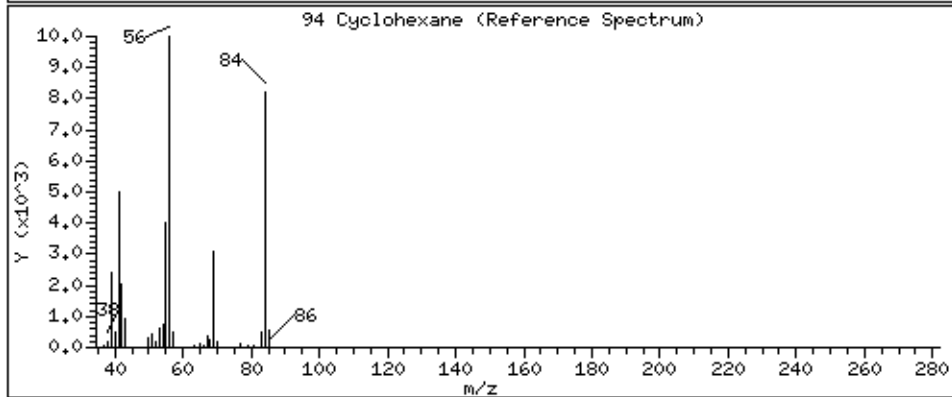
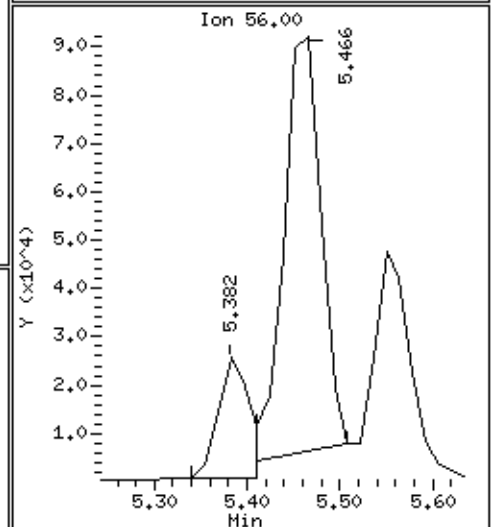
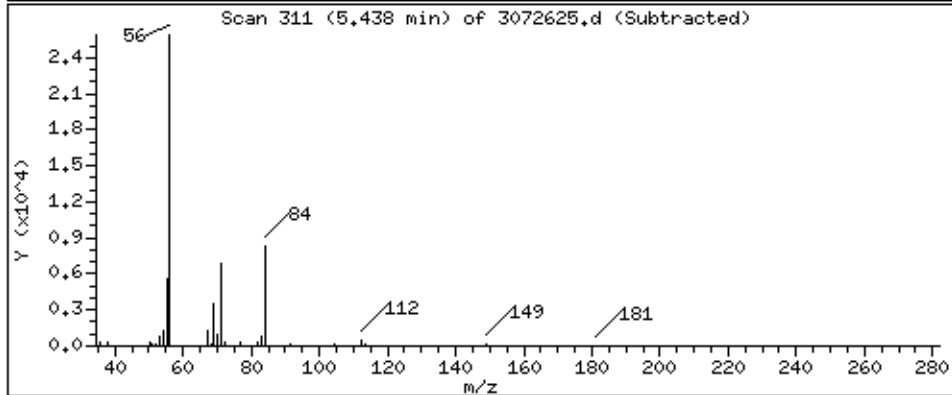
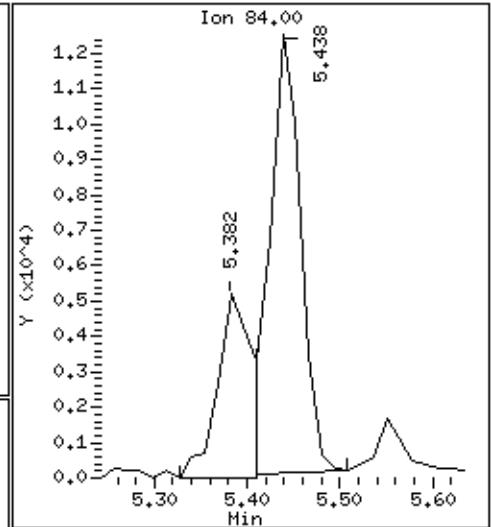
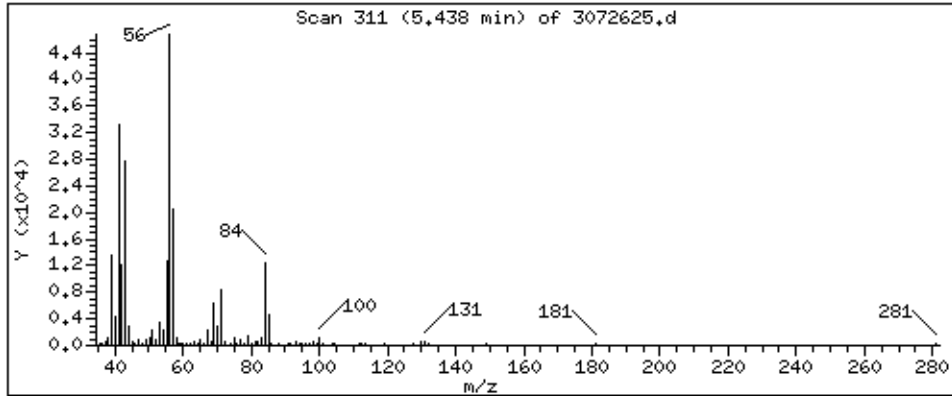
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

94 Cyclohexane

Concentration: 6.514 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

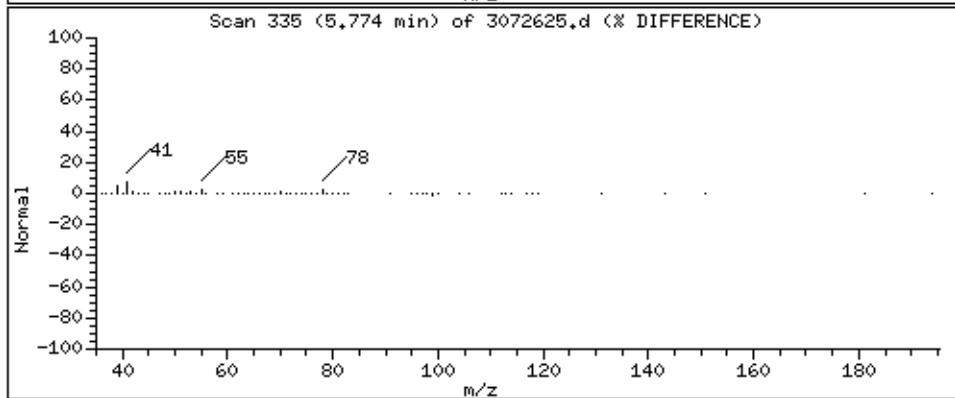
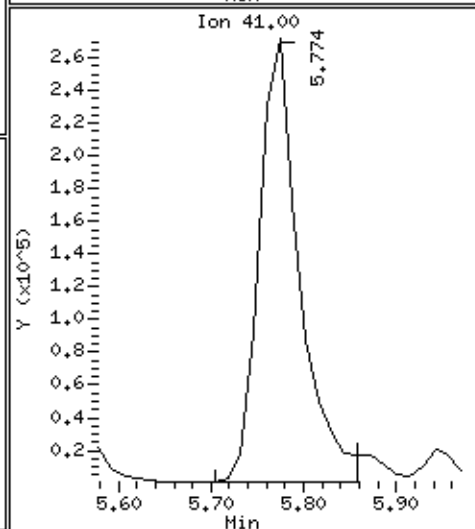
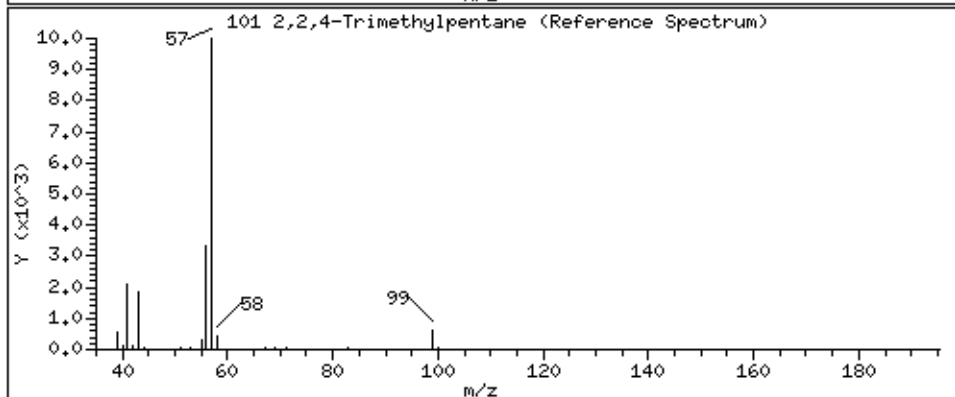
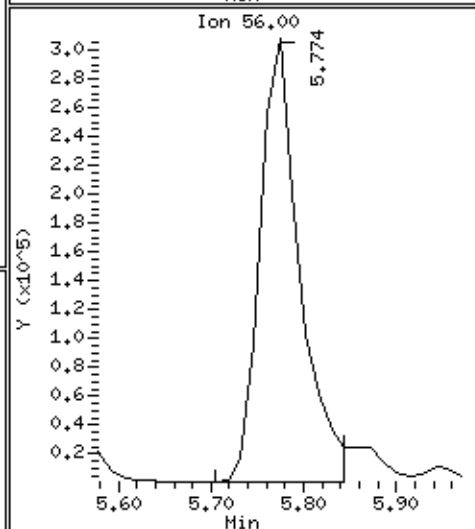
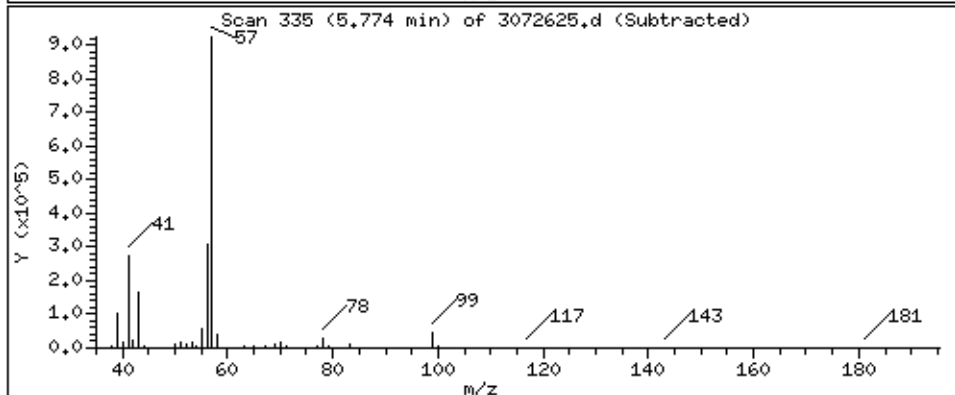
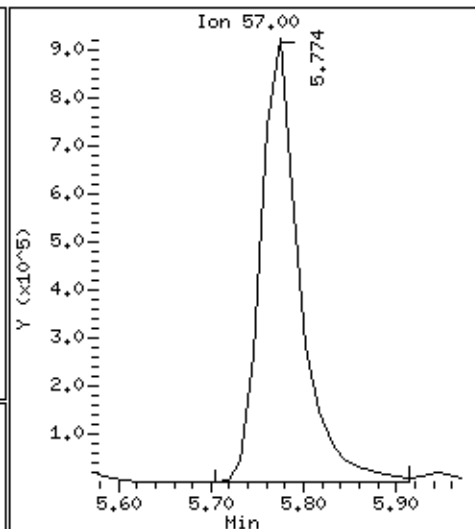
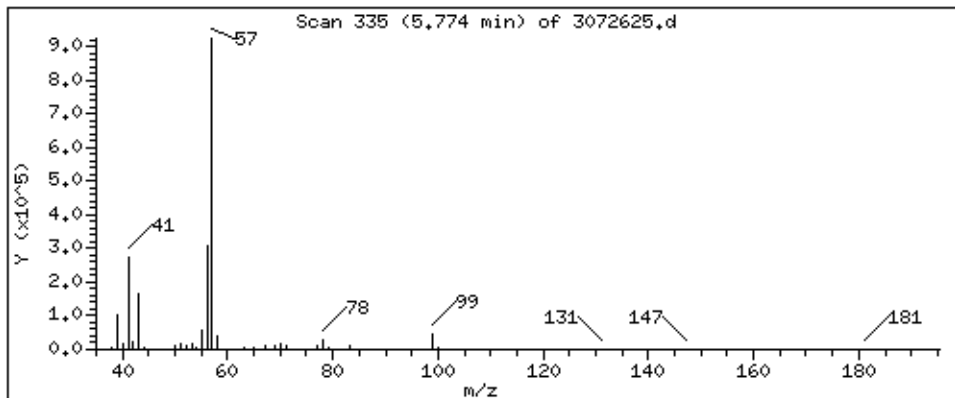
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

101 2,2,4-Trimethylpentane

Concentration: 134.53 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

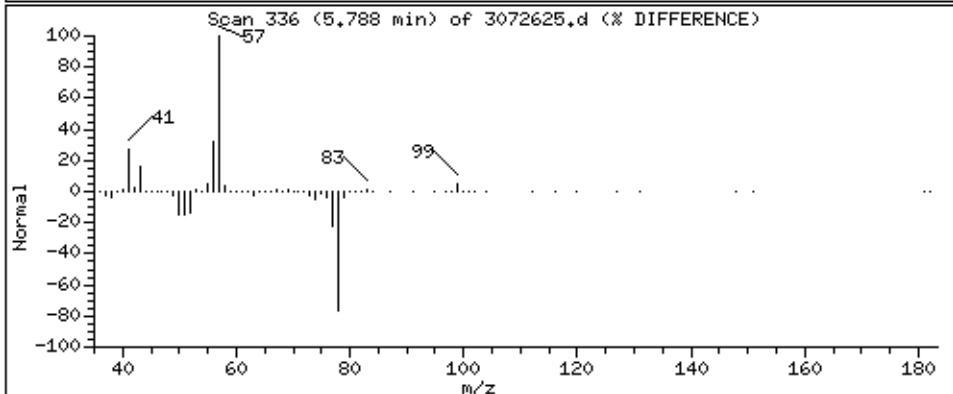
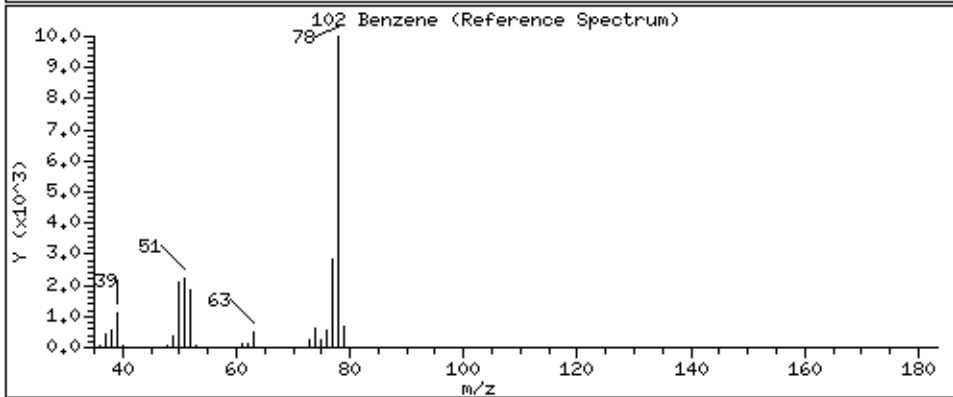
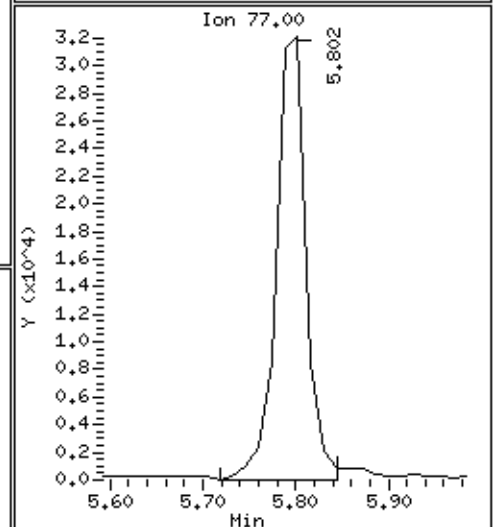
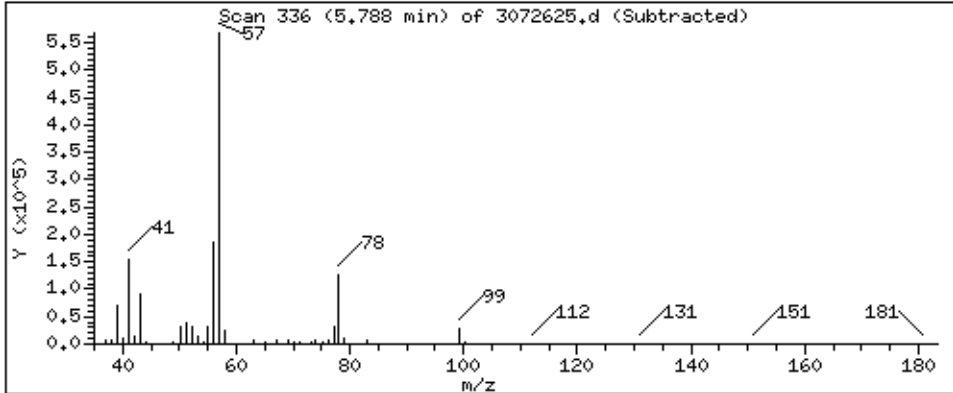
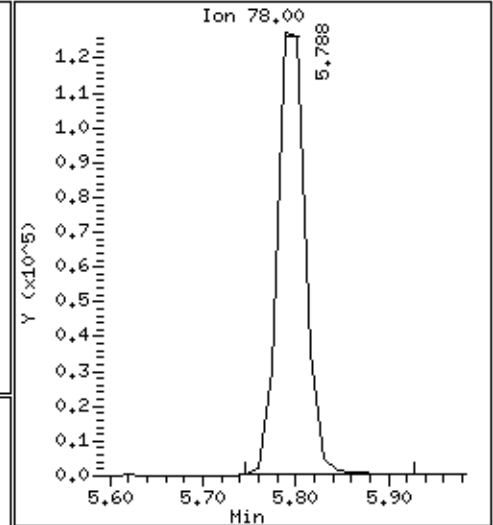
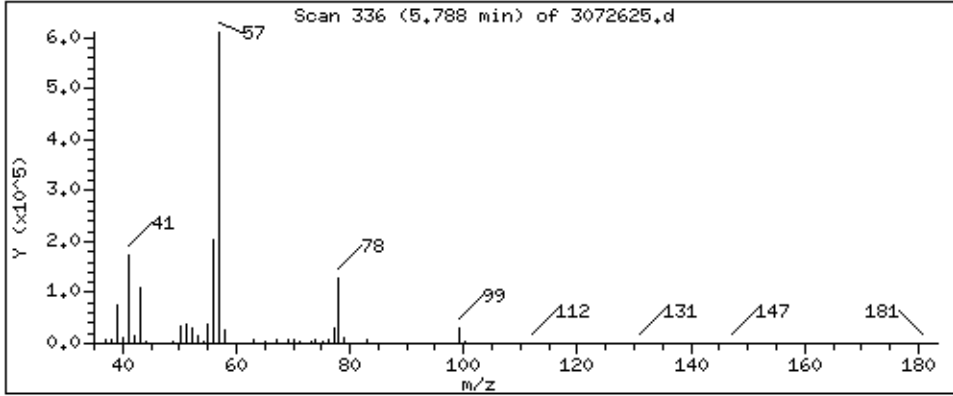
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

102 Benzene

Concentration: 30,850 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

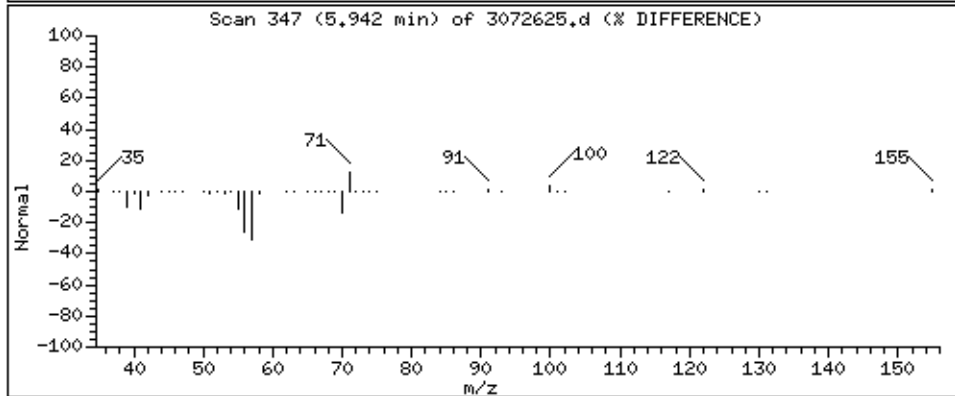
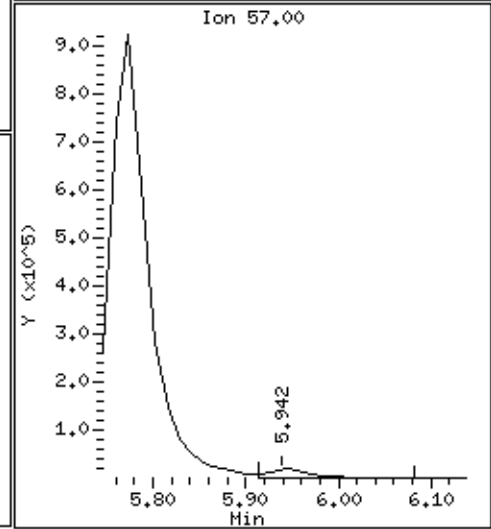
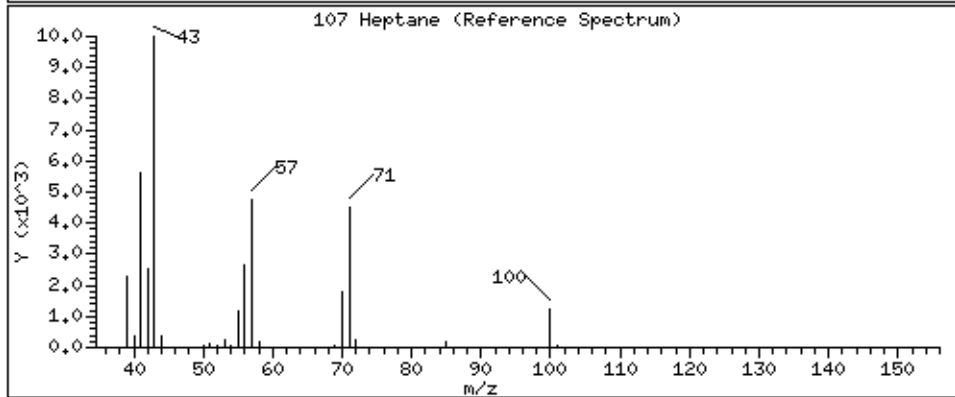
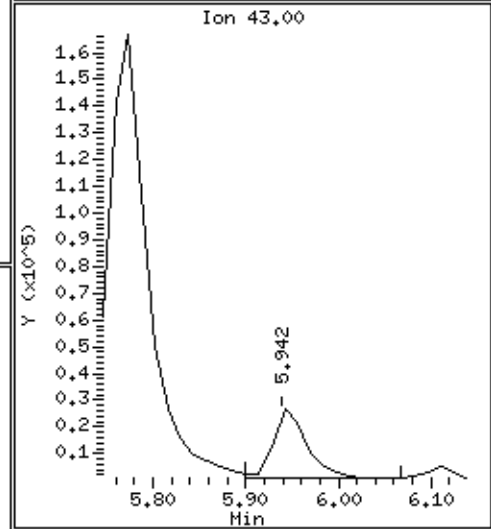
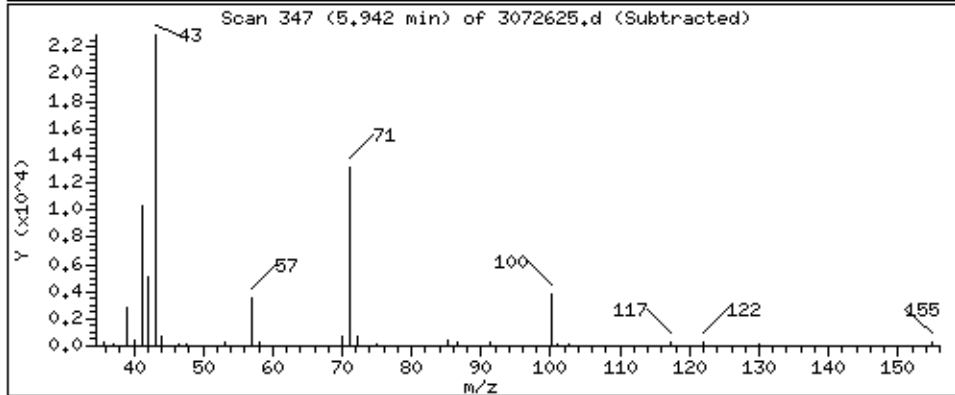
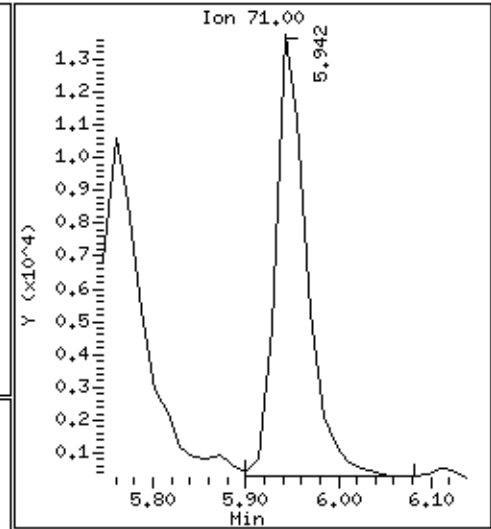
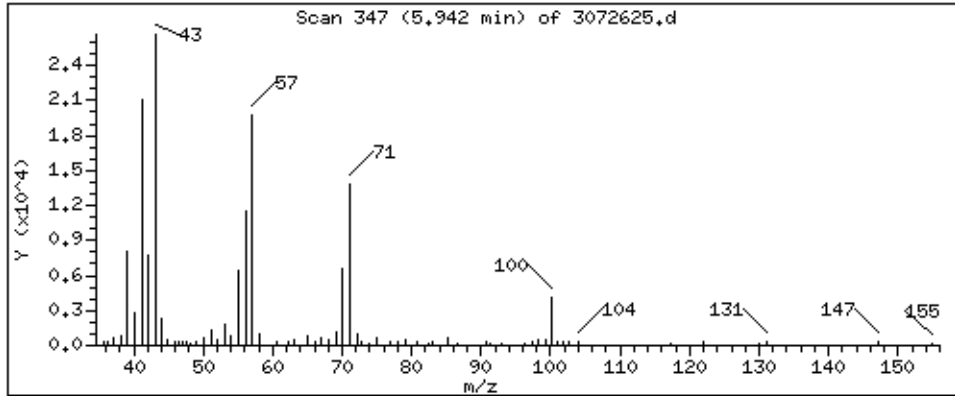
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

107 Heptane

Concentration: 9,010 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

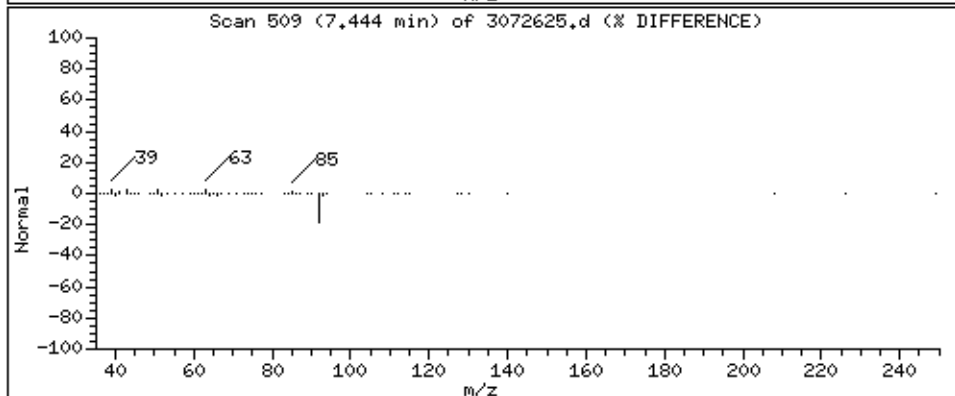
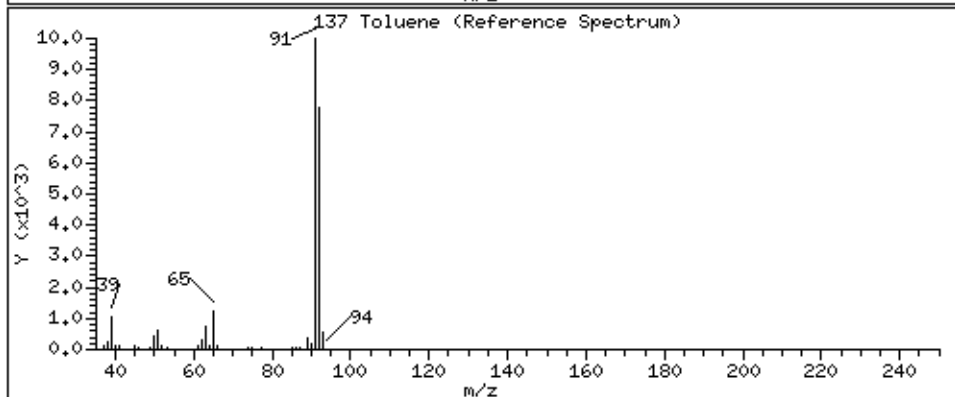
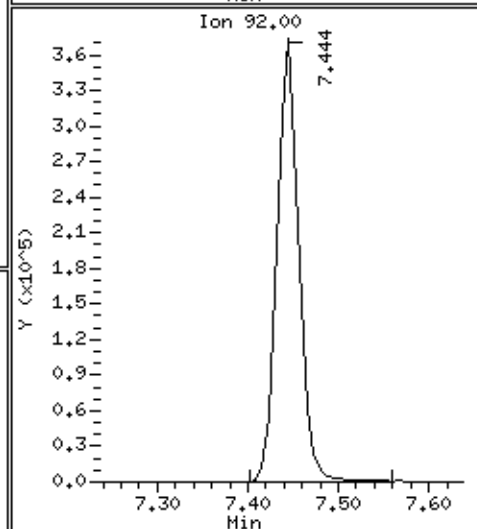
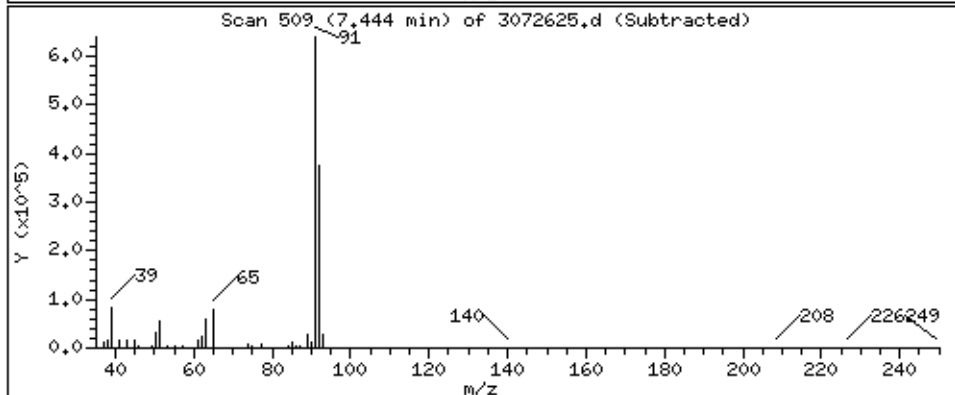
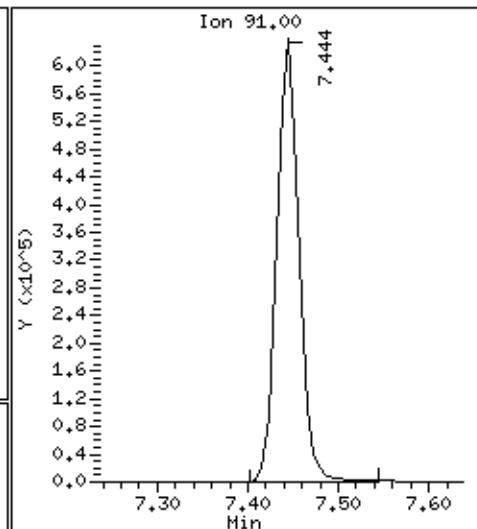
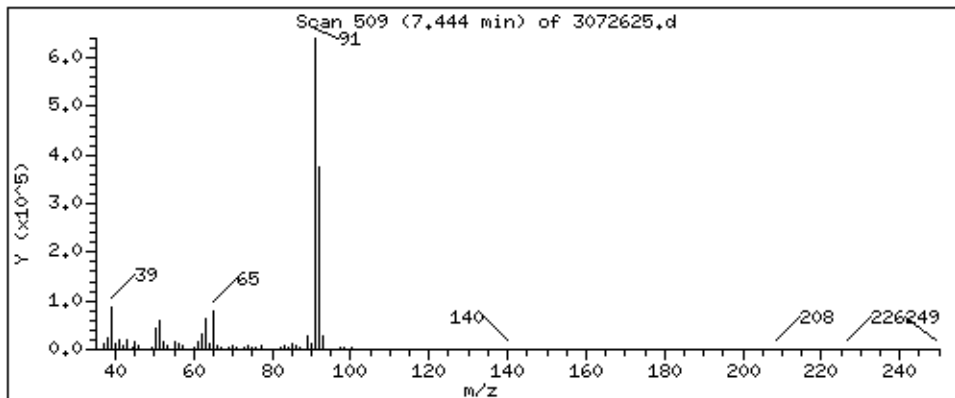
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 90,973 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

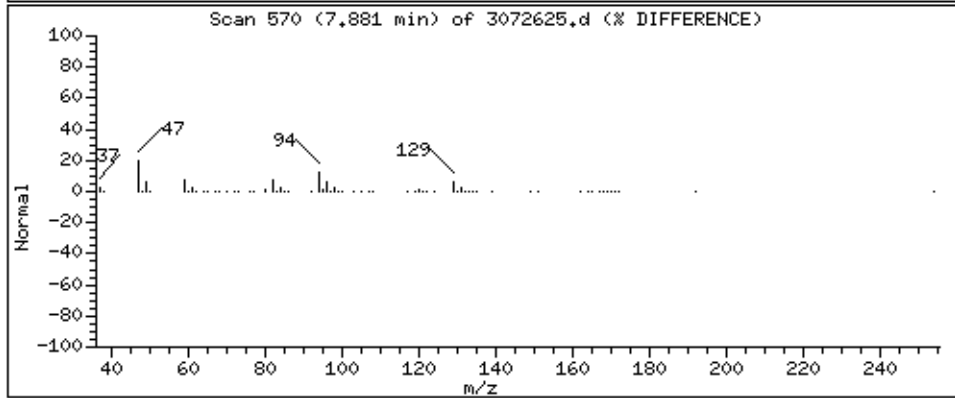
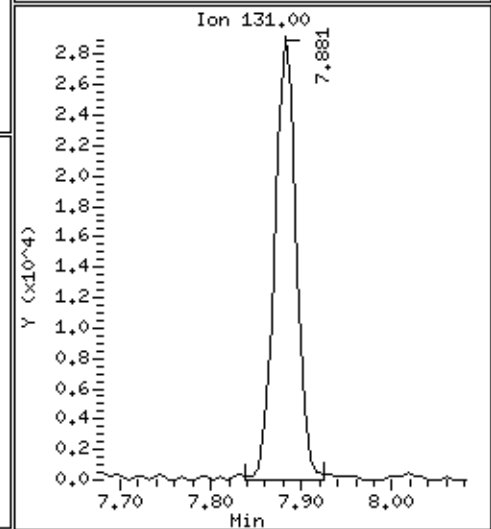
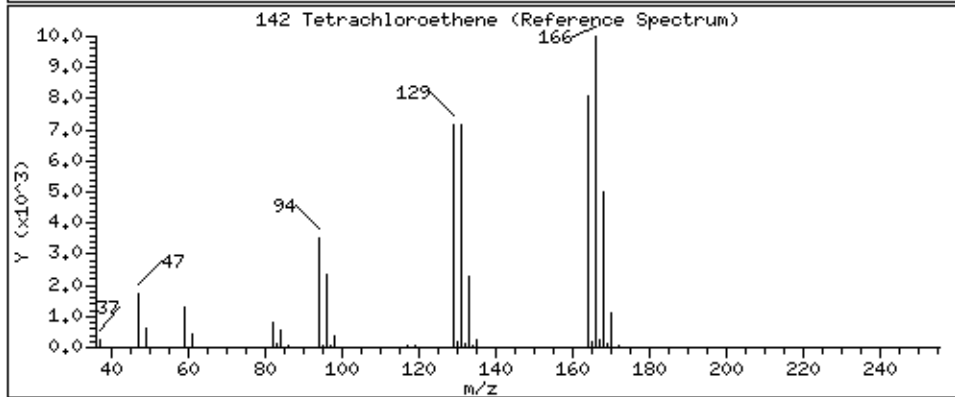
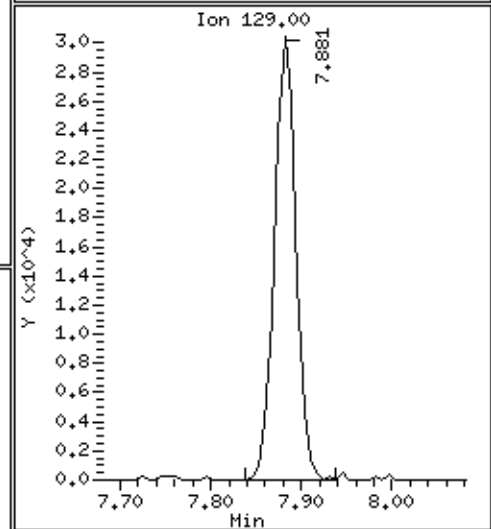
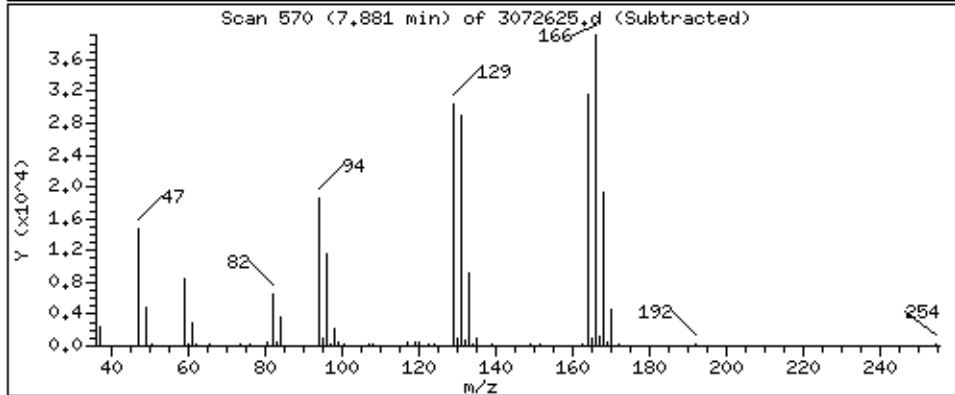
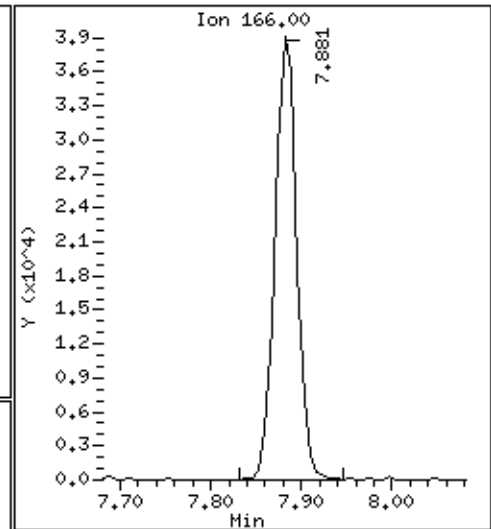
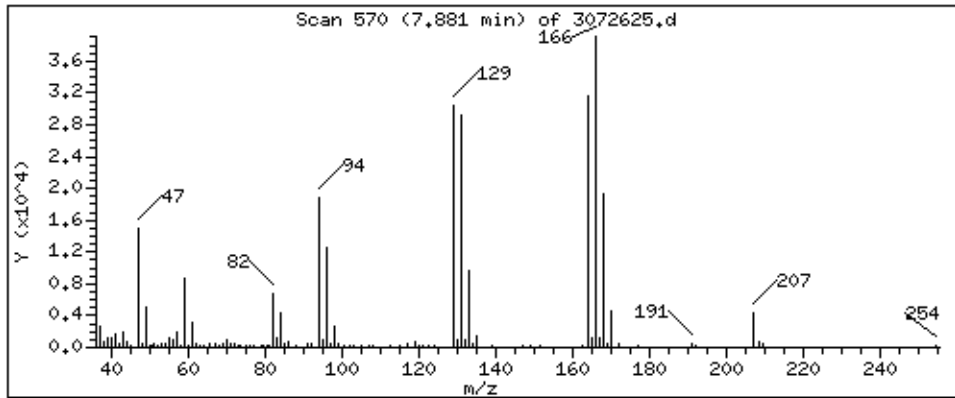
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 12,877 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

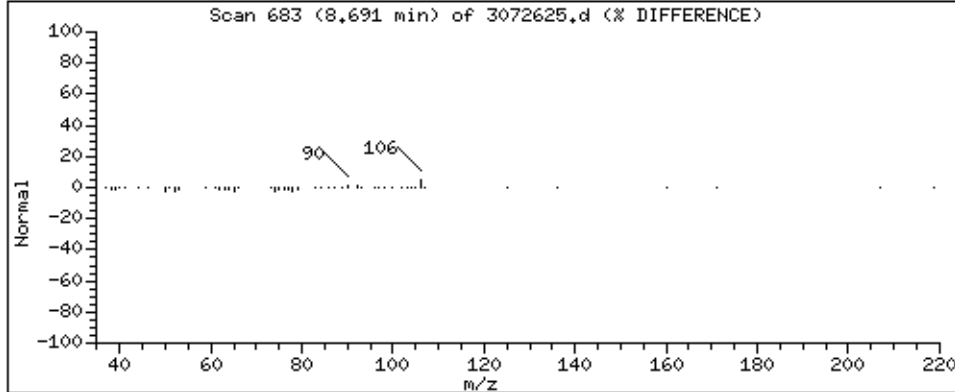
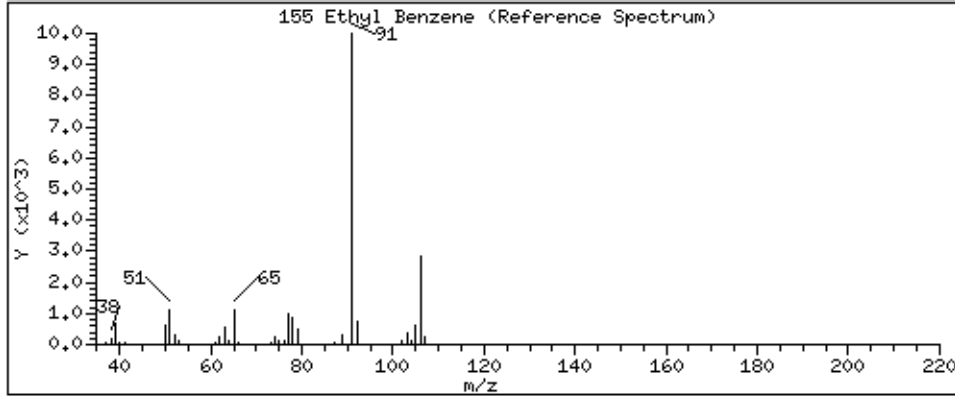
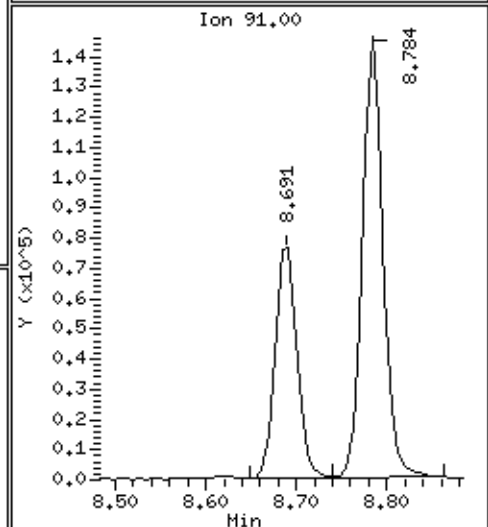
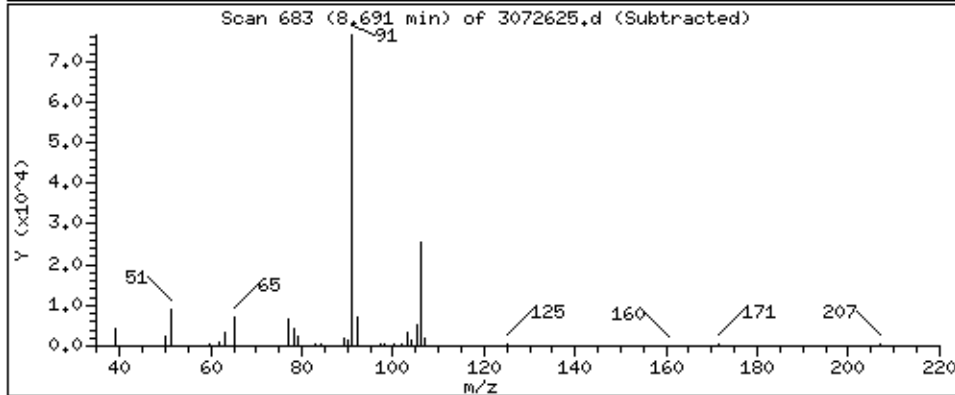
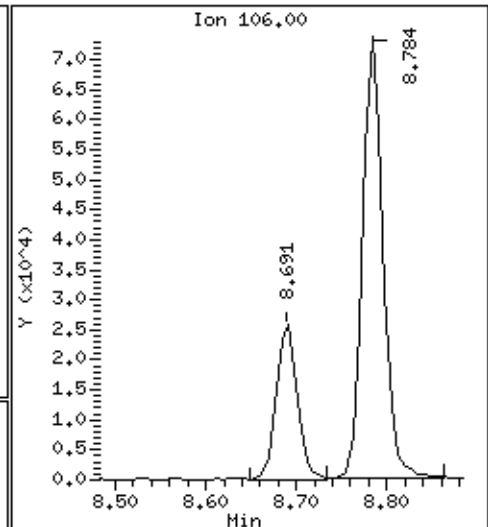
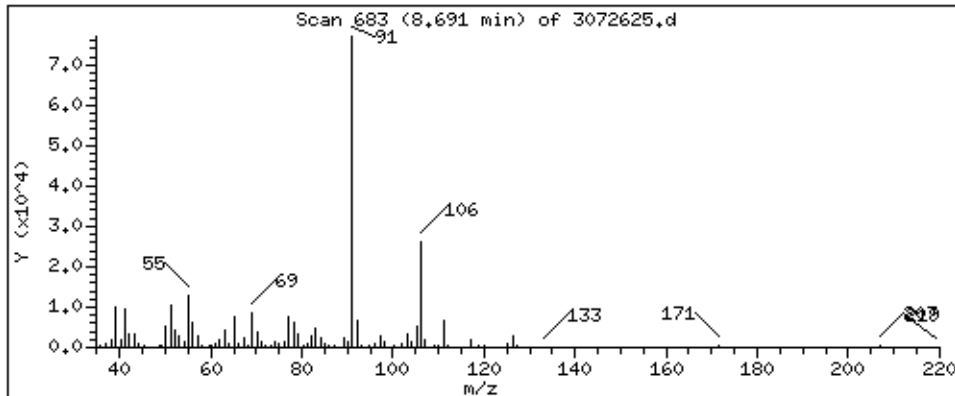
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 9.581 PPBV





Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

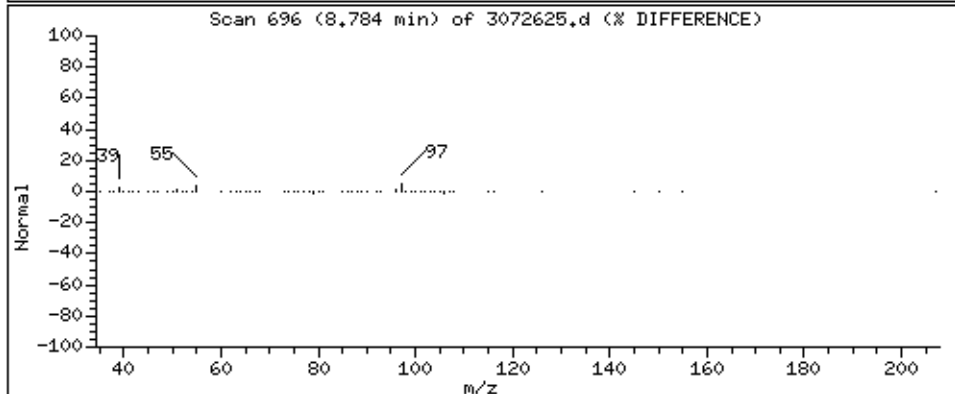
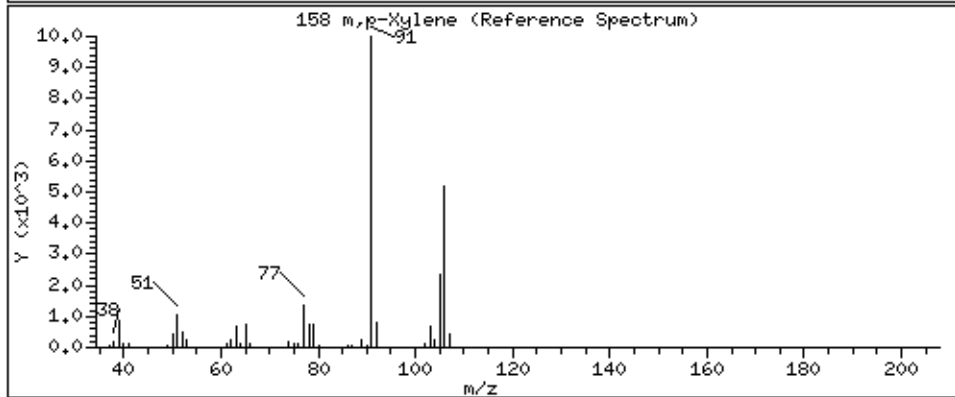
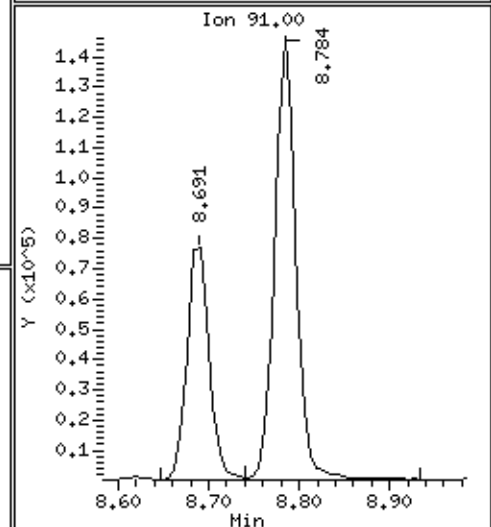
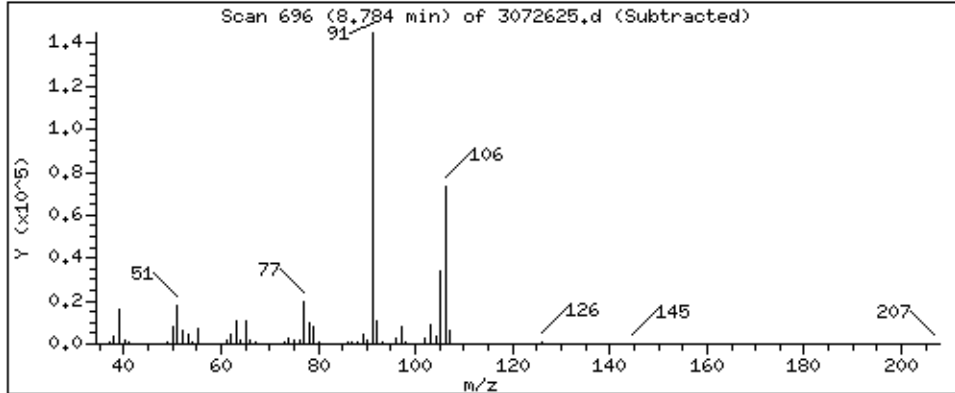
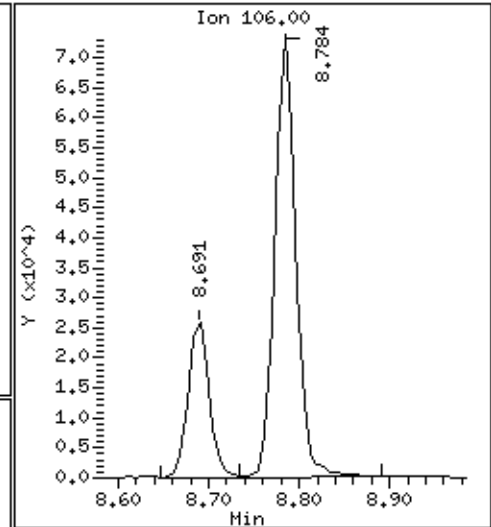
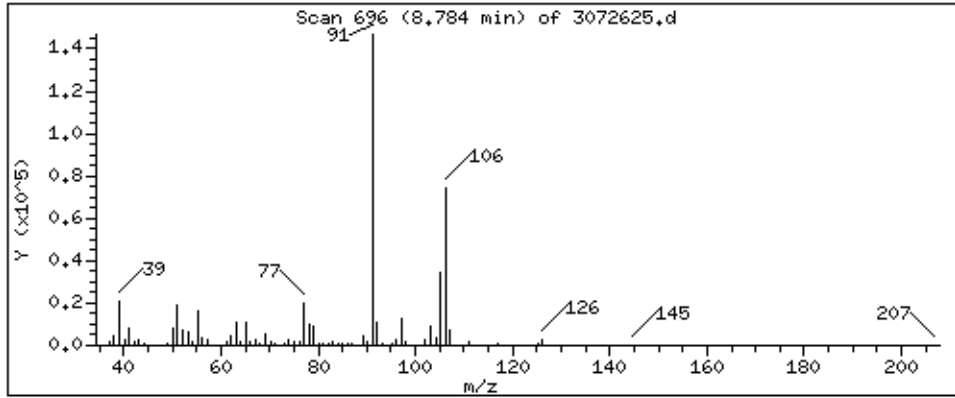
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 21,514 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

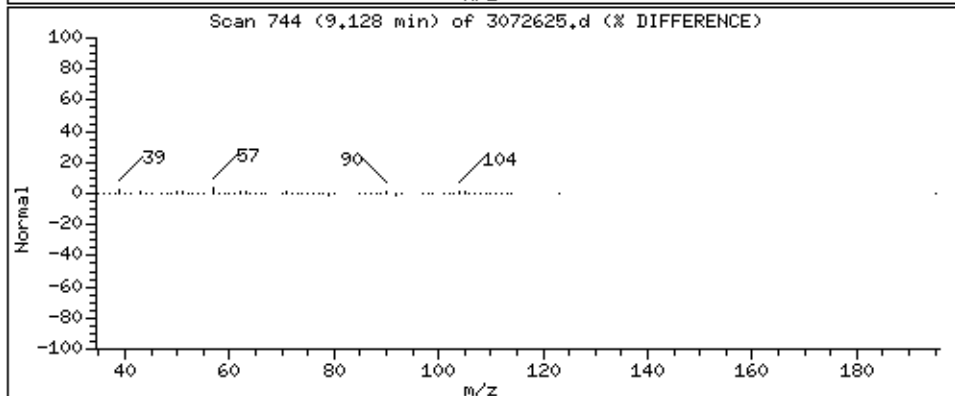
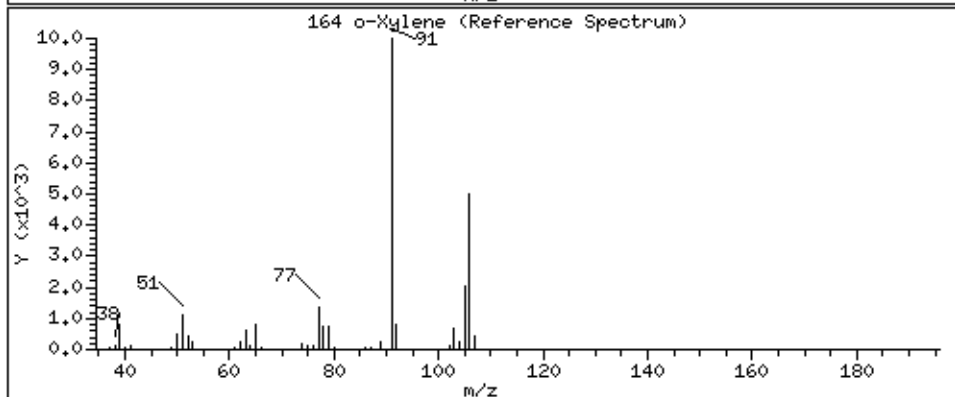
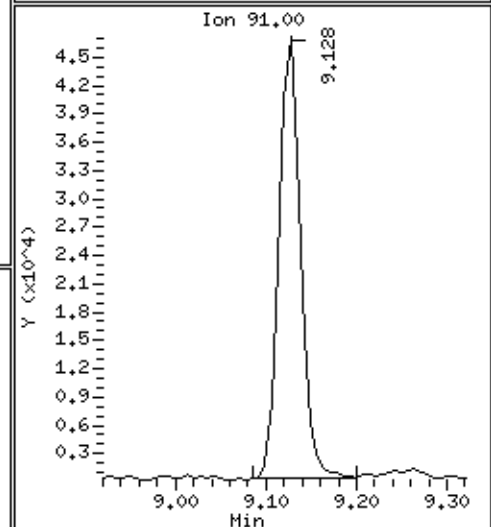
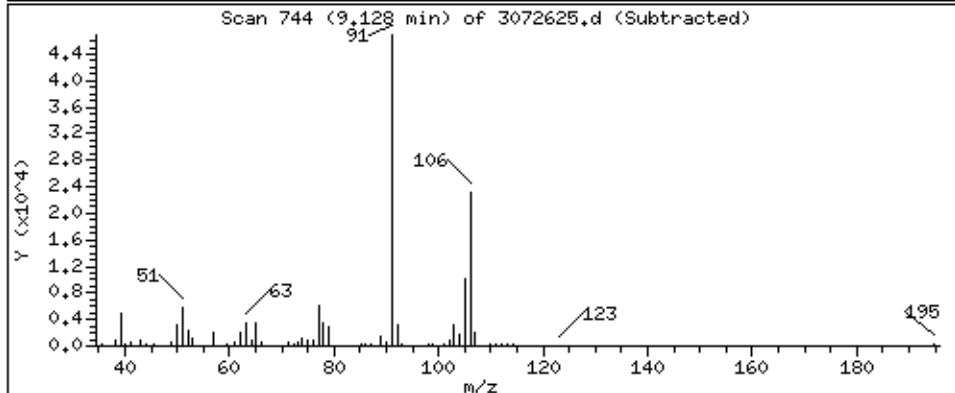
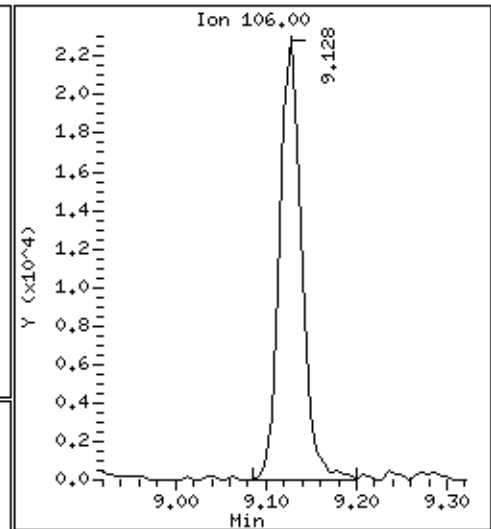
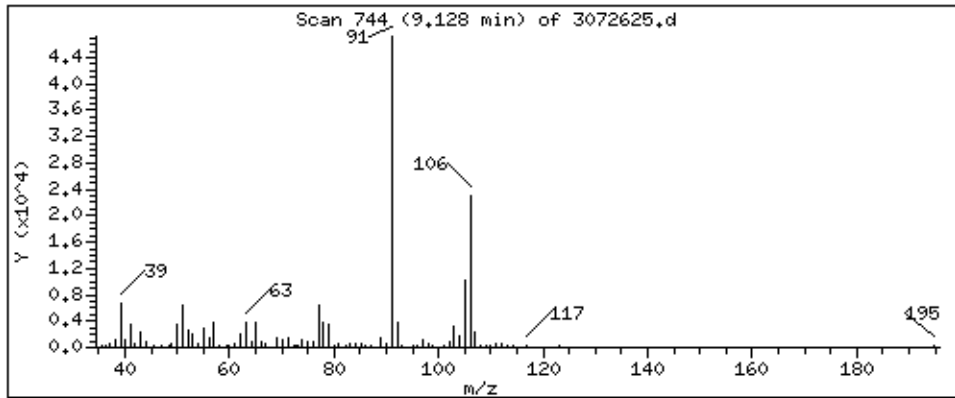
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 7.364 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

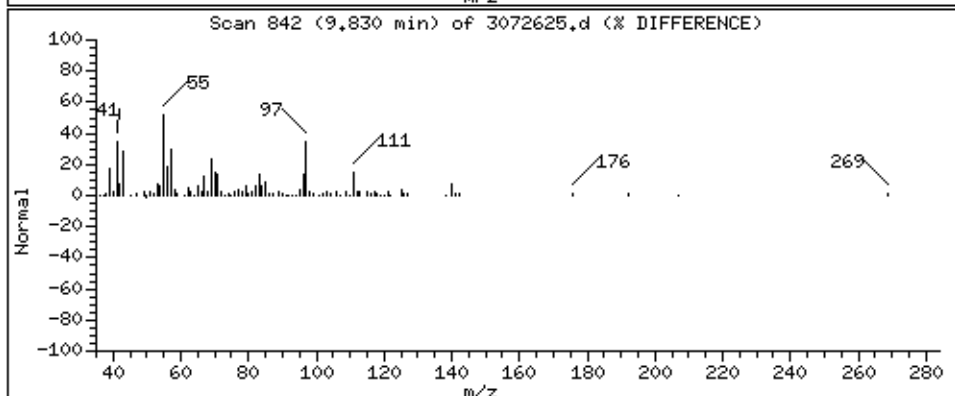
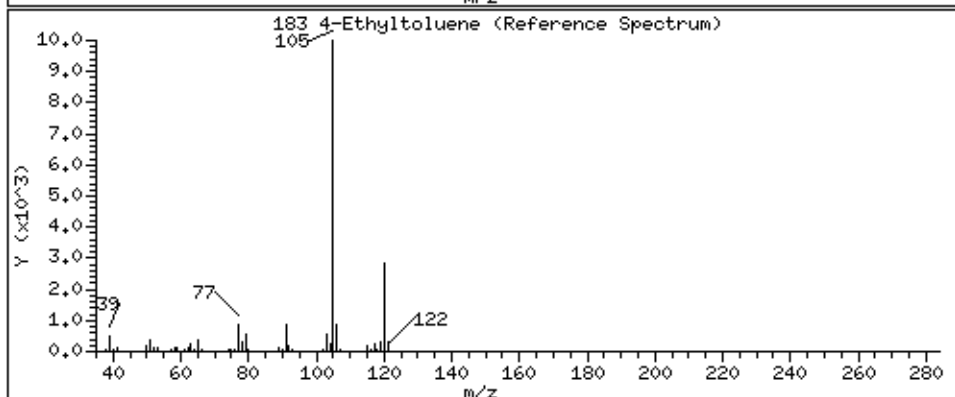
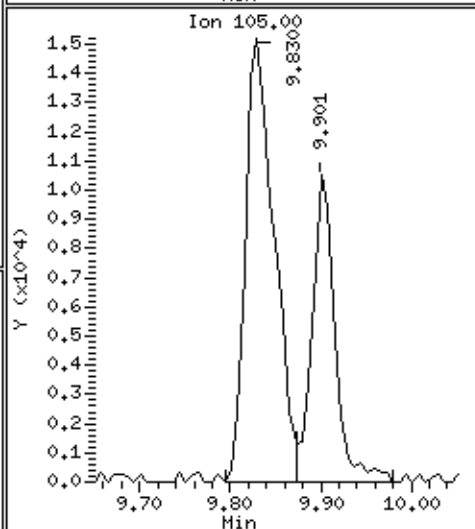
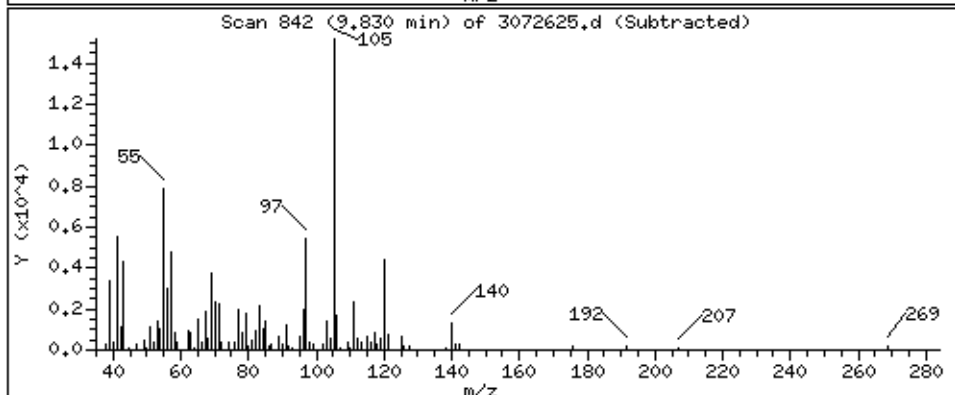
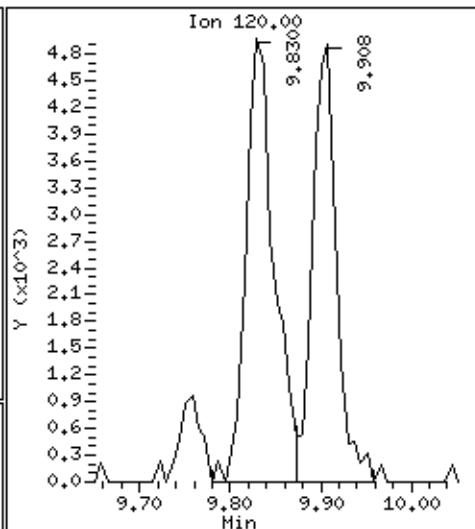
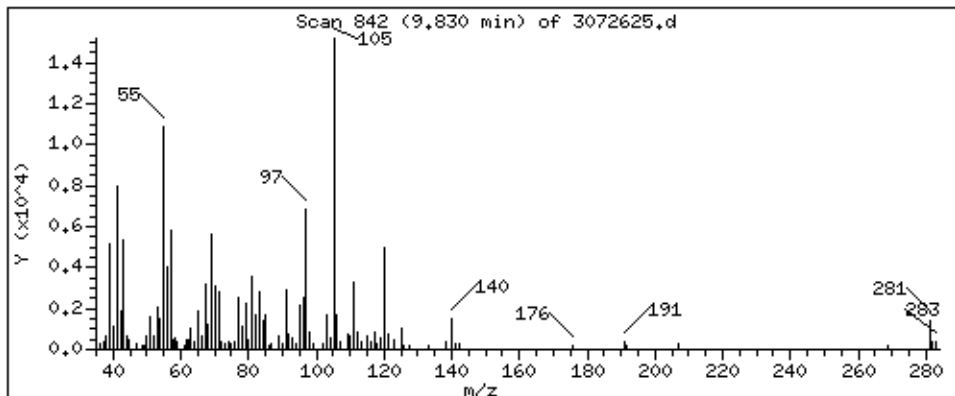
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 2,173 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

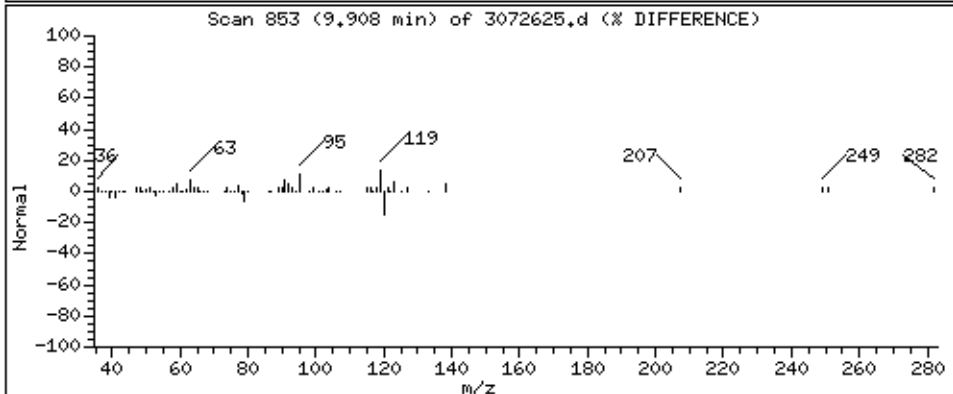
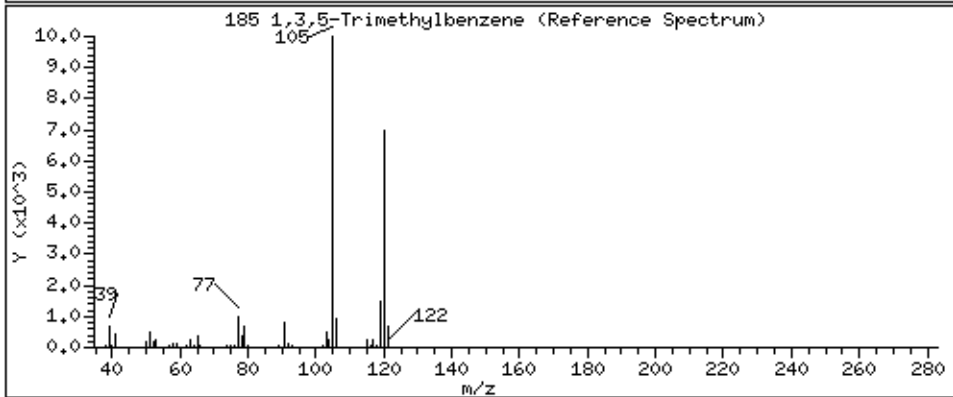
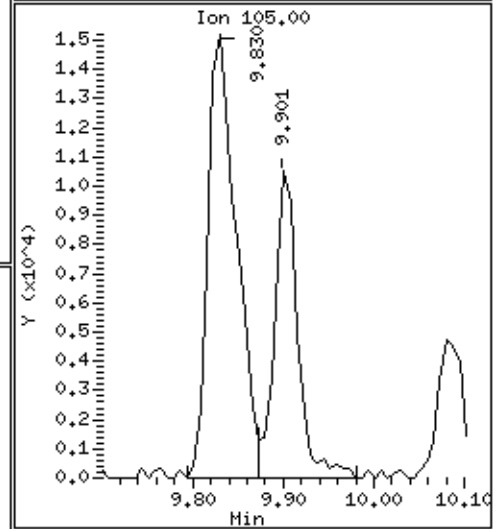
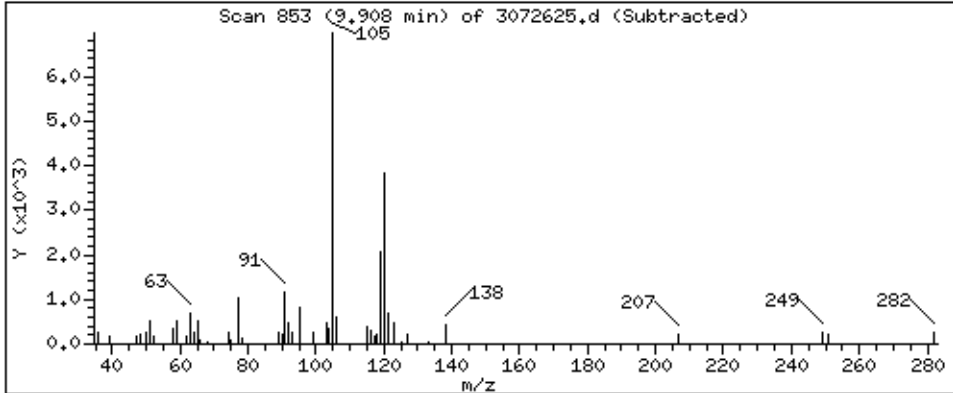
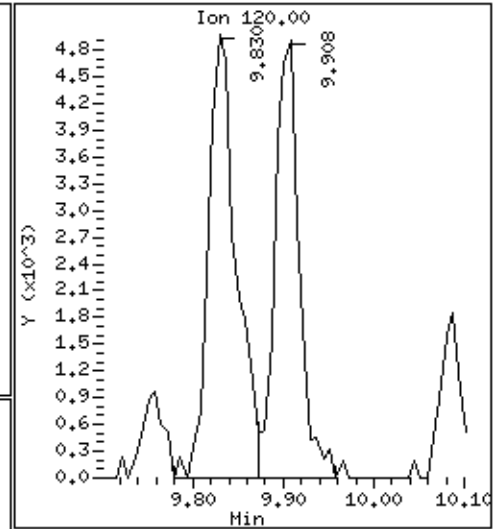
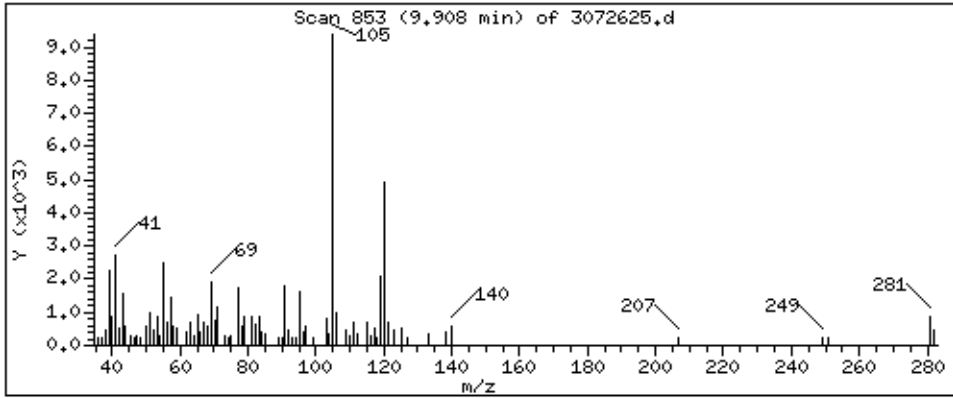
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

185 1,3,5-Trimethylbenzene

Concentration: 1.313 PPBV



Date : 27-JUL-2021 01:51

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1981

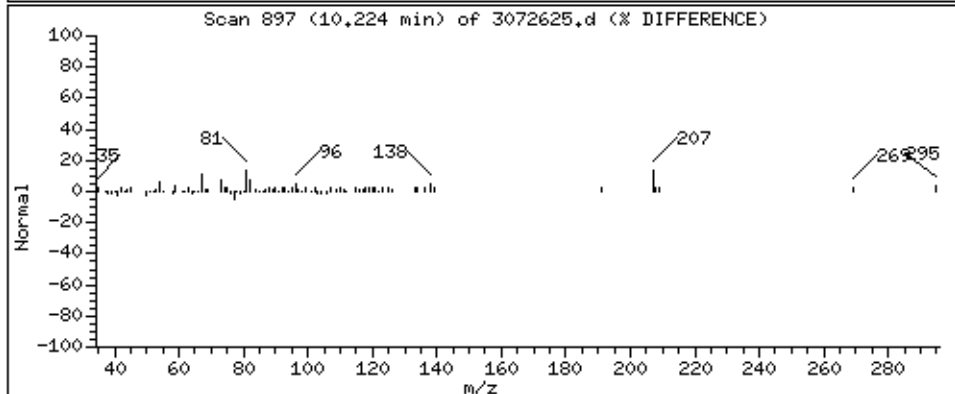
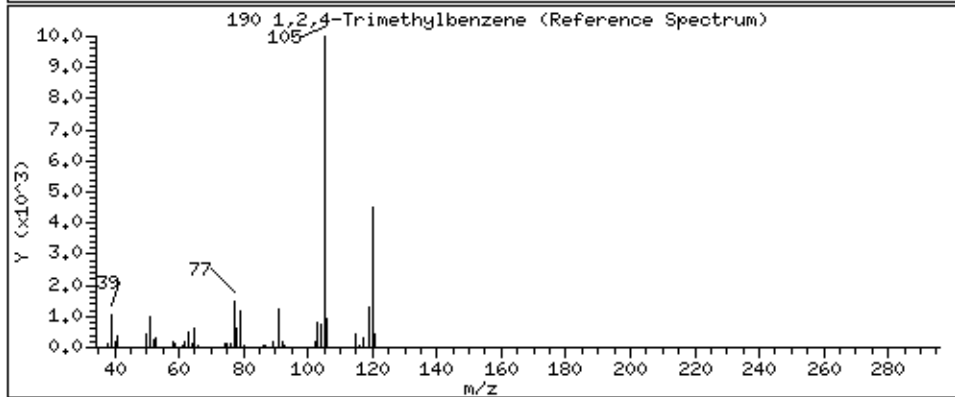
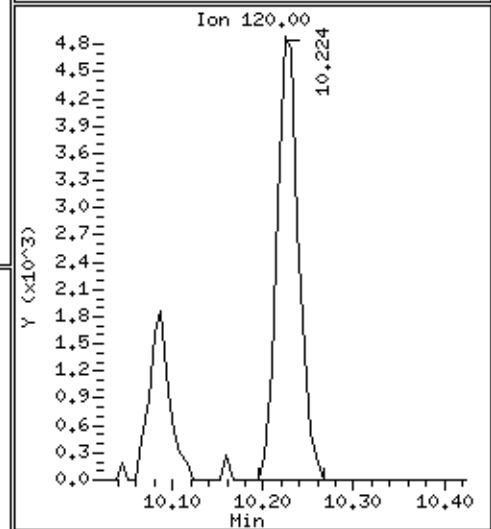
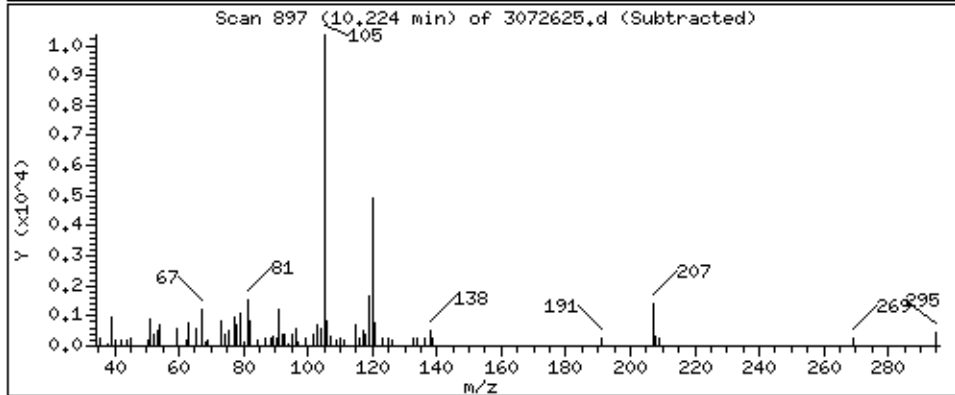
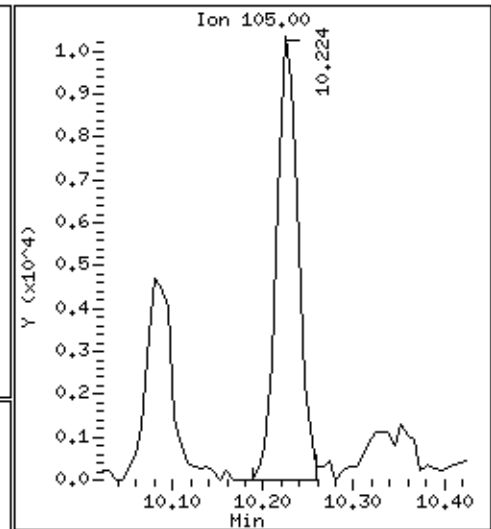
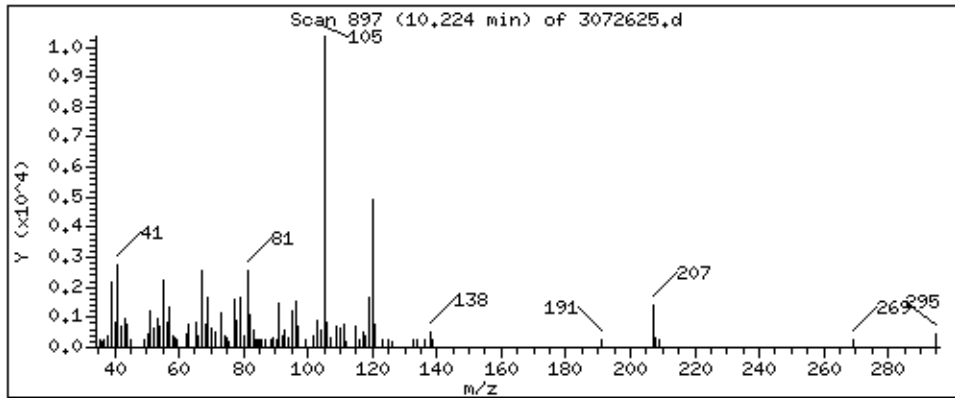
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 1.251 PPBV



Client Sample ID: SG-VW60B-01

Lab ID#: 2107284-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072630	Date of Collection:	7/14/21 8:07:00 AM
Dil. Factor:	2.01	Date of Analysis:	7/27/21 08:06 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.0	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
1,1-Difluoroethane	4.0	37	11	100
1,2,3-Trichloropropane	4.0	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	4.9	Not Detected
1,2-Dibromo-3-chloropropane	4.0	Not Detected	39	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.7	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.0	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.6	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	4.9	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.0	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
2-Hexanone	4.0	Not Detected	16	Not Detected
2-Propanol	4.0	15	9.9	37
3-Chloropropene	4.0	Not Detected	12	Not Detected
4-Ethyltoluene	1.0	Not Detected	4.9	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.0	Not Detected	9.2	Not Detected
Acrylonitrile	4.0	Not Detected	8.7	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
Bromodichloromethane	1.0	Not Detected	6.7	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.3	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Chloroethane	4.0	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	4.9	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected



Air Toxics

Client Sample ID: SG-VW60B-01

Lab ID#: 2107284-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072630	Date of Collection:	7/14/21 8:07:00 AM
Dil. Factor:	2.01	Date of Analysis:	7/27/21 08:06 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Cumene	1.0	Not Detected	4.9	Not Detected
Cyclohexane	1.0	Not Detected	3.4	Not Detected
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
Dibromomethane	4.0	Not Detected	28	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Ethyl Acetate	4.0	Not Detected	14	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
Ethyl-tert-butyl ether	4.0	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.6	Not Detected
Freon 12	1.0	2.6	5.0	13
Freon 113	1.0	Not Detected	7.7	Not Detected
Freon 114	1.0	Not Detected	7.0	Not Detected
Freon 134a	4.0	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected
Hexachloroethane	4.0	Not Detected	39	Not Detected
Hexane	1.0	62	3.5	220
Iodomethane	10	Not Detected	58	Not Detected
Isopropyl ether	4.0	Not Detected	17	Not Detected
m,p-Xylene	1.0	Not Detected	4.4	Not Detected
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
Propylbenzene	1.0	Not Detected	4.9	Not Detected
Propylene	4.0	Not Detected	6.9	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
tert-Amyl methyl ether	4.0	Not Detected	17	Not Detected
tert-Butyl alcohol	4.0	Not Detected	12	Not Detected
Tetrachloroethene	1.0	21	6.8	140
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	Not Detected	3.8	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	410	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Trichloroethene	1.0	Not Detected	5.4	Not Detected
Vinyl Acetate	4.0	Not Detected	14	Not Detected
Vinyl Bromide	4.0	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW60B-01

Lab ID#: 2107284-18A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072630	Date of Collection: 7/14/21 8:07:00 AM
Dil. Factor:	2.01	Date of Analysis: 7/27/21 08:06 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	89	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	98	70-130



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072630.d  
 Lab Smp Id: 2107284-18A  
 Inj Date : 27-JUL-2021 08:06  
 Operator : LD  
 Smp Info : 200mL O0825  
 Misc Info : 4.9 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
 Meth Date : 28-Jul-2021 12:16 uexa  
 Cal Date : 23-JUN-2021 00:09  
 Als bottle: 9  
 Dil Factor: 2.01000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msd3.i  
 Quant Type: ISTD  
 Cal File: 3062223.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	228555	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	177583			48.46- 108.46	77.70
5.284	5.284	(1.000)	49	325389			120.39- 180.39	142.37
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.180	6.166	(1.000)	114	802795	25.0000		80.00- 120.00	100.00
6.180	6.166	(1.000)	88	119317			0.00- 45.52	14.86
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.619	8.612	(1.000)	117	668523	25.0000		80.00- 120.00	100.00
8.619	8.612	(1.000)	82	355078			25.46- 85.46	53.11
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	308922	24.5613	24.561	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	151859			21.66- 81.66	49.16
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.195)	98	739756	22.3723	22.372	80.00- 120.00	100.00
7.387	7.387	(1.195)	70	82822			0.00- 41.47	11.20

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	485977			36.47- 96.47	65.69
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.600	9.601	(1.114)	174	435046	24.6029	24.603	80.00- 120.00	100.00
9.600	9.601	(1.114)	95	494491			93.06- 153.06	113.66
9.600	9.601	(1.114)	176	402770			62.87- 122.87	92.58
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.450	1.451	(0.274)	65	66172	18.3878	36.960	80.00- 120.00	100.00
1.492	1.493	(0.282)	51	279313			321.86- 381.86	422.10
1.450	1.451	(0.274)	47	38856			45.34- 105.34	58.72
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.464	1.465	(0.277)	85	20973	1.31728	2.648	80.00- 120.00	100.00
1.464	1.465	(0.277)	87	7435			2.63- 62.63	35.45
-----								
52 2-Propanol								
						CAS #: 67-63-0		
3.423	3.395	(0.648)	45	102352	7.42614	14.926	80.00- 120.00	100.00
3.423	3.395	(0.648)	43	21192			0.00- 48.61	20.71
-----								
67 Hexane								
						CAS #: 110-54-3		
4.179	4.179	(0.791)	57	391669	30.9458	62.201	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	242554			32.99- 92.99	61.93
4.179	4.179	(0.791)	86	50289			0.00- 42.56	12.84
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.881	7.881	(0.914)	166	108767	10.3853	20.874	80.00- 120.00	100.00
7.881	7.881	(0.914)	129	83180			48.71- 108.71	76.48
7.881	7.881	(0.914)	131	79623			46.55- 106.55	73.20
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072630.d  
Lab Smp Id: 2107284-18A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 4.9 Hg->10 psi

Calibration Date: 26-JUL-2021  
Calibration Time: 10:10  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	228555	-13.42
108 1,4-Difluorobenze	833448	500069	1166827	802795	-3.68
153 Chlorobenzene-d5	741338	444803	1037873	668523	-9.82

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.22
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-18A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 4.9 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.561	98.25	70-130
\$ 134 Toluene-d8	25.000	22.372	89.49	70-130
\$ 170 4-Bromofluorobenz	25.000	24.603	98.41	70-130

Date : 27-JUL-2021 08:06

Client ID:

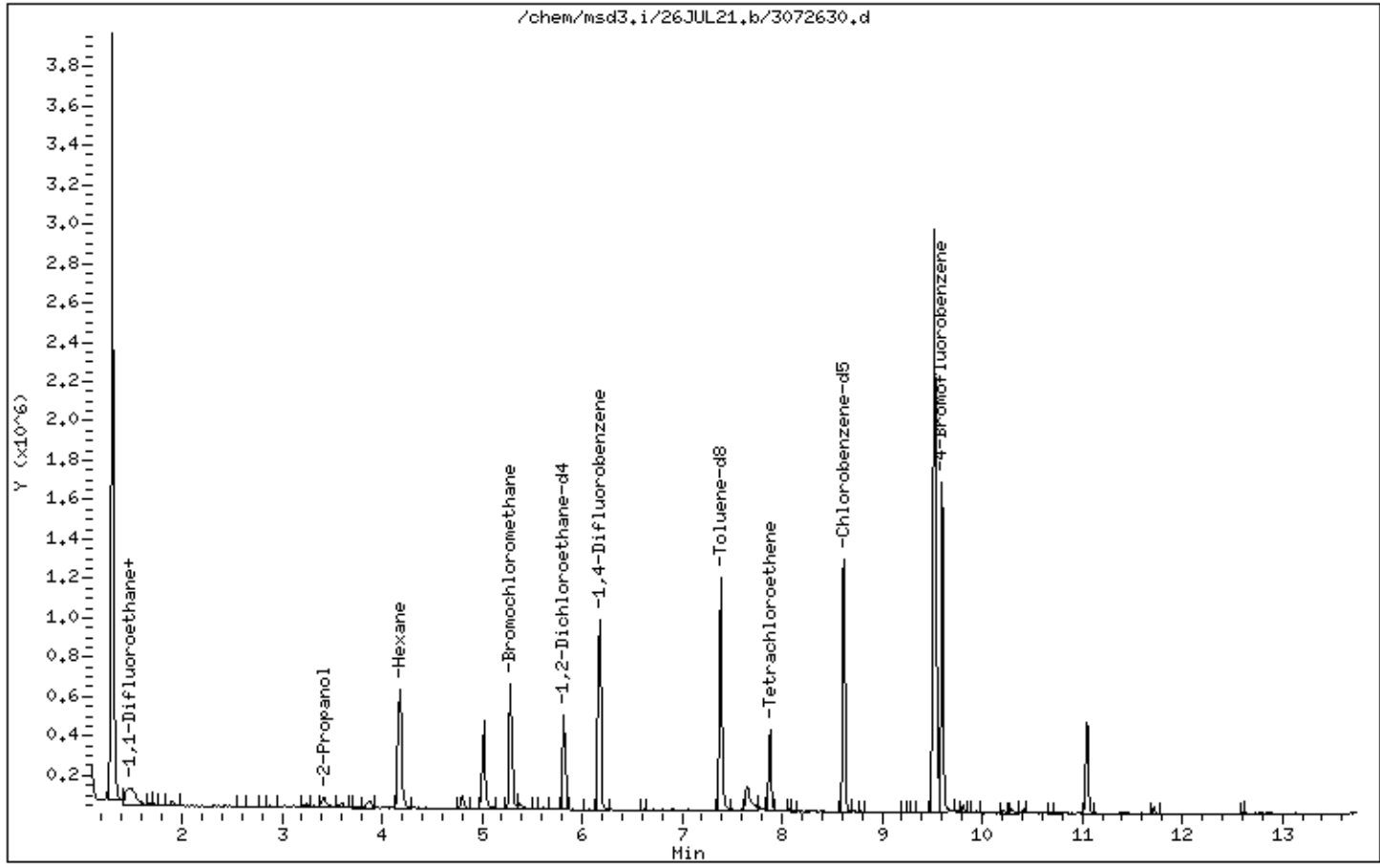
Instrument: msd3,i

Sample Info: 200mL 00825

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 08:06

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00825

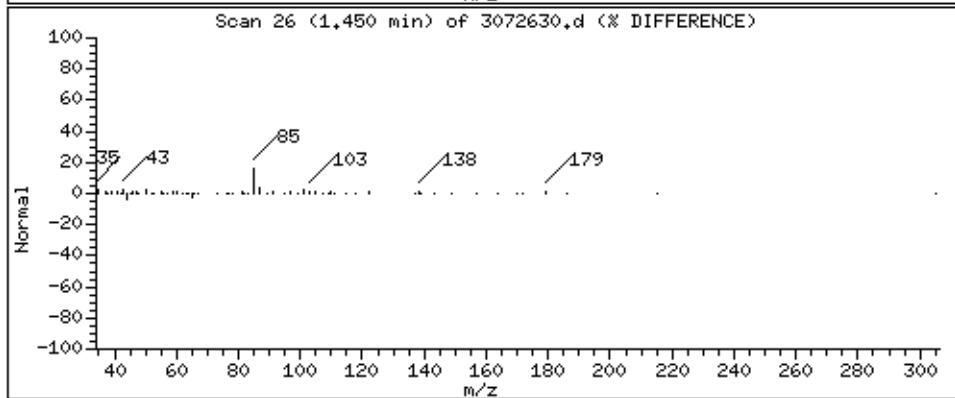
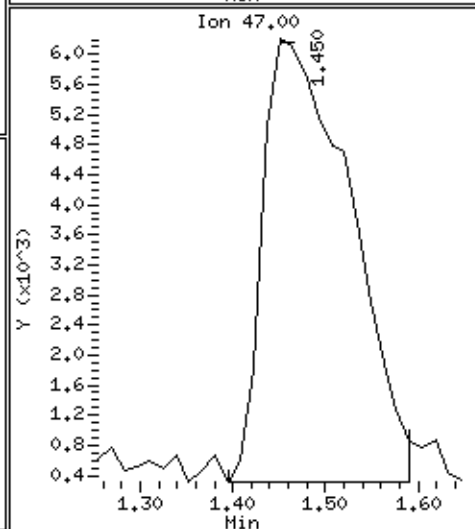
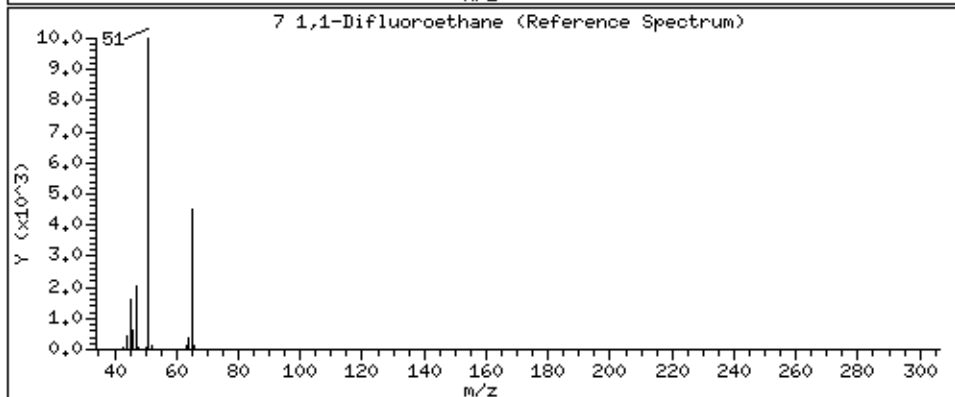
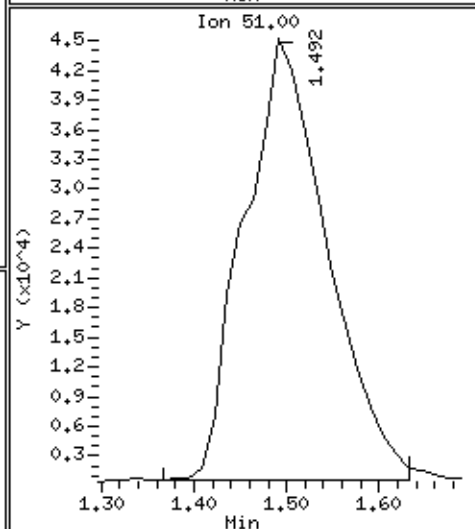
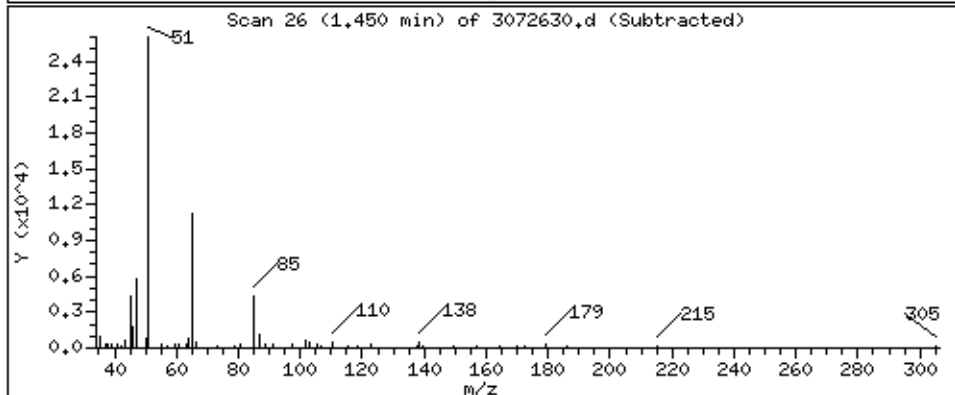
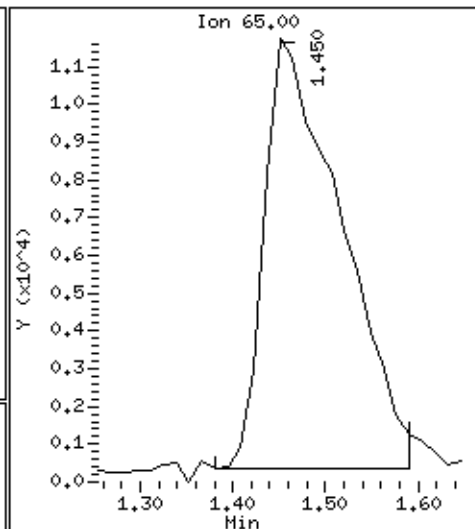
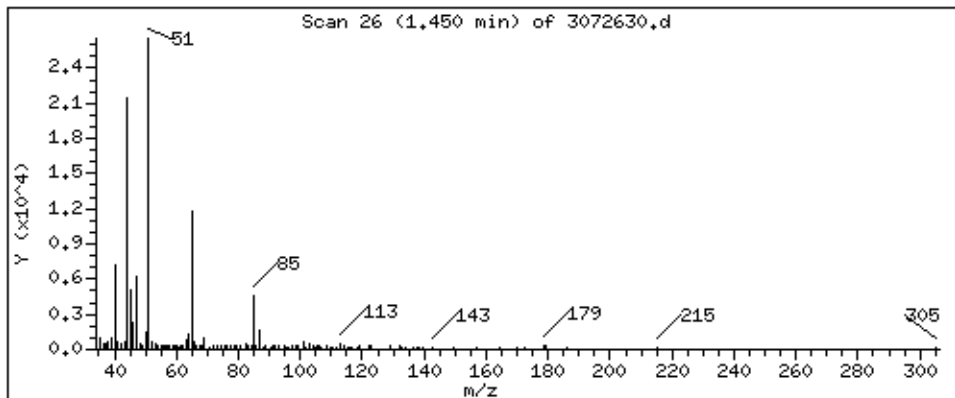
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 36,960 PPBV



Date : 27-JUL-2021 08:06

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00825

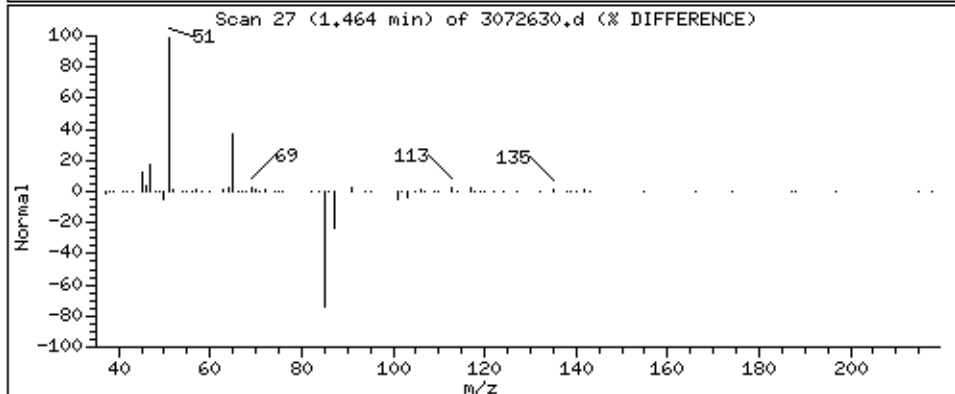
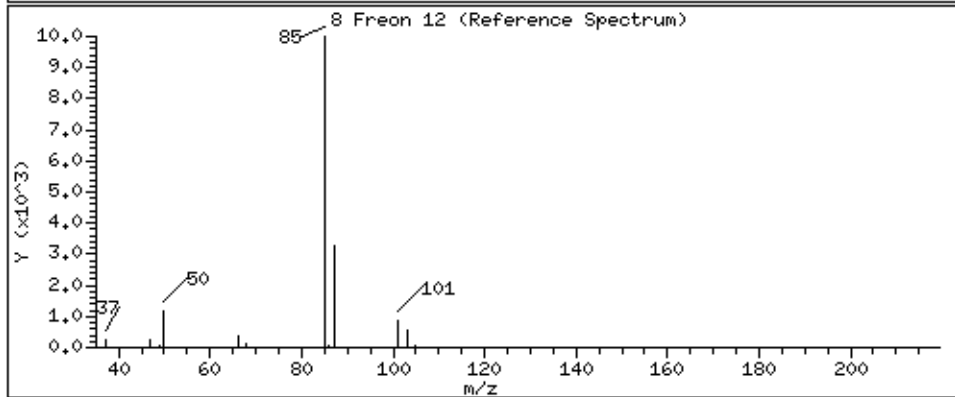
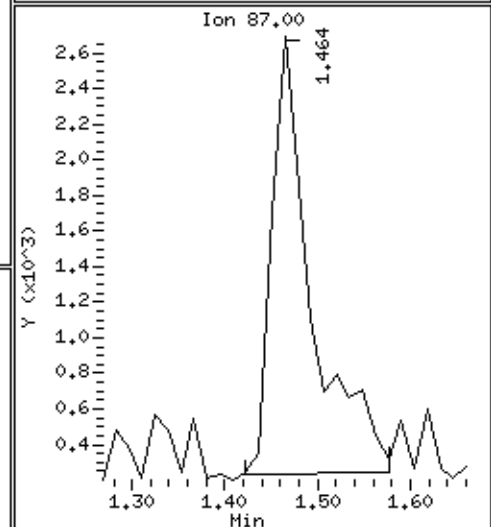
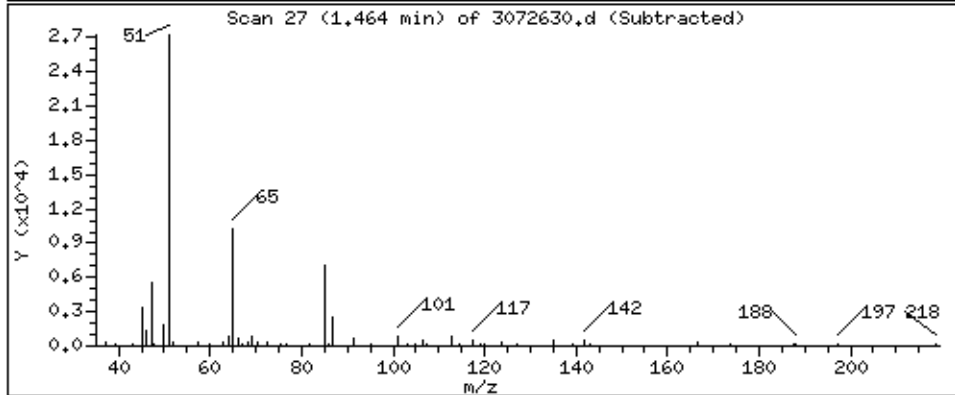
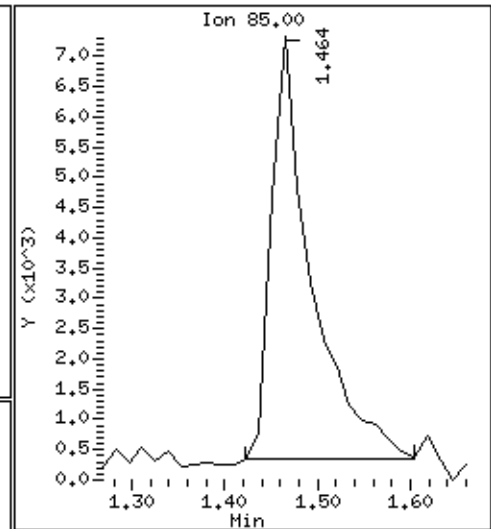
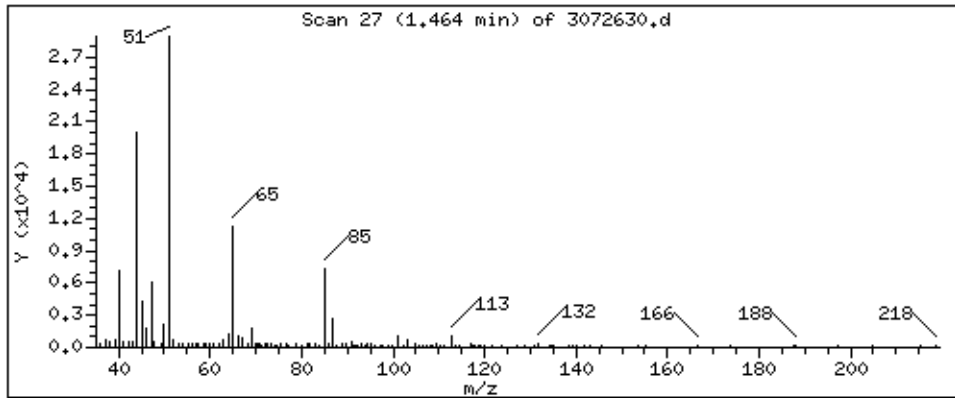
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 2,648 PPBV



Date : 27-JUL-2021 08:06

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00825

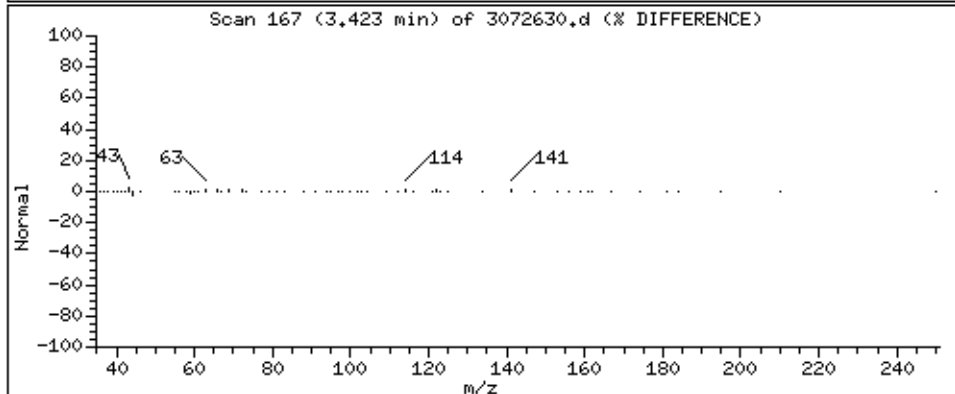
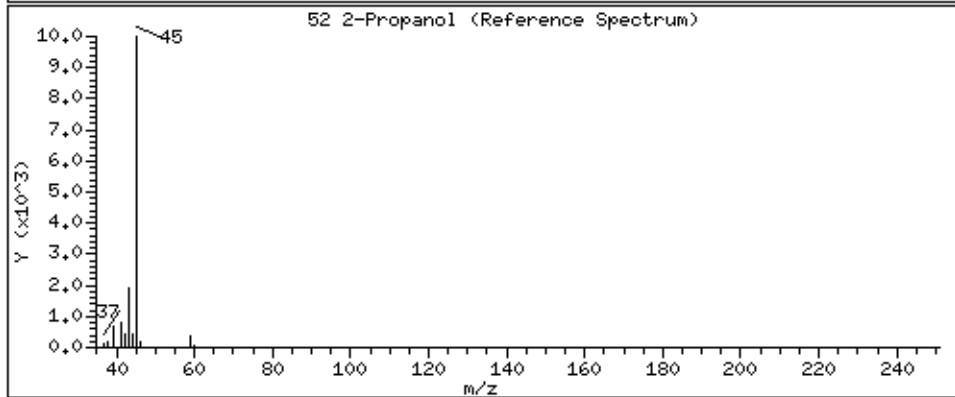
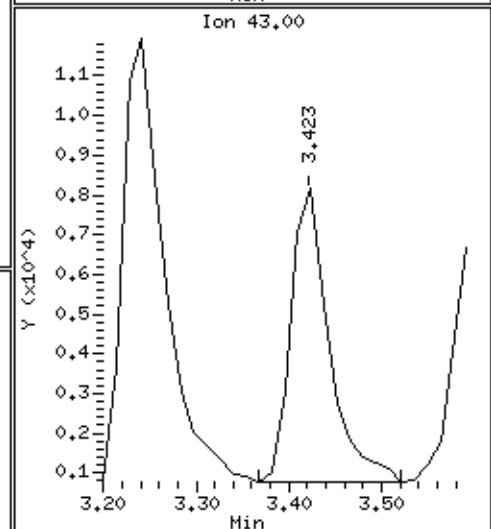
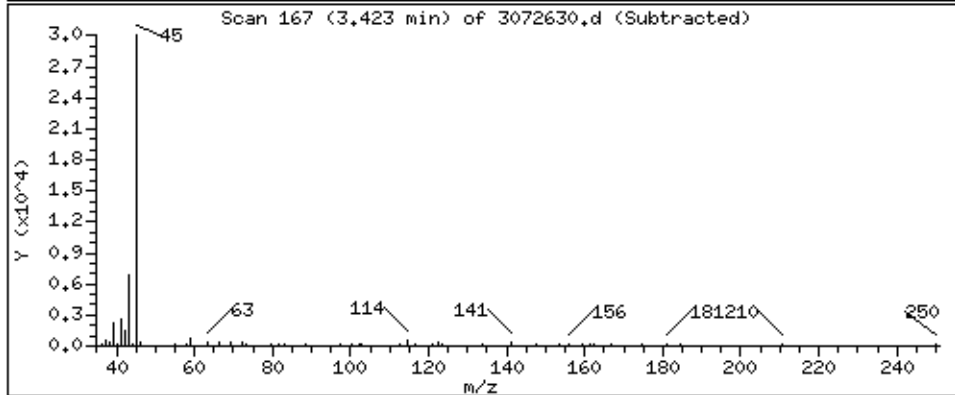
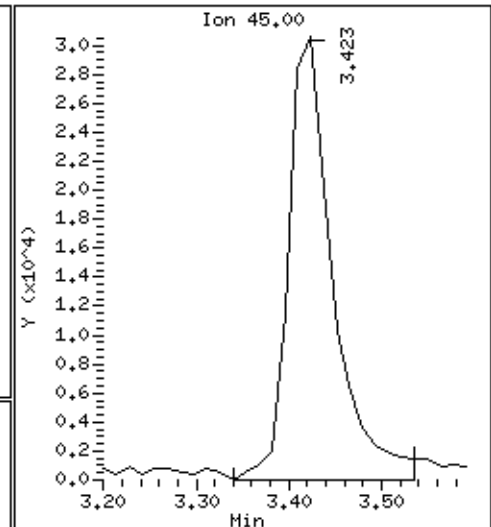
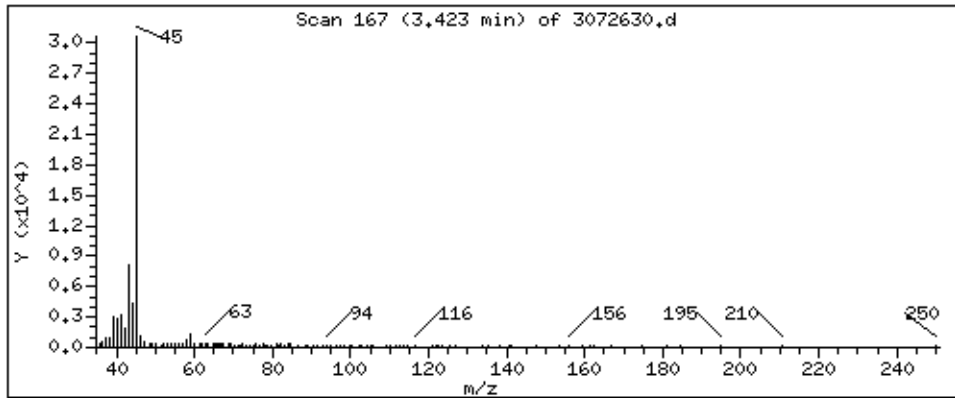
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 14,926 PPBV





Date : 27-JUL-2021 08:06

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00825

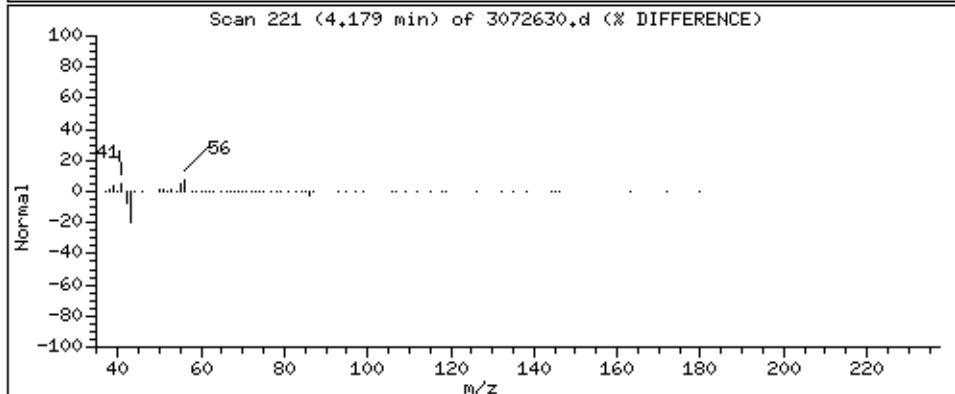
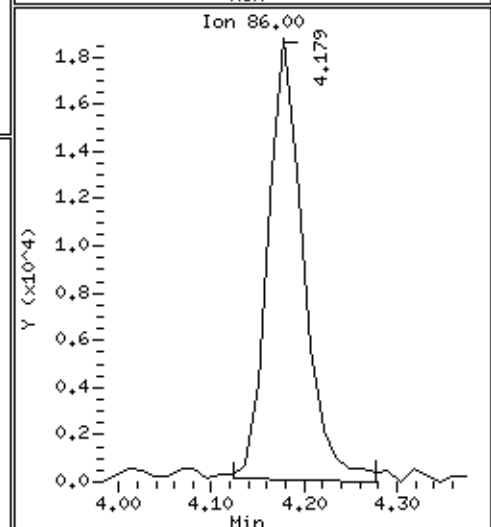
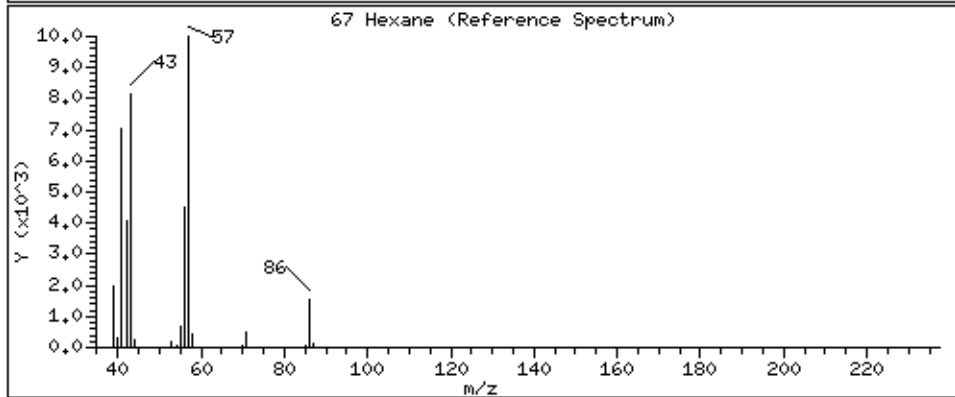
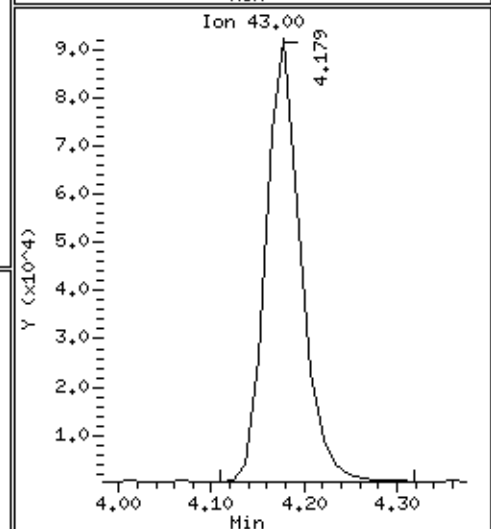
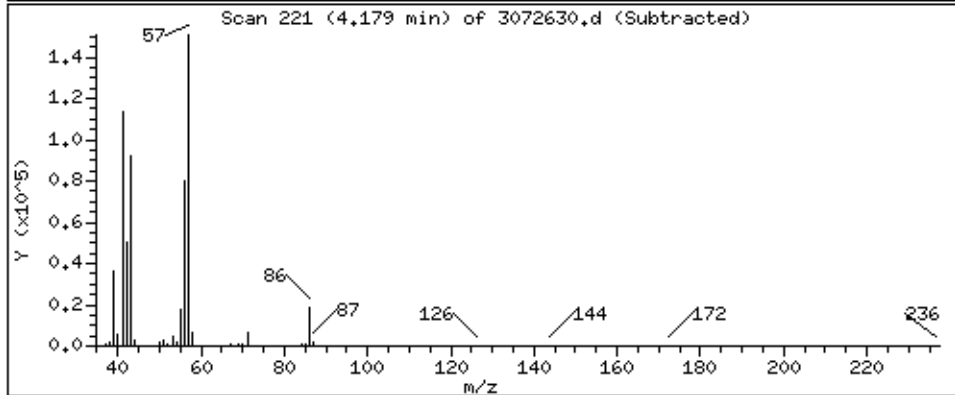
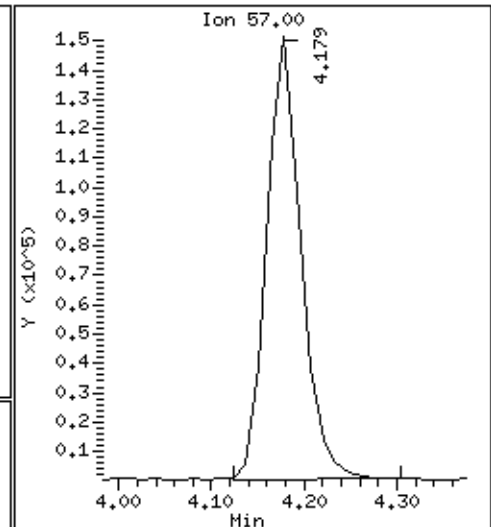
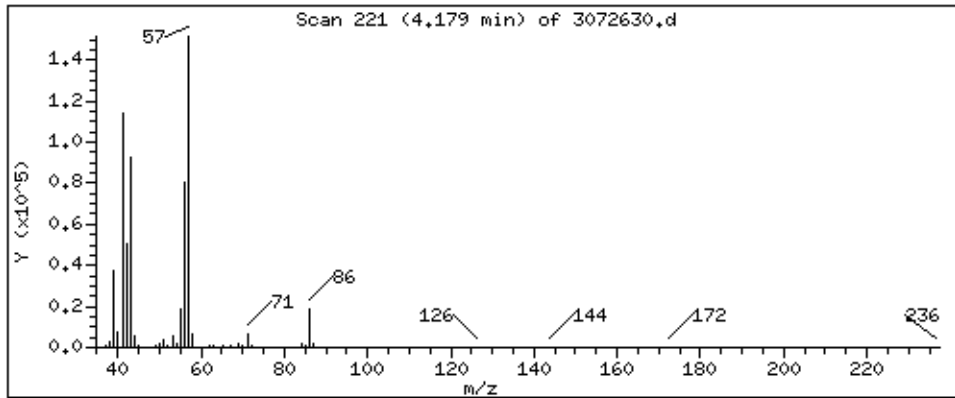
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 62,201 PPBV



Date : 27-JUL-2021 08:06

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00825

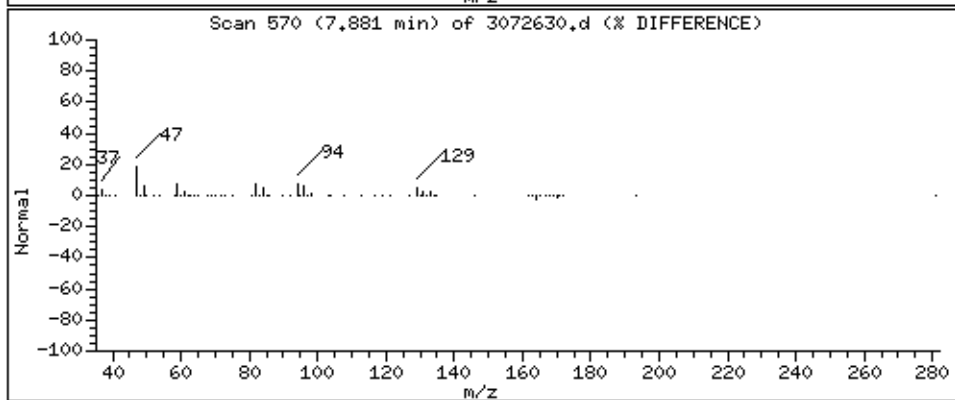
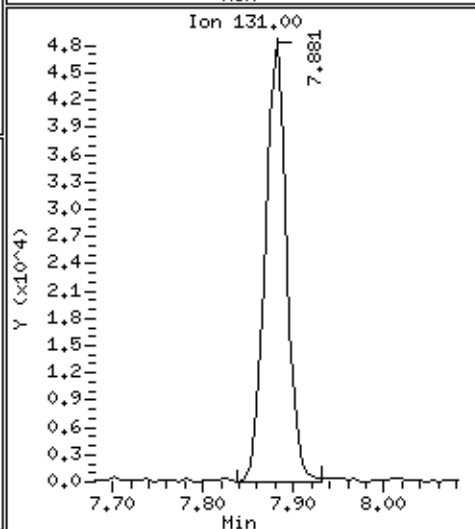
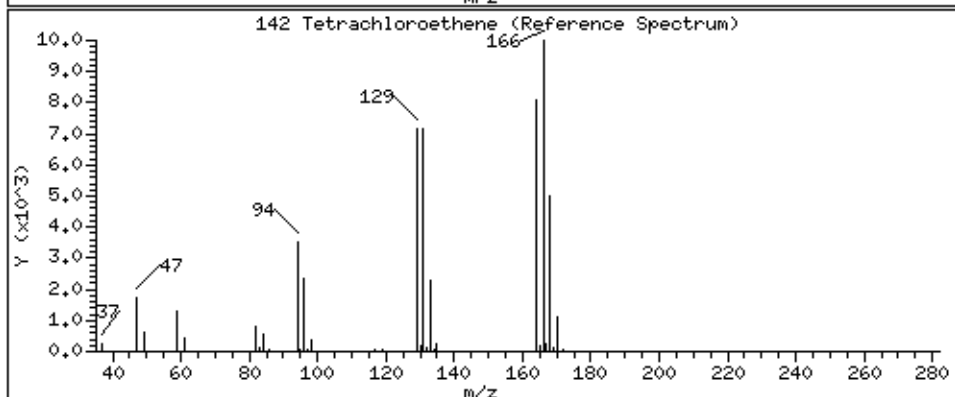
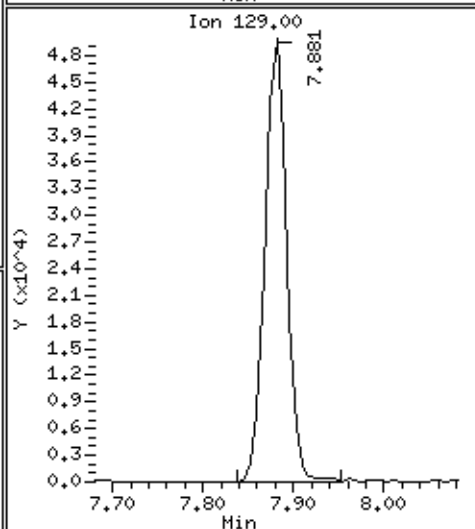
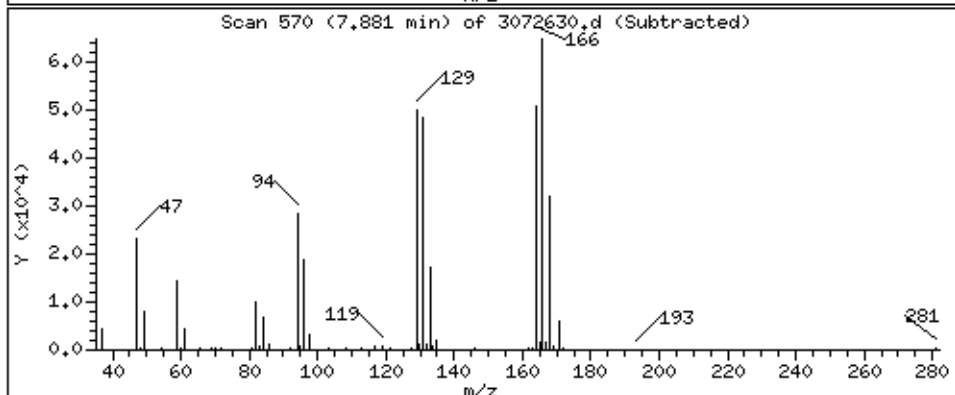
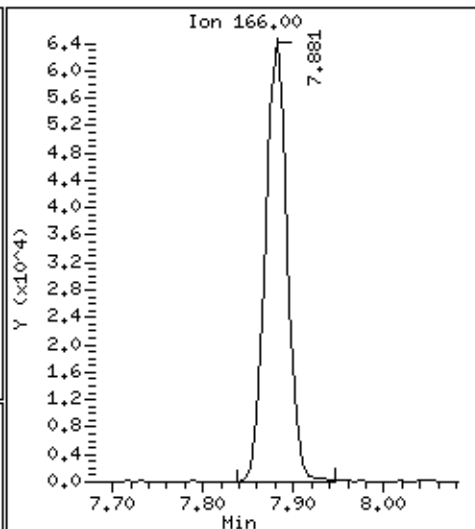
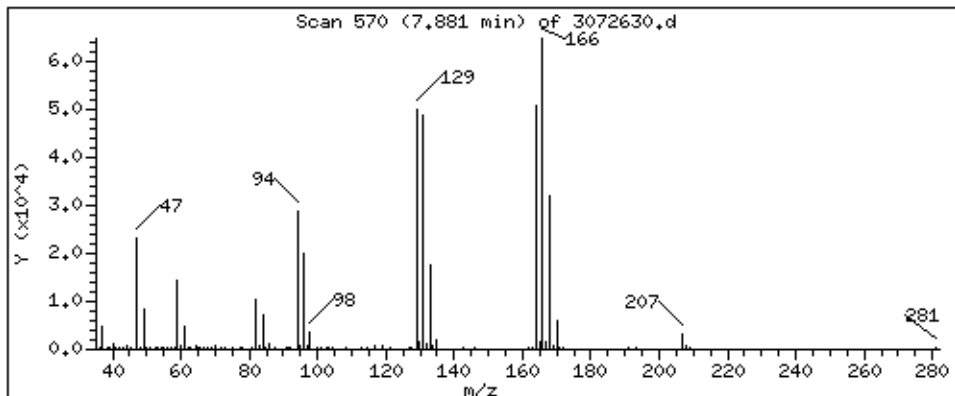
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 20,874 PPBV



Client Sample ID: SG-VW54B-02

Lab ID#: 2107284-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072627	Date of Collection:	7/14/21 8:58:00 AM
Dil. Factor:	2.25	Date of Analysis:	7/27/21 02:50 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.5	Not Detected	31	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
1,1-Difluoroethane	4.5	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.5	Not Detected	27	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	33	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,2-Dibromo-3-chloropropane	4.5	Not Detected	43	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	Not Detected	13	Not Detected
2-Hexanone	4.5	Not Detected	18	Not Detected
2-Propanol	4.5	Not Detected	11	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Acetone	11	Not Detected	27	Not Detected
Acrolein	4.5	Not Detected	10	Not Detected
Acrylonitrile	4.5	Not Detected	9.8	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.1	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected



Air Toxics

Client Sample ID: SG-VW54B-02

Lab ID#: 2107284-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072627	Date of Collection:	7/14/21 8:58:00 AM
Dil. Factor:	2.25	Date of Analysis:	7/27/21 02:50 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
Cumene	1.1	Not Detected	5.5	Not Detected
Cyclohexane	1.1	Not Detected	3.9	Not Detected
Dibromochloromethane	1.1	Not Detected	9.6	Not Detected
Dibromomethane	4.5	Not Detected	32	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Ethyl Acetate	4.5	Not Detected	16	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
Ethyl-tert-butyl ether	4.5	Not Detected	19	Not Detected
Freon 11	1.1	Not Detected	6.3	Not Detected
Freon 12	1.1	5.8	5.6	29
Freon 113	1.1	Not Detected	8.6	Not Detected
Freon 114	1.1	Not Detected	7.9	Not Detected
Freon 134a	4.5	Not Detected	19	Not Detected
Heptane	1.1	Not Detected	4.6	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
Hexachloroethane	4.5	Not Detected	44	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
Iodomethane	11	Not Detected	65	Not Detected
Isopropyl ether	4.5	Not Detected	19	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Naphthalene	2.2	Not Detected	12	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected
Propylbenzene	1.1	Not Detected	5.5	Not Detected
Propylene	4.5	Not Detected	7.7	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
tert-Amyl methyl ether	4.5	Not Detected	19	Not Detected
tert-Butyl alcohol	4.5	Not Detected	14	Not Detected
Tetrachloroethene	1.1	6.8	7.6	46
Tetrahydrofuran	1.1	Not Detected	3.3	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
TPH ref. to Gasoline (MW=100)	110	Not Detected	460	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
Trichloroethene	1.1	Not Detected	6.0	Not Detected
Vinyl Acetate	4.5	Not Detected	16	Not Detected
Vinyl Bromide	4.5	Not Detected	20	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW54B-02**
**Lab ID#: 2107284-19A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072627</b>	<b>Date of Collection: 7/14/21 8:58:00 AM</b>
<b>Dil. Factor:</b>	<b>2.25</b>	<b>Date of Analysis: 7/27/21 02:50 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	94	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072627.d  
Lab Smp Id: 2107284-19A  
Inj Date : 27-JUL-2021 02:50  
Operator : DF  
Smp Info : 200mL N3462  
Misc Info : 7.6 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 10  
Dil Factor: 2.25000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO
				ON-COL	FINAL		
==	=====	=====	=====	( PPBV)	( PPBV)	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.284	5.284	(1.000)	130	265446	25.0000	80.00- 120.00	100.00
5.284	5.284	(1.000)	128	205656		48.46- 108.46	77.48
5.270	5.284	(1.000)	49	379153		120.39- 180.39	142.84
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.166	6.166	(1.000)	114	886857	25.0000	80.00- 120.00	100.00
6.166	6.166	(1.000)	88	128751		0.00- 45.52	14.52
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
8.612	8.612	(1.000)	117	787055	25.0000	80.00- 120.00	100.00
8.612	8.612	(1.000)	82	410592		25.46- 85.46	52.17
-----							
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0							
5.816	5.816	(1.101)	65	356923	24.4338	24.434 80.00- 120.00	100.00
5.816	5.816	(1.101)	67	173907		21.66- 81.66	48.72
-----							
§ 134 Toluene-d8 CAS #: 2037-26-5							
7.387	7.387	(1.198)	98	858790	23.5104	23.510 80.00- 120.00	100.00
7.387	7.387	(1.198)	70	96530		0.00- 41.47	11.24

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.198)	100	567816			36.47- 96.47	66.12
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	489712	23.5235	23.524	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	550107			93.06- 153.06	112.33
9.601	9.601	(1.115)	176	448402			62.87- 122.87	91.56
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.465	1.465	(0.277)	85	48041	2.59803	5.846	80.00- 120.00	100.00
1.465	1.465	(0.277)	87	16126			2.63- 62.63	33.57
-----								
62 tert-Butyl alcohol								
						CAS #: 75-65-0		
3.899	3.857	(0.738)	59	39602	1.97103	4.435	80.00- 120.00	100.00(a)
3.885	3.857	(0.735)	41	10031			0.00- 51.05	25.33
3.885	3.857	(0.735)	57	3692			0.00- 41.68	9.32
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.874	7.881	(0.914)	166	37402	3.03339	6.825	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	29950			48.71- 108.71	80.08
7.874	7.881	(0.914)	131	29051			46.55- 106.55	77.67
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072627.d  
 Lab Smp Id: 2107284-19A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: DF  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 7.6 Hg->10 psi

Calibration Date: 26-JUL-2021  
 Calibration Time: 10:10  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	265446	0.55
108 1,4-Difluorobenze	833448	500069	1166827	886857	6.41
153 Chlorobenzene-d5	741338	444803	1037873	787055	6.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.17	0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.



US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-19A  
Level: LOW Operator: DF  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 7.6 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.434	97.74	70-130
\$ 134 Toluene-d8	25.000	23.510	94.04	70-130
\$ 170 4-Bromofluorobenz	25.000	23.524	94.09	70-130

Date : 27-JUL-2021 02:50

Client ID:

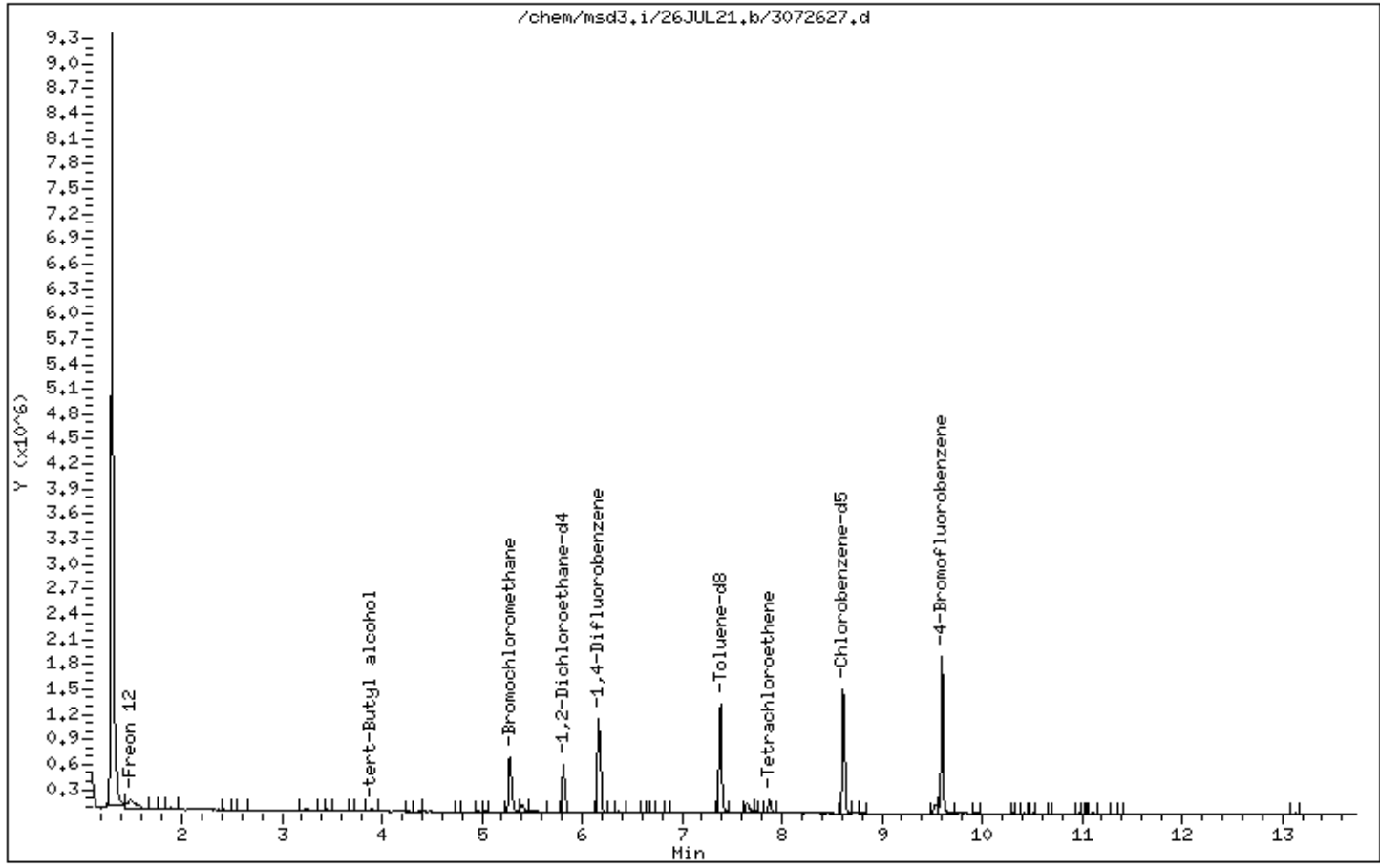
Instrument: msd3,i

Sample Info: 200mL N3462

Operator: DF

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 02:50

Client ID:

Instrument: msd3,i

Sample Info: 200mL N3462

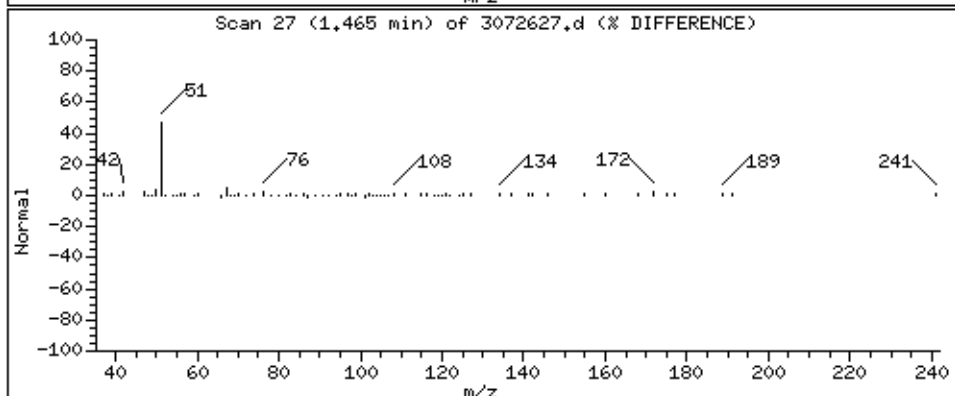
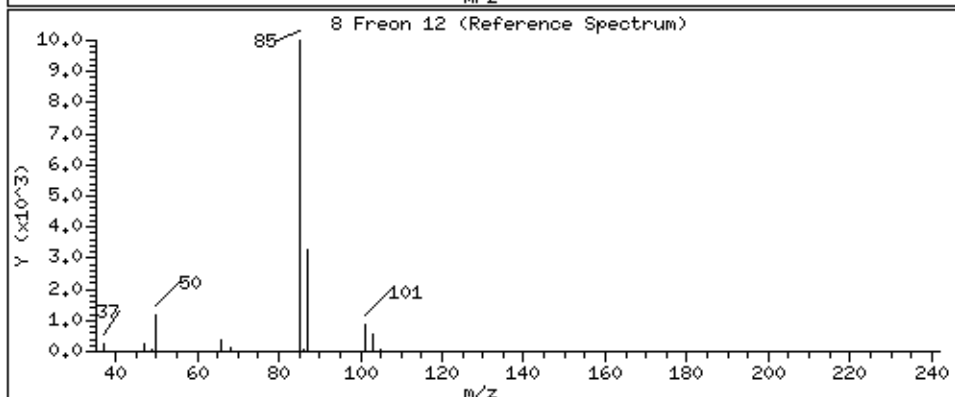
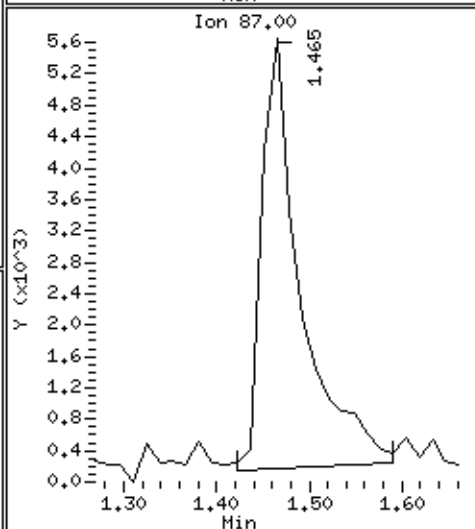
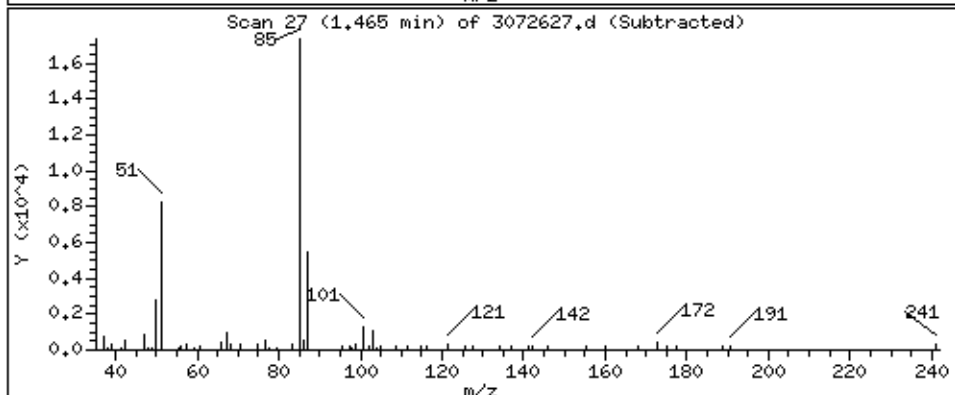
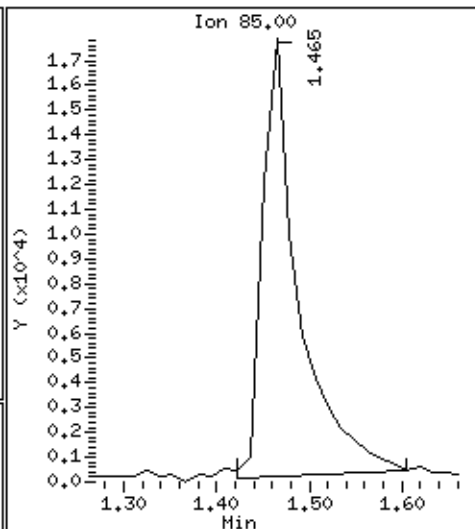
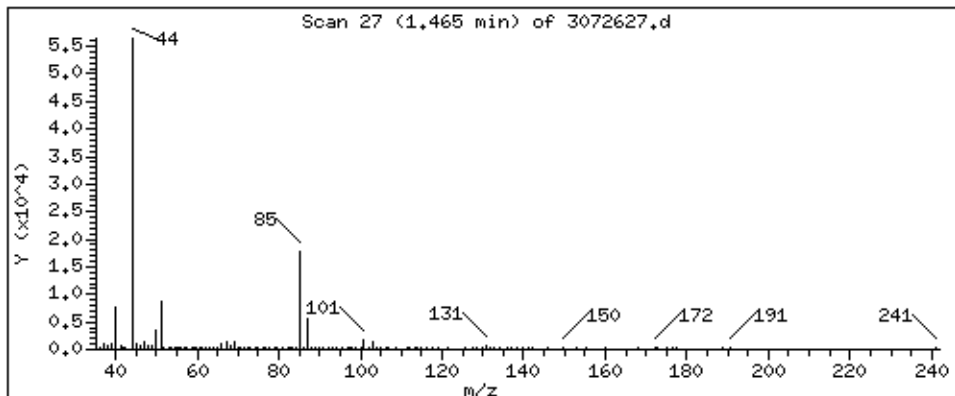
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 5.846 PPBV



Date : 27-JUL-2021 02:50

Client ID:

Instrument: msd3,i

Sample Info: 200mL N3462

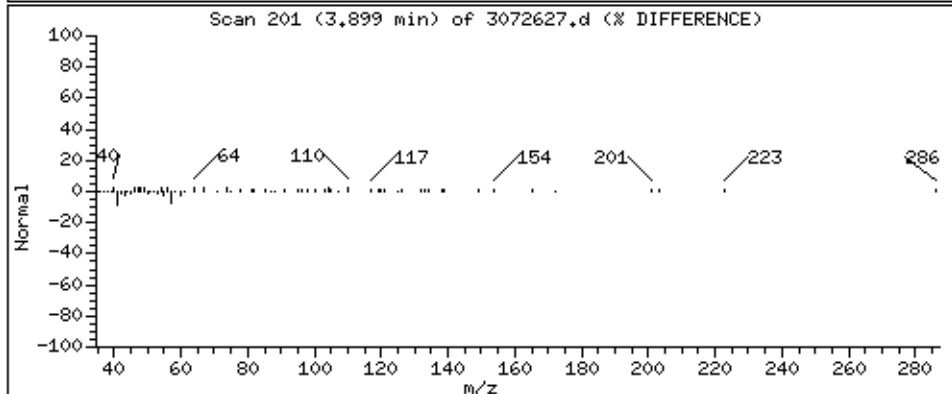
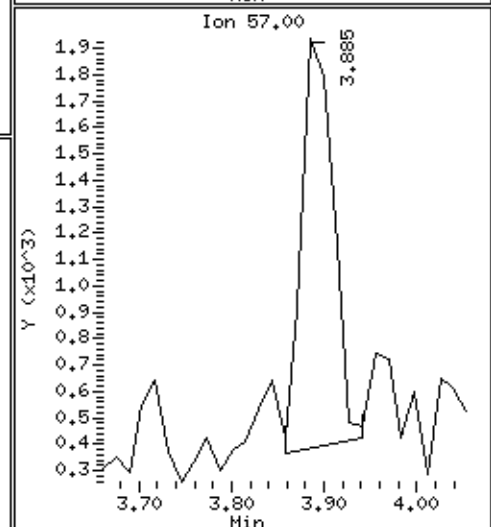
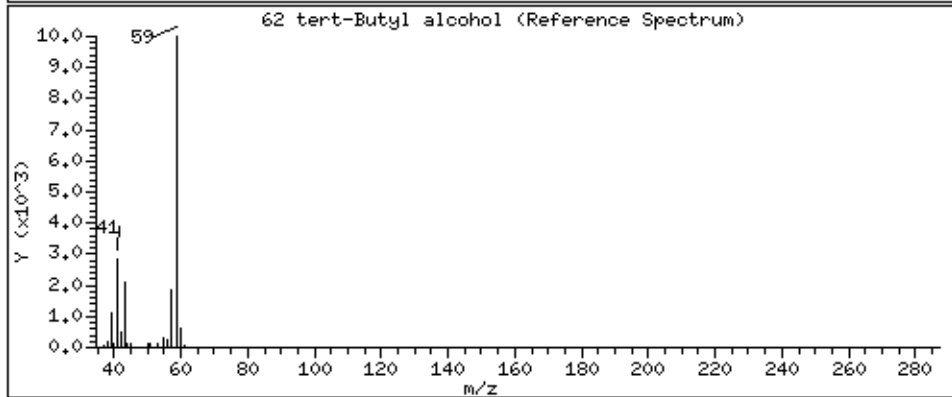
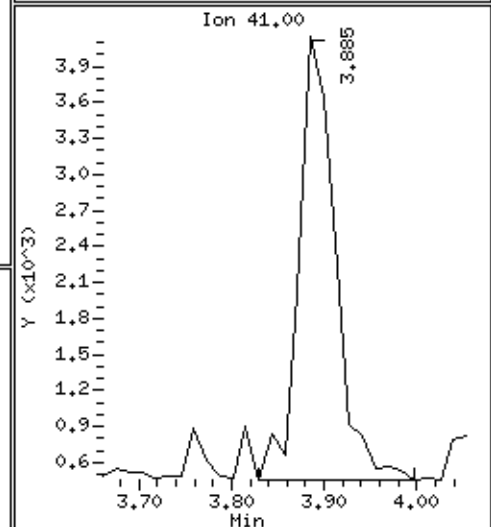
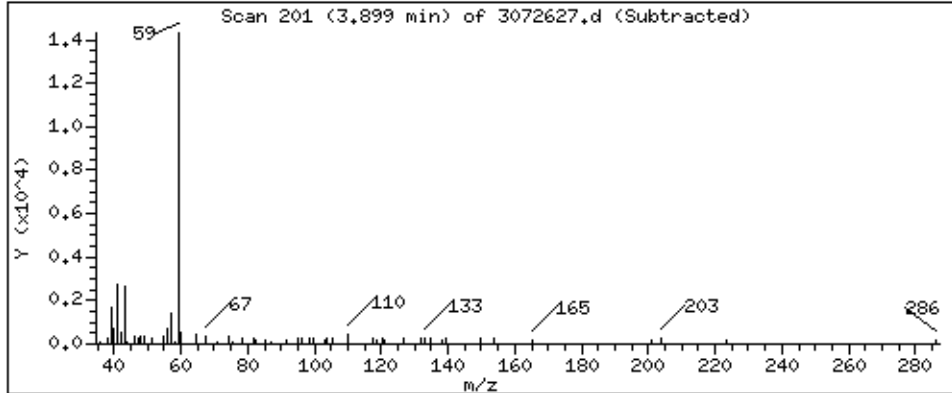
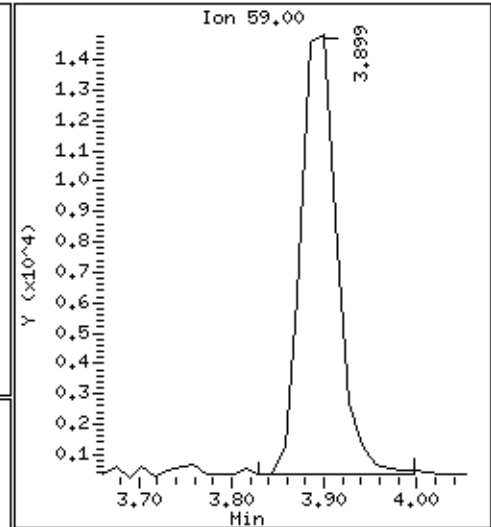
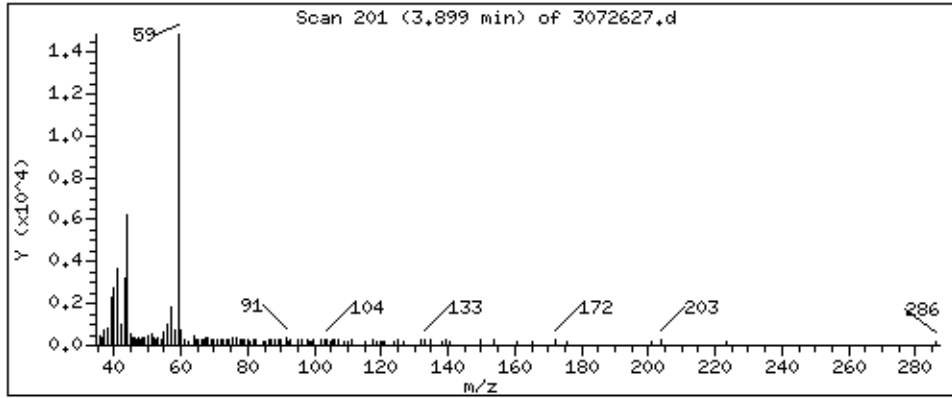
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

62 tert-Butyl alcohol

Concentration: 4.435 PPBV



Date : 27-JUL-2021 02:50

Client ID:

Instrument: msd3,i

Sample Info: 200mL N3462

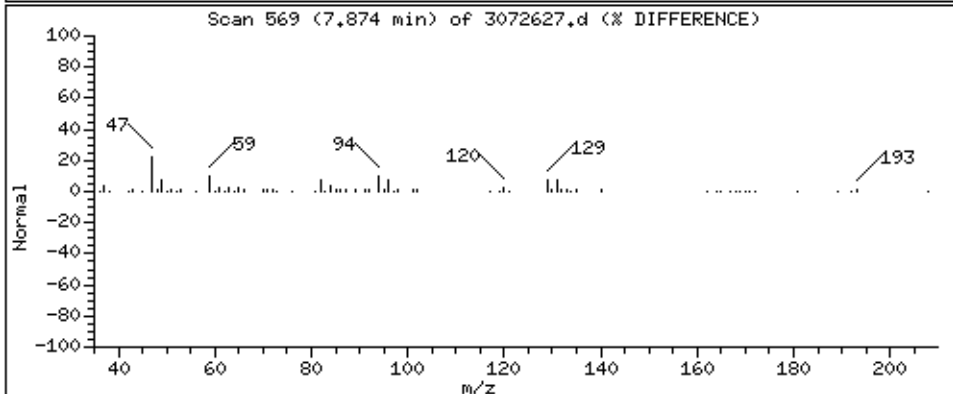
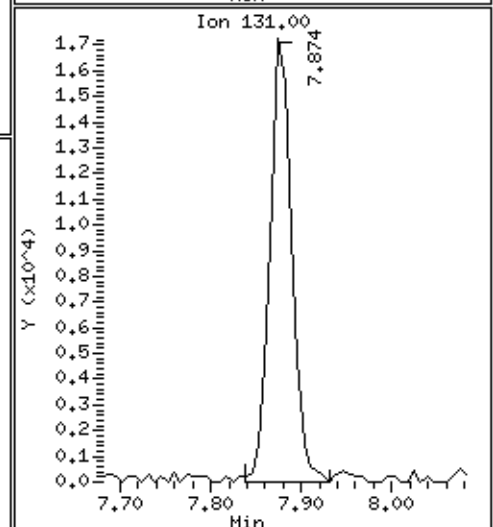
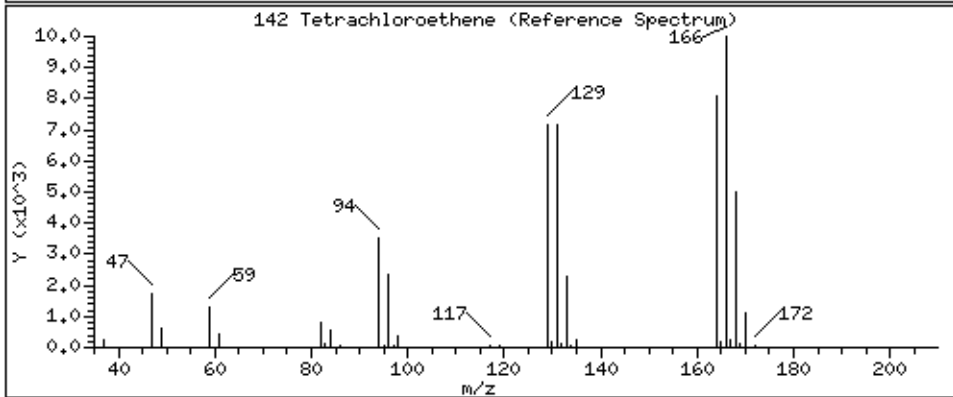
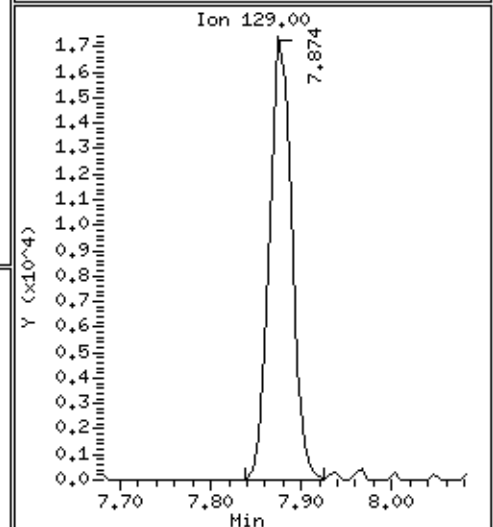
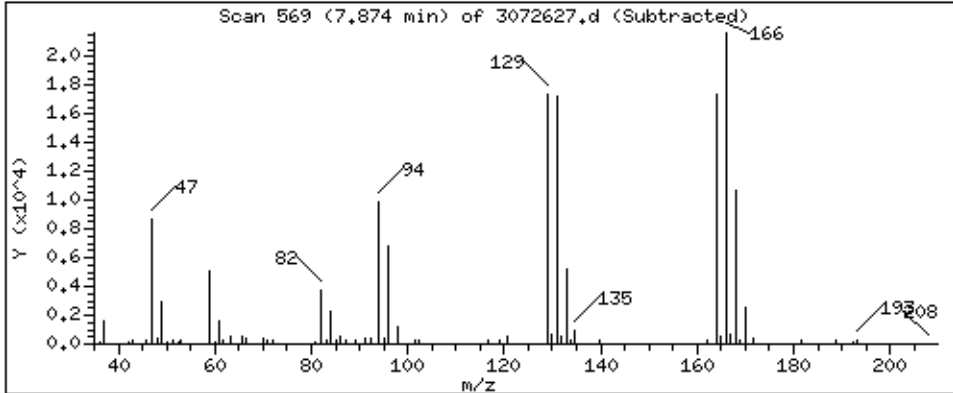
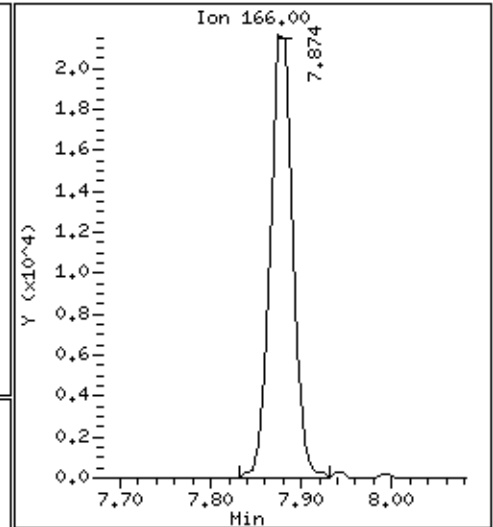
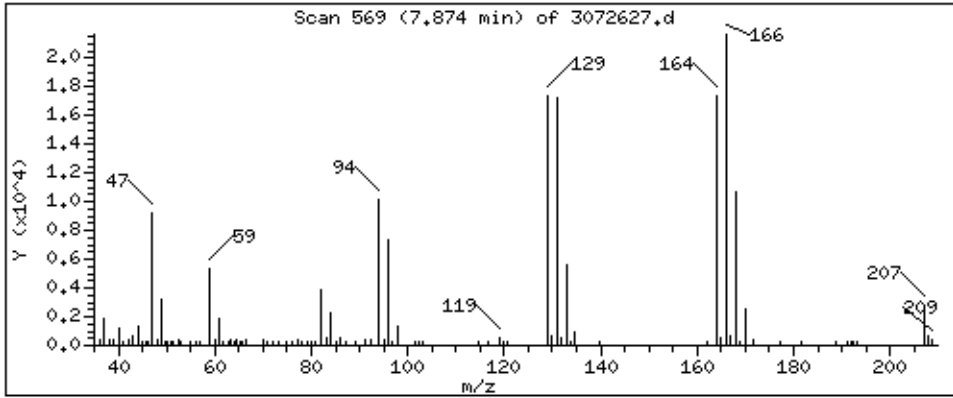
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 6.825 PPBV





Air Toxics

Client Sample ID: SG-VW24B-02

Lab ID#: 2107284-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072628	Date of Collection:	7/14/21 9:47:00 AM
Dil. Factor:	2.42	Date of Analysis:	7/27/21 03:19 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.8	Not Detected	33	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
1,2,3-Trichloropropane	4.8	Not Detected	29	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2-Dibromo-3-chloropropane	4.8	Not Detected	47	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
2-Hexanone	4.8	Not Detected	20	Not Detected
2-Propanol	4.8	7.8	12	19
3-Chloropropene	4.8	Not Detected	15	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Acetone	12	Not Detected	29	Not Detected
Acrolein	4.8	Not Detected	11	Not Detected
Acrylonitrile	4.8	Not Detected	10	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected



Air Toxics

Client Sample ID: SG-VW24B-02

Lab ID#: 2107284-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072628	Date of Collection:	7/14/21 9:47:00 AM
Dil. Factor:	2.42	Date of Analysis:	7/27/21 03:19 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
Dibromomethane	4.8	Not Detected	34	Not Detected
Ethanol	12	Not Detected	23	Not Detected
Ethyl Acetate	4.8	Not Detected	17	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
Ethyl-tert-butyl ether	4.8	Not Detected	20	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 12	1.2	4.2	6.0	20
Freon 113	1.2	Not Detected	9.3	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Freon 134a	4.8	Not Detected	20	Not Detected
Heptane	1.2	Not Detected	5.0	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
Hexachloroethane	4.8	Not Detected	47	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
Iodomethane	12	Not Detected	70	Not Detected
Isopropyl ether	4.8	Not Detected	20	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Naphthalene	2.4	Not Detected	13	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
Propylene	4.8	Not Detected	8.3	Not Detected
Styrene	1.2	Not Detected	5.2	Not Detected
tert-Amyl methyl ether	4.8	Not Detected	20	Not Detected
tert-Butyl alcohol	4.8	Not Detected	15	Not Detected
Tetrachloroethene	1.2	50	8.2	340
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	490	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
Vinyl Bromide	4.8	Not Detected	21	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW24B-02

Lab ID#: 2107284-20A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072628	Date of Collection: 7/14/21 9:47:00 AM
Dil. Factor:	2.42	Date of Analysis: 7/27/21 03:19 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	92	70-130



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072628.d  
Lab Smp Id: 2107284-20A  
Inj Date : 27-JUL-2021 03:19  
Operator : DF  
Smp Info : 200mL N1995  
Misc Info : 9.2 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 11  
Dil Factor: 2.42000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	226843	25.0000	80.00- 120.00	100.00	
5.284	5.284	(1.000)	128	178674		48.46- 108.46	78.77	
5.270	5.284	(1.000)	49	323854		120.39- 180.39	142.77	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.180	6.166	(1.000)	114	724759	25.0000	80.00- 120.00	100.00	
6.166	6.166	(1.000)	88	106175		0.00- 45.52	14.65	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.619	8.612	(1.000)	117	664237	25.0000	80.00- 120.00	100.00	
8.619	8.612	(1.000)	82	346716		25.46- 85.46	52.20	
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	297733	23.8503	23.850 80.00- 120.00	100.00	
5.816	5.816	(1.101)	67	144949		21.66- 81.66	48.68	
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.195)	98	733618	24.5755	24.576 80.00- 120.00	100.00	
7.387	7.387	(1.195)	70	81827		0.00- 41.47	11.15	

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		RESPONSE	TARGET RANGE	RATIO
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	486099			36.47- 96.47	66.26
-----								
\$ 170 4-Bromofluorobenzene								
							CAS #: 460-00-4	
9.601	9.601	(1.114)	174	405580	23.0845	23.084	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	461569			93.06- 153.06	113.80
9.601	9.601	(1.114)	176	377026			62.87- 122.87	92.96
-----								
8 Freon 12								
							CAS #: 75-71-8	
1.451	1.465	(0.275)	85	27102	1.71508	4.150	80.00- 120.00	100.00
1.451	1.465	(0.275)	87	8670			2.63- 62.63	31.99
-----								
52 2-Propanol								
							CAS #: 67-63-0	
3.466	3.395	(0.656)	45	43937	3.21190	7.773	80.00- 120.00	100.00
3.452	3.395	(0.653)	43	10234			0.00- 48.61	23.29
-----								
142 Tetrachloroethene								
							CAS #: 127-18-4	
7.882	7.881	(0.914)	166	213243	20.4922	49.591	80.00- 120.00	100.00
7.882	7.881	(0.914)	129	168376			48.71- 108.71	78.96
7.882	7.881	(0.914)	131	159313			46.55- 106.55	74.71
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072628.d  
Lab Smp Id: 2107284-20A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: DF  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 9.2 Hg->10 psi

Calibration Date: 26-JUL-2021  
Calibration Time: 10:10  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	226843	-14.07
108 1,4-Difluorobenze	833448	500069	1166827	724759	-13.04
153 Chlorobenzene-d5	741338	444803	1037873	664237	-10.40

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

Report Date: 28-Jul-2021 14:29

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-20A  
Level: LOW Operator: DF  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 9.2 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	23.850	95.40	70-130
\$ 134 Toluene-d8	25.000	24.576	98.30	70-130
\$ 170 4-Bromofluorobenz	25.000	23.084	92.34	70-130

Date : 27-JUL-2021 03:19

Client ID:

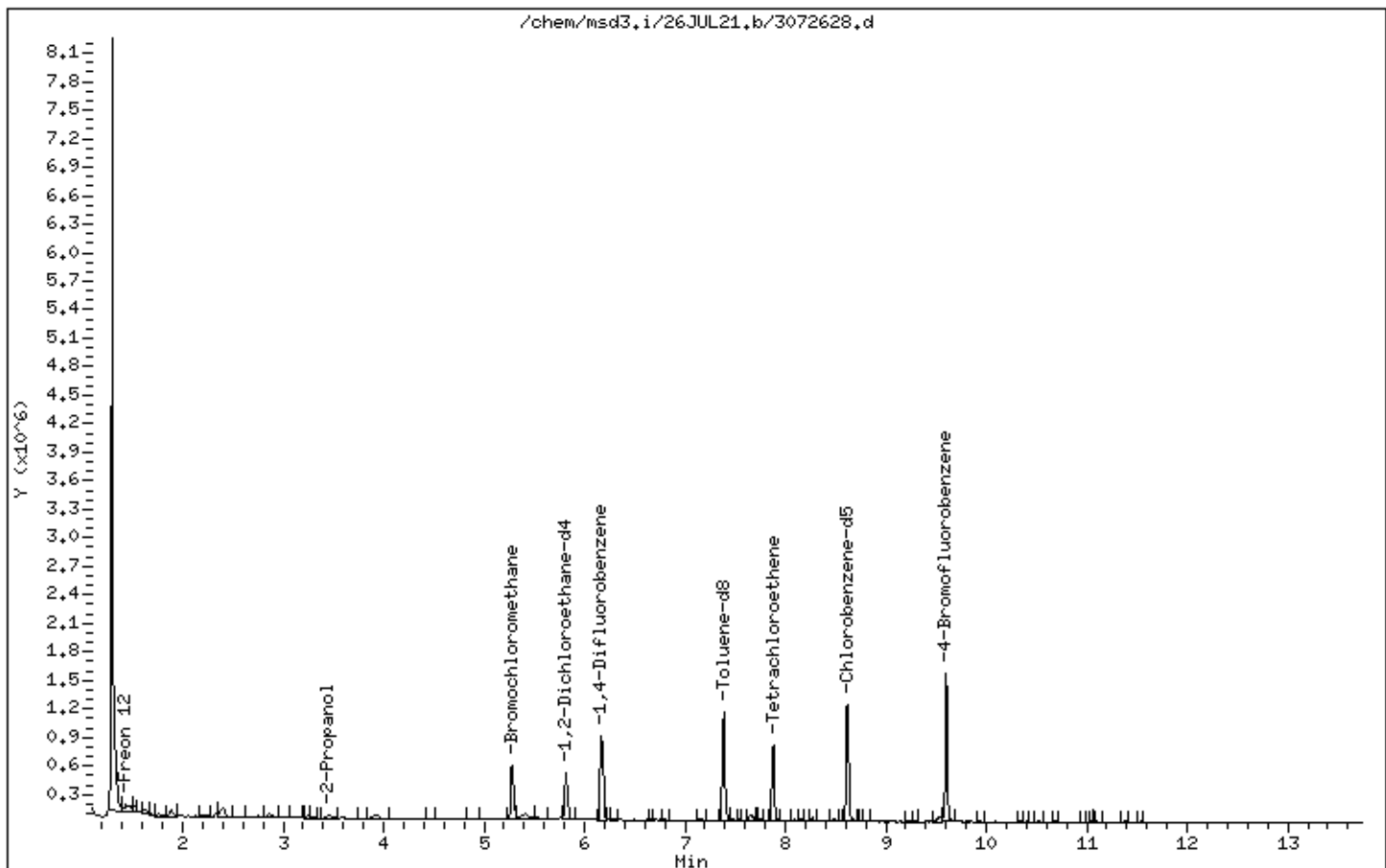
Instrument: msd3,i

Sample Info: 200mL N1995

Operator: DF

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 03:19

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1995

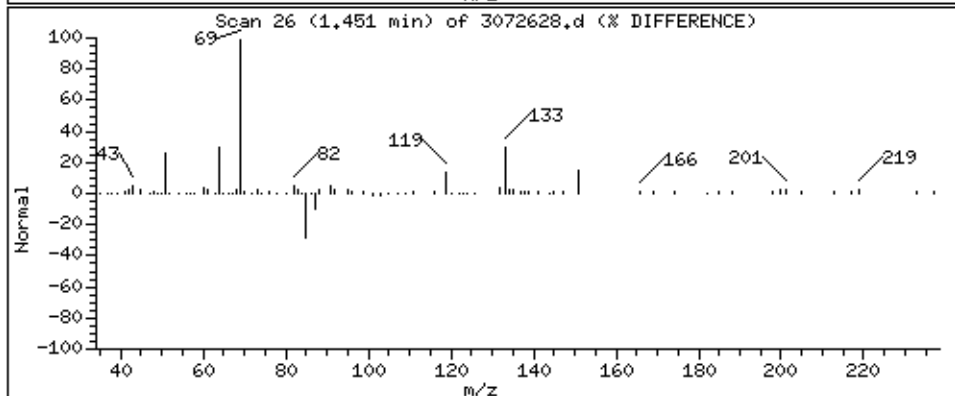
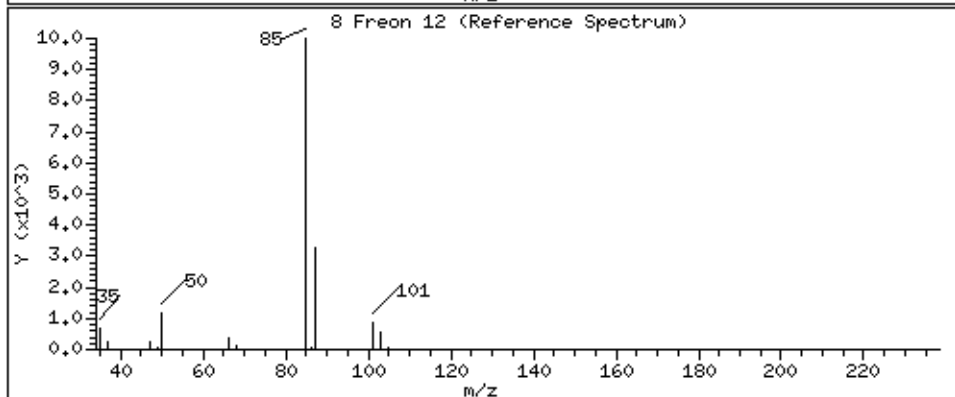
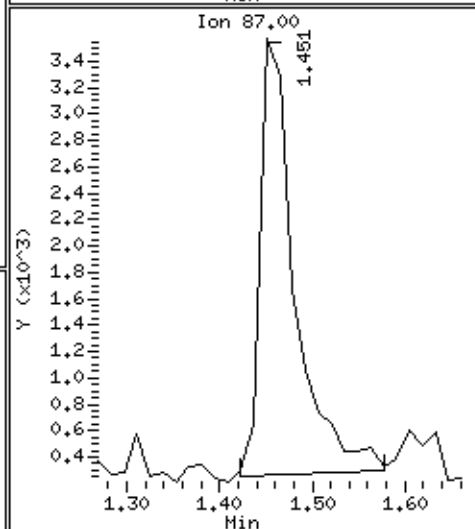
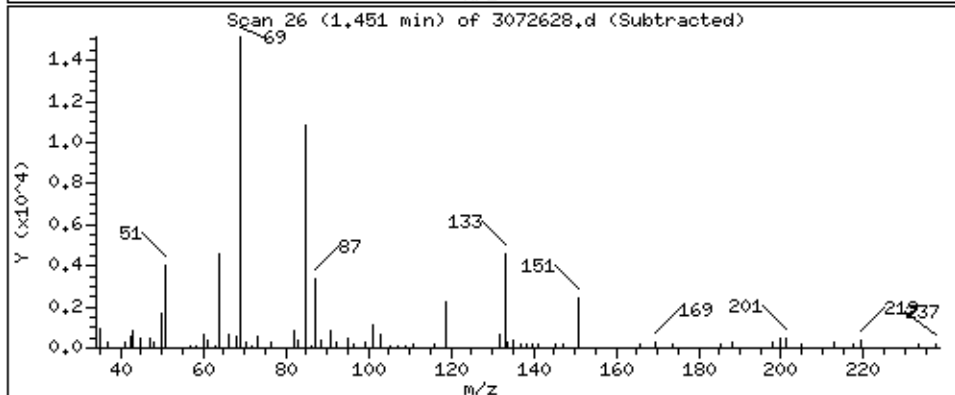
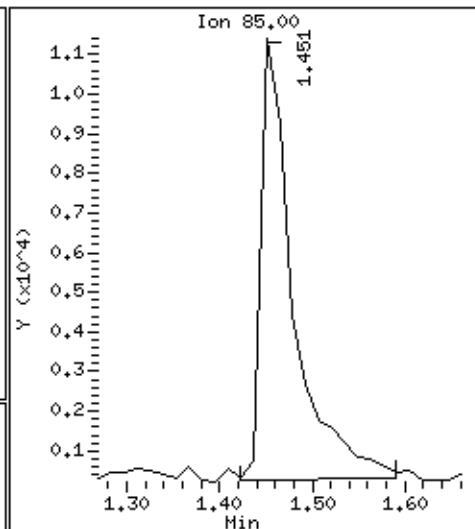
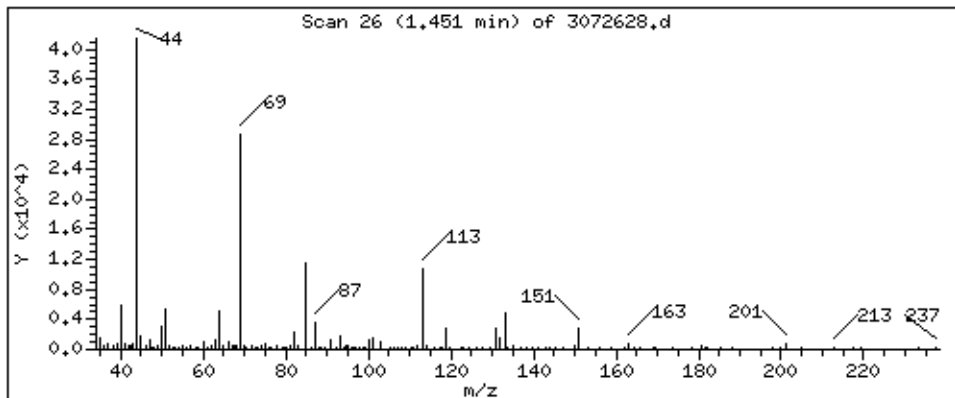
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 4,150 PPBV



Date : 27-JUL-2021 03:19

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1995

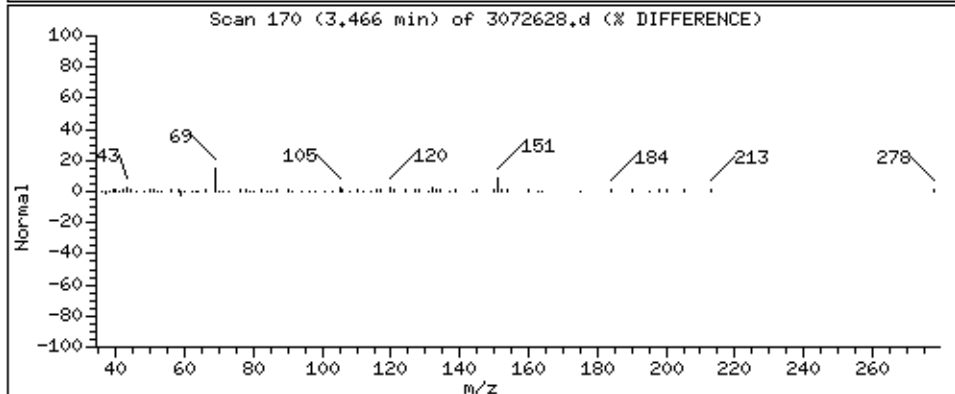
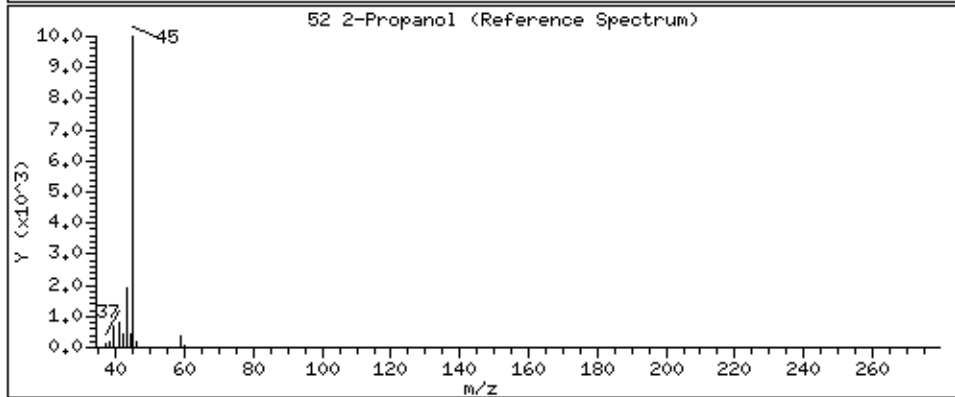
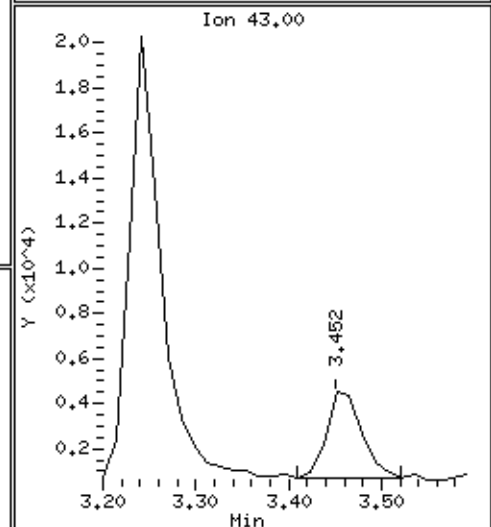
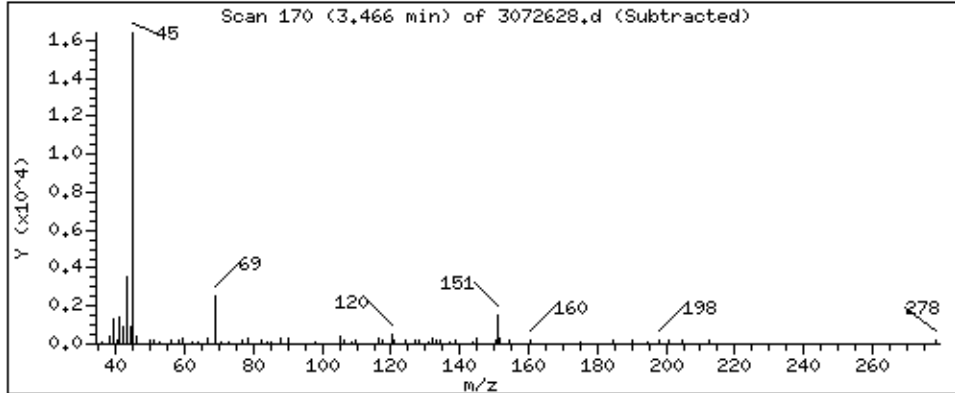
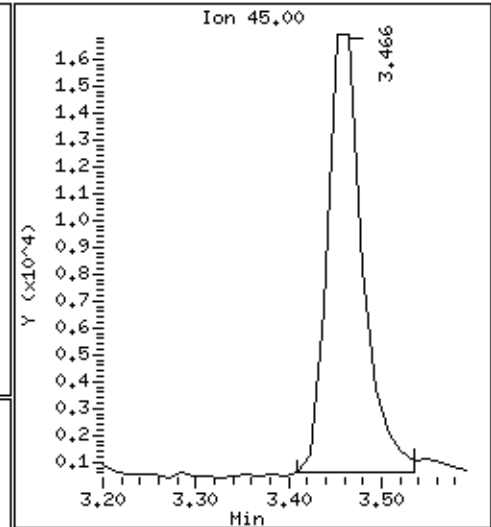
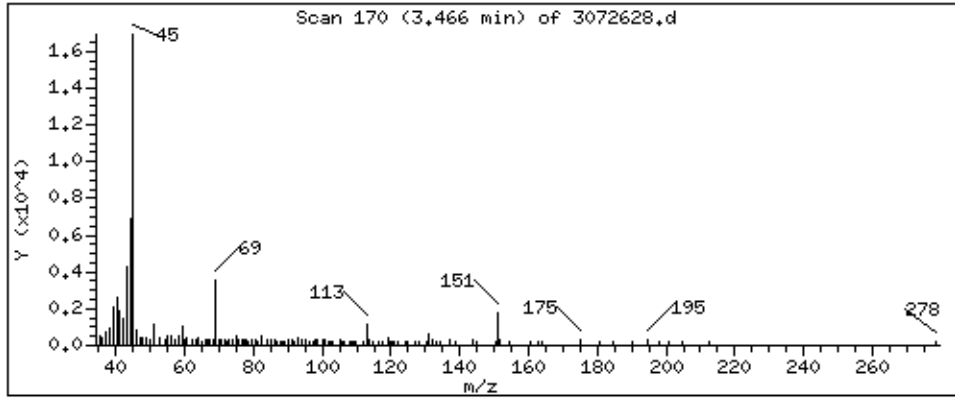
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 7.773 PPBV



Date : 27-JUL-2021 03:19

Client ID:

Instrument: msd3,i

Sample Info: 200mL N1995

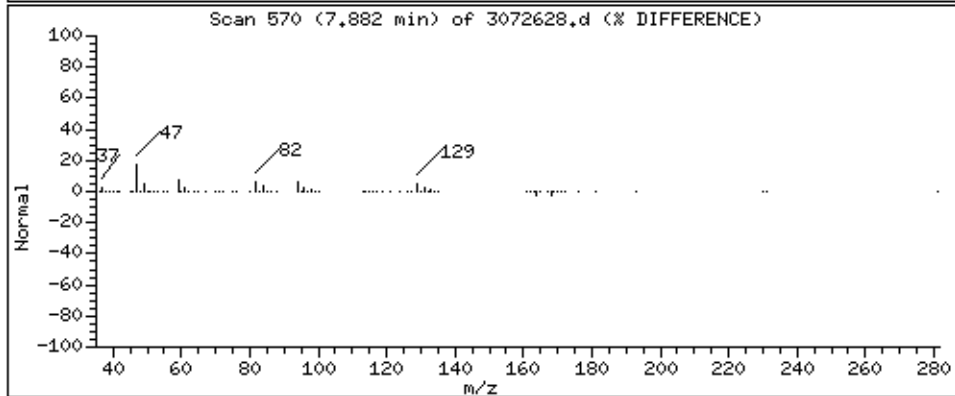
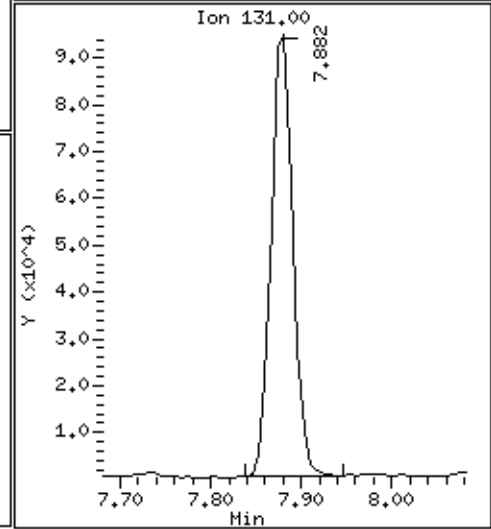
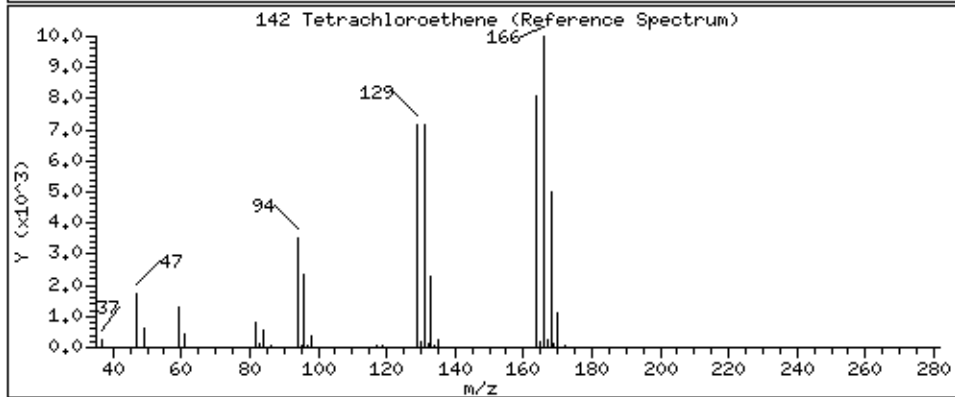
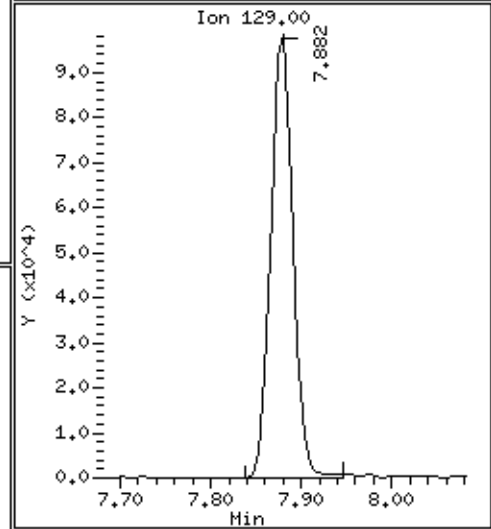
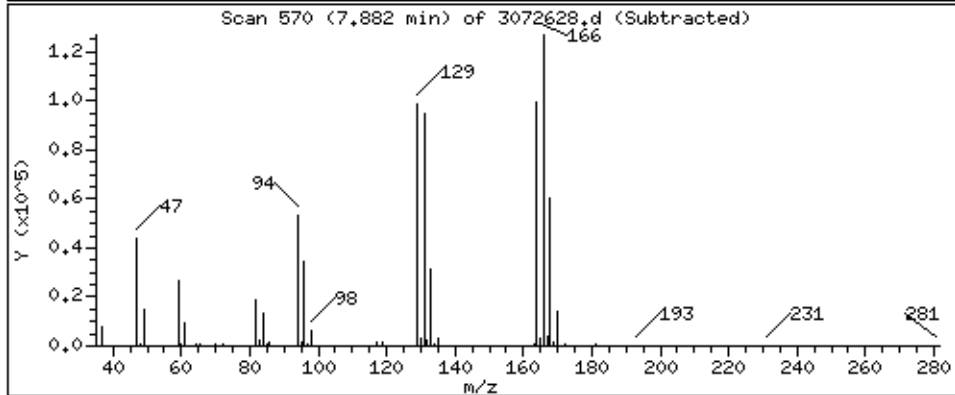
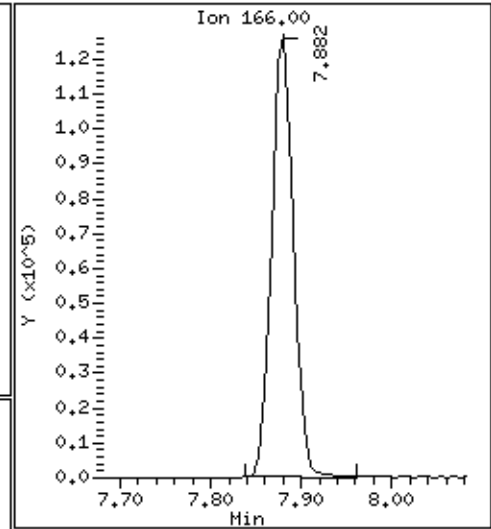
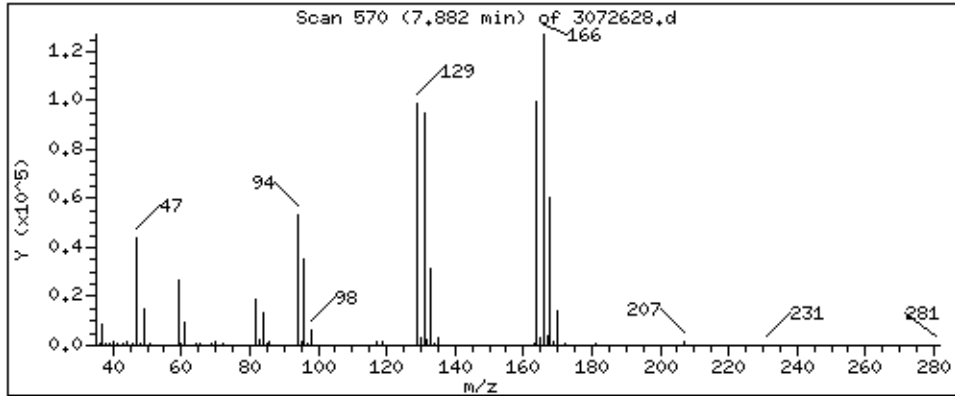
Operator: DF

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 49,591 PPBV





Client Sample ID: SG-VW58A-01

Lab ID#: 2107284-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072710	Date of Collection:	7/14/21 10:29:00 AM
Dil. Factor:	2.20	Date of Analysis:	7/27/21 05:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.4	Not Detected	30	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.6	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
1,1-Difluoroethane	4.4	370	12	1000
1,2,3-Trichloropropane	4.4	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	33	Not Detected
1,2,4-Trimethylbenzene	1.1	3.1	5.4	15
1,2-Dibromo-3-chloropropane	4.4	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
1,3,5-Trimethylbenzene	1.1	2.1	5.4	10
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
2,2,4-Trimethylpentane	1.1	5.8	5.1	27
2-Butanone (Methyl Ethyl Ketone)	4.4	Not Detected	13	Not Detected
2-Hexanone	4.4	Not Detected	18	Not Detected
2-Propanol	4.4	18	11	44
3-Chloropropene	4.4	Not Detected	14	Not Detected
4-Ethyltoluene	1.1	4.0	5.4	20
4-Methyl-2-pentanone	1.1	1.7	4.5	6.9
Acetone	11	40	26	95
Acrolein	4.4	Not Detected	10	Not Detected
Acrylonitrile	4.4	Not Detected	9.5	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
Benzene	1.1	7.1	3.5	23
Bromodichloromethane	1.1	Not Detected	7.4	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Carbon Disulfide	4.4	9.8	14	31
Carbon Tetrachloride	1.1	Not Detected	6.9	Not Detected
Chlorobenzene	1.1	Not Detected	5.1	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
Chloroform	1.1	Not Detected	5.4	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected



Air Toxics

Client Sample ID: SG-VW58A-01

Lab ID#: 2107284-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072710	Date of Collection:	7/14/21 10:29:00 AM
Dil. Factor:	2.20	Date of Analysis:	7/27/21 05:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Cumene	1.1	Not Detected	5.4	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Dibromochloromethane	1.1	Not Detected	9.4	Not Detected
Dibromomethane	4.4	Not Detected	31	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Ethyl Acetate	4.4	Not Detected	16	Not Detected
Ethyl Benzene	1.1	8.5	4.8	37
Ethyl-tert-butyl ether	4.4	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.2	Not Detected
Freon 12	1.1	Not Detected	5.4	Not Detected
Freon 113	1.1	Not Detected	8.4	Not Detected
Freon 114	1.1	Not Detected	7.7	Not Detected
Freon 134a	4.4	Not Detected	18	Not Detected
Heptane	1.1	1.5	4.5	6.1
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected
Hexachloroethane	4.4	Not Detected	43	Not Detected
Hexane	1.1	24	3.9	84
Iodomethane	11	Not Detected	64	Not Detected
Isopropyl ether	4.4	Not Detected	18	Not Detected
m,p-Xylene	1.1	24	4.8	110
Methyl tert-butyl ether	4.4	Not Detected	16	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
Naphthalene	2.2	Not Detected	12	Not Detected
o-Xylene	1.1	8.5	4.8	37
Propylbenzene	1.1	Not Detected	5.4	Not Detected
Propylene	4.4	Not Detected	7.6	Not Detected
Styrene	1.1	Not Detected	4.7	Not Detected
tert-Amyl methyl ether	4.4	Not Detected	18	Not Detected
tert-Butyl alcohol	4.4	Not Detected	13	Not Detected
Tetrachloroethene	1.1	26	7.5	180
Tetrahydrofuran	1.1	1.8	3.2	5.3
Toluene	1.1	56	4.1	210
TPH ref. to Gasoline (MW=100)	110	360	450	1500
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Trichloroethene	1.1	Not Detected	5.9	Not Detected
Vinyl Acetate	4.4	Not Detected	15	Not Detected
Vinyl Bromide	4.4	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW58A-01

Lab ID#: 2107284-21A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072710	Date of Collection: 7/14/21 10:29:00 AM
Dil. Factor:	2.20	Date of Analysis: 7/27/21 05:01 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	97	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/27JUL21.b/3072710.d  
Lab Smp Id: 2107284-21A  
Inj Date : 27-JUL-2021 17:01  
Operator : LD  
Smp Info : 200mL O0853  
Misc Info : 7.1 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/27JUL21.b/321q0622a.m  
Meth Date : 27-Jul-2021 15:31 lk8g  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 1  
Dil Factor: 2.20000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5									
5.271	5.284	(1.000)	130	250502	25.0000	80.00- 120.00	100.00		
5.271	5.284	(1.000)	128	192139		48.46- 108.46	76.70		
5.271	5.270	(1.000)	49	349917		120.39- 180.39	139.69		
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.166	6.180	(1.000)	114	830802	25.0000	80.00- 120.00	100.00		
6.166	6.180	(1.000)	88	120694		0.00- 45.52	14.53		
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
8.612	8.612	(1.000)	117	734750	25.0000	80.00- 120.00	100.00		
8.612	8.612	(1.000)	82	386715		25.46- 85.46	52.63		
-----									
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
5.816	5.816	(1.104)	65	323340	23.4553	23.455 80.00- 120.00	100.00		
5.816	5.816	(1.104)	67	154400		21.66- 81.66	47.75		
-----									
\$ 134 Toluene-d8 CAS #: 2037-26-5									
7.380	7.387	(1.197)	98	821954	24.0202	24.020 80.00- 120.00	100.00		
7.380	7.387	(1.197)	70	94415		0.00- 41.47	11.49		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.380	7.387	(1.197)	100	541552			36.47- 96.47	65.89
-----								
\$ 170 4-Bromofluorobenzene CAS #: 460-00-4								
9.601	9.601	(1.115)	174	471800	24.2764	24.276	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	537784			93.06- 153.06	113.99
9.601	9.601	(1.115)	176	435035			62.87- 122.87	92.21
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.437	1.437	(0.273)	65	660619	167.489	368.48	80.00- 120.00	100.00
1.437	1.479	(0.273)	51	1511429			321.86- 381.86	228.79
1.437	1.451	(0.273)	47	356698			45.34- 105.34	53.99
-----								
47 Acetone CAS #: 67-64-1								
3.242	3.214	(0.615)	58	76744	18.2707	40.196	80.00- 120.00	100.00
3.242	3.214	(0.615)	43	260723			299.66- 359.66	339.73
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.284	3.298	(0.623)	76	84518	4.46838	9.830	80.00- 120.00	100.00
-----								
52 2-Propanol CAS #: 67-63-0								
3.466	3.409	(0.658)	45	122372	8.10081	17.822	80.00- 120.00	100.00
3.466	3.395	(0.658)	43	25767			0.00- 48.61	21.06
-----								
67 Hexane CAS #: 110-54-3								
4.165	4.179	(0.790)	57	149826	10.8006	23.761	80.00- 120.00	100.00
4.165	4.179	(0.790)	43	94293			32.99- 92.99	62.93
4.165	4.179	(0.790)	86	20242			0.00- 42.56	13.51
-----								
89 Tetrahydrofuran CAS #: 109-99-9								
5.285	5.270	(1.003)	42	8133	0.81419	1.791	80.00- 120.00	100.00
5.285	5.270	(1.003)	71	2742			2.92- 62.92	33.72
5.285	5.270	(1.003)	72	3308			3.54- 63.54	40.68
-----								
101 2,2,4-Trimethylpentane CAS #: 540-84-1								
5.760	5.774	(1.093)	57	113812	2.62356	5.772	80.00- 120.00	100.00
5.760	5.774	(1.093)	56	38977			1.12- 61.12	34.25
5.760	5.774	(1.093)	41	37659			0.00- 57.49	33.09
-----								
102 Benzene CAS #: 71-43-2								
5.788	5.788	(0.939)	78	61255	3.23097	7.108	80.00- 120.00	100.00
5.788	5.788	(0.939)	77	16267			0.00- 53.80	26.56
-----								
107 Heptane CAS #: 142-82-5								
5.942	5.942	(0.964)	71	5074	0.67948	1.495	80.00- 120.00	100.00
5.928	5.942	(0.961)	43	6106			179.02- 239.02	120.33

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
107 Heptane (continued)								
5.942	5.942	(0.964)	57	3597			84.85- 144.85	70.90
-----								
131 4-Methyl-2-pentanone					CAS #: 108-10-1			
7.323	7.316	(1.188)	58	6199	0.76981	1.694	80.00- 120.00	100.00
7.323	7.316	(1.188)	43	15193			231.30- 291.30	245.08
7.323	7.316	(1.188)	85	2987			8.94- 68.94	48.19
-----								
137 Toluene					CAS #: 108-88-3			
7.437	7.437	(1.206)	91	650565	25.5739	56.262	80.00- 120.00	100.00
7.437	7.437	(1.206)	92	372133			28.30- 88.30	57.20
-----								
142 Tetrachloroethene					CAS #: 127-18-4			
7.874	7.881	(0.914)	166	136054	11.8198	26.004	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	104410			48.71- 108.71	76.74
7.874	7.874	(0.914)	131	100236			46.55- 106.55	73.67
-----								
155 Ethyl Benzene					CAS #: 100-41-4			
8.684	8.684	(1.008)	106	38680	3.85199	8.474	80.00- 120.00	100.00
8.684	8.684	(1.008)	91	120795			282.48- 342.48	312.29
-----								
158 m,p-Xylene					CAS #: 108-38-3			
8.777	8.784	(1.019)	106	139185	11.1415	24.511	80.00- 120.00	100.00
8.784	8.784	(1.020)	91	274285			171.36- 231.36	197.06
-----								
164 o-Xylene					CAS #: 95-47-6			
9.121	9.121	(1.059)	106	45893	3.86969	8.513	80.00- 120.00	100.00
9.121	9.121	(1.059)	91	92260			179.99- 239.99	201.03
-----								
183 4-Ethyltoluene					CAS #: 622-96-8			
9.823	9.851	(1.141)	120	20700	1.82532	4.016	80.00- 120.00	100.00
9.823	9.851	(1.141)	105	63968			296.79- 356.79	309.01
-----								
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
9.902	9.901	(1.150)	120	15321	0.96187	2.116	80.00- 120.00	100.00
9.902	9.901	(1.150)	105	29015			176.40- 236.40	189.37
-----								
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
10.224	10.224	(1.187)	105	43961	1.39965	3.079	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	20042			16.58- 76.58	45.59
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072710.d  
 Lab Smp Id: 2107284-21A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
 Misc Info: 7.1 Hg->10 psi

Calibration Date: 27-JUL-2021  
 Calibration Time: 11:36  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	238986	143392	334580	250502	4.82
108 1,4-Difluorobenze	785289	471173	1099405	830802	5.80
153 Chlorobenzene-d5	683596	410158	957034	734750	7.48

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.27	-0.26
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.22
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 27JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-21A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: 7.1 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	23.455	93.82	70-130
\$ 134 Toluene-d8	25.000	24.020	96.08	70-130
\$ 170 4-Bromofluorobenz	25.000	24.276	97.11	70-130



Date : 27-JUL-2021 17:01

Client ID:

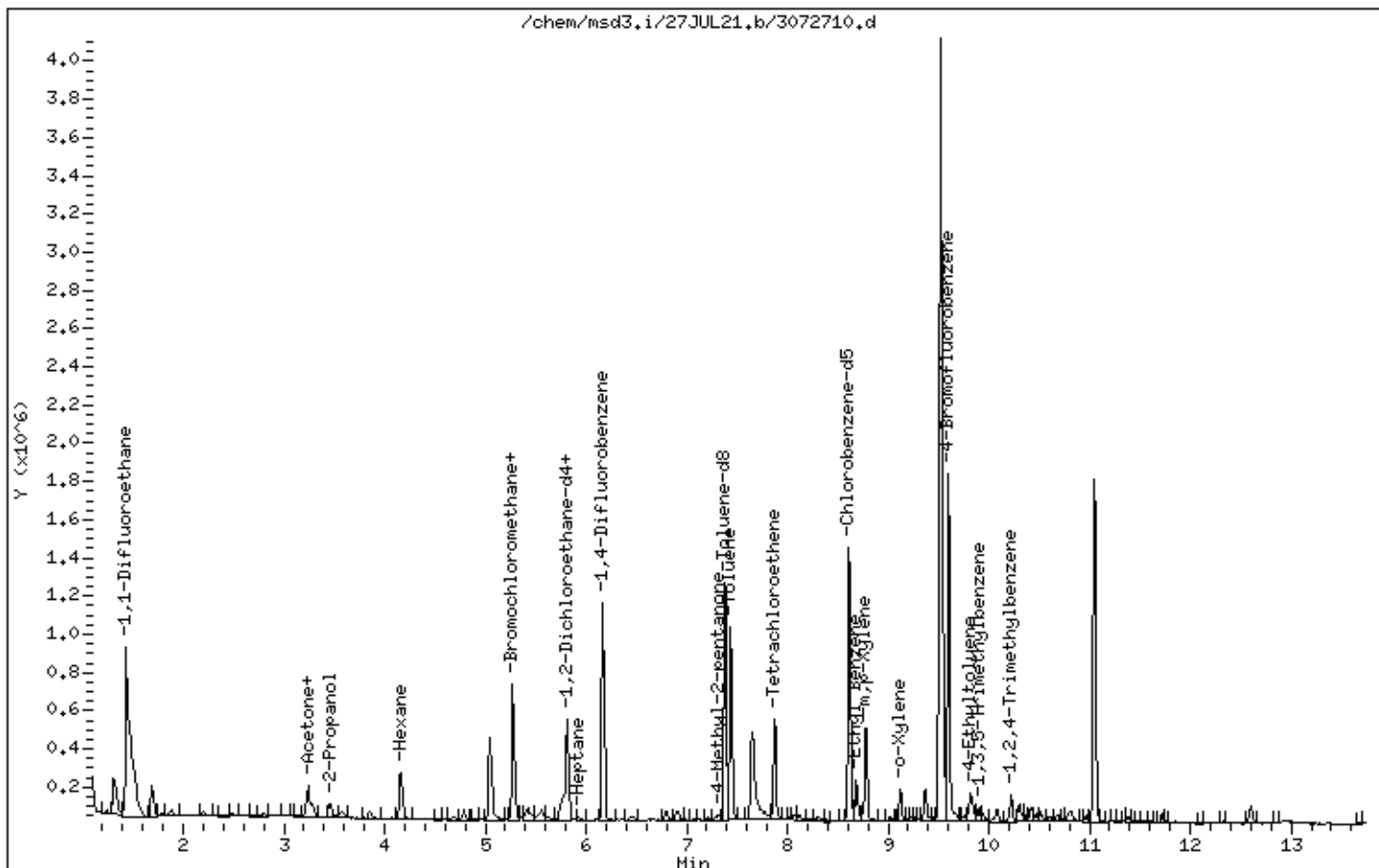
Instrument: msd3,i

Sample Info: 200mL 00853

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

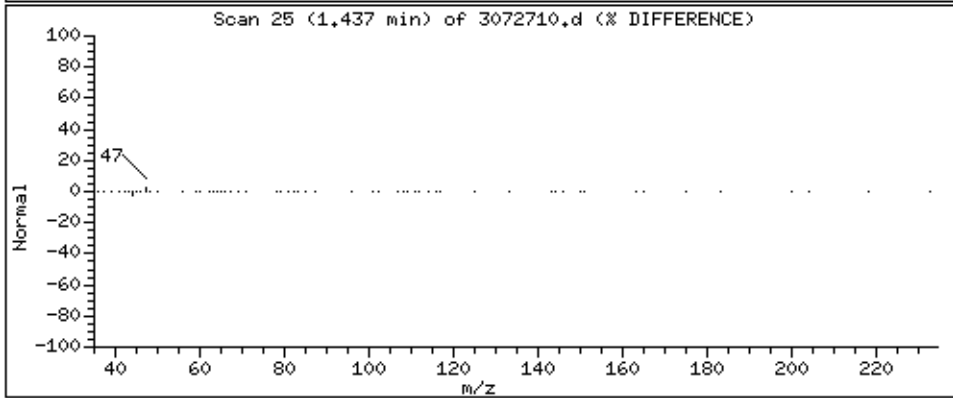
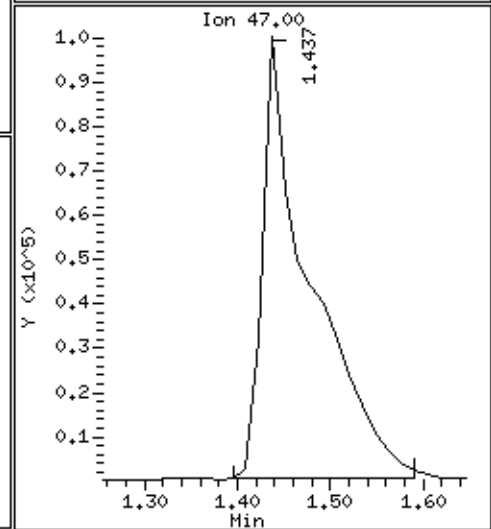
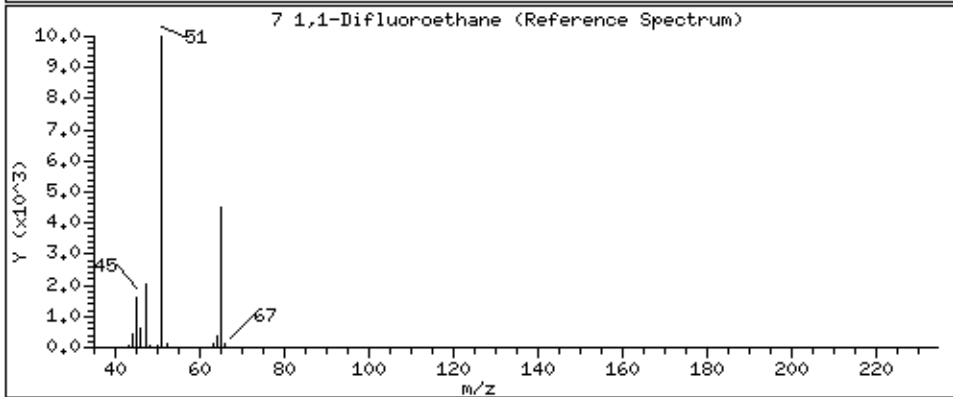
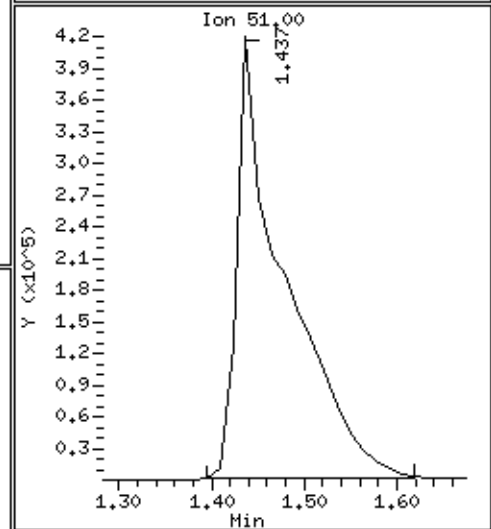
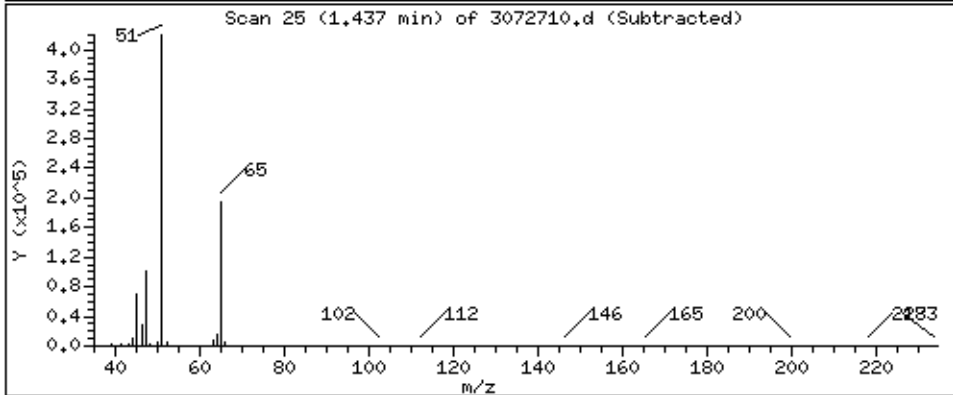
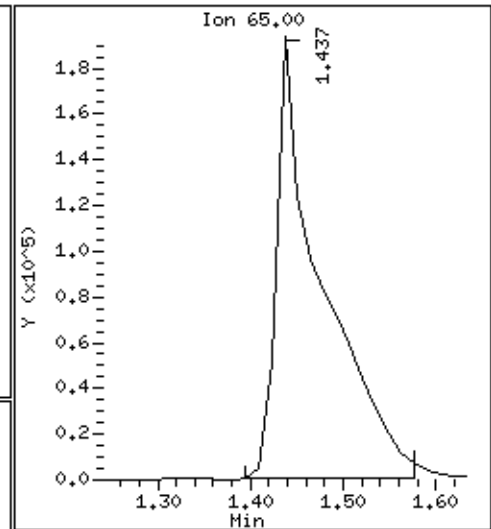
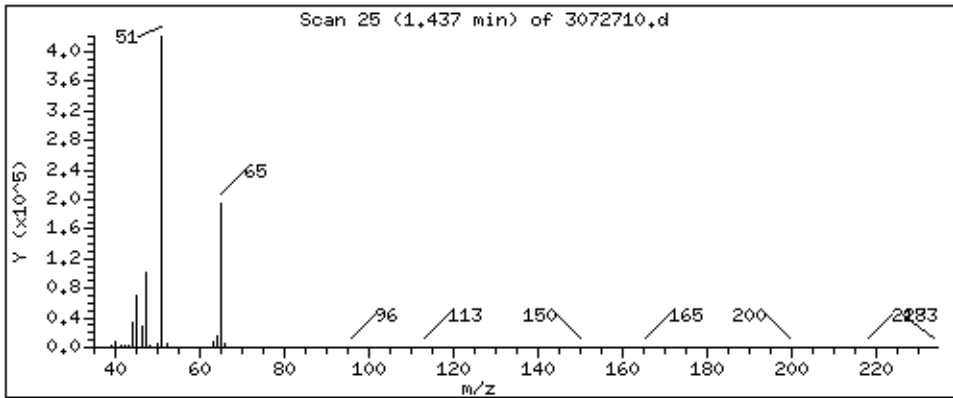
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 368.48 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

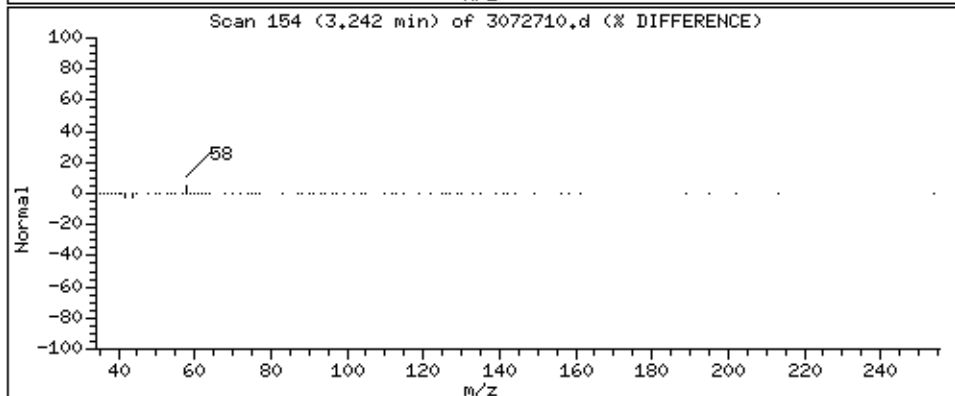
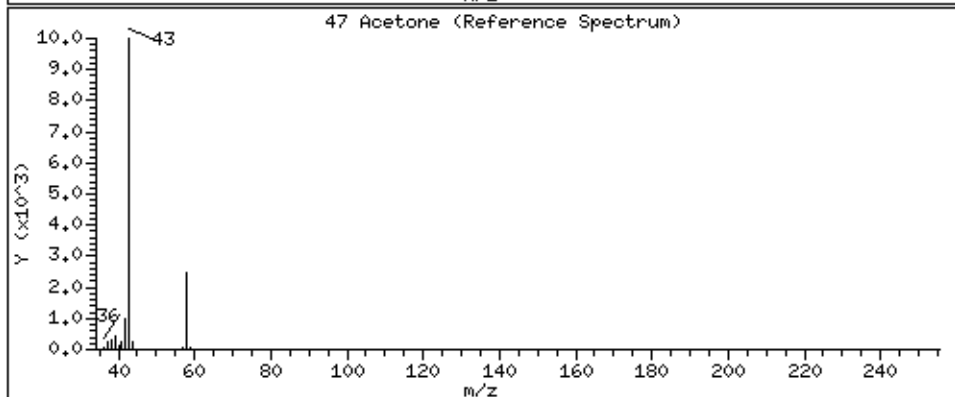
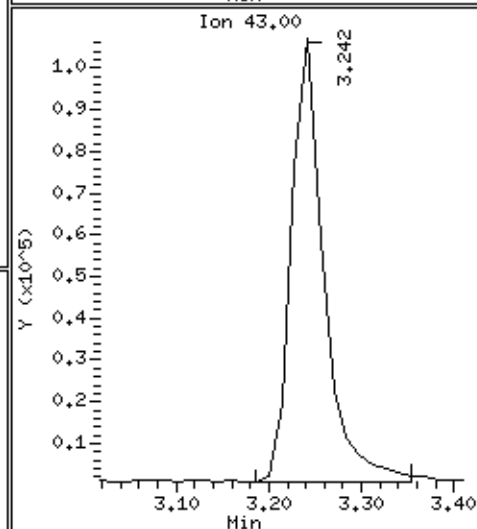
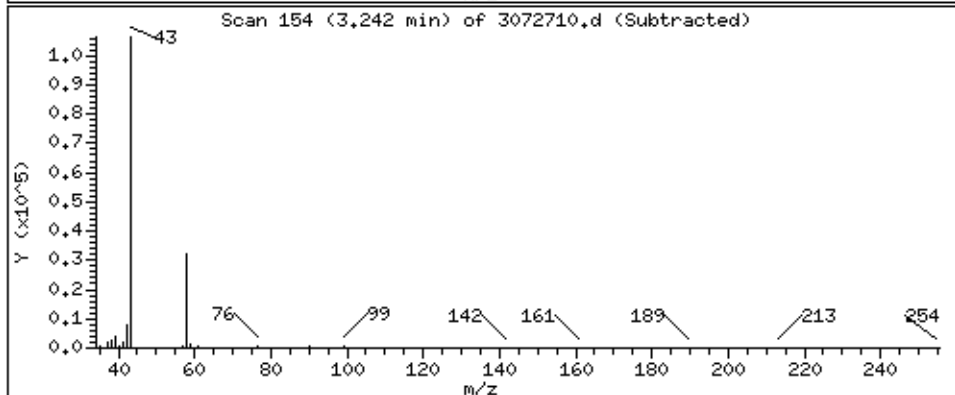
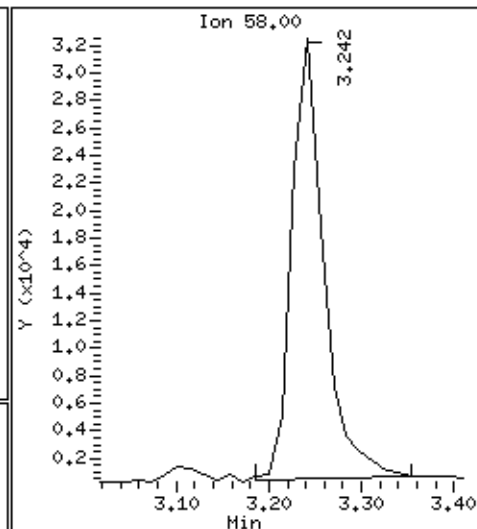
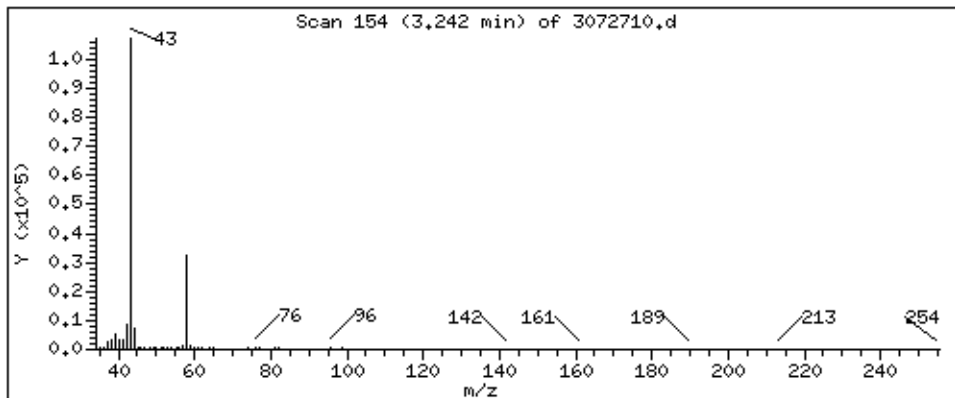
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 40,196 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

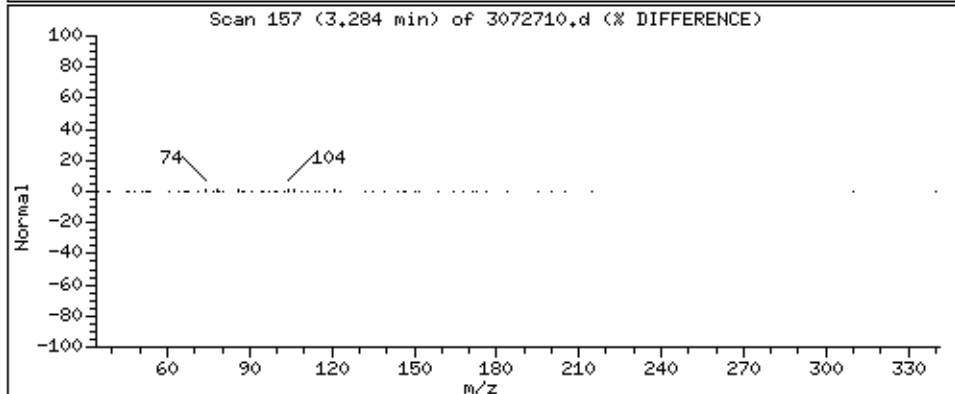
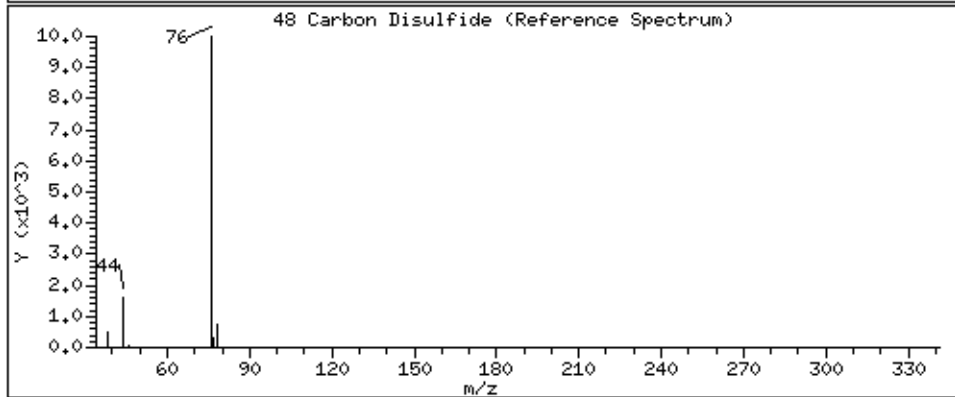
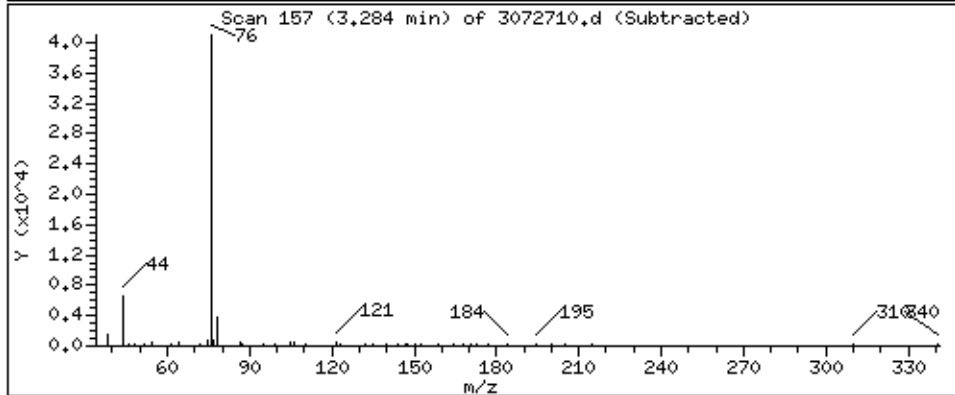
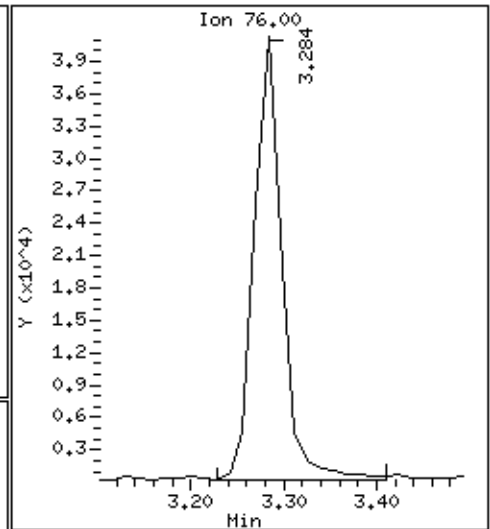
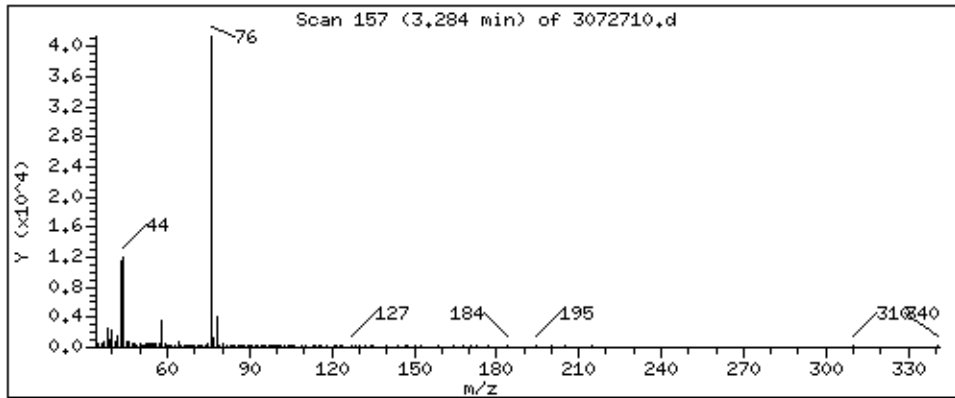
Operator: LD

Column phase: RTX-624

Column diameter: 0,25

48 Carbon Disulfide

Concentration: 9,830 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

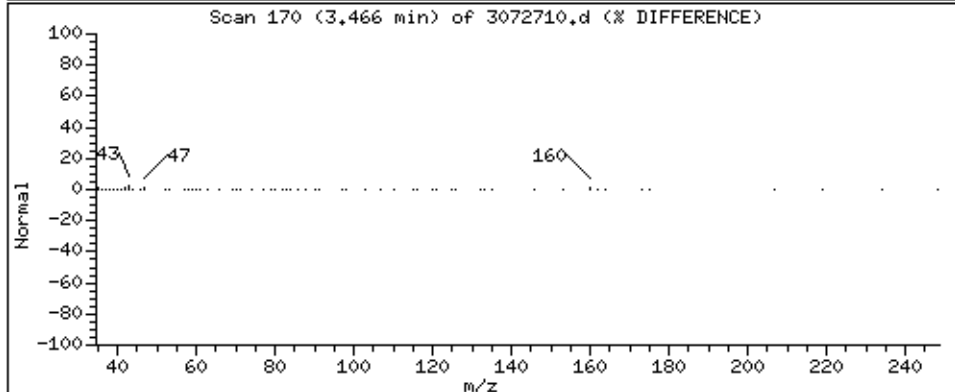
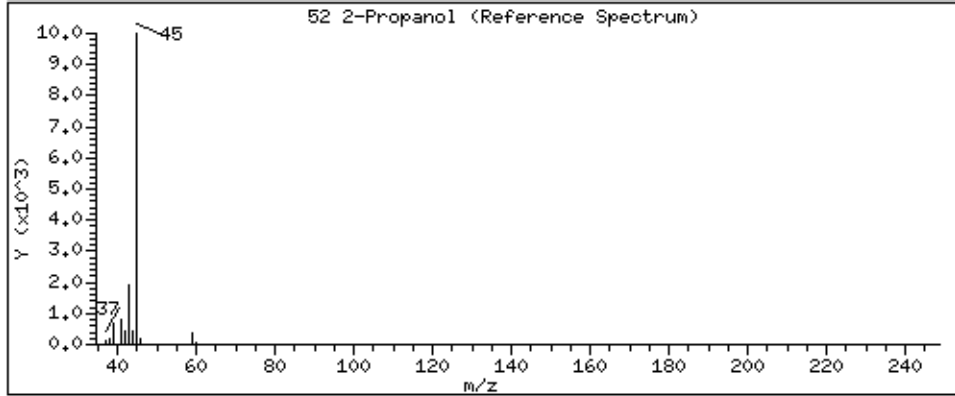
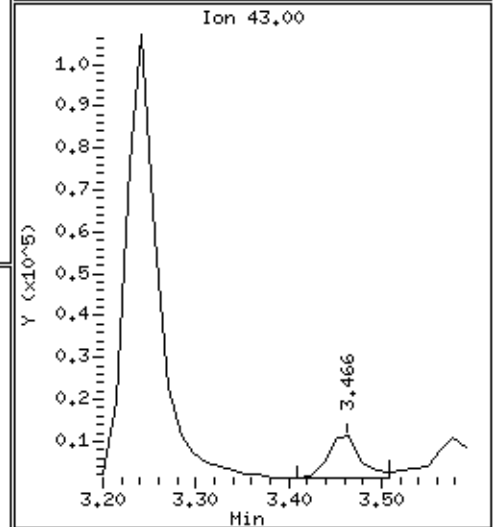
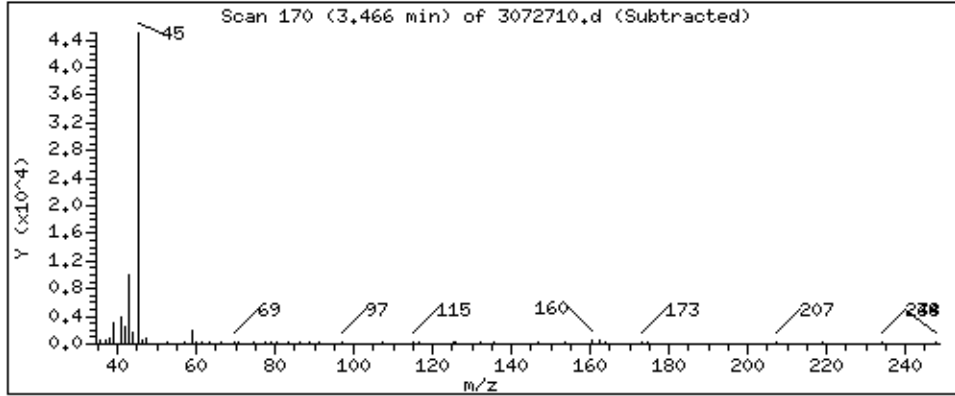
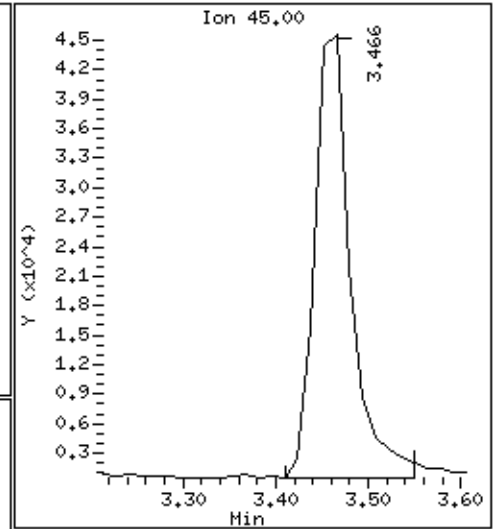
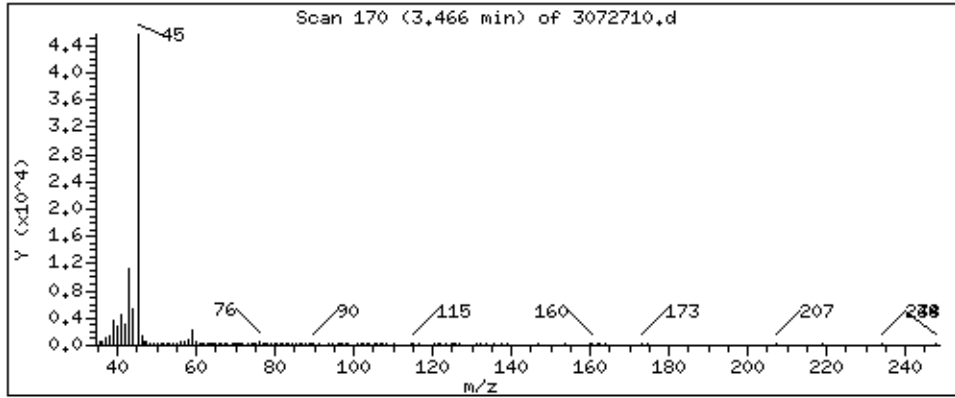
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 17,822 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

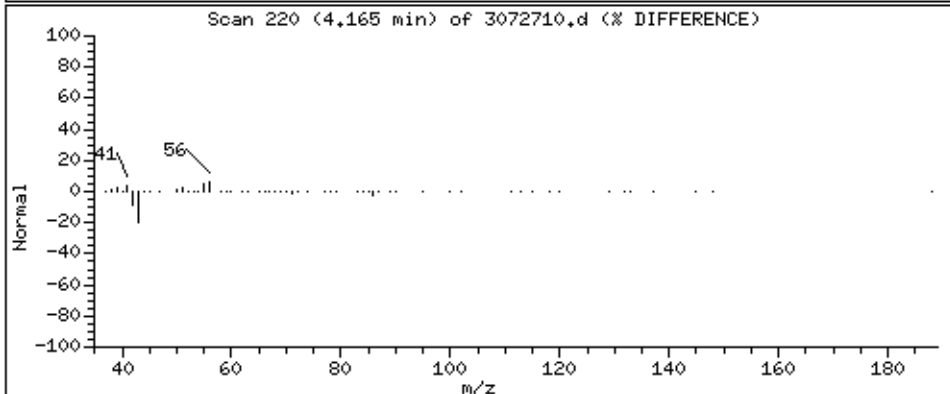
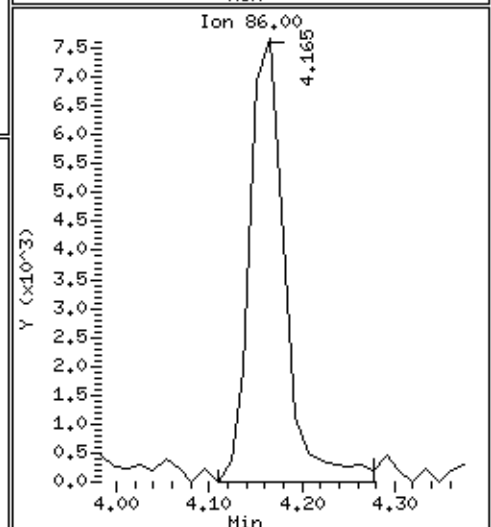
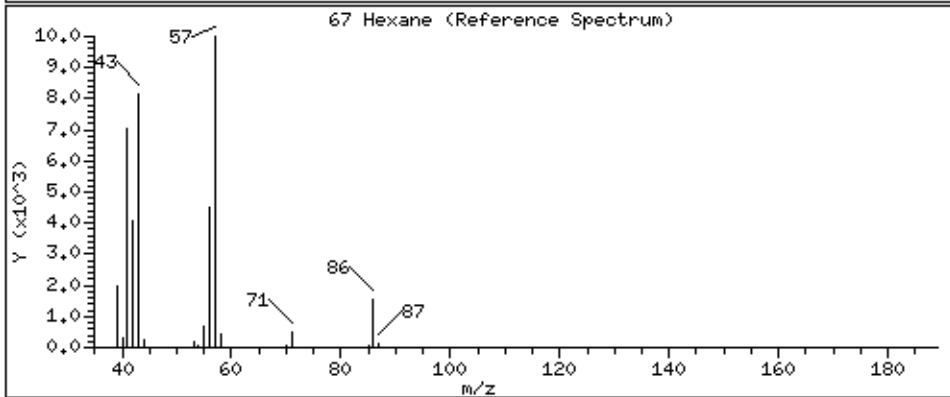
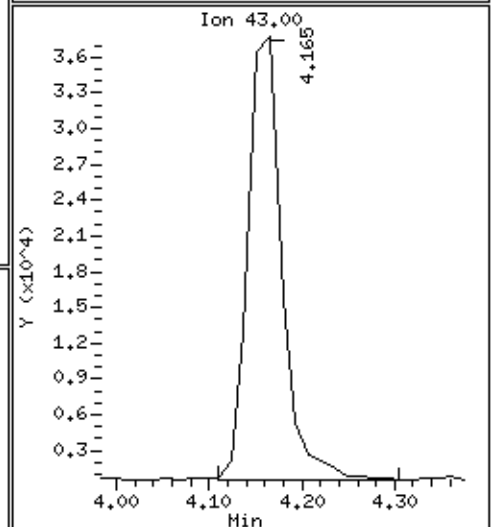
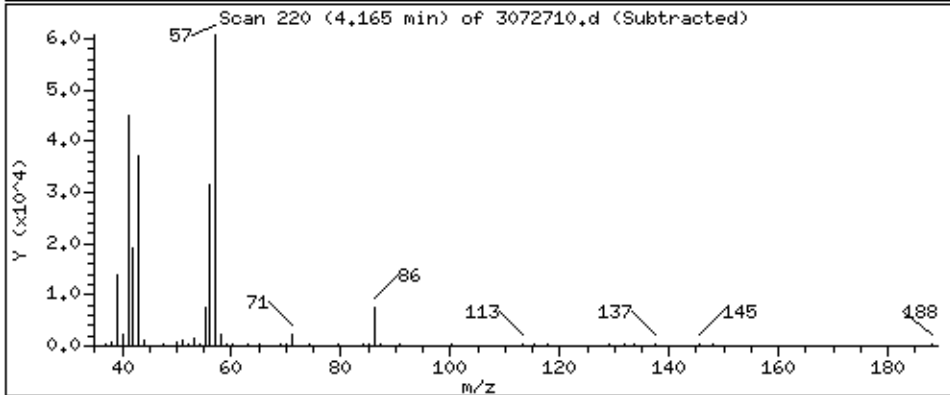
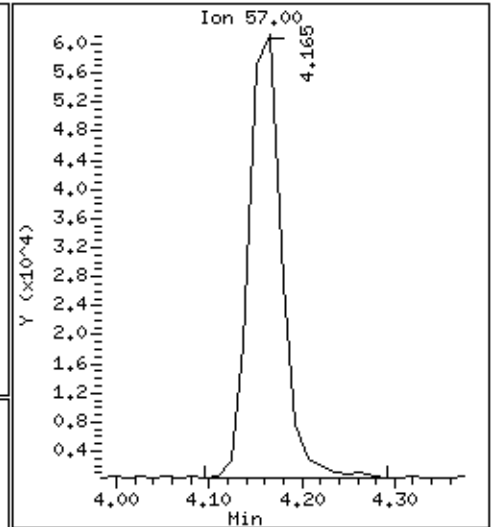
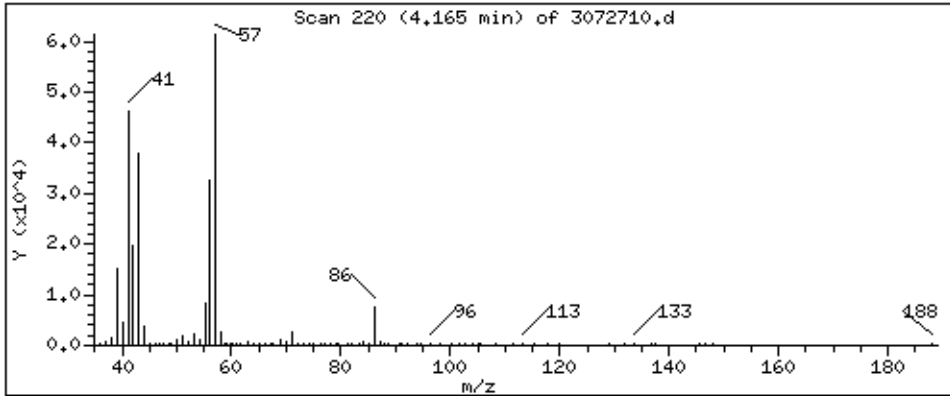
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 23,761 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

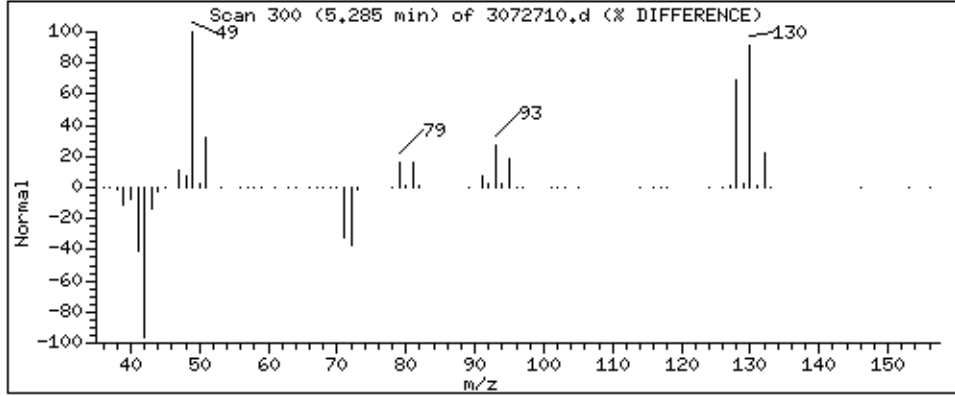
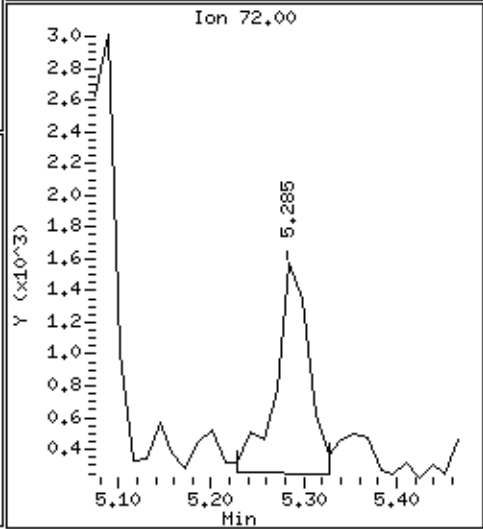
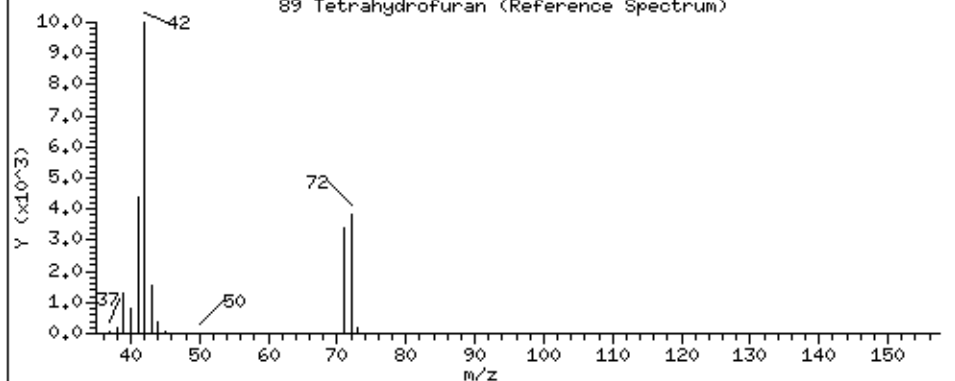
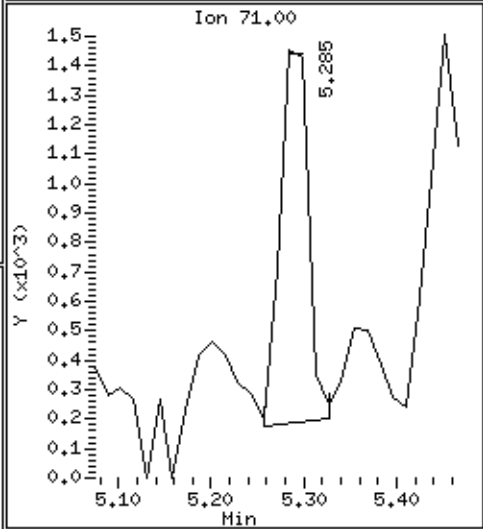
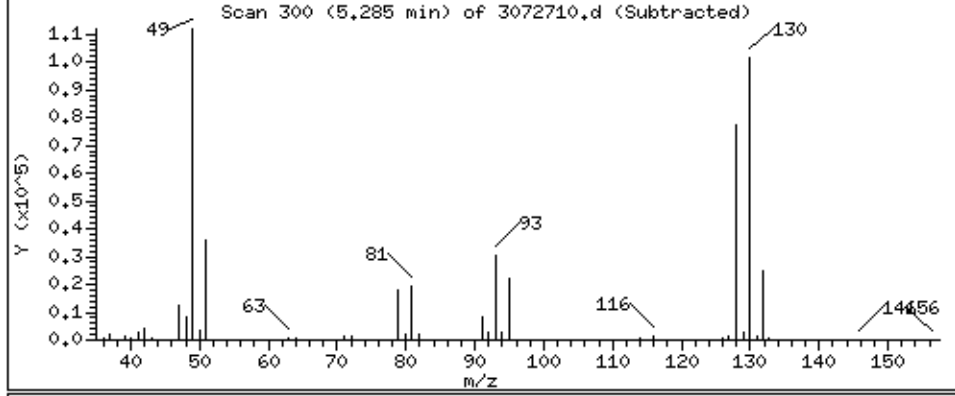
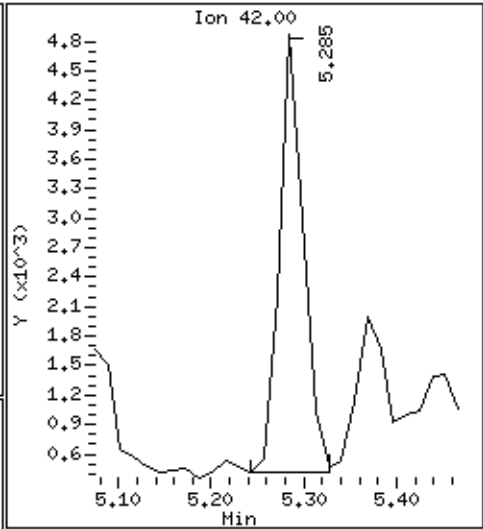
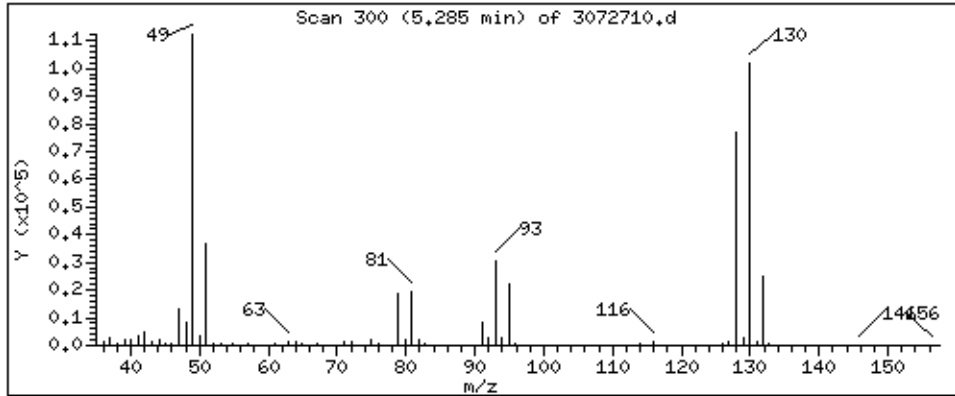
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

89 Tetrahydrofuran

Concentration: 1,791 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

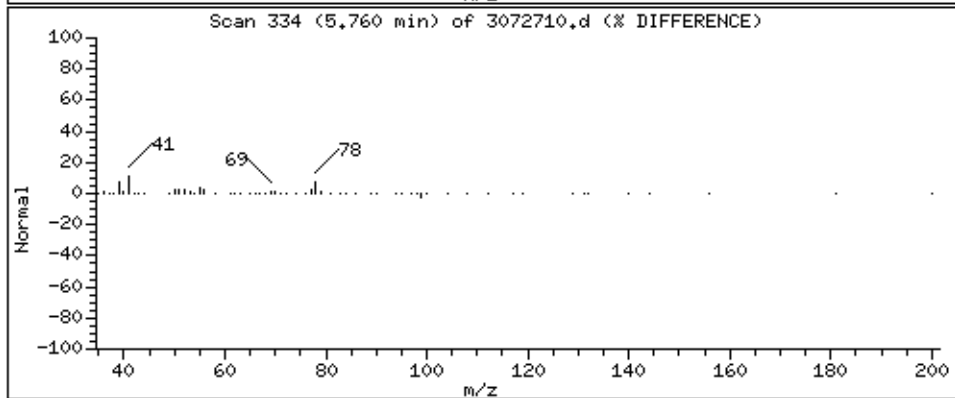
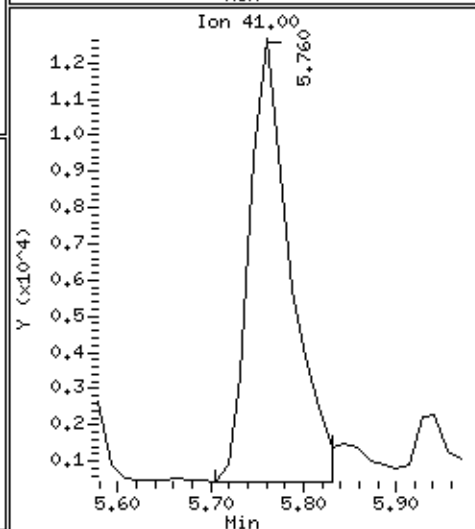
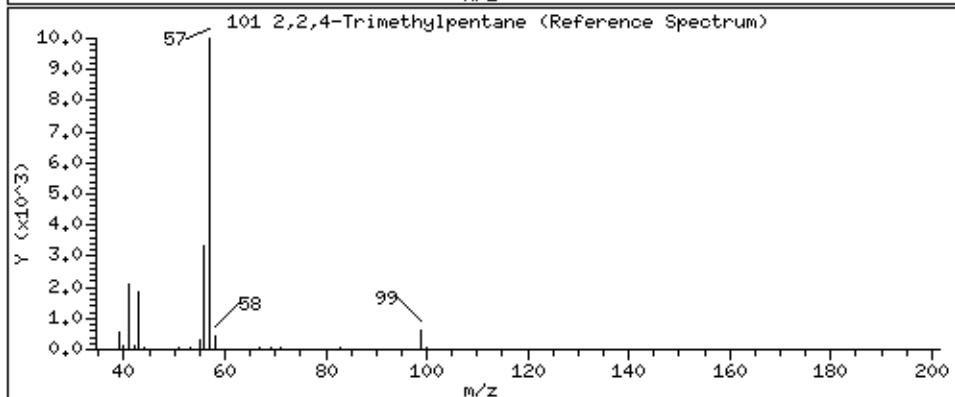
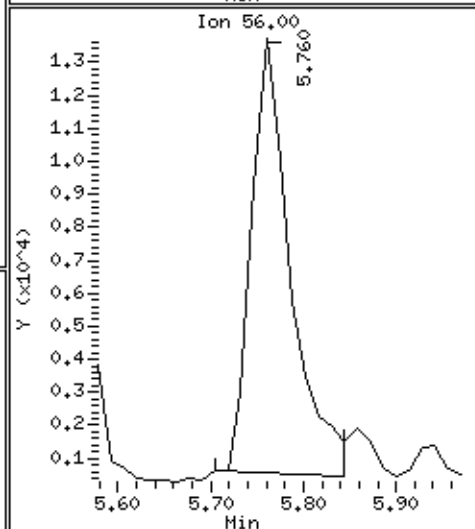
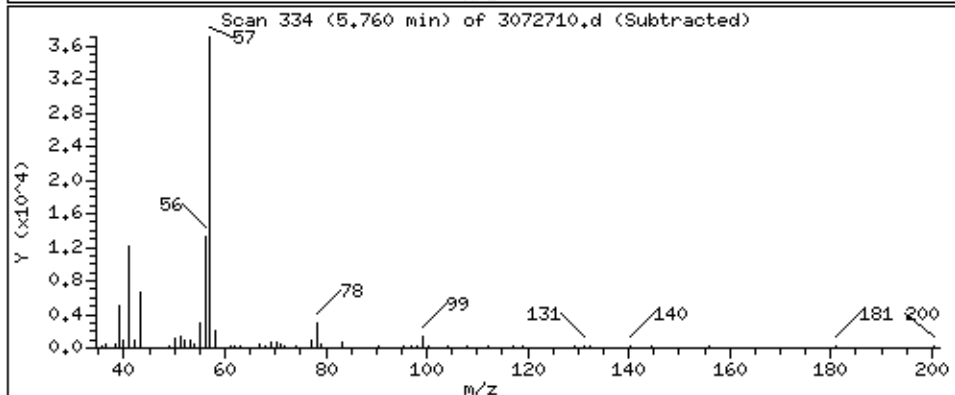
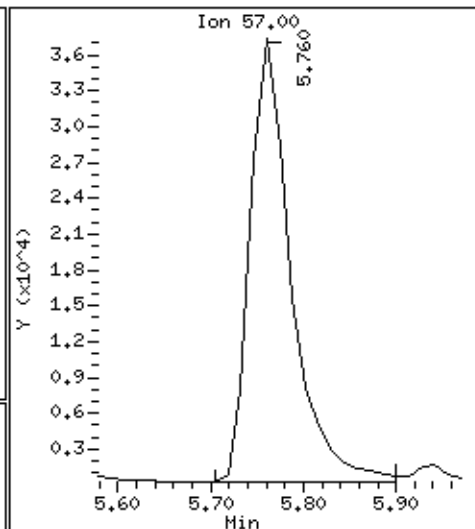
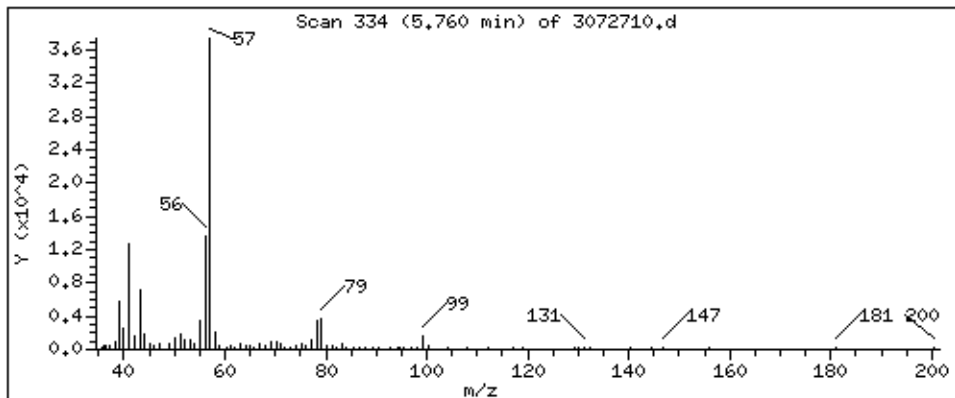
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

101 2,2,4-Trimethylpentane

Concentration: 5.772 PPBV





Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

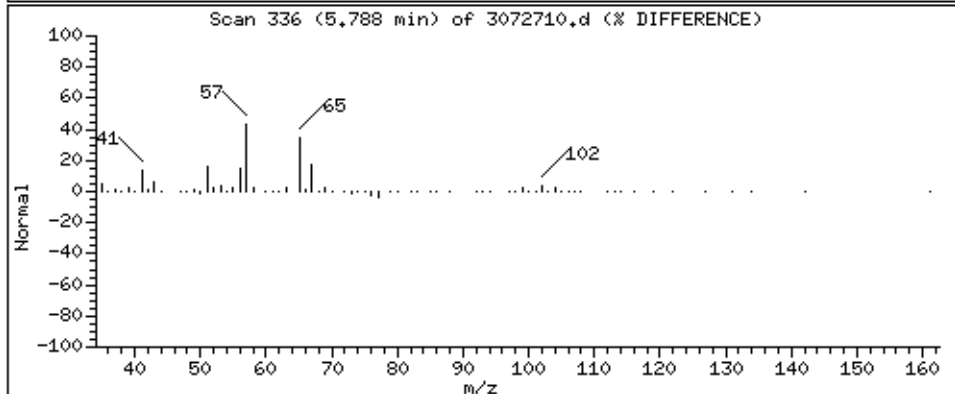
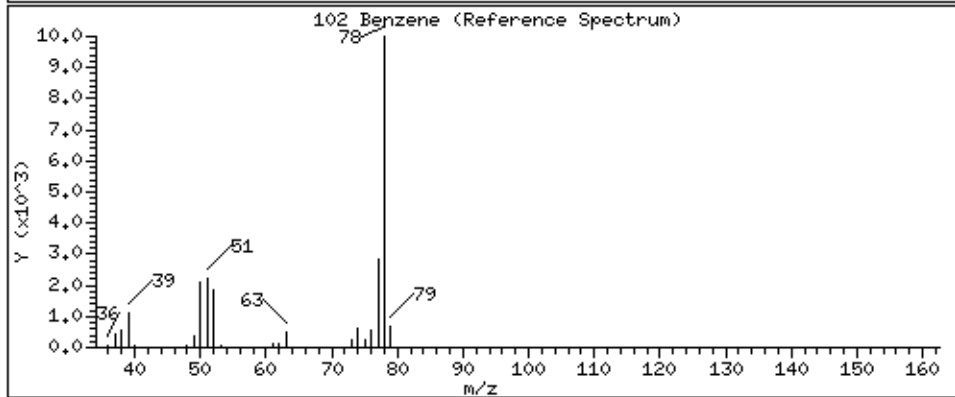
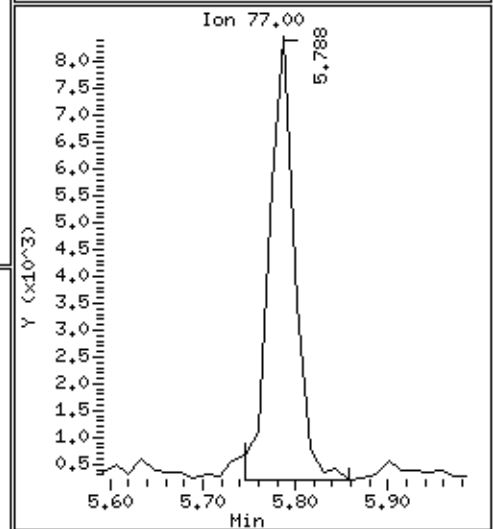
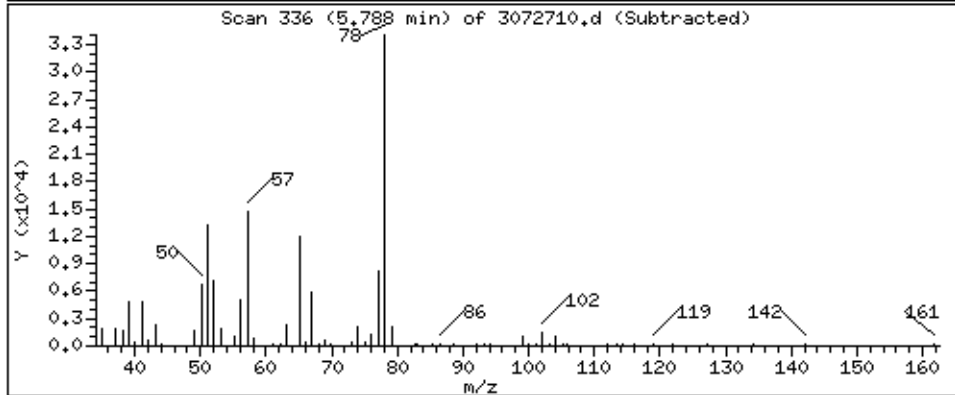
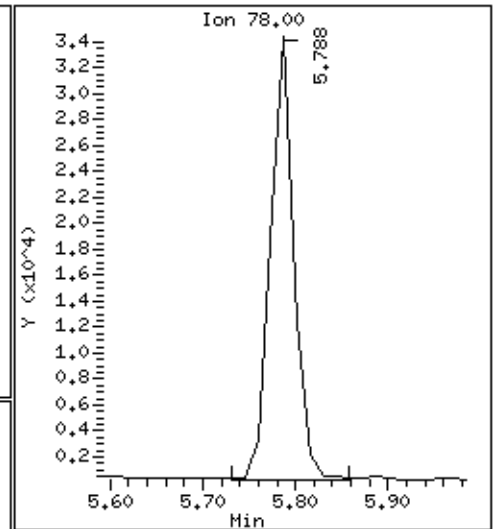
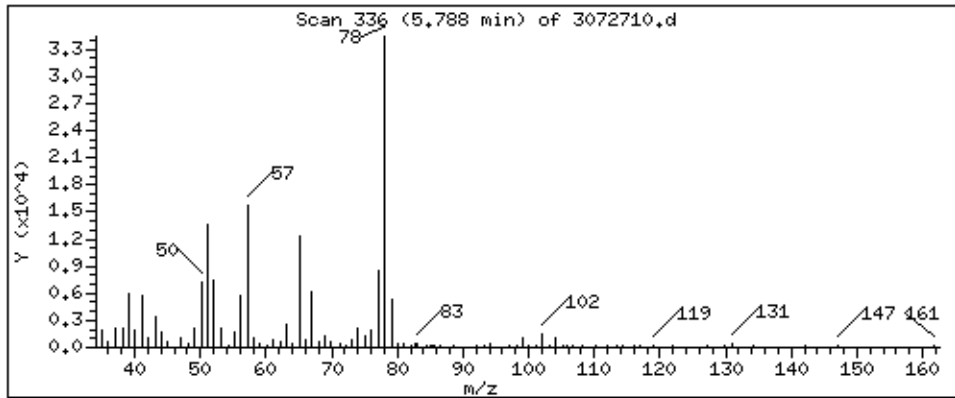
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

102 Benzene

Concentration: 7.108 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

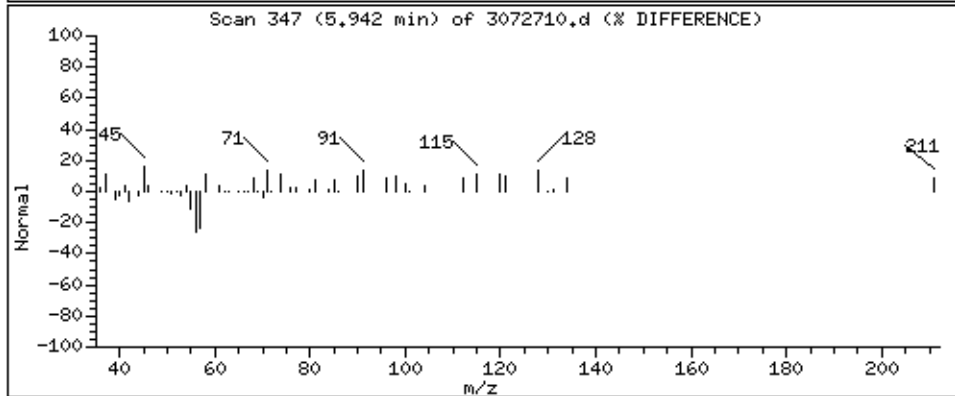
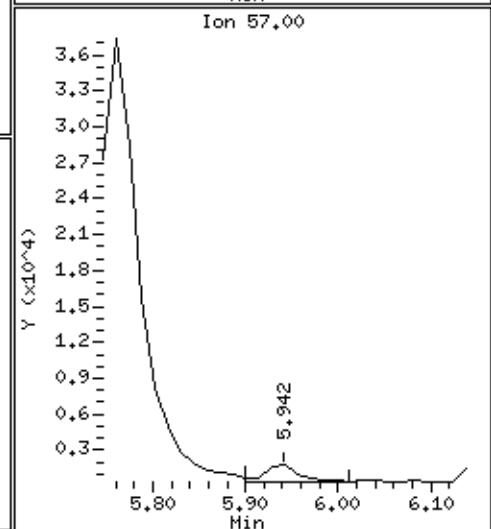
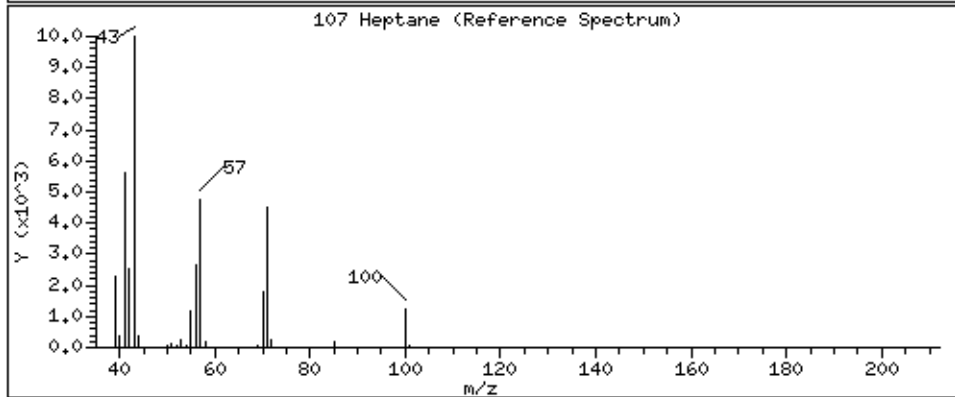
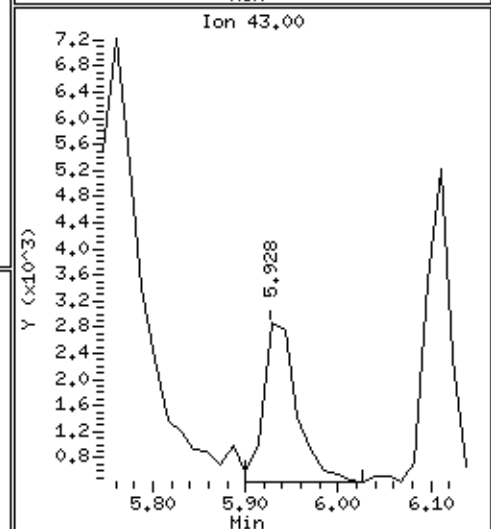
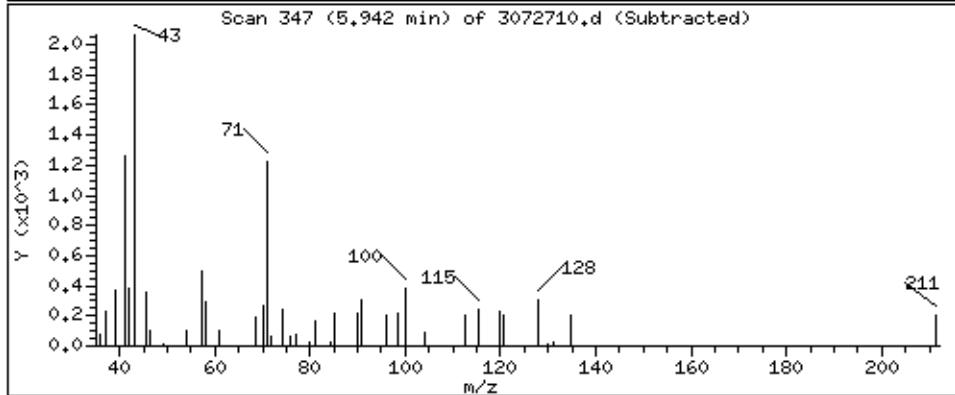
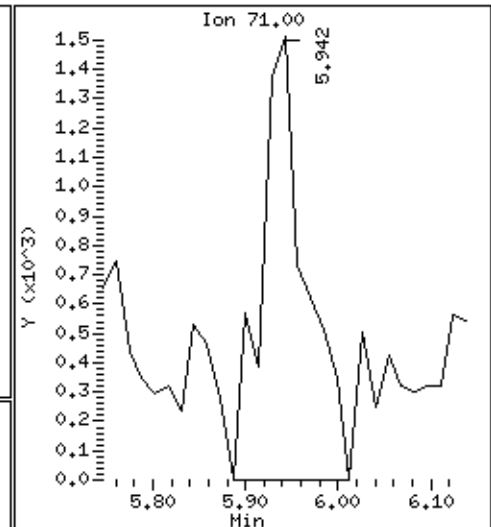
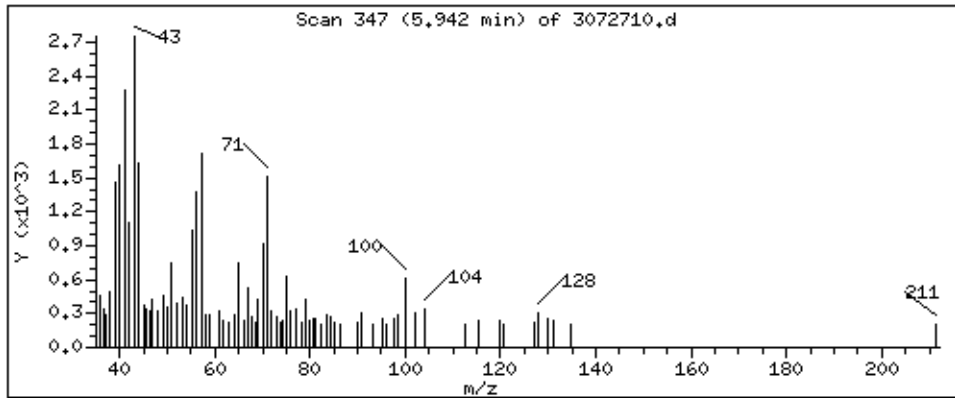
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

107 Heptane

Concentration: 1,495 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

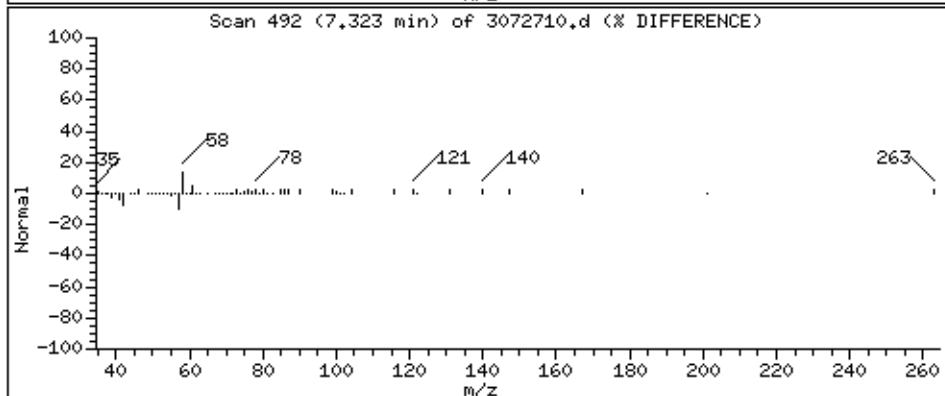
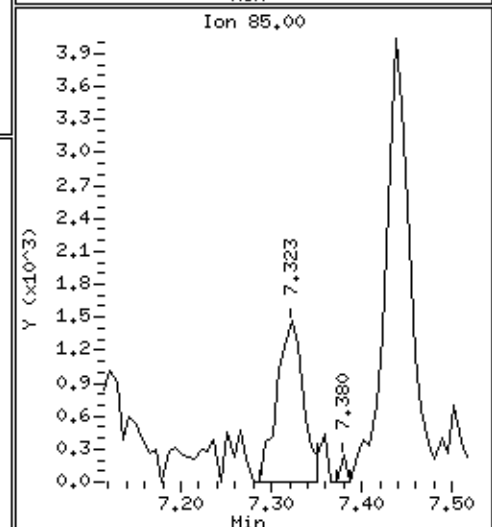
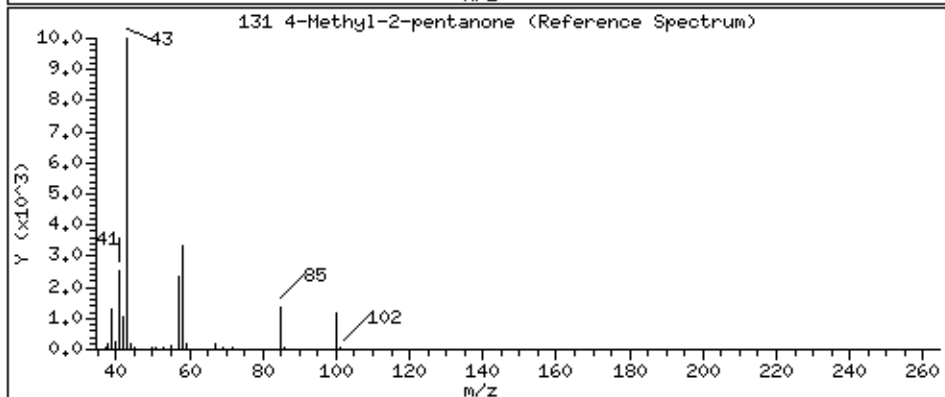
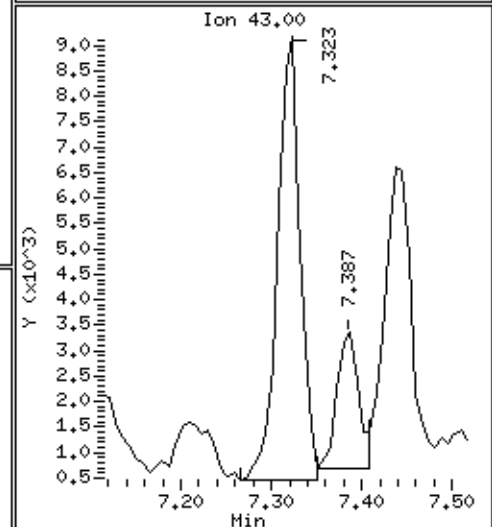
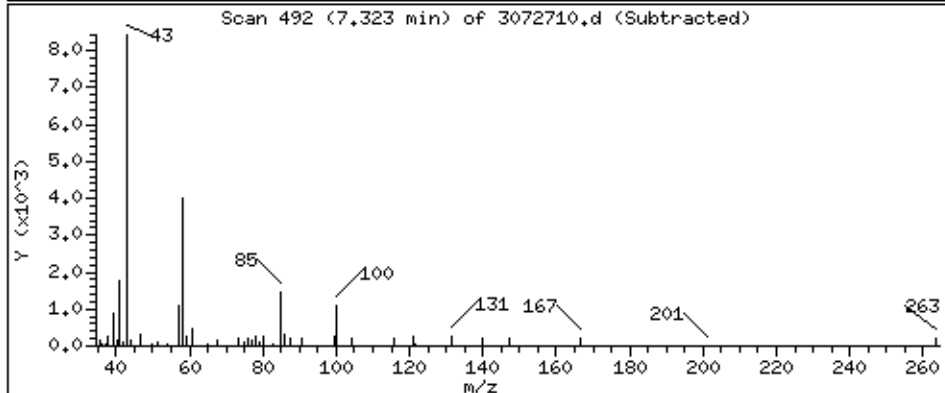
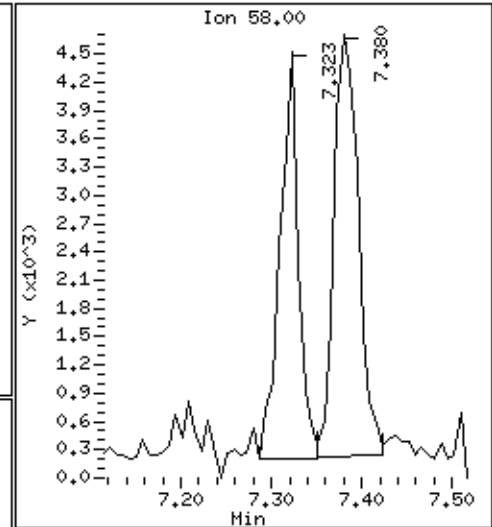
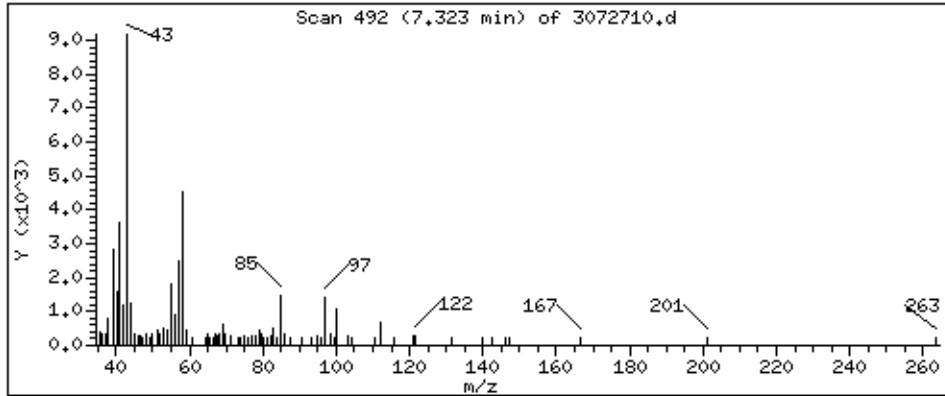
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

131 4-Methyl-2-pentanone

Concentration: 1,694 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

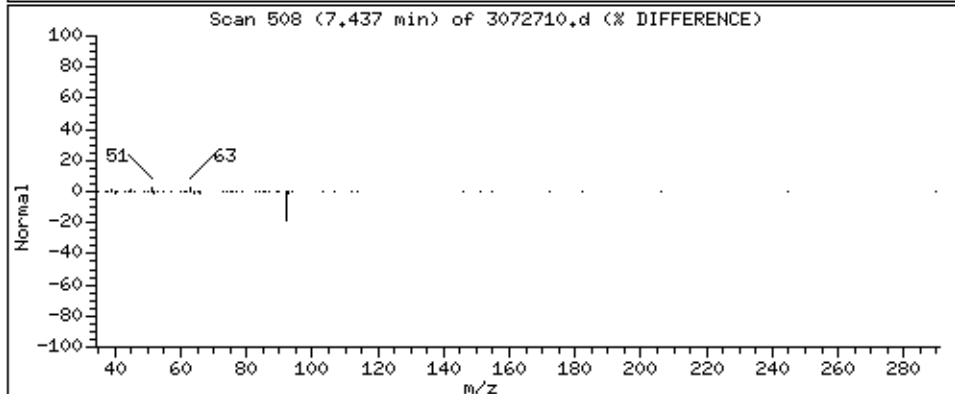
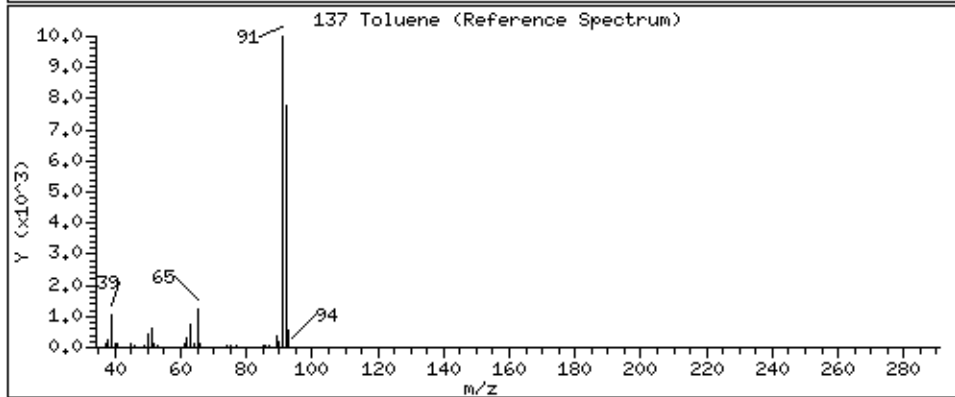
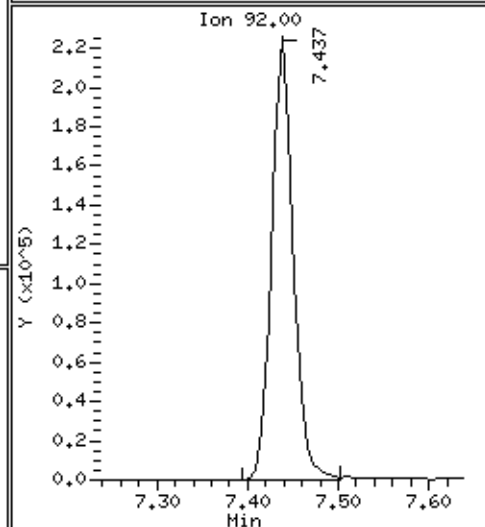
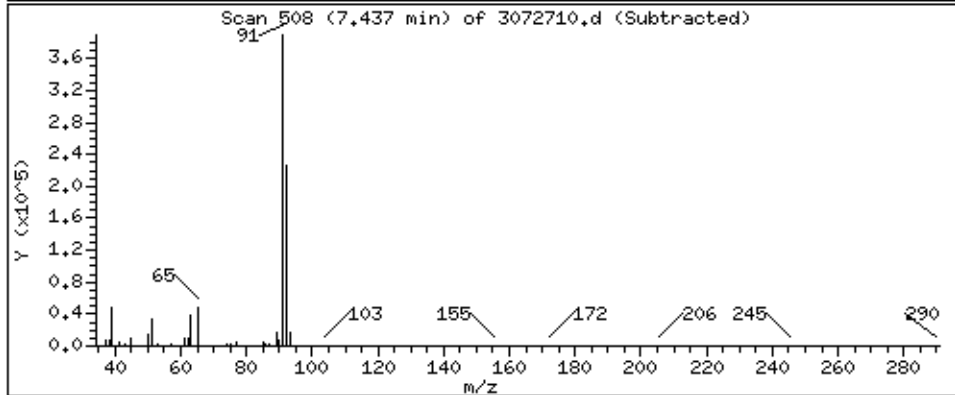
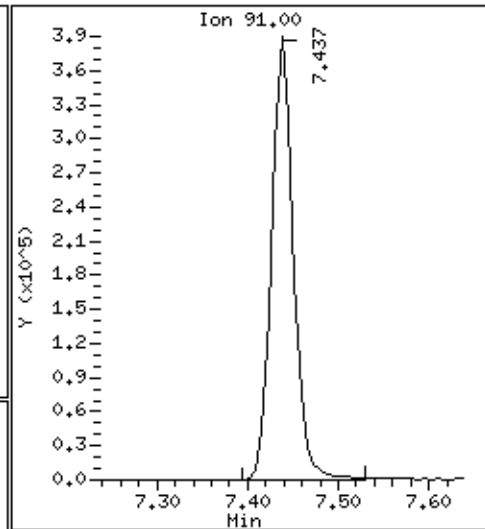
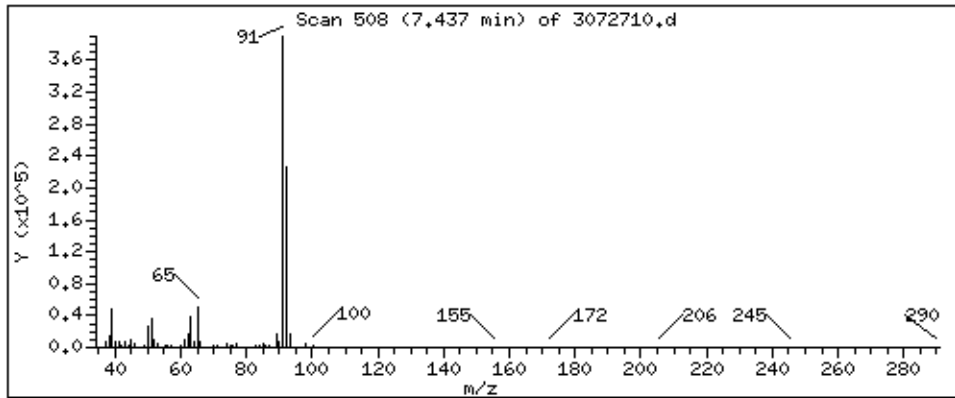
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 56,262 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

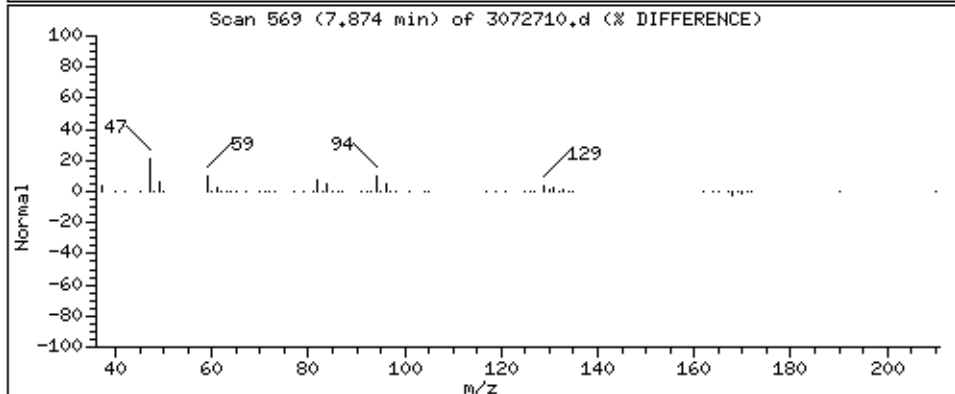
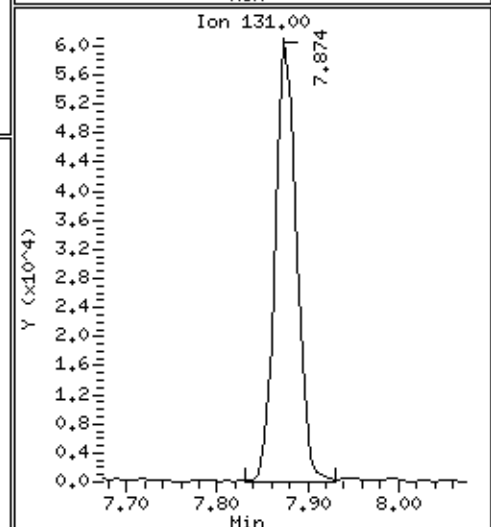
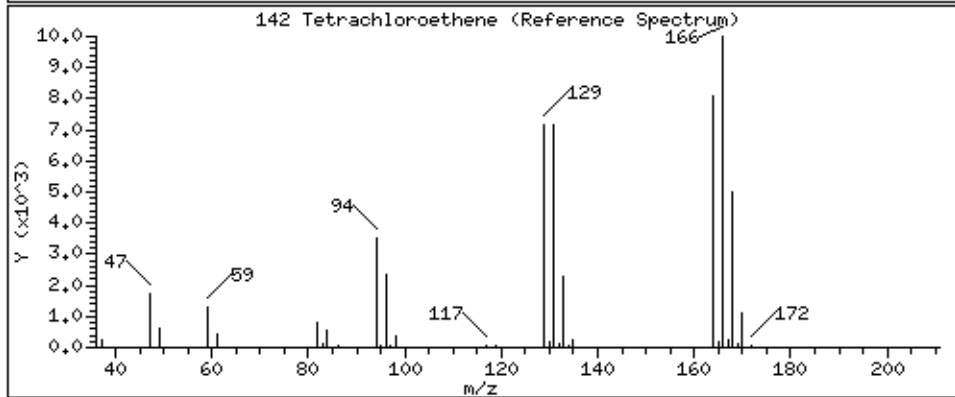
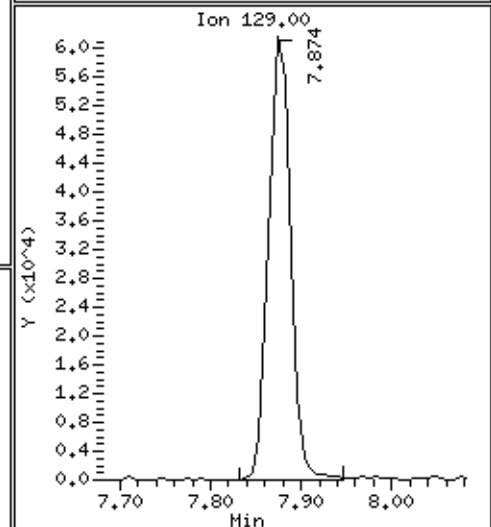
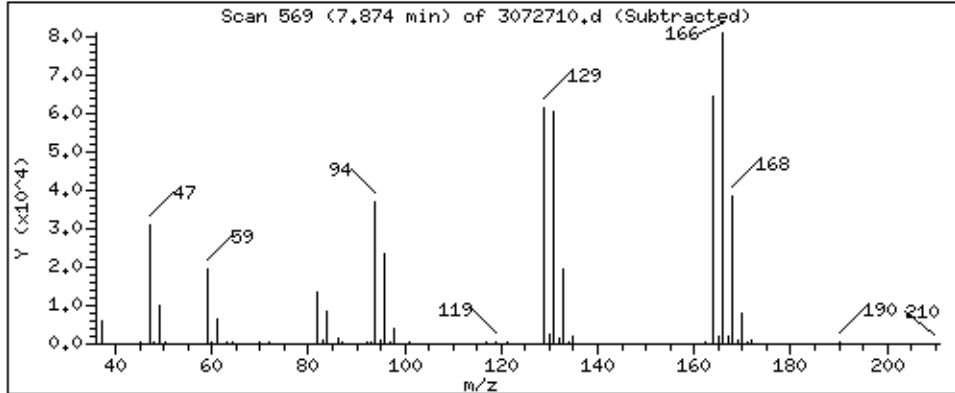
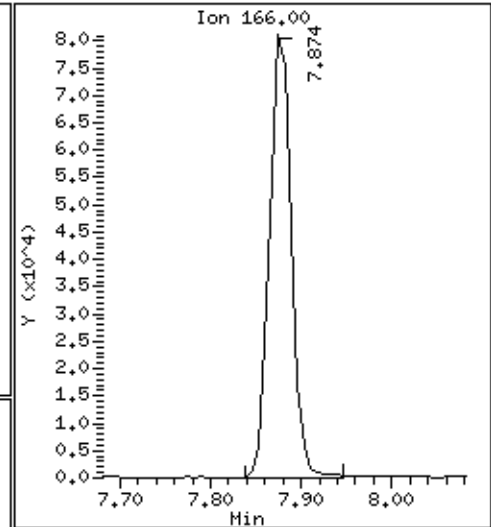
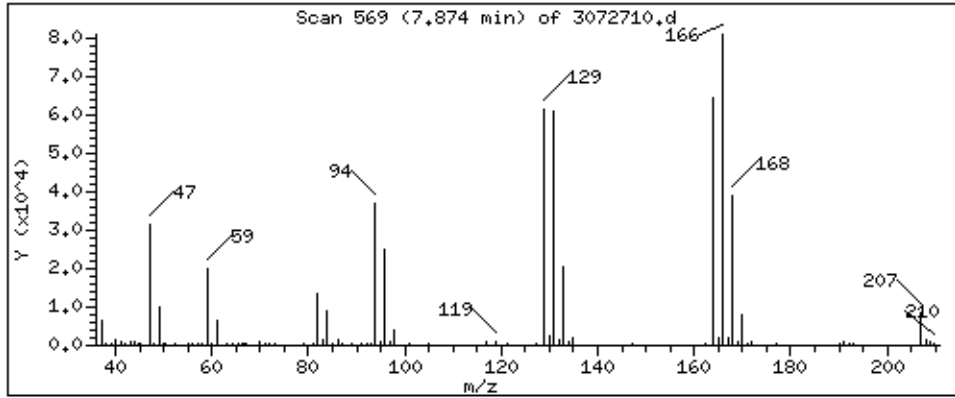
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 26.004 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

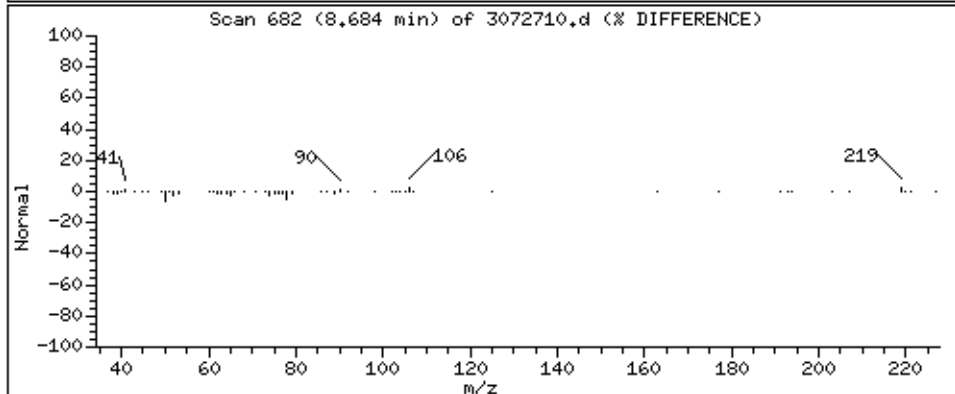
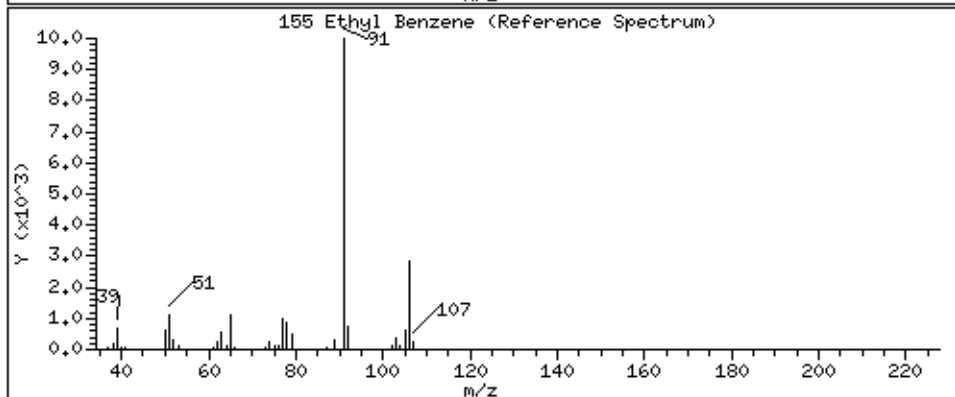
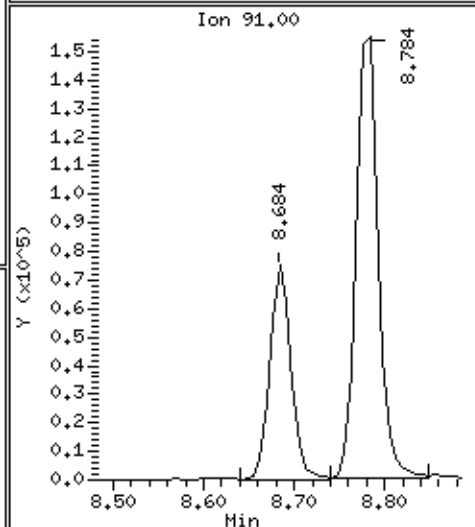
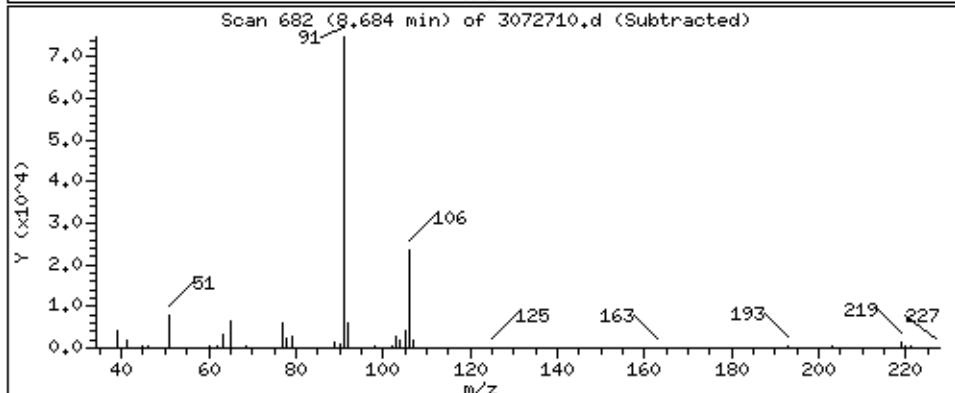
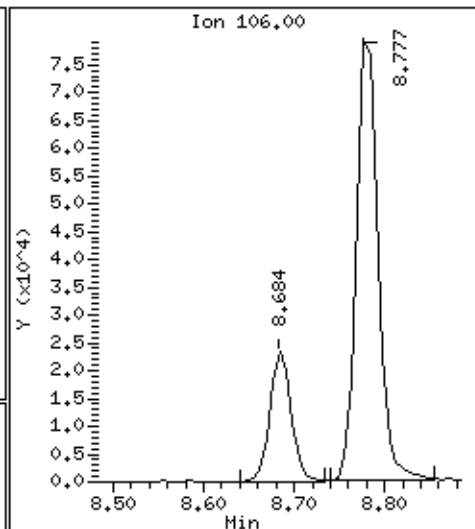
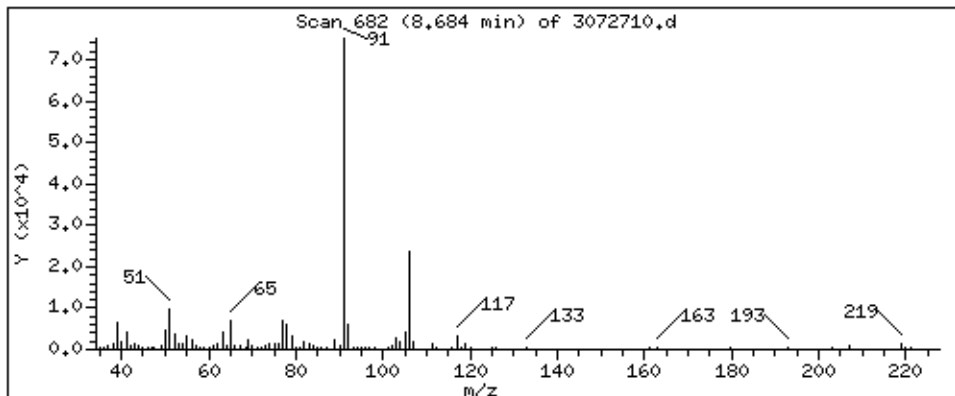
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 8.474 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

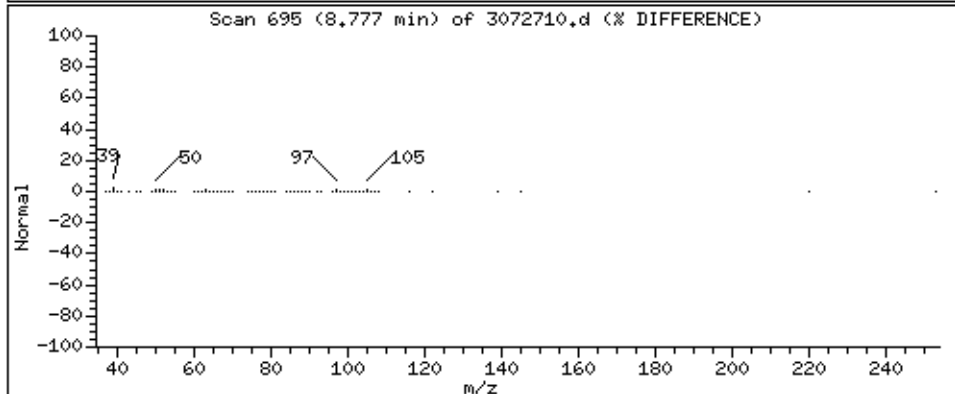
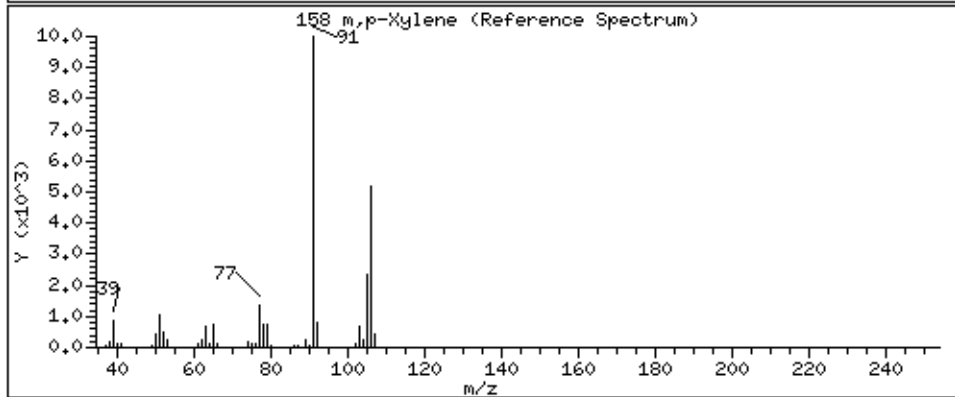
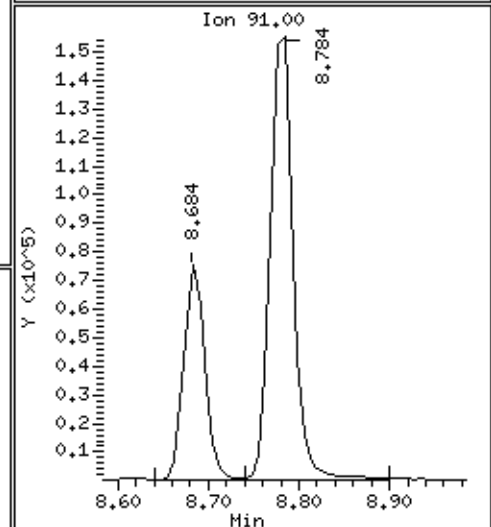
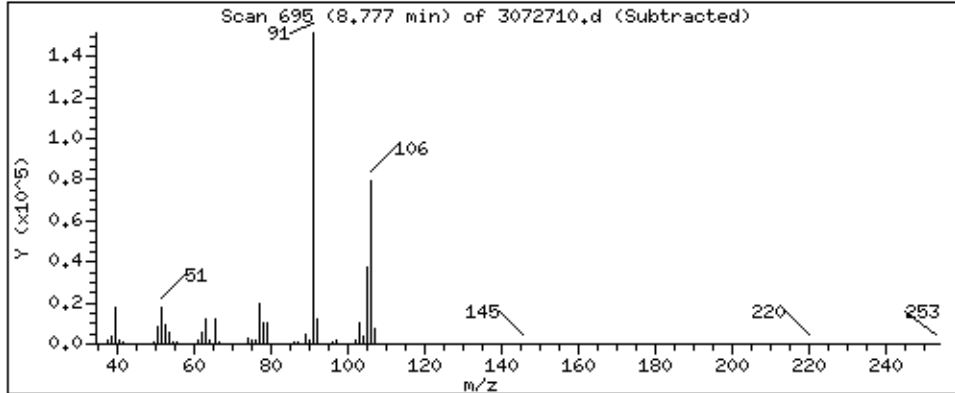
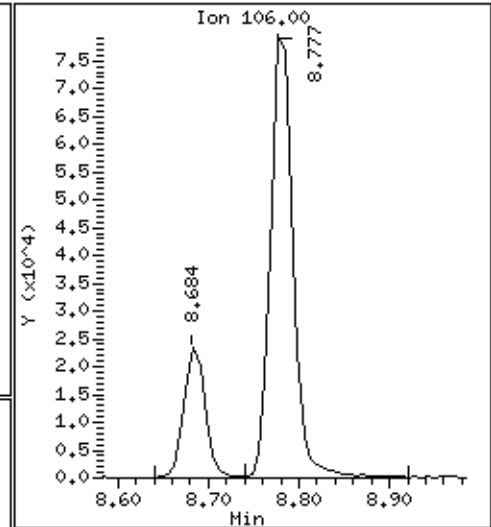
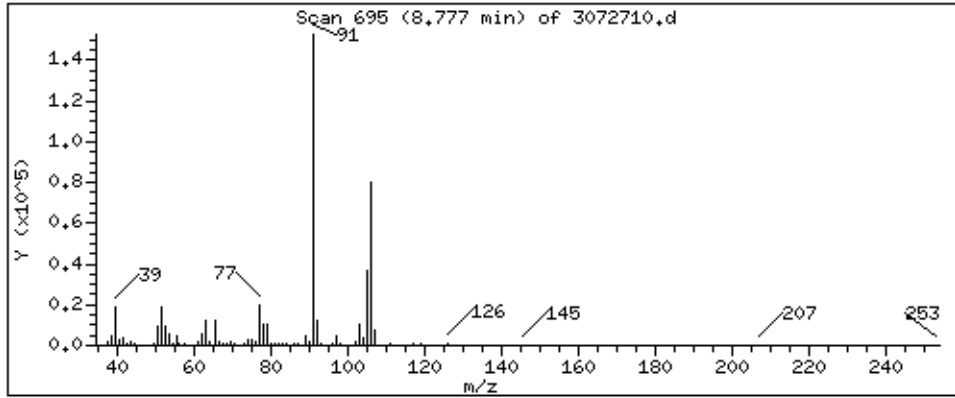
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 24,511 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3.i

Sample Info: 200mL 00853

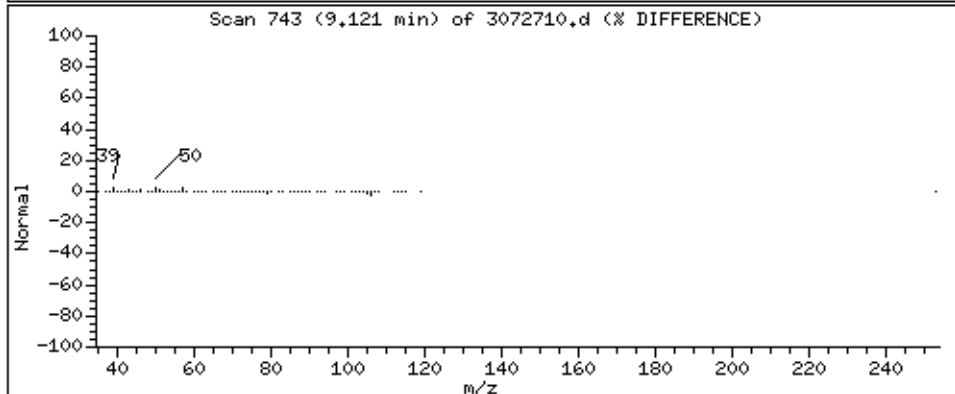
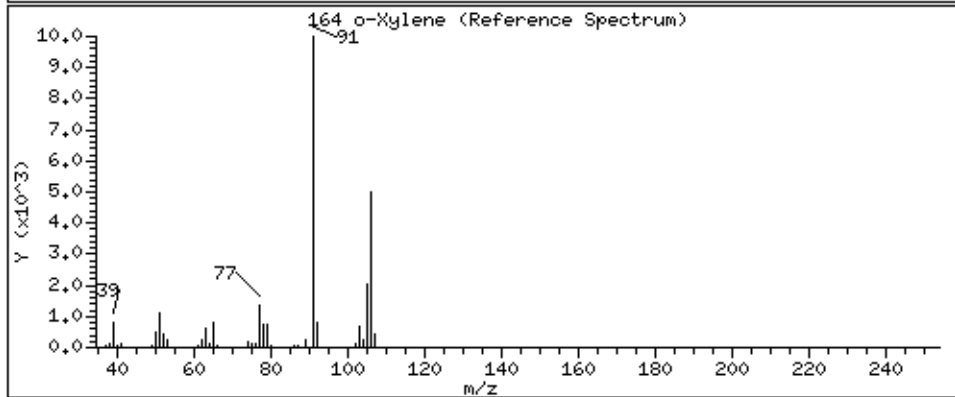
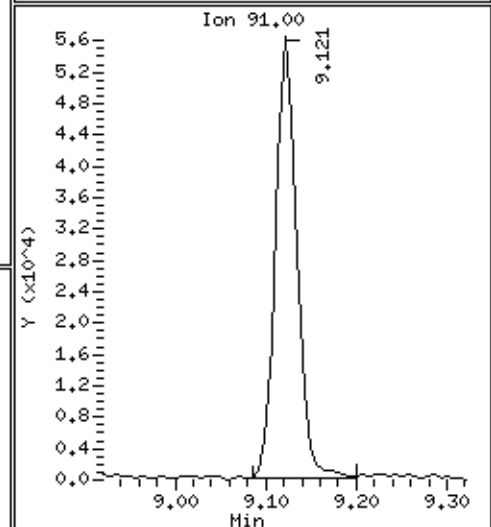
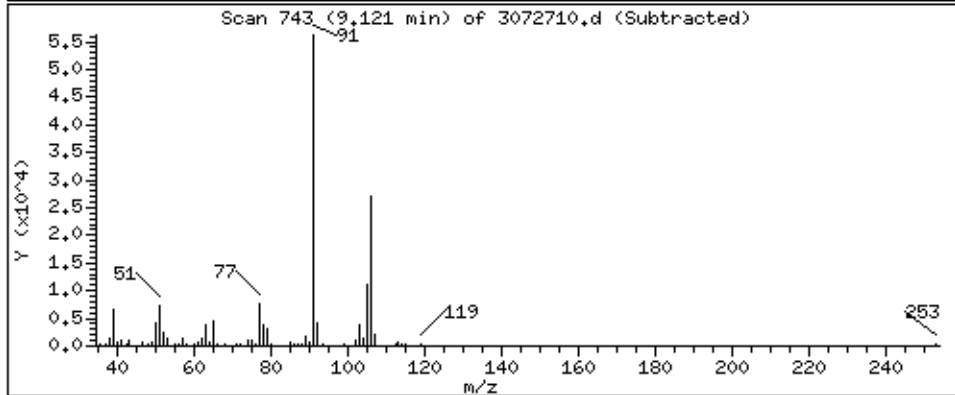
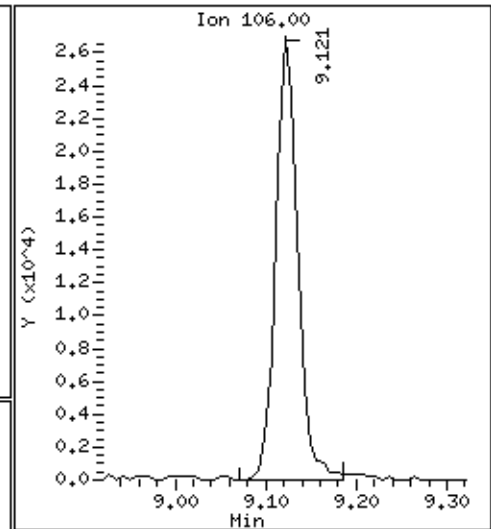
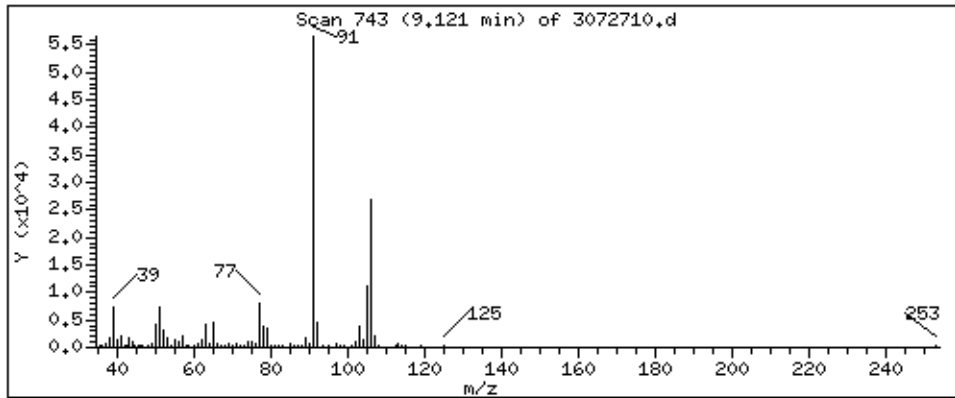
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 8.513 PPBV





Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3.i

Sample Info: 200mL 00853

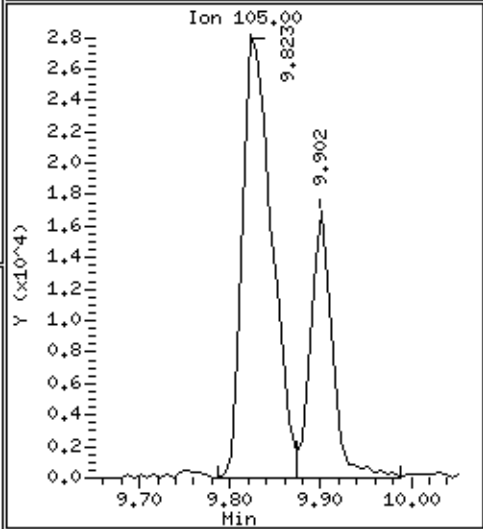
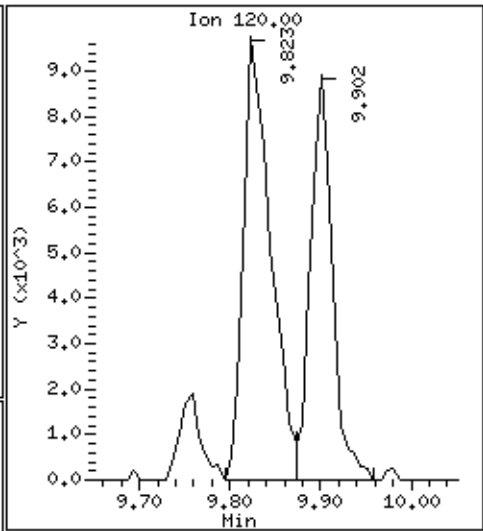
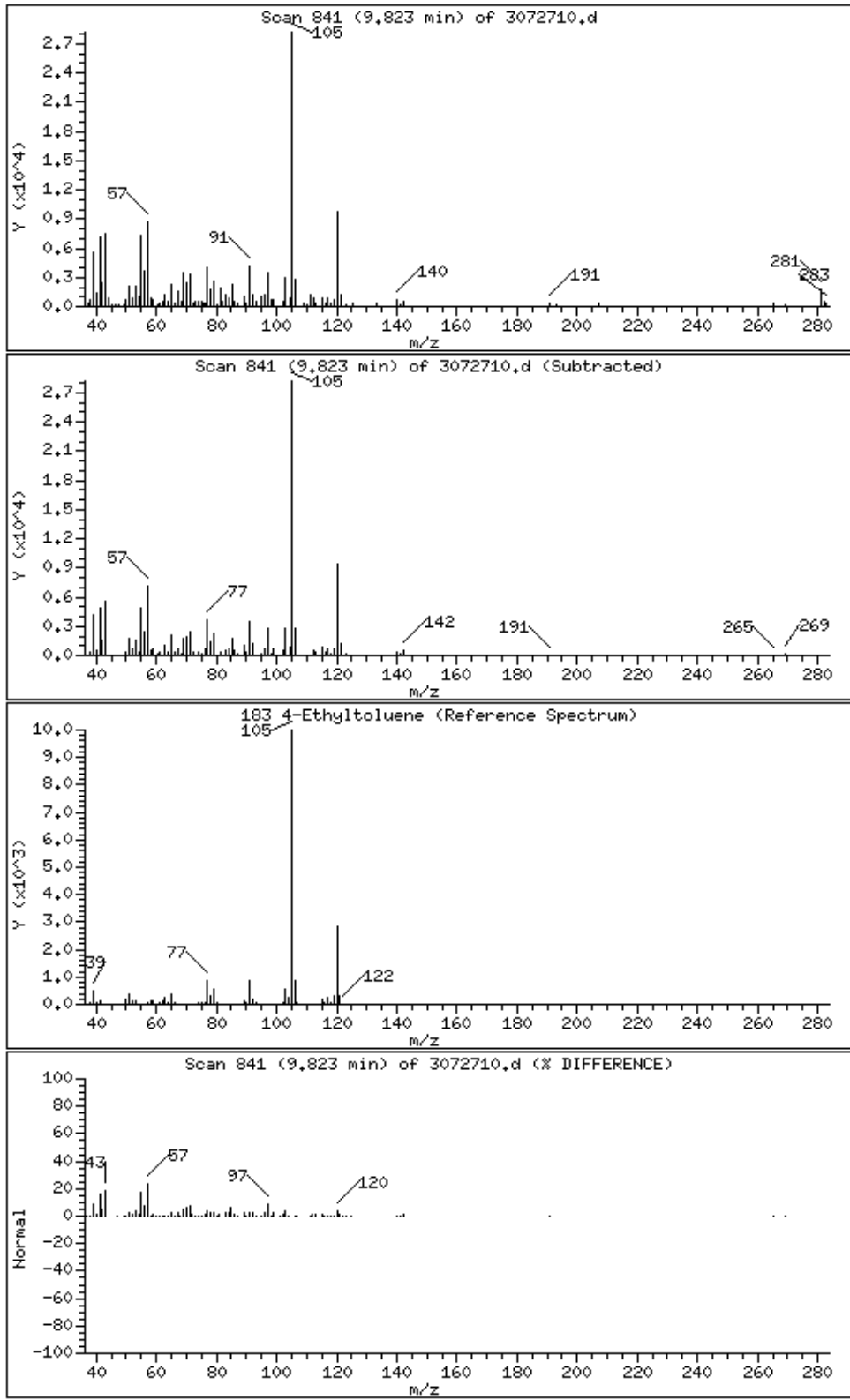
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 4.016 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

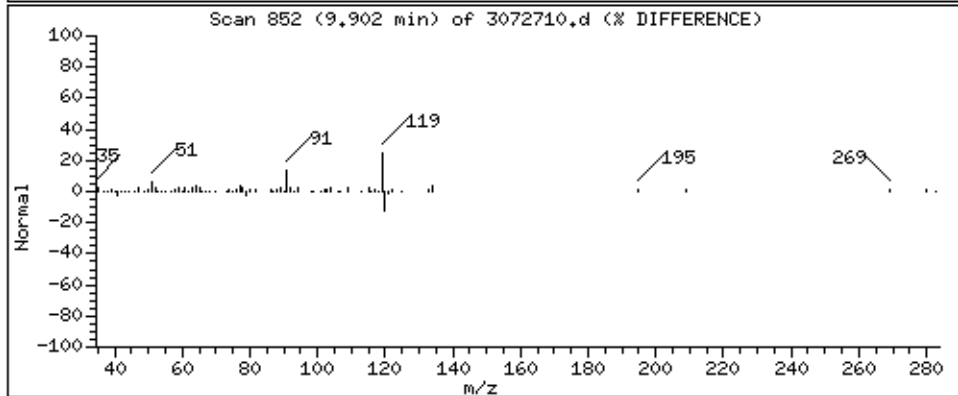
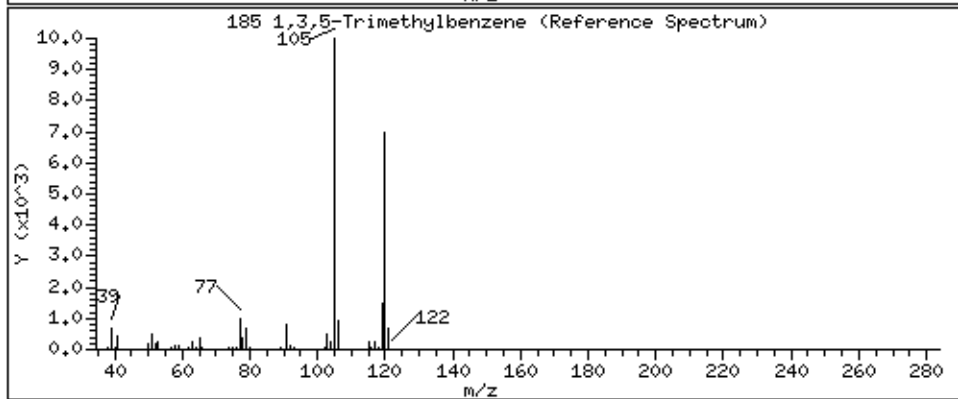
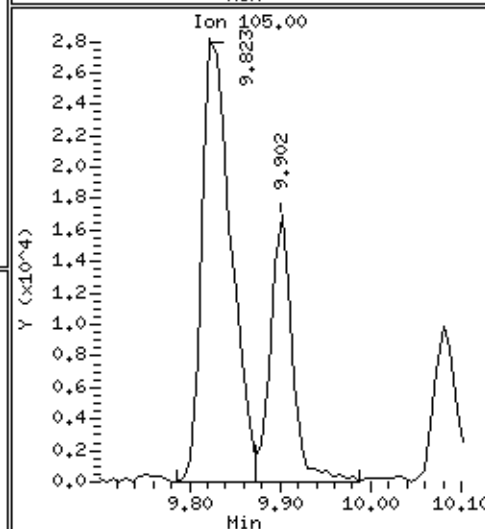
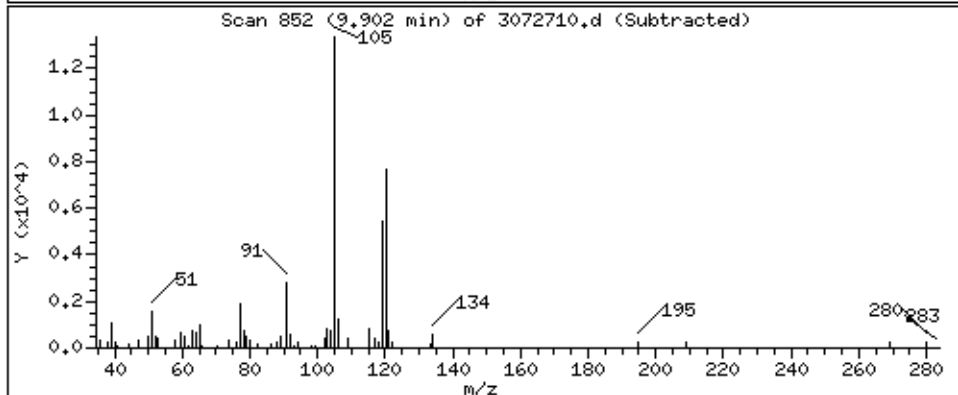
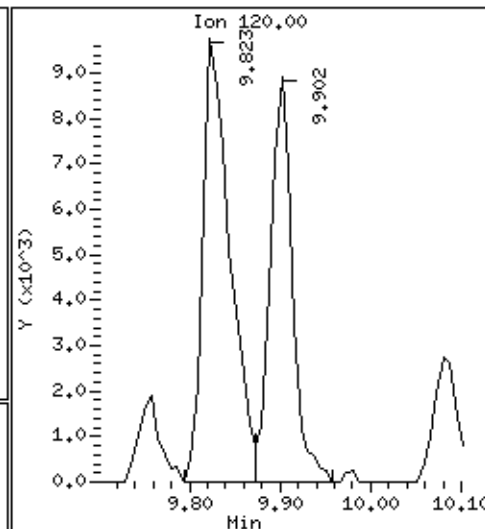
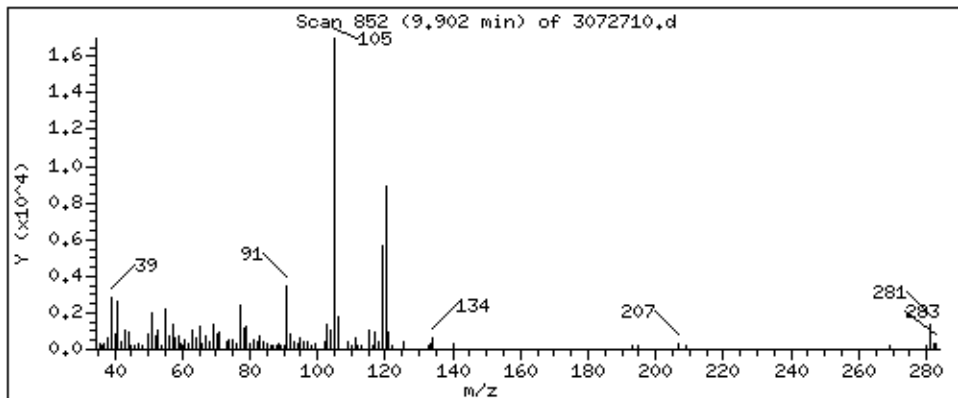
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

185 1,3,5-Trimethylbenzene

Concentration: 2,116 PPBV



Date : 27-JUL-2021 17:01

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00853

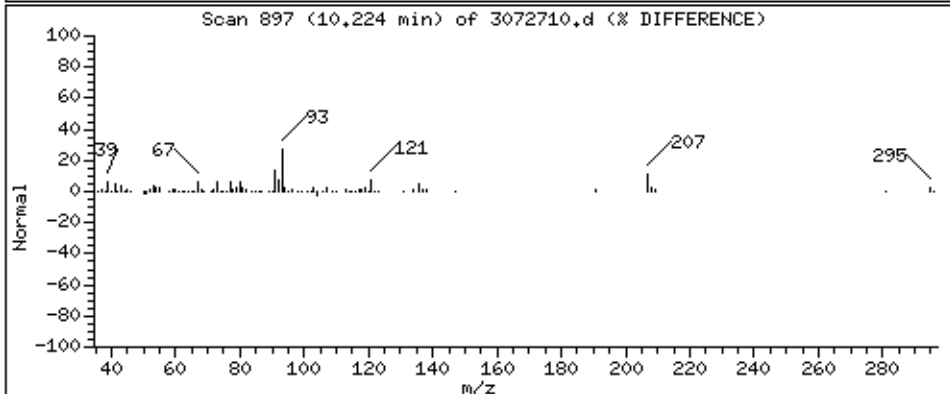
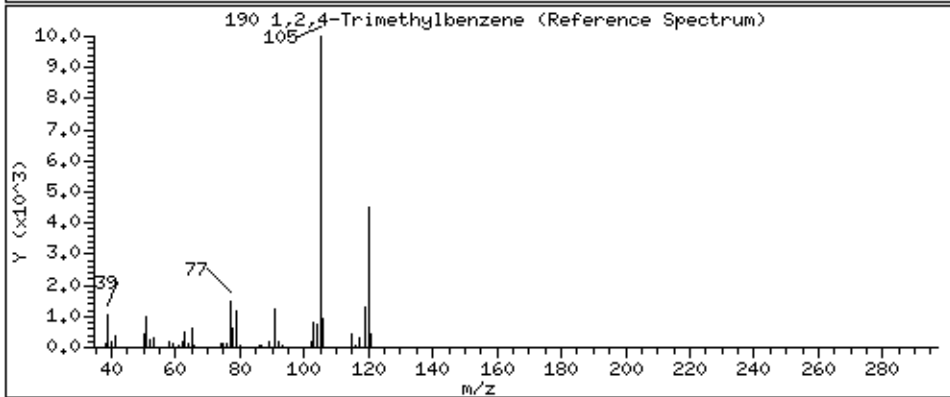
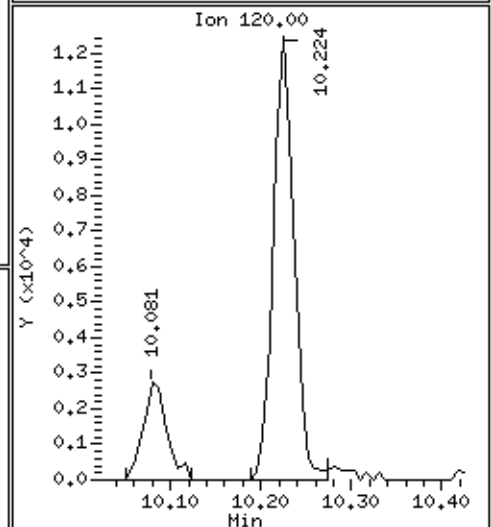
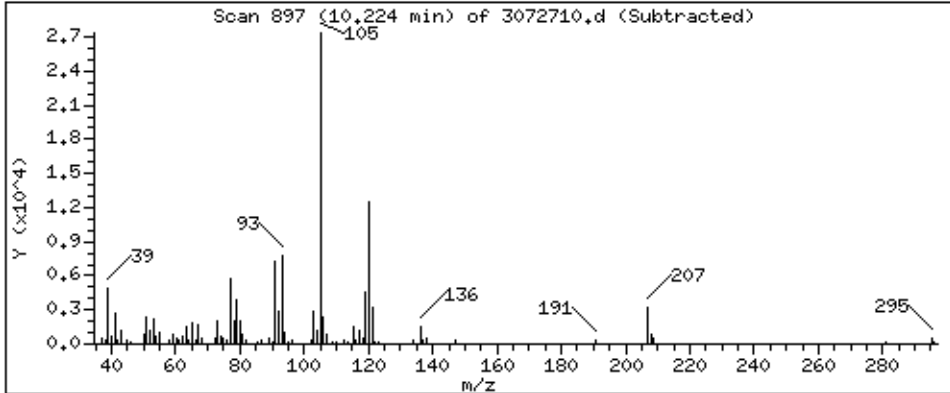
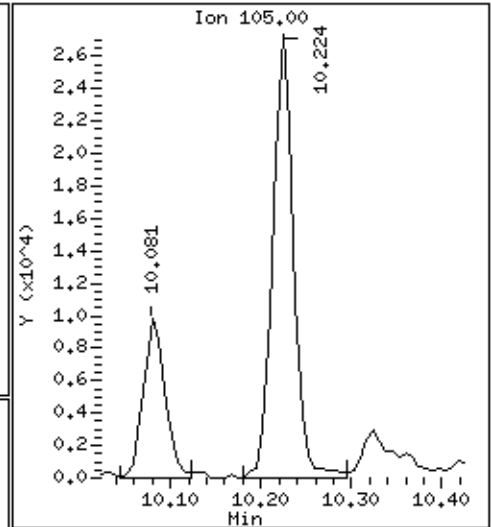
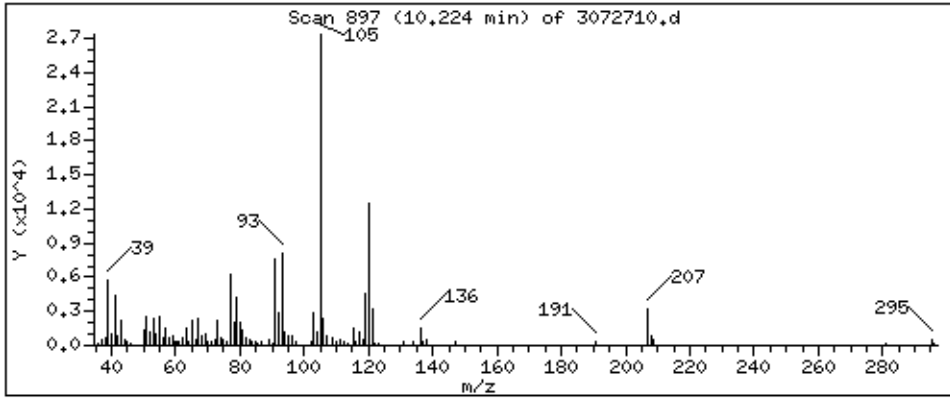
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 3,079 PPBV



Client Sample ID: SG-VW58B-01

Lab ID#: 2107284-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072711	Date of Collection:	7/14/21 10:52:00 AM
Dil. Factor:	2.21	Date of Analysis:	7/27/21 05:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.4	Not Detected	30	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.6	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
1,1-Difluoroethane	4.4	3000 E	12	8000 E
1,2,3-Trichloropropane	4.4	Not Detected	27	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	33	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,2-Dibromo-3-chloropropane	4.4	Not Detected	43	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.5	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.4	Not Detected	13	Not Detected
2-Hexanone	4.4	Not Detected	18	Not Detected
2-Propanol	4.4	15	11	36
3-Chloropropene	4.4	Not Detected	14	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
Acetone	11	Not Detected	26	Not Detected
Acrolein	4.4	Not Detected	10	Not Detected
Acrylonitrile	4.4	Not Detected	9.6	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
Benzene	1.1	Not Detected	3.5	Not Detected
Bromodichloromethane	1.1	Not Detected	7.4	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Carbon Disulfide	4.4	Not Detected	14	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Chlorobenzene	1.1	Not Detected	5.1	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
Chloroform	1.1	Not Detected	5.4	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected

Client Sample ID: SG-VW58B-01

Lab ID#: 2107284-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072711	Date of Collection:	7/14/21 10:52:00 AM
Dil. Factor:	2.21	Date of Analysis:	7/27/21 05:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Cumene	1.1	Not Detected	5.4	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Dibromochloromethane	1.1	Not Detected	9.4	Not Detected
Dibromomethane	4.4	Not Detected	31	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Ethyl Acetate	4.4	Not Detected	16	Not Detected
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
Ethyl-tert-butyl ether	4.4	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.2	Not Detected
Freon 12	1.1	Not Detected	5.5	Not Detected
Freon 113	1.1	Not Detected	8.5	Not Detected
Freon 114	1.1	Not Detected	7.7	Not Detected
Freon 134a	4.4	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.5	Not Detected
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected
Hexachloroethane	4.4	Not Detected	43	Not Detected
Hexane	1.1	24	3.9	86
Iodomethane	11	Not Detected	64	Not Detected
Isopropyl ether	4.4	Not Detected	18	Not Detected
m,p-Xylene	1.1	Not Detected	4.8	Not Detected
Methyl tert-butyl ether	4.4	Not Detected	16	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
Naphthalene	2.2	Not Detected	12	Not Detected
o-Xylene	1.1	Not Detected	4.8	Not Detected
Propylbenzene	1.1	Not Detected	5.4	Not Detected
Propylene	4.4	Not Detected	7.6	Not Detected
Styrene	1.1	Not Detected	4.7	Not Detected
tert-Amyl methyl ether	4.4	Not Detected	18	Not Detected
tert-Butyl alcohol	4.4	Not Detected	13	Not Detected
Tetrachloroethene	1.1	51	7.5	350
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Toluene	1.1	1.1	4.2	4.3
TPH ref. to Gasoline (MW=100)	110	Not Detected	450	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Trichloroethene	1.1	Not Detected	5.9	Not Detected
Vinyl Acetate	4.4	Not Detected	16	Not Detected
Vinyl Bromide	4.4	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected

Client Sample ID: SG-VW58B-01

Lab ID#: 2107284-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072711	Date of Collection: 7/14/21 10:52:00 AM
Dil. Factor:	2.21	Date of Analysis: 7/27/21 05:30 PM

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	98	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/27JUL21.b/3072711.d  
Lab Smp Id: 2107284-22A  
Inj Date : 27-JUL-2021 17:30  
Operator : LD  
Smp Info : 200mL O0775  
Misc Info : 7.3 Hg->9.9 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/27JUL21.b/321q0622a.m  
Meth Date : 27-Jul-2021 15:31 lk8g  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 2  
Dil Factor: 2.21000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5									
5.284	5.284	(1.000)	130	258743	25.0000	80.00- 120.00	100.00		
5.284	5.284	(1.000)	128	200833		48.46- 108.46	77.62		
5.284	5.270	(1.000)	49	372765		120.39- 180.39	144.07		
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.180	6.180	(1.000)	114	876809	25.0000	80.00- 120.00	100.00		
6.166	6.180	(1.000)	88	130098		0.00- 45.52	14.84		
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
8.619	8.612	(1.000)	117	780715	25.0000	80.00- 120.00	100.00		
8.612	8.612	(1.000)	82	404775		25.46- 85.46	51.85		
-----									
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
5.816	5.816	(1.101)	65	352727	24.7721	24.772 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	171137		21.66- 81.66	48.52		
-----									
§ 134 Toluene-d8 CAS #: 2037-26-5									
7.387	7.387	(1.195)	98	857098	23.7329	23.733 80.00- 120.00	100.00		
7.387	7.387	(1.195)	70	94371		0.00- 41.47	11.01		

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		RESPONSE	TARGET RANGE	RATIO
				ON-COL ( PPBV)	FINAL ( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100			559558	36.47- 96.47	65.29
-----								
\$ 170 4-Bromofluorobenzene								
							CAS #: 460-00-4	
9.601	9.601	(1.114)	174	504443	24.4279	24.428	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	573801			93.06- 153.06	113.75
9.601	9.601	(1.114)	176	468822			62.87- 122.87	92.94
-----								
7 1,1-Difluoroethane								
							CAS #: 75-37-6	
1.451	1.437	(0.274)	65	5492922	1348.29	2979.7	80.00- 120.00	100.00(A)
1.451	1.479	(0.274)	51	12487316			321.86- 381.86	227.33
1.451	1.451	(0.274)	47	2904998			45.34- 105.34	52.89
-----								
52 2-Propanol								
							CAS #: 67-63-0	
3.423	3.409	(0.648)	45	103641	6.64233	14.680	80.00- 120.00	100.00
3.423	3.395	(0.648)	43	22162			0.00- 48.61	21.38
-----								
67 Hexane								
							CAS #: 110-54-3	
4.179	4.179	(0.791)	57	159124	11.1055	24.543	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	99364			32.99- 92.99	62.44
4.179	4.179	(0.791)	86	22702			0.00- 42.56	14.27
-----								
137 Toluene								
							CAS #: 108-88-3	
7.437	7.437	(1.203)	91	13939	0.51919	1.147	80.00- 120.00	100.00
7.437	7.437	(1.203)	92	8747			28.30- 88.30	62.76
-----								
142 Tetrachloroethene								
							CAS #: 127-18-4	
7.881	7.881	(0.914)	166	283436	23.1740	51.214	80.00- 120.00	100.00
7.881	7.881	(0.914)	129	220349			48.71- 108.71	77.74
7.881	7.874	(0.914)	131	211225			46.55- 106.55	74.52
-----								

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072711.d  
 Lab Smp Id: 2107284-22A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
 Misc Info: 7.3 Hg->9.9 psi

Calibration Date: 27-JUL-2021  
 Calibration Time: 11:36  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	238986	143392	334580	258743	8.27
108 1,4-Difluorobenze	785289	471173	1099405	876809	11.65
153 Chlorobenzene-d5	683596	410158	957034	780715	14.21

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	-0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 27JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-22A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: 7.3 Hg->9.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.772	99.09	70-130
\$ 134 Toluene-d8	25.000	23.733	94.93	70-130
\$ 170 4-Bromofluorobenz	25.000	24.428	97.71	70-130

Date : 27-JUL-2021 17:30

Client ID:

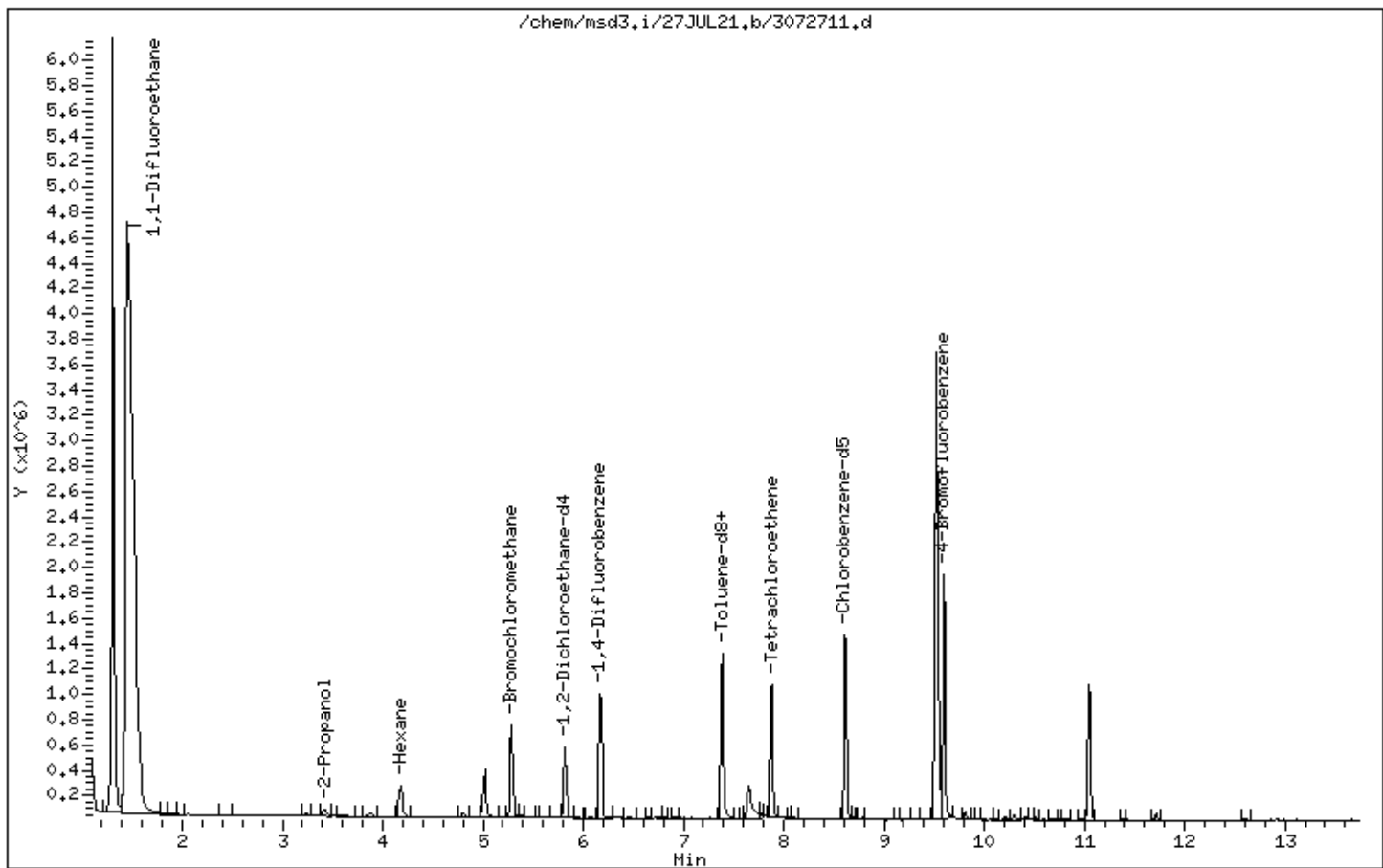
Instrument: msd3,i

Sample Info: 200mL 00775

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 17:30

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00775

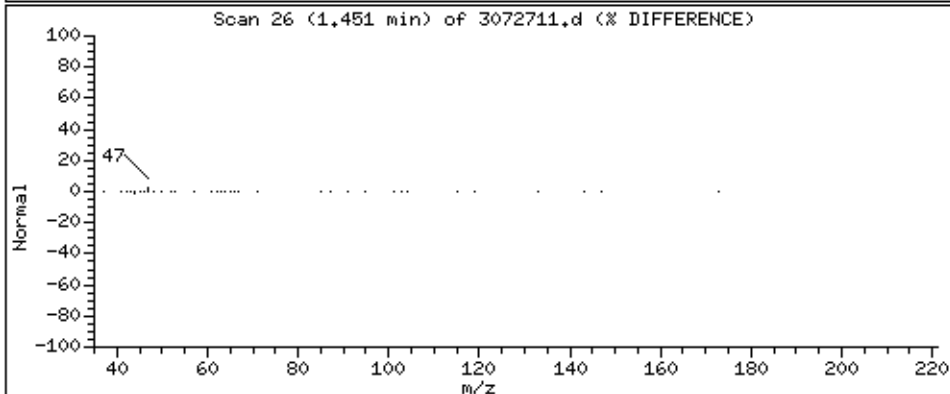
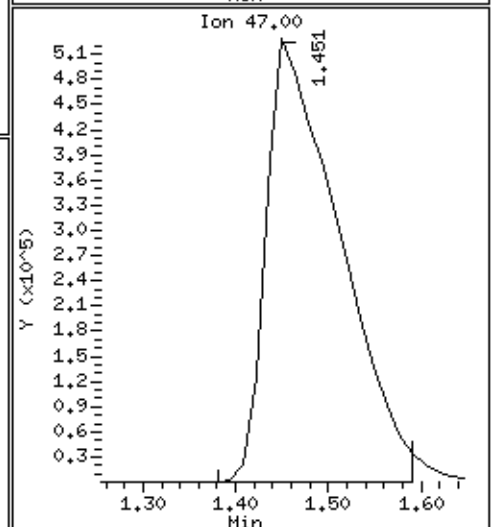
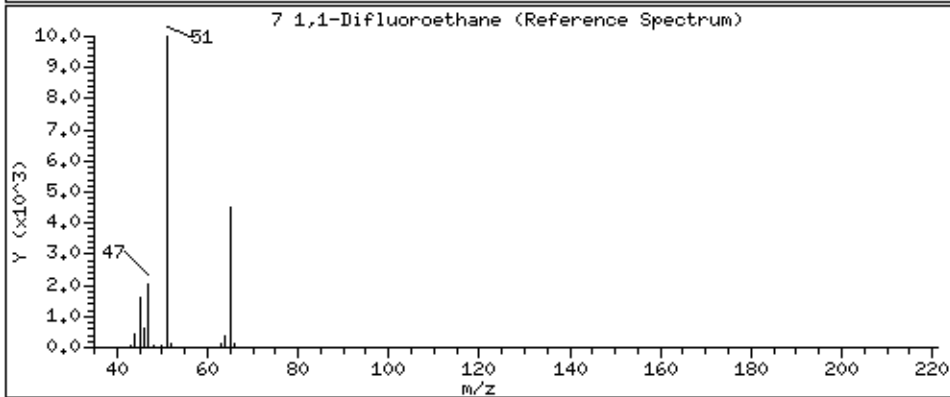
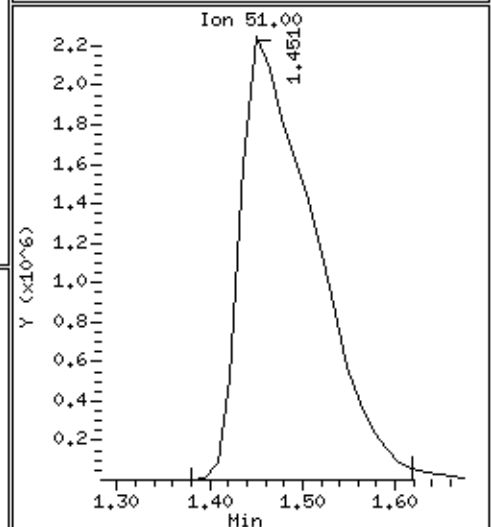
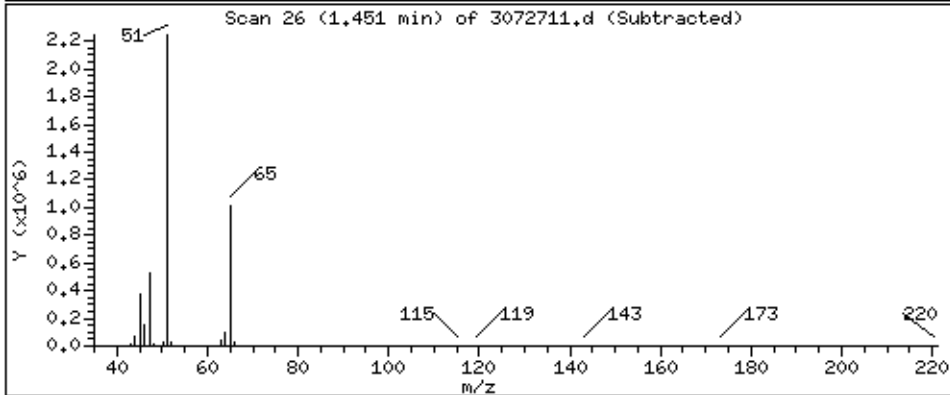
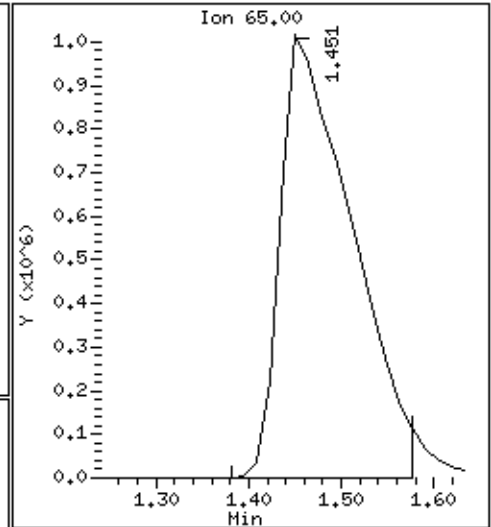
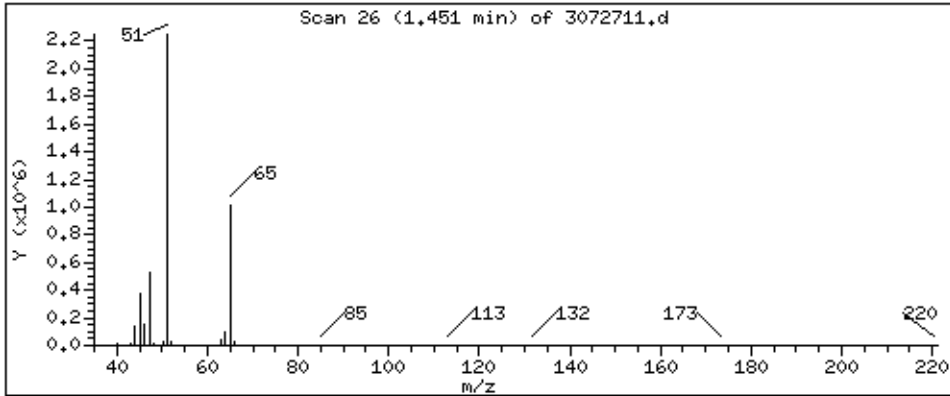
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 2979.7 PPBV



Date : 27-JUL-2021 17:30

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00775

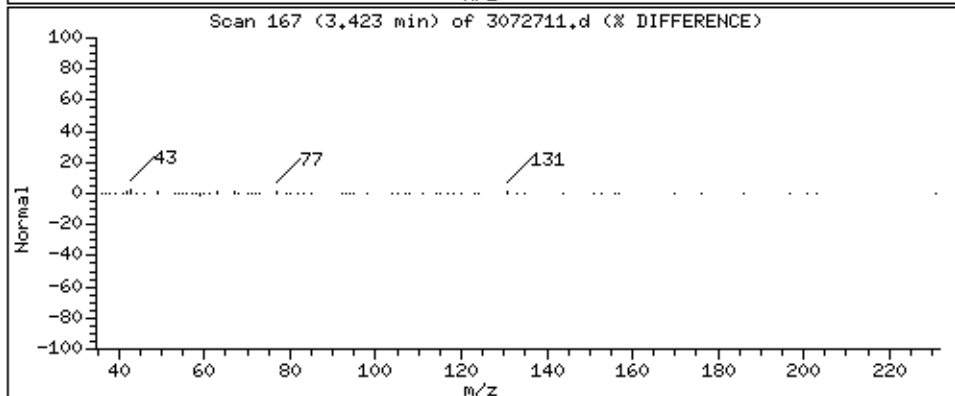
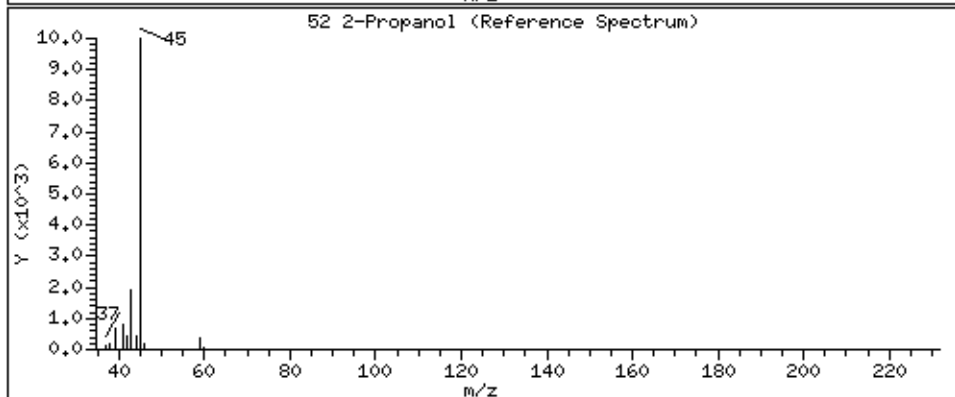
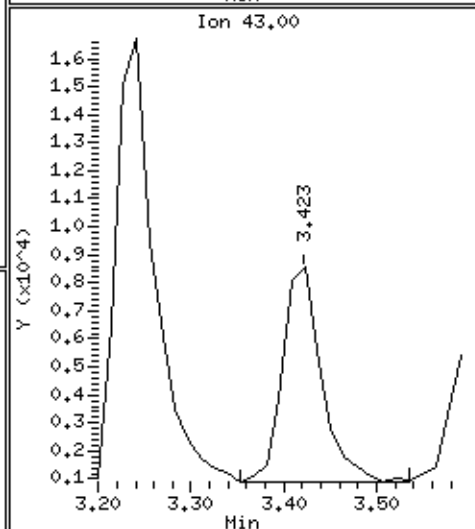
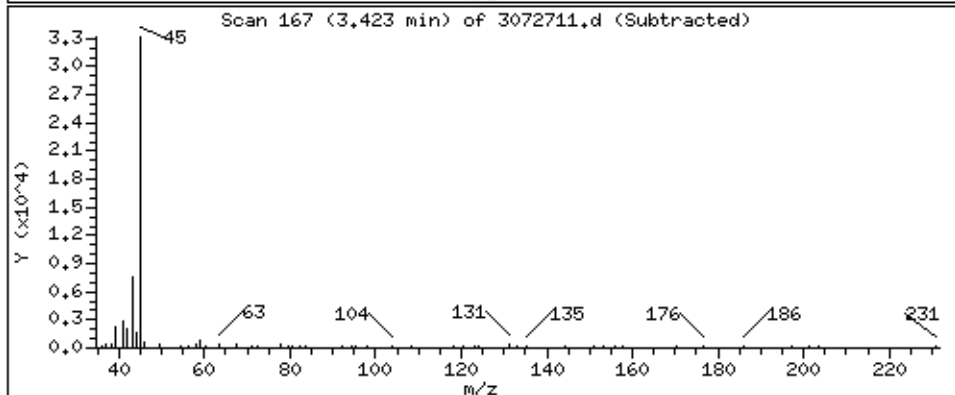
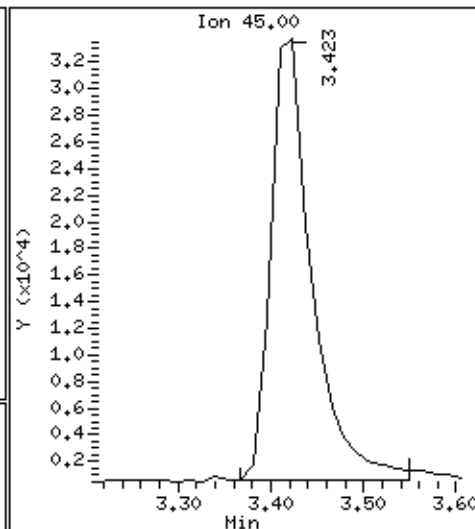
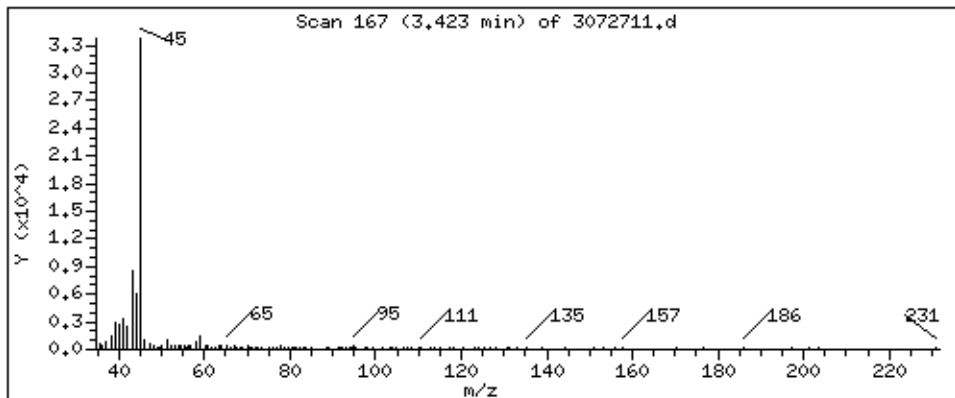
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 14,680 PPBV



Date : 27-JUL-2021 17:30

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00775

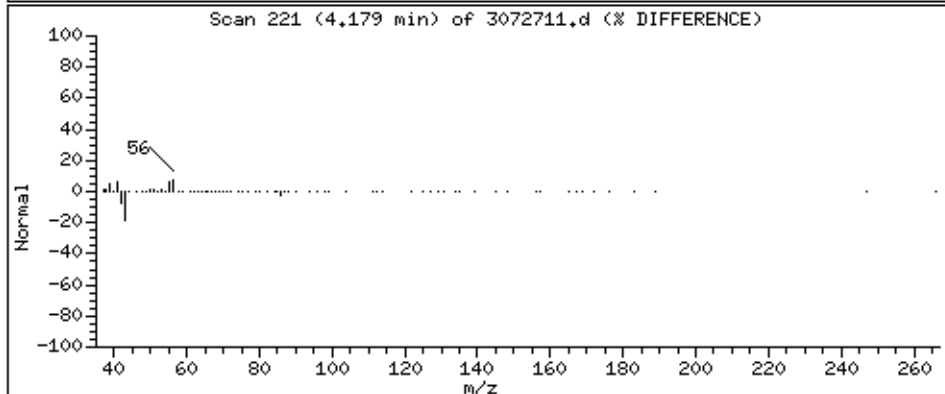
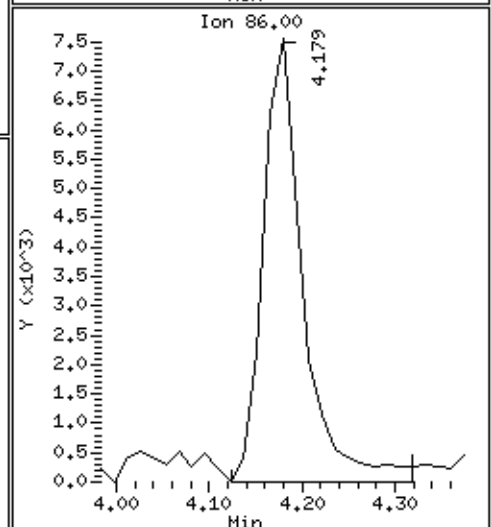
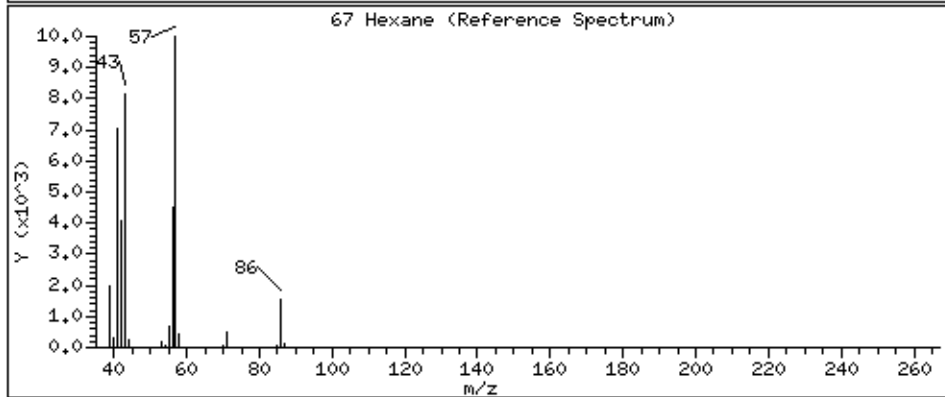
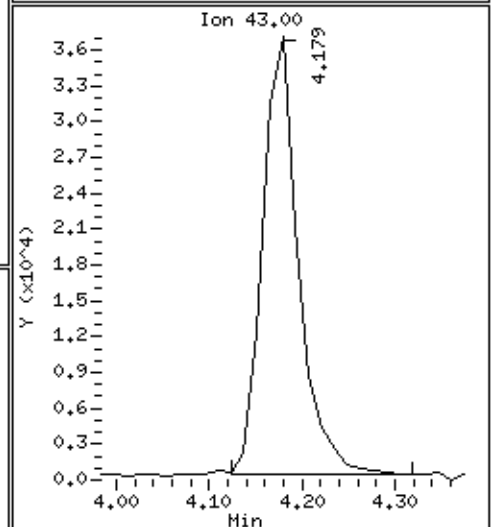
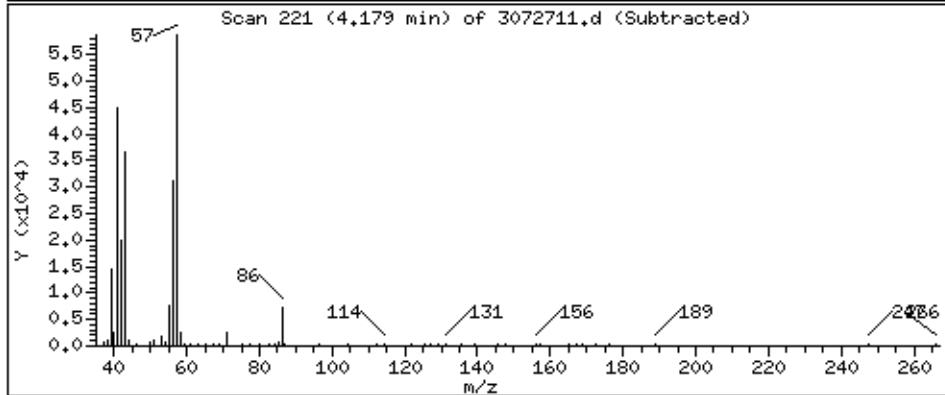
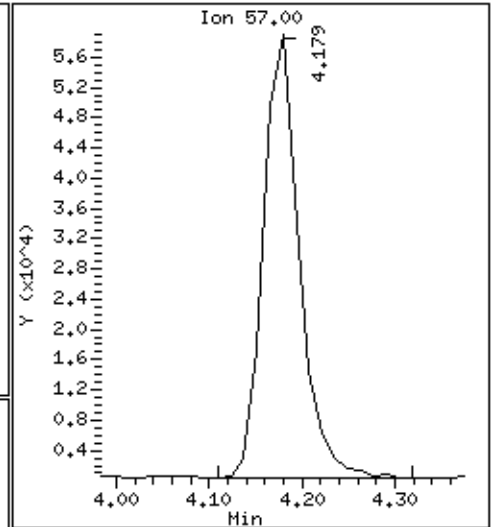
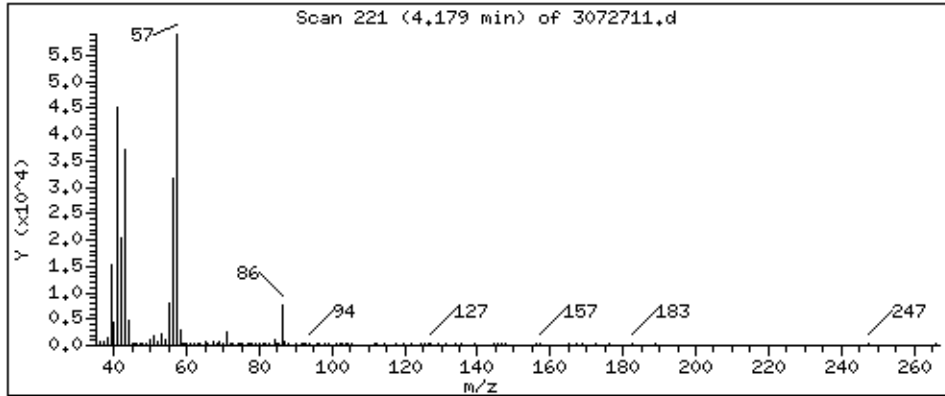
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 24,543 PPBV



Date : 27-JUL-2021 17:30

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00775

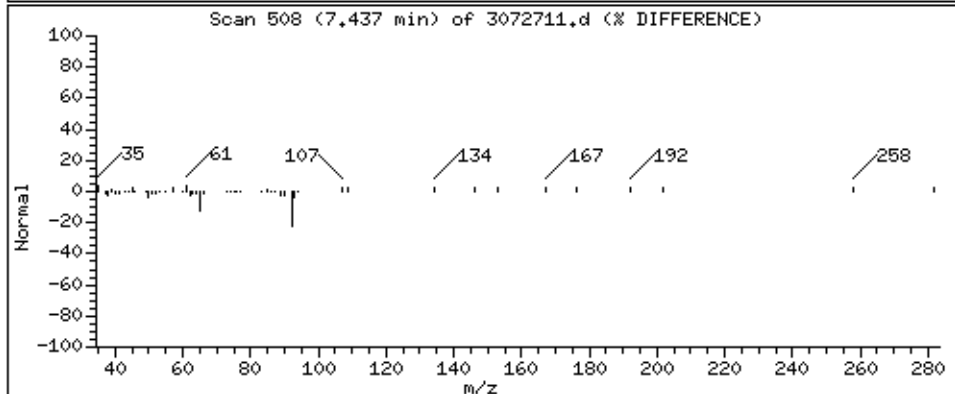
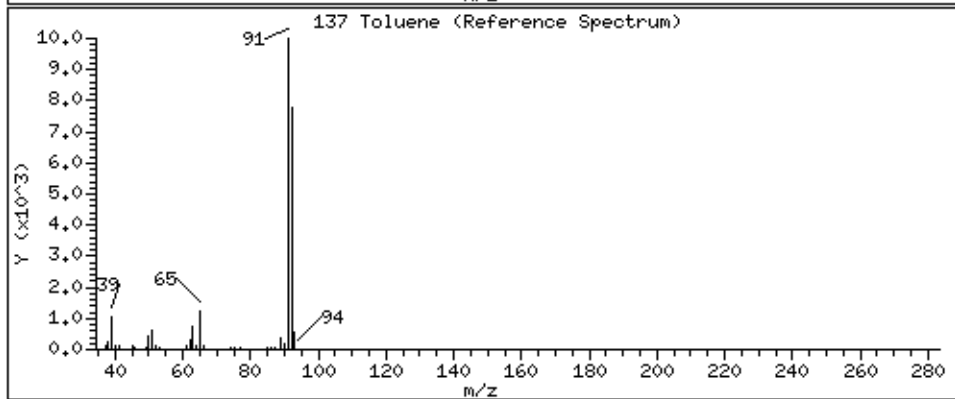
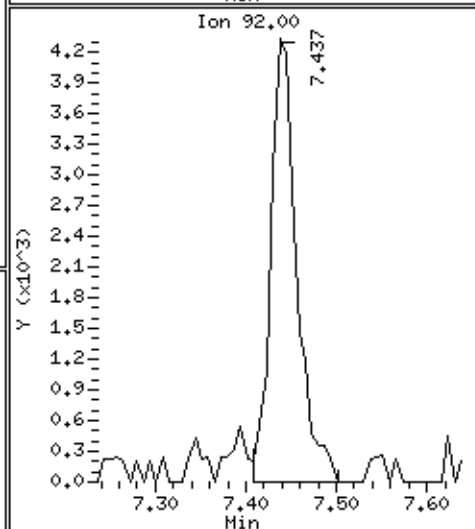
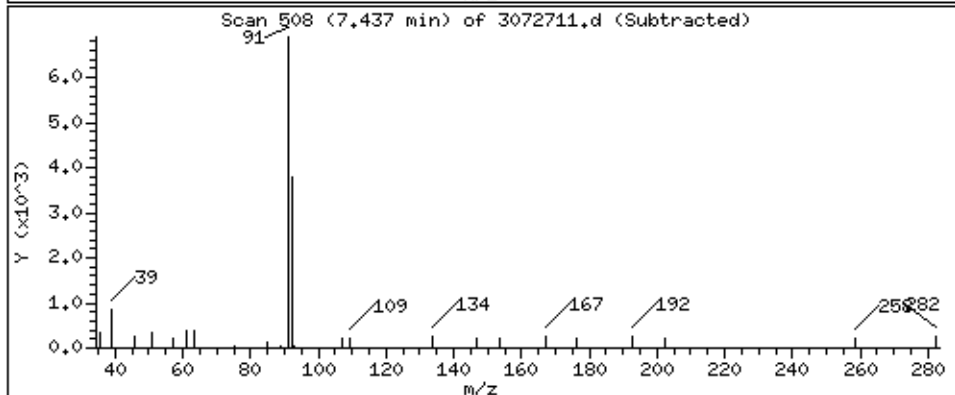
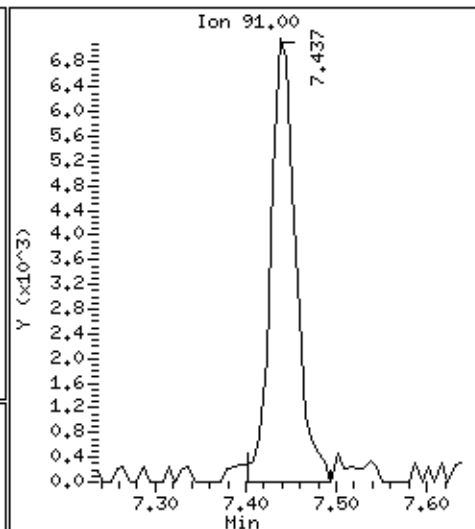
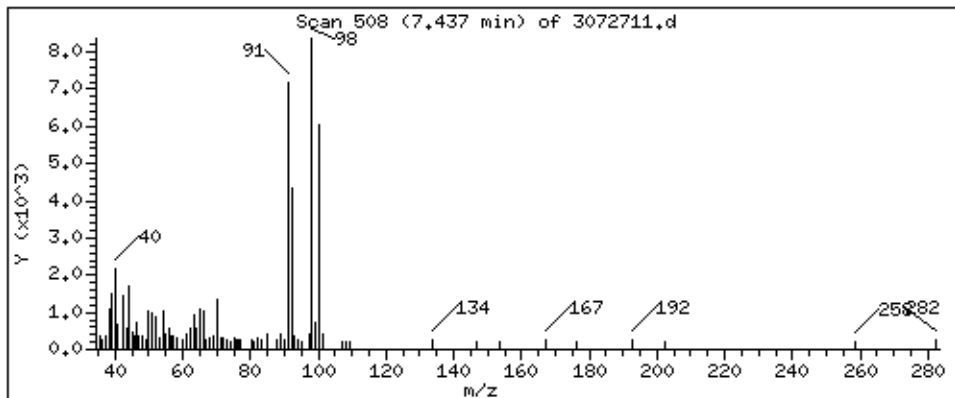
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 1,147 PPBV



Date : 27-JUL-2021 17:30

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00775

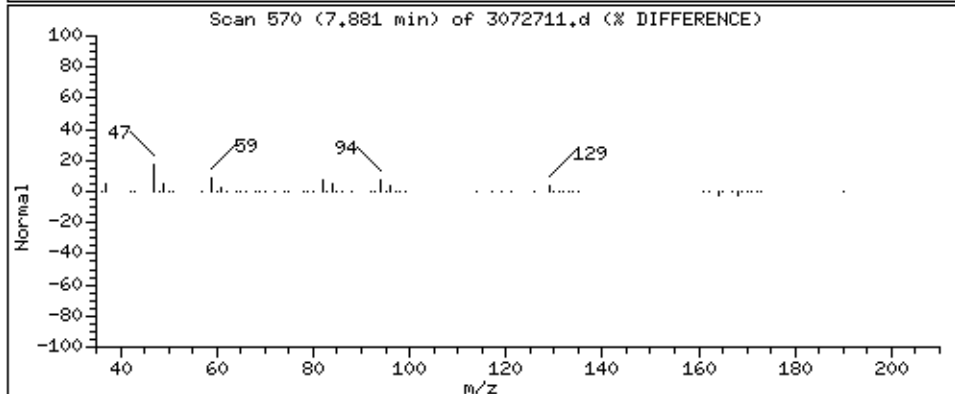
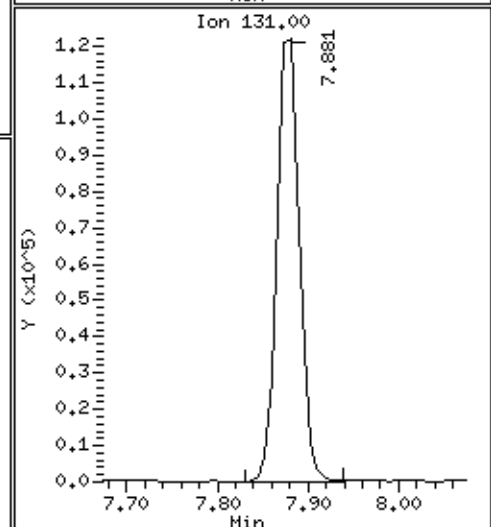
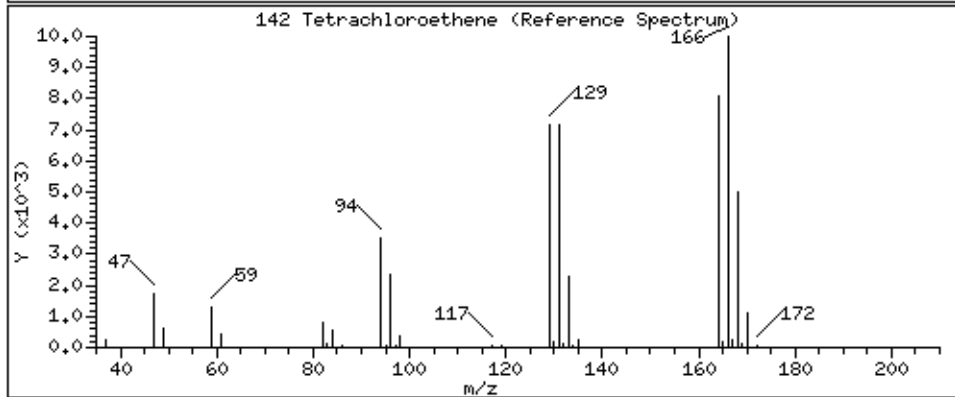
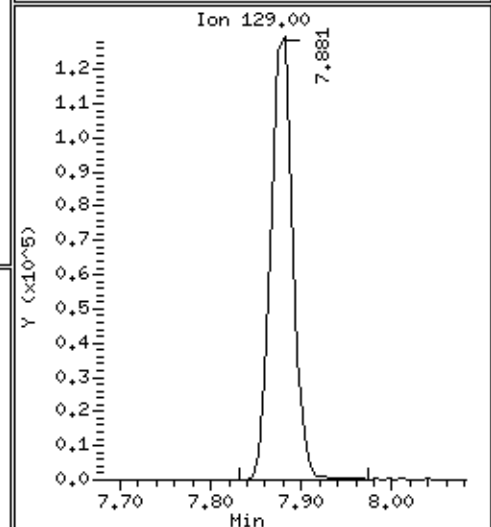
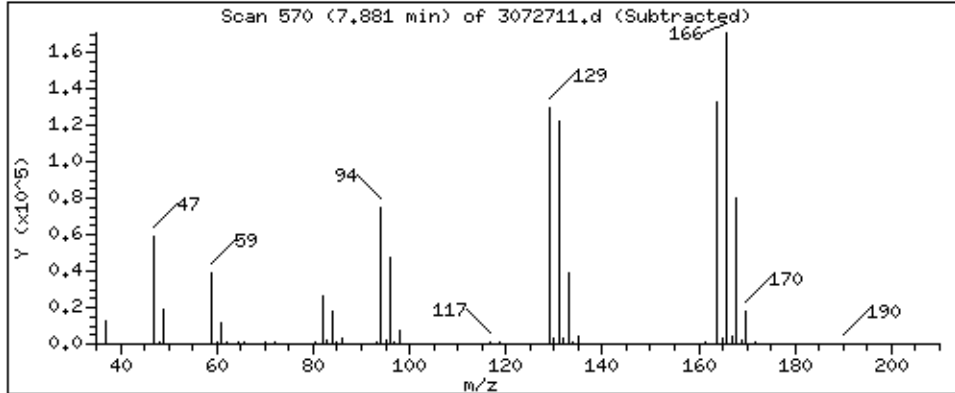
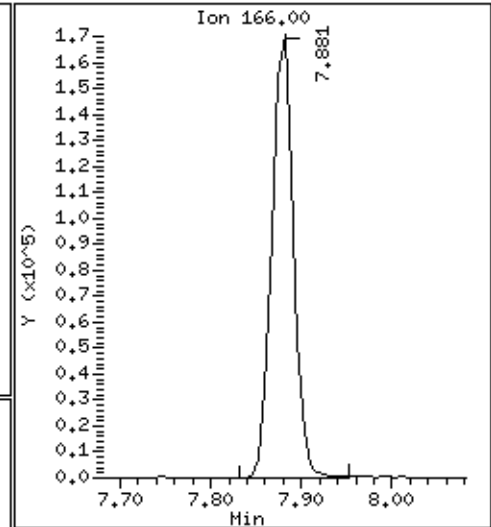
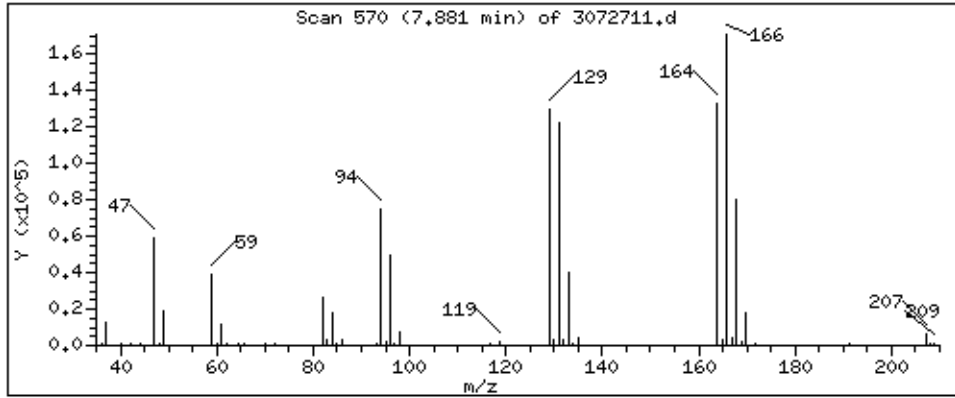
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 51,214 PPBV







Air Toxics

Client Sample ID: SG-VW23B-02

Lab ID#: 2107284-23A

EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>3072712</b>	<b>Date of Collection:</b>	<b>7/14/21 11:37:00 AM</b>
<b>Dil. Factor:</b>	<b>2.13</b>	<b>Date of Analysis:</b>	<b>7/27/21 06:00 PM</b>

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.3	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.3	8.8	12	24
1,2,3-Trichloropropane	4.3	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,2-Dibromo-3-chloropropane	4.3	Not Detected	41	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	12	Not Detected
2-Hexanone	4.3	Not Detected	17	Not Detected
2-Propanol	4.3	5.2	10	13
3-Chloropropene	4.3	Not Detected	13	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Acetone	11	Not Detected	25	Not Detected
Acrolein	4.3	Not Detected	9.8	Not Detected
Acrylonitrile	4.3	Not Detected	9.2	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.5	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
Bromodichloromethane	1.1	Not Detected	7.1	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	41	Not Detected
Carbon Disulfide	4.3	6.8	13	21
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Chloroform	1.1	Not Detected	5.2	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected



Air Toxics

Client Sample ID: SG-VW23B-02

Lab ID#: 2107284-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072712	Date of Collection:	7/14/21 11:37:00 AM
Dil. Factor:	2.13	Date of Analysis:	7/27/21 06:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
Cumene	1.1	Not Detected	5.2	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
Dibromomethane	4.3	Not Detected	30	Not Detected
Ethanol	11	Not Detected	20	Not Detected
Ethyl Acetate	4.3	Not Detected	15	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.3	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
Freon 114	1.1	Not Detected	7.4	Not Detected
Freon 134a	4.3	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Hexachlorobutadiene	4.3	Not Detected	45	Not Detected
Hexachloroethane	4.3	Not Detected	41	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
Iodomethane	11	Not Detected	62	Not Detected
Isopropyl ether	4.3	Not Detected	18	Not Detected
m,p-Xylene	1.1	Not Detected	4.6	Not Detected
Methyl tert-butyl ether	4.3	Not Detected	15	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected
Propylbenzene	1.1	Not Detected	5.2	Not Detected
Propylene	4.3	Not Detected	7.3	Not Detected
Styrene	1.1	Not Detected	4.5	Not Detected
tert-Amyl methyl ether	4.3	Not Detected	18	Not Detected
tert-Butyl alcohol	4.3	Not Detected	13	Not Detected
Tetrachloroethene	1.1	21	7.2	140
Tetrahydrofuran	1.1	Not Detected	3.1	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
TPH ref. to Gasoline (MW=100)	110	Not Detected	440	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
Trichloroethene	1.1	Not Detected	5.7	Not Detected
Vinyl Acetate	4.3	Not Detected	15	Not Detected
Vinyl Bromide	4.3	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW23B-02

Lab ID#: 2107284-23A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072712	Date of Collection: 7/14/21 11:37:00 AM
Dil. Factor:	2.13	Date of Analysis: 7/27/21 06:00 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	96	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/27JUL21.b/3072712.d  
Lab Smp Id: 2107284-23A  
Inj Date : 27-JUL-2021 18:00  
Operator : LD  
Smp Info : 200mL 34001086c1  
Misc Info : 6.3 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/27JUL21.b/321q0622a.m  
Meth Date : 27-Jul-2021 15:31 lk8g  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 3  
Dil Factor: 2.13000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	272846	25.0000	80.00- 120.00	100.00	
5.284	5.284	(1.000)	128	207325		48.46- 108.46	75.99	
5.284	5.270	(1.000)	49	382616		120.39- 180.39	140.23	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.180	6.180	(1.000)	114	912900	25.0000	80.00- 120.00	100.00	
6.166	6.180	(1.000)	88	129383		0.00- 45.52	14.17	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.619	8.612	(1.000)	117	798407	25.0000	80.00- 120.00	100.00	
8.612	8.612	(1.000)	82	420147		25.46- 85.46	52.62	
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	369189	24.5880	24.588 80.00- 120.00	100.00	
5.816	5.816	(1.101)	67	177356		21.66- 81.66	48.04	
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.195)	98	907463	24.1341	24.134 80.00- 120.00	100.00	
7.387	7.387	(1.195)	70	102211		0.00- 41.47	11.26	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	595492			36.47- 96.47	65.62
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.114)	174	504370	23.8831	23.883	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	566011			93.06- 153.06	112.22
9.601	9.601	(1.114)	176	463550			62.87- 122.87	91.91
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.451	1.437	(0.274)	65	17725	4.12587	8.788	80.00- 120.00	100.00
1.492	1.479	(0.282)	51	132277			321.86- 381.86	746.27
1.465	1.451	(0.277)	47	10454			45.34- 105.34	58.98
-----								
48 Carbon Disulfide								
						CAS #: 75-15-0		
3.311	3.298	(0.627)	76	66232	3.21487	6.848	80.00- 120.00	100.00
-----								
52 2-Propanol								
						CAS #: 67-63-0		
3.423	3.409	(0.648)	45	40579	2.46627	5.253	80.00- 120.00	100.00
3.423	3.395	(0.648)	43	8950			0.00- 48.61	22.06
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.881	7.881	(0.914)	166	122360	9.78257	20.837	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	94001			48.71- 108.71	76.82
7.881	7.874	(0.914)	131	91429			46.55- 106.55	74.72
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072712.d  
Lab Smp Id: 2107284-23A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: 6.3 Hg->10 psi

Calibration Date: 27-JUL-2021  
Calibration Time: 11:36  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	238986	143392	334580	272846	14.17
108 1,4-Difluorobenze	785289	471173	1099405	912900	16.25
153 Chlorobenzene-d5	683596	410158	957034	798407	16.80

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	-0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 27JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-23A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: 6.3 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.588	98.35	70-130
\$ 134 Toluene-d8	25.000	24.134	96.54	70-130
\$ 170 4-Bromofluorobenz	25.000	23.883	95.53	70-130

Date : 27-JUL-2021 18:00

Client ID:

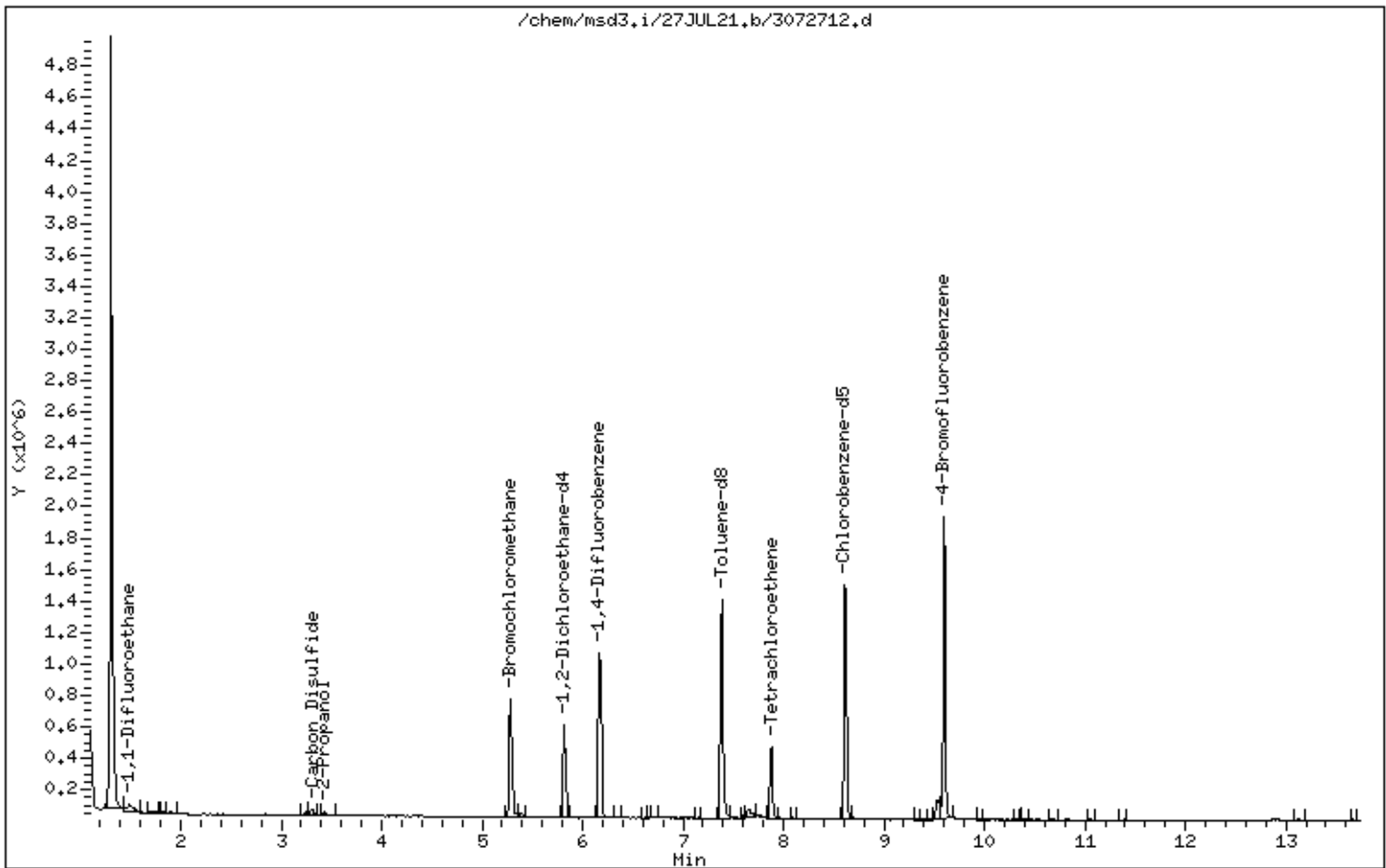
Instrument: msd3,i

Sample Info: 200mL 34001086c1

Operator: LD

Column phase: RTX-624

Column diameter: 0.25





Date : 27-JUL-2021 18:00

Client ID:

Instrument: msd3,i

Sample Info: 200mL 34001086c1

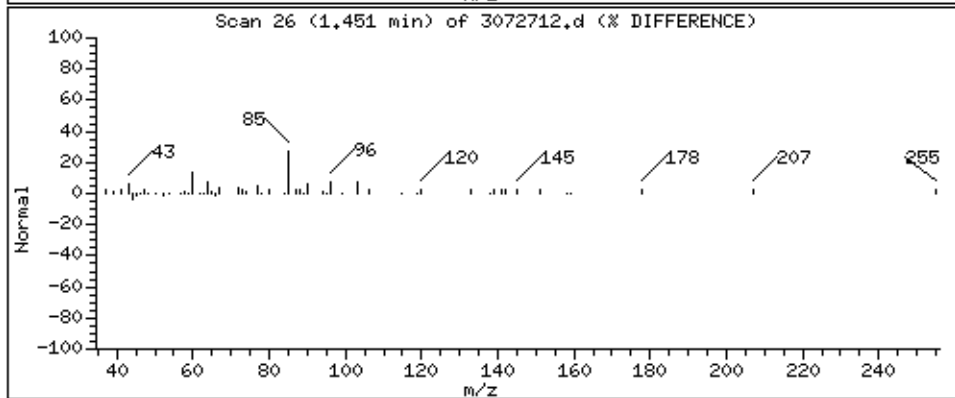
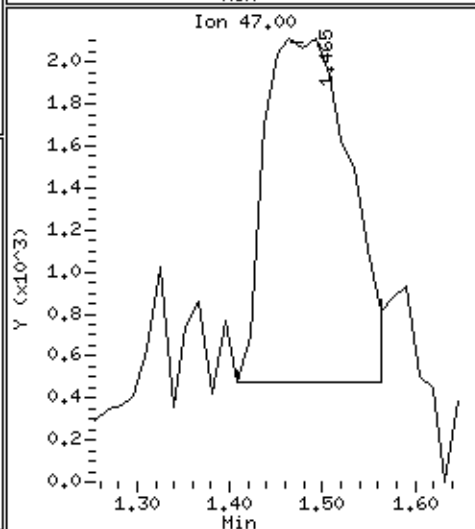
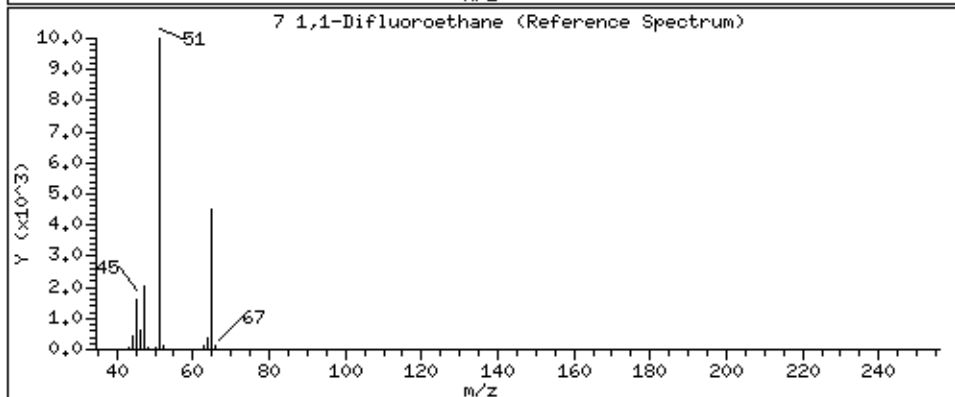
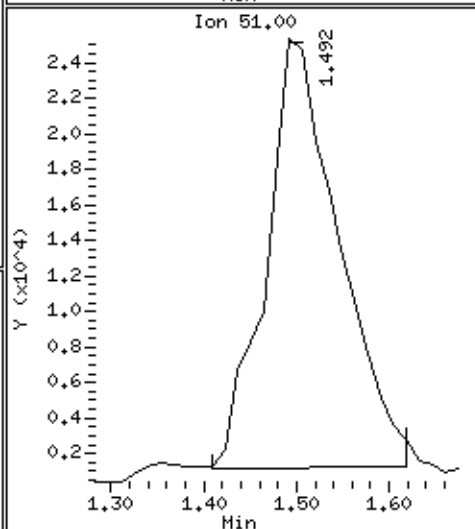
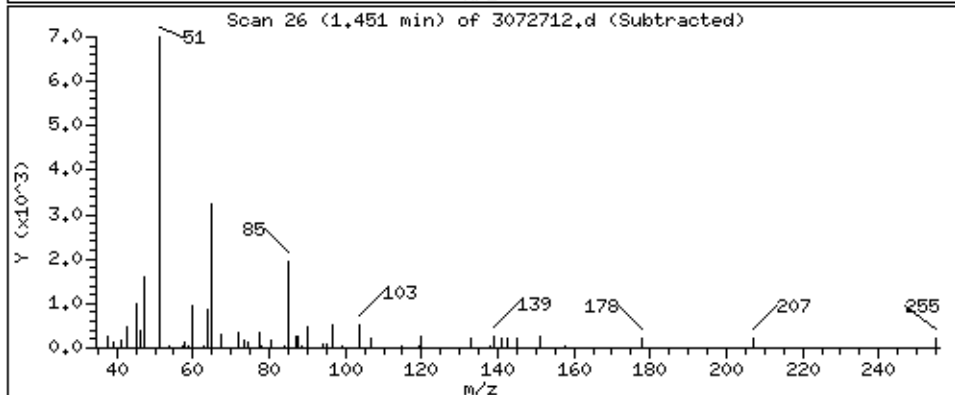
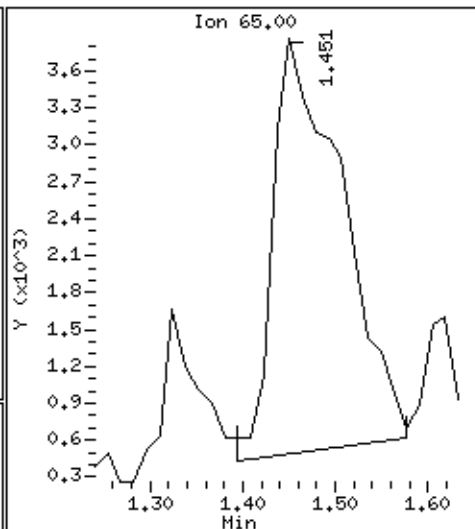
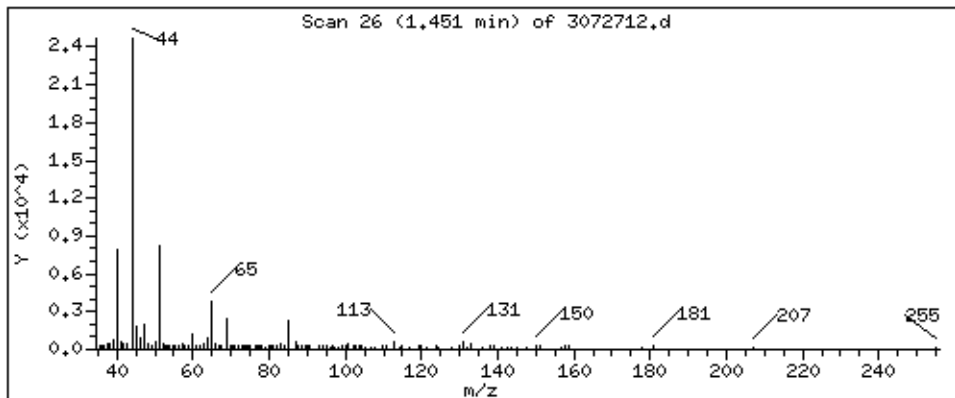
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 8.788 PPBV



Date : 27-JUL-2021 18:00

Client ID:

Instrument: msd3,i

Sample Info: 200mL 34001086c1

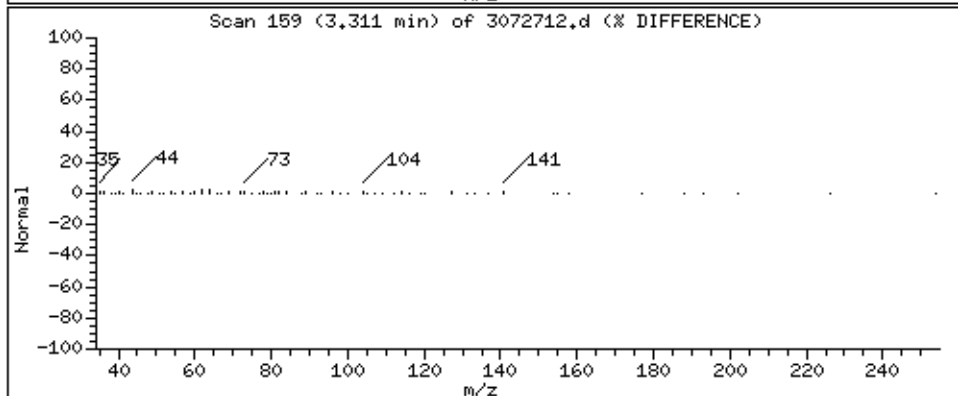
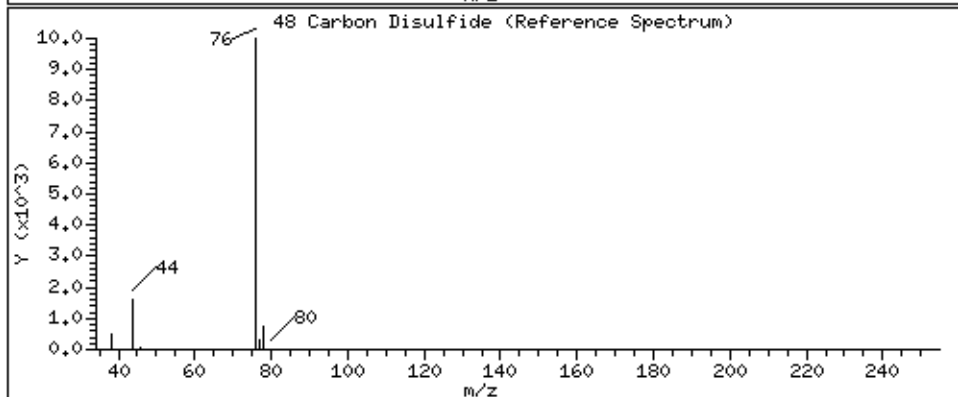
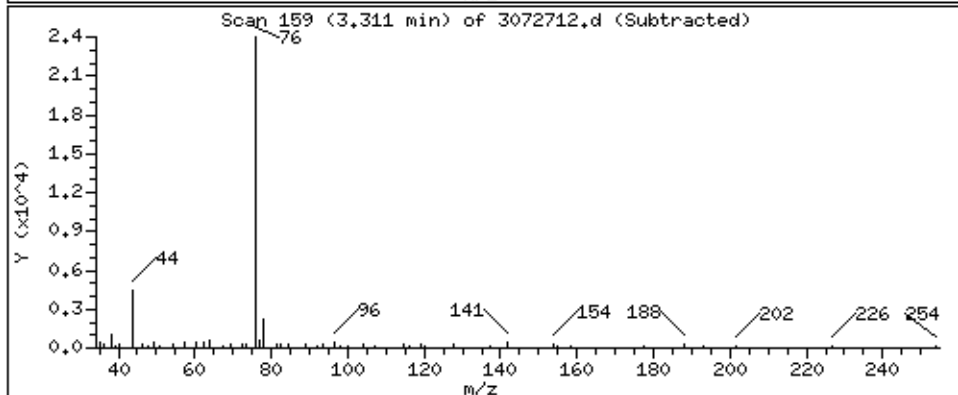
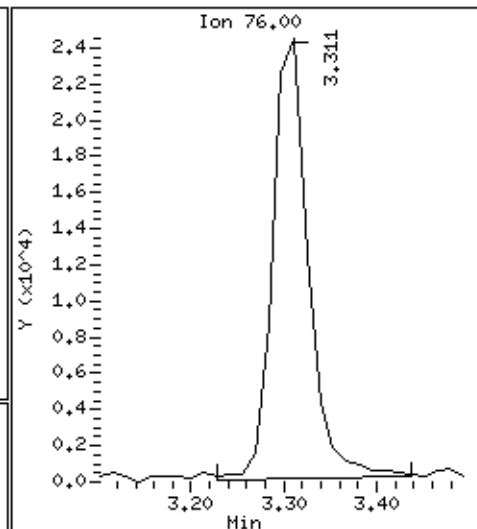
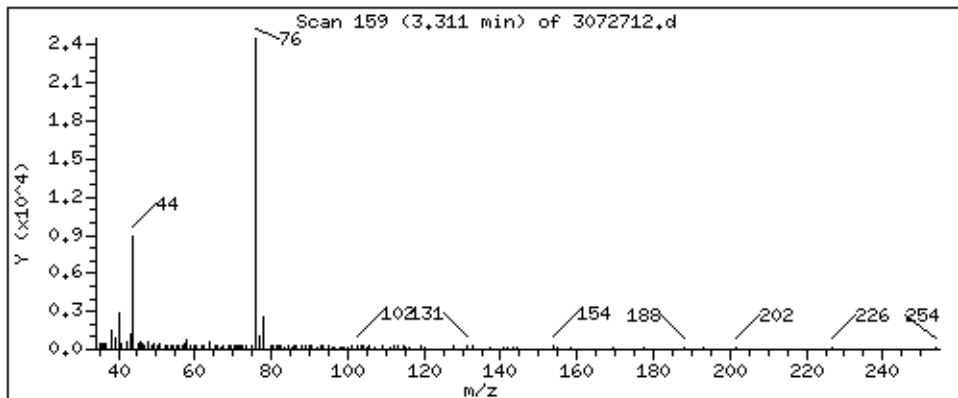
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

48 Carbon Disulfide

Concentration: 6.848 PPBV



Date : 27-JUL-2021 18:00

Client ID:

Instrument: msd3,i

Sample Info: 200mL 34001086c1

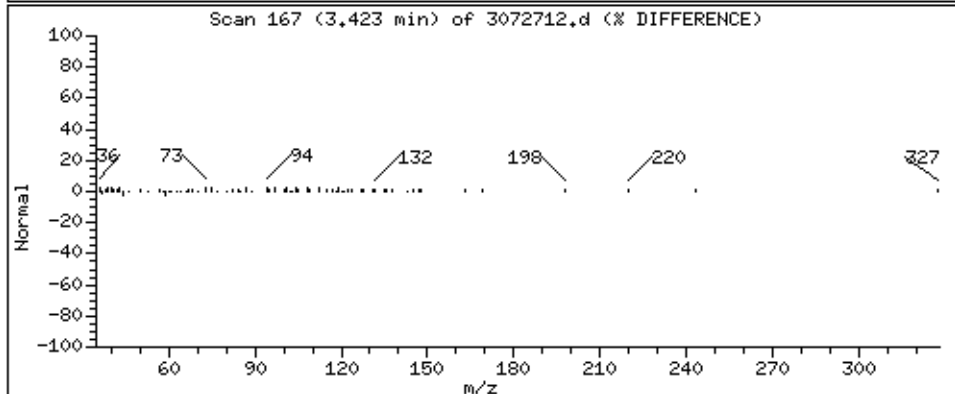
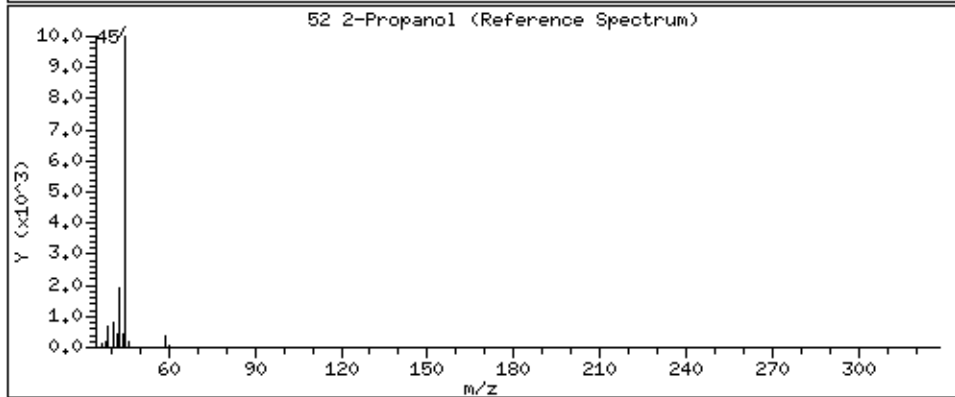
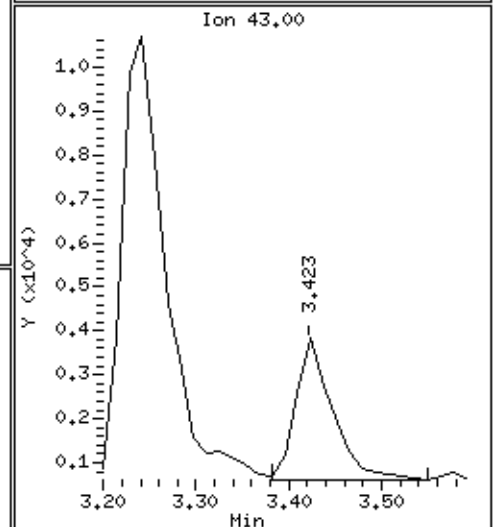
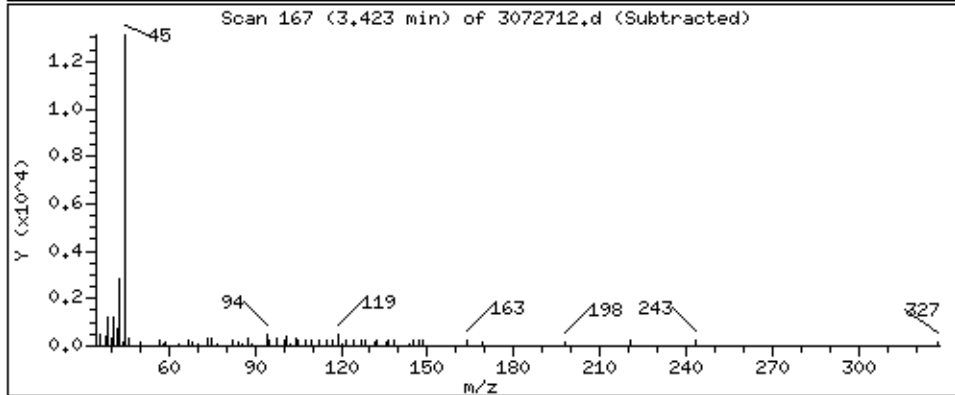
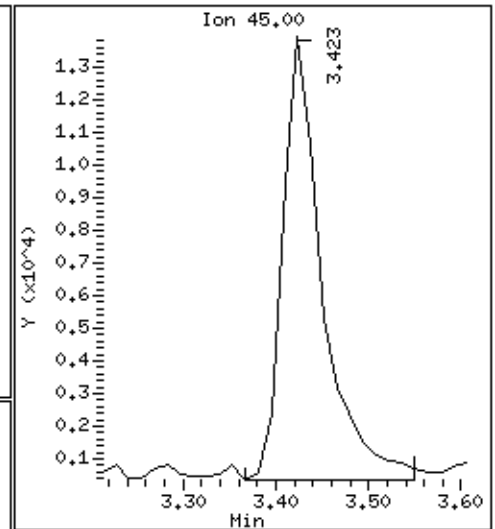
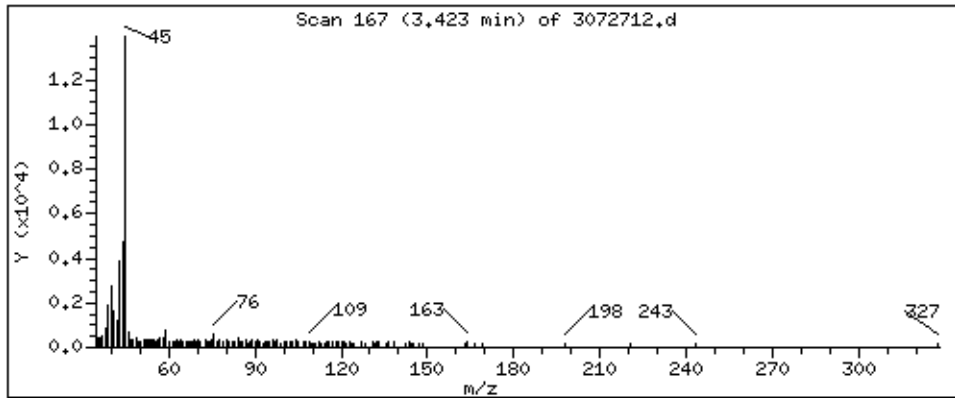
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 5.253 PPBV



Date : 27-JUL-2021 18:00

Client ID:

Instrument: msd3,i

Sample Info: 200mL 34001086c1

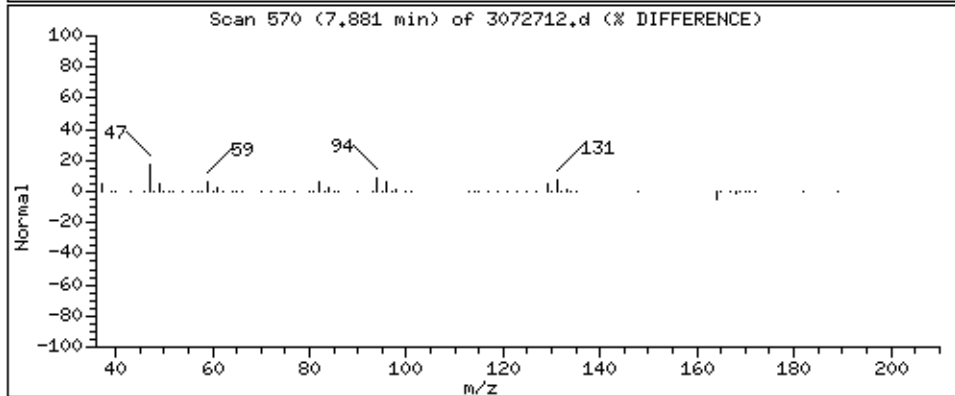
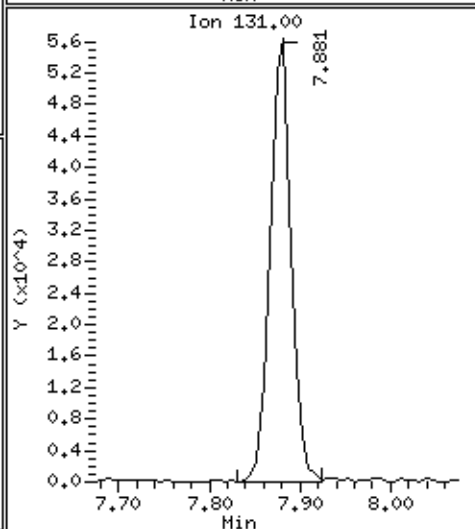
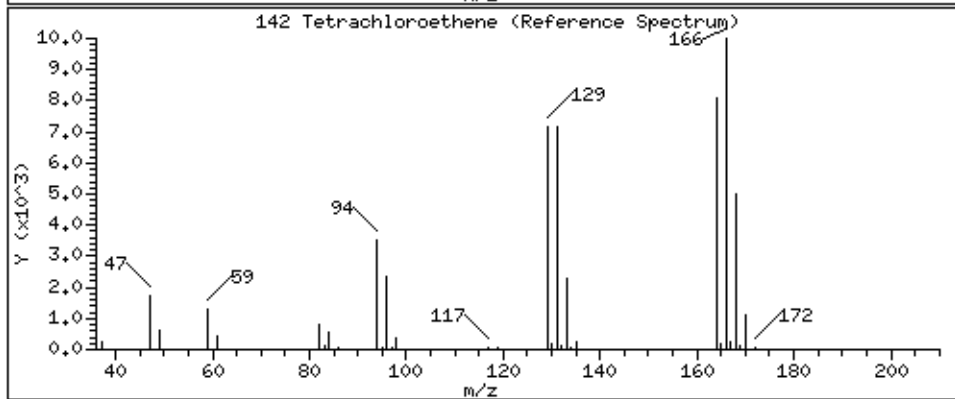
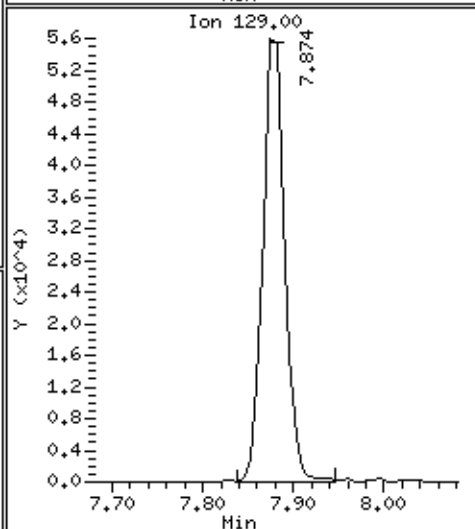
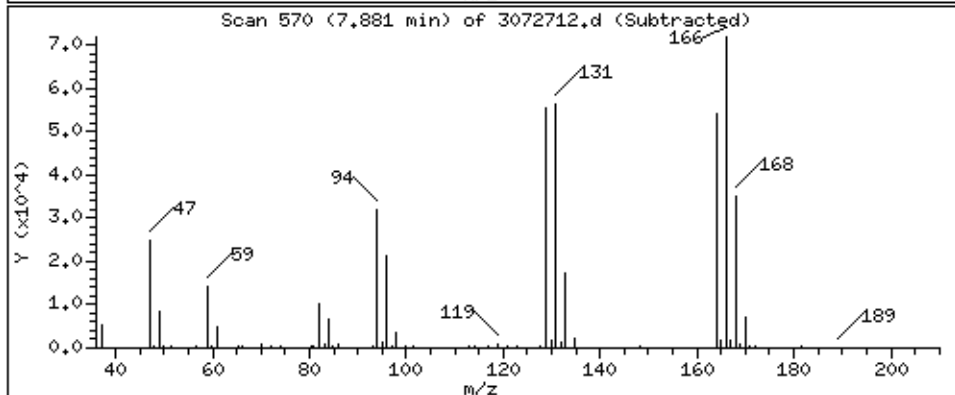
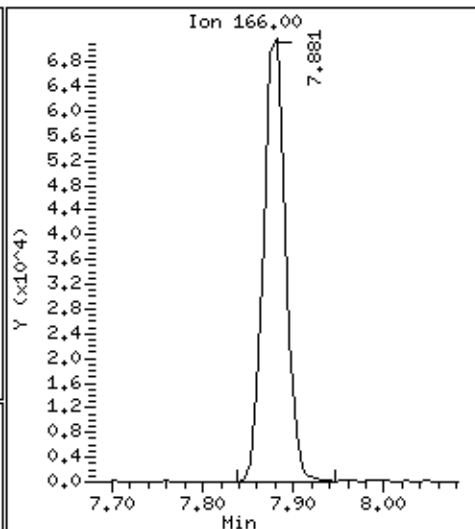
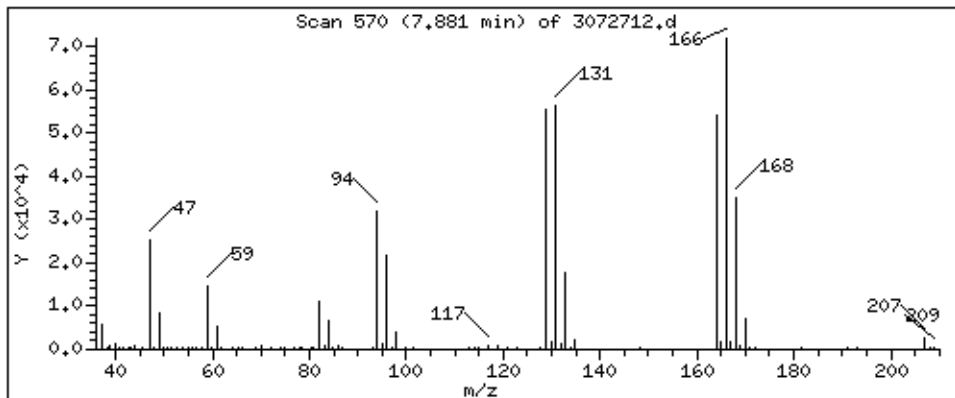
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 20,837 PPBV



Client Sample ID: SG-VW22A-02

Lab ID#: 2107284-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072713	Date of Collection:	7/14/21 12:40:00 PM
Dil. Factor:	2.18	Date of Analysis:	7/27/21 06:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.4	Not Detected	30	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.5	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1-Difluoroethane	4.4	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.4	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	1.1	3.2	5.4	16
1,2-Dibromo-3-chloropropane	4.4	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.4	Not Detected	13	Not Detected
2-Hexanone	4.4	Not Detected	18	Not Detected
2-Propanol	4.4	4.3 J	11	11 J
3-Chloropropene	4.4	Not Detected	14	Not Detected
4-Ethyltoluene	1.1	2.7	5.4	13
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
Acetone	11	Not Detected	26	Not Detected
Acrolein	4.4	Not Detected	10	Not Detected
Acrylonitrile	4.4	Not Detected	9.5	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.6	Not Detected
Benzene	1.1	Not Detected	3.5	Not Detected
Bromodichloromethane	1.1	Not Detected	7.3	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Carbon Disulfide	4.4	Not Detected	14	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.0	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
Chloroform	1.1	2.4	5.3	12
Chloromethane	11	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected

Client Sample ID: SG-VW22A-02

Lab ID#: 2107284-24A

EPA METHOD TO-15 GC/MS FULL SCAN

<b>File Name:</b>	<b>3072713</b>	<b>Date of Collection:</b>	<b>7/14/21 12:40:00 PM</b>
<b>Dil. Factor:</b>	<b>2.18</b>	<b>Date of Analysis:</b>	<b>7/27/21 06:29 PM</b>

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
Cumene	1.1	Not Detected	5.4	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Dibromochloromethane	1.1	Not Detected	9.3	Not Detected
Dibromomethane	4.4	Not Detected	31	Not Detected
Ethanol	11	Not Detected	20	Not Detected
Ethyl Acetate	4.4	Not Detected	16	Not Detected
Ethyl Benzene	1.1	1.5	4.7	6.5
Ethyl-tert-butyl ether	4.4	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.1	Not Detected
Freon 12	1.1	Not Detected	5.4	Not Detected
Freon 113	1.1	Not Detected	8.4	Not Detected
Freon 114	1.1	Not Detected	7.6	Not Detected
Freon 134a	4.4	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.5	Not Detected
Hexachlorobutadiene	4.4	Not Detected	46	Not Detected
Hexachloroethane	4.4	Not Detected	42	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
Iodomethane	11	Not Detected	63	Not Detected
Isopropyl ether	4.4	Not Detected	18	Not Detected
m,p-Xylene	1.1	4.2	4.7	18
Methyl tert-butyl ether	4.4	Not Detected	16	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
Naphthalene	2.2	Not Detected	11	Not Detected
o-Xylene	1.1	2.4	4.7	10
Propylbenzene	1.1	Not Detected	5.4	Not Detected
Propylene	4.4	Not Detected	7.5	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
tert-Amyl methyl ether	4.4	Not Detected	18	Not Detected
tert-Butyl alcohol	4.4	Not Detected	13	Not Detected
Tetrachloroethene	1.1	17	7.4	110
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Toluene	1.1	6.9	4.1	26
TPH ref. to Gasoline (MW=100)	110	Not Detected	440	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
Trichloroethene	1.1	1.2	5.8	6.7
Vinyl Acetate	4.4	Not Detected	15	Not Detected
Vinyl Bromide	4.4	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected

Client Sample ID: SG-VW22A-02

Lab ID#: 2107284-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072713	Date of Collection: 7/14/21 12:40:00 PM
Dil. Factor:	2.18	Date of Analysis: 7/27/21 06:29 PM

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	94	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/27JUL21.b/3072713.d  
Lab Smp Id: 2107284-24A  
Inj Date : 27-JUL-2021 18:29  
Operator : LD  
Smp Info : 200mL N2619  
Misc Info : 6.9 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/27JUL21.b/321q0622a.m  
Meth Date : 27-Jul-2021 15:31 lk8g  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 4  
Dil Factor: 2.18000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.284	5.284	(1.000)	130	253230	25.0000	80.00- 120.00	100.00		
5.284	5.284	(1.000)	128	195260		48.46- 108.46	77.11		
5.270	5.270	(1.000)	49	362944		120.39- 180.39	143.33		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.166	6.180	(1.000)	114	829096	25.0000	80.00- 120.00	100.00		
6.166	6.180	(1.000)	88	121048		0.00- 45.52	14.60		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
8.612	8.612	(1.000)	117	762549	25.0000	80.00- 120.00	100.00		
8.612	8.612	(1.000)	82	395329		25.46- 85.46	51.84		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
5.816	5.816	(1.101)	65	332906	23.8890	23.889 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	161341		21.66- 81.66	48.46		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.387	7.387	(1.198)	98	828366	24.2574	24.257 80.00- 120.00	100.00		
7.387	7.387	(1.198)	70	90867		0.00- 41.47	10.97		



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.387	7.387	(1.198)	100	548351			36.47- 96.47	66.20
-----								
§ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	473047	23.4533	23.453	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	538353			93.06- 153.06	113.81
9.601	9.601	(1.115)	176	433585			62.87- 122.87	91.66
-----								
52 2-Propanol								
						CAS #: 67-63-0		
3.466	3.409	(0.656)	45	30216	1.97870	4.314	80.00- 120.00	100.00(a)
3.466	3.395	(0.656)	43	6989			0.00- 48.61	23.13
-----								
92 Chloroform								
						CAS #: 67-66-3		
5.340	5.340	(1.011)	83	17412	1.09669	2.391	80.00- 120.00	100.00
5.340	5.340	(1.011)	85	11524			34.71- 94.71	66.18
-----								
111 Trichloroethene								
						CAS #: 79-01-6		
6.362	6.362	(1.032)	95	5431	0.57219	1.247	80.00- 120.00	100.00
6.362	6.362	(1.032)	130	5503			74.96- 134.96	101.32
6.362	6.362	(1.032)	97	3656			34.80- 94.80	67.31
-----								
137 Toluene								
						CAS #: 108-88-3		
7.437	7.437	(1.206)	91	79962	3.14980	6.866	80.00- 120.00	100.00
7.437	7.437	(1.206)	92	46795			28.30- 88.30	58.52
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.874	7.881	(0.914)	166	91804	7.68479	16.753	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	70420			48.71- 108.71	76.71
7.874	7.874	(0.914)	131	69843			46.55- 106.55	76.08
-----								
155 Ethyl Benzene								
						CAS #: 100-41-4		
8.691	8.684	(1.009)	106	7169	0.68791	1.500	80.00- 120.00	100.00
8.684	8.684	(1.008)	91	21246			282.48- 342.48	296.34
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
8.784	8.784	(1.020)	106	24732	1.90757	4.158	80.00- 120.00	100.00
8.784	8.784	(1.020)	91	50121			171.36- 231.36	202.65
-----								
164 o-Xylene								
						CAS #: 95-47-6		
9.121	9.121	(1.059)	106	13551	1.10096	2.400	80.00- 120.00	100.00
9.121	9.121	(1.059)	91	25866			179.99- 239.99	190.87
-----								
183 4-Ethyltoluene								
						CAS #: 622-96-8		
9.830	9.851	(1.141)	120	14409	1.22426	2.669	80.00- 120.00	100.00
9.830	9.851	(1.141)	105	44854			296.79- 356.79	311.28
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
190	1,2,4-Trimethylbenzene					CAS #: 95-63-6		
10.224	10.224	(1.187)	105	47272	1.45020	3.161	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	22661			16.58- 76.58	47.94

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072713.d  
 Lab Smp Id: 2107284-24A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
 Misc Info: 6.9 Hg->10 psi

Calibration Date: 27-JUL-2021  
 Calibration Time: 11:36  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	238986	143392	334580	253230	5.96
108 1,4-Difluorobenze	785289	471173	1099405	829096	5.58
153 Chlorobenzene-d5	683596	410158	957034	762549	11.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 27JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-24A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: 6.9 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	23.889	95.56	70-130
\$ 134 Toluene-d8	25.000	24.257	97.03	70-130
\$ 170 4-Bromofluorobenz	25.000	23.453	93.81	70-130

Date : 27-JUL-2021 18:29

Client ID:

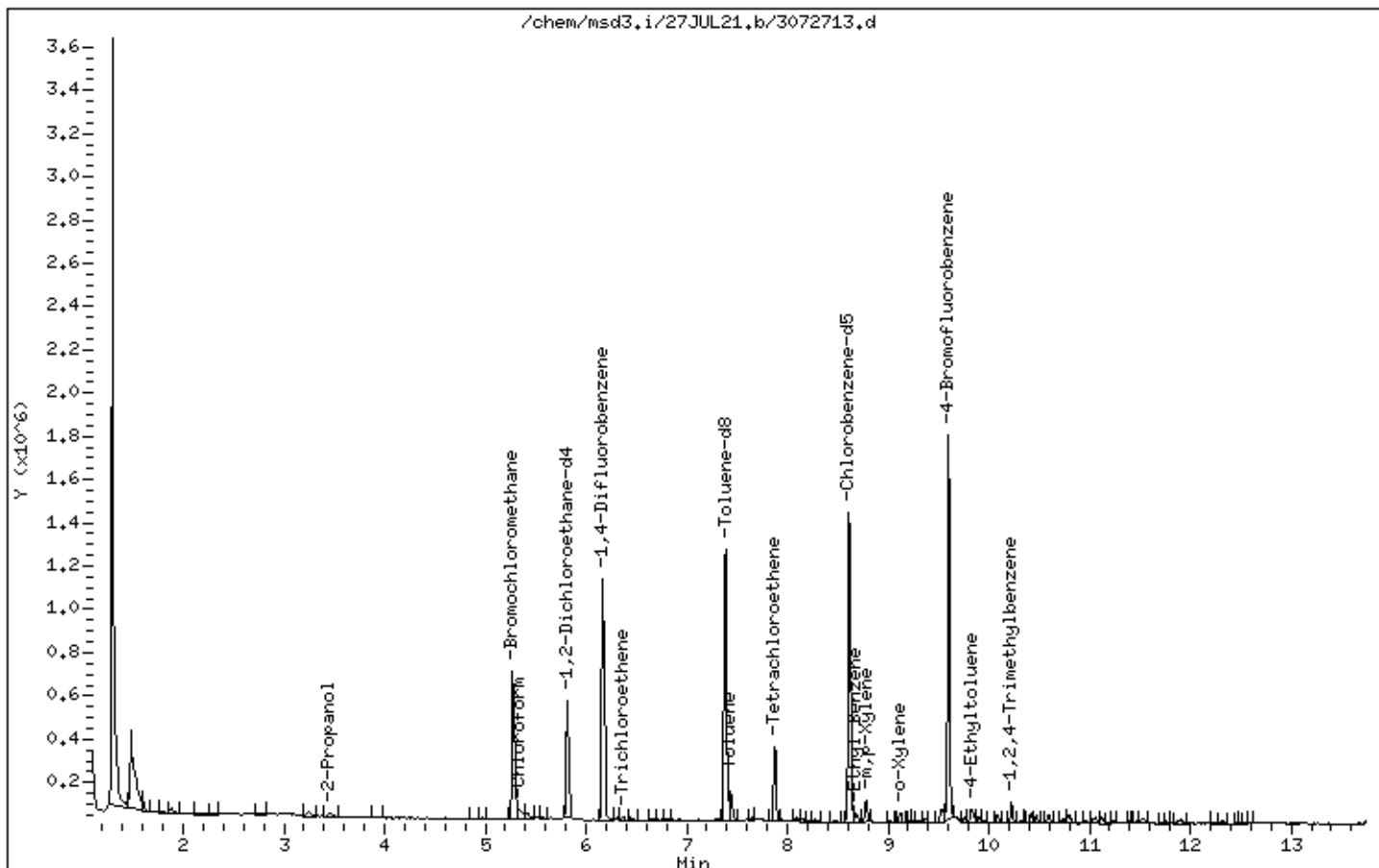
Instrument: msd3,i

Sample Info: 200mL N2619

Operator: LD

Column phase: RTX-624

Column diameter: 0,25



Date : 27-JUL-2021 18:29

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2619

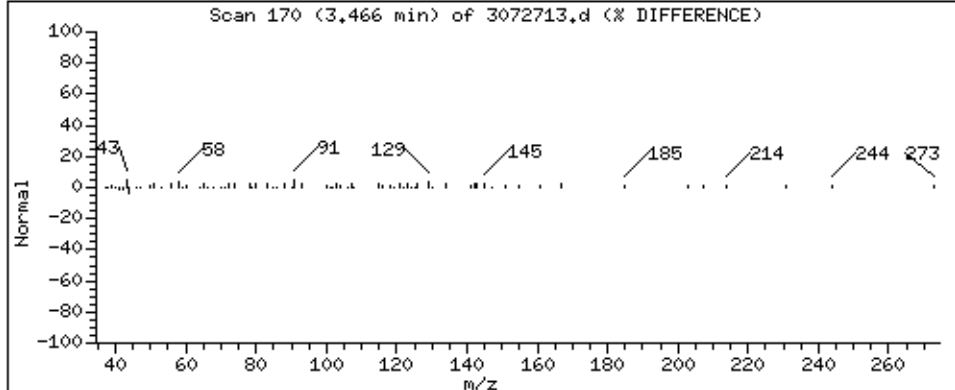
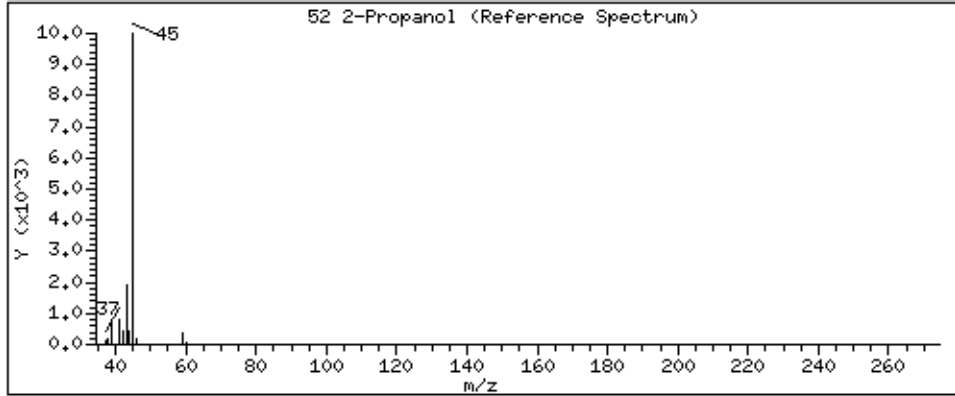
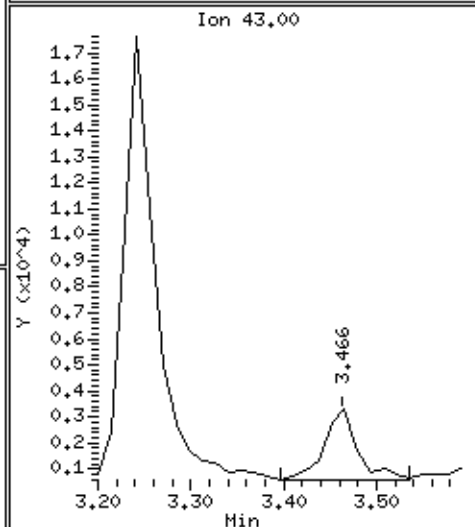
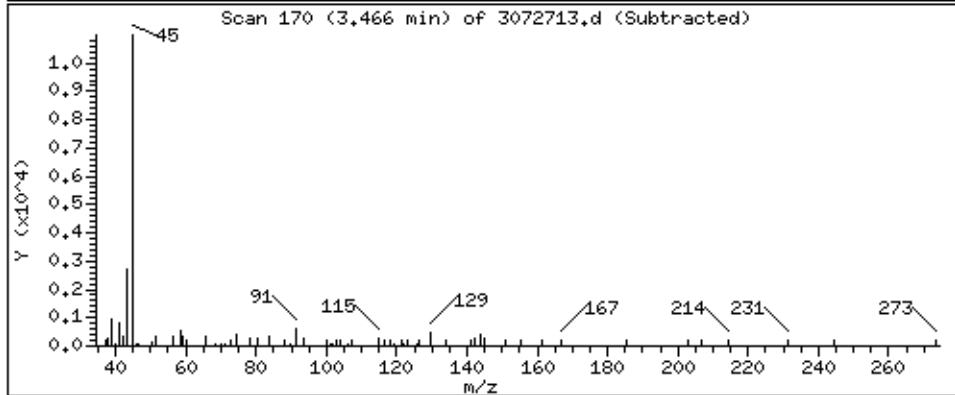
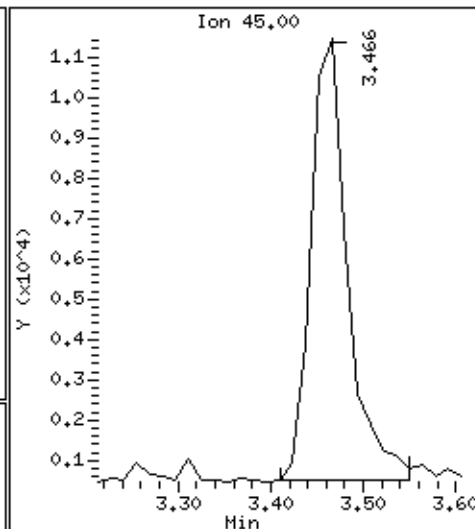
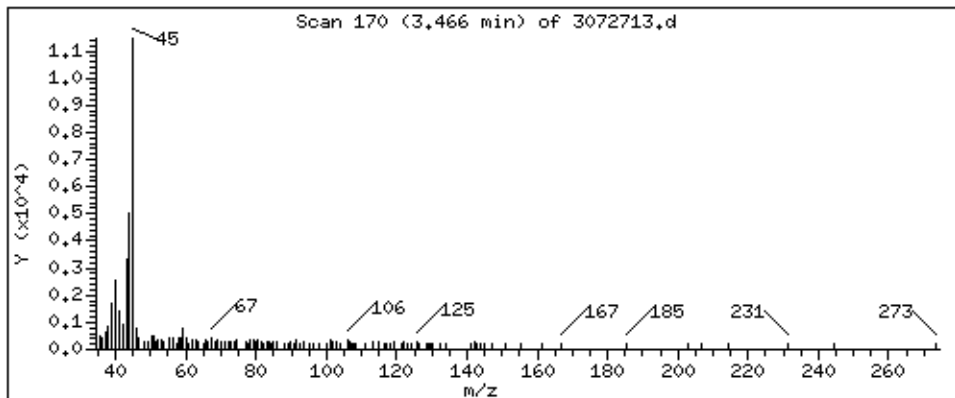
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 4.314 PPBV



Date : 27-JUL-2021 18:29

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2619

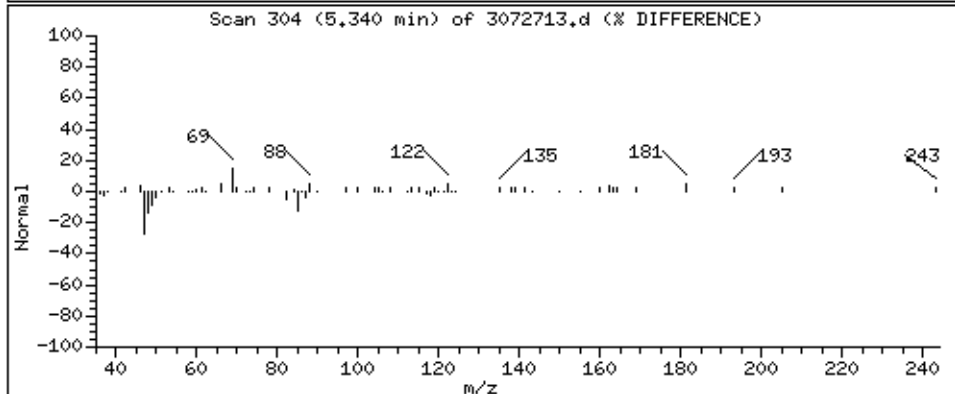
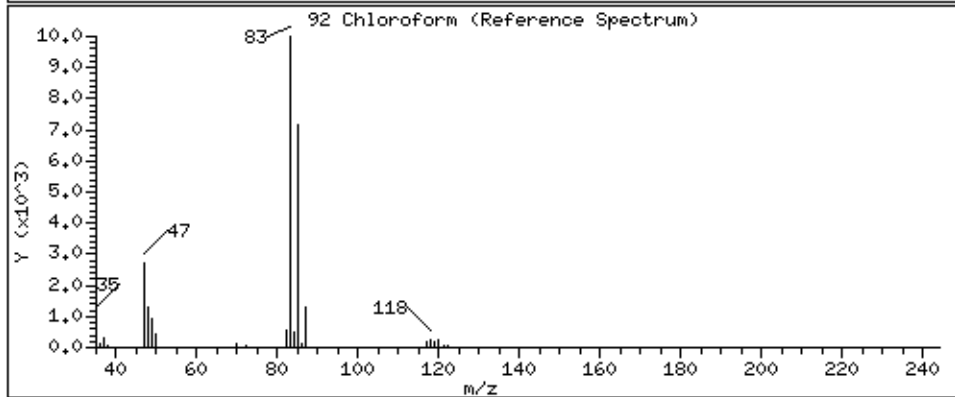
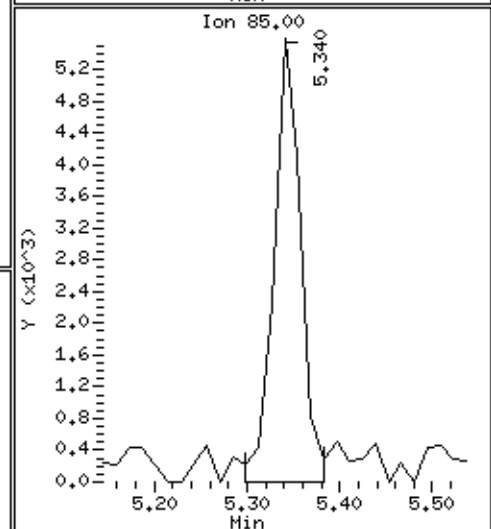
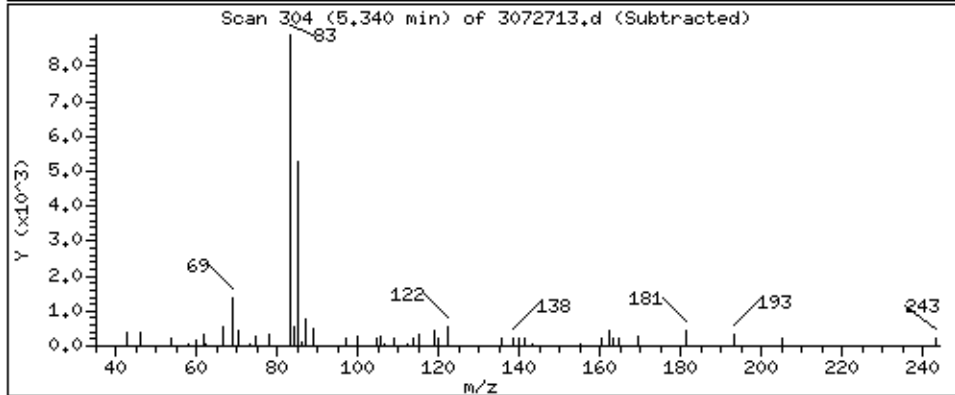
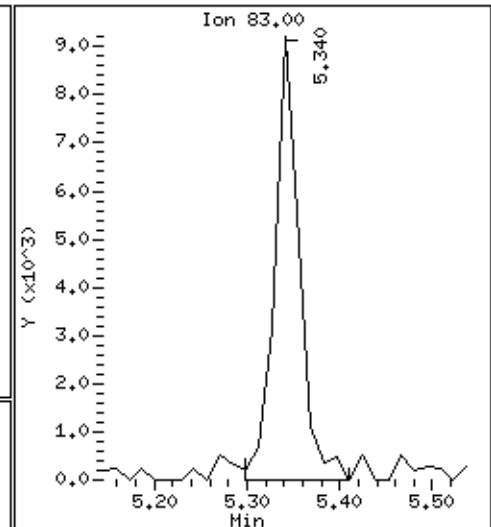
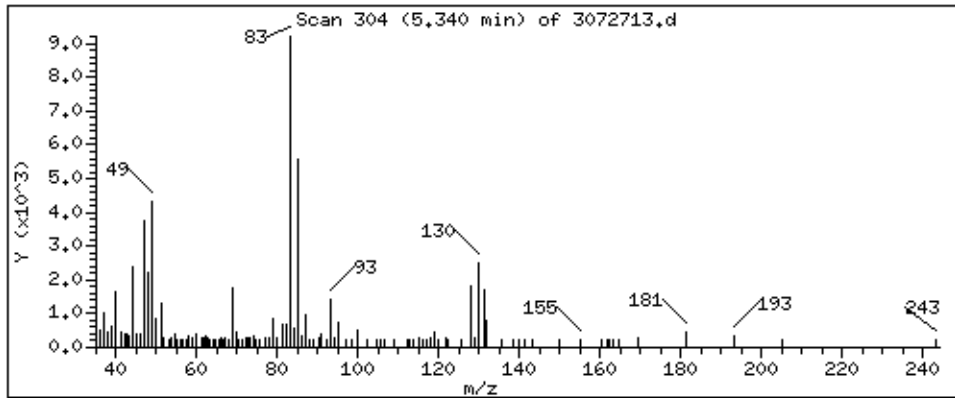
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 2,391 PPBV



Date : 27-JUL-2021 18:29

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2619

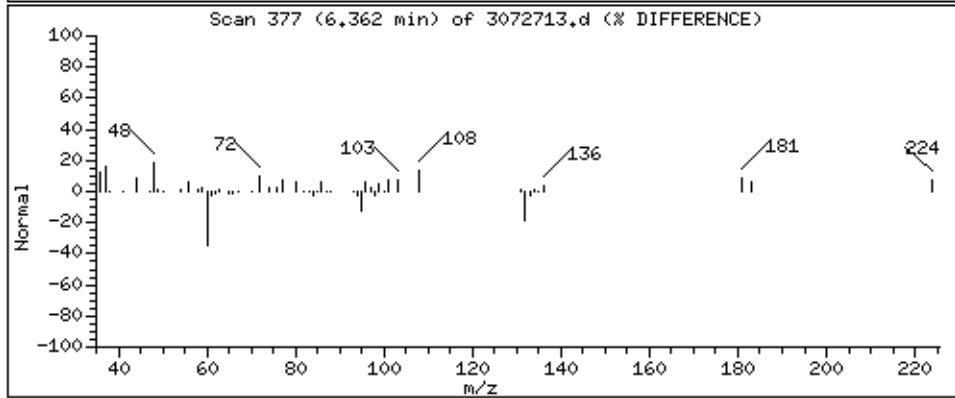
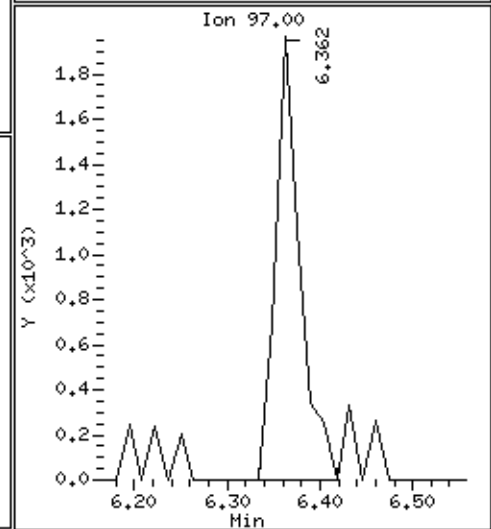
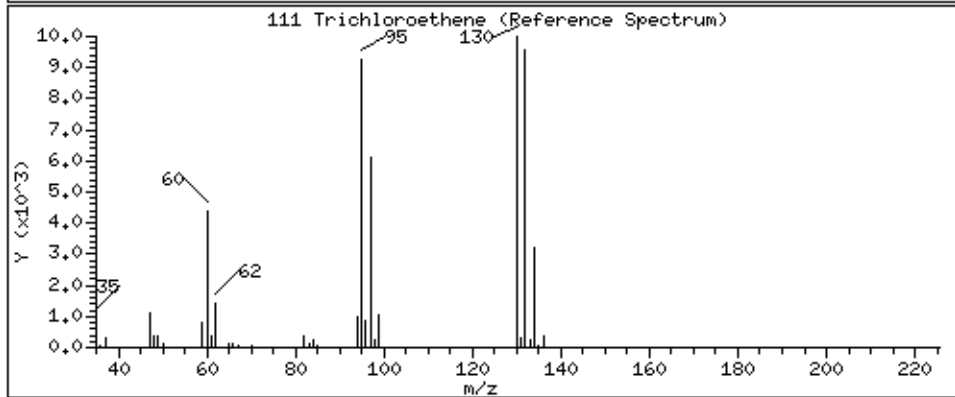
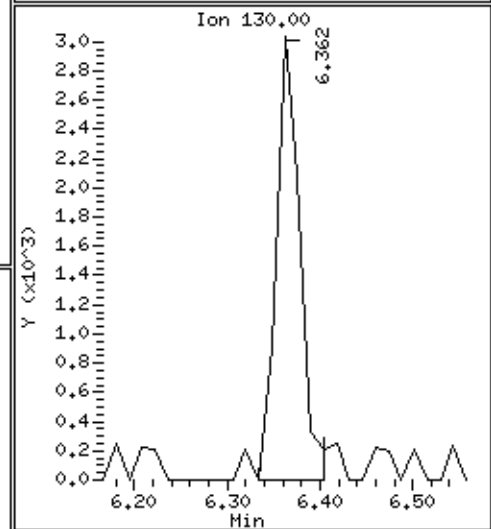
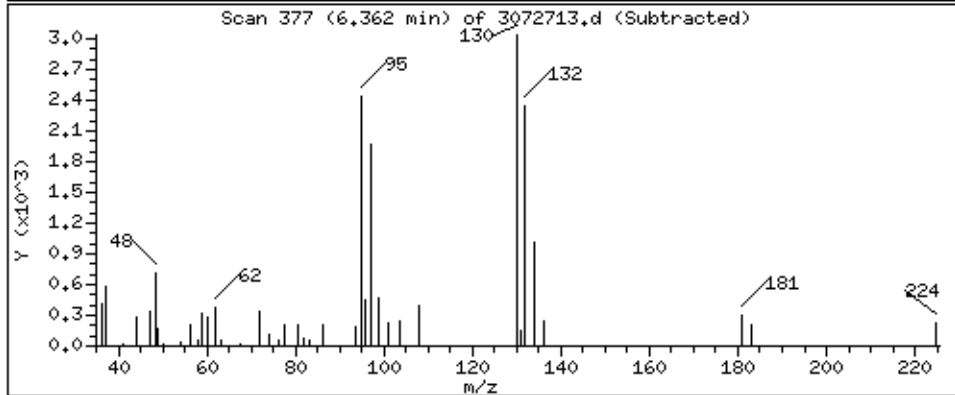
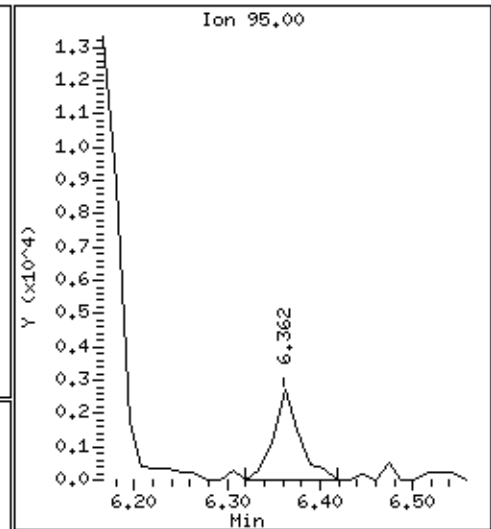
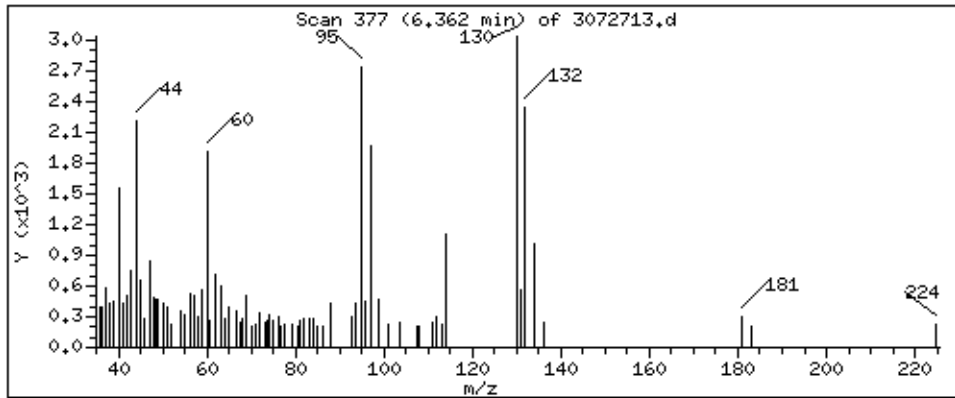
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

111 Trichloroethene

Concentration: 1,247 PPBV





Date : 27-JUL-2021 18:29

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2619

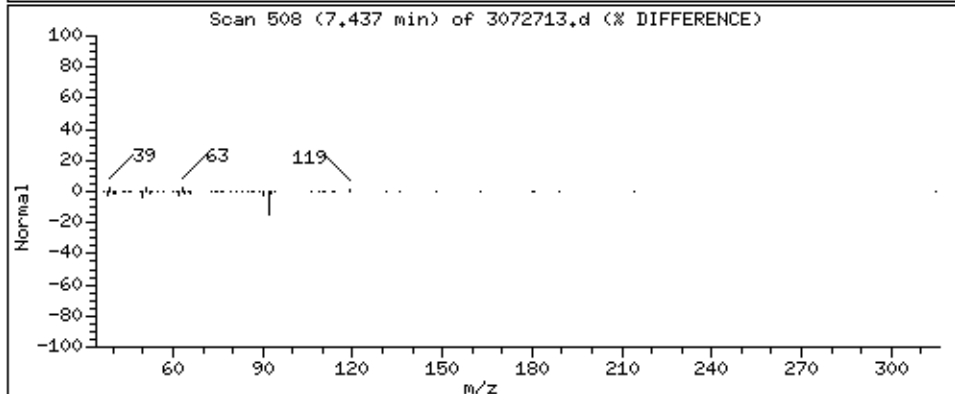
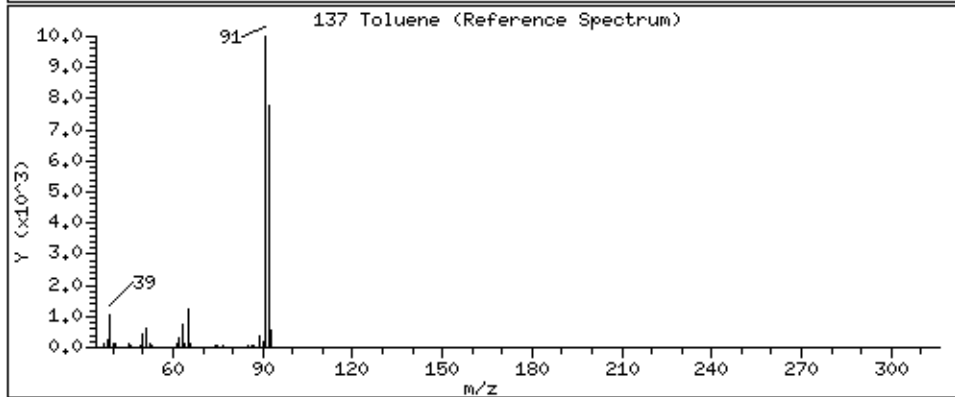
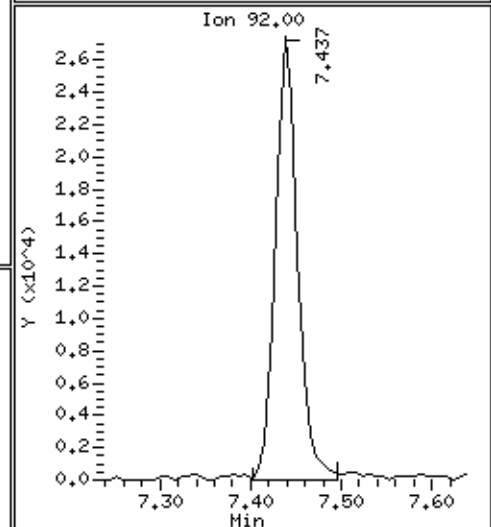
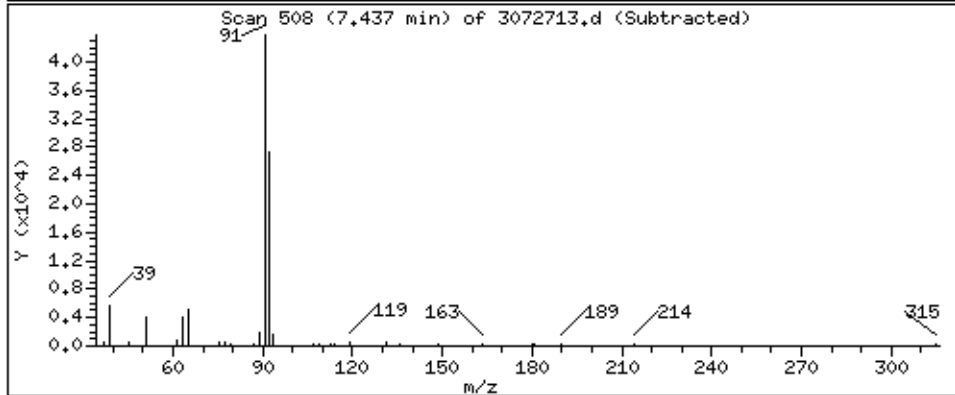
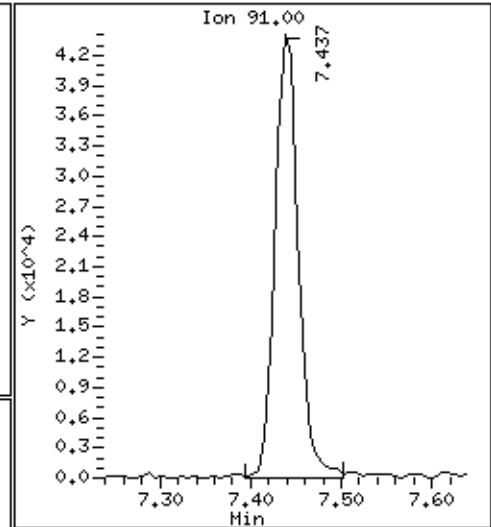
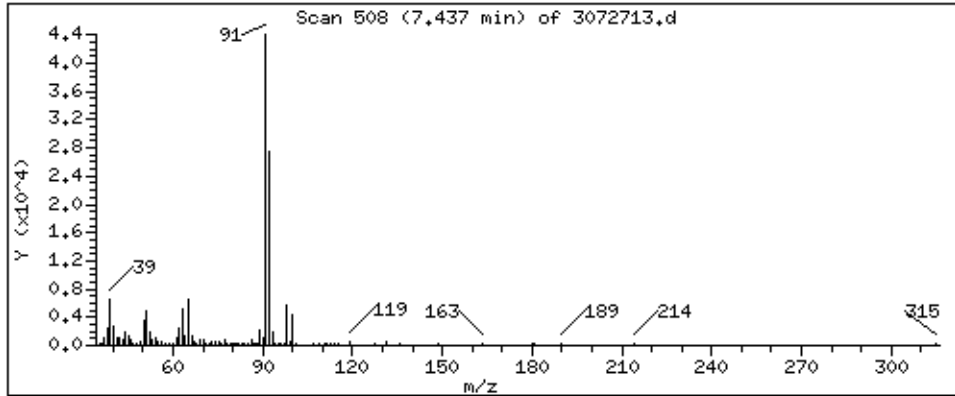
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 6.866 PPBV



Date : 27-JUL-2021 18:29

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2619

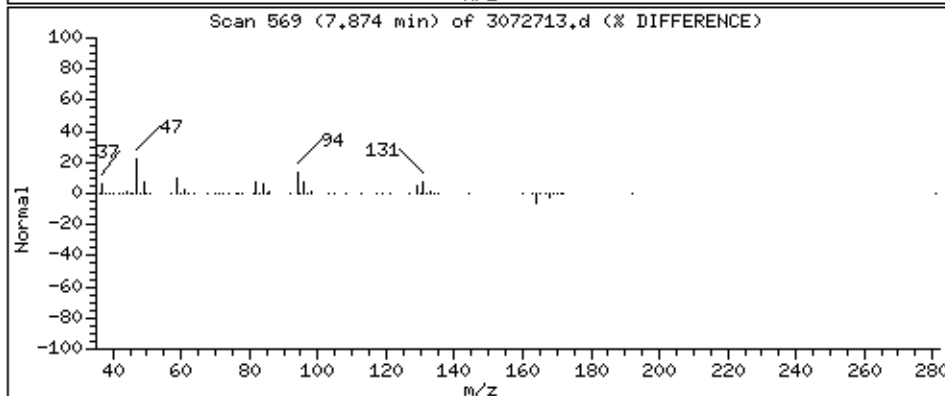
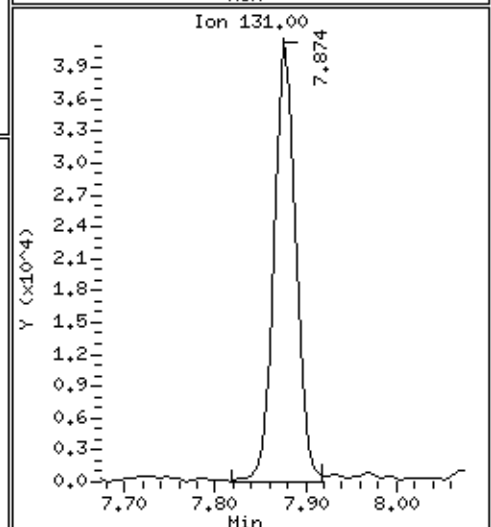
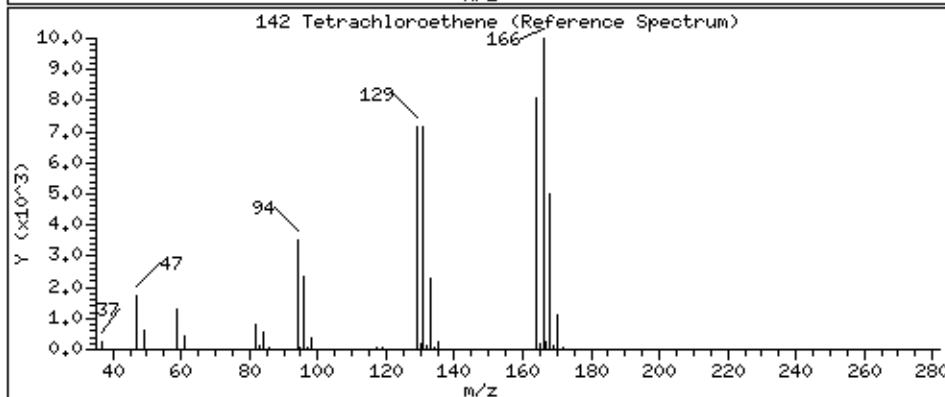
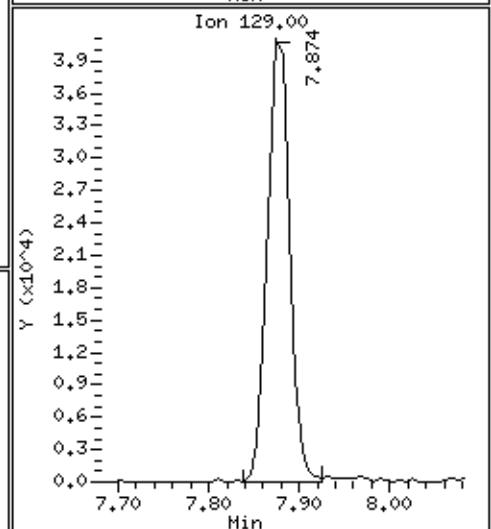
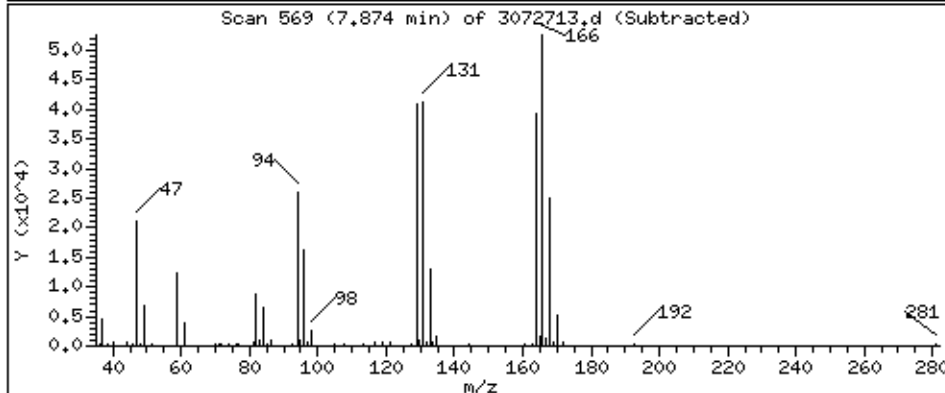
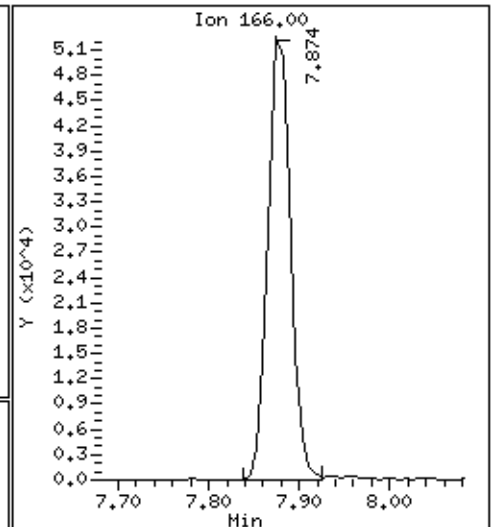
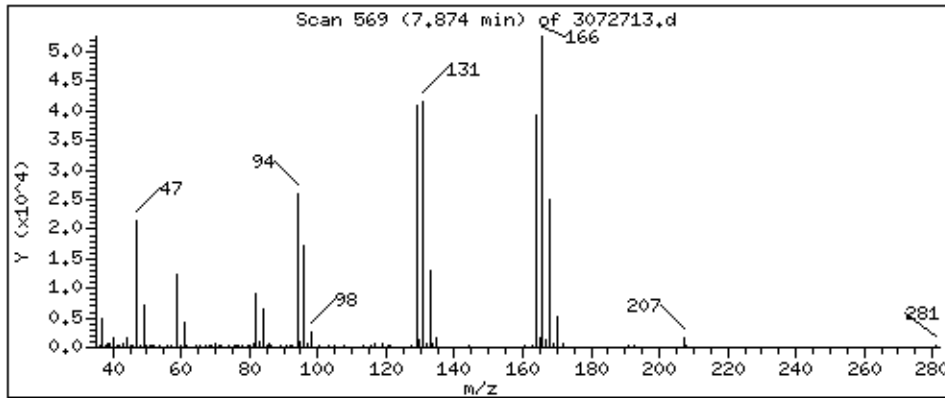
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 16,753 PPBV



Date : 27-JUL-2021 18:29

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2619

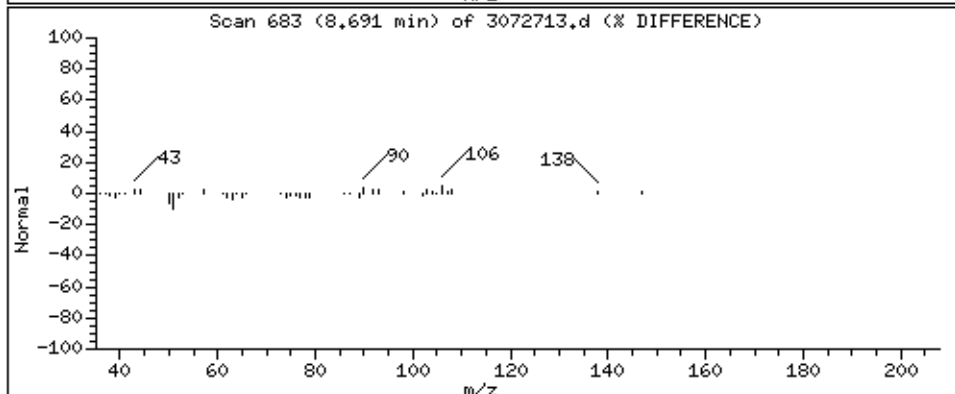
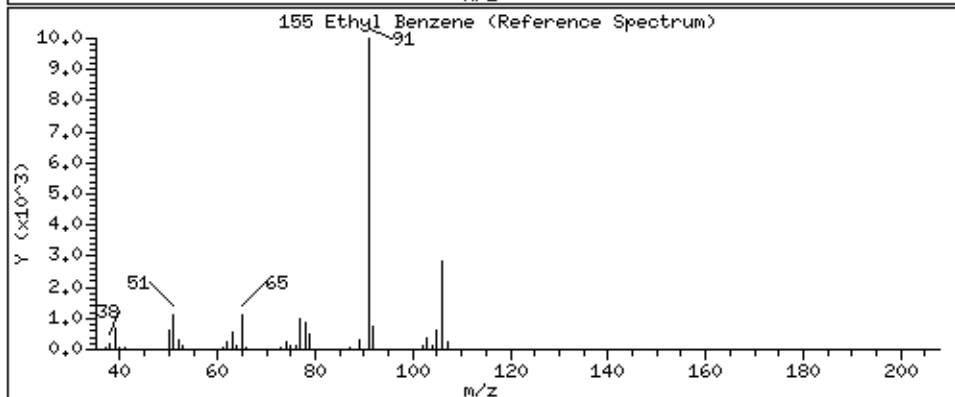
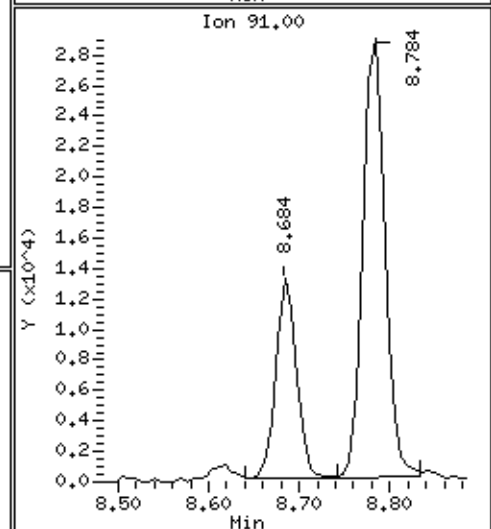
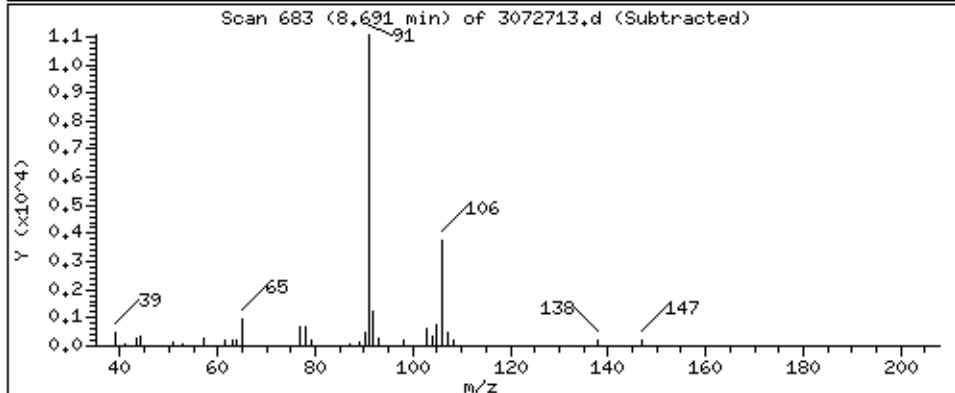
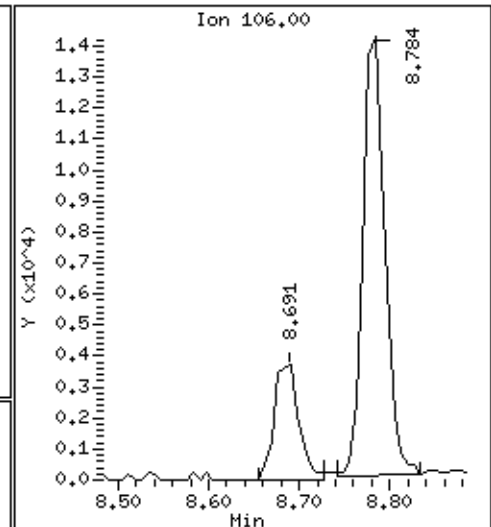
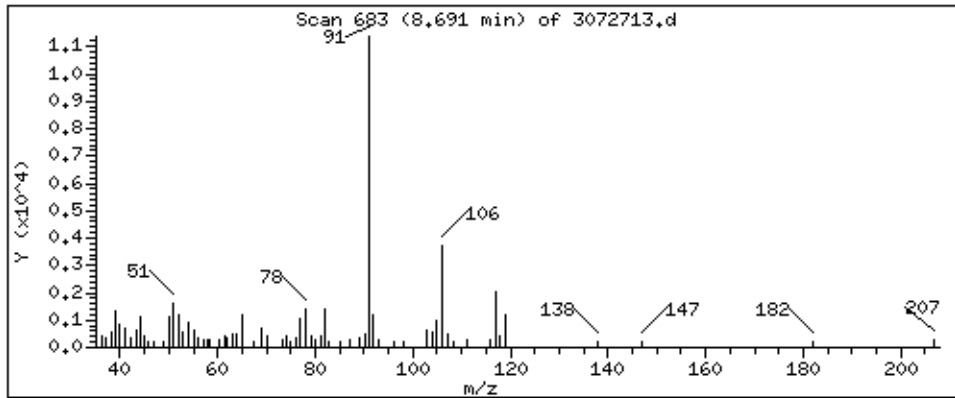
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 1,500 PPBV



Date : 27-JUL-2021 18:29

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2619

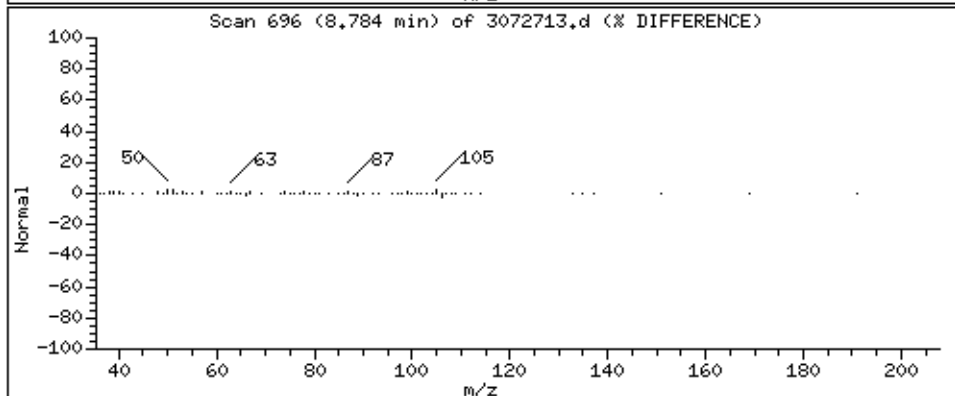
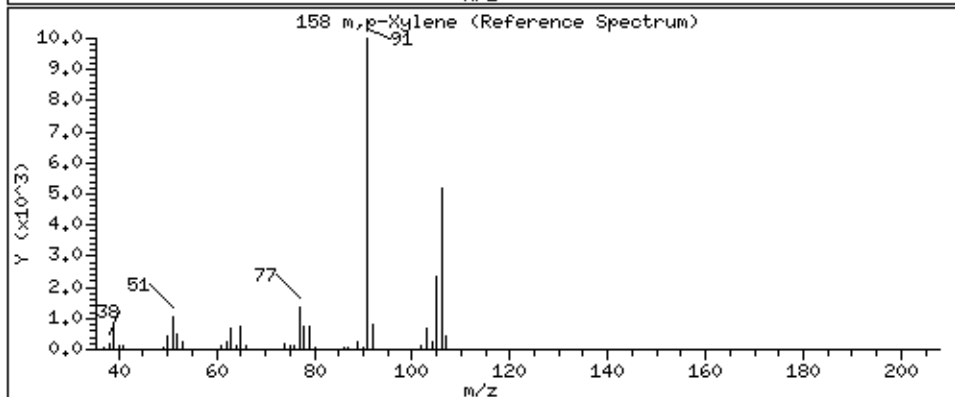
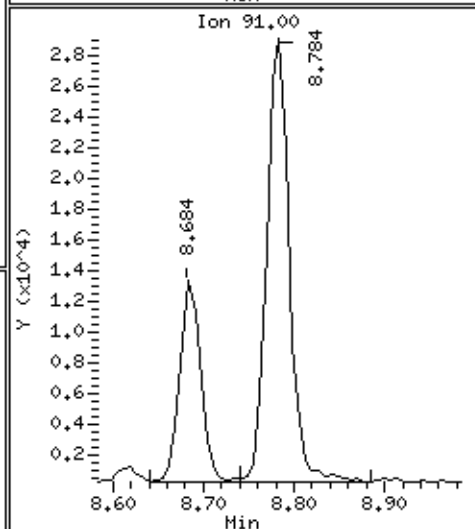
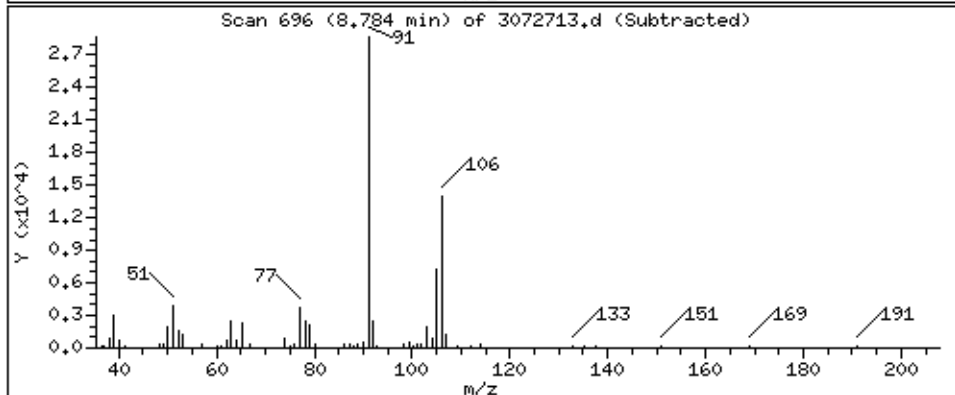
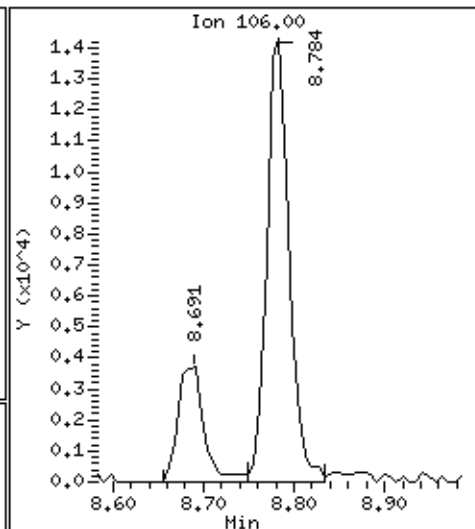
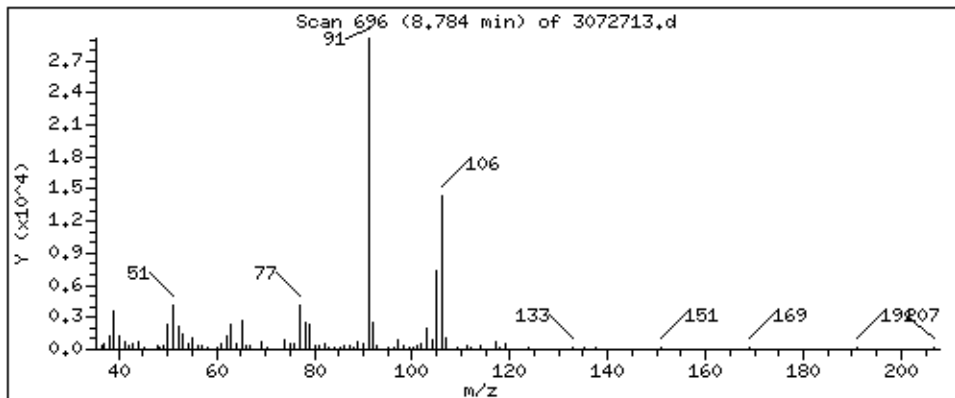
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 4.158 PPBV



Date : 27-JUL-2021 18:29

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2619

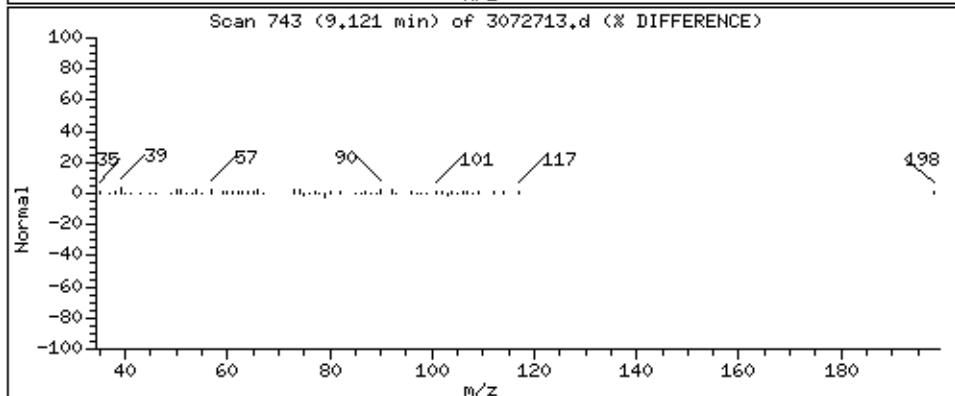
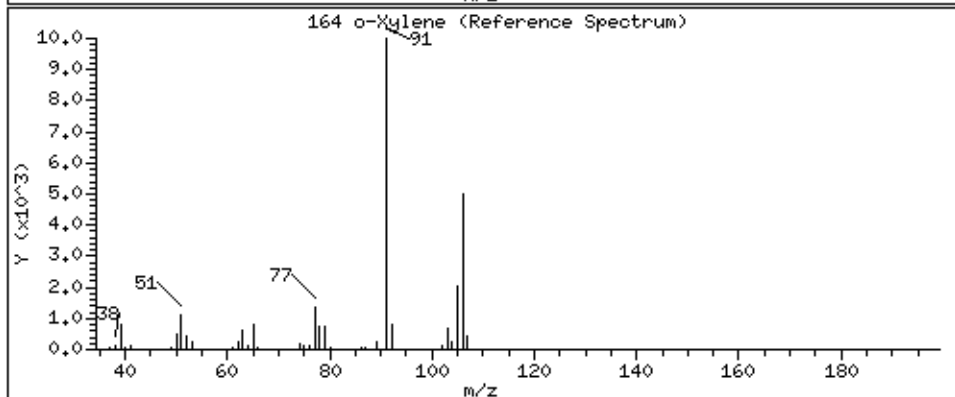
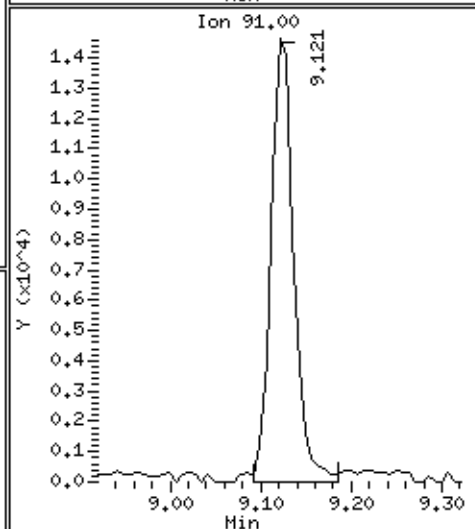
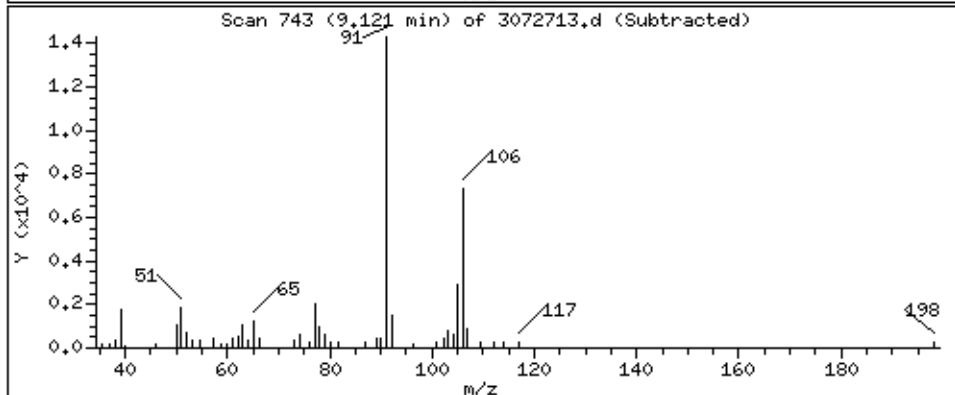
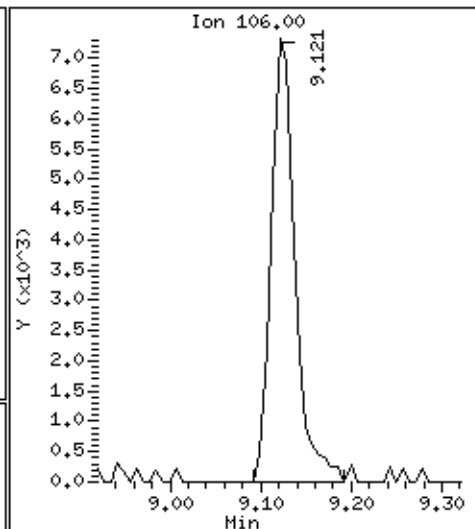
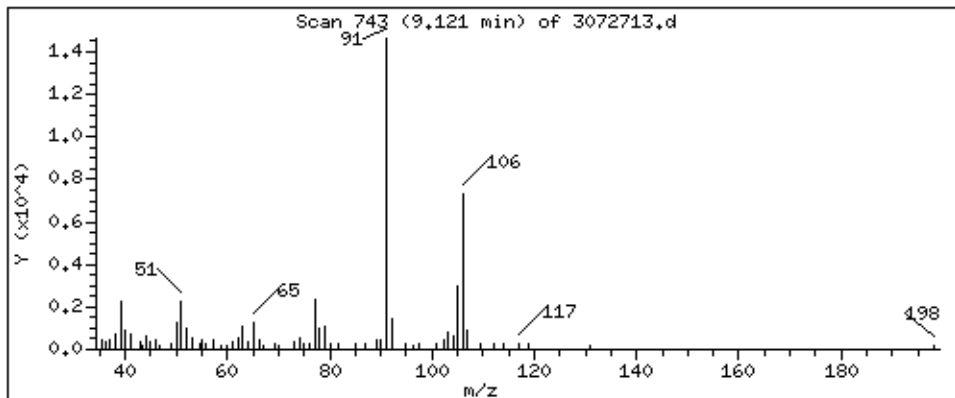
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 2,400 PPBV



Date : 27-JUL-2021 18:29

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2619

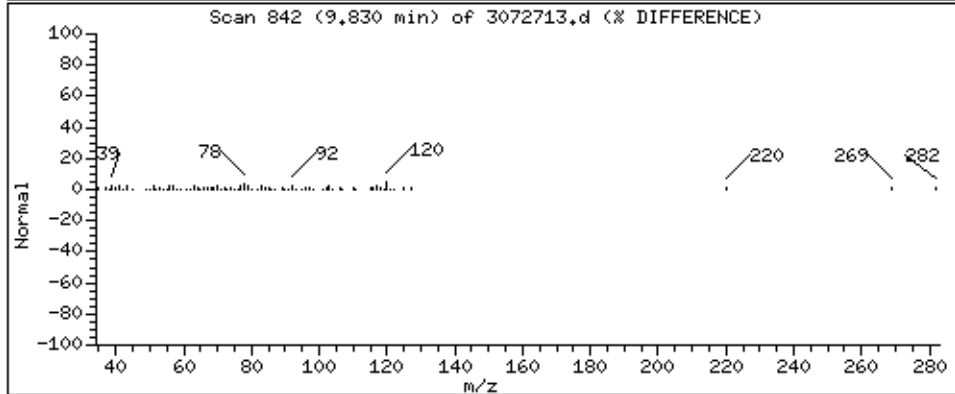
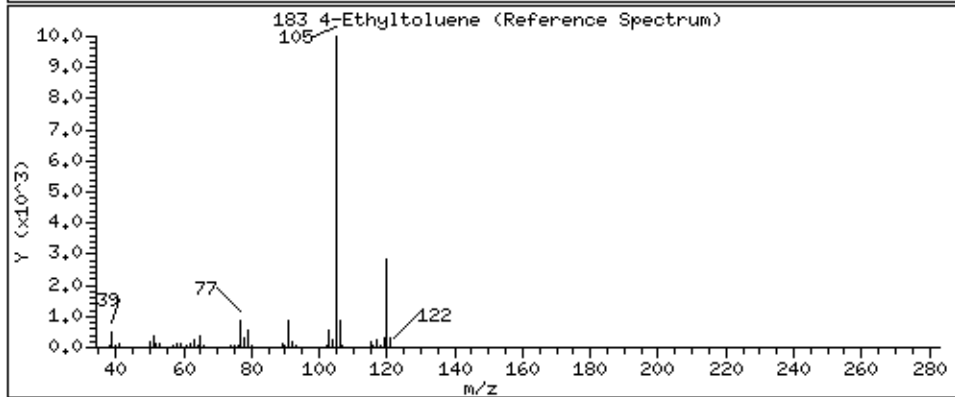
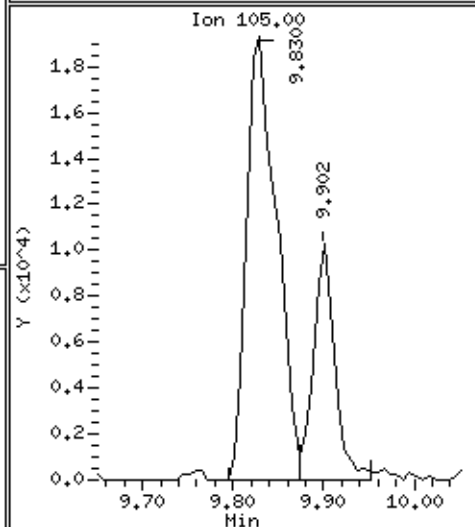
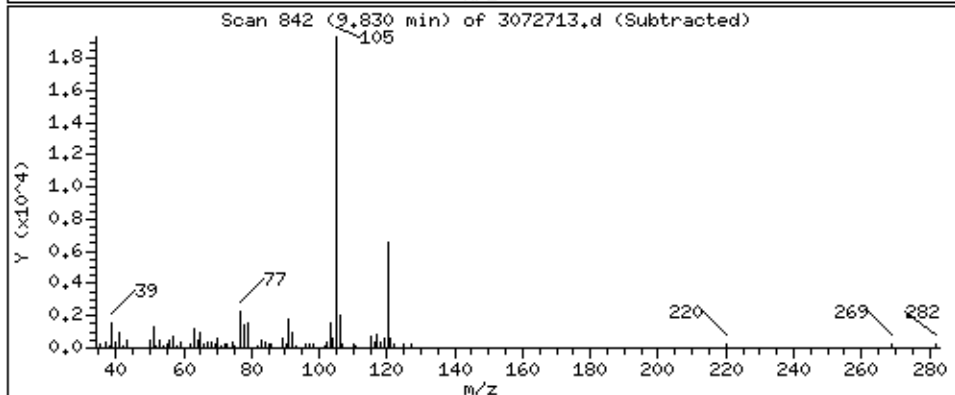
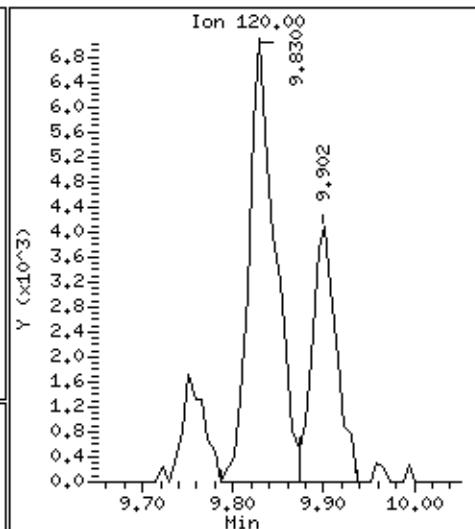
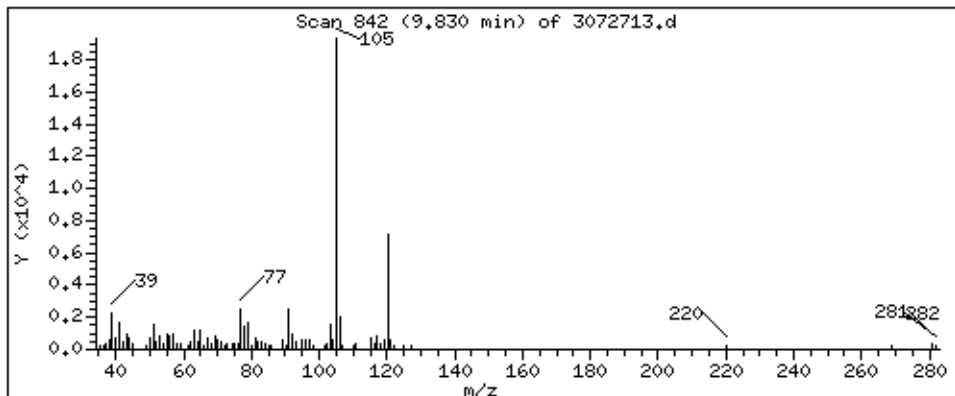
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 2.669 PPBV



Date : 27-JUL-2021 18:29

Client ID:

Instrument: msd3,i

Sample Info: 200mL N2619

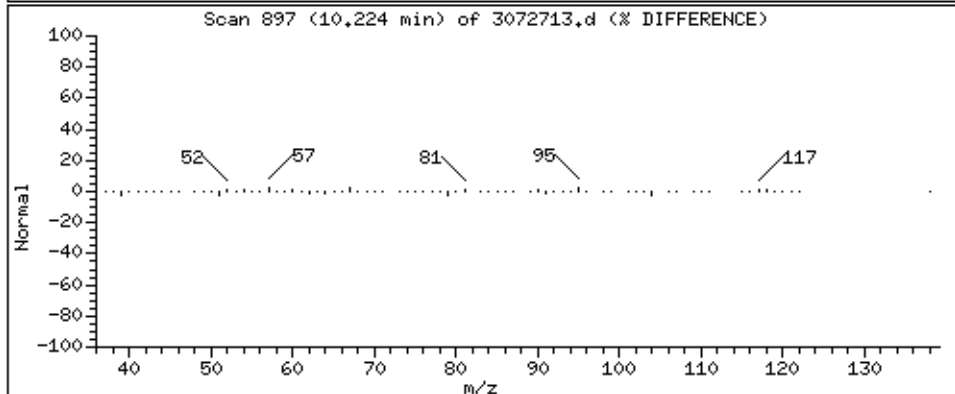
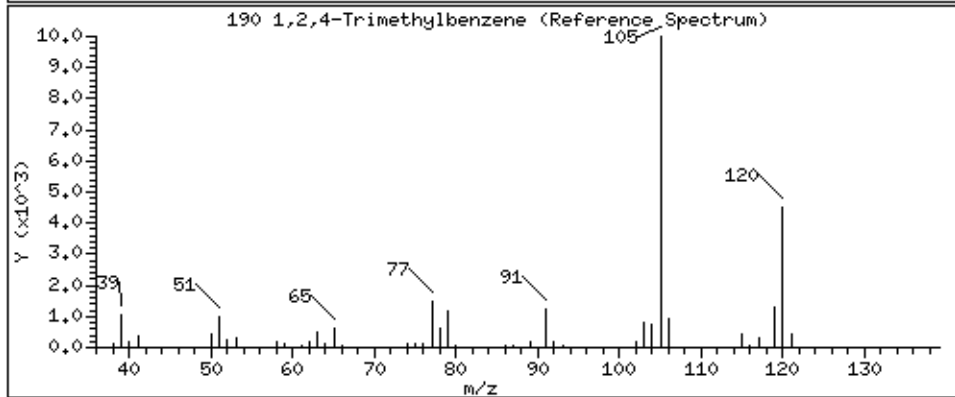
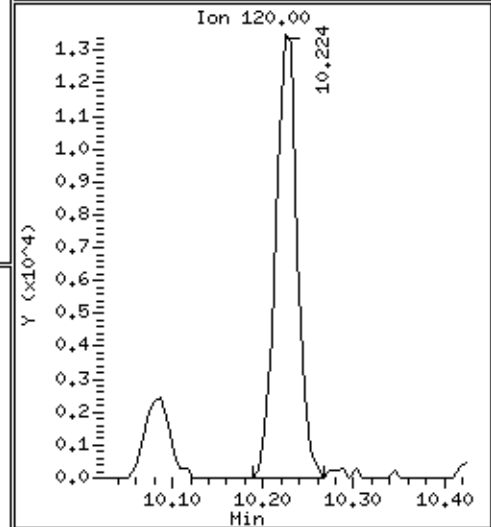
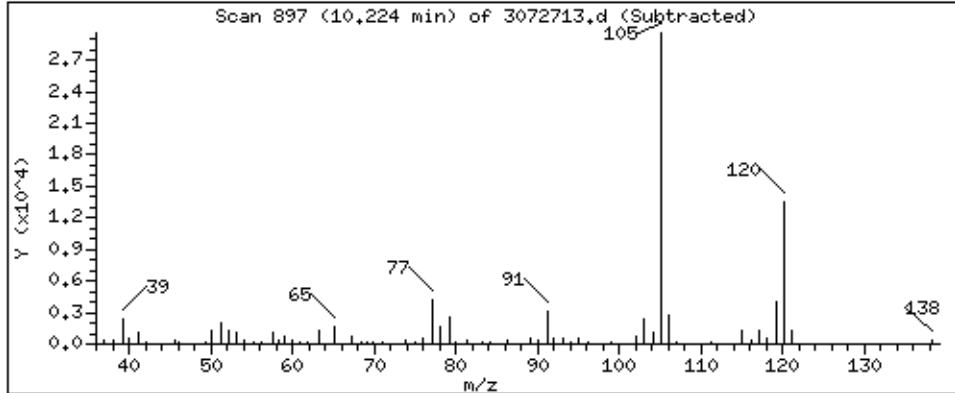
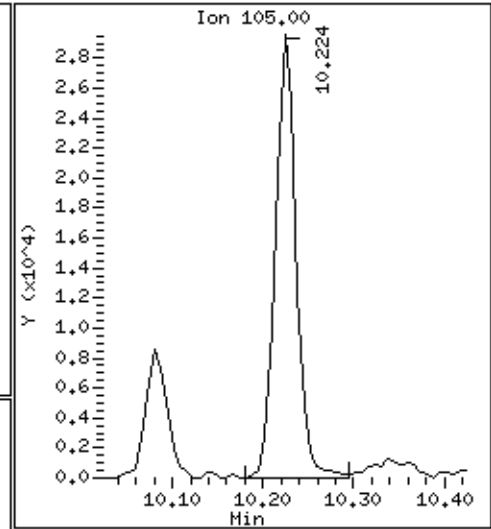
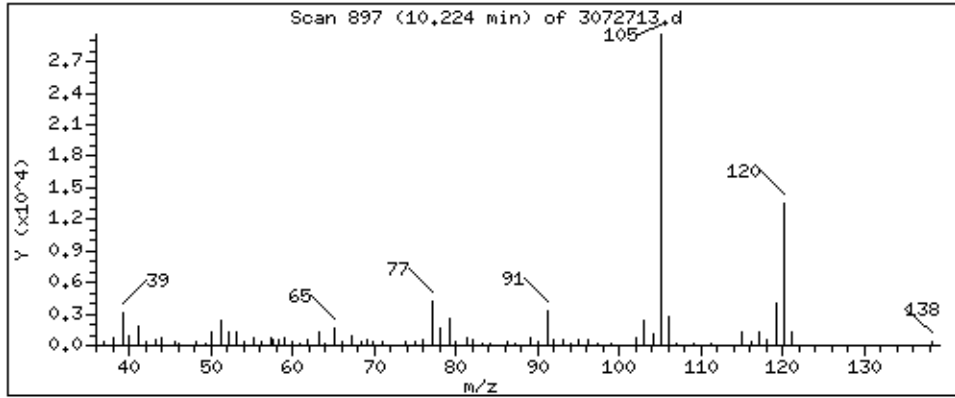
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 3.161 PPBV



Client Sample ID: SG-VW22B-02

Lab ID#: 2107284-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072714	Date of Collection:	7/14/21 1:10:00 PM
Dil. Factor:	2.15	Date of Analysis:	7/27/21 06:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.3	Not Detected	30	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.4	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1-Difluoroethane	4.3	18	12	48
1,2,3-Trichloropropane	4.3	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,2-Dibromo-3-chloropropane	4.3	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.3	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	13	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected
2-Propanol	4.3	4.9	10	12
3-Chloropropene	4.3	Not Detected	13	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Acetone	11	19	26	46
Acrolein	4.3	Not Detected	9.8	Not Detected
Acrylonitrile	4.3	Not Detected	9.3	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.6	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Carbon Disulfide	4.3	Not Detected	13	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Chloroform	1.1	5.2	5.2	26
Chloromethane	11	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected



Client Sample ID: SG-VW22B-02

Lab ID#: 2107284-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072714	Date of Collection:	7/14/21 1:10:00 PM
Dil. Factor:	2.15	Date of Analysis:	7/27/21 06:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
Cumene	1.1	Not Detected	5.3	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Dibromochloromethane	1.1	Not Detected	9.2	Not Detected
Dibromomethane	4.3	Not Detected	30	Not Detected
Ethanol	11	21	20	39
Ethyl Acetate	4.3	Not Detected	15	Not Detected
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
Ethyl-tert-butyl ether	4.3	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
Freon 114	1.1	Not Detected	7.5	Not Detected
Freon 134a	4.3	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected
Hexachloroethane	4.3	Not Detected	42	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
Iodomethane	11	Not Detected	62	Not Detected
Isopropyl ether	4.3	Not Detected	18	Not Detected
m,p-Xylene	1.1	Not Detected	4.7	Not Detected
Methyl tert-butyl ether	4.3	Not Detected	16	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Naphthalene	2.2	Not Detected	11	Not Detected
o-Xylene	1.1	Not Detected	4.7	Not Detected
Propylbenzene	1.1	Not Detected	5.3	Not Detected
Propylene	4.3	Not Detected	7.4	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
tert-Amyl methyl ether	4.3	Not Detected	18	Not Detected
tert-Butyl alcohol	4.3	Not Detected	13	Not Detected
Tetrachloroethene	1.1	22	7.3	150
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Toluene	1.1	6.1	4.0	23
TPH ref. to Gasoline (MW=100)	110	Not Detected	440	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
Trichloroethene	1.1	2.1	5.8	11
Vinyl Acetate	4.3	Not Detected	15	Not Detected
Vinyl Bromide	4.3	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW22B-02

Lab ID#: 2107284-25A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072714	Date of Collection: 7/14/21 1:10:00 PM
Dil. Factor:	2.15	Date of Analysis: 7/27/21 06:58 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	95	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/27JUL21.b/3072714.d  
Lab Smp Id: 2107284-25A  
Inj Date : 27-JUL-2021 18:58  
Operator : LD  
Smp Info : 200mL O0732  
Misc Info : 6.7 Hg->9.9 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/27JUL21.b/321q0622a.m  
Meth Date : 27-Jul-2021 15:31 lk8g  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 5  
Dil Factor: 2.15000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	269144	25.0000	80.00- 120.00	100.00	
5.284	5.284	(1.000)	128	211483		48.46- 108.46	78.58	
5.270	5.270	(1.000)	49	389868		120.39- 180.39	144.85	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.166	6.180	(1.000)	114	896639	25.0000	80.00- 120.00	100.00	
6.166	6.180	(1.000)	88	132314		0.00- 45.52	14.76	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.612	8.612	(1.000)	117	791630	25.0000	80.00- 120.00	100.00	
8.612	8.612	(1.000)	82	421603		25.46- 85.46	53.26	
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	363261	24.5260	24.526 80.00- 120.00	100.00	
5.816	5.816	(1.101)	67	175205		21.66- 81.66	48.23	
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.198)	98	882395	23.8930	23.893 80.00- 120.00	100.00	
7.387	7.387	(1.198)	70	100509		0.00- 41.47	11.39	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.387	7.387	(1.198)	100	576265			36.47- 96.47	65.31
-----								
§ 170 4-Bromofluorobenzene CAS #: 460-00-4								
9.601	9.601	(1.115)	174	496803	23.7262	23.726	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	562385			93.06- 153.06	113.20
9.601	9.601	(1.115)	176	458457			62.87- 122.87	92.28
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.451	1.437	(0.275)	65	35222	8.31144	17.870	80.00- 120.00	100.00
1.493	1.479	(0.282)	51	1519651			321.86- 381.86	4314.46
1.493	1.451	(0.282)	47	51395			45.34- 105.34	145.92
-----								
39 Ethanol CAS #: 64-17-5								
2.794	2.766	(0.529)	46	15438	9.61990	20.683	80.00- 120.00	100.00
2.794	2.780	(0.529)	45	38795			523.01- 583.01	251.29
-----								
47 Acetone CAS #: 67-64-1								
3.242	3.214	(0.613)	58	40633	9.00360	19.358	80.00- 120.00	100.00
3.242	3.214	(0.613)	43	136861			299.66- 359.66	336.82
-----								
52 2-Propanol CAS #: 67-63-0								
3.438	3.409	(0.650)	45	36999	2.27962	4.901	80.00- 120.00	100.00
3.438	3.395	(0.650)	43	10128			0.00- 48.61	27.37
-----								
92 Chloroform CAS #: 67-66-3								
5.340	5.340	(1.011)	83	41023	2.43105	5.227	80.00- 120.00	100.00
5.340	5.340	(1.011)	85	27093			34.71- 94.71	66.04
-----								
111 Trichloroethene CAS #: 79-01-6								
6.362	6.362	(1.032)	95	9936	0.96796	2.081	80.00- 120.00	100.00
6.362	6.362	(1.032)	130	9096			74.96- 134.96	91.55
6.362	6.362	(1.032)	97	5847			34.80- 94.80	58.86
-----								
137 Toluene CAS #: 108-88-3								
7.437	7.437	(1.206)	91	78366	2.85439	6.137	80.00- 120.00	100.00
7.437	7.437	(1.206)	92	43802			28.30- 88.30	55.89
-----								
142 Tetrachloroethene CAS #: 127-18-4								
7.882	7.881	(0.915)	166	129257	10.4224	22.408	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	100996			48.71- 108.71	78.14
7.874	7.874	(0.914)	131	94198			46.55- 106.55	72.88
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3072714.d  
 Lab Smp Id: 2107284-25A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
 Misc Info: 6.7 Hg->9.9 psi

Calibration Date: 27-JUL-2021  
 Calibration Time: 11:36  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	238986	143392	334580	269144	12.62
108 1,4-Difluorobenze	785289	471173	1099405	896639	14.18
153 Chlorobenzene-d5	683596	410158	957034	791630	15.80

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.22
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 27JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-25A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: 6.7 Hg->9.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.526	98.10	70-130
\$ 134 Toluene-d8	25.000	23.893	95.57	70-130
\$ 170 4-Bromofluorobenz	25.000	23.726	94.90	70-130

Date : 27-JUL-2021 18:58

Client ID:

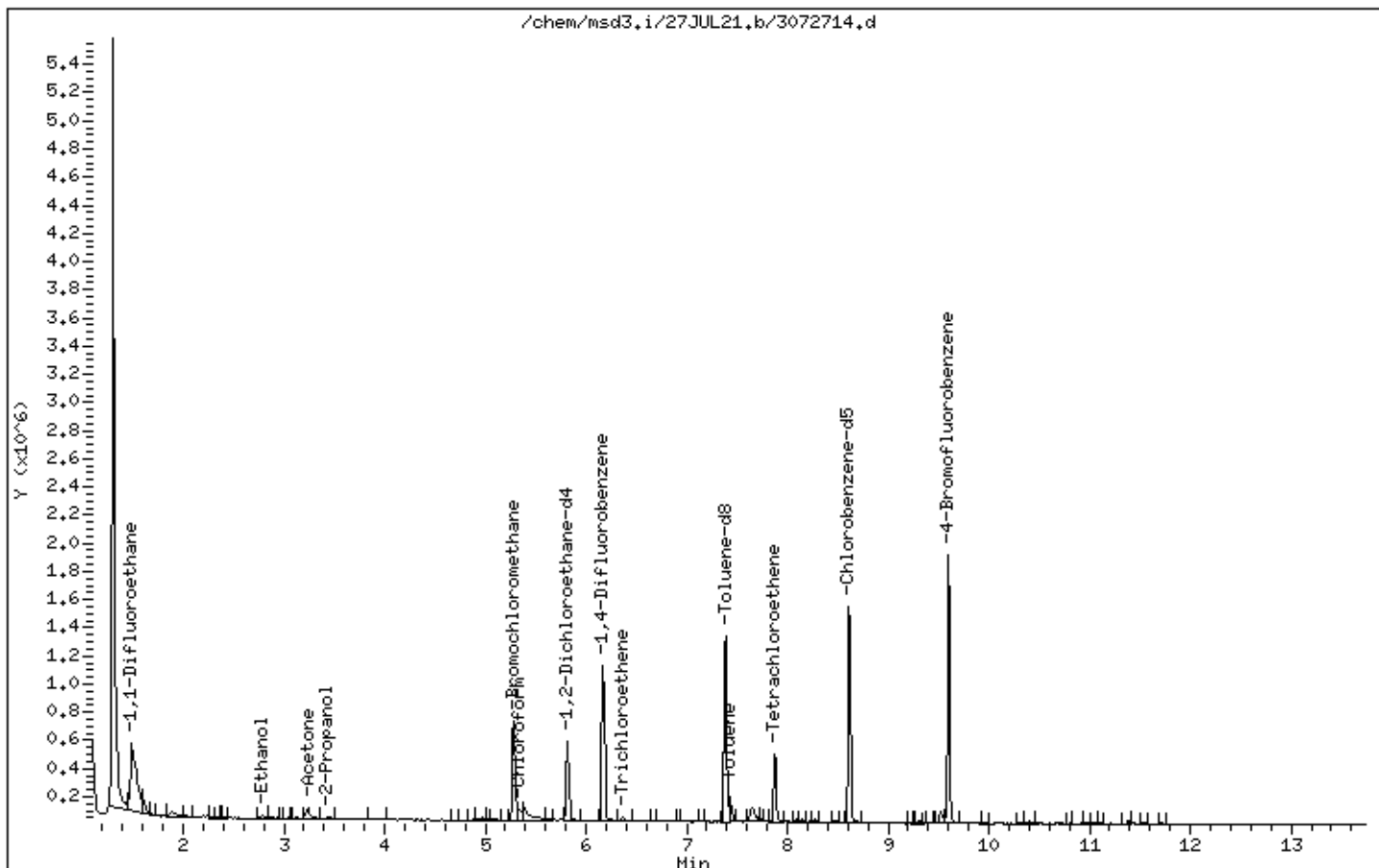
Instrument: msd3,i

Sample Info: 200mL 00732

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 18:58

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00732

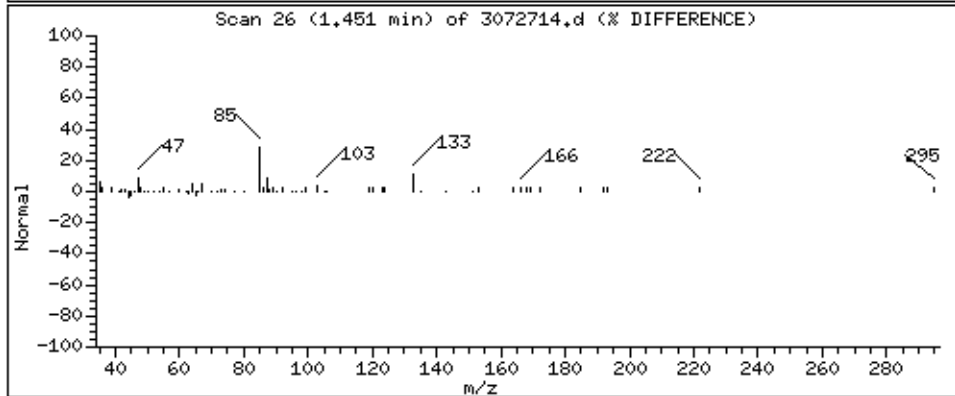
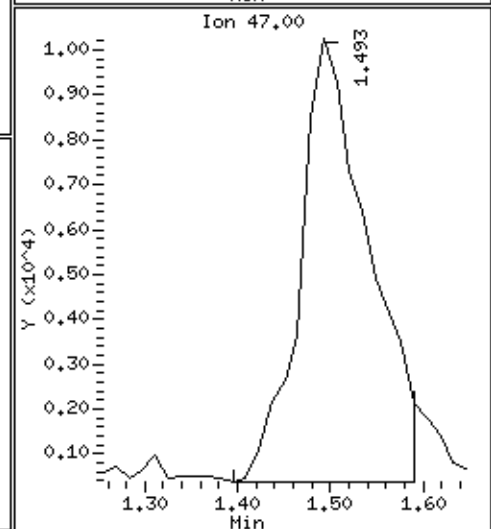
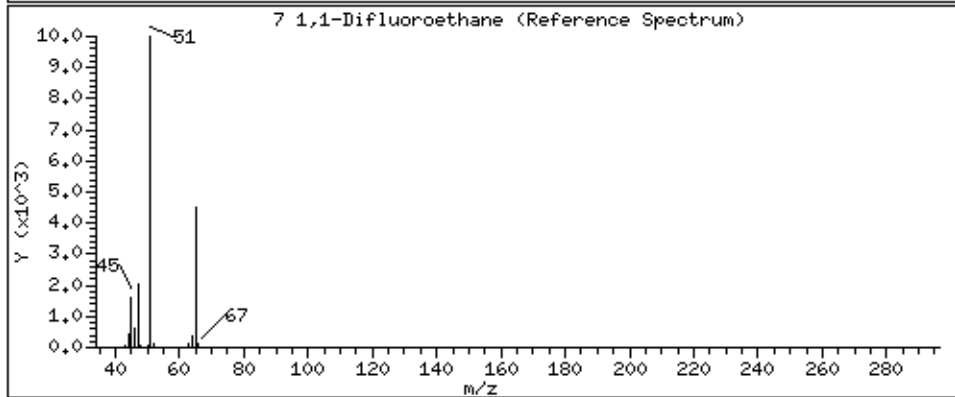
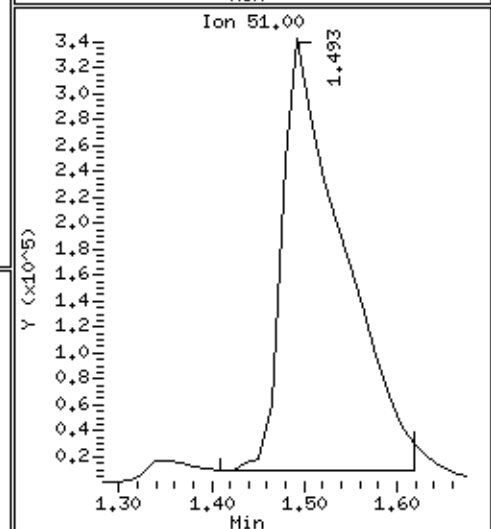
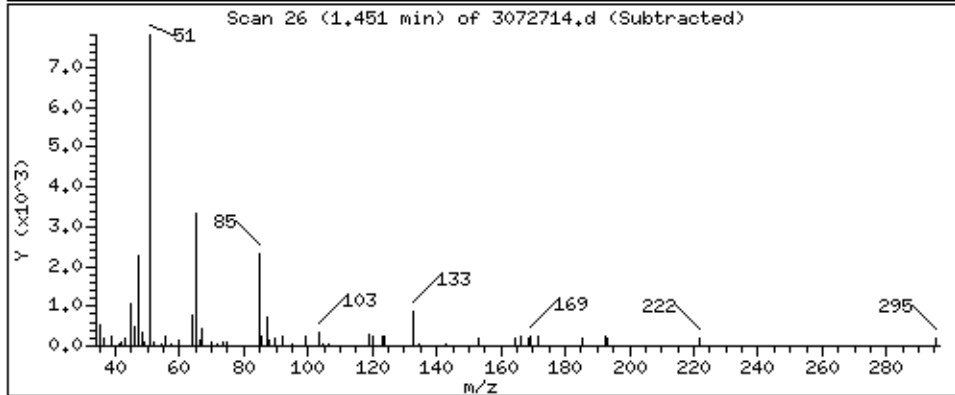
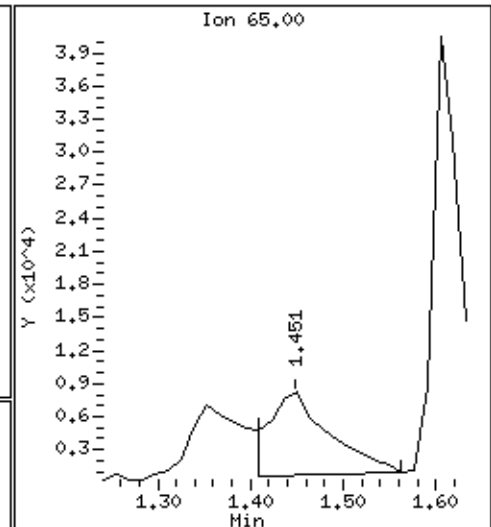
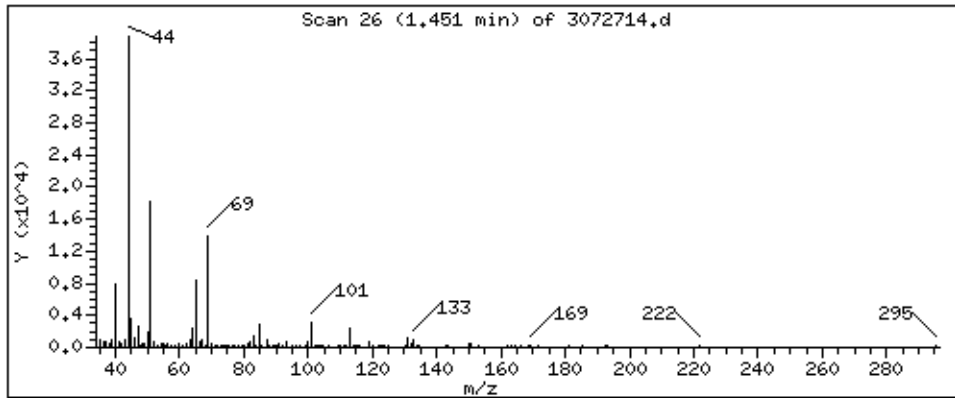
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 17,870 PPBV





Date : 27-JUL-2021 18:58

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00732

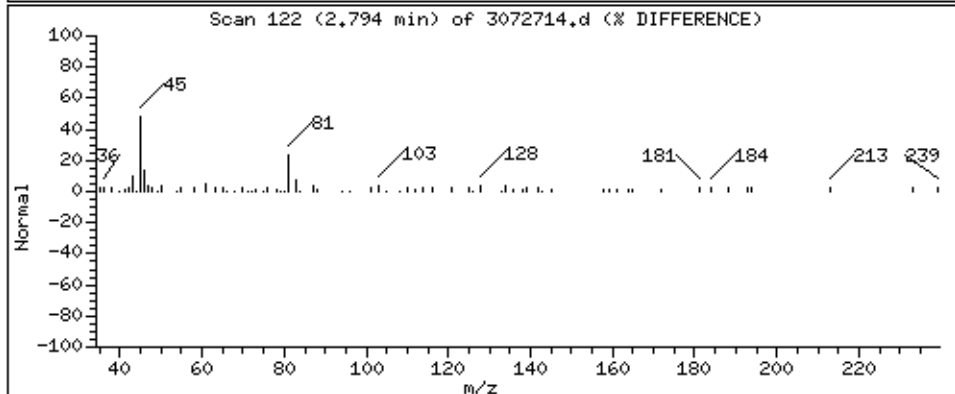
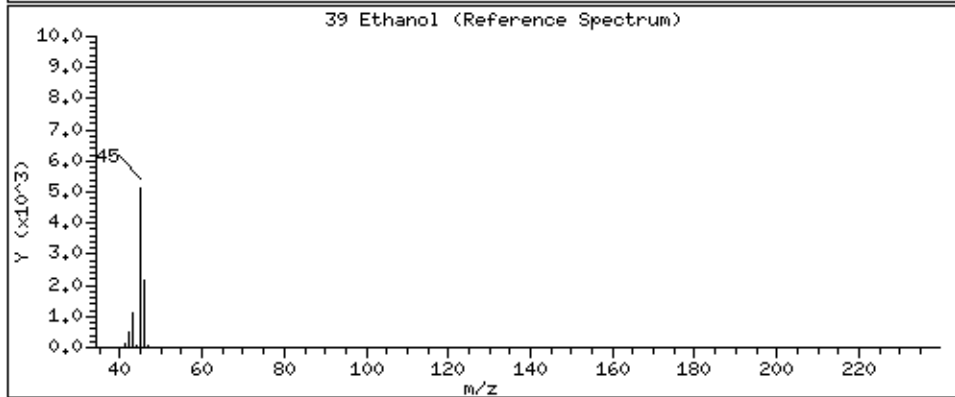
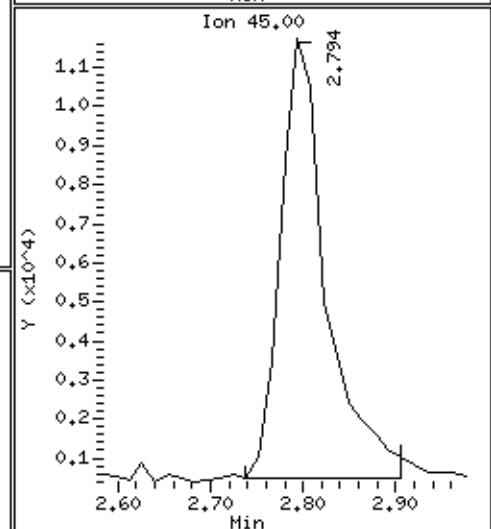
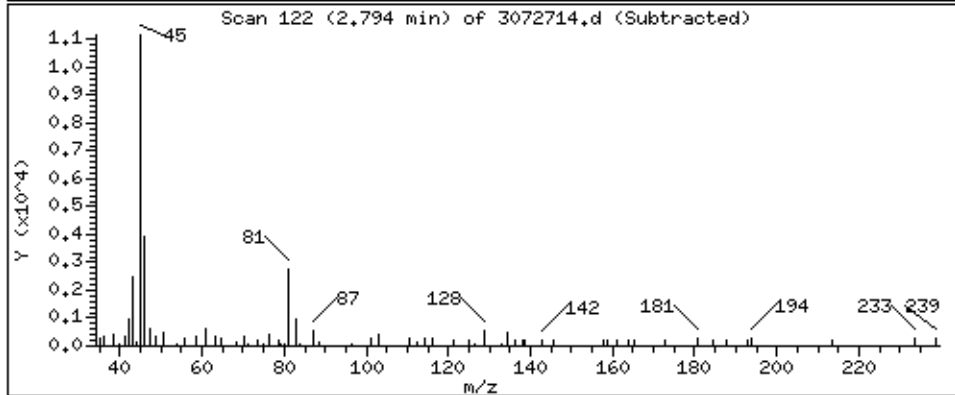
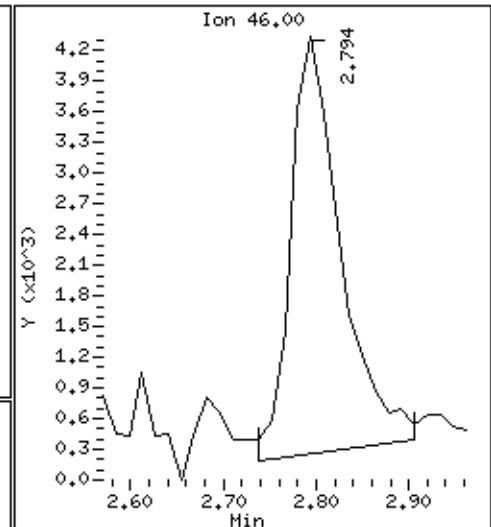
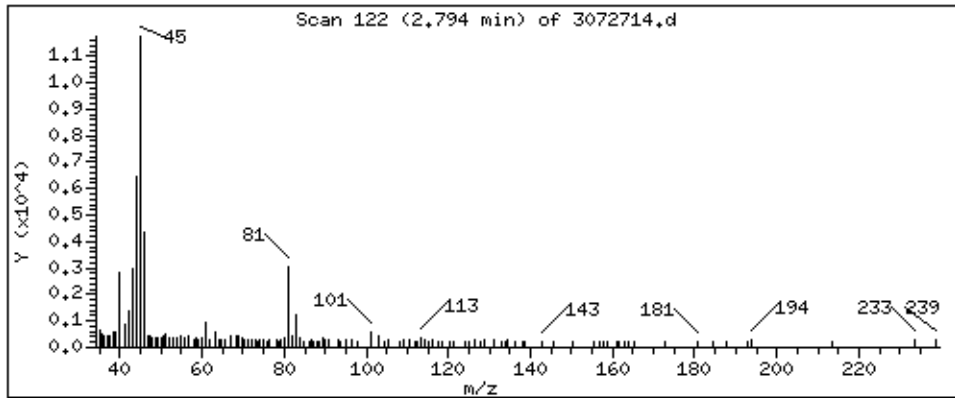
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 20,683 PPBV



Date : 27-JUL-2021 18:58

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00732

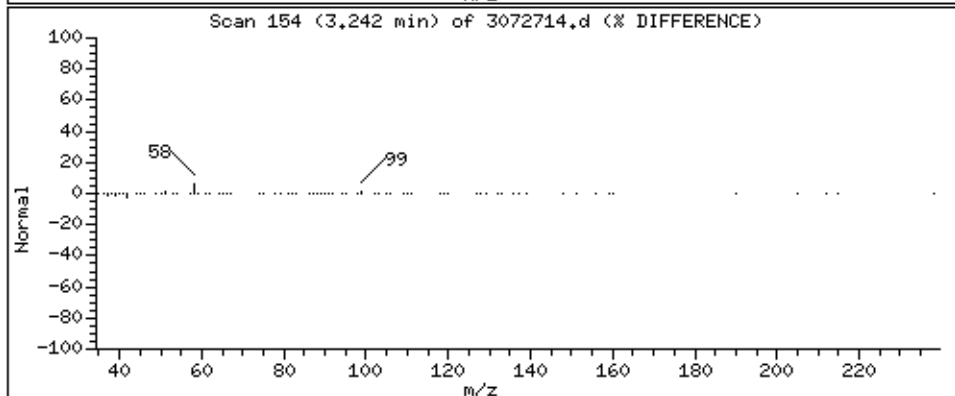
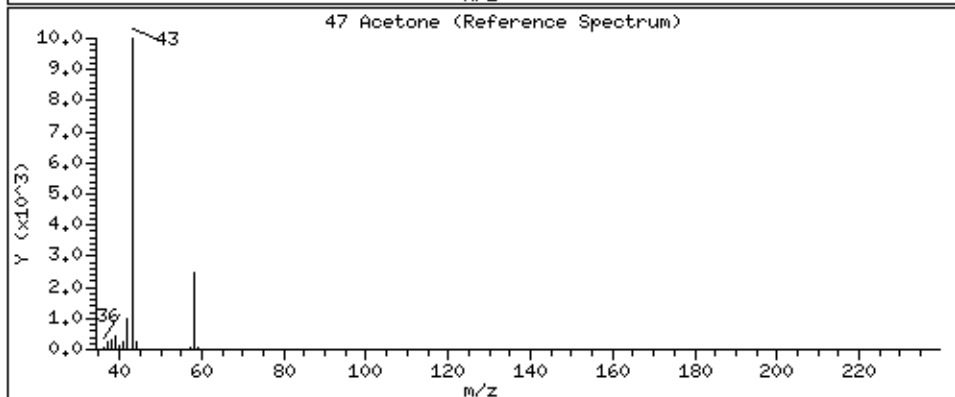
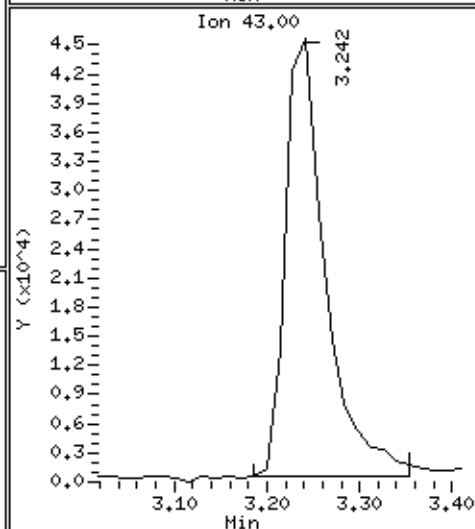
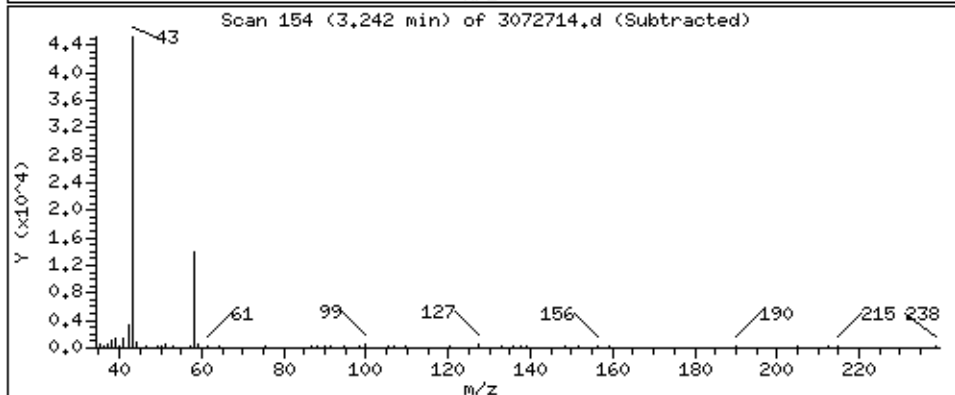
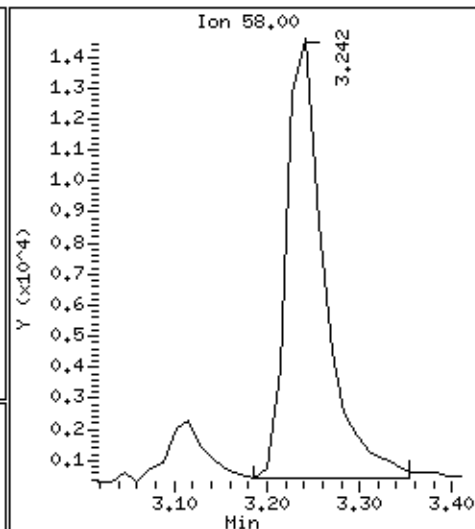
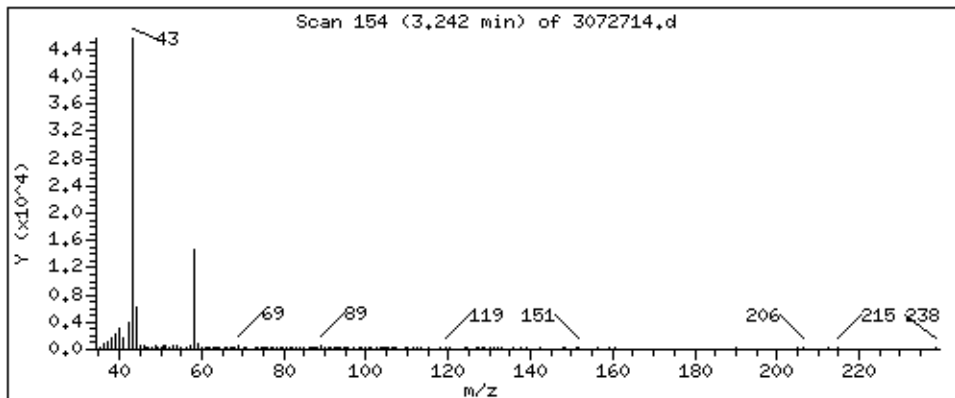
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 19,358 PPBV



Date : 27-JUL-2021 18:58

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00732

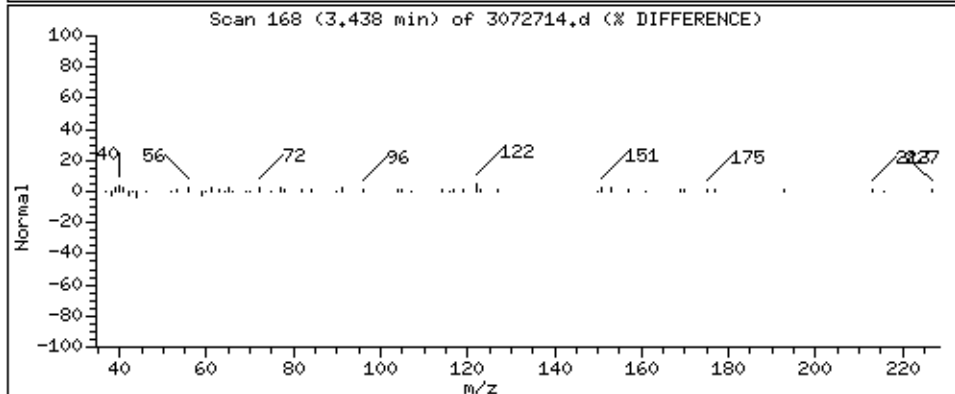
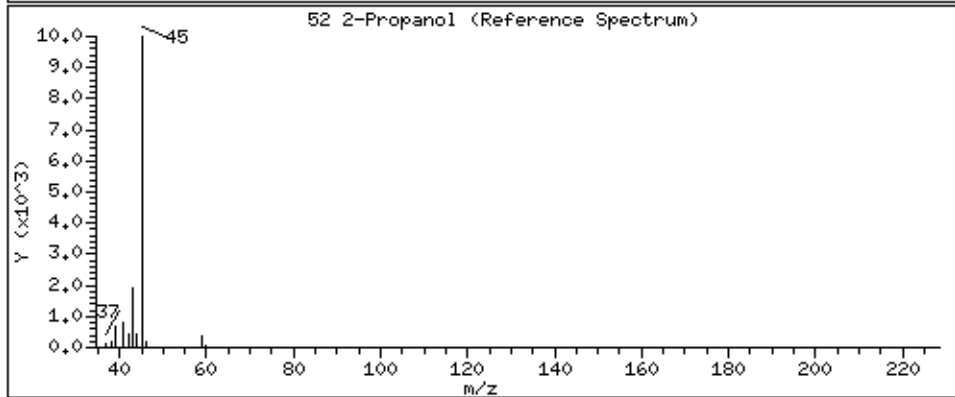
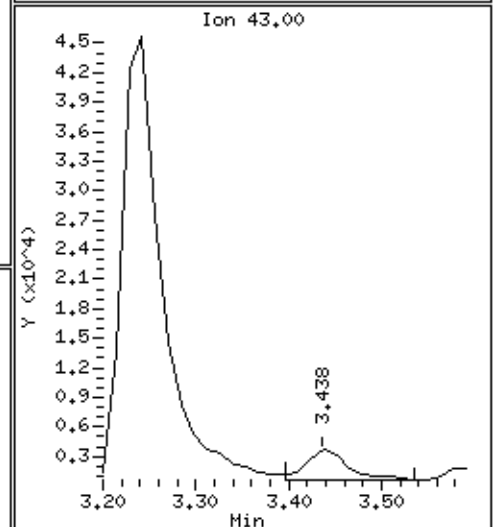
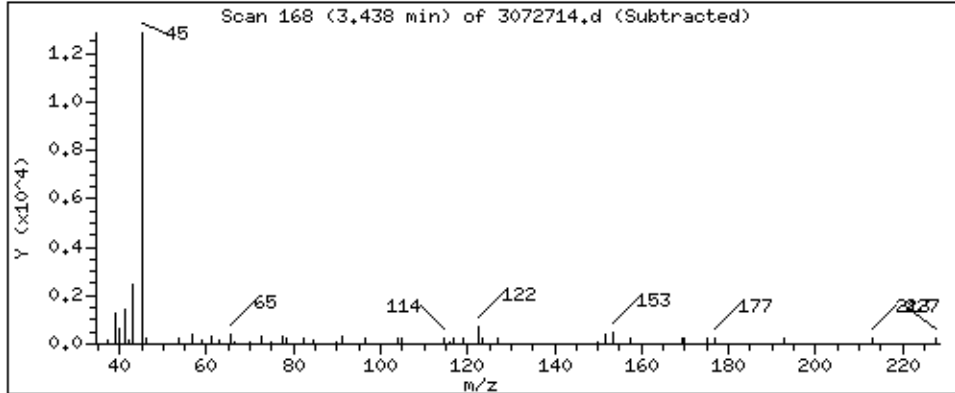
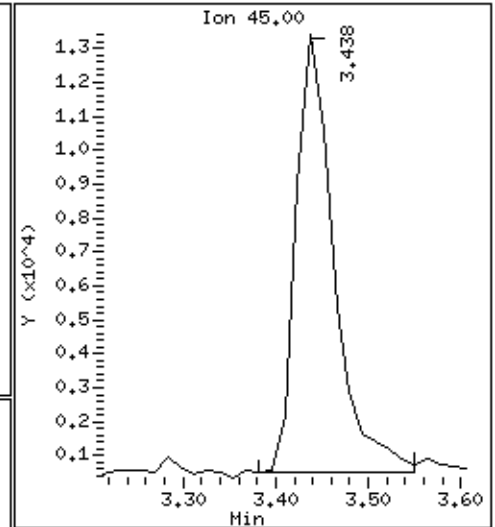
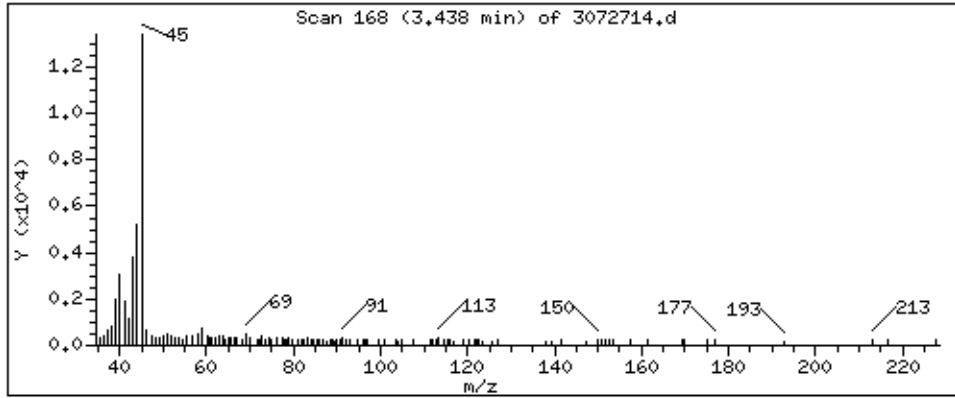
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 4.901 PPBV



Date : 27-JUL-2021 18:58

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00732

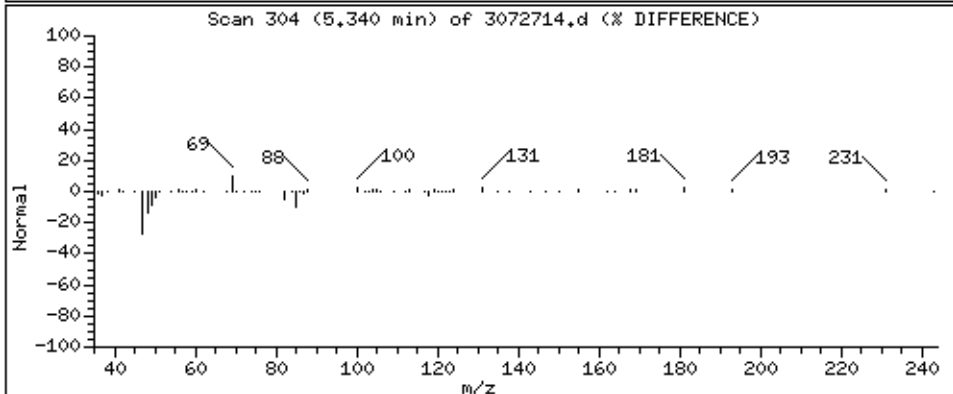
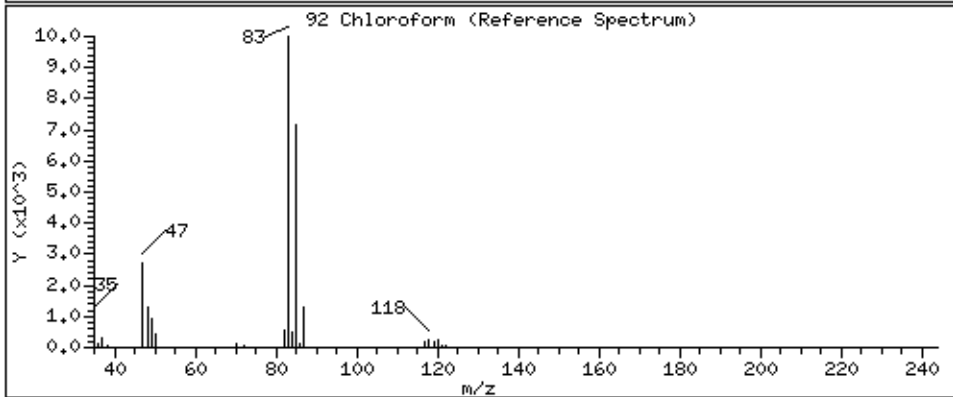
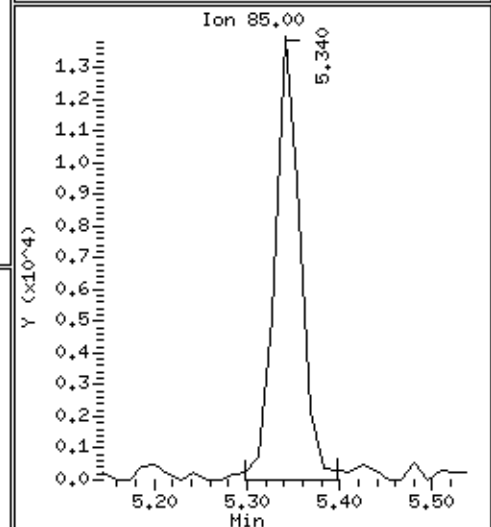
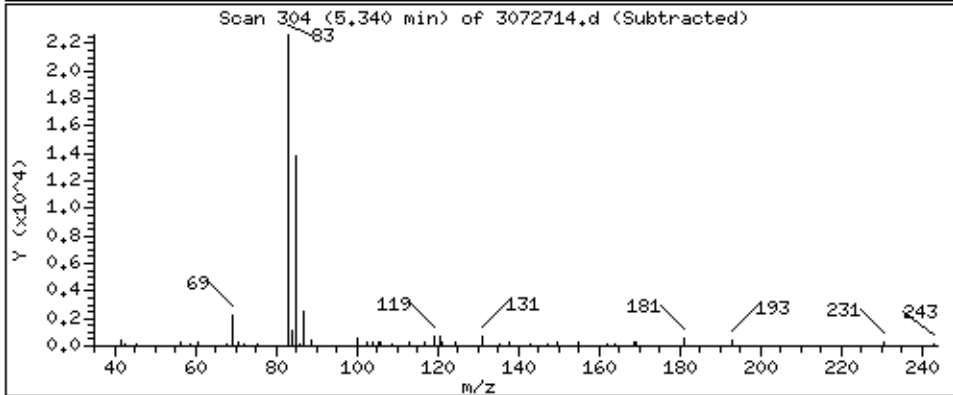
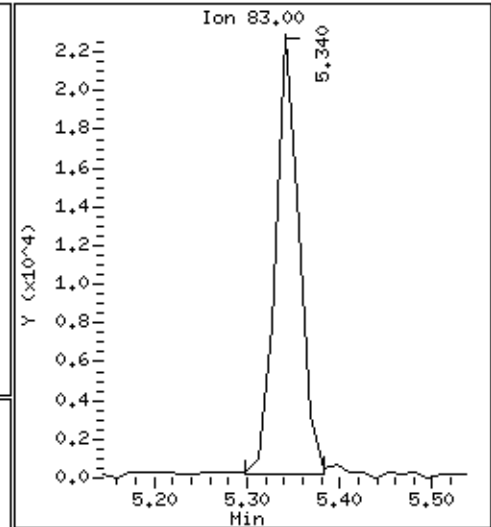
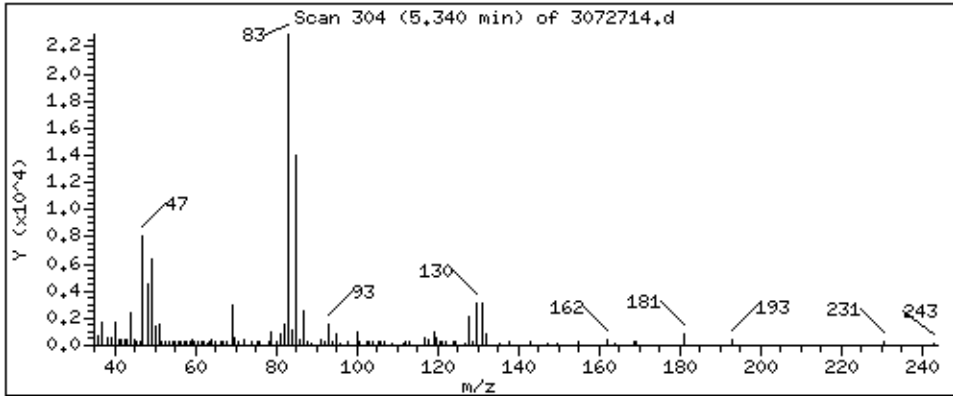
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 5.227 PPBV



Date : 27-JUL-2021 18:58

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00732

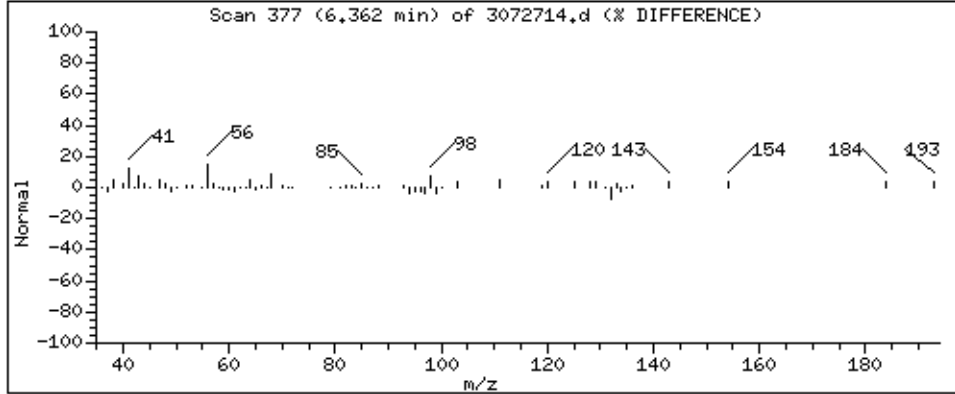
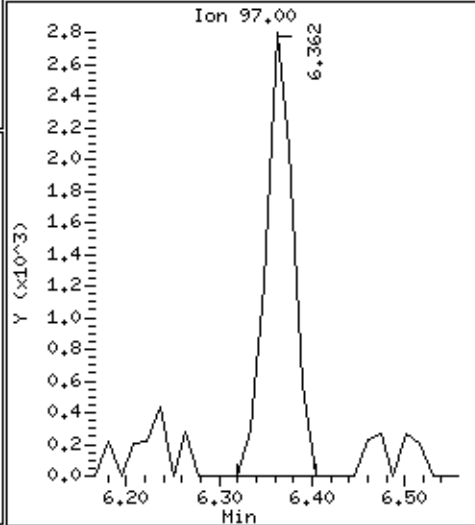
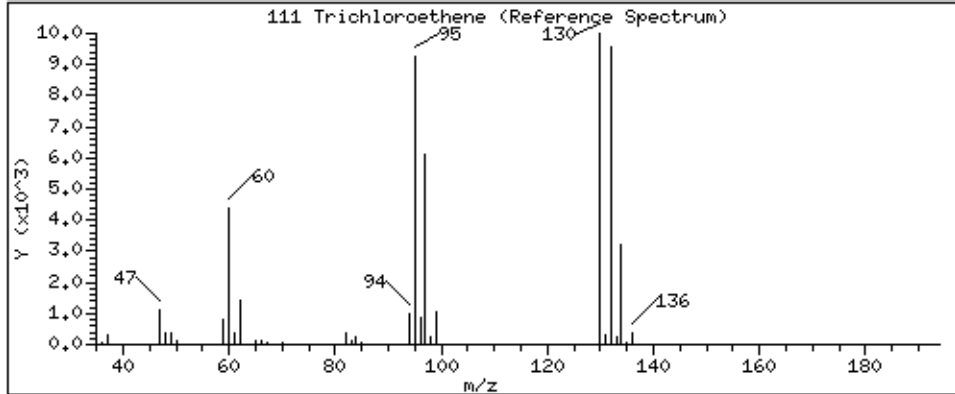
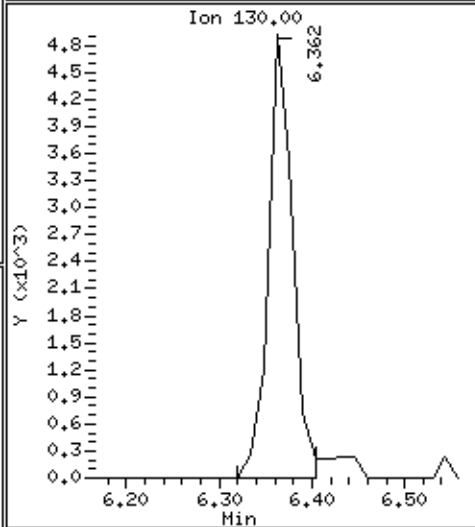
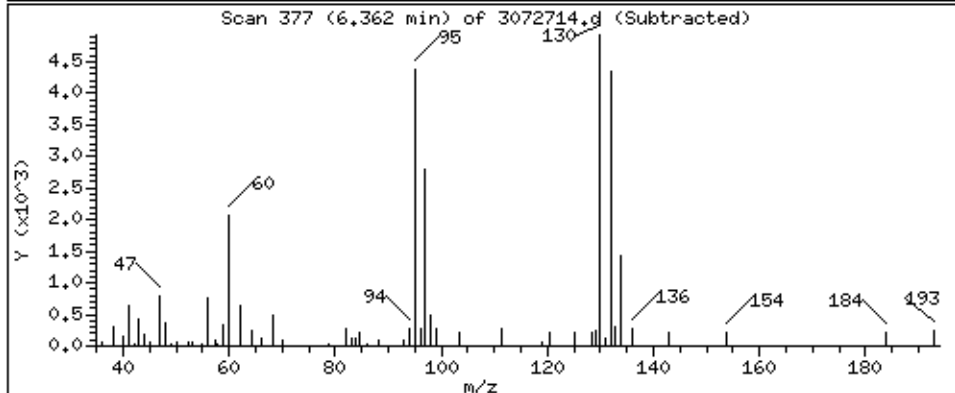
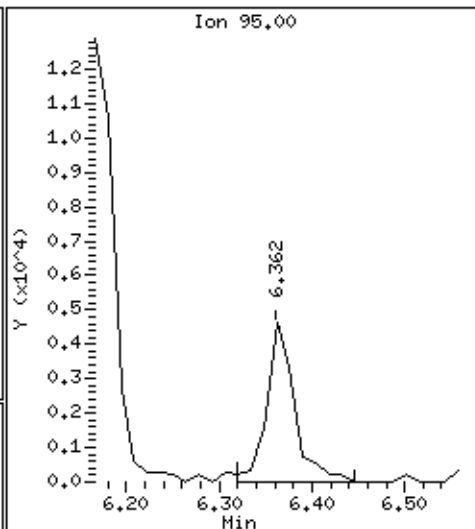
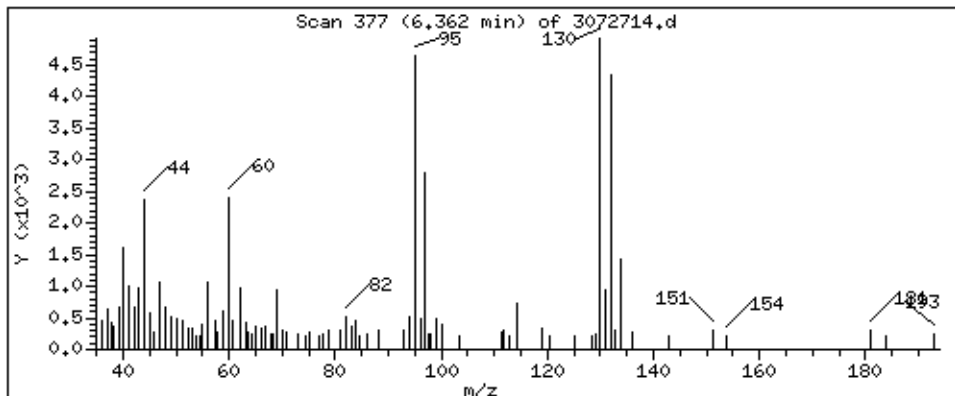
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

111 Trichloroethene

Concentration: 2,081 PPBV



Date : 27-JUL-2021 18:58

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00732

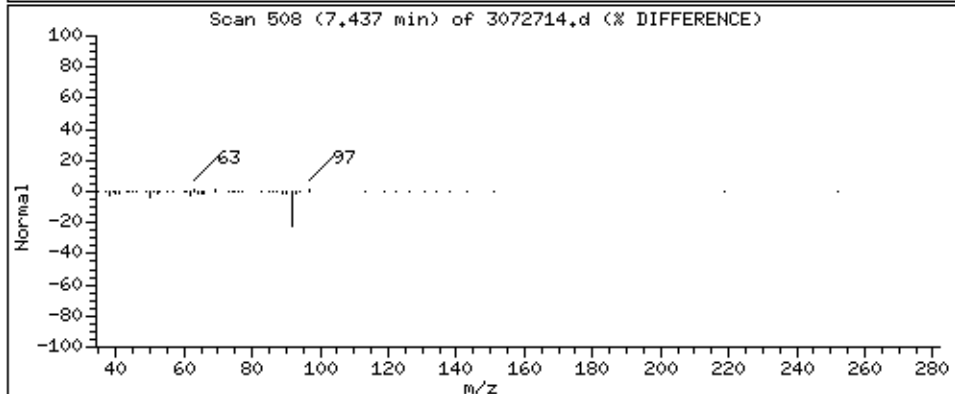
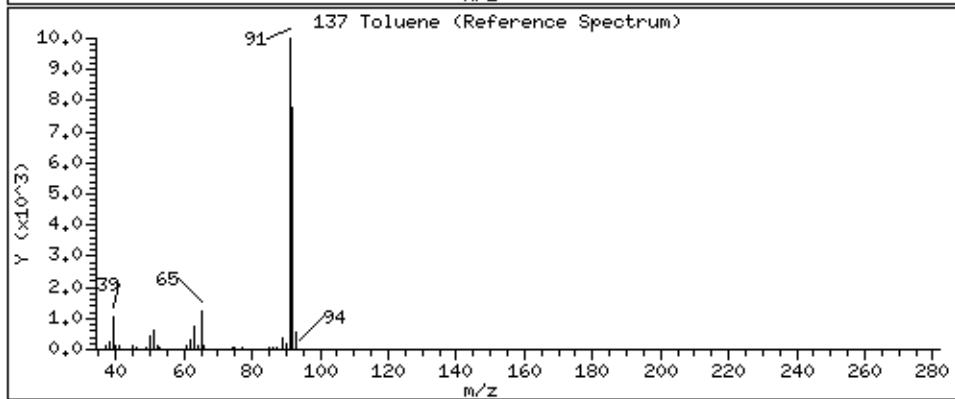
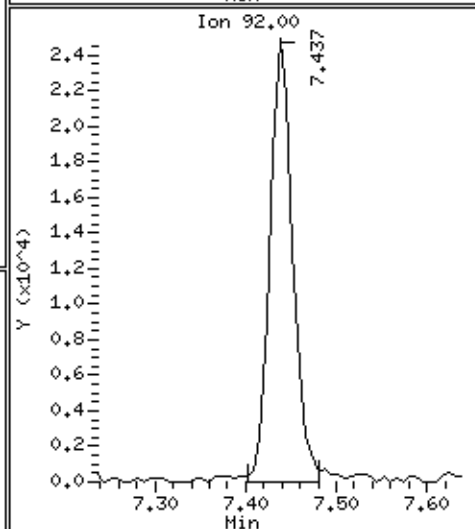
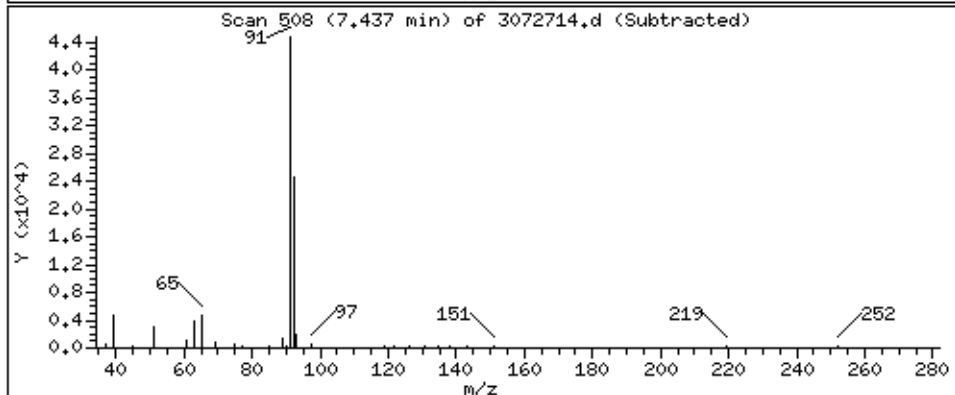
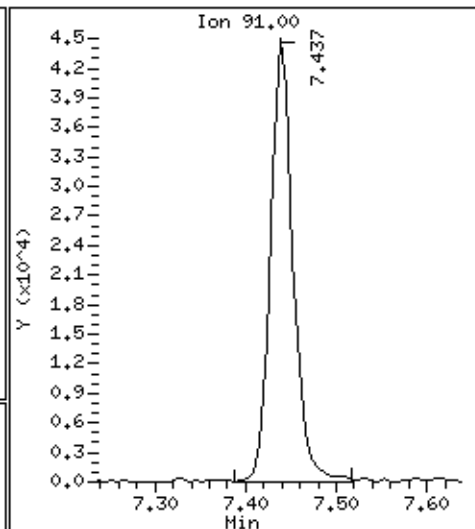
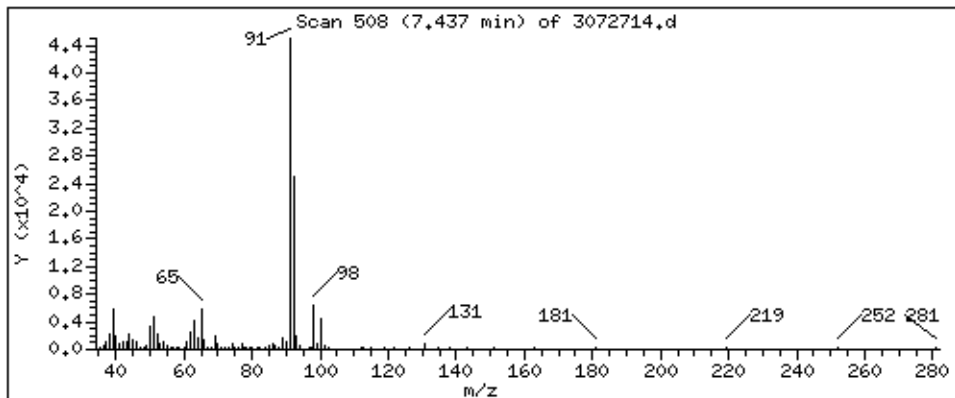
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 6.137 PPBV



Date : 27-JUL-2021 18:58

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00732

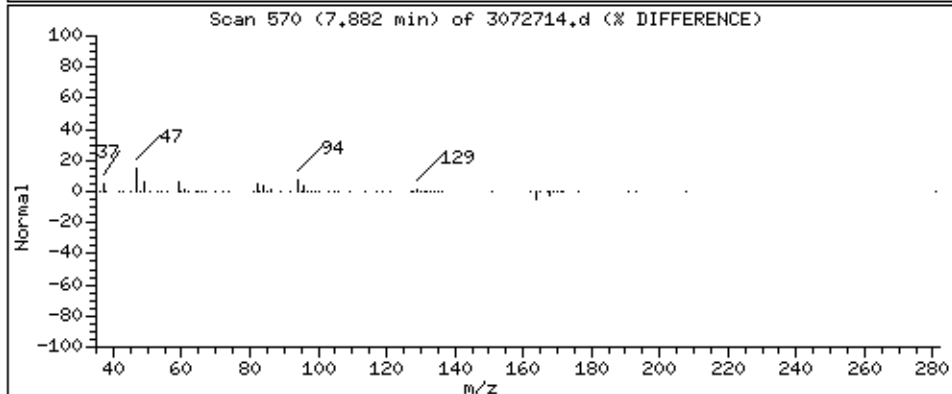
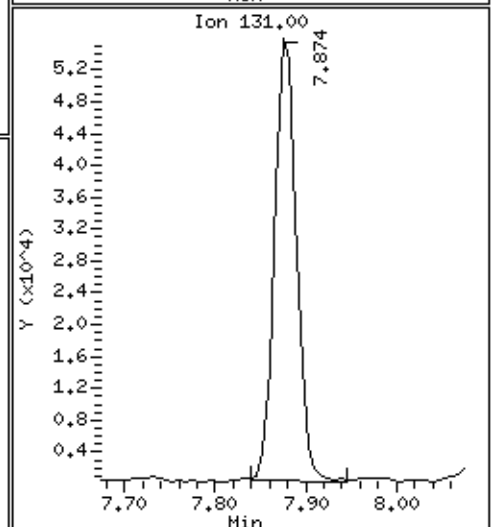
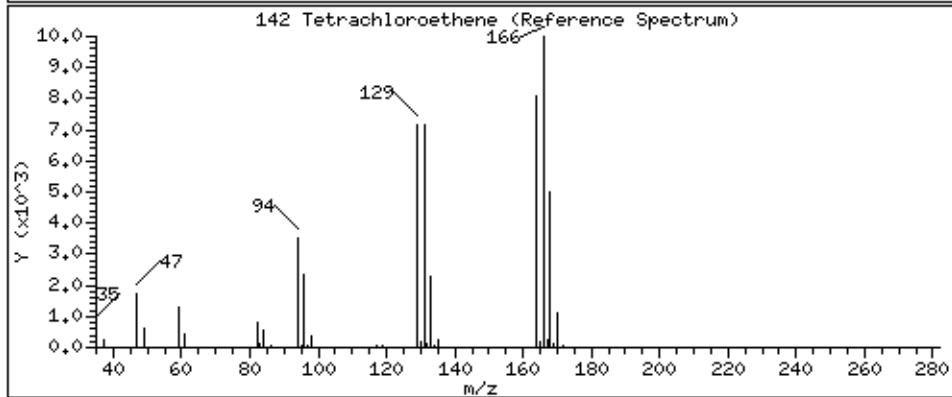
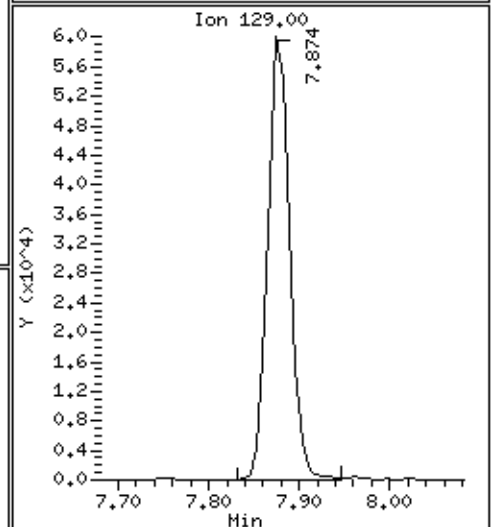
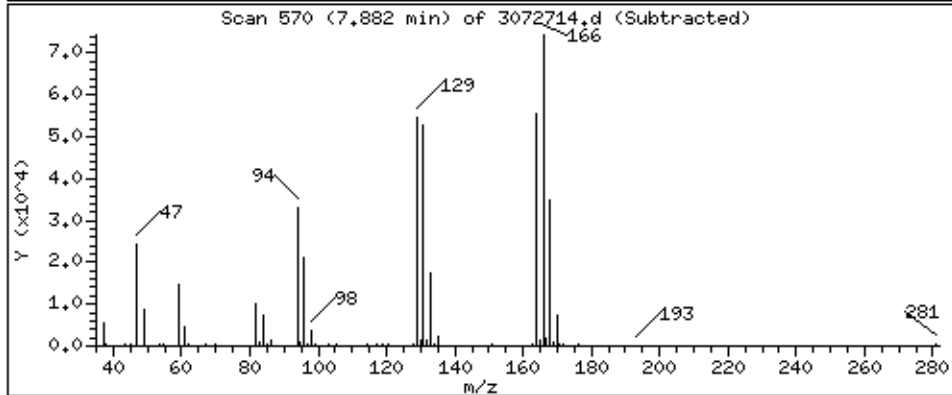
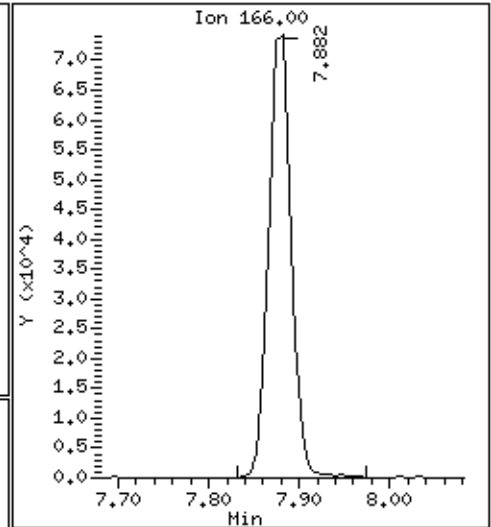
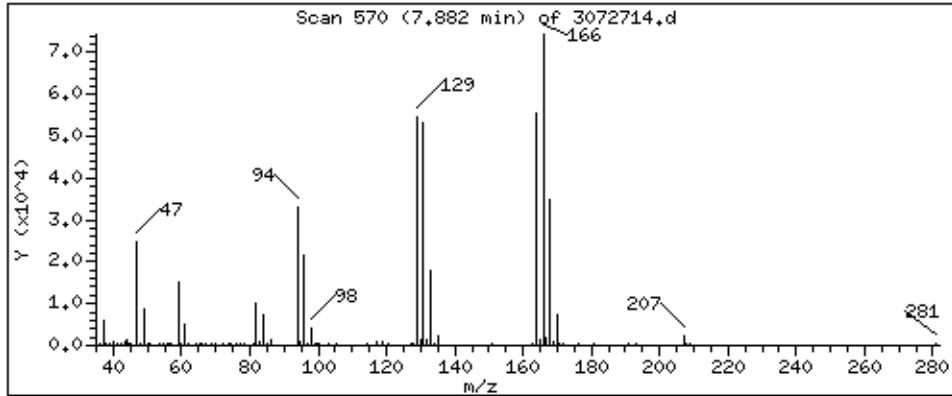
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 22,408 PPBV



Client Sample ID: SG-VW20A-02

Lab ID#: 2107284-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072715	Date of Collection:	7/14/21 2:10:00 PM
Dil. Factor:	2.15	Date of Analysis:	7/27/21 07:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.3	Not Detected	30	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.4	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1-Difluoroethane	4.3	180	12	490
1,2,3-Trichloropropane	4.3	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,2-Dibromo-3-chloropropane	4.3	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.3	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	13	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected
2-Propanol	4.3	Not Detected	10	Not Detected
3-Chloropropene	4.3	Not Detected	13	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Acetone	11	23	26	54
Acrolein	4.3	Not Detected	9.8	Not Detected
Acrylonitrile	4.3	Not Detected	9.3	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.6	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Carbon Disulfide	4.3	Not Detected	13	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Chloroform	1.1	Not Detected	5.2	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected



Client Sample ID: SG-VW20A-02

Lab ID#: 2107284-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072715	Date of Collection:	7/14/21 2:10:00 PM
Dil. Factor:	2.15	Date of Analysis:	7/27/21 07:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
Cumene	1.1	Not Detected	5.3	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Dibromochloromethane	1.1	Not Detected	9.2	Not Detected
Dibromomethane	4.3	Not Detected	30	Not Detected
Ethanol	11	Not Detected	20	Not Detected
Ethyl Acetate	4.3	Not Detected	15	Not Detected
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
Ethyl-tert-butyl ether	4.3	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
Freon 114	1.1	Not Detected	7.5	Not Detected
Freon 134a	4.3	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected
Hexachloroethane	4.3	Not Detected	42	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
Iodomethane	11	Not Detected	62	Not Detected
Isopropyl ether	4.3	Not Detected	18	Not Detected
m,p-Xylene	1.1	Not Detected	4.7	Not Detected
Methyl tert-butyl ether	4.3	Not Detected	16	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Naphthalene	2.2	Not Detected	11	Not Detected
o-Xylene	1.1	Not Detected	4.7	Not Detected
Propylbenzene	1.1	Not Detected	5.3	Not Detected
Propylene	4.3	Not Detected	7.4	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
tert-Amyl methyl ether	4.3	Not Detected	18	Not Detected
tert-Butyl alcohol	4.3	Not Detected	13	Not Detected
Tetrachloroethene	1.1	5.8	7.3	39
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
TPH ref. to Gasoline (MW=100)	110	Not Detected	440	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
Vinyl Acetate	4.3	Not Detected	15	Not Detected
Vinyl Bromide	4.3	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW20A-02

Lab ID#: 2107284-26A

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072715</b>	<b>Date of Collection: 7/14/21 2:10:00 PM</b>
<b>Dil. Factor:</b>	<b>2.15</b>	<b>Date of Analysis: 7/27/21 07:27 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	93	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/27JUL21.b/3072715.d  
Lab Smp Id: 2107284-26A  
Inj Date : 27-JUL-2021 19:27  
Operator : LD  
Smp Info : 200mL S1120  
Misc Info : 6.5 Hg->10.1 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/27JUL21.b/321q0622a.m  
Meth Date : 27-Jul-2021 15:31 lk8g  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 6  
Dil Factor: 2.15000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				( PPBV)	( PPBV)				
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.285	5.284	(1.000)	130	224117	25.0000	80.00- 120.00	100.00		
5.285	5.284	(1.000)	128	175207		48.46- 108.46	78.18		
5.271	5.270	(1.000)	49	312651		120.39- 180.39	139.50		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.180	6.180	(1.000)	114	706428	25.0000	80.00- 120.00	100.00		
6.166	6.180	(1.000)	88	103213		0.00- 45.52	14.61		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
8.619	8.612	(1.000)	117	659959	25.0000	80.00- 120.00	100.00		
8.619	8.612	(1.000)	82	340888		25.46- 85.46	51.65		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
5.816	5.816	(1.101)	65	288464	23.3889	23.389 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	139451		21.66- 81.66	48.34		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.387	7.387	(1.195)	98	734778	25.2531	25.253 80.00- 120.00	100.00		
7.387	7.387	(1.195)	70	82569		0.00- 41.47	11.24		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	480012			36.47- 96.47	65.33
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.114)	174	407310	23.3332	23.333	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	453309			93.06- 153.06	111.29
9.601	9.601	(1.114)	176	377604			62.87- 122.87	92.71
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.437	1.437	(0.272)	65	296075	83.9023	180.39	80.00- 120.00	100.00
1.479	1.479	(0.280)	51	897854			321.86- 381.86	303.25
1.437	1.451	(0.272)	47	168808			45.34- 105.34	57.02
-----								
47 Acetone								
						CAS #: 67-64-1		
3.242	3.214	(0.613)	58	40034	10.6531	22.904	80.00- 120.00	100.00(H)
3.242	3.214	(0.613)	43	133253			299.66- 359.66	332.84
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
7.882	7.881	(0.914)	166	27837	2.69242	5.789	80.00- 120.00	100.00
7.882	7.881	(0.914)	129	22088			48.71- 108.71	79.35
7.874	7.874	(0.914)	131	21735			46.55- 106.55	78.08
-----								

QC Flag Legend

H - Operator selected an alternate compound hit.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072715.d  
Lab Smp Id: 2107284-26A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: 6.5 Hg->10.1 psi

Calibration Date: 27-JUL-2021  
Calibration Time: 11:36  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	238986	143392	334580	224117	-6.22
108 1,4-Difluorobenze	785289	471173	1099405	706428	-10.04
153 Chlorobenzene-d5	683596	410158	957034	659959	-3.46

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 27JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2107284-26A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: 6.5 Hg->10.1 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	23.389	93.56	70-130
\$ 134 Toluene-d8	25.000	25.253	101.01	70-130
\$ 170 4-Bromofluorobenz	25.000	23.333	93.33	70-130

Date : 27-JUL-2021 19:27

Client ID:

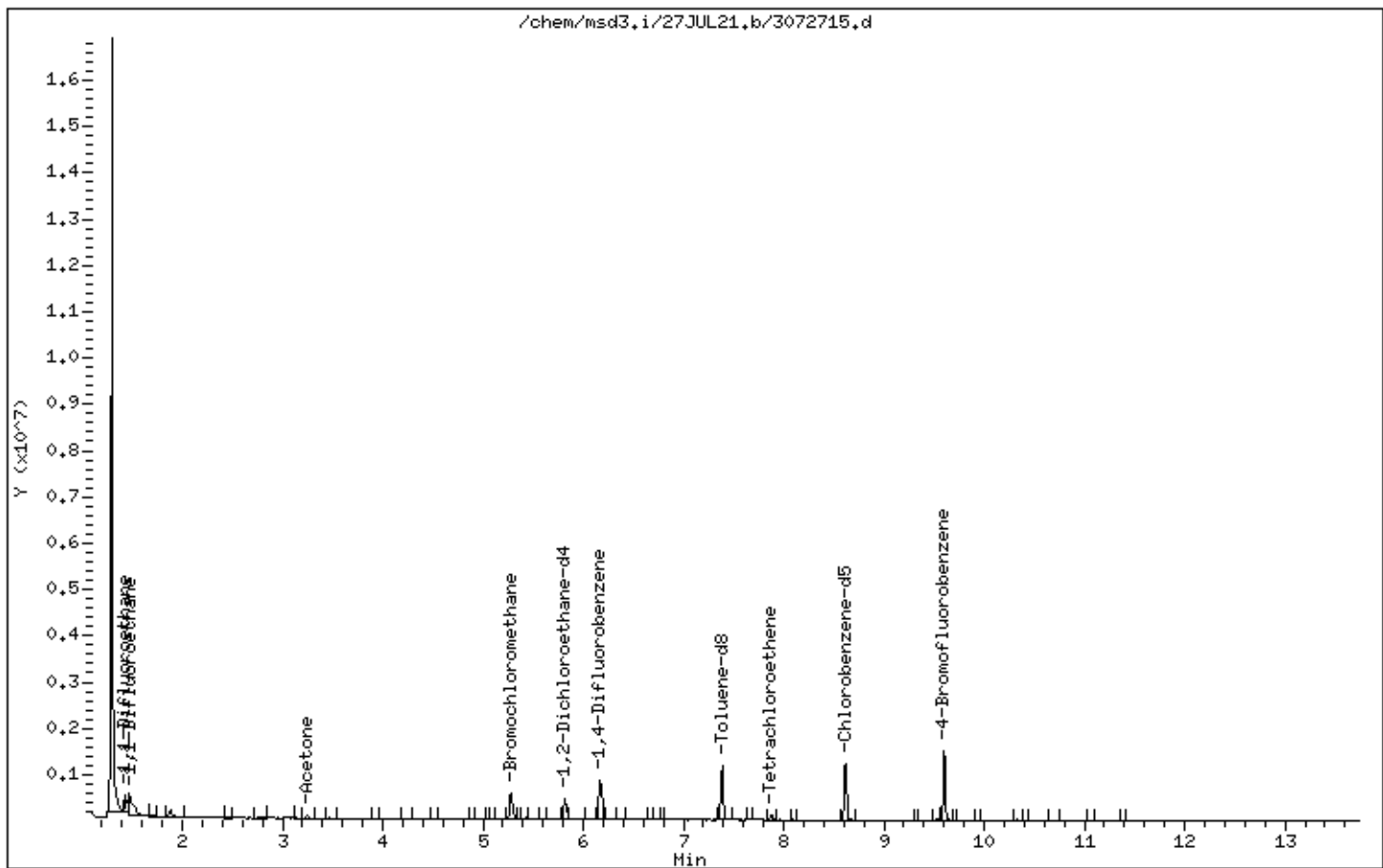
Instrument: msd3,i

Sample Info: 200mL S1120

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 27-JUL-2021 19:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL S1120

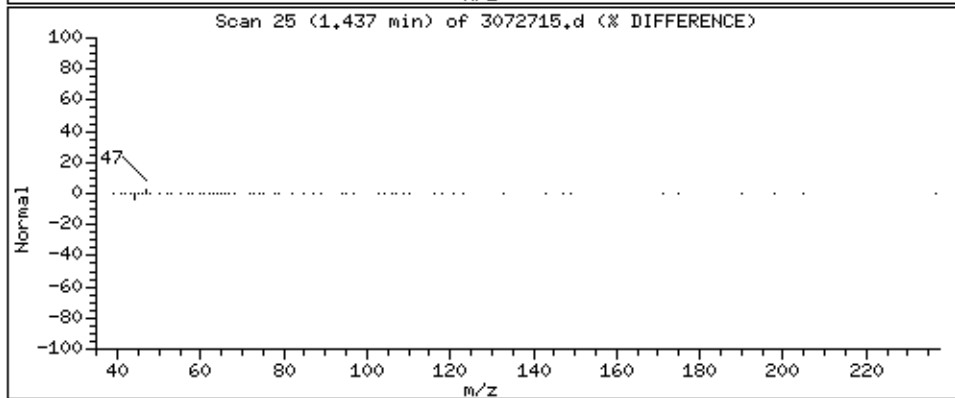
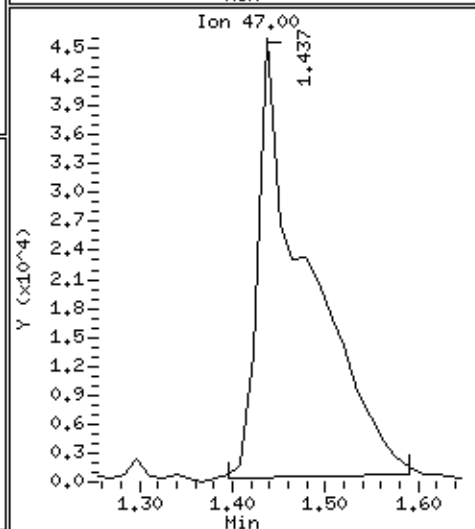
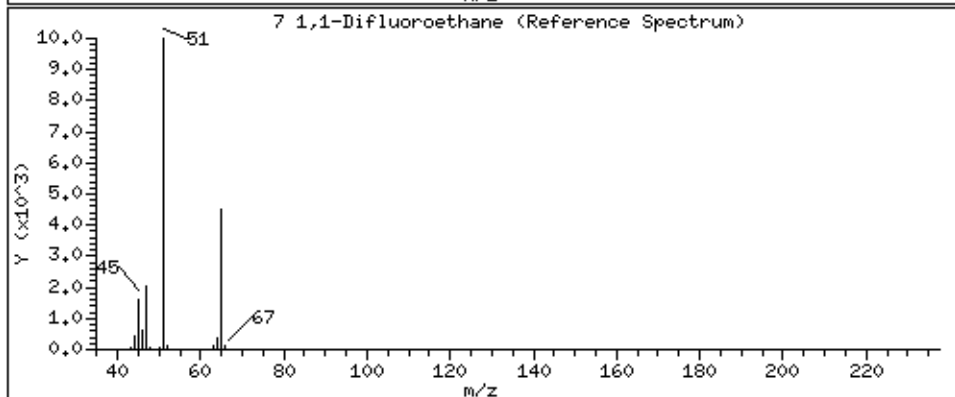
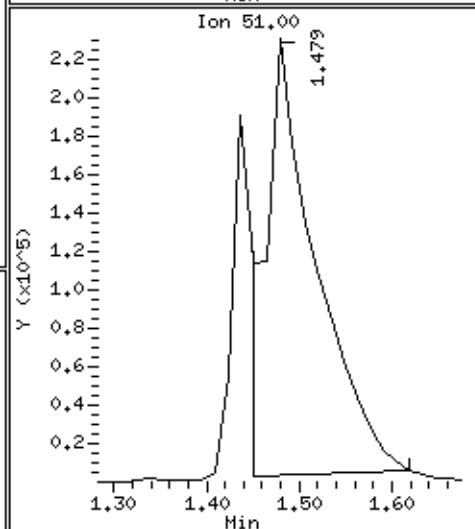
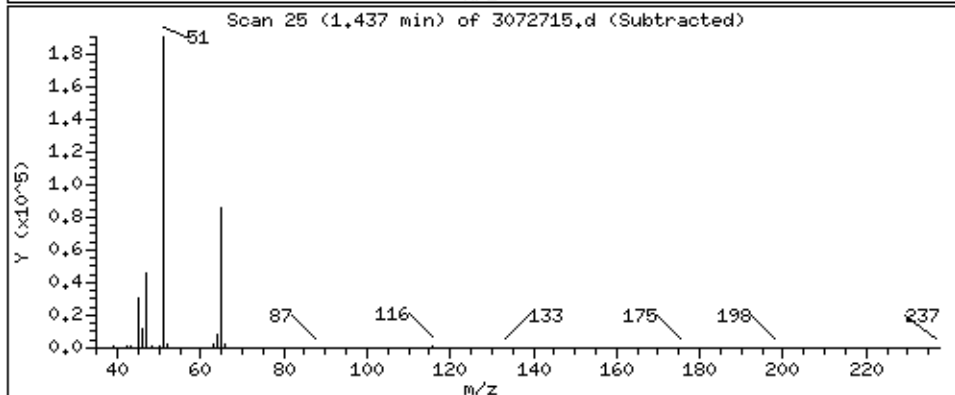
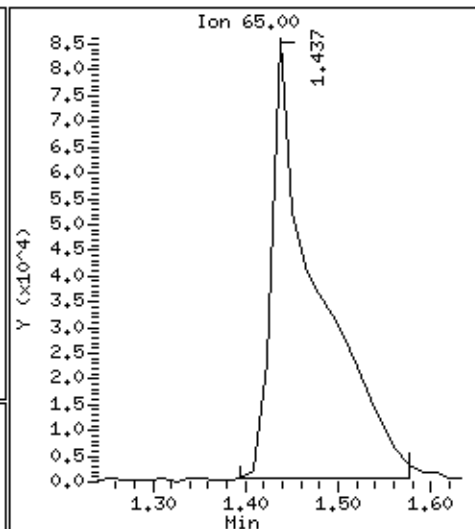
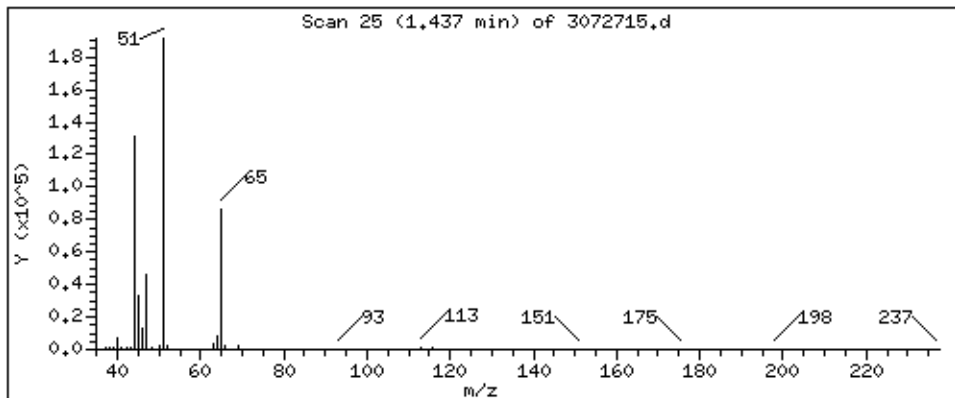
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 180.39 PPBV





Date : 27-JUL-2021 19:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL S1120

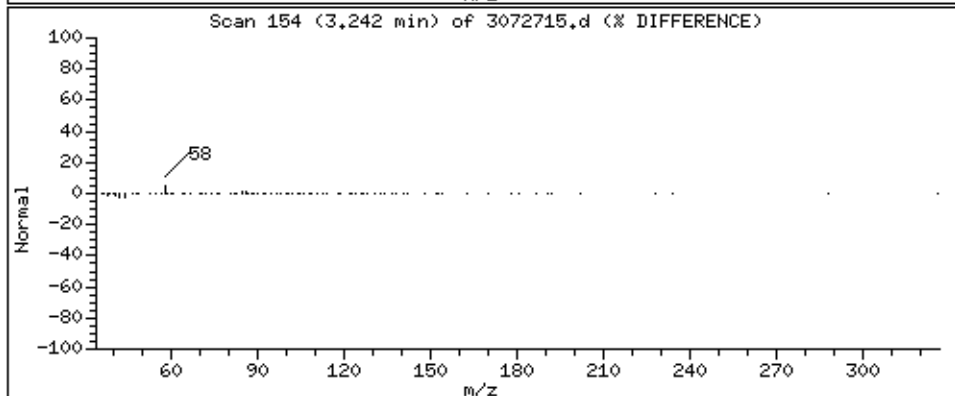
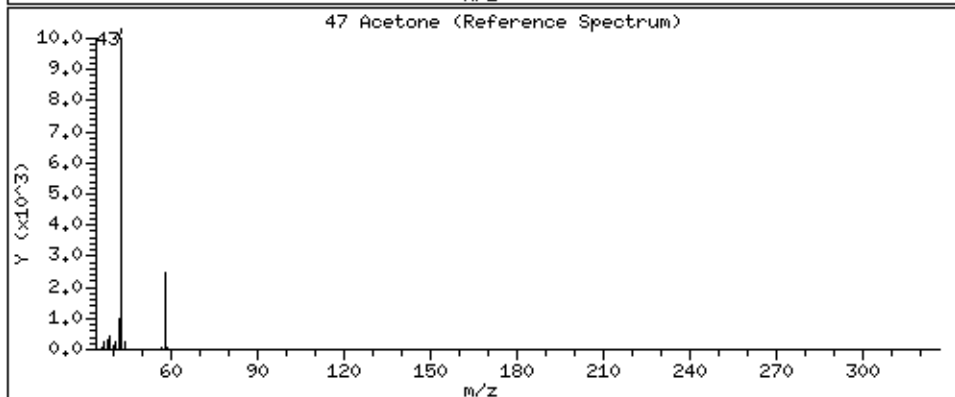
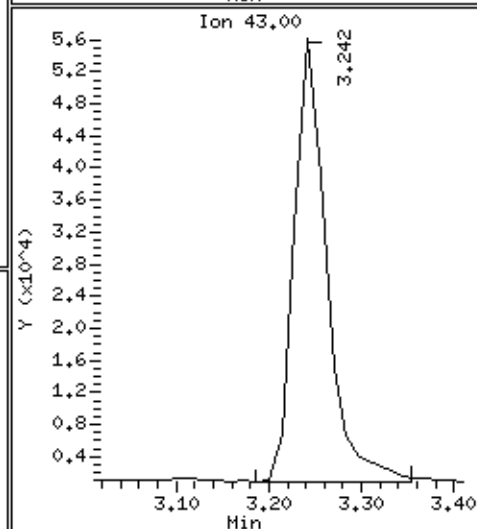
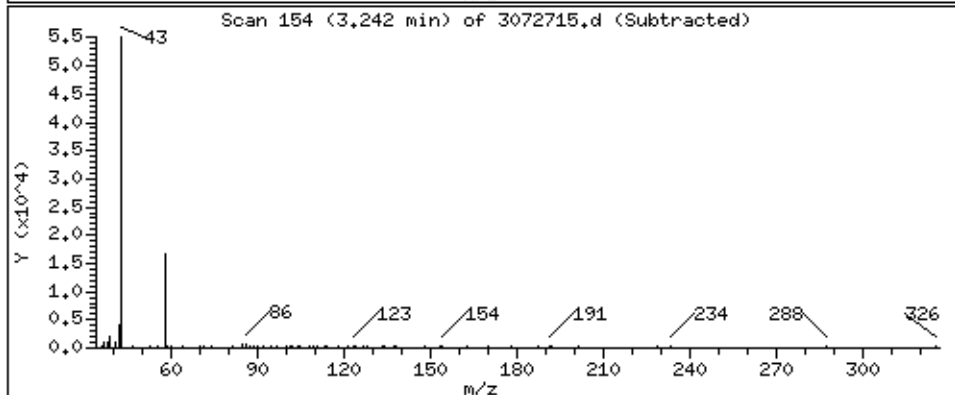
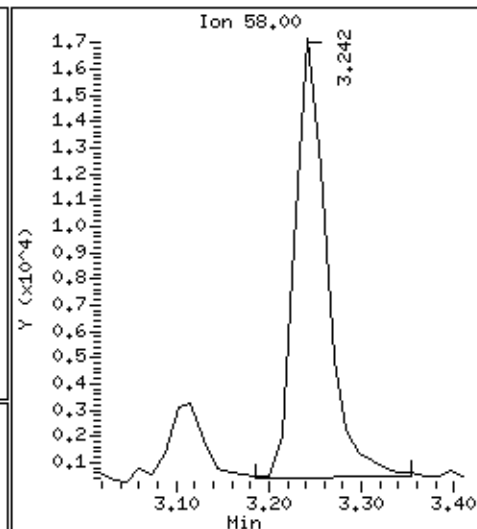
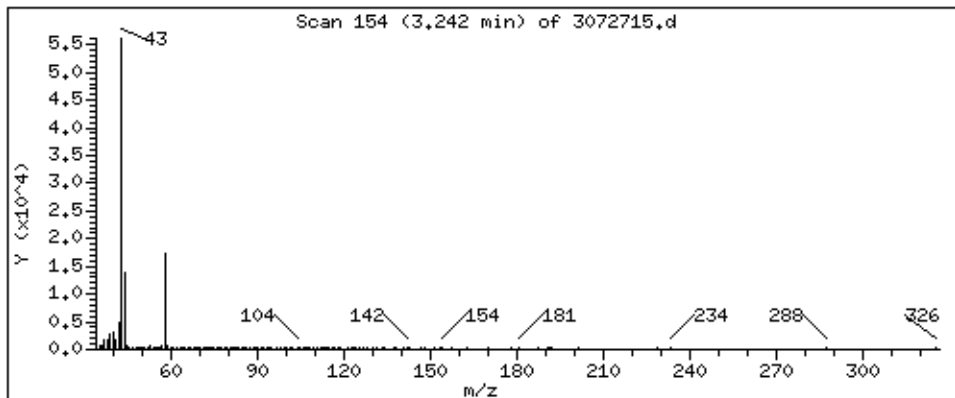
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 22,904 PPBV



Date : 27-JUL-2021 19:27

Client ID:

Instrument: msd3,i

Sample Info: 200mL S1120

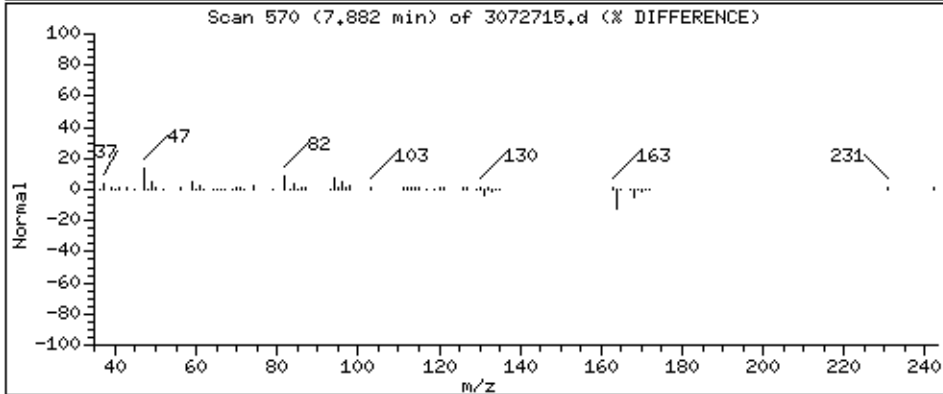
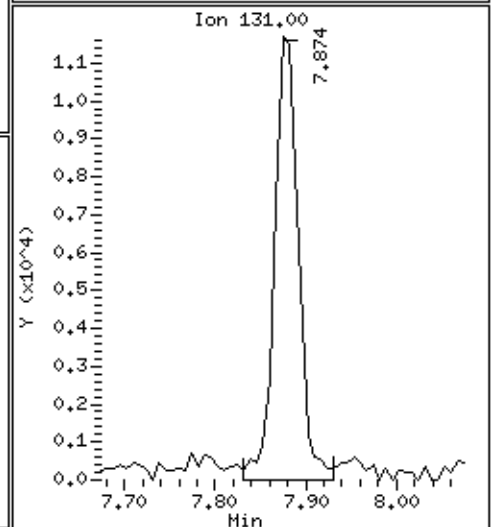
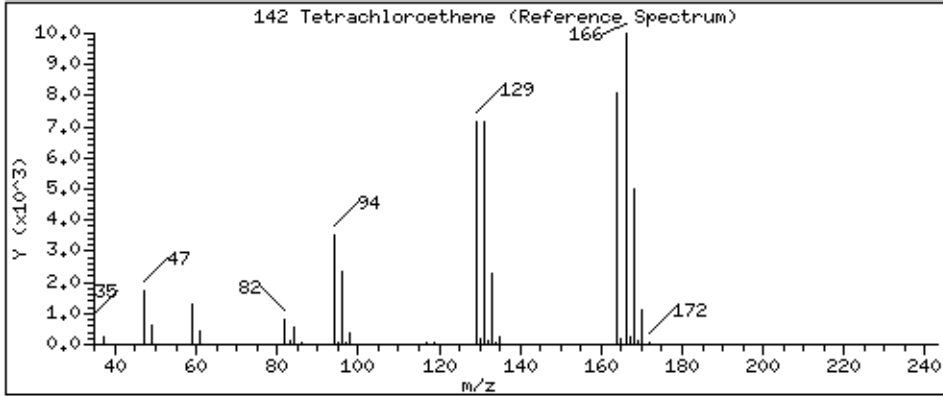
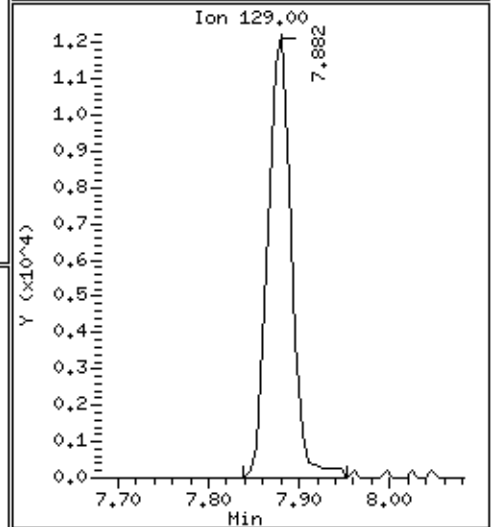
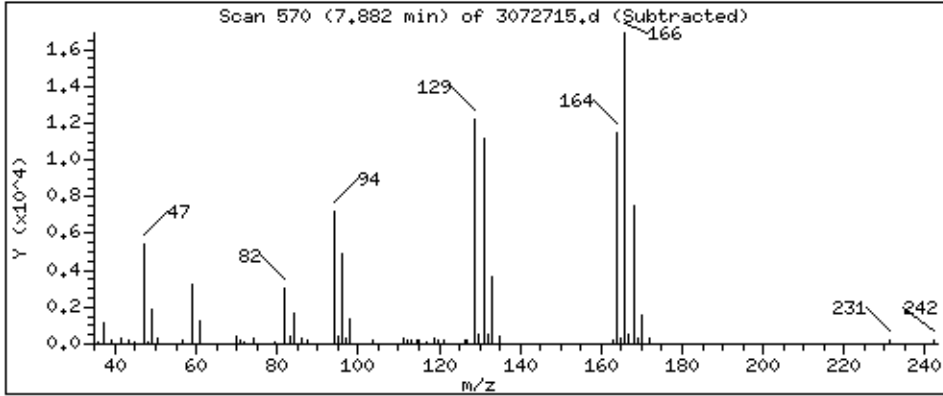
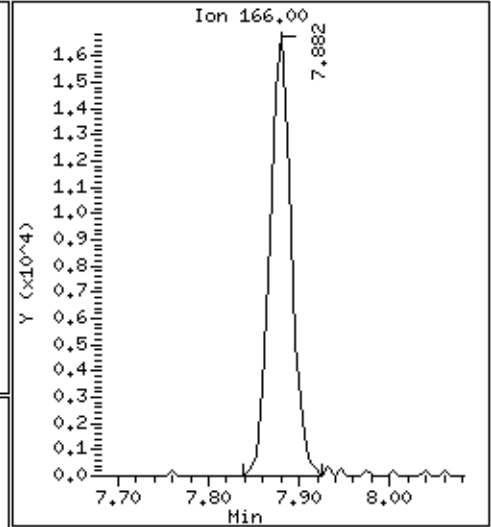
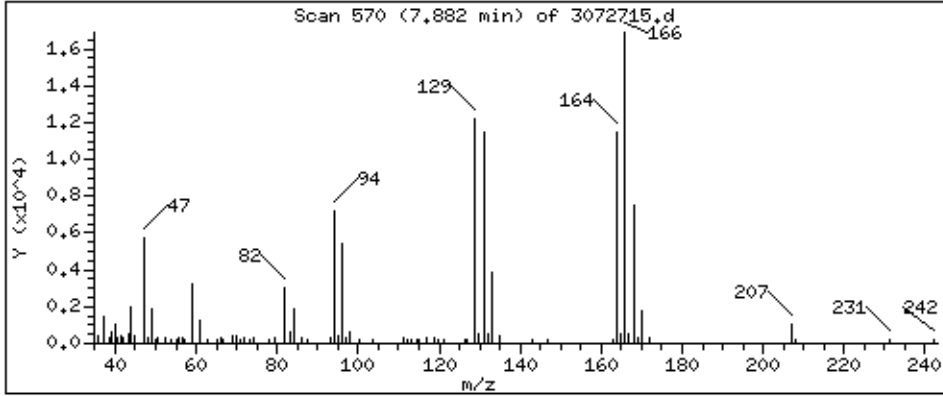
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 5.789 PPBV



## **QC Results and Raw Data**

Client Sample ID: Lab Blank

Lab ID#: 2107284-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072608a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/26/21 02:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	2.0	Not Detected	14	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
1,2,3-Trichloropropane	2.0	Not Detected	12	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2-Dibromo-3-chloropropane	2.0	Not Detected	19	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Acrolein	2.0	Not Detected	4.6	Not Detected
Acrylonitrile	2.0	Not Detected	4.3	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 2107284-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072608a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/26/21 02:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Dibromomethane	2.0	Not Detected	14	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Ethyl Acetate	2.0	Not Detected	7.2	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Freon 134a	2.0	Not Detected	8.3	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Hexachloroethane	2.0	Not Detected	19	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Iodomethane	5.0	Not Detected	29	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Propylene	2.0	Not Detected	3.4	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
Vinyl Bromide	2.0	Not Detected	8.7	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 2107284-27A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072608a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/26/21 02:16 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	95	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072608a.d  
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
Inj Date : 26-JUL-2021 14:16  
Operator : LD Inst ID: msd3.i  
Smp Info : 200mL 34353  
Misc Info : Humid  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 26-Jul-2021 13:22 lk8g Quant Type: ISTD  
Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
Als bottle: 11  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AEC25677.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5		
5.284	5.284	(1.000)	130	255553	25.0000	80.00- 120.00	100.00	
5.284	5.284	(1.000)	128	201396		48.46- 108.46	78.81	
5.284	5.270	(1.000)	49	356859		120.39- 180.39	139.64	
-----								
* 108	1,4-Difluorobenzene					CAS #: 540-36-3		
6.166	6.166	(1.000)	114	858597	25.0000	80.00- 120.00	100.00	
6.166	6.166	(1.000)	88	124737		0.00- 45.52	14.53	
-----								
* 153	Chlorobenzene-d5					CAS #: 3114-55-4		
8.612	8.612	(1.000)	117	759011	25.0000	80.00- 120.00	100.00	
8.619	8.612	(1.000)	82	393072		25.46- 85.46	51.79	
-----								
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.816	5.816	(1.101)	65	343607	24.4328	24.433 80.00- 120.00	100.00	
5.816	5.816	(1.101)	67	166556		21.66- 81.66	48.47	
-----								
\$ 134	Toluene-d8					CAS #: 2037-26-5		
7.387	7.387	(1.198)	98	836392	23.6508	23.651 80.00- 120.00	100.00	
7.387	7.380	(1.198)	70	90897		0.00- 41.47	10.87	

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO	
					ON-COL	FINAL			
==	=====	=====	=====	=====	( PPBV)	( PPBV)	=====	=====	
\$ 134 Toluene-d8 (continued)									
7.387	7.387	(1.198)	100	555136			36.47-	96.47	66.37
-----									
\$ 170 4-Bromofluorobenzene									
CAS #: 460-00-4									
9.601	9.601	(1.115)	174	476880	23.7535	23.754	80.00-	120.00	100.00
9.601	9.601	(1.115)	95	535324			93.06-	153.06	112.26
9.601	9.601	(1.115)	176	441455			62.87-	122.87	92.57
-----									



US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072608a.d  
Lab Smp Id: Lab Blank  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: Humid

Calibration Date: 26-JUL-2021  
Calibration Time: 10:10  
Client Smp ID: Lab Blank  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	255553	-3.19
108 1,4-Difluorobenze	833448	500069	1166827	858597	3.02
153 Chlorobenzene-d5	741338	444803	1037873	759011	2.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.17	0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.

Report Date: 26-Jul-2021 14:41

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.433	97.73	70-130
\$ 134 Toluene-d8	25.000	23.651	94.60	70-130
\$ 170 4-Bromofluorobenz	25.000	23.754	95.01	70-130

Date : 26-JUL-2021 14:16

Client ID: Lab Blank

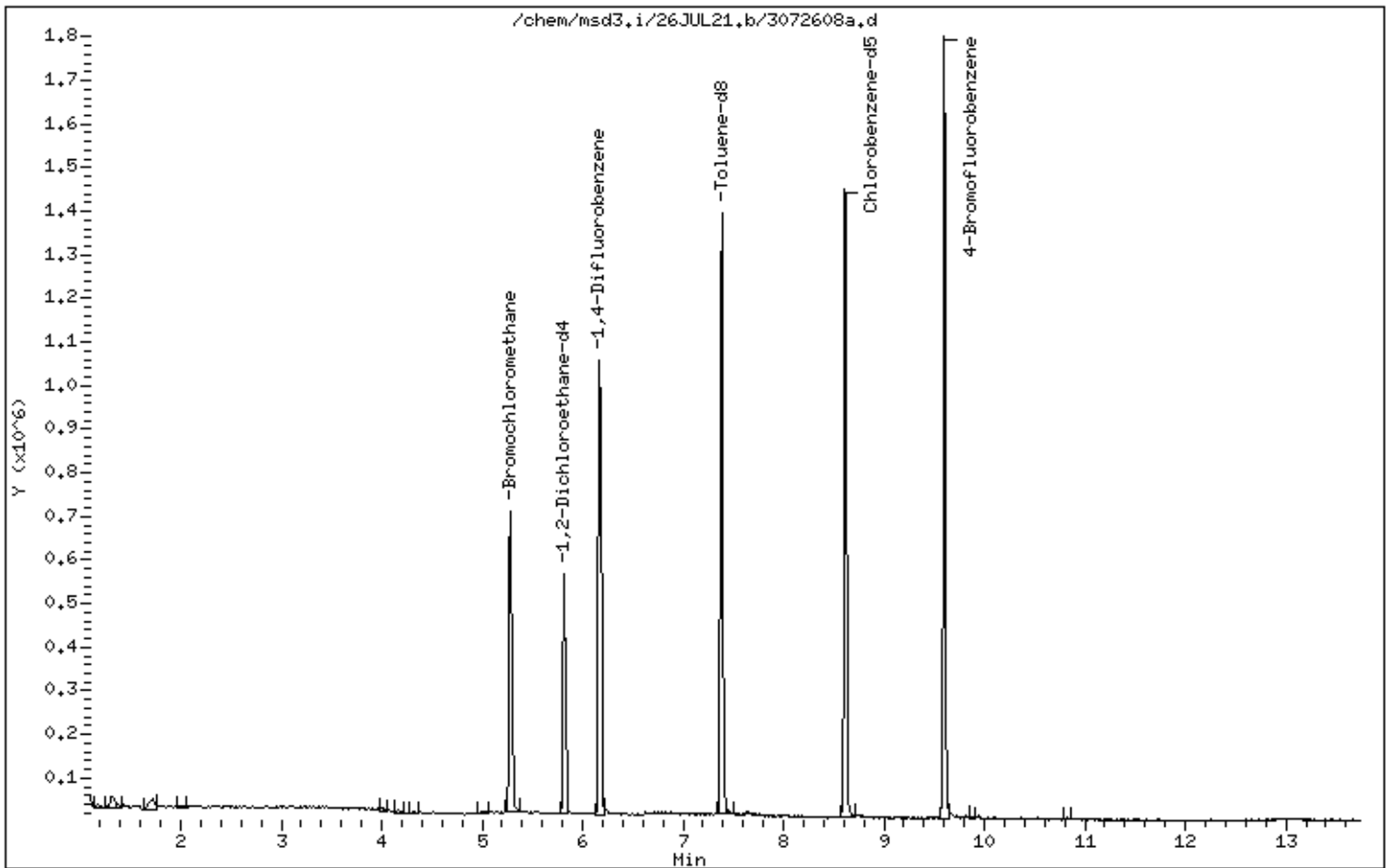
Instrument: msd3,i

Sample Info: 200mL 34353

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Client Sample ID: Lab Blank

Lab ID#: 2107284-27B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072709a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/27/21 03:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	2.0	Not Detected	14	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
1,2,3-Trichloropropane	2.0	Not Detected	12	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2-Dibromo-3-chloropropane	2.0	Not Detected	19	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Acrolein	2.0	Not Detected	4.6	Not Detected
Acrylonitrile	2.0	Not Detected	4.3	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 2107284-27B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072709a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/27/21 03:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Dibromomethane	2.0	Not Detected	14	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Ethyl Acetate	2.0	Not Detected	7.2	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Freon 134a	2.0	Not Detected	8.3	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Hexachloroethane	2.0	Not Detected	19	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Iodomethane	5.0	Not Detected	29	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Propylene	2.0	Not Detected	3.4	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
Vinyl Bromide	2.0	Not Detected	8.7	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 2107284-27B

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072709a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/27/21 03:47 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	88	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	96	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/27JUL21.b/3072709a.d  
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
Inj Date : 27-JUL-2021 15:47  
Operator : LD Inst ID: msd3.i  
Smp Info : 200mL 34353  
Misc Info : Humid  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/27JUL21.b/321q0622a.m  
Meth Date : 27-Jul-2021 15:31 lk8g Quant Type: ISTD  
Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
Als bottle: 11  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AEC25677.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.284	5.284	(1.000)	130	272067	25.0000	80.00- 120.00	100.00		
5.284	5.284	(1.000)	128	210963		48.46- 108.46	77.54		
5.284	5.270	(1.000)	49	372693		120.39- 180.39	136.99		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.180	6.180	(1.000)	114	957155	25.0000	80.00- 120.00	100.00		
6.166	6.180	(1.000)	88	142293		0.00- 45.52	14.87		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
8.612	8.612	(1.000)	117	785290	25.0000	80.00- 120.00	100.00		
8.612	8.612	(1.000)	82	412756		25.46- 85.46	52.56		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
5.816	5.816	(1.101)	65	383698	25.6275	25.627 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	183449		21.66- 81.66	47.81		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.387	7.387	(1.195)	98	867753	22.0110	22.011 80.00- 120.00	100.00		
7.387	7.387	(1.195)	70	96428		0.00- 41.47	11.11		

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO	
					ON-COL	FINAL			
==	=====	=====	=====	=====	( PPBV)	( PPBV)	=====	=====	
\$ 134 Toluene-d8 (continued)									
7.387	7.387	(1.195)	100	575958			36.47-	96.47	66.37
-----									
\$ 170 4-Bromofluorobenzene									
					CAS #: 460-00-4				
9.601	9.601	(1.115)	174	500278	24.0851	24.085	80.00-	120.00	100.00
9.601	9.601	(1.115)	95	563393			93.06-	153.06	112.62
9.601	9.601	(1.115)	176	459967			62.87-	122.87	91.94
-----									



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 27-JUL-2021
Lab File ID: 3072709a.d	Calibration Time: 11:36
Lab Smp Id: Lab Blank	Client Smp ID: Lab Blank
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m	
Misc Info: Humid	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	238986	143392	334580	272067	13.84
108 1,4-Difluorobenze	785289	471173	1099405	957155	21.89
153 Chlorobenzene-d5	683596	410158	957034	785290	14.88

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	-0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 27JUL21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	25.627	102.51	70-130
\$ 134 Toluene-d8	25.000	22.011	88.04	70-130
\$ 170 4-Bromofluorobenz	25.000	24.085	96.34	70-130

Date : 27-JUL-2021 15:47

Client ID: Lab Blank

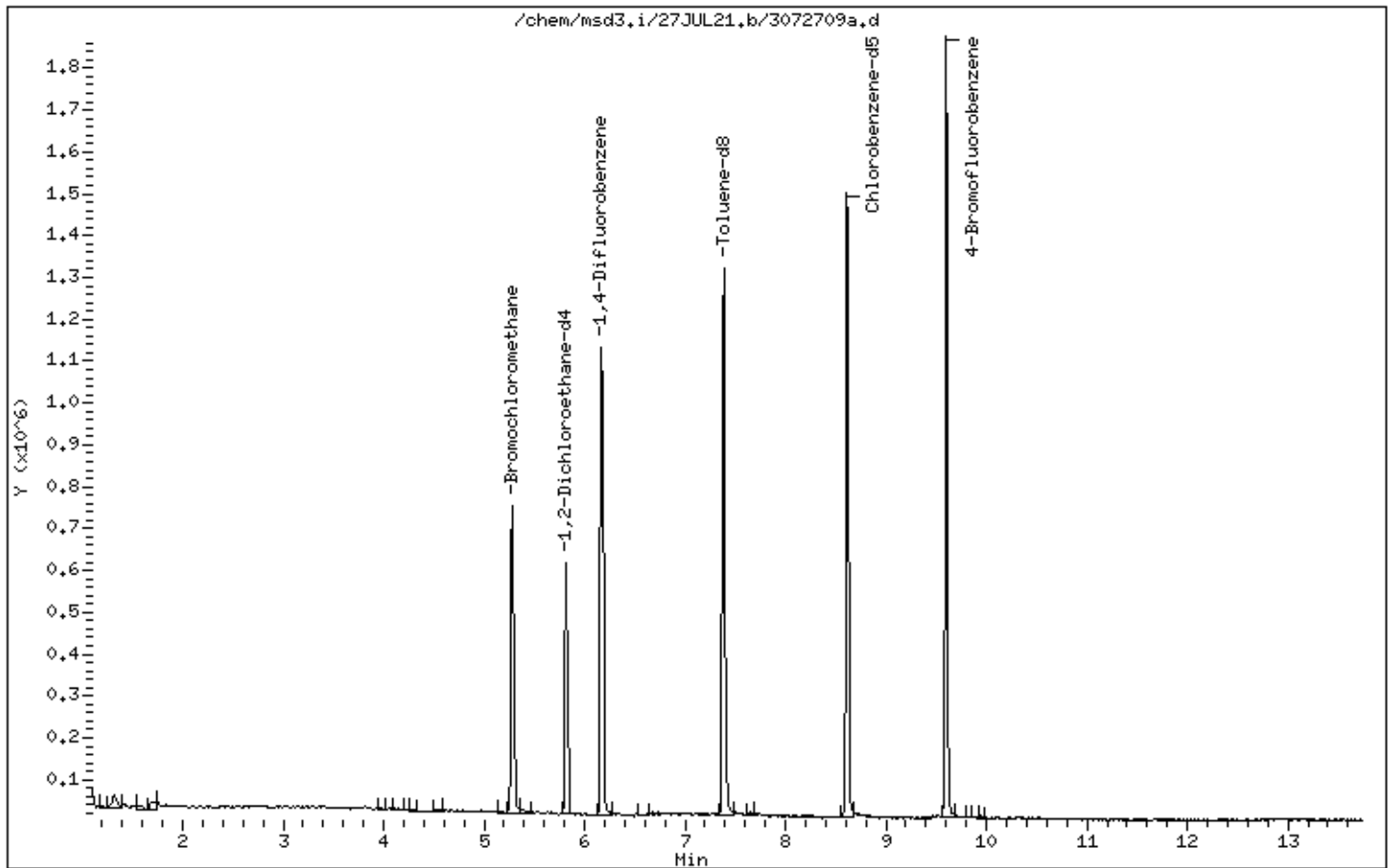
Instrument: msd3,i

Sample Info: 200mL 34353

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



**LEVEL-IV VALIDATABLE**  
**MODIFIED EPA METHOD TO-15**  
**SURROGATE RECOVERY FORM**

Lab Name : Eurofins Air Toxics, LLC \_\_\_\_\_ SDG No. :2107284

CLIENT SAMPLE NO.		SURROGATE % RECOVERY						
						TOTAL		
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#	OUT
1	SG-VW57A-02	103		92		95		
2	SG-VW56B-02	98		95		95		
3	SG-VW56A-02	91		95		95		
4	SG-VW39B-02	98		96		95		
5	SG-VW39A-02	104		89		94		
6	SG-VW38B-03	94		101		94		
7	SG-VW38A-02	96		101		96		
8	SG-VW38A-03	96		96		94		
9	SG-VW15-02	96		94		97		
10	SG-VW15-03	99		97		94		
11	SG-VW33A-02	98		100		92		
12	SG-VW33B-02	98		95		95		
13	SG-VW34A-02	97		100		88		
14	SG-VW34A-03	95		96		93		
15	SG-VW34B-02	96		94		94		
16	SG-VW55B-02	97		95		94		
17	SG-VW60A-01	103		89		98		
18	SG-VW60B-01	98		89		98		
19	SG-VW54B-02	98		94		94		
20	SG-VW24B-02	95		98		92		
21	SG-VW58A-01	94		96		97		
22	SG-VW58B-01	99		95		98		
23	SG-VW23B-02	98		96		96		
24	SG-VW22A-02	96		97		94		
25	SG-VW22B-02	98		96		95		
26	SG-VW20A-02	94		101		93		
27	Lab Blank	98		95		95		
28	Lab Blank	102		88		96		
29	CCV	95		96		108		
30	CCV	97		96		108		
31	LCS	95		97		105		
32	LCSD	107		90		100		
33	LCS	100		92		101		
34	LCSD	99		93		99		

Surrogate Recovery Limits

1,2-Dichloroethane-d4      70 - 130  
Toluene-d8                      70 - 130

4-Bromofluorobenzene 70 - 130

\* Designates Values Outside of QC limits

**LEVEL-IV VALIDATABLE**

**MODIFIED EPA METHOD TO-15**

**INTERNAL STANDARD AREA AND RT SUMMARY**

Lab Name : Eurofins Air Toxics, LLC File ID: 3072602.d Date : 2021-07-26 10:10:00 SDG No. : 2107284

		Bromochloromethane	RT	1,4-Difluorobenzene	RT	Chlorobenzene-d5	RT
24-HOUR CCV		263983	5.28	833448	6.17	741338	8.61
UPPER LIMIT		369576	5.61	1166827	6.50	1037873	8.94
LOWER LIMIT		158389	4.95	500068	5.84	444802	8.28
<b>CLIENT SAMPLE NO.</b>							
1	SG-VW57A-02	242600	5.28	853349	6.18	731637	8.62
2	SG-VW56B-02	253852	5.28	877954	6.18	760464	8.61
3	SG-VW56A-02	263761	5.28	826121	6.18	736783	8.62
4	SG-VW39B-02	291710	5.28	967521	6.17	866593	8.61
5	SG-VW39A-02	229460	5.28	818801	6.18	677990	8.62
6	SG-VW38B-03	299708	5.27	972248	6.17	893423	8.61
7	SG-VW38A-02	223936	5.28	721096	6.18	655650	8.62
8	SG-VW38A-03	302092	5.27	992557	6.17	885330	8.61
9	SG-VW15-02	273053	5.28	868301	6.18	767029	8.61
10	SG-VW15-03	239694	5.28	811222	6.18	717699	8.62
11	SG-VW33A-02	233678	5.27	792586	6.17	737935	8.61
12	SG-VW33B-02	280054	5.28	930245	6.17	824737	8.61
13	SG-VW34A-02	213616	5.28	724580	6.18	671260	8.62
14	SG-VW34A-03	226058	5.28	718680	6.18	659768	8.62
15	SG-VW34B-02	292342	5.28	957918	6.17	911515	8.61
16	SG-VW55B-02	232873	5.28	751650	6.18	675437	8.62
17	SG-VW60A-01	237508	5.28	799627	6.18	663097	8.62
18	SG-VW60B-01	228555	5.28	802795	6.18	668523	8.62
19	SG-VW54B-02	265446	5.28	886857	6.17	787055	8.61
20	SG-VW24B-02	226843	5.28	724759	6.18	664237	8.62
21	Lab Blank	255553	5.28	858597	6.17	759011	8.61
22	CCV	263983	5.28	833448	6.17	741338	8.61
23	LCS	278488	5.28	900018	6.17	790831	8.61
24	LCSD	264503	5.28	983852	6.18	787648	8.61

Area Upper Limit = +40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT

Area Lower Limit = -40% of internal standard area

RT Lower Limit = -0.33 minutes of internal standard RT

\* Designates Values Outside of QC limits

**LEVEL-IV VALIDATABLE**

**MODIFIED EPA METHOD TO-15**

**INTERNAL STANDARD AREA AND RT SUMMARY**

Lab Name : Eurofins Air Toxics, LLC File ID: 3072703.d Date : 2021-07-27 11:36:00 SDG No. : 2107284

		Bromochloromethane	RT	1,4-Difluorobenzene	RT	Chlorobenzene-d5	RT
24-HOUR CCV		238986	5.28	785289	6.18	683596	8.61
UPPER LIMIT		334580	5.61	1099404	6.51	957034	8.94
LOWER LIMIT		143391	4.95	471173	5.85	410157	8.28
<b>CLIENT SAMPLE NO.</b>							
1	SG-VW58A-01	250502	5.27	830802	6.17	734750	8.61
2	SG-VW58B-01	258743	5.28	876809	6.18	780715	8.62
3	SG-VW23B-02	272846	5.28	912900	6.18	798407	8.62
4	SG-VW22A-02	253230	5.28	829096	6.17	762549	8.61
5	SG-VW22B-02	269144	5.28	896639	6.17	791630	8.61
6	SG-VW20A-02	224117	5.28	706428	6.18	659959	8.62
7	Lab Blank	272067	5.28	957155	6.18	785290	8.61
8	CCV	238986	5.28	785289	6.18	683596	8.61
9	LCS	250619	5.28	851577	6.18	720138	8.62
10	LCSD	243047	5.28	877445	6.18	719626	8.62

Area Upper Limit = +40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT

Area Lower Limit = -40% of internal standard area

RT Lower Limit = -0.33 minutes of internal standard RT

\* Designates Values Outside of QC limits

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab File ID: 3072603a.d & 3072606a.d

Lab Sample ID: 29A & 29AA

CAS Number	Compound	Original	Duplicate	Result Less Than	
		Amount	Amount	RPD	5X RL
71-55-6	1,1,1-Trichloroethane	88	94	6.6	
79-34-5	1,1,2,2-Tetrachloroethane	97	97	0	
79-00-5	1,1,2-Trichloroethane	97	96	1.0	
75-34-3	1,1-Dichloroethane	92	93	1.1	
75-35-4	1,1-Dichloroethene	93	96	3.2	
120-82-1	1,2,4-Trichlorobenzene	105	116	10.0	
95-63-6	1,2,4-Trimethylbenzene	99	99	0	
106-93-4	1,2-Dibromoethane (EDB)	101	100	1.00	
95-50-1	1,2-Dichlorobenzene	101	103	2.0	
107-06-2	1,2-Dichloroethane	103	101	2.0	
78-87-5	1,2-Dichloropropane	83	74	11	
108-67-8	1,3,5-Trimethylbenzene	96	97	1.0	
106-99-0	1,3-Butadiene	98	102	4.0	
541-73-1	1,3-Dichlorobenzene	103	103	0	
106-46-7	1,4-Dichlorobenzene	102	102	0	
123-91-1	1,4-Dioxane	95	94	1.1	
540-84-1	2,2,4-Trimethylpentane	85	98	14	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	95	95	0	
591-78-6	2-Hexanone	94	94	0	
67-63-0	2-Propanol	98	101	3.0	
107-05-1	3-Chloropropene	90	95	5.4	
622-96-8	4-Ethyltoluene	100	100	0	
108-10-1	4-Methyl-2-pentanone	83	79	4.9	
67-64-1	Acetone	96	97	1.0	
100-44-7	alpha-Chlorotoluene	95	94	1.1	
71-43-2	Benzene	100	98	2.0	
75-27-4	Bromodichloromethane	92	91	1.1	
75-25-2	Bromoform	114	106	7.3	
74-83-9	Bromomethane	98	103	5.0	
75-15-0	Carbon Disulfide	101	104	2.9	
56-23-5	Carbon Tetrachloride	96	106	9.9	
108-90-7	Chlorobenzene	98	98	0	
75-00-3	Chloroethane	99	100	1.0	
67-66-3	Chloroform	95	96	1.0	
74-87-3	Chloromethane	111	117	5.3	
156-59-2	cis-1,2-Dichloroethene	91	90	1.1	



10061-01-5	cis-1,3-Dichloropropene	91	87	4.5	
98-82-8	Cumene	103	96	7.0	
110-82-7	Cyclohexane	85	91	6.8	
124-48-1	Dibromochloromethane	105	104	0.96	
64-17-5	Ethanol	69	71	2.9	
100-41-4	Ethyl Benzene	100	99	1.0	
75-69-4	Freon 11	106	110	3.7	
76-13-1	Freon 113	100	104	3.9	
76-14-2	Freon 114	105	107	1.9	
75-71-8	Freon 12	102	105	2.9	
142-82-5	Heptane	90	89	1.1	
87-68-3	Hexachlorobutadiene	107	119	11	
110-54-3	Hexane	92	94	2.2	
108-38-3	m,p-Xylene	100	99	1.0	
1634-04-4	Methyl tert-butyl ether	92	96	4.3	
75-09-2	Methylene Chloride	96	97	1.0	
91-20-3	Naphthalene	79	89	12	Y
95-47-6	o-Xylene	101	96	5.1	
103-65-1	Propylbenzene	100	100	0	
115-07-1	Propylene	96	96	0	
100-42-5	Styrene	102	97	5.0	
127-18-4	Tetrachloroethene	104	103	0.97	
109-99-9	Tetrahydrofuran	89	84	5.8	
108-88-3	Toluene	94	84	11	
156-60-5	trans-1,2-Dichloroethene	88	91	3.4	
10061-02-6	trans-1,3-Dichloropropene	97	98	1.0	
79-01-6	Trichloroethene	97	96	1.0	
108-05-4	Vinyl Acetate	92	95	3.2	
75-01-4	Vinyl Chloride	103	110	6.6	

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab File ID: 3072704a.d & 3072705a.d

Lab Sample ID: 29B & 29BB

CAS Number	Compound	Original	Duplicate	Result Less Than	
		Amount	Amount	RPD	5X RL
71-55-6	1,1,1-Trichloroethane	90	90	0	
79-34-5	1,1,1,2-Tetrachloroethane	99	97	2.0	
79-00-5	1,1,2-Trichloroethane	97	96	1.0	
75-34-3	1,1-Dichloroethane	92	95	3.2	
75-35-4	1,1-Dichloroethene	93	97	4.2	
120-82-1	1,2,4-Trichlorobenzene	101	114	12	
95-63-6	1,2,4-Trimethylbenzene	104	98	5.9	
106-93-4	1,2-Dibromoethane (EDB)	100	101	1.00	
95-50-1	1,2-Dichlorobenzene	107	103	3.8	
107-06-2	1,2-Dichloroethane	101	96	5.1	
78-87-5	1,2-Dichloropropane	84	74	13	
108-67-8	1,3,5-Trimethylbenzene	100	97	3.0	
106-99-0	1,3-Butadiene	92	96	4.3	
541-73-1	1,3-Dichlorobenzene	107	104	2.8	
106-46-7	1,4-Dichlorobenzene	104	101	2.9	
123-91-1	1,4-Dioxane	90	94	4.3	
540-84-1	2,2,4-Trimethylpentane	93	89	4.4	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	94	97	3.1	
591-78-6	2-Hexanone	92	94	2.2	
67-63-0	2-Propanol	98	102	4.0	
107-05-1	3-Chloropropene	93	96	3.2	
622-96-8	4-Ethyltoluene	100	98	2.0	
108-10-1	4-Methyl-2-pentanone	78	81	3.8	
67-64-1	Acetone	96	100	4.1	
100-44-7	alpha-Chlorotoluene	96	94	2.1	
71-43-2	Benzene	103	94	9.1	
75-27-4	Bromodichloromethane	88	89	1.1	
75-25-2	Bromoform	104	105	0.96	
74-83-9	Bromomethane	100	102	2.0	
75-15-0	Carbon Disulfide	103	105	1.9	
56-23-5	Carbon Tetrachloride	98	99	1.0	
108-90-7	Chlorobenzene	97	98	1.0	
75-00-3	Chloroethane	100	104	3.9	
67-66-3	Chloroform	94	94	0	
74-87-3	Chloromethane	113	116	2.6	
156-59-2	cis-1,2-Dichloroethene	89	91	2.2	

10061-01-5	cis-1,3-Dichloropropene	86	89	3.4	
98-82-8	Cumene	95	96	1.0	
110-82-7	Cyclohexane	86	87	1.2	
124-48-1	Dibromochloromethane	104	105	0.96	
64-17-5	Ethanol	71	74	4.1	
100-41-4	Ethyl Benzene	98	99	1.0	
75-69-4	Freon 11	106	109	2.8	
76-13-1	Freon 113	101	104	2.9	
76-14-2	Freon 114	105	108	2.8	
75-71-8	Freon 12	100	104	3.9	
142-82-5	Heptane	88	84	4.7	
87-68-3	Hexachlorobutadiene	105	117	11	
110-54-3	Hexane	91	95	4.3	
108-38-3	m,p-Xylene	98	98	0	
1634-04-4	Methyl tert-butyl ether	91	96	5.3	
75-09-2	Methylene Chloride	96	99	3.1	
91-20-3	Naphthalene	78	86	9.8	Y
95-47-6	o-Xylene	95	95	0	
103-65-1	Propylbenzene	102	98	4.0	
115-07-1	Propylene	94	100	6.2	
100-42-5	Styrene	95	95	0	
127-18-4	Tetrachloroethene	102	104	1.9	
109-99-9	Tetrahydrofuran	88	87	1.1	
108-88-3	Toluene	89	90	1.1	
156-60-5	trans-1,2-Dichloroethene	88	92	4.4	
10061-02-6	trans-1,3-Dichloropropene	95	96	1.0	
79-01-6	Trichloroethene	92	98	6.3	
108-05-4	Vinyl Acetate	93	96	3.2	
75-01-4	Vinyl Chloride	104	107	2.8	

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 22-JUN-2021 15:51  
 End Cal Date : 23-JUN-2021 00:09  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

Calibration File Names:

Level 2: /chem/msd3.i/22JUN21.b/3062215.d  
 Level 3: /chem/msd3.i/22JUN21.b/3062216.d  
 Level 5: /chem/msd3.i/22JUN21.b/3062217.d  
 Level 6: /chem/msd3.i/22JUN21.b/3062218.d  
 Level 7: /chem/msd3.i/22JUN21.b/3062219.d  
 Level 8: /chem/msd3.i/22JUN21.b/3062220.d  
 Level 9: /chem/msd3.i/22JUN21.b/3062221.d  
 Level 10: /chem/msd3.i/22JUN21.b/3062222.d  
 Level 11: /chem/msd3.i/22JUN21.b/3062223.d

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	0.42230	0.41716	0.38549	0.39291	0.44265	0.44864	0.41819	6.098
4 Freon 134a	0.58371	0.56637	0.55610	0.63865	0.60478	0.59997	0.61448	4.787
5 Propylene	0.60477	0.58759	0.58081	0.65170	0.58539	0.61293	0.60387	4.387

## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JUN-2021 15:51  
 End Cal Date : 23-JUN-2021 00:09  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
6 Propane	+++++	+++++	+++++	0.25834	0.22661	0.22466		
	0.22548	0.21771	0.21415				0.22783	6.904
7 1,1-Difluoroethane	+++++	+++++	+++++	0.46192	0.39747	0.39789		
	0.37311	0.37063	0.36078				0.39363	9.318
8 Freon 12	+++++	2.15603	1.89816	1.71961	1.69339	1.70056		
	1.63747	1.60084	1.52621				1.74153	11.439
9 Chlorodifluoromethane	+++++	+++++	0.25854	0.19306	0.18741	0.18633		
	0.17510	0.17147	0.16789				0.19140	16.198
10 Freon 114	+++++	1.42810	1.34458	1.34985	1.29466	1.27769		
	1.24628	1.21706	1.16502				1.29040	6.461
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
12 Isobutane	+++++	+++++	1.34906	1.44535	1.36698	1.39313		
	1.34963	1.32626	1.27032				1.35725	4.011
13 Freon 142b	+++++	+++++	+++++	1.34756	1.29500	1.38610		
	1.35039	1.32331	1.27674				1.32985	3.004
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 22-JUN-2021 15:51  
 End Cal Date : 23-JUN-2021 00:09  
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 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
15 Chloromethane	+++++	+++++	+++++	0.82763	0.72732	0.74182		
	0.72479	0.68082	0.64063				0.72383	8.712
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 Butane	+++++	+++++	+++++	0.20113	0.23357	0.15790		
	0.15259	0.14406	0.13639				0.17094	22.286
19 Vinyl Chloride	+++++	1.12980	0.86470	0.78857	0.71677	0.70750		
	0.68973	0.65899	0.64054				0.77458	20.752
20 1,3-Butadiene	+++++	1.03243	0.84231	0.72895	0.69007	0.65005		
	0.60500	0.57217	0.55799				0.70987	22.523
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

## US32TAR1

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 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
24 Bromomethane	+++++	+++++	+++++	0.67314	0.74066	0.57705		
	0.57021	0.57219	0.54233				0.61260	12.580
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	0.40138	0.37327	0.36736		
	0.35675	0.34449	0.33834				0.36360	6.254
31 Isopentane	+++++	+++++	+++++	0.99549	0.94525	0.97775		
	0.90728	0.88280	0.87022				0.92980	5.509
32 Vinyl Bromide	+++++	+++++	0.75093	0.69351	0.67421	0.66583		
	0.64939	0.62307	0.60538				0.66605	7.209

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Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
33 Freon 11	+++++	2.03908	1.88806	1.94469	1.86978	1.86503		
	1.76682	1.71424	1.65341				1.84264	6.814
34 Dichlorofluoromethane	+++++	+++++	1.56202	1.56160	1.45002	1.50906		
	1.46222	1.40697	1.35915				1.47301	5.188
35 Pentane	+++++	+++++	1.56512	1.57917	1.48190	1.50343		
	1.45505	1.40603	1.37871				1.48134	5.080
36 1-Pentene	+++++	+++++	+++++	0.84456	0.82508	0.86645		
	0.85550	0.84812	0.82750				0.84453	1.896
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
38 Ethyl Ether	+++++	+++++	0.39240	0.37333	0.33203	0.31725		
	0.30985	0.30127	0.29877				0.33213	11.071
39 Ethanol	+++++	+++++	+++++	0.20784	0.16584	0.13654		
	0.13230	0.12826	0.12362				0.14907	21.746
40 Freon 123a	+++++	+++++	+++++	0.98582	0.95494	1.02622		
	0.99781	0.98345	0.95217				0.98340	2.815
41 Freon 123	+++++	+++++	+++++	1.44622	1.42044	1.49355		
	1.45220	1.44145	1.40015				1.44234	2.192



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 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
42 Acrolein	+++++	+++++	+++++	0.27311	0.23701	0.24881		
	0.24693	0.24379	0.23457				0.24737	5.569
43 Freon 113	+++++	1.46824	1.31921	1.29076	1.21478	1.29651		
	1.19339	1.15481	1.13941				1.25964	8.552
44 1,1-Dichloroethene	+++++	0.99526	0.88651	0.79755	0.71745	0.69929		
	0.67490	0.65436	0.64436				0.75871	16.524
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
47 Acetone	+++++	+++++	+++++	0.51469	0.44425	0.40084		
	0.39639	0.38588	0.37313				0.41920	12.549
48 Carbon Disulfide	+++++	+++++	+++++	2.05775	1.93862	1.90843		
	1.84826	1.80791	1.76509				1.88768	5.551
49 Iodomethane	+++++	+++++	+++++	1.65946	1.28082	1.88529		
	1.79371	1.63354	1.54101				1.63230	12.928
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	1.55257	1.52862	1.55402	1.50759	3.661
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	0.40376	0.34789	0.32210	0.30733	0.32499	12.080
55 Cyclopentene	+++++	+++++	+++++	1.54893	1.47899	1.57264	1.53527	2.280
56 Methyl Acetate	+++++	+++++	+++++	1.66411	1.65826	1.56879	1.58221	4.220
57 Acetonitrile	+++++	+++++	+++++	0.70457	0.66923	0.66054	0.66010	3.924
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	1.12275	1.03732	1.01485	1.00325	7.126

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Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
61 1,2-Dichloro-1-fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	2.06813	1.88426	1.96728		
	1.85902	1.80438	1.77065				1.89229	5.801
63 Methyl tert-butyl ether	+++++	+++++	2.33752	2.14499	2.05012	2.08189		
	1.95664	1.88244	1.84330				2.04241	8.286
64 trans-1,2-Dichloroethene	+++++	0.70810	0.61753	0.51542	0.47696	0.45306		
	0.44165	0.43998	0.43195				0.51058	19.702
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
66 Acrylonitrile	+++++	0.94125	0.68377	0.65726	0.53958	0.52132		
	0.52644	0.51492	0.51761				0.61277	24.262
67 Hexane	+++++	1.64886	1.36501	1.39813	1.34449	1.35927		
	1.33134	1.31741	1.31083				1.38442	7.980
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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 Curve Type : Average

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	1.65400	1.53910	1.44790	1.45129	1.40169	1.35543	1.42374	8.056
72 Isopropyl ether	2.89703	2.82512	2.76512	3.03891	2.92537	3.07842	2.92166	4.129
73 Vinyl Acetate	0.17310	0.16880	0.16735	0.20069	0.17412	0.16618	0.17504	7.401
74 Chloroprene	1.37195	1.35051	1.30853	1.32729	1.31878	1.36187	1.33982	1.892
75 1-Propanol	0.18786	0.18713	0.18191	0.27964	0.21494	0.19133	0.20714	18.032
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	3.00888	2.84283	2.90543	2.82061	4.423
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	1.41174	1.38403	1.34012	1.35294	1.32635	4.871
85 cis-1,2-Dichloroethene	+++++	0.63031	0.57390	0.54892	0.48648	0.45435	0.50614	13.731
86 2-Butanone	+++++	+++++	+++++	0.37903	0.37296	0.35087	0.35353	5.154

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Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
87 Ethyl Acetate	+++++	+++++	+++++	0.27562	0.29852	0.29822		
	0.29575	0.29213	0.28844				0.29145	2.969
88 Methyl Acrylate	+++++	+++++	+++++	1.66838	1.64750	1.58199		
	1.61233	1.60036	1.55070				1.61021	2.666
89 Tetrahydrofuran	+++++	1.07008	1.00292	1.04787	1.00636	0.97799		
	0.96310	0.95636	0.95055				0.99690	4.384
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
92 Chloroform	1.96521	1.64019	1.50840	1.61041	1.49476	1.50595		
	1.48492	1.45775	1.43932				1.56743	10.414
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
94 Cyclohexane	+++++	1.22023	1.07215	1.01365	0.93034	0.97861		
	0.91761	0.90108	0.89226				0.99074	11.233
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
96 1,1,1-Trichloroethane	2.23129	2.05048	1.81091	1.75915	1.67257	1.67685		
	1.59247	1.55264	1.51015				1.76184	13.567

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Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
97 Carbon Tetrachloride	+++++	1.84434	1.51851	1.59602	1.58811	1.68095		
	1.61629	1.57619	1.56099				1.62268	6.219
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	0.12119	0.11613	0.11694	0.11346		
	0.11216	0.11077	0.10576				0.11377	4.342
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	4.78156	4.38481	4.33179	4.21293	4.42535		
	4.25264	4.15467	4.09124				4.32938	4.965
102 Benzene	+++++	0.65505	0.59983	0.57117	0.55674	0.56004		
	0.55416	0.54394	0.52302				0.57049	7.116
103 Isobutanol	+++++	+++++	+++++	0.49942	0.37776	0.23624		
	0.22752	0.22265	0.21185				0.29591	39.638 <-
105 tert-Amyl methyl ether	+++++	+++++	+++++	0.15923	0.15616	0.15814		
	0.15062	0.14634	0.14220				0.15212	4.528
106 1,2-Dichloroethane	+++++	0.37902	0.34806	0.33618	0.32981	0.31718		
	0.31483	0.30818	0.29434				0.32845	8.047

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Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
107 Heptane	+++++	0.33792	0.22403	0.20766	0.20608	0.21729		
	0.20793	0.20256	0.19418				0.22471	20.747
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	0.18934	0.19071	0.17762		
	0.18239	0.18056	0.17653				0.18286	3.250
111 Trichloroethene	+++++	0.31117	0.32769	0.29118	0.27710	0.27541		
	0.27509	0.27051	0.26149				0.28620	7.868
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	0.04509	0.04589	0.03861		
	0.03720	0.03653	0.03639				0.03995	10.936
114 1,2-Dichloropropane	+++++	0.20680	0.17987	0.15597	0.12037	0.11612		
	0.09207	0.10091	0.08582				0.13224	33.260 <-
115 2-Pentanone	+++++	+++++	+++++	1.11388	1.03670	0.82493		
	0.89586	0.87342	0.86203				0.93447	12.211
116 Methyl Methacrylate	+++++	+++++	0.29806	0.23701	0.23039	0.23977		
	0.22896	0.22635	0.22363				0.24060	10.793



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Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
117 1,4-Dioxane	+++++	+++++	0.15020	0.15052	0.14901	0.14603		
	0.14111	0.13926	0.13549				0.14452	4.109
118 Dibromomethane	+++++	0.29449	0.28101	0.26147	0.26360	0.26460		
	0.26313	0.26053	0.25477				0.26795	4.885
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	0.55191	0.57875	0.48462	0.47042	0.45398	0.45550		
	0.44937	0.44453	0.42613				0.47947	10.789
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

## US32TAR1

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 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
126 cis-1,3-Dichloropropene	+++++	0.38484	0.36508	0.35464	0.35120	0.35787		
	0.35615	0.34711	0.33406				0.35637	4.110
127 Methylcyclohexane	+++++	0.49350	0.42088	0.37921	0.35673	0.37356		
	0.35568	0.34798	0.33420				0.38272	13.539
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	0.33023	0.25196	0.22701	0.22484	0.23852		
	0.22744	0.22179	0.21673				0.24232	15.340
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	0.29765	0.26256	0.24020	0.24794	0.26178		
	0.24913	0.24264	0.23554				0.25468	7.792

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Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
137 Toluene	+++++	0.91701	0.76758	0.75540	0.74698	0.77174		
	0.74467	0.72579	0.69469				0.76548	8.619
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloropropene	+++++	0.40687	0.37993	0.36744	0.35787	0.37172		
	0.35844	0.35616	0.34723				0.36821	5.063
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	0.34720	0.29011	0.27882	0.27255	0.28256		
	0.26991	0.26544	0.25880				0.28317	9.776
142 Tetrachloroethene	+++++	0.43410	0.40731	0.38596	0.38515	0.39520		
	0.37964	0.37852	0.36735				0.39165	5.322
143 2-Hexanone	+++++	+++++	+++++	0.31990	0.32699	0.34401		
	0.32729	0.32069	0.31273				0.32527	3.269
144 1,3-Dichloropropane	+++++	0.41984	0.38640	0.36235	0.35686	0.36795		
	0.35318	0.34457	0.33063				0.36522	7.523
145 Butyl Acetate	+++++	+++++	+++++	0.37428	0.36225	0.32044		
	0.30786	0.30617	0.30638				0.32956	9.311

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Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
146 Dibromochloromethane	+++++	0.56921	0.54488	0.53586	0.51292	0.55310		
	0.53597	0.52826	0.51753				0.53722	3.444
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	0.48087	0.43657	0.44243	0.43273	0.44944		
	0.43280	0.42753	0.41566				0.43975	4.407
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	0.47903	0.47277	0.46515		
	0.46257	0.45698	0.43971				0.46270	2.956
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Chlorobenzene	0.76910	0.74560	0.72064	0.66663	0.65193	0.68685		
	0.65267	0.63792	0.61813				0.68328	7.526
155 Ethyl Benzene	+++++	0.36451	0.34530	0.34543	0.34070	0.35619		
	0.33501	0.32785	0.31833				0.34167	4.342

US32TAR1

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	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
156 Nonane	+++++	+++++	0.71920	0.66701	0.64345	0.70654		
	0.66135	0.63353	0.60456				0.66223	6.082
157 1,1,1,2-Tetrachloroethane	+++++	0.44284	0.37328	0.35539	0.34747	0.39755		
	0.37098	0.36365	0.35719				0.37604	8.233
158 m,p-Xylene	+++++	0.48145	0.44650	0.41386	0.40778	0.43652		
	0.41628	0.40382	0.39426				0.42506	6.697
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
160 bis(chloromethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
163 2-Chloroethyl Vinyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
164 o-Xylene	+++++	0.45314	0.40808	0.39628	0.38390	0.42267		
	0.39648	0.38811	0.37953				0.40353	6.034

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	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
165 Styrene	+++++	0.76486	0.73265	0.66912	0.66488	0.73099		
	0.69299	0.67552	0.66197				0.69912	5.542
166 2-Heptanone	+++++	+++++	+++++	2.07850	2.02853	1.76276		
	1.72790	1.71667	1.69635				1.83512	9.333
167 Bromoform	+++++	0.55582	0.49485	0.49209	0.48297	0.52943		
	0.51178	0.50891	0.49935				0.50940	4.617
168 Cumene	+++++	1.46347	1.32018	1.25126	1.24254	1.33307		
	1.24859	1.20423	1.14310				1.27581	7.591
169 Cyclohexanone	+++++	+++++	0.49888	0.43341	0.38419	0.39800		
	0.37159	0.36798	0.35640				0.40149	12.398
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
172 D-Limonene	+++++	+++++	+++++	0.41613	0.42102	0.48642		
	0.47452	0.46711	0.46003				0.45421	6.383
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
174 1-Chloro-2-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
175 1,1,2,2-Tetrachloroethane	+++++	0.73988	0.66457	0.63414	0.60752	0.65052		
	0.60387	0.58908	0.57075				0.63254	8.456
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	0.41758	0.39469	0.38831	0.42203		
	0.39264	0.38566	0.37533				0.39660	4.303
178 Propylbenzene	+++++	1.63248	1.52426	1.49879	1.44291	1.59042		
	1.47490	1.41973	1.32553				1.48863	6.526
179 1,2,3-Trichloropropane	+++++	0.21832	0.19260	0.18821	0.18486	0.19859		
	0.18622	0.18030	0.17525				0.19054	6.973
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-butene	+++++	+++++	0.17894	0.15447	0.14080	0.15603		
	0.14575	0.14239	0.13704				0.15077	9.452
182 Decane	+++++	+++++	0.82127	0.78301	0.76466	0.82898		
	0.76049	0.73340	0.69627				0.76973	6.087
183 4-Ethyltoluene	+++++	0.44626	0.38352	0.38395	0.37080	0.40565		
	0.37645	0.36551	0.35475				0.38586	7.426

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	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
184 2-Chlorotoluene	+++++	0.33540	0.32249	0.30729	0.30590	0.33413		
	0.30764	0.30110	0.29427				0.31353	4.882
185 1,3,5-Trimethylbenzene	+++++	0.62236	0.56602	0.52640	0.51744	0.56132		
	0.52664	0.51298	0.50253				0.54196	7.278
186 4-Chlorotoluene	+++++	+++++	+++++	0.33149	0.33329	0.33791		
	0.32580	0.31978	0.31580				0.32734	2.582
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
188 alpha Methyl Styrene	+++++	0.58674	0.55163	0.54458	0.52340	0.59373		
	0.55896	0.54819	0.53323				0.55506	4.393
189 tert-Butylbenzene	+++++	+++++	1.05940	1.01750	0.95902	1.07649		
	0.99956	0.94305	0.92521				0.99718	5.811
190 1,2,4-Trimethylbenzene	+++++	1.23256	1.10654	1.03187	1.02225	1.11861		
	1.04393	1.01613	0.97757				1.06868	7.583
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
192 sec-Butylbenzene	+++++	0.34742	0.34215	0.31549	0.30761	0.33721		
	0.31815	0.30969	0.29897				0.32209	5.541



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	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
193 bis(2-Chloroethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	1.50554	1.35565	1.31539	1.30460	1.43659	1.34882	6.401
195 1,3-Dichlorobenzene	+++++	0.76718	0.73738	0.71502	0.69941	0.76661	0.72606	4.088
196 1,4-Dichlorobenzene	+++++	0.81657	0.76389	0.75583	0.71833	0.77930	0.74787	5.220
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	0.44184	0.44487	0.46203	0.44871	1.559
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	1.13155	1.00249	1.00181	0.98469	1.08287	1.02827	5.134
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	0.98102	0.92723	0.87231	0.95819	0.90704	5.743

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	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
202 Butylbenzene	+++++	0.37762	0.34507	0.35117	0.34380	0.36489		
	0.34524	0.33876	0.33129				0.34973	4.251
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	0.74510	0.70537	0.70212	0.67508	0.74275		
	0.69885	0.67872	0.66494				0.70162	4.234
205 Hexachloroethane	+++++	+++++	+++++	0.25073	0.22807	0.31064		
	0.28724	0.28330	0.28360				0.27393	10.765
206 1,2-Dibromo-3-chloropropane	+++++	+++++	+++++	0.41149	0.40289	0.43195		
	0.40756	0.39876	0.38829				0.40682	3.609
207 Dodecane	+++++	0.81660	0.76273	0.77645	0.75742	0.77338		
	0.77451	0.75867	0.71615				0.76699	3.625
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	0.63274	0.64837	0.52413		
	0.58122	0.59822	0.59901				0.59728	7.291
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	0.77525	0.76555	0.81070		
	0.77613	0.76205	0.74860				0.77304	2.717

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	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	0.52439	0.51233	0.49622	0.51061	0.49834	4.016
214 beta-Pinene	+++++	+++++	0.59120	0.59511	0.57596	0.65627	0.60708	4.679
215 Hexachlorobutadiene	+++++	+++++	0.34901	0.37526	0.37381	0.39489	0.37644	5.142
216 Naphthalene	+++++	+++++	1.23705	1.91443	1.85945	1.72125	1.33565	19.528
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	0.49108	0.47734	0.45571	0.46004	0.45602	5.242
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 234 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 22-JUN-2021 15:51  
 End Cal Date : 23-JUN-2021 00:09  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
238 Total Volatile Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference MineralSpirits	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stoddard	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 22-JUN-2021 15:51  
 End Cal Date : 23-JUN-2021 00:09  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
247 TVOC reference to Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 22-JUN-2021 15:51  
 End Cal Date : 23-JUN-2021 00:09  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref C5 + C6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref Dodecan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,2,3-TMB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 22-JUN-2021 15:51  
 End Cal Date : 23-JUN-2021 00:09  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

Compound	0.30000	0.40000	0.80000	2.000	5.000	20.000	—	% RSD
	Level 2	Level 3	Level 5	Level 6	Level 7	Level 8	RRF	
	50.000	100.000	200.000					
	Level 9	Level 10	Level 11					
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,4,5-TMB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	1.39594	1.39931	1.39591	1.38860	1.38809	1.39744		
	1.36655	1.34902	1.30112				1.37578	2.373
\$ 133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 134 Toluene-d8	1.02949	1.03423	1.02563	1.02620	1.03253	1.03211		
	1.03424	1.03707	1.01586				1.02971	0.623
\$ 170 4-Bromofluorobenzene	0.65667	0.65828	0.66384	0.65372	0.65403	0.66471		
	0.66865	0.67027	0.66119				0.66126	0.916

Report Date: 23-Jun-2021 12:05

### Calibration History

Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Start Cal Date: 22-JUN-2021 15:51  
End Cal Date : 23-JUN-2021 00:09

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 0.30000		
22-JUN-2021 20:28	AT20_Level2	/chem/msd3.i/22JUN21.b/3062215.d
Cal Level: 3 , Cal Amount: 0.40000		
22-JUN-2021 20:55	AT20_Level3	/chem/msd3.i/22JUN21.b/3062216.d
22-JUN-2021 15:51	AT20spICAL_lv3	/chem/msd3.i/22JUN21.b/3062205.d
Cal Level: 5 , Cal Amount: 0.80000		
22-JUN-2021 21:22	AT20_Level5	/chem/msd3.i/22JUN21.b/3062217.d
22-JUN-2021 16:17	AT20spICAL_lv3	/chem/msd3.i/22JUN21.b/3062206.d
Cal Level: 6 , Cal Amount: 2.00000		
22-JUN-2021 21:49	AT20ICAL	/chem/msd3.i/22JUN21.b/3062218.d
22-JUN-2021 16:44	AT20spICAL	/chem/msd3.i/22JUN21.b/3062207.d
Cal Level: 7 , Cal Amount: 5.00000		
22-JUN-2021 22:18	AT20ICAL	/chem/msd3.i/22JUN21.b/3062219.d
22-JUN-2021 17:13	AT20spICAL	/chem/msd3.i/22JUN21.b/3062208.d
Cal Level: 8 , Cal Amount: 20.00000		
22-JUN-2021 22:44	AT20ICAL	/chem/msd3.i/22JUN21.b/3062220.d
22-JUN-2021 17:39	AT20spICAL	/chem/msd3.i/22JUN21.b/3062209.d
Cal Level: 9 , Cal Amount: 50.00000		
22-JUN-2021 23:12	AT20ICAL	/chem/msd3.i/22JUN21.b/3062221.d
22-JUN-2021 18:07	AT20spICAL	/chem/msd3.i/22JUN21.b/3062210.d

Cal Level: 10, Cal Amount: 100.00000			
22-JUN-2021 23:39	AT20ICAL	/chem/msd3.i/22JUN21.b/3062222.d	
22-JUN-2021 18:34	AT20spICAL	/chem/msd3.i/22JUN21.b/3062211.d	

Cal Level: 11, Cal Amount: 200.00000			
23-JUN-2021 00:09	AT20ICAL	/chem/msd3.i/22JUN21.b/3062223.d	
22-JUN-2021 19:03	AT20spICAL	/chem/msd3.i/22JUN21.b/3062212.d	

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 9

Ccal Level: 9 , Ccal Amount: 50.000			
22-JUN-2021 23:12	AT20ICAL	/chem/msd3.i/22JUN21.b/3062221.d	
Ccal Level: 9 , Ccal Amount: 50.000			
22-JUN-2021 18:07	AT20spICAL	/chem/msd3.i/22JUN21.b/3062210.d	

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 22-JUN-2021 15:51  
 End Cal Date : 23-JUN-2021 00:09  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Cal Date : 23-Jun-2021 12:05 lk8g  
 Curve Type : Average

**Please see Calibration History page(s)  
 for all the calibration files.**

*up 6/23/21*

Calibration File Names:

- Level 2: /chem/msd3.i/22JUN21.b/3062215.d
- Level 3: /chem/msd3.i/22JUN21.b/3062216.d
- Level 5: /chem/msd3.i/22JUN21.b/3062217.d
- Level 6: /chem/msd3.i/22JUN21.b/3062218.d
- Level 7: /chem/msd3.i/22JUN21.b/3062219.d
- Level 8: /chem/msd3.i/22JUN21.b/3062220.d
- Level 9: /chem/msd3.i/22JUN21.b/3062221.d
- Level 10: /chem/msd3.i/22JUN21.b/3062222.d
- Level 11: /chem/msd3.i/22JUN21.b/3062223.d

Compound	0.30000 Level 2	0.40000 Level 3	0.80000 Level 5	2.000 Level 6	5.000 Level 7	20.000 Level 8	RRF	% RSD
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++				+++++	+++++
3 Freon 143a	0.42230	0.41716	0.38549	0.39291	0.44265	0.44864	0.41819	6.098
4 Freon 134a	0.58371	0.56637	0.55610	0.63865	0.60478	0.59997	0.61448	4.787
5 Propylene	0.60477	0.58759	0.58081	0.65170	0.58539	0.61293	0.60387	4.387

## Initial Calibration Narrative

### 321Q0622A.m

A multi-point TO-15 initial calibration was analyzed on MSD-3 on 06/22/2021.

**ICAL: 1 out.** 1,2-Dichloropropane @ 33.26%  
Naph: 19.528%RSD.

**ICV: 1 out.** Trans-1,4-dichloro-2-butene @ 132.92%. File: 3062226.  
Naph Recovery: 76.92%R.

**DOD QSM: 1 out.** Trans-1,4-dichloro-2-butene @ 132.92%. File: 3062226a.

**RCP: 3 Non RCP compounds out:** See file 3062226c.

**DODsp (PID 23339): 1 out.** Trans-1,4-dichloro-2-butene @ 132.92%. File: 3062226d.

The concentrations for Ethanol, Acrolein, 1,2,4-Trichlorobenzene, Naphthalene, 1,2,3-Trichlorobenzene, and Hexachlorobutadiene were adjusted in the ICV due to the certified concentration exceeding more than 15% of the nominal concentration.

An 8-point ICAL for AT20 supplemental compounds was analyzed on MSD on 06/22/2021.

**ICAL: 1 out.** Isobutanol @ 39.638%

**NO ICV for AT20 supplemental compounds except 1,1,1,2-Tetrachloroethane.**

**The low point spike verification file is 3062216x for BTEXS.**

The concentrations for Dodecane, 1,2,4-TCB, Hexachlorobutadiene, 1,2,3-TCB, and Naphthalene were adjusted in the calibration due to the certified concentration exceeding more than 15% of the nominal concentration.

-Dodecane was curved at 0.4944ppbv → 247.2ppbv.  
-1,2,4-TCB was curved at 1.0072ppbv → 251.8ppbv  
-Hexachlorobutadiene was curved at 1.0296ppbv → 257.4ppbv  
-1,2,3-TCB was curved at 1.0648ppbv → 266.2ppbv  
-Naphthalene was curved at 0.10160ppbv → 25.4ppbv\*

\*The secondary mass ion peak, 127amu, for Naphthalene shows baseline interference at the special reporting limit of 0.05ppbv. Identification of Naphthalene is however reliable at the lowest concentrations based on the presence and abundance ratio of the primary ion. The spectrum of Naphthalene in this ICAL point will be used as the reference to determine the ion ratio target in the samples for this ICAL.

The following compounds were calibrated down to 0.3ppbv:

1,1-Dichloroethane	Chloroform	1,1,1-Trichloroethane
Bromodichloroethane	Chlorobenzene	

BFB tune file:  
1. 3062204.

The AT20MDL Expires 6/8/22.

The MDL for 1,1,1,2-PCE expires 05/05/22.

BFB Tune Verification: (321984/343552) * 100 = 93.72%		MSD3		Method TO-15/TO-14	
BCM	3234-42	Exp Date:	9/22/2021	Surrogate # 3234-42	Exp Date:
1A-D18	243405	874076	3018-2115	CCV	9/21/2021
CB-D5	831223		3018-2116	CCV SP 1 #	9/21/2021
			3018-2078	CCV SP 2 #	8/4/2021
			3018-2013	CCV SP 3 #	8/4/2021
			NA	CCV SP 4 #	NA
Verified CCV vs. ICAL midpoint (40%): LD					
Method: 3219622a.m					

Use	File #	Enter/Scan Sample IDs	Canister#	Cart Pos.	Pressure	Amount	DF	Verify Load	Loaded Init.	Date Analyzed	Time	Review Init	Comments
V	3062204	BFB Tune Check	3234-42	3	36mg	200mL	1.00	LD	LD	06/22/21	1428	LD	Exp 9/22/21
V	3062205	ICAL Level 3	3018-2078	4	0.4ppbv (5.0ppbv)	16mL	1.00	LD	LD	06/22/21	1551	LD	Exp 8/04/21
V	3062206	ICAL Level 5	3018-2078	4	0.8ppbv (5.0ppbv)	32mL	1.00	LD	LD	06/22/21	1617	LD	
V	3062207	ICAL Level 6	3018-2078	4	2.0ppbv (5.0ppbv)	80mL	1.00	LD	LD	06/22/21	1644	LD	
V	3062208	ICAL Level 7	3018-2078	4	5.0ppbv (5.0ppbv)	200mL	1.00	LD	LD	06/22/21	1713	LD	
V	3062209	ICAL Level 8	3018-2013	5	20ppbv (200ppbv)	20mL	1.00	LD	LD	06/22/21	1739	LD	Exp 8/04/21
V	3062210	ICAL Level 9	3018-2013	5	50ppbv (200ppbv)	50mL	1.00	LD	LD	06/22/21	1807	LD	
V	3062211	ICAL Level 10	3018-2013	5	100ppbv (200ppbv)	100mL	1.00	LD	LD	06/22/21	1834	LD	
V	3062212	ICAL Level 11	3018-2013	5	200ppbv (200ppbv)	200mL	1.00	LD	LD	06/22/21	1903	LD	
V	3062213	System Blank	35157	3	Humid	200mL	1.00	LD	LD	06/22/21	1932	LD	
V	3062214	System Blank	35157	3	Humid	200mL	1.00	LD	LD	06/22/21	2001	LD	
V	3062215	ICAL Level 2	3018-2116	1	0.3ppbv (5.0ppbv)	12mL	1.00	LD	LD	06/22/21	2028	LD	Exp 9/21/21
V	3062216	ICAL Level 3	3018-2116	1	0.4ppbv (5.0ppbv)	16mL	1.00	LD	LD	06/22/21	2055	LD	
V	3062217	ICAL Level 5	3018-2116	1	0.8ppbv (5.0ppbv)	32mL	1.00	LD	LD	06/22/21	2122	LD	
V	3062218	ICAL Level 6	3018-2116	1	2.0ppbv (5.0ppbv)	80mL	1.00	LD	LD	06/22/21	2149	LD	
V	3062219	ICAL Level 7	3018-2116	1	5.0ppbv (5.0ppbv)	200mL	1.00	LD	LD	06/22/21	2218	LD	
V	3062220	ICAL Level 8	3018-2115	2	20ppbv (200ppbv)	20mL	1.00	LD	LD	06/22/21	2244	LD	Exp 9/21/21
V	3062221	ICAL Level 9	3018-2115	2	50ppbv (200ppbv)	50mL	1.00	LD	LD	06/22/21	2312	LD	
V	3062222	ICAL Level 10	3018-2115	2	100ppbv (200ppbv)	100mL	1.00	LD	LD	06/23/21	2339	LD	
V	3062223	ICAL Level 11	3018-2115	2	200ppbv (200ppbv)	200mL	1.00	LD	LD	06/23/21	0009	LD	
V	3062224	System Blank	35157	3	Humid	200mL	1.00	LD	LD	06/23/21	0038	LD	
V	3062225	System Blank	35157	3	Humid	200mL	1.00	LD	LD	06/23/21	0107	LD	
V	3062226	ICV	3018-2121	14	50ppbv (200ppbv)	50mL	1.00	LD	LD	06/23/21	0945	LD	Exp 9/22/21

*gd 6/23/21*

## IS and Associated Target Compounds and Surr. Instruction #: I1.20

Modified EPA Methods TO-14A/TO-15  
Internal Standard and Associated Target Compounds and Surrogates

<b>Bromochloromethane*</b>
<b>Target Compounds:</b>
Freon 12
Freon 114
Chloromethane
Vinyl Chloride
1,3-Butadiene
Bromomethane
Chloroethane
Freon 11
Ethanol
Freon 113
1,1-Dichloroethene
Acetone
2-Propanol
Carbon Disulfide
3-Chloropropene
Methylene Chloride
Methyl tert-butyl ether
trans-1,2-Dichloroethene
Hexane
1,1-Dichloroethane
2-Butanone (Methyl Ethyl Ketone)
cis-1,2-Dichloroethene
Tetrahydrofuran
Chloroform
1,1,1-Trichloroethane
Cyclohexane
Carbon Tetrachloride
2,2,4-Trimethylpentane
<b>Surrogates:</b>
1,2-Dichloroethane-d4

<b>1,4-Difluorobenzene</b>
<b>Target Compounds:</b>
Benzene
1,2-Dichloroethane
Heptane
Trichloroethene
1,2-Dichloropropane
1,4-Dioxane
Bromodichloromethane
cis-1,3-Dichloropropene
4-Methyl-2-pentanone
Toluene
<b>Surrogates:</b>
Toluene-d8

<b>Chlorobenzene-d5</b>
<b>Target Compounds:</b>
trans-1,3-Dichloropropene
1,1,2-Trichloroethane
Tetrachloroethene
2-Hexanone
Dibromochloromethane
1,2-Dibromoethane (EDB)
Chlorobenzene
Ethyl Benzene
m,p-Xylene
o-Xylene
Styrene
Bromoform
Cumene
1,1,2,2-Tetrachloroethane
Propylbenzene
4-Ethyltoluene
1,3,5-Trimethylbenzene
1,2,4-Trimethylbenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
alpha-Chlorotoluene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobutadiene
<b>Surrogates:</b>
Bromofluorobenzene

\*Note: If Bromochloromethane (BCM) is required as a target compound, the internal standard mix is blended without BCM. Compounds and surrogates assigned to BCM are re-assigned to 1,4-Difluorobenzene for calibration and subsequent quantitation.

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062215.d  
Lab Smp Id: ICAL Level 2  
Inj Date : 22-JUN-2021 20:28  
Operator : LD  
Smp Info : 12mL 3018-2116  
Misc Info : 0.3ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Meth Date : 23-Jun-2021 12:22 lk8g  
Cal Date : 22-JUN-2021 20:28  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062215.d  
Calibration Sample, Level: 2  
Compound Sublist: AT20\_Level2.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
71 1,1-Dichloroethane CAS #: 75-34-3							
4.459	4.459	(0.844)	63	4948 0.30000	0.3485	80.00- 120.00	100.00(a)
4.459	4.459	(0.844)	65	2065		0.76- 60.76	41.73
-----							
* 90 Bromochloromethane CAS #: 74-97-5							
5.284	5.284	(1.000)	130	249295 25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	193294		48.46- 108.46	77.54
5.270	5.270	(1.000)	49	375698		120.39- 180.39	150.70
-----							
92 Chloroform CAS #: 67-66-3							
5.340	5.340	(1.011)	83	5879 0.30000	0.3761	80.00- 120.00	100.00(a)
5.340	5.340	(1.011)	85	3350		34.71- 94.71	56.98
-----							
96 1,1,1-Trichloroethane CAS #: 71-55-6							
5.466	5.466	(1.034)	97	6675 0.30000	0.3799	80.00- 120.00	100.00(a)
5.452	5.466	(1.032)	99	3504		33.76- 93.76	52.49
-----							
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0							
5.816	5.816	(1.101)	65	348002 25.0000	25.366	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	168803		21.66- 81.66	48.51
-----							



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene								
						CAS #: 540-36-3		
6.166	6.180	(1.000)	114	904126	25.0000		80.00- 120.00	100.00
6.166	6.180	(1.000)	88	141697			0.00- 45.52	15.67
-----								
122 Bromodichloromethane								
						CAS #: 75-27-4		
6.836	6.836	(1.109)	83	5988	0.30000	0.3453	80.00- 120.00	100.00(a)
6.836	6.836	(1.109)	85	3626			34.31- 94.31	60.55
-----								
§ 134 Toluene-d8								
						CAS #: 2037-26-5		
7.387	7.387	(1.198)	98	930785	25.0000	24.995	80.00- 120.00	100.00
7.380	7.387	(1.197)	70	105468			0.00- 41.47	11.33
7.387	7.387	(1.198)	100	607392			36.47- 96.47	65.26
-----								
* 153 Chlorobenzene-d5								
						CAS #: 3114-55-4		
8.612	8.619	(1.000)	117	849694	25.0000		80.00- 120.00	100.00
8.612	8.619	(1.000)	82	472432			25.46- 85.46	55.60
-----								
154 Chlorobenzene								
						CAS #: 108-90-7		
8.641	8.641	(1.003)	112	7842	0.30000	0.3377	80.00- 120.00	100.00(a)
8.641	8.641	(1.003)	114	2767			2.13- 62.13	35.28
8.612	8.641	(1.000)	77	14194			26.35- 86.35	181.00
-----								
§ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	557967	25.0000	24.826	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	696856			93.06- 153.06	124.89
9.601	9.601	(1.115)	176	527415			62.87- 122.87	94.52

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062215.d  
 Lab Smp Id: ICAL Level 2  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 0.3ppbv (5.0ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	249295	2.42
108 1,4-Difluorobenze	874076	524446	1223706	904126	3.44
153 Chlorobenzene-d5	831223	498734	1163712	849694	2.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.22
153 Chlorobenzene-d5	8.62	8.29	8.95	8.61	-0.08

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.

Date : 22-JUN-2021 20:28

Client ID:

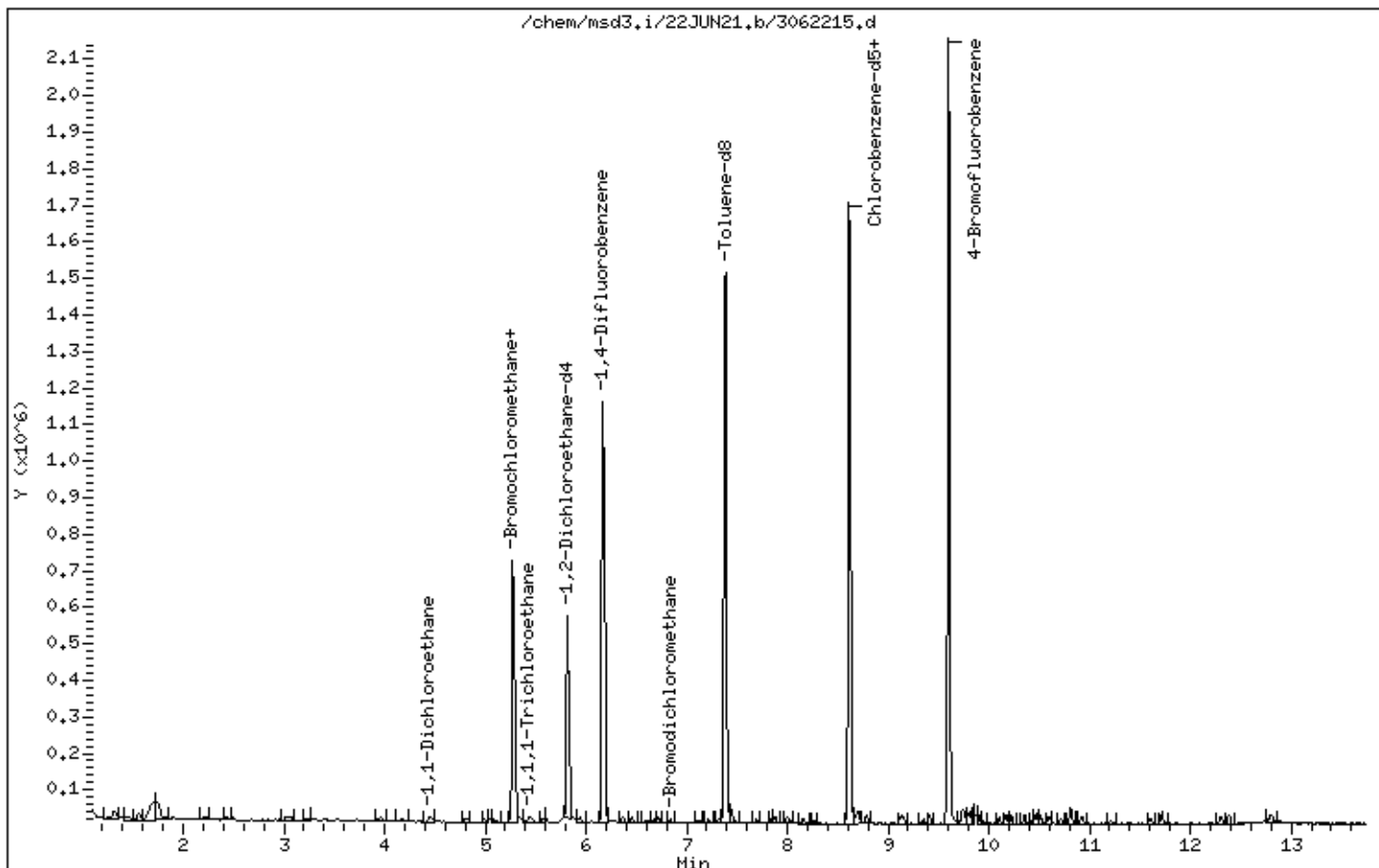
Instrument: msd3,i

Sample Info: 12mL 3018-2116

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062205.d  
 Lab Smp Id: ICAL Level 3  
 Inj Date : 22-JUN-2021 15:51  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 16mL 3018-2078  
 Misc Info : 0.4ppbv (5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
 Cal Date : 22-JUN-2021 20:55 Cal File: 3062216.d  
 Als bottle: 4 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL\_lv3.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	233349	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	177990			48.46- 108.46	76.28
5.270	5.270	(1.000)	49	342636			120.39- 180.39	146.83
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.166	6.180	(1.000)	114	847428	25.0000		80.00- 120.00	100.00
6.166	6.180	(1.000)	88	132894			0.00- 45.52	15.68
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.619	8.619	(1.000)	117	791619	25.0000		80.00- 120.00	100.00
8.619	8.619	(1.000)	82	440182			25.46- 85.46	55.61
-----								
157 1,1,1,2-Tetrachloroethane CAS #: 630-20-6								
8.712	8.712	(1.011)	131	5609	0.40000	0.4710	80.00- 120.00	100.00(a)
8.712	8.712	(1.011)	117	8658			38.22- 98.22	154.36
8.705	8.712	(1.010)	95	2537			7.54- 67.54	45.23
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3062205.d  
Lab Smp Id: ICAL Level 3  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
Misc Info: 0.4ppbv (5.0ppbv)

Calibration Date: 22-JUN-2021  
Calibration Time: 23:12  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	233349	-4.13
108 1,4-Difluorobenze	874076	524446	1223706	847428	-3.05
153 Chlorobenzene-d5	831223	498734	1163712	791619	-4.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.23
153 Chlorobenzene-d5	8.62	8.29	8.95	8.62	0.00

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.

Date : 22-JUN-2021 15:51

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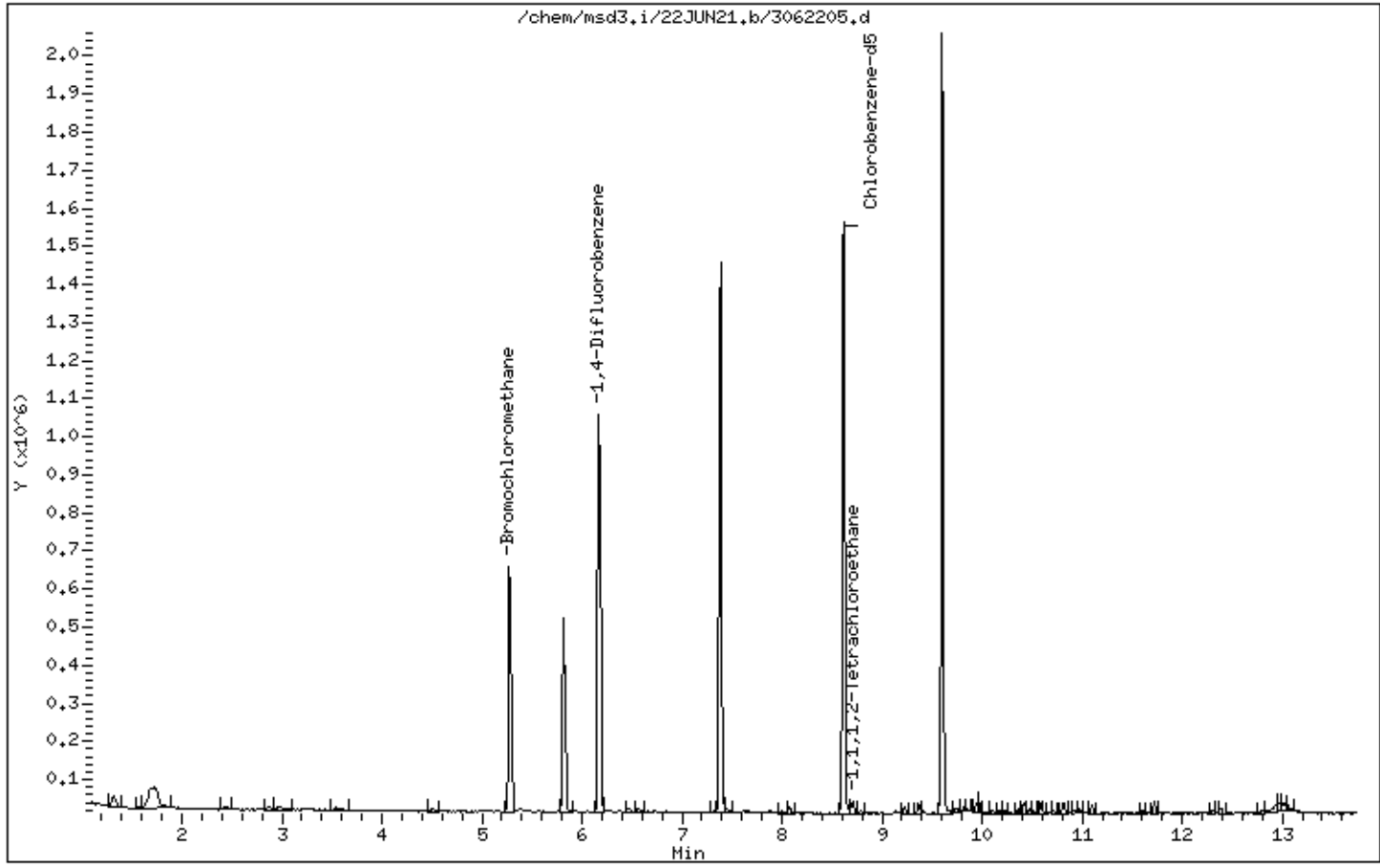
Instrument: msd3,i

Sample Info: 16mL 3018-2078

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062216.d  
 Lab Smp Id: ICAL Level 3  
 Inj Date : 22-JUN-2021 20:55  
 Operator : LD  
 Smp Info : 16mL 3018-2116  
 Misc Info : 0.4ppbv (5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Meth Date : 23-Jun-2021 12:22 lk8g  
 Cal Date : 22-JUN-2021 20:55  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msd3.i  
 Quant Type: ISTD  
 Cal File: 3062216.d  
 Calibration Sample, Level: 3  
 Compound Sublist: AT20\_Level13.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
8 Freon 12				CAS #: 75-71-8				
1.451	1.465	(0.275)	85	8702	0.40000	0.4952	80.00- 120.00	100.00(a)
1.451	1.465	(0.275)	87	2729			2.63- 62.63	31.36
-----								
10 Freon 114				CAS #: 76-14-2				
1.563	1.562	(0.296)	135	5764	0.40000	0.4427	80.00- 120.00	100.00(a)
1.563	1.562	(0.296)	137	1919			2.12- 62.12	33.29
-----								
19 Vinyl Chloride				CAS #: 75-01-4				
1.730	1.744	(0.328)	62	4560	0.40000	0.5834	80.00- 120.00	100.00
1.730	1.744	(0.328)	64	2703			1.28- 61.28	59.28
-----								
20 1,3-Butadiene				CAS #: 106-99-0				
1.758	1.758	(0.334)	54	4167	0.40000	0.5818	80.00- 120.00	100.00
1.758	1.758	(0.334)	39	7808			69.23- 129.23	187.38
-----								
33 Freon 11				CAS #: 75-69-4				
2.430	2.430	(0.461)	101	8230	0.40000	0.4426	80.00- 120.00	100.00(a)
2.430	2.430	(0.461)	103	6134			35.12- 95.12	74.53
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
43 Freon 113			CAS #: 76-13-1					
3.032	3.032	(0.575)	151	5926	0.40000	0.4662	80.00- 120.00	100.00(a)
3.032	3.032	(0.575)	153	3856			33.72- 93.72	65.07
3.032	3.032	(0.575)	101	7302			89.67- 149.67	123.22
44 1,1-Dichloroethene			CAS #: 75-35-4					
3.060	3.074	(0.581)	96	4017	0.40000	0.5247	80.00- 120.00	100.00
3.060	3.074	(0.581)	98	2920			33.39- 93.39	72.69
3.060	3.074	(0.581)	61	6159			163.82- 223.82	153.32
64 trans-1,2-Dichloroethene			CAS #: 156-60-5					
3.969	3.969	(0.753)	98	2858	0.40000	0.5547	80.00- 120.00	100.00
3.969	3.969	(0.753)	61	5551			244.59- 304.59	194.23
3.969	3.969	(0.753)	96	3975			129.84- 189.84	139.08
66 Acrylonitrile			CAS #: 107-13-1					
4.067	4.067	(0.772)	52	3799	0.40000	0.6144	80.00- 120.00	100.00
4.081	4.067	(0.774)	53	3113			88.50- 148.50	81.94
67 Hexane			CAS #: 110-54-3					
4.165	4.179	(0.790)	57	6655	0.40000	0.4764	80.00- 120.00	100.00(a)
4.165	4.179	(0.790)	43	5008			32.99- 92.99	75.25
4.179	4.179	(0.793)	86	1092			0.00- 42.56	16.41
71 1,1-Dichloroethane			CAS #: 75-34-3					
4.459	4.459	(0.846)	63	6212	0.40000	0.4324	80.00- 120.00	100.00(a)
4.459	4.459	(0.846)	65	2569			0.76- 60.76	41.36
85 cis-1,2-Dichloroethene			CAS #: 156-59-2					
5.047	5.046	(0.958)	98	2544	0.40000	0.4981	80.00- 120.00	100.00(a)
5.047	5.046	(0.958)	96	4023			127.22- 187.22	158.14
5.047	5.046	(0.958)	61	5227			283.85- 343.85	205.46
* 90 Bromochloromethane			CAS #: 74-97-5					
5.270	5.284	(1.000)	130	252258	25.0000		80.00- 120.00	100.00
5.270	5.284	(1.000)	128	193973			48.46- 108.46	76.89
5.270	5.270	(1.000)	49	377607			120.39- 180.39	149.69
89 Tetrahydrofuran			CAS #: 109-99-9					
5.284	5.270	(1.003)	42	4319	0.40000	0.4294	80.00- 120.00	100.00(a)
5.284	5.270	(1.003)	71	2513			2.92- 62.92	58.18
5.284	5.270	(1.003)	72	1686			3.54- 63.54	39.04
92 Chloroform			CAS #: 67-66-3					
5.340	5.340	(1.013)	83	6620	0.40000	0.4186	80.00- 120.00	100.00(a)
5.340	5.340	(1.013)	85	4523			34.71- 94.71	68.32

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
94 Cyclohexane						CAS #: 110-82-7		
5.438	5.438	(1.032)	84	4925	0.40000	0.4926	80.00- 120.00	100.00(a)
5.438	5.438	(1.032)	56	6278			120.40- 180.40	127.47
5.438	5.438	(1.032)	41	3996			54.20- 114.20	81.14
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.452	5.466	(1.034)	97	8276	0.40000	0.4655	80.00- 120.00	100.00(a)
5.452	5.466	(1.034)	99	5016			33.76- 93.76	60.61
97 Carbon Tetrachloride						CAS #: 56-23-5		
5.578	5.578	(1.058)	119	7444	0.40000	0.4546	80.00- 120.00	100.00(a)
5.578	5.578	(1.058)	117	7310			73.68- 133.68	98.20
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
5.760	5.774	(1.093)	57	19299	0.40000	0.4418	80.00- 120.00	100.00(a)
5.774	5.774	(1.096)	56	6206			1.12- 61.12	32.16
5.760	5.774	(1.093)	41	5471			0.00- 57.49	28.35
102 Benzene						CAS #: 71-43-2		
5.788	5.788	(0.939)	78	9452	0.40000	0.4593	80.00- 120.00	100.00(a)
5.788	5.788	(0.939)	77	3560			0.00- 53.80	37.66
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
5.816	5.816	(1.104)	65	352987	25.0000	25.428	80.00- 120.00	100.00
5.816	5.816	(1.104)	67	172487			21.66- 81.66	48.86
106 1,2-Dichloroethane						CAS #: 107-06-2		
5.886	5.886	(0.955)	62	5469	0.40000	0.4616	80.00- 120.00	100.00(a)
5.886	5.886	(0.955)	64	1777			1.20- 61.20	32.49
107 Heptane						CAS #: 142-82-5		
5.942	5.942	(0.964)	71	4876	0.40000	0.6015	80.00- 120.00	100.00
5.942	5.942	(0.964)	43	7418			179.02- 239.02	152.13
5.942	5.942	(0.964)	57	3845			84.85- 144.85	78.86
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.166	6.180	(1.000)	114	901842	25.0000		80.00- 120.00	100.00
6.166	6.180	(1.000)	88	141172			0.00- 45.52	15.65
111 Trichloroethene						CAS #: 79-01-6		
6.362	6.362	(1.032)	95	4490	0.40000	0.4349	80.00- 120.00	100.00(a)
6.362	6.362	(1.032)	130	4609			74.96- 134.96	102.65
6.362	6.362	(1.032)	97	3359			34.80- 94.80	74.81
114 1,2-Dichloropropane						CAS #: 78-87-5		
6.586	6.586	(1.068)	63	2984	0.40000	0.6255	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
114 1,2-Dichloropropane (continued)								
6.586	6.586	(1.068)	62	2025			52.03- 112.03	67.86
6.586	6.586	(1.068)	41	1552			79.97- 139.97	52.01
-----								
118 Dibromomethane						CAS #: 74-95-3		
6.721	6.721	(0.780)	174	4067	0.40000	0.4396	80.00- 120.00	100.00(a)
6.721	6.721	(0.780)	93	4699			67.27- 127.27	115.54
6.721	6.721	(0.780)	95	3967			50.92- 110.92	97.54
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
6.836	6.836	(1.109)	83	8351	0.40000	0.4828	80.00- 120.00	100.00(a)
6.836	6.836	(1.109)	85	5109			34.31- 94.31	61.18
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.215	7.208	(1.170)	75	5553	0.40000	0.4320	80.00- 120.00	100.00(a)
7.208	7.208	(1.169)	77	2297			1.42- 61.42	41.37
7.208	7.208	(1.169)	39	4193			38.56- 98.56	75.51
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.460	6.460	(1.048)	83	7121	0.40000	0.5158	80.00- 120.00	100.00(a)
6.460	6.460	(1.048)	98	3326			15.60- 75.60	46.71
6.460	6.460	(1.048)	55	6479			78.53- 138.53	90.98
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.323	7.316	(1.188)	58	4765	0.40000	0.5451	80.00- 120.00	100.00
7.323	7.316	(1.188)	43	10377			231.30- 291.30	217.78
7.316	7.316	(1.186)	85	1814			8.94- 68.94	38.07
-----								
\$ 134 Toluene-d8						CAS #: 2037-26-5		
7.380	7.387	(1.197)	98	932713	25.0000	25.110	80.00- 120.00	100.00
7.380	7.387	(1.197)	70	106484			0.00- 41.47	11.42
7.380	7.387	(1.197)	100	622084			36.47- 96.47	66.70
-----								
137 Toluene						CAS #: 108-88-3		
7.437	7.437	(1.206)	91	13232	0.40000	0.4792	80.00- 120.00	100.00(a)
7.445	7.437	(1.207)	92	7422			28.30- 88.30	56.09
-----								
136 Octane						CAS #: 111-65-9		
7.445	7.444	(1.207)	57	4295	0.40000	0.4675	80.00- 120.00	100.00(a)
7.445	7.444	(1.207)	85	4221			67.11- 127.11	98.28
7.445	7.444	(1.207)	43	11135			214.21- 274.21	259.25
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
7.695	7.688	(0.894)	75	5619	0.40000	0.4420	80.00- 120.00	100.00(a)
7.688	7.688	(0.893)	77	2679			2.15- 62.15	47.68
7.688	7.688	(0.893)	39	3678			36.09- 96.09	65.46
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
141 1,1,2-Trichloroethane					CAS #: 79-00-5			
7.846	7.846	(0.911)	97	4795	0.40000	0.4904	80.00- 120.00	100.00(a)
7.846	7.846	(0.911)	99	2721			31.62- 91.62	56.75
7.846	7.846	(0.911)	83	4102			56.35- 116.35	85.55
-----								
142 Tetrachloroethene					CAS #: 127-18-4			
7.874	7.881	(0.914)	166	5995	0.40000	0.4433	80.00- 120.00	100.00(a)
7.874	7.881	(0.914)	129	5111			48.71- 108.71	85.25
7.874	7.881	(0.914)	131	4723			46.55- 106.55	78.78
-----								
144 1,3-Dichloropropane					CAS #: 142-28-9			
7.989	7.989	(1.296)	76	6058	0.40000	0.4598	80.00- 120.00	100.00(a)
7.989	7.989	(1.296)	41	6050			82.96- 142.96	99.87
7.989	7.989	(1.296)	78	2306			2.55- 62.55	38.07
-----								
146 Dibromochloromethane					CAS #: 124-48-1			
8.154	8.154	(0.947)	129	7861	0.40000	0.4238	80.00- 120.00	100.00(a)
8.154	8.154	(0.947)	127	6418			47.77- 107.77	81.64
-----								
148 1,2-Dibromoethane (EDB)					CAS #: 106-93-4			
8.268	8.268	(0.960)	107	6641	0.40000	0.4374	80.00- 120.00	100.00(a)
8.261	8.268	(0.959)	109	6195			64.60- 124.60	93.28
-----								
* 153 Chlorobenzene-d5					CAS #: 3114-55-4			
8.612	8.619	(1.000)	117	863143	25.0000		80.00- 120.00	100.00
8.612	8.619	(1.000)	82	476163			25.46- 85.46	55.17
-----								
154 Chlorobenzene					CAS #: 108-90-7			
8.641	8.641	(1.003)	112	10297	0.40000	0.4365	80.00- 120.00	100.00(a)
8.641	8.641	(1.003)	114	4003			2.13- 62.13	38.88
8.619	8.641	(1.001)	77	15051			26.35- 86.35	146.17
-----								
155 Ethyl Benzene					CAS #: 100-41-4			
8.691	8.684	(1.009)	106	5034	0.40000	0.4267	80.00- 120.00	100.00(a)
8.691	8.684	(1.009)	91	16494			282.48- 342.48	327.65
-----								
158 m,p-Xylene					CAS #: 108-38-3			
8.784	8.784	(1.020)	106	6649	0.40000	0.4531	80.00- 120.00	100.00(a)
8.784	8.784	(1.020)	91	12700			171.36- 231.36	191.01
-----								
164 o-Xylene					CAS #: 95-47-6			
9.121	9.128	(1.059)	106	6258	0.40000	0.4492	80.00- 120.00	100.00(a)
9.121	9.128	(1.059)	91	13678			179.99- 239.99	218.57
-----								
165 Styrene					CAS #: 100-42-5			
9.149	9.149	(1.062)	104	10563	0.40000	0.4376	80.00- 120.00	100.00(a)

RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT ( PPBV)	ON-COL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====
165 Styrene (continued)							
9.149	9.149	(1.062)	78	5781		19.09- 79.09	54.73
-----							
167 Bromoform							
						CAS #: 75-25-2	
9.350	9.350	(1.086)	173	7676	0.40000	0.4364 80.00- 120.00	100.00(a)
9.357	9.350	(1.086)	171	4098		21.45- 81.45	53.39
-----							
168 Cumene							
						CAS #: 98-82-8	
9.407	9.414	(1.092)	105	20211	0.40000	0.4588 80.00- 120.00	100.00(a)
9.414	9.414	(1.093)	120	5508		0.00- 56.99	27.25
9.407	9.407	(1.092)	51	2729		0.00- 41.77	13.50
-----							
\$ 170 4-Bromofluorobenzene							
						CAS #: 460-00-4	
9.601	9.601	(1.115)	174	568188	25.0000	24.887 80.00- 120.00	100.00
9.601	9.601	(1.115)	95	704540		93.06- 153.06	124.00
9.601	9.601	(1.115)	176	531559		62.87- 122.87	93.55
-----							
175 1,1,2,2-Tetrachloroethane							
						CAS #: 79-34-5	
9.737	9.737	(1.131)	83	10218	0.40000	0.4679 80.00- 120.00	100.00(a)
9.737	9.737	(1.131)	85	6485		34.35- 94.35	63.47
-----							
178 Propylbenzene							
						CAS #: 103-65-1	
9.758	9.758	(1.133)	91	22545	0.40000	0.4386 80.00- 120.00	100.00(a)
9.758	9.758	(1.133)	120	5690		0.00- 53.77	25.24
9.758	9.758	(1.133)	105	1648		0.00- 33.81	7.31
-----							
179 1,2,3-Trichloropropane							
						CAS #: 96-18-4	
9.794	9.787	(1.137)	110	3015	0.40000	0.4583 80.00- 120.00	100.00(a)
9.787	9.787	(1.136)	75	9110		285.00- 345.00	302.16
9.787	9.787	(1.136)	61	3083		54.06- 114.06	102.26
-----							
183 4-Ethyltoluene							
						CAS #: 622-96-8	
9.851	9.851	(1.144)	120	6163	0.40000	0.4626 80.00- 120.00	100.00(a)
9.851	9.851	(1.144)	105	19828		296.79- 356.79	321.73
-----							
184 2-Chlorotoluene							
						CAS #: 95-49-8	
9.873	9.873	(1.146)	126	4632	0.40000	0.4279 80.00- 120.00	100.00(a)
9.873	9.873	(1.146)	91	18214		336.29- 396.29	393.22
9.873	9.873	(1.146)	65	2871		38.83- 98.83	61.98
-----							
185 1,3,5-Trimethylbenzene							
						CAS #: 108-67-8	
9.901	9.901	(1.150)	120	8595	0.40000	0.4593 80.00- 120.00	100.00(a)
9.901	9.901	(1.150)	105	17963		176.40- 236.40	208.99
-----							
188 alpha Methyl Styrene							
						CAS #: 98-83-9	
10.109	10.102	(1.174)	118	8103	0.40000	0.4228 80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
188 alpha Methyl Styrene (continued)								
10.102	10.102	(1.173)	103	4467			26.64- 86.64	55.13
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
10.224	10.224	(1.187)	105	17022	0.40000	0.4613	80.00- 120.00	100.00(a)
10.224	10.224	(1.187)	120	7387			16.58- 76.58	43.40
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
10.353	10.360	(1.202)	134	4798	0.40000	0.4315	80.00- 120.00	100.00(a)
10.353	10.360	(1.202)	105	23991			451.53- 511.53	500.02
10.353	10.353	(1.202)	91	3952			46.48- 106.48	82.37
-----								
194 p-Cymene CAS #: 99-87-6								
10.467	10.467	(1.215)	119	20792	0.40000	0.4465	80.00- 120.00	100.00(a)
10.467	10.467	(1.215)	134	5696			0.00- 56.79	27.40
10.467	10.467	(1.215)	91	5277			0.00- 54.04	25.38
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
10.518	10.517	(1.221)	146	10595	0.40000	0.4226	80.00- 120.00	100.00(a)
10.518	10.517	(1.221)	148	7151			33.53- 93.53	67.49
10.518	10.517	(1.221)	111	4722			11.05- 71.05	44.57
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
10.596	10.596	(1.230)	146	11277	0.40000	0.4367	80.00- 120.00	100.00(a)
10.596	10.596	(1.230)	148	7136			33.47- 93.47	63.28
10.596	10.596	(1.230)	111	4453			9.65- 69.65	39.49
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
10.711	10.711	(1.244)	91	15627	0.40000	0.4402	80.00- 120.00	100.00(a)
10.718	10.711	(1.245)	126	2806			0.00- 52.04	17.96
-----								
202 Butylbenzene CAS #: 104-51-8								
10.818	10.818	(1.256)	134	5215	0.40000	0.4319	80.00- 120.00	100.00(a)
10.818	10.818	(1.256)	91	19669			331.99- 391.99	377.16
10.818	10.818	(1.256)	92	10403			161.01- 221.01	199.48
-----								
204 1,2-Dichlorobenzene CAS #: 95-50-1								
10.926	10.926	(1.269)	146	10290	0.40000	0.4248	80.00- 120.00	100.00(a)
10.926	10.926	(1.269)	148	6583			33.23- 93.23	63.97
10.926	10.918	(1.269)	111	4235			12.36- 72.36	41.16
-----								
207 Dodecane CAS #: 112-40-3								
11.714	11.714	(1.360)	57	13939	0.49440	0.5264	80.00- 120.00	100.00(a)
11.721	11.714	(1.361)	43	11307			50.85- 110.85	81.12
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062216.d  
 Lab Smp Id: ICAL Level 3  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 0.4ppbv (5.0ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	252258	3.64
108 1,4-Difluorobenze	874076	524446	1223706	901842	3.18
153 Chlorobenzene-d5	831223	498734	1163712	863143	3.84

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.27	-0.26
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.22
153 Chlorobenzene-d5	8.62	8.29	8.95	8.61	-0.08

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.



Date : 22-JUN-2021 20:55

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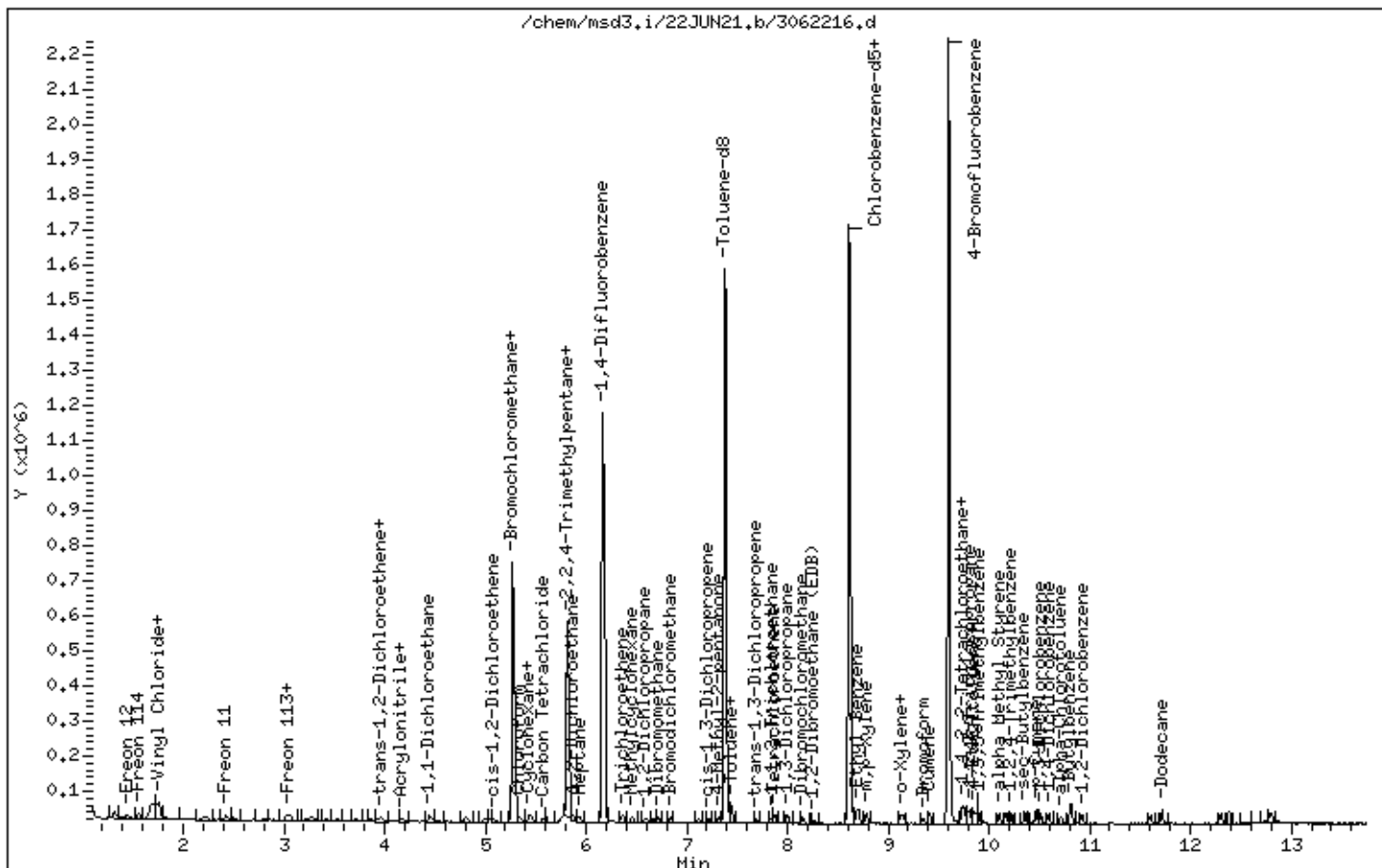
Instrument: msd3,i

Sample Info: 16mL 3018-2116

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062206.d  
Lab Smp Id: ICAL Level 5  
Inj Date : 22-JUN-2021 16:17  
Operator : LD Inst ID: msd3.i  
Smp Info : 32mL 3018-2078  
Misc Info : 0.8ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
Cal Date : 22-JUN-2021 21:22 Cal File: 3062217.d  
Als bottle: 4 Calibration Sample, Level: 5  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL\_lv3.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	TARGET RANGE	RATIO
-----							
* 90	Bromochloromethane			CAS #: 74-97-5			
5.284	5.284	(1.000)	130	230876	25.0000	80.00- 120.00	100.00
5.284	5.284	(1.000)	128	179221		48.46- 108.46	77.63
5.270	5.270	(1.000)	49	343480		120.39- 180.39	148.77
-----							
* 108	1,4-Difluorobenzene			CAS #: 540-36-3			
6.180	6.180	(1.000)	114	839788	25.0000	80.00- 120.00	100.00
6.180	6.180	(1.000)	88	132912		0.00- 45.52	15.83
-----							
* 153	Chlorobenzene-d5			CAS #: 3114-55-4			
8.619	8.619	(1.000)	117	799921	25.0000	80.00- 120.00	100.00
8.619	8.619	(1.000)	82	441630		25.46- 85.46	55.21
-----							
157	1,1,1,2-Tetrachloroethane			CAS #: 630-20-6			
8.712	8.712	(1.011)	131	9555	0.80000	0.7941 80.00- 120.00	100.00(a)
8.712	8.712	(1.011)	117	10713		38.22- 98.22	112.12
8.712	8.712	(1.011)	95	4189		7.54- 67.54	43.84
-----							

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062206.d  
 Lab Smp Id: ICAL Level 5  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 0.8ppbv (5.0ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	230876	-5.15
108 1,4-Difluorobenze	874076	524446	1223706	839788	-3.92
153 Chlorobenzene-d5	831223	498734	1163712	799921	-3.77

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.62	8.29	8.95	8.62	0.00

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.

Date : 22-JUN-2021 16:17

Client ID:

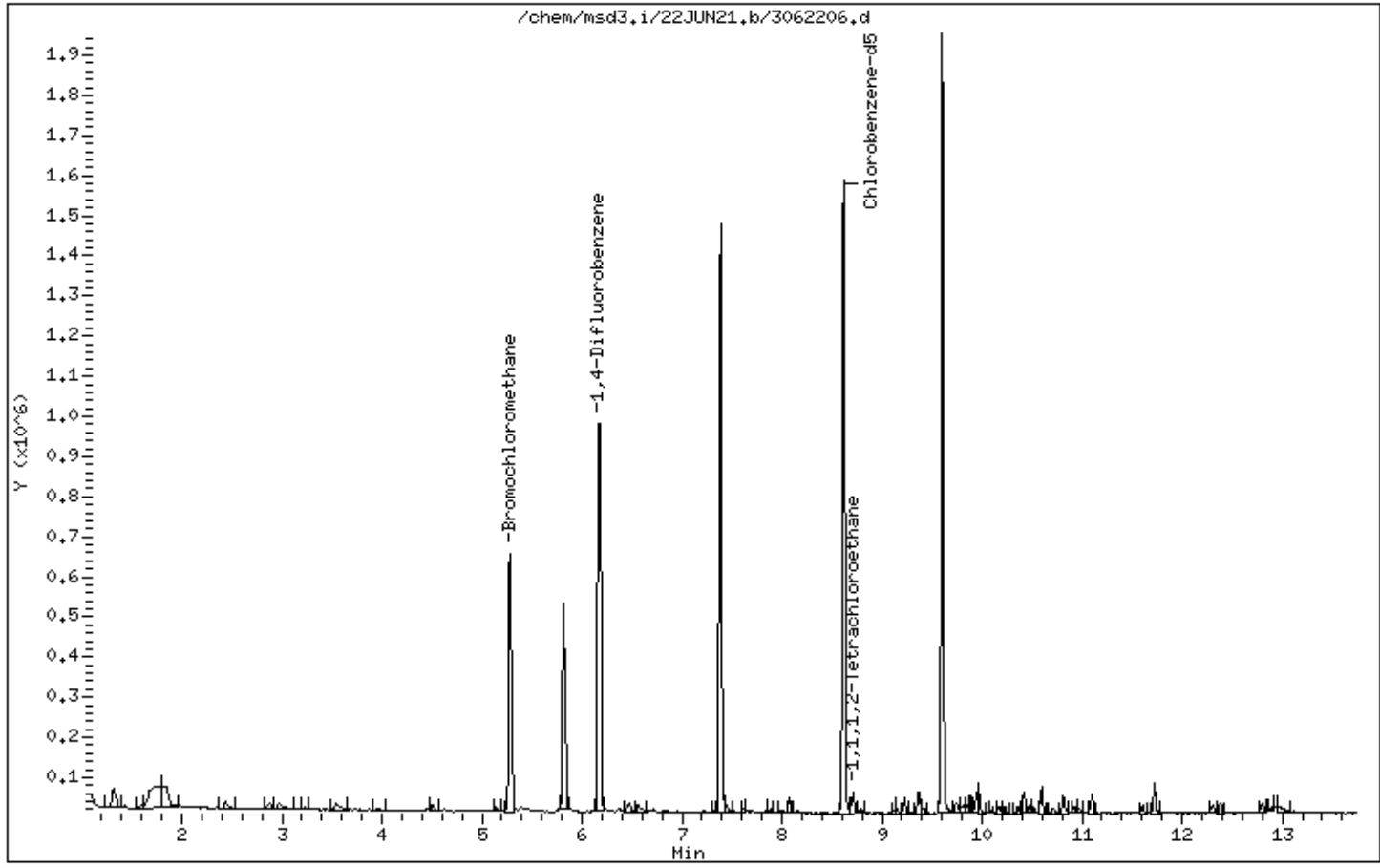
Instrument: msd3,i

Sample Info: 32mL 3018-2078

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062217.d  
Lab Smp Id: ICAL Level 5  
Inj Date : 22-JUN-2021 21:22  
Operator : LD Inst ID: msd3.i  
Smp Info : 32mL 3018-2116  
Misc Info : 0.8ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
Cal Date : 22-JUN-2021 21:22 Cal File: 3062217.d  
Als bottle: 1 Calibration Sample, Level: 5  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20\_Level15.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2							
1.395	1.395	(0.265)	83	5563 0.80000	0.8589	80.00- 120.00	100.00
1.395	1.395	(0.265)	69	4431		51.82- 111.82	79.65
1.479	1.479	(0.281)	51	14662		194.91- 254.91	263.56
-----							
8 Freon 12 CAS #: 75-71-8							
1.451	1.465	(0.275)	85	16534 0.80000	0.8719	80.00- 120.00	100.00
1.451	1.465	(0.275)	87	5762		2.63- 62.63	34.85
-----							
9 Chlorodifluoromethane CAS #: 75-45-6							
1.479	1.479	(0.281)	67	2252 0.80000	1.081	80.00- 120.00	100.00
1.479	1.479	(0.281)	51	14662		719.76- 779.76	651.07
-----							
10 Freon 114 CAS #: 76-14-2							
1.563	1.562	(0.296)	135	11712 0.80000	0.8336	80.00- 120.00	100.00
1.563	1.562	(0.296)	137	3517		2.12- 62.12	30.03
-----							
12 Isobutane CAS #: 75-28-5							
1.577	1.576	(0.299)	43	11751 0.80000	0.7952	80.00- 120.00	100.00(a)
1.577	1.576	(0.299)	42	4362		2.44- 62.44	37.12

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
12 Isobutane (continued)								
1.577	1.576	(0.299)	58	1502			0.00- 33.26	12.78
-----								
19 Vinyl Chloride						CAS #: 75-01-4		
1.745	1.744	(0.331)	62	7532	0.80000	0.8931	80.00- 120.00	100.00
1.731	1.744	(0.328)	64	3136			1.28- 61.28	41.64
-----								
20 1,3-Butadiene						CAS #: 106-99-0		
1.758	1.758	(0.334)	54	7337	0.80000	0.9492	80.00- 120.00	100.00
1.758	1.758	(0.334)	39	9535			69.23- 129.23	129.96
-----								
32 Vinyl Bromide						CAS #: 593-60-2		
2.388	2.388	(0.453)	106	6541	0.80000	0.9020	80.00- 120.00	100.00
2.388	2.388	(0.453)	108	5865			63.14- 123.14	89.67
-----								
33 Freon 11						CAS #: 75-69-4		
2.430	2.430	(0.461)	101	16446	0.80000	0.8197	80.00- 120.00	100.00
2.430	2.430	(0.461)	103	11426			35.12- 95.12	69.48
-----								
34 Dichlorofluoromethane						CAS #: 75-43-4		
2.444	2.444	(0.464)	67	13606	0.80000	0.8483	80.00- 120.00	100.00
2.444	2.444	(0.464)	69	4613			0.74- 60.74	33.90
-----								
35 Pentane						CAS #: 109-66-0		
2.500	2.500	(0.474)	43	13633	0.80000	0.8452	80.00- 120.00	100.00
2.500	2.500	(0.474)	57	2861			0.00- 45.97	20.99
2.500	2.500	(0.474)	72	1508			0.00- 38.10	11.06
-----								
38 Ethyl Ether						CAS #: 60-29-7		
2.794	2.780	(0.530)	74	3418	0.80000	0.9452	80.00- 120.00	100.00
2.794	2.780	(0.530)	59	5820			147.68- 207.68	170.28
2.794	2.780	(0.530)	45	8319			206.40- 266.40	243.39
-----								
43 Freon 113						CAS #: 76-13-1		
3.032	3.032	(0.575)	151	11491	0.80000	0.8378	80.00- 120.00	100.00
3.032	3.032	(0.575)	153	7583			33.72- 93.72	65.99
3.032	3.032	(0.575)	101	14089			89.67- 149.67	122.61
-----								
44 1,1-Dichloroethene						CAS #: 75-35-4		
3.060	3.074	(0.581)	96	7722	0.80000	0.9348	80.00- 120.00	100.00
3.074	3.074	(0.583)	98	4733			33.39- 93.39	61.29
3.060	3.074	(0.581)	61	12988			163.82- 223.82	168.19
-----								
54 3-Chloropropene						CAS #: 107-05-1		
3.535	3.535	(0.671)	76	3517	0.80000	0.9939	80.00- 120.00	100.00
3.535	3.535	(0.671)	41	10236			338.06- 398.06	291.04
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
3.941	3.941	(0.748)	73	20361	0.80000	0.9156	80.00- 120.00	100.00
3.941	3.941	(0.748)	57	5537			0.00- 58.86	27.19
3.941	3.941	(0.748)	41	6338			0.00- 57.27	31.13
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
3.969	3.969	(0.753)	98	5379	0.80000	0.9676	80.00- 120.00	100.00
3.969	3.969	(0.753)	61	11688			244.59- 304.59	217.29
3.969	3.969	(0.753)	96	7294			129.84- 189.84	135.60
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.067	4.067	(0.772)	52	5956	0.80000	0.8927	80.00- 120.00	100.00
4.067	4.067	(0.772)	53	4861			88.50- 148.50	81.62
-----								
67 Hexane						CAS #: 110-54-3		
4.165	4.179	(0.790)	57	11890	0.80000	0.7888	80.00- 120.00	100.00(a)
4.165	4.179	(0.790)	43	9089			32.99- 92.99	76.44
4.179	4.179	(0.793)	86	1816			0.00- 42.56	15.27
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.459	4.459	(0.846)	63	12612	0.80000	0.8136	80.00- 120.00	100.00
4.459	4.459	(0.846)	65	4509			0.76- 60.76	35.75
-----								
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.005	5.004	(0.950)	77	12297	0.80000	0.8515	80.00- 120.00	100.00
5.005	5.004	(0.950)	79	5551			2.00- 62.00	45.14
5.005	5.004	(0.950)	97	3992			0.00- 53.36	32.46
-----								
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.047	5.046	(0.958)	98	4999	0.80000	0.9071	80.00- 120.00	100.00
5.047	5.046	(0.958)	96	7390			127.22- 187.22	147.83
5.047	5.046	(0.958)	61	10523			283.85- 343.85	210.50
-----								
* 90 Bromochloromethane						CAS #: 74-97-5		
5.270	5.284	(1.000)	130	272204	25.0000		80.00- 120.00	100.00
5.270	5.284	(1.000)	128	209444			48.46- 108.46	76.94
5.270	5.270	(1.000)	49	404014			120.39- 180.39	148.42
-----								
89 Tetrahydrofuran						CAS #: 109-99-9		
5.284	5.270	(1.003)	42	8736	0.80000	0.8048	80.00- 120.00	100.00
5.284	5.270	(1.003)	71	4820			2.92- 62.92	55.17
5.284	5.270	(1.003)	72	3472			3.54- 63.54	39.74
-----								
92 Chloroform						CAS #: 67-66-3		
5.340	5.340	(1.013)	83	13139	0.80000	0.7699	80.00- 120.00	100.00(a)
5.340	5.340	(1.013)	85	9115			34.71- 94.71	69.37
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
94 Cyclohexane						CAS #: 110-82-7		
5.438	5.438	(1.032)	84	9339	0.80000	0.8657	80.00- 120.00	100.00
5.438	5.438	(1.032)	56	13508			120.40- 180.40	144.64
5.438	5.438	(1.032)	41	7608			54.20- 114.20	81.46
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.452	5.466	(1.034)	97	15774	0.80000	0.8223	80.00- 120.00	100.00
5.452	5.466	(1.034)	99	10080			33.76- 93.76	63.90
97 Carbon Tetrachloride						CAS #: 56-23-5		
5.578	5.578	(1.058)	119	13227	0.80000	0.7486	80.00- 120.00	100.00(a)
5.578	5.578	(1.058)	117	14856			73.68- 133.68	112.32
99 1,1-Dichloropropene						CAS #: 563-58-6		
5.606	5.606	(0.909)	110	3831	0.80000	0.8521	80.00- 120.00	100.00
5.606	5.606	(0.909)	75	9872			231.09- 291.09	257.69
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
5.760	5.774	(1.093)	57	38194	0.80000	0.8102	80.00- 120.00	100.00
5.760	5.774	(1.093)	56	12051			1.12- 61.12	31.55
5.774	5.774	(1.096)	41	11237			0.00- 57.49	29.42
102 Benzene						CAS #: 71-43-2		
5.788	5.788	(0.939)	78	18962	0.80000	0.8411	80.00- 120.00	100.00
5.788	5.788	(0.939)	77	5258			0.00- 53.80	27.73
§ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
5.816	5.816	(1.104)	65	379972	25.0000	25.366	80.00- 120.00	100.00
5.816	5.816	(1.104)	67	185171			21.66- 81.66	48.73
106 1,2-Dichloroethane						CAS #: 107-06-2		
5.886	5.886	(0.955)	62	11003	0.80000	0.8478	80.00- 120.00	100.00
5.886	5.886	(0.955)	64	4135			1.20- 61.20	37.58
107 Heptane						CAS #: 142-82-5		
5.942	5.942	(0.964)	71	7082	0.80000	0.7976	80.00- 120.00	100.00(a)
5.942	5.942	(0.964)	43	15177			179.02- 239.02	214.30
5.942	5.942	(0.964)	57	8196			84.85- 144.85	115.73
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.166	6.180	(1.000)	114	987880	25.0000		80.00- 120.00	100.00
6.166	6.180	(1.000)	88	154426			0.00- 45.52	15.63
111 Trichloroethene						CAS #: 79-01-6		
6.362	6.362	(1.032)	95	10359	0.80000	0.9160	80.00- 120.00	100.00
6.362	6.362	(1.032)	130	9499			74.96- 134.96	91.70

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
111 Trichloroethene (continued)								
6.362	6.362	(1.032)	97	6374			34.80- 94.80	61.53
-----								
114 1,2-Dichloropropane CAS #: 78-87-5								
6.586	6.586	(1.068)	63	5686	0.80000	1.088	80.00- 120.00	100.00
6.586	6.586	(1.068)	62	3461			52.03- 112.03	60.87
6.586	6.586	(1.068)	41	4388			79.97- 139.97	77.17
-----								
116 Methyl Methacrylate CAS #: 80-62-6								
6.664	6.664	(0.774)	69	8883	0.80000	0.9911	80.00- 120.00	100.00
6.664	6.664	(0.774)	41	11902			134.02- 194.02	133.99
6.664	6.664	(0.774)	100	2690			9.54- 69.54	30.28
-----								
117 1,4-Dioxane CAS #: 123-91-1								
6.700	6.699	(1.087)	88	4748	0.80000	0.8314	80.00- 120.00	100.00
6.700	6.699	(1.087)	58	4521			55.80- 115.80	95.22
6.700	6.699	(1.087)	57	1703			8.68- 68.68	35.87
-----								
118 Dibromomethane CAS #: 74-95-3								
6.714	6.721	(0.780)	174	8375	0.80000	0.8390	80.00- 120.00	100.00
6.714	6.721	(0.780)	93	8226			67.27- 127.27	98.22
6.714	6.721	(0.780)	95	7202			50.92- 110.92	85.99
-----								
122 Bromodichloromethane CAS #: 75-27-4								
6.836	6.836	(1.109)	83	15320	0.80000	0.8086	80.00- 120.00	100.00
6.836	6.836	(1.109)	85	9492			34.31- 94.31	61.96
-----								
126 cis-1,3-Dichloropropene CAS #: 10061-01-5								
7.208	7.208	(1.169)	75	11541	0.80000	0.8196	80.00- 120.00	100.00
7.215	7.208	(1.170)	77	4622			1.42- 61.42	40.05
7.208	7.208	(1.169)	39	7603			38.56- 98.56	65.88
-----								
127 Methylcyclohexane CAS #: 108-87-2								
6.460	6.460	(1.048)	83	13305	0.80000	0.8798	80.00- 120.00	100.00
6.460	6.460	(1.048)	98	6080			15.60- 75.60	45.70
6.460	6.460	(1.048)	55	12160			78.53- 138.53	91.39
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.316	7.316	(1.186)	58	7965	0.80000	0.8318	80.00- 120.00	100.00
7.316	7.316	(1.186)	43	20271			231.30- 291.30	254.50
7.316	7.316	(1.186)	85	3326			8.94- 68.94	41.76
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.380	7.387	(1.197)	98	1013202	25.0000	24.901	80.00- 120.00	100.00
7.380	7.387	(1.197)	70	116440			0.00- 41.47	11.49
7.380	7.387	(1.197)	100	669730			36.47- 96.47	66.10
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
137 Toluene						CAS #: 108-88-3		
7.437	7.437	(1.206)	91	24265	0.80000	0.8022	80.00- 120.00	100.00
7.437	7.437	(1.206)	92	14851			28.30- 88.30	61.20
-----								
136 Octane						CAS #: 111-65-9		
7.445	7.444	(1.207)	57	8300	0.80000	0.8247	80.00- 120.00	100.00
7.445	7.444	(1.207)	85	8637			67.11- 127.11	104.06
7.437	7.444	(1.206)	43	20072			214.21- 274.21	241.83
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
7.688	7.688	(0.893)	75	11323	0.80000	0.8255	80.00- 120.00	100.00
7.688	7.688	(0.893)	77	4369			2.15- 62.15	38.59
7.688	7.688	(0.893)	39	7657			36.09- 96.09	67.62
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
7.839	7.846	(0.910)	97	8646	0.80000	0.8196	80.00- 120.00	100.00
7.846	7.846	(0.911)	99	5360			31.62- 91.62	61.99
7.846	7.846	(0.911)	83	7766			56.35- 116.35	89.82
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
7.882	7.881	(0.915)	166	12139	0.80000	0.8320	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	9872			48.71- 108.71	81.32
7.874	7.881	(0.914)	131	8828			46.55- 106.55	72.72
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
7.989	7.989	(1.296)	76	12215	0.80000	0.8464	80.00- 120.00	100.00
7.989	7.989	(1.296)	41	13111			82.96- 142.96	107.34
7.989	7.989	(1.296)	78	4266			2.55- 62.55	34.92
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.154	8.154	(0.947)	129	16239	0.80000	0.8114	80.00- 120.00	100.00
8.154	8.154	(0.947)	127	12828			47.77- 107.77	79.00
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.261	8.268	(0.959)	107	13011	0.80000	0.7942	80.00- 120.00	100.00(a)
8.261	8.268	(0.959)	109	12882			64.60- 124.60	99.01
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
8.612	8.619	(1.000)	117	931335	25.0000		80.00- 120.00	100.00
8.612	8.619	(1.000)	82	518350			25.46- 85.46	55.66
-----								
154 Chlorobenzene						CAS #: 108-90-7		
8.641	8.641	(1.003)	112	21477	0.80000	0.8437	80.00- 120.00	100.00
8.641	8.641	(1.003)	114	6709			2.13- 62.13	31.24
8.634	8.641	(1.002)	77	14599			26.35- 86.35	67.98
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
155 Ethyl Benzene						CAS #: 100-41-4		
8.684	8.684	(1.008)	106	10291	0.80000	0.8085	80.00- 120.00	100.00
8.684	8.684	(1.008)	91	32077			282.48- 342.48	311.70
-----								
156 Nonane						CAS #: 111-84-2		
8.705	8.705	(1.011)	43	21434	0.80000	0.8688	80.00- 120.00	100.00
8.705	8.705	(1.011)	57	19389			59.52- 119.52	90.46
8.705	8.705	(1.011)	85	6369			0.00- 59.76	29.71
-----								
158 m,p-Xylene						CAS #: 108-38-3		
8.784	8.784	(1.020)	106	13307	0.80000	0.8404	80.00- 120.00	100.00
8.784	8.784	(1.020)	91	26472			171.36- 231.36	198.93
-----								
164 o-Xylene						CAS #: 95-47-6		
9.121	9.128	(1.059)	106	12162	0.80000	0.8090	80.00- 120.00	100.00
9.121	9.128	(1.059)	91	26734			179.99- 239.99	219.82
-----								
165 Styrene						CAS #: 100-42-5		
9.149	9.149	(1.062)	104	21835	0.80000	0.8384	80.00- 120.00	100.00
9.149	9.149	(1.062)	78	11448			19.09- 79.09	52.43
-----								
167 Bromoform						CAS #: 75-25-2		
9.350	9.350	(1.086)	173	14748	0.80000	0.7772	80.00- 120.00	100.00(a)
9.350	9.350	(1.086)	171	7835			21.45- 81.45	53.13
-----								
168 Cumene						CAS #: 98-82-8		
9.407	9.414	(1.092)	105	39345	0.80000	0.8278	80.00- 120.00	100.00
9.414	9.414	(1.093)	120	10793			0.00- 56.99	27.43
9.407	9.407	(1.092)	51	5195			0.00- 41.77	13.20
-----								
169 Cyclohexanone						CAS #: 108-94-1		
9.579	9.579	(1.112)	55	14868	0.80000	0.9940	80.00- 120.00	100.00
9.579	9.579	(1.112)	98	4953			9.22- 69.22	33.31
9.579	9.579	(1.112)	42	8629			42.60- 102.60	58.04
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	618262	25.0000	25.098	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	759997			93.06- 153.06	122.92
9.601	9.601	(1.115)	176	579650			62.87- 122.87	93.75
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
9.737	9.737	(1.131)	83	19806	0.80000	0.8405	80.00- 120.00	100.00
9.737	9.737	(1.131)	85	12524			34.35- 94.35	63.23
-----								
177 Bromobenzene						CAS #: 108-86-1		
9.737	9.729	(1.131)	156	12445	0.80000	0.8423	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
177 Bromobenzene (continued)								
9.730	9.737	(1.130)	158	12195			67.29- 127.29	97.99
9.730	9.729	(1.130)	77	19823			132.41- 192.41	159.28
-----								
178 Propylbenzene						CAS #: 103-65-1		
9.758	9.758	(1.133)	91	45427	0.80000	0.8191	80.00- 120.00	100.00
9.758	9.758	(1.133)	120	10884			0.00- 53.77	23.96
9.758	9.758	(1.133)	105	2279			0.00- 33.81	5.02
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
9.787	9.787	(1.136)	110	5740	0.80000	0.8086	80.00- 120.00	100.00
9.787	9.787	(1.136)	75	18016			285.00- 345.00	313.87
9.787	9.787	(1.136)	61	5058			54.06- 114.06	88.12
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
9.787	9.787	(1.136)	53	5333	0.80000	0.9495	80.00- 120.00	100.00
9.787	9.787	(1.136)	89	2077			21.19- 81.19	38.95
9.787	9.787	(1.136)	75	18016			372.45- 432.45	337.82
-----								
182 Decane						CAS #: 124-18-5		
9.816	9.808	(1.140)	57	24476	0.80000	0.8536	80.00- 120.00	100.00
9.808	9.808	(1.139)	71	9202			4.13- 64.13	37.60
9.816	9.815	(1.140)	142	1267			0.00- 34.73	5.18
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.144)	120	11430	0.80000	0.7951	80.00- 120.00	100.00(a)
9.851	9.851	(1.144)	105	38367			296.79- 356.79	335.67
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
9.873	9.873	(1.146)	126	9611	0.80000	0.8229	80.00- 120.00	100.00
9.873	9.873	(1.146)	91	36422			336.29- 396.29	378.96
9.873	9.873	(1.146)	65	3999			38.83- 98.83	41.61
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
9.902	9.901	(1.150)	120	16869	0.80000	0.8355	80.00- 120.00	100.00
9.902	9.901	(1.150)	105	35487			176.40- 236.40	210.37
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.102	10.102	(1.173)	118	16440	0.80000	0.7950	80.00- 120.00	100.00(a)
10.109	10.102	(1.174)	103	9786			26.64- 86.64	59.53
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
10.167	10.174	(1.180)	119	31573	0.80000	0.8499	80.00- 120.00	100.00
10.174	10.174	(1.181)	134	7634			0.00- 54.82	24.18
10.167	10.174	(1.180)	91	21604			36.92- 96.92	68.43
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
-----								
190	1,2,4-Trimethylbenzene					CAS #:	95-63-6	
10.224	10.224	(1.187)	105	32978	0.80000	0.8283	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	15023			16.58- 76.58	45.55
-----								
192	sec-Butylbenzene					CAS #:	135-98-8	
10.353	10.360	(1.202)	134	10197	0.80000	0.8498	80.00- 120.00	100.00
10.353	10.360	(1.202)	105	48258			451.53- 511.53	473.26
10.353	10.353	(1.202)	91	8204			46.48- 106.48	80.46
-----								
194	p-Cymene					CAS #:	99-87-6	
10.467	10.467	(1.215)	119	40402	0.80000	0.8040	80.00- 120.00	100.00
10.467	10.467	(1.215)	134	11326			0.00- 56.79	28.03
10.467	10.467	(1.215)	91	9885			0.00- 54.04	24.47
-----								
195	1,3-Dichlorobenzene					CAS #:	541-73-1	
10.518	10.517	(1.221)	146	21976	0.80000	0.8125	80.00- 120.00	100.00
10.518	10.517	(1.221)	148	14046			33.53- 93.53	63.92
10.518	10.517	(1.221)	111	9550			11.05- 71.05	43.46
-----								
196	1,4-Dichlorobenzene					CAS #:	106-46-7	
10.596	10.596	(1.230)	146	22766	0.80000	0.8171	80.00- 120.00	100.00
10.596	10.596	(1.230)	148	15056			33.47- 93.47	66.13
10.596	10.596	(1.230)	111	9088			9.65- 69.65	39.92
-----								
199	alpha-Chlorotoluene					CAS #:	100-44-7	
10.711	10.711	(1.244)	91	29877	0.80000	0.7799	80.00- 120.00	100.00(a)
10.711	10.711	(1.244)	126	6621			0.00- 52.04	22.16
-----								
201	Undecane					CAS #:	1120-21-4	
10.804	10.804	(1.254)	57	29237	0.80000	0.8652	80.00- 120.00	100.00
10.804	10.804	(1.254)	43	25734			55.86- 115.86	88.02
-----								
202	Butylbenzene					CAS #:	104-51-8	
10.818	10.818	(1.256)	134	10284	0.80000	0.7893	80.00- 120.00	100.00(a)
10.818	10.818	(1.256)	91	38305			331.99- 391.99	372.47
10.818	10.818	(1.256)	92	20988			161.01- 221.01	204.08
-----								
204	1,2-Dichlorobenzene					CAS #:	95-50-1	
10.919	10.926	(1.268)	146	21022	0.80000	0.8043	80.00- 120.00	100.00
10.919	10.926	(1.268)	148	13579			33.23- 93.23	64.59
10.919	10.918	(1.268)	111	9180			12.36- 72.36	43.67
-----								
207	Dodecane					CAS #:	112-40-3	
11.714	11.714	(1.360)	57	28096	0.98880	0.9833	80.00- 120.00	100.00
11.714	11.714	(1.360)	43	23611			50.85- 110.85	84.04
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
12.301	12.301	(1.428)	180	19676	1.00720	1.060	80.00- 120.00	100.00
12.301	12.301	(1.428)	182	18474			65.40- 125.40	93.89
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
12.387	12.387	(1.438)	225	15576	1.02960	1.111	80.00- 120.00	100.00
12.380	12.387	(1.437)	223	9805			33.70- 93.70	62.95
-----								
216 Naphthalene						CAS #: 91-20-3		
12.552	12.552	(1.457)	128	7246	0.10160	0.1278	80.00- 120.00	100.00(a)
12.559	12.552	(1.458)	127	730			0.00- 43.10	10.07
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
12.803	12.802	(1.487)	180	19480	1.06480	1.147	80.00- 120.00	100.00
12.803	12.802	(1.487)	182	18041			65.67- 125.67	92.61
12.803	12.802	(1.487)	145	7042			6.02- 66.02	36.15
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062217.d  
 Lab Smp Id: ICAL Level 5  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 0.8ppbv (5.0ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	272204	11.83
108 1,4-Difluorobenze	874076	524446	1223706	987880	13.02
153 Chlorobenzene-d5	831223	498734	1163712	931335	12.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.27	-0.26
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.22
153 Chlorobenzene-d5	8.62	8.29	8.95	8.61	-0.08

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.



Date : 22-JUN-2021 21:22

Client ID:

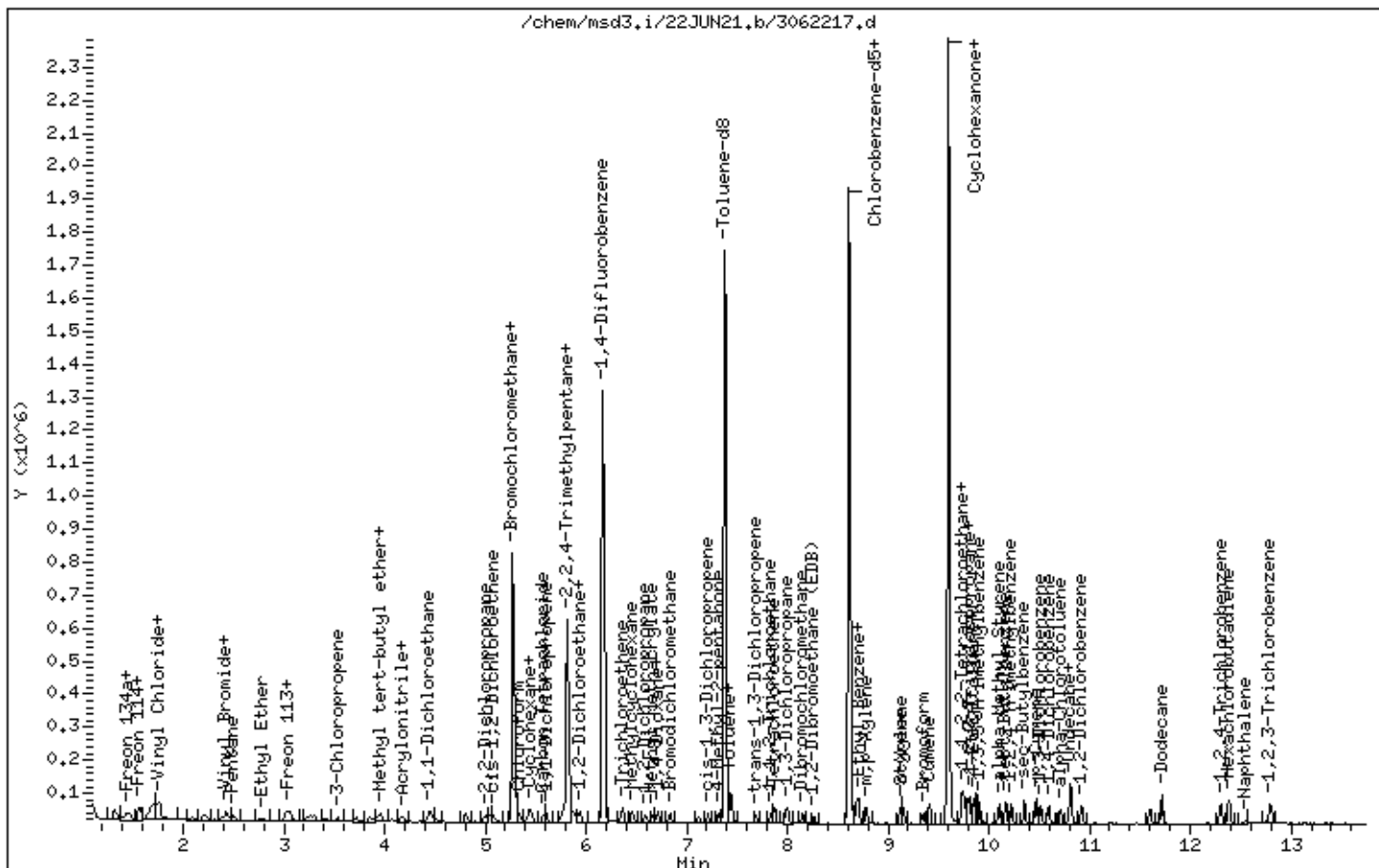
Instrument: msd3,i

Sample Info: 32mL 3018-2116

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062207.d  
Lab Smp Id: ICAL Level 6  
Inj Date : 22-JUN-2021 16:44  
Operator : LD  
Smp Info : 80mL 3018-2078  
Misc Info : 2.0ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Meth Date : 23-Jun-2021 12:22 lk8g  
Cal Date : 22-JUN-2021 21:49  
Als bottle: 4  
Dil Factor: 1.00000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062218.d  
Calibration Sample, Level: 6  
Compound Sublist: AT20spICAL.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.270	5.284	(1.000)	130	289885	25.0000		80.00- 120.00 100.00
5.270	5.284	(1.000)	128	226876			48.46- 108.46 78.26
5.270	5.270	(1.000)	49	433966			120.39- 180.39 149.70
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.166	6.180	(1.000)	114	1078094	25.0000		80.00- 120.00 100.00
6.166	6.180	(1.000)	88	166843			0.00- 45.52 15.48
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
8.612	8.619	(1.000)	117	1013628	25.0000		80.00- 120.00 100.00
8.612	8.619	(1.000)	82	556752			25.46- 85.46 54.93
-----							
3 Freon 143a CAS #: 420-46-2							
1.353	1.353	(0.257)	65	9112	2.00000	1.879	80.00- 120.00 100.00(a)
1.353	1.353	(0.257)	69	25781			217.09- 277.09 282.93
1.353	1.353	(0.257)	64	3486			0.00- 55.87 38.26
-----							
6 Propane CAS #: 74-98-6							
1.437	1.422	(0.273)	43	5991	2.00000	2.268	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO	
				CAL-AMT	ON-COL			
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.423	1.422	(0.270)	39	5192		41.62- 101.62	86.66	
1.423	1.422	(0.270)	41	5108		22.97- 82.97	85.26	
-----								
13 Freon 142b								
						CAS #: 75-68-3		
1.605	1.604	(0.304)	65	31251	2.00000	2.027 80.00- 120.00	100.00	
1.605	1.604	(0.304)	45	8855		0.00- 58.17	28.34	
-----								
36 1-Pentene								
						CAS #: 109-67-1		
2.444	2.444	(0.464)	55	19586	2.00000	2.000 80.00- 120.00	100.00(a)	
2.444	2.444	(0.464)	42	30145		99.17- 159.17	153.91	
-----								
40 Freon 123a								
						CAS #: 354-23-4		
2.878	2.878	(0.546)	117	22862	2.00000	2.005 80.00- 120.00	100.00(a)	
2.878	2.878	(0.546)	67	30241		103.13- 163.13	132.28	
-----								
41 Freon 123								
						CAS #: 306-83-2		
2.976	2.976	(0.565)	83	33539	2.00000	2.005 80.00- 120.00	100.00	
2.976	2.976	(0.565)	133	8415		0.00- 51.81	25.09	
2.976	2.976	(0.565)	85	25176		37.13- 97.13	75.06	
-----								
55 Cyclopentene								
						CAS #: 142-29-0		
3.549	3.549	(0.673)	67	35921	2.00000	2.018 80.00- 120.00	100.00	
3.549	3.549	(0.673)	68	15513		7.90- 67.90	43.19	
3.549	3.549	(0.673)	53	8899		0.00- 54.87	24.77	
-----								
56 Methyl Acetate								
						CAS #: 79-20-9		
3.591	3.577	(0.681)	43	38592	2.00000	2.104 80.00- 120.00	100.00(a)	
3.591	3.577	(0.681)	74	7357		0.00- 47.15	19.06	
-----								
74 Chloroprene								
						CAS #: 126-99-8		
4.501	4.515	(0.854)	53	30781	2.00000	1.981 80.00- 120.00	100.00(a)	
4.501	4.515	(0.854)	88	13327		12.33- 72.33	43.30	
4.501	4.515	(0.854)	50	10224		0.00- 57.62	33.22	
-----								
75 1-Propanol								
						CAS #: 71-23-8		
4.627	4.613	(0.878)	59	6485	2.00000	2.700 80.00- 120.00	100.00	
4.627	4.613	(0.878)	42	4281		53.89- 113.89	66.01	
4.585	4.613	(0.870)	41	119		24.09- 84.09	1.84	
-----								
88 Methyl Acrylate								
						CAS #: 96-33-3		
5.145	5.130	(0.976)	55	38691	2.00000	2.072 80.00- 120.00	100.00(a)	
5.145	5.130	(0.976)	85	6532		0.00- 43.24	16.88	
5.131	5.130	(0.973)	58	5015		0.00- 38.83	12.96	
-----								
103 Isobutanol								
						CAS #: 78-83-1		
5.788	5.774	(1.098)	39	11582	2.00000	3.376 80.00- 120.00	100.00(a)	

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO	
				CAL-AMT	ON-COL			
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
5.788	5.774	(1.098)	43	23653		327.69- 387.69	204.22	
5.788	5.774	(1.098)	41	18940		237.56- 297.56	163.53	
-----								
113 Ethyl acrylate								
						CAS #: 140-88-5		
6.460	6.474	(0.750)	99	3656	2.00000	2.257 80.00- 120.00	100.00	
6.460	6.460	(0.750)	45	5038		124.67- 184.67	137.80	
6.460	6.460	(0.750)	55	60018		1601.30-1661.30	1641.63	
-----								
115 2-Pentanone								
						CAS #: 107-87-9		
6.558	6.557	(0.761)	43	90325	2.00000	2.384 80.00- 120.00	100.00	
6.558	6.557	(0.761)	58	7067		0.00- 37.25	7.82	
6.558	6.557	(0.761)	86	12465		0.00- 45.08	13.80	
-----								
145 Butyl Acetate								
						CAS #: 123-86-4		
8.068	8.068	(1.308)	56	32281	2.00000	2.271 80.00- 120.00	100.00(a)	
8.068	8.068	(1.308)	73	11495		5.16- 65.16	35.61	
8.068	8.068	(1.308)	43	75753		214.00- 274.00	234.67	
-----								
157 1,1,1,2-Tetrachloroethane								
						CAS #: 630-20-6		
8.712	8.712	(1.012)	131	28819	2.00000	1.890 80.00- 120.00	100.00(a)	
8.705	8.712	(1.011)	117	23948		38.22- 98.22	83.10	
8.705	8.712	(1.011)	95	10938		7.54- 67.54	37.95	
-----								
166 2-Heptanone								
						CAS #: 110-43-0		
9.221	9.221	(1.750)	58	48202	2.00000	2.265 80.00- 120.00	100.00	
9.221	9.221	(1.750)	43	77902		133.36- 193.36	161.62	
-----								
172 D-Limonene								
						CAS #: 5989-27-5		
10.417	10.417	(1.210)	68	33744	2.00000	1.832 80.00- 120.00	100.00(a)	
10.417	10.424	(1.210)	93	24954		42.08- 102.08	73.95	
-----								
186 4-Chlorotoluene								
						CAS #: 106-43-4		
9.966	9.973	(1.157)	126	26881	2.00000	2.025 80.00- 120.00	100.00	
9.966	9.966	(1.157)	91	88725		305.94- 365.94	330.07	
9.966	9.966	(1.157)	63	12715		15.44- 75.44	47.30	
-----								
197 1,2,3-Trimethylbenzene								
						CAS #: 526-73-8		
10.596	10.596	(1.230)	120	35829	2.00000	1.969 80.00- 120.00	100.00(a)	
10.589	10.596	(1.230)	105	84796		206.43- 266.43	236.67	
10.589	10.596	(1.230)	77	11184		0.00- 58.29	31.21	
-----								
205 Hexachloroethane								
						CAS #: 67-72-1		
11.098	11.098	(1.289)	201	20332	2.00000	1.831 80.00- 120.00	100.00(a)	
11.098	11.098	(1.289)	117	28407		109.77- 169.77	139.72	
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
11.721	11.728	(1.361)	180	51309	2.00000	2.119	80.00- 120.00	100.00
11.721	11.728	(1.361)	182	47707			65.79- 125.79	92.98
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.364	9.371	(1.087)	93	62865	2.00000	2.006	80.00- 120.00	100.00
9.364	9.371	(1.087)	77	18260			0.13- 60.13	29.05
-----								
214 beta-Pinene						CAS #: 127-91-3		
9.945	9.944	(1.155)	93	48258	2.00000	1.960	80.00- 120.00	100.00(a)
9.966	9.966	(1.157)	91	88725			145.95- 205.95	183.86
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3062207.d  
Lab Smp Id: ICAL Level 6  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
Misc Info: 2.0ppbv (5.0ppbv)

Calibration Date: 22-JUN-2021  
Calibration Time: 23:12  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	289885	19.10
108 1,4-Difluorobenze	874076	524446	1223706	1078094	23.34
153 Chlorobenzene-d5	831223	498734	1163712	1013628	21.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.27	-0.26
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.22
153 Chlorobenzene-d5	8.62	8.29	8.95	8.61	-0.08

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.

Date : 22-JUN-2021 16:44

Client ID:

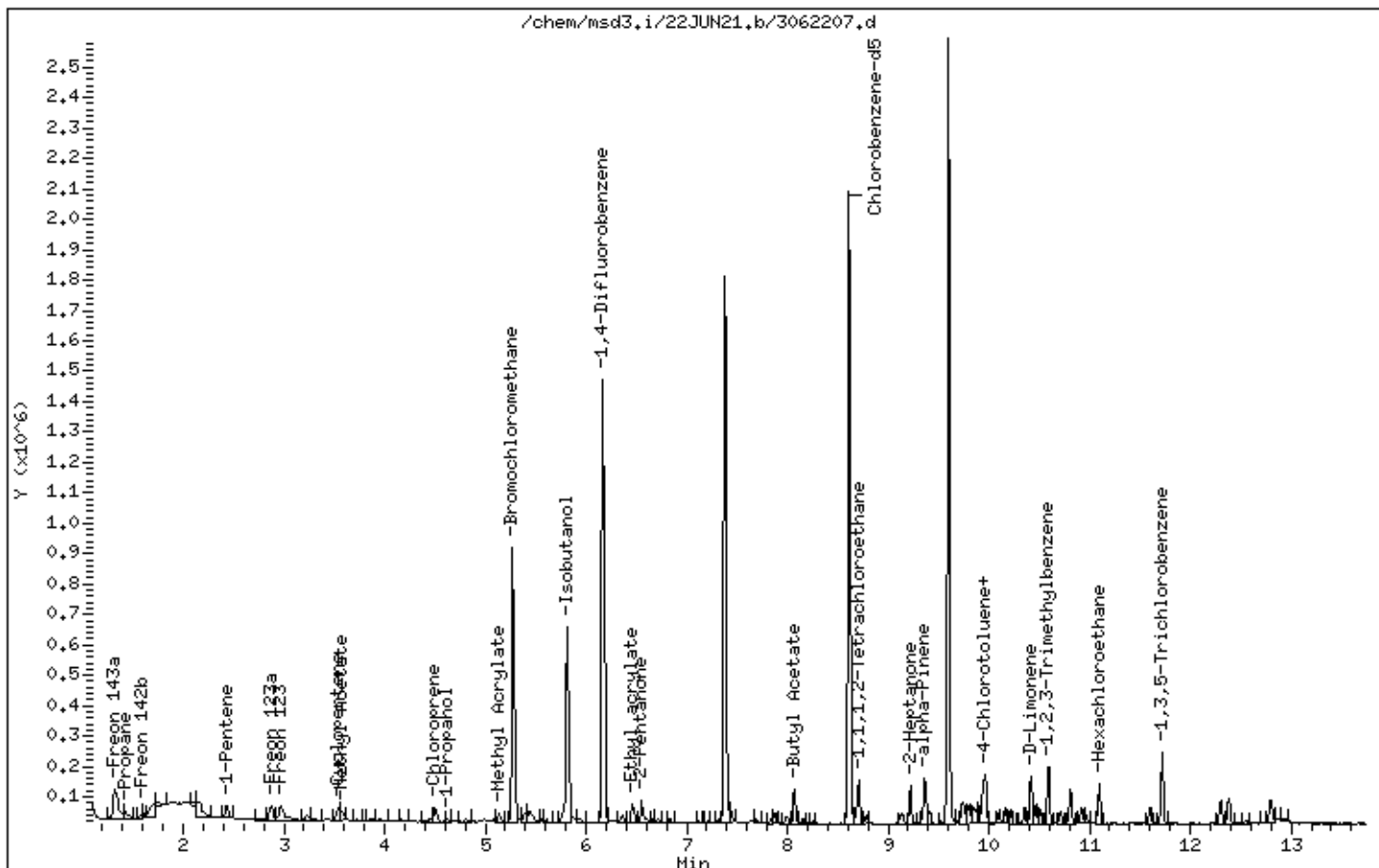
Instrument: msd3,i

Sample Info: 80mL 3018-2078

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062218.d  
Lab Smp Id: ICAL Level 6  
Inj Date : 22-JUN-2021 21:49  
Operator : LD Inst ID: msd3.i  
Smp Info : 80mL 3018-2116  
Misc Info : 2.0ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
Cal Date : 22-JUN-2021 21:49 Cal File: 3062218.d  
Als bottle: 1 Calibration Sample, Level: 6  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.395	1.395	(0.264)	83	12527 2.00000	2.033	80.00-	120.00	100.00
1.395	1.395	(0.264)	69	10184		51.82-	111.82	81.30
1.493	1.479	(0.282)	51	30849		194.91-	254.91	246.26
-----								
5 Propylene CAS #: 115-07-1								
1.423	1.423	(0.269)	41	13499 2.00000	2.158	80.00-	120.00	100.00
1.437	1.423	(0.272)	42	8457		35.61-	95.61	62.65
1.437	1.423	(0.272)	39	10196		42.66-	102.66	75.53
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.437	1.437	(0.272)	65	9568 2.00000	2.347	80.00-	120.00	100.00
1.493	1.479	(0.282)	51	30849		321.86-	381.86	322.42
1.451	1.437	(0.275)	47	7395		45.34-	105.34	77.29
-----								
8 Freon 12 CAS #: 75-71-8								
1.465	1.465	(0.277)	85	35619 2.00000	1.975	80.00-	120.00	100.00
1.465	1.465	(0.277)	87	12194		2.63-	62.63	34.23
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.493	1.479	(0.282)	67	3999 2.00000	2.017	80.00-	120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.493	1.479	(0.282)	51	30849			719.76- 779.76	771.42
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.563	1.562	(0.296)	135	27960	2.00000	2.092	80.00- 120.00	100.00
1.563	1.562	(0.296)	137	9352			2.12- 62.12	33.45
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.577	1.576	(0.298)	43	29938	2.00000	2.130	80.00- 120.00	100.00
1.577	1.576	(0.298)	42	9552			2.44- 62.44	31.91
1.577	1.576	(0.298)	58	2044			0.00- 33.26	6.83
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.647	1.646	(0.312)	50	17143	2.00000	2.287	80.00- 120.00	100.00
1.647	1.646	(0.312)	52	5650			2.41- 62.41	32.96
-----								
18 Butane								
						CAS #: 106-97-8		
1.703	1.702	(0.322)	58	4166	2.00000	2.353	80.00- 120.00	100.00
1.703	1.702	(0.322)	43	35051			727.41- 787.41	841.36
-----								
19 Vinyl Chloride								
						CAS #: 75-01-4		
1.745	1.744	(0.330)	62	16334	2.00000	2.036	80.00- 120.00	100.00
1.745	1.744	(0.330)	64	5799			1.28- 61.28	35.50
-----								
20 1,3-Butadiene								
						CAS #: 106-99-0		
1.759	1.758	(0.333)	54	15099	2.00000	2.054	80.00- 120.00	100.00
1.759	1.758	(0.333)	39	18165			69.23- 129.23	120.31
-----								
24 Bromomethane								
						CAS #: 74-83-9		
2.094	2.094	(0.396)	94	13943	2.00000	2.198	80.00- 120.00	100.00
2.094	2.094	(0.396)	96	12872			62.78- 122.78	92.32
-----								
30 Chloroethane								
						CAS #: 75-00-3		
2.206	2.206	(0.417)	64	8314	2.00000	2.208	80.00- 120.00	100.00
2.206	2.206	(0.417)	66	3518			1.44- 61.44	42.31
2.192	2.206	(0.415)	49	3656			4.12- 64.12	43.97
-----								
31 Isopentane								
						CAS #: 78-78-4		
2.220	2.220	(0.420)	43	20620	2.00000	2.141	80.00- 120.00	100.00
2.220	2.220	(0.420)	57	14321			38.82- 98.82	69.45
-----								
32 Vinyl Bromide								
						CAS #: 593-60-2		
2.388	2.388	(0.452)	106	14365	2.00000	2.082	80.00- 120.00	100.00
2.388	2.388	(0.452)	108	13693			63.14- 123.14	95.32
-----								
33 Freon 11								
						CAS #: 75-69-4		
2.430	2.430	(0.460)	101	40281	2.00000	2.111	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.430	2.430	(0.460)	103	26149			35.12- 95.12	64.92
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.444	2.444	(0.463)	67	32346	2.00000	2.120	80.00- 120.00	100.00
2.444	2.444	(0.463)	69	12285			0.74- 60.74	37.98
-----								
35 Pentane CAS #: 109-66-0								
2.500	2.500	(0.473)	43	32710	2.00000	2.132	80.00- 120.00	100.00
2.500	2.500	(0.473)	57	5841			0.00- 45.97	17.86
2.500	2.500	(0.473)	72	3353			0.00- 38.10	10.25
-----								
38 Ethyl Ether CAS #: 60-29-7								
2.794	2.780	(0.529)	74	7733	2.00000	2.248	80.00- 120.00	100.00
2.794	2.780	(0.529)	59	13463			147.68- 207.68	174.10
2.780	2.780	(0.526)	45	15377			206.40- 266.40	198.85
-----								
39 Ethanol CAS #: 64-17-5								
2.780	2.766	(0.526)	46	4305	2.00000	2.788	80.00- 120.00	100.00
2.780	2.780	(0.526)	45	15543			523.01- 583.01	361.05
-----								
42 Acrolein CAS #: 107-02-8								
3.032	3.032	(0.574)	55	5657	2.00000	2.208	80.00- 120.00	100.00
3.046	3.032	(0.576)	56	7738			110.33- 170.33	136.79
-----								
43 Freon 113 CAS #: 76-13-1								
3.032	3.032	(0.574)	151	26736	2.00000	2.049	80.00- 120.00	100.00
3.046	3.032	(0.576)	153	17279			33.72- 93.72	64.63
3.032	3.032	(0.574)	101	32869			89.67- 149.67	122.94
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.074	3.074	(0.582)	96	16520	2.00000	2.102	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	10176			33.39- 93.39	61.60
3.074	3.074	(0.582)	61	30134			163.82- 223.82	182.41
-----								
47 Acetone CAS #: 67-64-1								
3.228	3.213	(0.611)	58	10661	2.00000	2.456	80.00- 120.00	100.00
3.228	3.213	(0.611)	43	29629			299.66- 359.66	277.92
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.298	3.297	(0.624)	76	42623	2.00000	2.180	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.270	3.269	(0.619)	142	34373	2.00000	2.033	80.00- 120.00	100.00
3.270	3.269	(0.619)	127	15306			14.58- 74.58	44.53
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.410	3.395	(0.645)	45	32159	2.00000	2.060	80.00- 120.00	100.00
3.410	3.395	(0.645)	43	7570			0.00- 48.61	23.54
-----								
54 3-Chloropropene						CAS #: 107-05-1		
3.535	3.535	(0.669)	76	7206	2.00000	2.141	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	24505			338.06- 398.06	340.06
-----								
57 Acetonitrile						CAS #: 75-05-8		
3.647	3.633	(0.690)	41	14594	2.00000	2.135	80.00- 120.00	100.00
3.647	3.633	(0.690)	40	8254			21.81- 81.81	56.56
3.647	3.633	(0.690)	38	2096			0.00- 41.86	14.36
-----								
59 Methylene Chloride						CAS #: 75-09-2		
3.717	3.717	(0.703)	49	23256	2.00000	2.238	80.00- 120.00	100.00
3.717	3.717	(0.703)	84	14521			30.77- 90.77	62.44
3.717	3.717	(0.703)	51	8384			1.39- 61.39	36.05
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
3.871	3.857	(0.733)	59	42838	2.00000	2.186	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	7649			0.00- 51.05	17.86
3.857	3.857	(0.730)	57	4880			0.00- 41.68	11.39
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
3.941	3.941	(0.746)	73	44430	2.00000	2.100	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	12345			0.00- 58.86	27.79
3.941	3.941	(0.746)	41	13055			0.00- 57.27	29.38
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
3.969	3.969	(0.751)	98	10676	2.00000	2.019	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	27646			244.59- 304.59	258.95
3.969	3.969	(0.751)	96	15803			129.84- 189.84	148.02
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.067	4.067	(0.770)	52	13614	2.00000	2.145	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	12537			88.50- 148.50	92.09
-----								
67 Hexane						CAS #: 110-54-3		
4.179	4.179	(0.791)	57	28960	2.00000	2.020	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	19813			32.99- 92.99	68.42
4.179	4.179	(0.791)	86	3928			0.00- 42.56	13.56
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.459	4.459	(0.844)	63	30061	2.00000	2.039	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	9575			0.76- 60.76	31.85
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.445	4.445	(0.841)	45	62946	2.00000	2.080	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	13914			0.00- 51.37	22.10
4.445	4.445	(0.841)	59	8128			0.00- 41.09	12.91
73 Vinyl Acetate						CAS #: 108-05-4		
4.501	4.501	(0.852)	86	4157	2.00000	2.293	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	51442			1391.63-1451.63	1237.48
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
4.809	4.809	(0.910)	59	62324	2.00000	2.133	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	19376			3.22- 63.22	31.09
4.809	4.809	(0.910)	41	11767			0.00- 48.12	18.88
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.005	5.004	(0.947)	77	28668	2.00000	2.087	80.00- 120.00	100.00
5.005	5.004	(0.947)	79	9974			2.00- 62.00	34.79
5.005	5.004	(0.947)	97	7911			0.00- 53.36	27.60
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.047	5.046	(0.955)	98	11370	2.00000	2.169	80.00- 120.00	100.00
5.047	5.046	(0.955)	96	15084			127.22- 187.22	132.66
5.047	5.046	(0.955)	61	25421			283.85- 343.85	223.58
86 2-Butanone						CAS #: 78-93-3		
5.075	5.074	(0.960)	72	7851	2.00000	2.144	80.00- 120.00	100.00
5.089	5.074	(0.963)	43	78294			1055.75-1115.75	997.25
5.075	5.074	(0.960)	57	3411			10.59- 70.59	43.45
87 Ethyl Acetate						CAS #: 141-78-6		
5.089	5.088	(0.963)	45	5709	2.00000	1.891	80.00- 120.00	100.00
5.047	5.046	(0.955)	61	25421			450.31- 510.31	445.28
5.089	5.088	(0.963)	70	4574			30.42- 90.42	80.12
89 Tetrahydrofuran						CAS #: 109-99-9		
5.284	5.270	(1.000)	42	21705	2.00000	2.102	80.00- 120.00	100.00
5.284	5.270	(1.000)	71	8067			2.92- 62.92	37.17
5.284	5.270	(1.000)	72	7888			3.54- 63.54	36.34
* 90 Bromochloromethane						CAS #: 74-97-5		
5.284	5.284	(1.000)	130	258917	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	201783			48.46- 108.46	77.93
5.270	5.270	(1.000)	49	385968			120.39- 180.39	149.07
92 Chloroform						CAS #: 67-66-3		
5.340	5.340	(1.011)	83	33357	2.00000	2.055	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.340	5.340	(1.011)	85	21529			34.71- 94.71	64.54
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.438	5.438	(1.029)	84	20996	2.00000	2.046	80.00- 120.00	100.00
5.438	5.438	(1.029)	56	29244			120.40- 180.40	139.28
5.438	5.438	(1.029)	41	17106			54.20- 114.20	81.47
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.452	5.466	(1.032)	97	36438	2.00000	1.997	80.00- 120.00	100.00
5.466	5.466	(1.034)	99	22845			33.76- 93.76	62.70
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
5.578	5.578	(1.056)	119	33059	2.00000	1.967	80.00- 120.00	100.00
5.578	5.578	(1.056)	117	33894			73.68- 133.68	102.53
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
5.606	5.606	(0.909)	110	8789	2.00000	2.041	80.00- 120.00	100.00
5.606	5.606	(0.909)	75	23996			231.09- 291.09	273.02
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
5.774	5.774	(1.093)	57	89726	2.00000	2.001	80.00- 120.00	100.00
5.774	5.774	(1.093)	56	27046			1.12- 61.12	30.14
5.774	5.774	(1.093)	41	25210			0.00- 57.49	28.10
-----								
102 Benzene						CAS #: 71-43-2		
5.788	5.788	(0.939)	78	43228	2.00000	2.002	80.00- 120.00	100.00
5.788	5.788	(0.939)	77	11463			0.00- 53.80	26.52
-----								
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
5.816	5.816	(1.101)	65	359531	25.0000	25.233	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	173715			21.66- 81.66	48.32
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
5.858	5.858	(0.950)	87	12051	2.00000	2.094	80.00- 120.00	100.00
5.858	5.858	(0.950)	73	46557			365.20- 425.20	386.33
5.858	5.858	(0.950)	55	13263			91.31- 151.31	110.06
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
5.886	5.886	(0.955)	62	25443	2.00000	2.047	80.00- 120.00	100.00
5.886	5.886	(0.955)	64	8919			1.20- 61.20	35.05
-----								
107 Heptane						CAS #: 142-82-5		
5.942	5.942	(0.964)	71	15716	2.00000	1.848	80.00- 120.00	100.00
5.942	5.942	(0.964)	43	33799			179.02- 239.02	215.06
5.942	5.942	(0.964)	57	17903			84.85- 144.85	113.92
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO	
				CAL-AMT	ON-COL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene								
						CAS #: 540-36-3		
6.166	6.180	(1.000)	114	946034	25.0000	80.00- 120.00	100.00	
6.166	6.180	(1.000)	88	148259		0.00- 45.52	15.67	
-----								
110 n-Butanol								
						CAS #: 71-36-3		
6.362	6.348	(1.032)	56	14330	2.00000	2.071 80.00- 120.00	100.00	
6.362	6.348	(1.032)	41	10628		40.21- 100.21	74.17	
6.348	6.348	(1.030)	43	7980		25.00- 85.00	55.69	
-----								
111 Trichloroethene								
						CAS #: 79-01-6		
6.362	6.362	(1.032)	95	22037	2.00000	2.035 80.00- 120.00	100.00	
6.362	6.362	(1.032)	130	22117		74.96- 134.96	100.36	
6.362	6.362	(1.032)	97	14434		34.80- 94.80	65.50	
-----								
114 1,2-Dichloropropane								
						CAS #: 78-87-5		
6.586	6.586	(1.068)	63	11804	2.00000	2.359 80.00- 120.00	100.00	
6.586	6.586	(1.068)	62	7528		52.03- 112.03	63.77	
6.586	6.586	(1.068)	41	8139		79.97- 139.97	68.95	
-----								
116 Methyl Methacrylate								
						CAS #: 80-62-6		
6.664	6.664	(0.774)	69	16998	2.00000	1.970 80.00- 120.00	100.00	
6.664	6.664	(0.774)	41	28082		134.02- 194.02	165.21	
6.664	6.664	(0.774)	100	6257		9.54- 69.54	36.81	
-----								
117 1,4-Dioxane								
						CAS #: 123-91-1		
6.700	6.699	(1.087)	88	11392	2.00000	2.083 80.00- 120.00	100.00	
6.700	6.699	(1.087)	58	9905		55.80- 115.80	86.95	
6.700	6.699	(1.087)	57	3944		8.68- 68.68	34.62	
-----								
118 Dibromomethane								
						CAS #: 74-95-3		
6.714	6.721	(0.780)	174	18752	2.00000	1.952 80.00- 120.00	100.00	
6.714	6.721	(0.780)	93	19344		67.27- 127.27	103.16	
6.714	6.721	(0.780)	95	16647		50.92- 110.92	88.77	
-----								
122 Bromodichloromethane								
						CAS #: 75-27-4		
6.836	6.836	(1.109)	83	35603	2.00000	1.962 80.00- 120.00	100.00	
6.836	6.836	(1.109)	85	22516		34.31- 94.31	63.24	
-----								
126 cis-1,3-Dichloropropene								
						CAS #: 10061-01-5		
7.208	7.208	(1.169)	75	26840	2.00000	1.990 80.00- 120.00	100.00	
7.208	7.208	(1.169)	77	9456		1.42- 61.42	35.23	
7.208	7.208	(1.169)	39	18349		38.56- 98.56	68.36	
-----								
127 Methylcyclohexane								
						CAS #: 108-87-2		
6.460	6.460	(1.048)	83	28700	2.00000	1.982 80.00- 120.00	100.00(a)	
6.460	6.460	(1.048)	98	13249		15.60- 75.60	46.16	

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.460	6.460	(1.048)	55	28200			78.53- 138.53	98.26
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.316	7.316	(1.186)	58	17181	2.00000	1.874	80.00- 120.00	100.00
7.316	7.316	(1.186)	43	45888			231.30- 291.30	267.09
7.316	7.316	(1.186)	85	7262			8.94- 68.94	42.27
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.380	7.387	(1.197)	98	970823	25.0000	24.915	80.00- 120.00	100.00
7.380	7.387	(1.197)	70	111479			0.00- 41.47	11.48
7.387	7.387	(1.198)	100	636499			36.47- 96.47	65.56
-----								
137 Toluene						CAS #: 108-88-3		
7.437	7.437	(1.206)	91	57171	2.00000	1.974	80.00- 120.00	100.00
7.437	7.437	(1.206)	92	33030			28.30- 88.30	57.77
-----								
136 Octane						CAS #: 111-65-9		
7.445	7.444	(1.207)	57	18179	2.00000	1.886	80.00- 120.00	100.00
7.445	7.444	(1.207)	85	18740			67.11- 127.11	103.09
7.445	7.444	(1.207)	43	45414			214.21- 274.21	249.82
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
7.688	7.688	(0.893)	75	26352	2.00000	1.996	80.00- 120.00	100.00
7.688	7.688	(0.893)	77	9021			2.15- 62.15	34.23
7.688	7.688	(0.893)	39	17627			36.09- 96.09	66.89
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
7.846	7.846	(0.911)	97	19996	2.00000	1.969	80.00- 120.00	100.00
7.846	7.846	(0.911)	99	12392			31.62- 91.62	61.97
7.839	7.846	(0.910)	83	17818			56.35- 116.35	89.11
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
7.882	7.881	(0.915)	166	27680	2.00000	1.971	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	22388			48.71- 108.71	80.88
7.882	7.881	(0.915)	131	21304			46.55- 106.55	76.97
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.010	8.003	(0.930)	58	22942	2.00000	1.967	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	45796			157.91- 217.91	199.62
8.010	8.003	(0.930)	100	4202			0.00- 47.86	18.32
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
7.989	7.989	(1.296)	76	27424	2.00000	1.984	80.00- 120.00	100.00(a)
7.989	7.989	(1.296)	41	30899			82.96- 142.96	112.67
7.989	7.989	(1.296)	78	8899			2.55- 62.55	32.45
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.154	8.154	(0.947)	129	38430	2.00000	1.995	80.00- 120.00	100.00
8.154	8.154	(0.947)	127	29685			47.77- 107.77	77.24
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.268	8.268	(0.960)	107	31730	2.00000	2.012	80.00- 120.00	100.00
8.261	8.268	(0.959)	109	29448			64.60- 124.60	92.81
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.115	7.115	(1.154)	63	36254	2.00000	2.070	80.00- 120.00	100.00
7.115	7.115	(1.154)	65	11738			0.95- 60.95	32.38
7.122	7.122	(1.155)	144	3735			0.00- 40.45	10.30
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
8.612	8.619	(1.000)	117	896463	25.0000		80.00- 120.00	100.00
8.612	8.619	(1.000)	82	496632			25.46- 85.46	55.40
-----								
154 Chlorobenzene						CAS #: 108-90-7		
8.641	8.641	(1.003)	112	47809	2.00000	1.951	80.00- 120.00	100.00
8.641	8.641	(1.003)	114	15417			2.13- 62.13	32.25
8.641	8.641	(1.003)	77	36657			26.35- 86.35	76.67
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
8.684	8.684	(1.008)	106	24773	2.00000	2.022	80.00- 120.00	100.00
8.684	8.684	(1.008)	91	76793			282.48- 342.48	309.99
-----								
156 Nonane						CAS #: 111-84-2		
8.705	8.705	(1.011)	43	47836	2.00000	2.014	80.00- 120.00	100.00
8.705	8.705	(1.011)	57	41901			59.52- 119.52	87.59
8.705	8.705	(1.011)	85	14792			0.00- 59.76	30.92
-----								
158 m,p-Xylene						CAS #: 108-38-3		
8.784	8.784	(1.020)	106	29681	2.00000	1.947	80.00- 120.00	100.00
8.784	8.784	(1.020)	91	60240			171.36- 231.36	202.96
-----								
164 o-Xylene						CAS #: 95-47-6		
9.121	9.128	(1.059)	106	28420	2.00000	1.964	80.00- 120.00	100.00
9.121	9.128	(1.059)	91	58681			179.99- 239.99	206.48
-----								
165 Styrene						CAS #: 100-42-5		
9.149	9.149	(1.062)	104	47987	2.00000	1.914	80.00- 120.00	100.00
9.142	9.149	(1.062)	78	24297			19.09- 79.09	50.63
-----								
167 Bromoform						CAS #: 75-25-2		
9.350	9.350	(1.086)	173	35291	2.00000	1.932	80.00- 120.00	100.00
9.350	9.350	(1.086)	171	17840			21.45- 81.45	50.55
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
9.407	9.414	(1.092)	105	89737	2.00000	1.962	80.00- 120.00	100.00
9.414	9.414	(1.093)	120	24498			0.00- 56.99	27.30
9.407	9.407	(1.092)	51	11332			0.00- 41.77	12.63
-----								
169 Cyclohexanone						CAS #: 108-94-1		
9.579	9.579	(1.112)	55	31083	2.00000	2.159	80.00- 120.00	100.00(a)
9.579	9.579	(1.112)	98	11891			9.22- 69.22	38.26
9.579	9.579	(1.112)	42	20956			42.60- 102.60	67.42
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	586034	25.0000	24.715	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	730126			93.06- 153.06	124.59
9.601	9.601	(1.115)	176	549908			62.87- 122.87	93.84
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
9.737	9.737	(1.131)	83	45479	2.00000	2.005	80.00- 120.00	100.00
9.737	9.737	(1.131)	85	28003			34.35- 94.35	61.57
-----								
177 Bromobenzene						CAS #: 108-86-1		
9.737	9.729	(1.131)	156	28306	2.00000	1.990	80.00- 120.00	100.00(a)
9.737	9.737	(1.131)	158	27654			67.29- 127.29	97.70
9.730	9.729	(1.130)	77	45934			132.41- 192.41	162.28
-----								
178 Propylbenzene						CAS #: 103-65-1		
9.758	9.758	(1.133)	91	107489	2.00000	2.014	80.00- 120.00	100.00
9.758	9.758	(1.133)	120	25682			0.00- 53.77	23.89
9.758	9.758	(1.133)	105	4623			0.00- 33.81	4.30
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
9.787	9.787	(1.136)	110	13498	2.00000	1.976	80.00- 120.00	100.00
9.787	9.787	(1.136)	75	40201			285.00- 345.00	297.83
9.787	9.787	(1.136)	61	11873			54.06- 114.06	87.96
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
9.787	9.787	(1.136)	53	11078	2.00000	2.049	80.00- 120.00	100.00
9.787	9.787	(1.136)	89	5431			21.19- 81.19	49.03
9.787	9.787	(1.136)	75	40201			372.45- 432.45	362.89
-----								
182 Decane						CAS #: 124-18-5		
9.808	9.808	(1.139)	57	56155	2.00000	2.034	80.00- 120.00	100.00
9.808	9.808	(1.139)	71	19932			4.13- 64.13	35.49
9.816	9.815	(1.140)	142	2636			0.00- 34.73	4.69
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.144)	120	27536	2.00000	1.990	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
9.851	9.851	(1.144)	105	89192			296.79- 356.79	323.91
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
9.873	9.873	(1.146)	126	22038	2.00000	1.960	80.00- 120.00	100.00
9.873	9.873	(1.146)	91	82197			336.29- 396.29	372.98
9.866	9.873	(1.146)	65	13007			38.83- 98.83	59.02
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
9.902	9.901	(1.150)	120	37752	2.00000	1.942	80.00- 120.00	100.00
9.902	9.901	(1.150)	105	80271			176.40- 236.40	212.63
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
10.102	10.102	(1.173)	118	39056	2.00000	1.962	80.00- 120.00	100.00
10.102	10.102	(1.173)	103	22102			26.64- 86.64	56.59
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
10.174	10.174	(1.181)	119	72972	2.00000	2.041	80.00- 120.00	100.00
10.167	10.174	(1.180)	134	17377			0.00- 54.82	23.81
10.174	10.174	(1.181)	91	48613			36.92- 96.92	66.62
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
10.224	10.224	(1.187)	105	74003	2.00000	1.931	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	34304			16.58- 76.58	46.35
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
10.353	10.360	(1.202)	134	22626	2.00000	1.959	80.00- 120.00	100.00
10.353	10.360	(1.202)	105	109866			451.53- 511.53	485.57
10.353	10.353	(1.202)	91	18185			46.48- 106.48	80.37
-----								
194 p-Cymene CAS #: 99-87-6								
10.467	10.467	(1.215)	119	94336	2.00000	1.950	80.00- 120.00	100.00
10.467	10.467	(1.215)	134	25449			0.00- 56.79	26.98
10.467	10.467	(1.215)	91	23235			0.00- 54.04	24.63
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
10.518	10.517	(1.221)	146	51279	2.00000	1.970	80.00- 120.00	100.00
10.518	10.517	(1.221)	148	32439			33.53- 93.53	63.26
10.518	10.517	(1.221)	111	20660			11.05- 71.05	40.29
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
10.596	10.596	(1.230)	146	54206	2.00000	2.021	80.00- 120.00	100.00
10.596	10.596	(1.230)	148	34266			33.47- 93.47	63.21
10.596	10.596	(1.230)	111	21091			9.65- 69.65	38.91
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
10.711	10.711	(1.244)	91	71847	2.00000	1.948	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
10.711	10.711	(1.244)	126	15914			0.00- 52.04	22.15
-----								
201 Undecane						CAS #: 1120-21-4		
10.804	10.804	(1.254)	57	66498	2.00000	2.044	80.00- 120.00	100.00
10.804	10.804	(1.254)	43	57381			55.86- 115.86	86.29
-----								
202 Butylbenzene						CAS #: 104-51-8		
10.818	10.818	(1.256)	134	25185	2.00000	2.008	80.00- 120.00	100.00
10.818	10.818	(1.256)	91	90951			331.99- 391.99	361.13
10.818	10.818	(1.256)	92	48740			161.01- 221.01	193.53
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
10.926	10.926	(1.269)	146	50354	2.00000	2.001	80.00- 120.00	100.00
10.919	10.926	(1.268)	148	31905			33.23- 93.23	63.36
10.919	10.918	(1.268)	111	21630			12.36- 72.36	42.96
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
11.606	11.606	(1.348)	157	29511	2.00000	2.023	80.00- 120.00	100.00
11.606	11.599	(1.348)	75	26419			58.96- 118.96	89.52
11.606	11.606	(1.348)	155	23036			47.82- 107.82	78.06
-----								
207 Dodecane						CAS #: 112-40-3		
11.714	11.714	(1.360)	57	68826	2.47200	2.502	80.00- 120.00	100.00
11.714	11.714	(1.360)	43	55006			50.85- 110.85	79.92
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
12.301	12.301	(1.428)	180	46259	2.51800	2.589	80.00- 120.00	100.00
12.301	12.301	(1.428)	182	44390			65.40- 125.40	95.96
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
12.380	12.387	(1.437)	225	34636	2.57400	2.566	80.00- 120.00	100.00
12.387	12.387	(1.438)	223	22076			33.70- 93.70	63.74
-----								
216 Naphthalene						CAS #: 91-20-3		
12.559	12.552	(1.458)	128	16936	0.25400	0.3104	80.00- 120.00	100.00(a)
12.559	12.552	(1.458)	127	2207			0.00- 43.10	13.03
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
12.803	12.802	(1.487)	180	45565	2.66200	2.786	80.00- 120.00	100.00
12.803	12.802	(1.487)	182	41761			65.67- 125.67	91.65
12.795	12.802	(1.486)	145	16507			6.02- 66.02	36.23
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062218.d  
 Lab Smp Id: ICAL Level 6  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 2.0ppbv (5.0ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	258917	6.37
108 1,4-Difluorobenze	874076	524446	1223706	946034	8.23
153 Chlorobenzene-d5	831223	498734	1163712	896463	7.85

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.22
153 Chlorobenzene-d5	8.62	8.29	8.95	8.61	-0.08

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.

Date : 22-JUN-2021 21:49

Client ID:

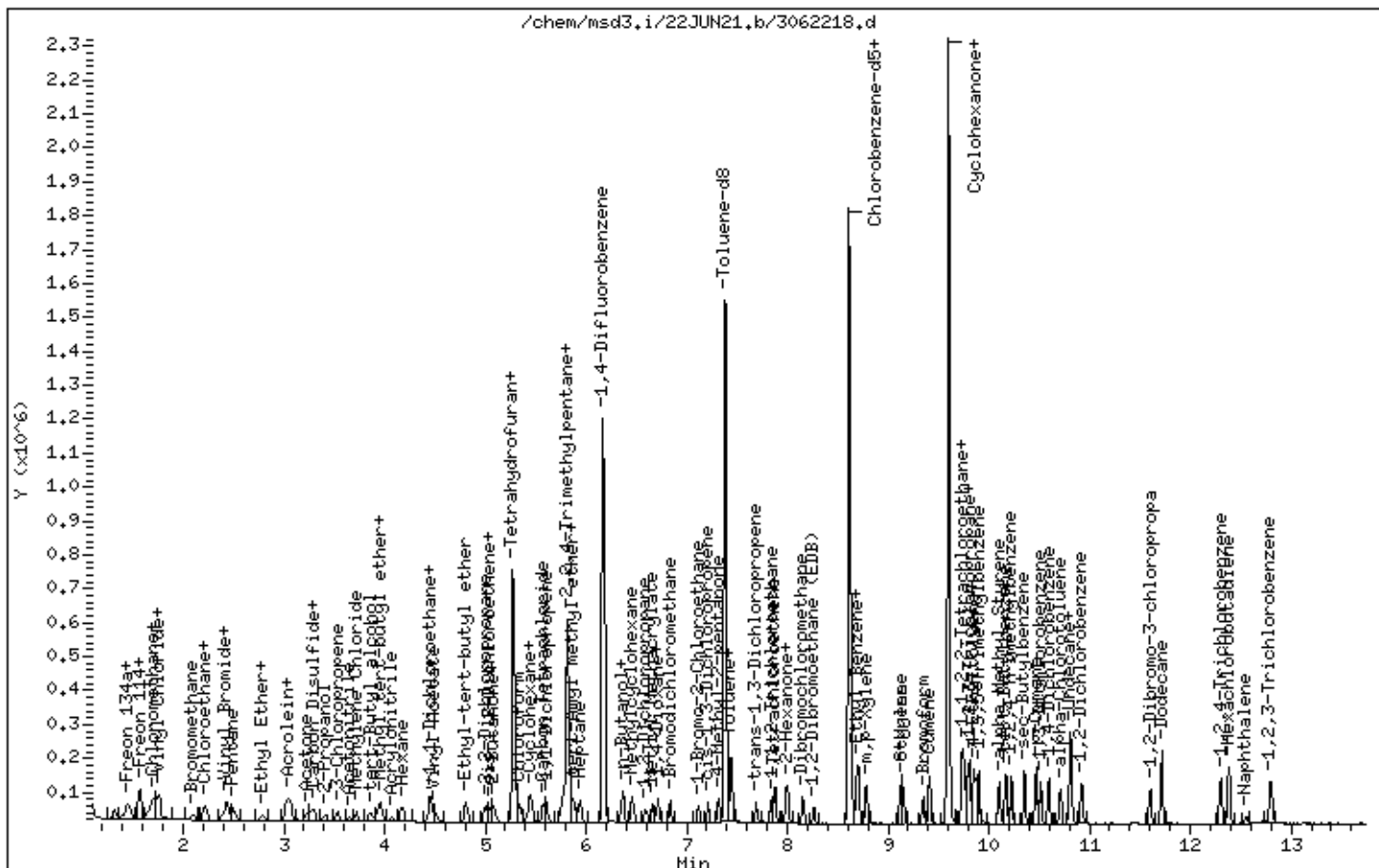
Instrument: msd3,i

Sample Info: 80mL 3018-2116

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062208.d  
 Lab Smp Id: ICAL Level 7  
 Inj Date : 22-JUN-2021 17:13  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL 3018-2078  
 Misc Info : 5.0ppbv (5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
 Cal Date : 22-JUN-2021 22:18 Cal File: 3062219.d  
 Als bottle: 4 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	293494	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	228507			48.46- 108.46	77.86
5.270	5.270	(1.000)	49	438123			120.39- 180.39	149.28
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.166	6.180	(1.000)	114	1058029	25.0000		80.00- 120.00	100.00
6.166	6.180	(1.000)	88	166272			0.00- 45.52	15.72
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.612	8.619	(1.000)	117	1004400	25.0000		80.00- 120.00	100.00
8.612	8.619	(1.000)	82	564944			25.46- 85.46	56.25
-----								
3 Freon 143a CAS #: 420-46-2								
1.353	1.353	(0.256)	65	25983	5.00000	5.292	80.00- 120.00	100.00
1.353	1.353	(0.256)	69	63841			217.09- 277.09	245.70
1.353	1.353	(0.256)	64	6250			0.00- 55.87	24.05
-----								
6 Propane CAS #: 74-98-6								
1.437	1.422	(0.272)	43	13302	5.00000	4.973	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.437	1.422	(0.272)	39	11936			41.62- 101.62	89.73
1.437	1.422	(0.272)	41	11547			22.97- 82.97	86.81
-----								
13 Freon 142b CAS #: 75-68-3								
1.605	1.604	(0.304)	65	76015	5.00000	4.869	80.00- 120.00	100.00
1.605	1.604	(0.304)	45	23649			0.00- 58.17	31.11
-----								
36 1-Pentene CAS #: 109-67-1								
2.444	2.444	(0.463)	55	48431	5.00000	4.885	80.00- 120.00	100.00(a)
2.444	2.444	(0.463)	42	69052			99.17- 159.17	142.58
-----								
40 Freon 123a CAS #: 354-23-4								
2.878	2.878	(0.545)	117	56054	5.00000	4.855	80.00- 120.00	100.00(a)
2.878	2.878	(0.545)	67	73224			103.13- 163.13	130.63
-----								
41 Freon 123 CAS #: 306-83-2								
2.976	2.976	(0.563)	83	83378	5.00000	4.924	80.00- 120.00	100.00
2.976	2.976	(0.563)	133	19265			0.00- 51.81	23.11
2.976	2.976	(0.563)	85	60487			37.13- 97.13	72.55
-----								
55 Cyclopentene CAS #: 142-29-0								
3.549	3.549	(0.672)	67	86815	5.00000	4.817	80.00- 120.00	100.00
3.549	3.549	(0.672)	68	34754			7.90- 67.90	40.03
3.549	3.549	(0.672)	53	22334			0.00- 54.87	25.73
-----								
56 Methyl Acetate CAS #: 79-20-9								
3.591	3.577	(0.680)	43	97338	5.00000	5.240	80.00- 120.00	100.00
3.591	3.577	(0.680)	74	16823			0.00- 47.15	17.28
-----								
74 Chloroprene CAS #: 126-99-8								
4.501	4.515	(0.852)	53	77411	5.00000	4.921	80.00- 120.00	100.00
4.501	4.515	(0.852)	88	32483			12.33- 72.33	41.96
4.501	4.515	(0.852)	50	21250			0.00- 57.62	27.45
-----								
75 1-Propanol CAS #: 71-23-8								
4.627	4.613	(0.876)	59	12617	5.00000	5.188	80.00- 120.00	100.00
4.627	4.613	(0.876)	42	10989			53.89- 113.89	87.10
4.627	4.613	(0.876)	41	7991			24.09- 84.09	63.34
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.130	5.130	(0.971)	55	96706	5.00000	5.116	80.00- 120.00	100.00
5.130	5.130	(0.971)	85	14547			0.00- 43.24	15.04
5.130	5.130	(0.971)	58	8124			0.00- 38.83	8.40
-----								
103 Isobutanol CAS #: 78-83-1								
5.788	5.774	(1.095)	39	22174	5.00000	6.383	80.00- 120.00	100.00



AMOUNTS							
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO
				RESPONSE	CAL-AMT ON-COL		
==	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)							
5.788	5.774	(1.095)	43	58502		327.69- 387.69	263.83
5.788	5.774	(1.095)	41	49233		237.56- 297.56	222.03
-----							
113 Ethyl acrylate CAS #: 140-88-5							
6.460	6.474	(0.750)	99	9219 5.00000	5.744	80.00- 120.00	100.00
6.460	6.460	(0.750)	45	13614		124.67- 184.67	147.67
6.460	6.460	(0.750)	55	147002		1601.30-1661.30	1594.55
-----							
115 2-Pentanone CAS #: 107-87-9							
6.558	6.557	(0.761)	43	208253 5.00000	5.547	80.00- 120.00	100.00
6.558	6.557	(0.761)	58	18363		0.00- 37.25	8.82
6.558	6.557	(0.761)	86	31845		0.00- 45.08	15.29
-----							
145 Butyl Acetate CAS #: 123-86-4							
8.068	8.068	(1.308)	56	76654 5.00000	5.496	80.00- 120.00	100.00
8.068	8.068	(1.308)	73	28367		5.16- 65.16	37.01
8.068	8.068	(1.308)	43	192544		214.00- 274.00	251.19
-----							
157 1,1,1,2-Tetrachloroethane CAS #: 630-20-6							
8.712	8.712	(1.012)	131	69799 5.00000	4.620	80.00- 120.00	100.00
8.705	8.712	(1.011)	117	53334		38.22- 98.22	76.41
8.705	8.712	(1.011)	95	27234		7.54- 67.54	39.02
-----							
166 2-Heptanone CAS #: 110-43-0							
9.221	9.221	(1.745)	58	119072 5.00000	5.527	80.00- 120.00	100.00
9.221	9.221	(1.745)	43	194999		133.36- 193.36	163.77
-----							
172 D-Limonene CAS #: 5989-27-5							
10.417	10.417	(1.210)	68	84575 5.00000	4.635	80.00- 120.00	100.00
10.417	10.424	(1.210)	93	60187		42.08- 102.08	71.16
-----							
186 4-Chlorotoluene CAS #: 106-43-4							
9.966	9.973	(1.157)	126	66952 5.00000	5.091	80.00- 120.00	100.00
9.966	9.966	(1.157)	91	215822		305.94- 365.94	322.35
9.966	9.966	(1.157)	63	29938		15.44- 75.44	44.72
-----							
197 1,2,3-Trimethylbenzene CAS #: 526-73-8							
10.589	10.596	(1.230)	120	89366 5.00000	4.957	80.00- 120.00	100.00(a)
10.589	10.596	(1.230)	105	206875		206.43- 266.43	231.49
10.589	10.596	(1.230)	77	25868		0.00- 58.29	28.95
-----							
205 Hexachloroethane CAS #: 67-72-1							
11.098	11.098	(1.289)	201	45814 5.00000	4.163	80.00- 120.00	100.00
11.098	11.098	(1.289)	117	64441		109.77- 169.77	140.66
-----							

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
11.721	11.728	(1.361)	180	130245	5.00000	5.428	80.00- 120.00	100.00
11.721	11.728	(1.361)	182	123901			65.79- 125.79	95.13
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.371	9.371	(1.088)	93	153783	5.00000	4.952	80.00- 120.00	100.00
9.371	9.371	(1.088)	77	45062			0.13- 60.13	29.30
-----								
214 beta-Pinene						CAS #: 127-91-3		
9.944	9.944	(1.155)	93	115699	5.00000	4.744	80.00- 120.00	100.00
9.966	9.966	(1.157)	91	215822			145.95- 205.95	186.54
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062208.d  
 Lab Smp Id: ICAL Level 7  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 5.0ppbv (5.0ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	293494	20.58
108 1,4-Difluorobenze	874076	524446	1223706	1058029	21.05
153 Chlorobenzene-d5	831223	498734	1163712	1004400	20.83

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.22
153 Chlorobenzene-d5	8.62	8.29	8.95	8.61	-0.08

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.

Date : 22-JUN-2021 17:13

Client ID:

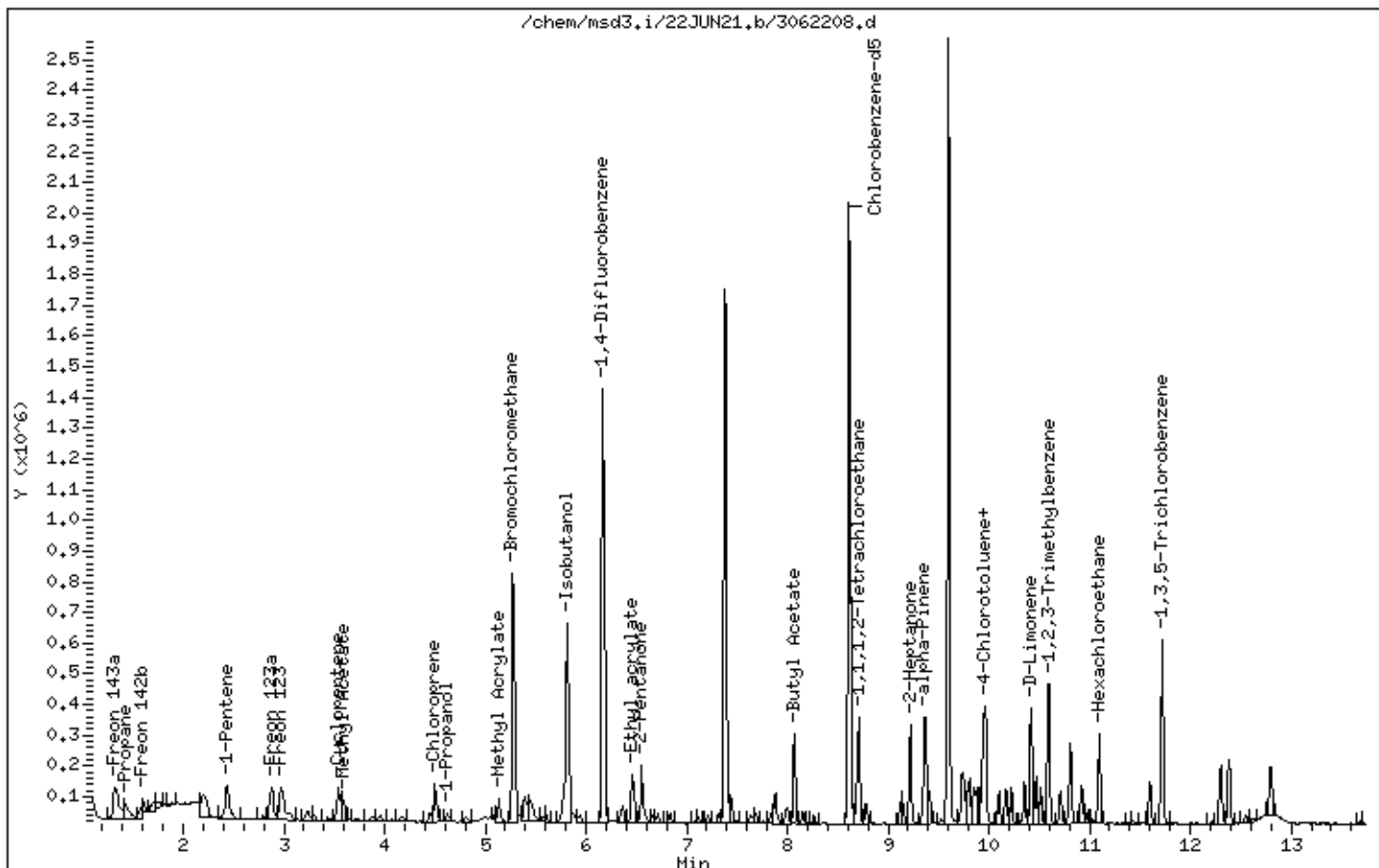
Instrument: msd3,i

Sample Info: 200mL 3018-2078

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062219.d  
Lab Smp Id: ICAL Level 7  
Inj Date : 22-JUN-2021 22:18  
Operator : LD Inst ID: msd3.i  
Smp Info : 200mL 3018-2116  
Misc Info : 5.0ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
Cal Date : 22-JUN-2021 22:18 Cal File: 3062219.d  
Als bottle: 1 Calibration Sample, Level: 7  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a				CAS #: 811-97-2			
1.409	1.395	(0.267)	83	30870 5.00000	5.043	80.00- 120.00	100.00
1.409	1.395	(0.267)	69	27437		51.82- 111.82	88.88
1.493	1.479	(0.282)	51	115062		194.91- 254.91	372.73
-----							
5 Propylene				CAS #: 115-07-1			
1.437	1.423	(0.272)	41	30120 5.00000	4.847	80.00- 120.00	100.00
1.437	1.423	(0.272)	42	20252		35.61- 95.61	67.24
1.437	1.423	(0.272)	39	23134		42.66- 102.66	76.81
-----							
7 1,1-Difluoroethane				CAS #: 75-37-6			
1.451	1.437	(0.275)	65	20451 5.00000	5.049	80.00- 120.00	100.00
1.493	1.479	(0.282)	51	115062		321.86- 381.86	562.62
1.465	1.437	(0.277)	47	15872		45.34- 105.34	77.61
-----							
8 Freon 12				CAS #: 75-71-8			
1.465	1.465	(0.277)	85	87130 5.00000	4.862	80.00- 120.00	100.00
1.465	1.465	(0.277)	87	28738		2.63- 62.63	32.98
-----							
9 Chlorodifluoromethane				CAS #: 75-45-6			
1.493	1.479	(0.282)	67	9643 5.00000	4.896	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.493	1.479	(0.282)	51	115062			719.76- 779.76	1193.22
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.576	1.562	(0.298)	135	66614	5.00000	5.016	80.00- 120.00	100.00
1.576	1.562	(0.298)	137	21590			2.12- 62.12	32.41
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.576	1.576	(0.298)	43	70335	5.00000	5.036	80.00- 120.00	100.00
1.576	1.576	(0.298)	42	23270			2.44- 62.44	33.08
1.576	1.576	(0.298)	58	3709			0.00- 33.26	5.27
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.646	1.646	(0.312)	50	37423	5.00000	5.024	80.00- 120.00	100.00
1.646	1.646	(0.312)	52	14009			2.41- 62.41	37.43
-----								
18 Butane								
						CAS #: 106-97-8		
1.716	1.702	(0.325)	58	12018	5.00000	6.832	80.00- 120.00	100.00
1.716	1.702	(0.325)	43	73577			727.41- 787.41	612.22
-----								
19 Vinyl Chloride								
						CAS #: 75-01-4		
1.744	1.744	(0.330)	62	36880	5.00000	4.627	80.00- 120.00	100.00
1.744	1.744	(0.330)	64	13097			1.28- 61.28	35.51
-----								
20 1,3-Butadiene								
						CAS #: 106-99-0		
1.772	1.758	(0.335)	54	35506	5.00000	4.860	80.00- 120.00	100.00
1.772	1.758	(0.335)	39	35507			69.23- 129.23	100.00
-----								
24 Bromomethane								
						CAS #: 74-83-9		
2.108	2.094	(0.399)	94	38109	5.00000	6.045	80.00- 120.00	100.00
2.108	2.094	(0.399)	96	35133			62.78- 122.78	92.19
-----								
30 Chloroethane								
						CAS #: 75-00-3		
2.206	2.206	(0.417)	64	19206	5.00000	5.133	80.00- 120.00	100.00
2.206	2.206	(0.417)	66	6521			1.44- 61.44	33.95
2.206	2.206	(0.417)	49	6939			4.12- 64.12	36.13
-----								
31 Isopentane								
						CAS #: 78-78-4		
2.220	2.220	(0.420)	43	48636	5.00000	5.083	80.00- 120.00	100.00
2.220	2.220	(0.420)	57	33342			38.82- 98.82	68.55
-----								
32 Vinyl Bromide								
						CAS #: 593-60-2		
2.402	2.388	(0.455)	106	34690	5.00000	5.061	80.00- 120.00	100.00
2.402	2.388	(0.455)	108	32419			63.14- 123.14	93.45
-----								
33 Freon 11								
						CAS #: 75-69-4		
2.444	2.430	(0.462)	101	96206	5.00000	5.074	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.444	2.430	(0.462)	103	62473			35.12- 95.12	64.94
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.458	2.444	(0.465)	67	74608	5.00000	4.922	80.00- 120.00	100.00
2.458	2.444	(0.465)	69	23139			0.74- 60.74	31.01
-----								
35 Pentane CAS #: 109-66-0								
2.500	2.500	(0.473)	43	76248	5.00000	5.002	80.00- 120.00	100.00
2.500	2.500	(0.473)	57	12267			0.00- 45.97	16.09
2.500	2.500	(0.473)	72	6676			0.00- 38.10	8.76
-----								
38 Ethyl Ether CAS #: 60-29-7								
2.794	2.780	(0.529)	74	17084	5.00000	4.998	80.00- 120.00	100.00
2.794	2.780	(0.529)	59	30253			147.68- 207.68	177.08
2.794	2.780	(0.529)	45	39009			206.40- 266.40	228.34
-----								
39 Ethanol CAS #: 64-17-5								
2.780	2.766	(0.526)	46	8533	5.00000	5.563	80.00- 120.00	100.00
2.794	2.780	(0.529)	45	39144			523.01- 583.01	458.74
-----								
42 Acrolein CAS #: 107-02-8								
3.046	3.032	(0.576)	55	12195	5.00000	4.791	80.00- 120.00	100.00
3.046	3.032	(0.576)	56	17604			110.33- 170.33	144.35
-----								
43 Freon 113 CAS #: 76-13-1								
3.046	3.032	(0.576)	151	62504	5.00000	4.822	80.00- 120.00	100.00
3.046	3.032	(0.576)	153	41155			33.72- 93.72	65.84
3.032	3.032	(0.574)	101	77780			89.67- 149.67	124.44
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.074	3.074	(0.582)	96	36915	5.00000	4.728	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	23464			33.39- 93.39	63.56
3.074	3.074	(0.582)	61	69877			163.82- 223.82	189.29
-----								
47 Acetone CAS #: 67-64-1								
3.228	3.213	(0.611)	58	22858	5.00000	5.299	80.00- 120.00	100.00
3.228	3.213	(0.611)	43	68759			299.66- 359.66	300.81
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.311	3.297	(0.627)	76	99748	5.00000	5.135	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.283	3.269	(0.621)	142	65902	5.00000	3.923	80.00- 120.00	100.00
3.269	3.269	(0.619)	127	30617			14.58- 74.58	46.46
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.409	3.395	(0.645)	45	78652	5.00000	5.070	80.00- 120.00	100.00
3.409	3.395	(0.645)	43	15386			0.00- 48.61	19.56
-----								
54 3-Chloropropene						CAS #: 107-05-1		
3.549	3.535	(0.672)	76	16573	5.00000	4.955	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	56964			338.06- 398.06	343.72
-----								
57 Acetonitrile						CAS #: 75-05-8		
3.647	3.633	(0.690)	41	34434	5.00000	5.069	80.00- 120.00	100.00
3.647	3.633	(0.690)	40	17283			21.81- 81.81	50.19
3.647	3.633	(0.690)	38	4545			0.00- 41.86	13.20
-----								
59 Methylene Chloride						CAS #: 75-09-2		
3.731	3.717	(0.706)	49	53373	5.00000	5.170	80.00- 120.00	100.00
3.731	3.717	(0.706)	84	31988			30.77- 90.77	59.93
3.731	3.717	(0.706)	51	16157			1.39- 61.39	30.27
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
3.857	3.857	(0.730)	59	96951	5.00000	4.979	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	19154			0.00- 51.05	19.76
3.857	3.857	(0.730)	57	10645			0.00- 41.68	10.98
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
3.941	3.941	(0.746)	73	105485	5.00000	5.019	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	29722			0.00- 58.86	28.18
3.941	3.941	(0.746)	41	29577			0.00- 57.27	28.04
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
3.969	3.969	(0.751)	98	24541	5.00000	4.671	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	64474			244.59- 304.59	262.72
3.969	3.969	(0.751)	96	37973			129.84- 189.84	154.73
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.081	4.067	(0.772)	52	27763	5.00000	4.403	80.00- 120.00	100.00
4.081	4.067	(0.772)	53	31591			88.50- 148.50	113.79
-----								
67 Hexane						CAS #: 110-54-3		
4.179	4.179	(0.791)	57	69178	5.00000	4.856	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	44269			32.99- 92.99	63.99
4.179	4.179	(0.791)	86	9063			0.00- 42.56	13.10
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.459	4.459	(0.844)	63	72121	5.00000	4.922	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	22325			0.76- 60.76	30.95



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.445	4.445	(0.841)	45	150519	5.00000	5.006	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	33160			0.00- 51.37	22.03
4.445	4.445	(0.841)	59	17494			0.00- 41.09	11.62
73 Vinyl Acetate						CAS #: 108-05-4		
4.501	4.501	(0.852)	86	8959	5.00000	4.974	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	127594			1391.63-1451.63	1424.20
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
4.809	4.809	(0.910)	59	146272	5.00000	5.039	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	48988			3.22- 63.22	33.49
4.809	4.809	(0.910)	41	28007			0.00- 48.12	19.15
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.004	5.004	(0.947)	77	68953	5.00000	5.052	80.00- 120.00	100.00
5.004	5.004	(0.947)	79	22612			2.00- 62.00	32.79
5.004	5.004	(0.947)	97	17231			0.00- 53.36	24.99
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.046	5.046	(0.955)	98	25031	5.00000	4.806	80.00- 120.00	100.00
5.046	5.046	(0.955)	96	37341			127.22- 187.22	149.18
5.046	5.046	(0.955)	61	61406			283.85- 343.85	245.32
86 2-Butanone						CAS #: 78-93-3		
5.074	5.074	(0.960)	72	19190	5.00000	5.275	80.00- 120.00	100.00
5.088	5.074	(0.963)	43	194878			1055.75-1115.75	1015.52
5.074	5.074	(0.960)	57	7584			10.59- 70.59	39.52
87 Ethyl Acetate						CAS #: 141-78-6		
5.088	5.088	(0.963)	45	15360	5.00000	5.121	80.00- 120.00	100.00
5.046	5.046	(0.955)	61	61406			450.31- 510.31	399.78
5.088	5.088	(0.963)	70	11074			30.42- 90.42	72.10
89 Tetrahydrofuran						CAS #: 109-99-9		
5.284	5.270	(1.000)	42	51780	5.00000	5.047	80.00- 120.00	100.00
5.284	5.270	(1.000)	71	17506			2.92- 62.92	33.81
5.284	5.270	(1.000)	72	17706			3.54- 63.54	34.19
* 90 Bromochloromethane						CAS #: 74-97-5		
5.284	5.284	(1.000)	130	257265	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	198868			48.46- 108.46	77.30
5.284	5.270	(1.000)	49	382161			120.39- 180.39	148.55
92 Chloroform						CAS #: 67-66-3		
5.340	5.340	(1.011)	83	76910	5.00000	4.768	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.340	5.340	(1.011)	85	51690			34.71- 94.71	67.21
-----								
94 Cyclohexane								
5.438	5.438	(1.029)	84	47869	5.00000	4.695	80.00- 120.00	100.00
5.438	5.438	(1.029)	56	71544			120.40- 180.40	149.46
5.438	5.438	(1.029)	41	39336			54.20- 114.20	82.17
-----								
96 1,1,1-Trichloroethane								
5.466	5.466	(1.034)	97	86059	5.00000	4.747	80.00- 120.00	100.00
5.466	5.466	(1.034)	99	53345			33.76- 93.76	61.99
-----								
97 Carbon Tetrachloride								
5.578	5.578	(1.056)	119	81713	5.00000	4.893	80.00- 120.00	100.00
5.578	5.578	(1.056)	117	85199			73.68- 133.68	104.27
-----								
99 1,1-Dichloropropene								
5.606	5.606	(0.907)	110	21667	5.00000	5.139	80.00- 120.00	100.00
5.606	5.606	(0.907)	75	54993			231.09- 291.09	253.81
-----								
101 2,2,4-Trimethylpentane								
5.774	5.774	(1.093)	57	216768	5.00000	4.866	80.00- 120.00	100.00
5.774	5.774	(1.093)	56	66699			1.12- 61.12	30.77
5.774	5.774	(1.093)	41	61380			0.00- 57.49	28.32
-----								
102 Benzene								
5.788	5.788	(0.937)	78	103158	5.00000	4.879	80.00- 120.00	100.00
5.788	5.788	(0.937)	77	24658			0.00- 53.80	23.90
-----								
\$ 104 1,2-Dichloroethane-d4								
5.816	5.816	(1.101)	65	357108	25.0000	25.224	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	173770			21.66- 81.66	48.66
-----								
105 tert-Amyl methyl ether								
5.858	5.858	(0.948)	87	28935	5.00000	5.133	80.00- 120.00	100.00
5.858	5.858	(0.948)	73	109587			365.20- 425.20	378.74
5.858	5.858	(0.948)	55	33901			91.31- 151.31	117.16
-----								
106 1,2-Dichloroethane								
5.886	5.886	(0.952)	62	61110	5.00000	5.021	80.00- 120.00	100.00
5.886	5.886	(0.952)	64	19136			1.20- 61.20	31.31
-----								
107 Heptane								
5.942	5.942	(0.962)	71	38185	5.00000	4.586	80.00- 120.00	100.00
5.942	5.942	(0.962)	43	80884			179.02- 239.02	211.82
5.942	5.942	(0.962)	57	43453			84.85- 144.85	113.80
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.180	6.180	(1.000)	114	926448	25.0000		80.00- 120.00	100.00
6.166	6.180	(1.000)	88	143997			0.00- 45.52	15.54
-----								
110 n-Butanol						CAS #: 71-36-3		
6.348	6.348	(1.027)	56	35336	5.00000	5.214	80.00- 120.00	100.00
6.348	6.348	(1.027)	41	25658			40.21- 100.21	72.61
6.348	6.348	(1.027)	43	19921			25.00- 85.00	56.38
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.362	6.362	(1.029)	95	51343	5.00000	4.841	80.00- 120.00	100.00
6.362	6.362	(1.029)	130	53310			74.96- 134.96	103.83
6.362	6.362	(1.029)	97	34367			34.80- 94.80	66.94
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
6.586	6.586	(1.066)	63	22303	5.00000	4.551	80.00- 120.00	100.00
6.586	6.586	(1.066)	62	18119			52.03- 112.03	81.24
6.586	6.586	(1.066)	41	18449			79.97- 139.97	82.72
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
6.664	6.664	(0.773)	69	40620	5.00000	4.788	80.00- 120.00	100.00
6.664	6.664	(0.773)	41	63946			134.02- 194.02	157.42
6.664	6.664	(0.773)	100	16200			9.54- 69.54	39.88
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
6.707	6.699	(1.085)	88	27610	5.00000	5.155	80.00- 120.00	100.00
6.699	6.699	(1.084)	58	24280			55.80- 115.80	87.94
6.699	6.699	(1.084)	57	8469			8.68- 68.68	30.67
-----								
118 Dibromomethane						CAS #: 74-95-3		
6.721	6.721	(0.780)	174	46476	5.00000	4.919	80.00- 120.00	100.00
6.714	6.721	(0.779)	93	46503			67.27- 127.27	100.06
6.714	6.721	(0.779)	95	38973			50.92- 110.92	83.86
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
6.836	6.836	(1.106)	83	84118	5.00000	4.734	80.00- 120.00	100.00
6.836	6.836	(1.106)	85	54033			34.31- 94.31	64.23
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.208	7.208	(1.166)	75	65073	5.00000	4.927	80.00- 120.00	100.00
7.208	7.208	(1.166)	77	20430			1.42- 61.42	31.40
7.215	7.208	(1.168)	39	45406			38.56- 98.56	69.78
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.460	6.460	(1.045)	83	66098	5.00000	4.660	80.00- 120.00	100.00
6.460	6.460	(1.045)	98	31051			15.60- 75.60	46.98

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.460	6.460	(1.045)	55	67155			78.53- 138.53	101.60
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.316	7.316	(1.184)	58	41661	5.00000	4.639	80.00- 120.00	100.00
7.316	7.316	(1.184)	43	110219			231.30- 291.30	264.56
7.316	7.316	(1.184)	85	17067			8.94- 68.94	40.97
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.387	7.387	(1.195)	98	956581	25.0000	25.068	80.00- 120.00	100.00
7.387	7.387	(1.195)	70	107663			0.00- 41.47	11.25
7.387	7.387	(1.195)	100	634365			36.47- 96.47	66.32
-----								
137 Toluene						CAS #: 108-88-3		
7.444	7.437	(1.205)	91	138408	5.00000	4.879	80.00- 120.00	100.00
7.437	7.437	(1.203)	92	78368			28.30- 88.30	56.62
-----								
136 Octane						CAS #: 111-65-9		
7.444	7.444	(1.205)	57	45941	5.00000	4.868	80.00- 120.00	100.00
7.444	7.444	(1.205)	85	44692			67.11- 127.11	97.28
7.444	7.444	(1.205)	43	108512			214.21- 274.21	236.20
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
7.688	7.688	(0.892)	75	63095	5.00000	4.860	80.00- 120.00	100.00
7.688	7.688	(0.892)	77	21719			2.15- 62.15	34.42
7.688	7.688	(0.892)	39	40536			36.09- 96.09	64.25
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
7.846	7.846	(0.910)	97	48053	5.00000	4.812	80.00- 120.00	100.00
7.846	7.846	(0.910)	99	29801			31.62- 91.62	62.02
7.846	7.846	(0.910)	83	40996			56.35- 116.35	85.31
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
7.881	7.881	(0.914)	166	67905	5.00000	4.917	80.00- 120.00	100.00
7.881	7.881	(0.914)	129	52325			48.71- 108.71	77.06
7.881	7.881	(0.914)	131	51507			46.55- 106.55	75.85
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.003	8.003	(0.929)	58	57652	5.00000	5.026	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	108442			157.91- 217.91	188.10
8.010	8.003	(0.929)	100	10390			0.00- 47.86	18.02
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
7.989	7.989	(1.293)	76	66122	5.00000	4.885	80.00- 120.00	100.00
7.989	7.989	(1.293)	41	74797			82.96- 142.96	113.12
7.989	7.989	(1.293)	78	21067			2.55- 62.55	31.86
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #:	124-48-1	
8.154	8.154	(0.946)	129	90433	5.00000	4.774	80.00- 120.00	100.00
8.154	8.154	(0.946)	127	72167			47.77- 107.77	79.80
-----								
148 1,2-Dibromoethane (EDB)						CAS #:	106-93-4	
8.268	8.268	(0.959)	107	76295	5.00000	4.920	80.00- 120.00	100.00
8.268	8.268	(0.959)	109	71622			64.60- 124.60	93.88
-----								
151 1-Bromo-2-Chloroethane						CAS #:	107-04-0	
7.115	7.115	(1.151)	63	87600	5.00000	5.109	80.00- 120.00	100.00
7.122	7.115	(1.152)	65	27142			0.95- 60.95	30.98
7.122	7.122	(1.152)	144	9349			0.00- 40.45	10.67
-----								
* 153 Chlorobenzene-d5						CAS #:	3114-55-4	
8.619	8.619	(1.000)	117	881547	25.0000		80.00- 120.00	100.00
8.612	8.619	(1.000)	82	488998			25.46- 85.46	55.47
-----								
154 Chlorobenzene						CAS #:	108-90-7	
8.641	8.641	(1.002)	112	114941	5.00000	4.771	80.00- 120.00	100.00
8.641	8.641	(1.002)	114	37258			2.13- 62.13	32.41
8.641	8.641	(1.002)	77	73881			26.35- 86.35	64.28
-----								
155 Ethyl Benzene						CAS #:	100-41-4	
8.684	8.684	(1.007)	106	60069	5.00000	4.986	80.00- 120.00	100.00
8.684	8.684	(1.007)	91	182813			282.48- 342.48	304.34
-----								
156 Nonane						CAS #:	111-84-2	
8.705	8.705	(1.010)	43	113446	5.00000	4.858	80.00- 120.00	100.00
8.705	8.705	(1.010)	57	102410			59.52- 119.52	90.27
8.705	8.705	(1.010)	85	34795			0.00- 59.76	30.67
-----								
158 m,p-Xylene						CAS #:	108-38-3	
8.784	8.784	(1.019)	106	71896	5.00000	4.797	80.00- 120.00	100.00
8.784	8.784	(1.019)	91	145208			171.36- 231.36	201.97
-----								
164 o-Xylene						CAS #:	95-47-6	
9.128	9.128	(1.059)	106	67685	5.00000	4.757	80.00- 120.00	100.00
9.121	9.128	(1.058)	91	144014			179.99- 239.99	212.77
-----								
165 Styrene						CAS #:	100-42-5	
9.149	9.149	(1.061)	104	117224	5.00000	4.755	80.00- 120.00	100.00
9.149	9.149	(1.061)	78	60052			19.09- 79.09	51.23
-----								
167 Bromoform						CAS #:	75-25-2	
9.350	9.350	(1.085)	173	85153	5.00000	4.741	80.00- 120.00	100.00
9.350	9.350	(1.085)	171	42688			21.45- 81.45	50.13
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
9.407	9.414	(1.091)	105	219071	5.00000	4.870	80.00- 120.00	100.00
9.407	9.414	(1.091)	120	58840			0.00- 56.99	26.86
9.407	9.407	(1.091)	51	26142			0.00- 41.77	11.93
-----								
169 Cyclohexanone						CAS #: 108-94-1		
9.579	9.579	(1.111)	55	67736	5.00000	4.784	80.00- 120.00	100.00(a)
9.579	9.579	(1.111)	98	25727			9.22- 69.22	37.98
9.579	9.579	(1.111)	42	47657			42.60- 102.60	70.36
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
9.601	9.601	(1.114)	174	576562	25.0000	24.727	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	723420			93.06- 153.06	125.47
9.601	9.601	(1.114)	176	545541			62.87- 122.87	94.62
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
9.737	9.737	(1.130)	83	107112	5.00000	4.802	80.00- 120.00	100.00
9.737	9.737	(1.130)	85	68773			34.35- 94.35	64.21
-----								
177 Bromobenzene						CAS #: 108-86-1		
9.737	9.729	(1.130)	156	68462	5.00000	4.895	80.00- 120.00	100.00
9.737	9.737	(1.130)	158	64845			67.29- 127.29	94.72
9.729	9.729	(1.129)	77	111900			132.41- 192.41	163.45
-----								
178 Propylbenzene						CAS #: 103-65-1		
9.758	9.758	(1.132)	91	254398	5.00000	4.846	80.00- 120.00	100.00
9.758	9.758	(1.132)	120	61239			0.00- 53.77	24.07
9.758	9.758	(1.132)	105	10150			0.00- 33.81	3.99
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
9.787	9.787	(1.135)	110	32592	5.00000	4.851	80.00- 120.00	100.00
9.787	9.787	(1.135)	75	101946			285.00- 345.00	312.79
9.787	9.787	(1.135)	61	28367			54.06- 114.06	87.04
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
9.787	9.787	(1.135)	53	24824	5.00000	4.669	80.00- 120.00	100.00
9.787	9.787	(1.135)	89	12613			21.19- 81.19	50.81
9.787	9.787	(1.135)	75	101946			372.45- 432.45	410.68
-----								
182 Decane						CAS #: 124-18-5		
9.808	9.808	(1.138)	57	134816	5.00000	4.967	80.00- 120.00	100.00
9.808	9.808	(1.138)	71	46047			4.13- 64.13	34.16
9.808	9.815	(1.138)	142	6372			0.00- 34.73	4.73
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.143)	120	65376	5.00000	4.805	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
9.851	9.851	(1.143)	105	212999			296.79- 356.79	325.81
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
9.873	9.873	(1.145)	126	53933	5.00000	4.878	80.00- 120.00	100.00
9.873	9.873	(1.145)	91	196435			336.29- 396.29	364.22
9.873	9.873	(1.145)	65	14803			38.83- 98.83	27.45
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
9.901	9.901	(1.149)	120	91229	5.00000	4.774	80.00- 120.00	100.00
9.901	9.901	(1.149)	105	188732			176.40- 236.40	206.88
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.102	10.102	(1.172)	118	92281	5.00000	4.715	80.00- 120.00	100.00
10.102	10.102	(1.172)	103	52780			26.64- 86.64	57.19
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
10.174	10.174	(1.180)	119	169085	5.00000	4.809	80.00- 120.00	100.00
10.174	10.174	(1.180)	134	41511			0.00- 54.82	24.55
10.166	10.174	(1.179)	91	114268			36.92- 96.92	67.58
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
10.224	10.224	(1.186)	105	180232	5.00000	4.783	80.00- 120.00	100.00
10.224	10.224	(1.186)	120	83645			16.58- 76.58	46.41
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
10.360	10.360	(1.202)	134	54234	5.00000	4.775	80.00- 120.00	100.00
10.353	10.360	(1.201)	105	264018			451.53- 511.53	486.81
10.360	10.353	(1.202)	91	42149			46.48- 106.48	77.72
-----								
194 p-Cymene						CAS #: 99-87-6		
10.467	10.467	(1.214)	119	230013	5.00000	4.836	80.00- 120.00	100.00
10.467	10.467	(1.214)	134	61361			0.00- 56.79	26.68
10.467	10.467	(1.214)	91	54876			0.00- 54.04	23.86
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
10.517	10.517	(1.220)	146	123312	5.00000	4.816	80.00- 120.00	100.00
10.517	10.517	(1.220)	148	79006			33.53- 93.53	64.07
10.517	10.517	(1.220)	111	51949			11.05- 71.05	42.13
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
10.596	10.596	(1.229)	146	126649	5.00000	4.802	80.00- 120.00	100.00
10.596	10.596	(1.229)	148	81497			33.47- 93.47	64.35
10.596	10.596	(1.229)	111	50009			9.65- 69.65	39.49
-----								
199 alpha-Chlorotoluene						CAS #: 100-44-7		
10.711	10.711	(1.243)	91	173610	5.00000	4.788	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
10.711	10.711	(1.243)	126	39012			0.00- 52.04	22.47
-----								
201 Undecane						CAS #: 1120-21-4		
10.804	10.804	(1.253)	57	153796	5.00000	4.808	80.00- 120.00	100.00
10.804	10.804	(1.253)	43	133916			55.86- 115.86	87.07
-----								
202 Butylbenzene						CAS #: 104-51-8		
10.818	10.818	(1.255)	134	60615	5.00000	4.915	80.00- 120.00	100.00
10.818	10.818	(1.255)	91	218931			331.99- 391.99	361.18
10.818	10.818	(1.255)	92	114155			161.01- 221.01	188.33
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
10.926	10.926	(1.268)	146	119023	5.00000	4.811	80.00- 120.00	100.00
10.919	10.926	(1.267)	148	75395			33.23- 93.23	63.34
10.919	10.918	(1.267)	111	50749			12.36- 72.36	42.64
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
11.606	11.606	(1.347)	157	71033	5.00000	4.952	80.00- 120.00	100.00
11.599	11.599	(1.346)	75	63095			58.96- 118.96	88.82
11.606	11.606	(1.347)	155	53742			47.82- 107.82	75.66
-----								
207 Dodecane						CAS #: 112-40-3		
11.714	11.714	(1.359)	57	165056	6.18000	6.103	80.00- 120.00	100.00
11.714	11.714	(1.359)	43	134248			50.85- 110.85	81.33
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
12.301	12.301	(1.427)	180	110148	6.29500	6.268	80.00- 120.00	100.00
12.301	12.301	(1.427)	182	106996			65.40- 125.40	97.14
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
12.387	12.387	(1.437)	225	84822	6.43500	6.390	80.00- 120.00	100.00
12.387	12.387	(1.437)	223	53972			33.70- 93.70	63.63
-----								
216 Naphthalene						CAS #: 91-20-3		
12.552	12.552	(1.456)	128	38541	0.63500	0.7182	80.00- 120.00	100.00
12.552	12.552	(1.456)	127	5058			0.00- 43.10	13.12
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
12.802	12.802	(1.485)	180	106940	6.65500	6.650	80.00- 120.00	100.00
12.802	12.802	(1.485)	182	103120			65.67- 125.67	96.43
12.795	12.802	(1.484)	145	37861			6.02- 66.02	35.40
-----								



QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062219.d  
 Lab Smp Id: ICAL Level 7  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 5.0ppbv (5.0ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	257265	5.69
108 1,4-Difluorobenze	874076	524446	1223706	926448	5.99
153 Chlorobenzene-d5	831223	498734	1163712	881547	6.05

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.62	8.29	8.95	8.62	0.00

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.

Date : 22-JUN-2021 22:18

Client ID:

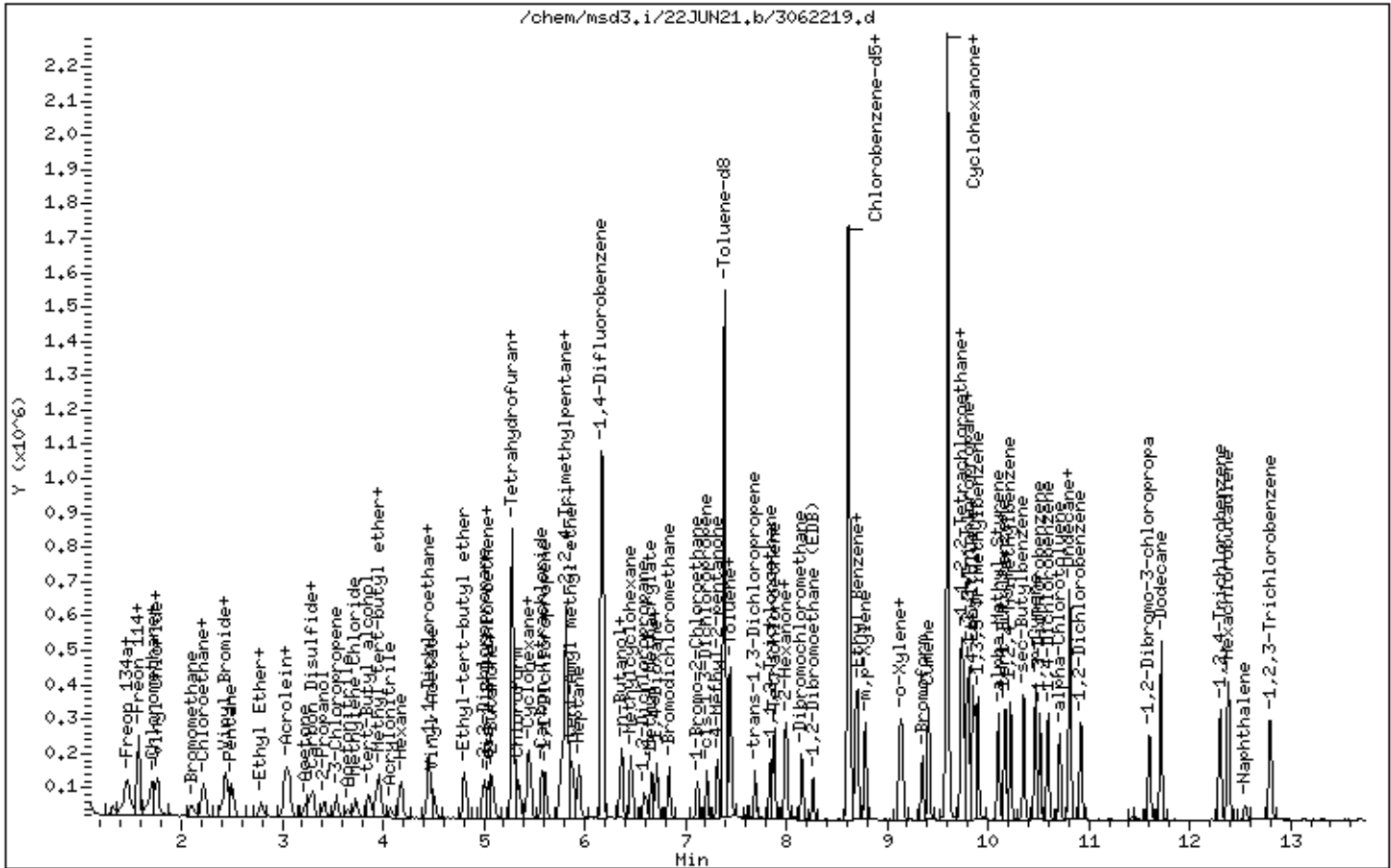
Instrument: msd3,i

Sample Info: 200mL 3018-2116

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062209.d  
Lab Smp Id: ICAL Level 8  
Inj Date : 22-JUN-2021 17:39  
Operator : LD Inst ID: msd3.i  
Smp Info : 20mL 3018-2013  
Misc Info : 20ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
Cal Date : 22-JUN-2021 22:44 Cal File: 3062220.d  
Als bottle: 5 Calibration Sample, Level: 8  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.284	5.284	(1.000)	130	238218	25.0000		80.00- 120.00 100.00
5.284	5.284	(1.000)	128	185268			48.46- 108.46 77.77
5.270	5.270	(1.000)	49	355143			120.39- 180.39 149.08
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.180	6.180	(1.000)	114	858832	25.0000		80.00- 120.00 100.00
6.166	6.180	(1.000)	88	133184			0.00- 45.52 15.51
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
8.619	8.619	(1.000)	117	811449	25.0000		80.00- 120.00 100.00
8.619	8.619	(1.000)	82	449887			25.46- 85.46 55.44
-----							
3 Freon 143a CAS #: 420-46-2							
1.339	1.353	(0.253)	65	85500	20.0000	21.456	80.00- 120.00 100.00
1.339	1.353	(0.253)	69	206588			217.09- 277.09 241.62
1.339	1.353	(0.253)	64	22705			0.00- 55.87 26.56
-----							
6 Propane CAS #: 74-98-6							
1.423	1.422	(0.269)	43	42815	20.0000	19.722	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.423	1.422	(0.269)	39	31090			41.62- 101.62	72.61
1.423	1.422	(0.269)	41	23906			22.97- 82.97	55.84
-----								
13 Freon 142b CAS #: 75-68-3								
1.591	1.604	(0.301)	65	264156	20.0000	20.846	80.00- 120.00	100.00
1.591	1.604	(0.301)	45	74425			0.00- 58.17	28.17
-----								
36 1-Pentene CAS #: 109-67-1								
2.444	2.444	(0.463)	55	165124	20.0000	20.519	80.00- 120.00	100.00
2.444	2.444	(0.463)	42	211095			99.17- 159.17	127.84
-----								
40 Freon 123a CAS #: 354-23-4								
2.878	2.878	(0.545)	117	195571	20.0000	20.871	80.00- 120.00	100.00
2.878	2.878	(0.545)	67	262508			103.13- 163.13	134.23
-----								
41 Freon 123 CAS #: 306-83-2								
2.976	2.976	(0.563)	83	284633	20.0000	20.710	80.00- 120.00	100.00
2.976	2.976	(0.563)	133	62462			0.00- 51.81	21.94
2.976	2.976	(0.563)	85	190087			37.13- 97.13	66.78
-----								
55 Cyclopentene CAS #: 142-29-0								
3.549	3.549	(0.672)	67	299705	20.0000	20.487	80.00- 120.00	100.00
3.549	3.549	(0.672)	68	113549			7.90- 67.90	37.89
3.549	3.549	(0.672)	53	75244			0.00- 54.87	25.11
-----								
56 Methyl Acetate CAS #: 79-20-9								
3.577	3.577	(0.677)	43	298972	20.0000	19.830	80.00- 120.00	100.00
3.577	3.577	(0.677)	74	51281			0.00- 47.15	17.15
-----								
74 Chloroprene CAS #: 126-99-8								
4.501	4.515	(0.852)	53	259538	20.0000	20.329	80.00- 120.00	100.00
4.515	4.515	(0.854)	88	110252			12.33- 72.33	42.48
4.501	4.515	(0.852)	50	71326			0.00- 57.62	27.48
-----								
75 1-Propanol CAS #: 71-23-8								
4.613	4.613	(0.873)	59	36462	20.0000	18.474	80.00- 120.00	100.00
4.613	4.613	(0.873)	42	29989			53.89- 113.89	82.25
4.613	4.613	(0.873)	41	20012			24.09- 84.09	54.88
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.130	5.130	(0.971)	55	301487	20.0000	19.650	80.00- 120.00	100.00
5.130	5.130	(0.971)	85	42054			0.00- 43.24	13.95
5.130	5.130	(0.971)	58	28731			0.00- 38.83	9.53
-----								
103 Isobutanol CAS #: 78-83-1								
5.774	5.774	(1.093)	39	45022	20.0000	15.967	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
5.774	5.774	(1.093)	43	157318			327.69- 387.69	349.42
5.774	5.774	(1.093)	41	117147			237.56- 297.56	260.20
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
6.474	6.474	(0.751)	99	25065	20.0000	19.329	80.00- 120.00	100.00
6.460	6.460	(0.749)	45	38581			124.67- 184.67	153.92
6.460	6.460	(0.749)	55	404461			1601.30-1661.30	1613.65
-----								
115 2-Pentanone						CAS #: 107-87-9		
6.558	6.557	(0.761)	43	535509	20.0000	17.656	80.00- 120.00	100.00
6.558	6.557	(0.761)	58	47669			0.00- 37.25	8.90
6.558	6.557	(0.761)	86	88921			0.00- 45.08	16.60
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.068	8.068	(1.305)	56	220160	20.0000	19.446	80.00- 120.00	100.00
8.068	8.068	(1.305)	73	79760			5.16- 65.16	36.23
8.068	8.068	(1.305)	43	546587			214.00- 274.00	248.27
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
8.712	8.712	(1.011)	131	258075	20.0000	21.144	80.00- 120.00	100.00
8.712	8.712	(1.011)	117	177086			38.22- 98.22	68.62
8.712	8.712	(1.011)	95	95847			7.54- 67.54	37.14
-----								
166 2-Heptanone						CAS #: 110-43-0		
9.221	9.221	(1.745)	58	335936	20.0000	19.211	80.00- 120.00	100.00
9.221	9.221	(1.745)	43	545255			133.36- 193.36	162.31
-----								
172 D-Limonene						CAS #: 5989-27-5		
10.424	10.417	(1.209)	68	315767	20.0000	21.419	80.00- 120.00	100.00
10.424	10.424	(1.209)	93	228493			42.08- 102.08	72.36
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
9.973	9.973	(1.157)	126	219355	20.0000	20.645	80.00- 120.00	100.00
9.973	9.966	(1.157)	91	743925			305.94- 365.94	339.14
9.966	9.966	(1.156)	63	100352			15.44- 75.44	45.75
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
10.596	10.596	(1.229)	120	299929	20.0000	20.594	80.00- 120.00	100.00
10.596	10.596	(1.229)	105	696099			206.43- 266.43	232.09
10.596	10.596	(1.229)	77	85107			0.00- 58.29	28.38
-----								
205 Hexachloroethane						CAS #: 67-72-1		
11.098	11.098	(1.288)	201	201656	20.0000	22.680	80.00- 120.00	100.00
11.098	11.098	(1.288)	117	276979			109.77- 169.77	137.35
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
11.728	11.728	(1.361)	180	340241	20.0000	17.550	80.00- 120.00	100.00
11.728	11.728	(1.361)	182	325140			65.79- 125.79	95.56
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.371	9.371	(1.087)	93	526271	20.0000	20.974	80.00- 120.00	100.00
9.371	9.371	(1.087)	77	158800			0.13- 60.13	30.17
-----								
214 beta-Pinene						CAS #: 127-91-3		
9.944	9.944	(1.154)	93	426022	20.0000	21.620	80.00- 120.00	100.00
9.973	9.966	(1.157)	91	743925			145.95- 205.95	174.62
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062209.d  
 Lab Smp Id: ICAL Level 8  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 20ppbv (200ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	238218	-2.13
108 1,4-Difluorobenze	874076	524446	1223706	858832	-1.74
153 Chlorobenzene-d5	831223	498734	1163712	811449	-2.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.62	8.29	8.95	8.62	0.00

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.



Date : 22-JUN-2021 17:39

Client ID:

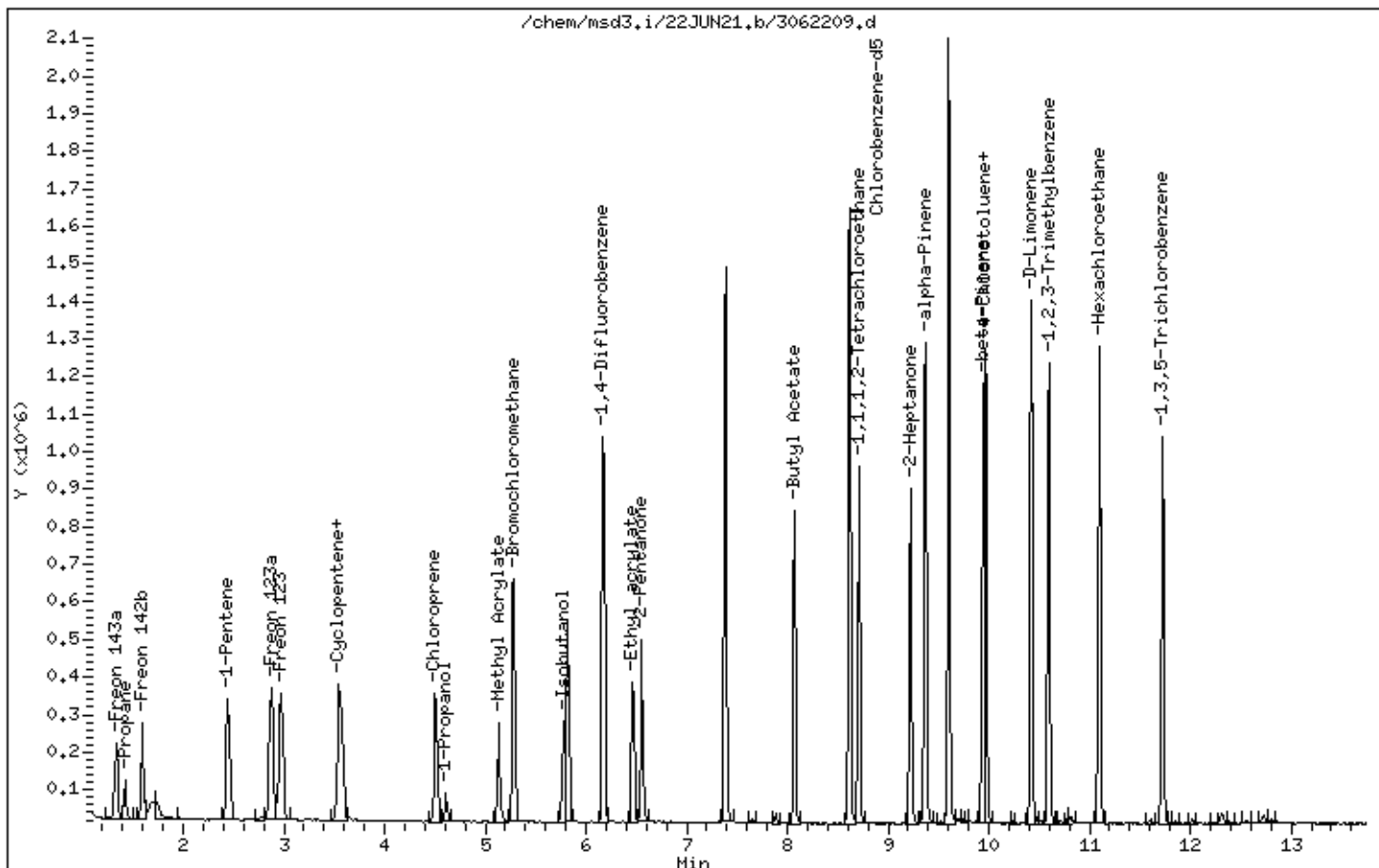
Instrument: msd3,i

Sample Info: 20mL 3018-2013

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062220.d  
 Lab Smp Id: ICAL Level 8  
 Inj Date : 22-JUN-2021 22:44  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 20mL 3018-2115  
 Misc Info : 20ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
 Cal Date : 22-JUN-2021 22:44 Cal File: 3062220.d  
 Als bottle: 2 Calibration Sample, Level: 8  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a				CAS #: 811-97-2				
1.395	1.395	(0.265)	83	129641 20.0000	20.659	80.00- 120.00	100.00	
1.395	1.395	(0.265)	69	106473		51.82- 111.82	82.13	
1.478	1.479	(0.281)	51	337072		194.91- 254.91	260.00	
5 Propylene				CAS #: 115-07-1				
1.423	1.423	(0.270)	41	129315 20.0000	20.300	80.00- 120.00	100.00	
1.423	1.423	(0.270)	42	85896		35.61- 95.61	66.42	
1.423	1.423	(0.270)	39	94582		42.66- 102.66	73.14	
7 1,1-Difluoroethane				CAS #: 75-37-6				
1.437	1.437	(0.273)	65	83946 20.0000	20.216	80.00- 120.00	100.00	
1.478	1.479	(0.281)	51	337072		321.86- 381.86	401.53	
1.437	1.437	(0.273)	47	63389		45.34- 105.34	75.51	
8 Freon 12				CAS #: 75-71-8				
1.450	1.465	(0.275)	85	358781 20.0000	19.529	80.00- 120.00	100.00	
1.450	1.465	(0.275)	87	117251		2.63- 62.63	32.68	
9 Chlorodifluoromethane				CAS #: 75-45-6				
1.478	1.479	(0.281)	67	39312 20.0000	19.470	80.00- 120.00	100.00	

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.478	1.479	(0.281)	51	337072			719.76- 779.76	857.43
-----								
10 Freon 114 CAS #: 76-14-2								
1.562	1.562	(0.296)	135	269564	20.0000	19.803	80.00- 120.00	100.00
1.562	1.562	(0.296)	137	86297			2.12- 62.12	32.01
-----								
12 Isobutane CAS #: 75-28-5								
1.576	1.576	(0.299)	43	293920	20.0000	20.529	80.00- 120.00	100.00
1.576	1.576	(0.299)	42	95420			2.44- 62.44	32.46
1.576	1.576	(0.299)	58	11334			0.00- 33.26	3.86
-----								
15 Chloromethane CAS #: 74-87-3								
1.646	1.646	(0.312)	50	156507	20.0000	20.497	80.00- 120.00	100.00
1.646	1.646	(0.312)	52	53916			2.41- 62.41	34.45
-----								
18 Butane CAS #: 106-97-8								
1.702	1.702	(0.323)	58	33313	20.0000	18.474	80.00- 120.00	100.00
1.702	1.702	(0.323)	43	254263			727.41- 787.41	763.25
-----								
19 Vinyl Chloride CAS #: 75-01-4								
1.730	1.744	(0.328)	62	149268	20.0000	18.268	80.00- 120.00	100.00
1.730	1.744	(0.328)	64	46821			1.28- 61.28	31.37
-----								
20 1,3-Butadiene CAS #: 106-99-0								
1.758	1.758	(0.334)	54	137146	20.0000	18.314	80.00- 120.00	100.00
1.758	1.758	(0.334)	39	133734			69.23- 129.23	97.51
-----								
24 Bromomethane CAS #: 74-83-9								
2.094	2.094	(0.397)	94	121745	20.0000	18.839	80.00- 120.00	100.00
2.094	2.094	(0.397)	96	114666			62.78- 122.78	94.19
-----								
30 Chloroethane CAS #: 75-00-3								
2.192	2.206	(0.416)	64	77505	20.0000	20.207	80.00- 120.00	100.00
2.192	2.206	(0.416)	66	25715			1.44- 61.44	33.18
2.192	2.206	(0.416)	49	27043			4.12- 64.12	34.89
-----								
31 Isopentane CAS #: 78-78-4								
2.220	2.220	(0.421)	43	206284	20.0000	21.031	80.00- 120.00	100.00
2.220	2.220	(0.421)	57	140968			38.82- 98.82	68.34
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.388	2.388	(0.453)	106	140476	20.0000	19.994	80.00- 120.00	100.00
2.388	2.388	(0.453)	108	132323			63.14- 123.14	94.20
-----								
33 Freon 11 CAS #: 75-69-4								
2.430	2.430	(0.461)	101	393482	20.0000	20.243	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.430	2.430	(0.461)	103	253926			35.12- 95.12	64.53
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.444	2.444	(0.464)	67	318380	20.0000	20.490	80.00- 120.00	100.00
2.444	2.444	(0.464)	69	97738			0.74- 60.74	30.70
-----								
35 Pentane CAS #: 109-66-0								
2.500	2.500	(0.474)	43	317191	20.0000	20.298	80.00- 120.00	100.00
2.500	2.500	(0.474)	57	49339			0.00- 45.97	15.55
2.500	2.500	(0.474)	72	26407			0.00- 38.10	8.33
-----								
38 Ethyl Ether CAS #: 60-29-7								
2.780	2.780	(0.527)	74	66932	20.0000	19.104	80.00- 120.00	100.00
2.780	2.780	(0.527)	59	119789			147.68- 207.68	178.97
2.780	2.780	(0.527)	45	159778			206.40- 266.40	238.72
-----								
39 Ethanol CAS #: 64-17-5								
2.752	2.766	(0.522)	46	28807	20.0000	18.320	80.00- 120.00	100.00
2.780	2.780	(0.527)	45	159778			523.01- 583.01	554.65
-----								
42 Acrolein CAS #: 107-02-8								
3.032	3.032	(0.575)	55	52494	20.0000	20.117	80.00- 120.00	100.00
3.032	3.032	(0.575)	56	75605			110.33- 170.33	144.03
-----								
43 Freon 113 CAS #: 76-13-1								
3.032	3.032	(0.575)	151	273535	20.0000	20.585	80.00- 120.00	100.00
3.032	3.032	(0.575)	153	173964			33.72- 93.72	63.60
3.032	3.032	(0.575)	101	323471			89.67- 149.67	118.26
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.074	3.074	(0.583)	96	147536	20.0000	18.434	80.00- 120.00	100.00
3.074	3.074	(0.583)	98	94290			33.39- 93.39	63.91
3.060	3.074	(0.581)	61	282368			163.82- 223.82	191.39
-----								
47 Acetone CAS #: 67-64-1								
3.213	3.213	(0.610)	58	84569	20.0000	19.124	80.00- 120.00	100.00
3.213	3.213	(0.610)	43	283524			299.66- 359.66	335.26
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.297	3.297	(0.626)	76	402637	20.0000	20.220	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.269	3.269	(0.620)	142	397755	20.0000	23.100	80.00- 120.00	100.00
3.269	3.269	(0.620)	127	177692			14.58- 74.58	44.67
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.395	3.395	(0.644)	45	327864	20.0000	20.616	80.00- 120.00	100.00
3.395	3.395	(0.644)	43	59812			0.00- 48.61	18.24
-----								
54 3-Chloropropene						CAS #: 107-05-1		
3.535	3.535	(0.671)	76	64840	20.0000	18.913	80.00- 120.00	100.00
3.535	3.535	(0.671)	41	237428			338.06- 398.06	366.18
-----								
57 Acetonitrile						CAS #: 75-05-8		
3.633	3.633	(0.689)	41	139359	20.0000	20.013	80.00- 120.00	100.00
3.633	3.633	(0.689)	40	74812			21.81- 81.81	53.68
3.633	3.633	(0.689)	38	16914			0.00- 41.86	12.14
-----								
59 Methylene Chloride						CAS #: 75-09-2		
3.717	3.717	(0.705)	49	214111	20.0000	20.231	80.00- 120.00	100.00
3.717	3.717	(0.705)	84	126022			30.77- 90.77	58.86
3.717	3.717	(0.705)	51	64303			1.39- 61.39	30.03
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
3.857	3.857	(0.732)	59	415054	20.0000	20.793	80.00- 120.00	100.00
3.857	3.857	(0.732)	41	88359			0.00- 51.05	21.29
3.857	3.857	(0.732)	57	43467			0.00- 41.68	10.47
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
3.941	3.941	(0.748)	73	439233	20.0000	20.386	80.00- 120.00	100.00
3.941	3.941	(0.748)	57	128756			0.00- 58.86	29.31
3.941	3.941	(0.748)	41	118579			0.00- 57.27	27.00
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
3.969	3.969	(0.753)	98	95585	20.0000	17.747	80.00- 120.00	100.00
3.969	3.969	(0.753)	61	259923			244.59- 304.59	271.93
3.969	3.969	(0.753)	96	151389			129.84- 189.84	158.38
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.067	4.067	(0.772)	52	109987	20.0000	17.015	80.00- 120.00	100.00
4.067	4.067	(0.772)	53	130352			88.50- 148.50	118.52
-----								
67 Hexane						CAS #: 110-54-3		
4.165	4.179	(0.790)	57	286776	20.0000	19.637	80.00- 120.00	100.00
4.165	4.179	(0.790)	43	179251			32.99- 92.99	62.51
4.165	4.179	(0.790)	86	36198			0.00- 42.56	12.62
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.459	4.459	(0.846)	63	285967	20.0000	19.040	80.00- 120.00	100.00
4.459	4.459	(0.846)	65	87277			0.76- 60.76	30.52
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.445	4.445	(0.843)	45	649480	20.0000	21.073	80.00- 120.00	100.00
4.445	4.445	(0.843)	87	138914			0.00- 51.37	21.39
4.445	4.445	(0.843)	59	70481			0.00- 41.09	10.85
73 Vinyl Acetate						CAS #: 108-05-4		
4.501	4.501	(0.854)	86	35060	20.0000	18.987	80.00- 120.00	100.00
4.501	4.501	(0.854)	43	511715			1391.63-1451.63	1459.54
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
4.809	4.809	(0.912)	59	612983	20.0000	20.601	80.00- 120.00	100.00
4.809	4.809	(0.912)	87	208206			3.22- 63.22	33.97
4.809	4.809	(0.912)	41	116192			0.00- 48.12	18.96
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.004	5.004	(0.950)	77	285442	20.0000	20.401	80.00- 120.00	100.00
5.004	5.004	(0.950)	79	93306			2.00- 62.00	32.69
5.004	5.004	(0.950)	97	69169			0.00- 53.36	24.23
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.046	5.046	(0.958)	98	95859	20.0000	17.954	80.00- 120.00	100.00
5.046	5.046	(0.958)	96	153492			127.22- 187.22	160.12
5.046	5.046	(0.958)	61	319089			283.85- 343.85	332.87
86 2-Butanone						CAS #: 78-93-3		
5.060	5.074	(0.960)	72	74025	20.0000	19.849	80.00- 120.00	100.00
5.074	5.074	(0.963)	43	790149			1055.75-1115.75	1067.41
5.060	5.074	(0.960)	57	29507			10.59- 70.59	39.86
87 Ethyl Acetate						CAS #: 141-78-6		
5.088	5.088	(0.965)	45	62917	20.0000	20.464	80.00- 120.00	100.00
5.046	5.046	(0.958)	61	319089			450.31- 510.31	507.16
5.088	5.088	(0.965)	70	39555			30.42- 90.42	62.87
89 Tetrahydrofuran						CAS #: 109-99-9		
5.270	5.270	(1.000)	42	206335	20.0000	19.620	80.00- 120.00	100.00
5.270	5.270	(1.000)	71	65936			2.92- 62.92	31.96
5.270	5.270	(1.000)	72	70062			3.54- 63.54	33.96
* 90 Bromochloromethane						CAS #: 74-97-5		
5.270	5.284	(1.000)	130	263723	25.0000		80.00- 120.00	100.00
5.270	5.284	(1.000)	128	203258			48.46- 108.46	77.07
5.270	5.270	(1.000)	49	398101			120.39- 180.39	150.95
92 Chloroform						CAS #: 67-66-3		
5.340	5.340	(1.013)	83	317723	20.0000	19.215	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.340	5.340	(1.013)	85	208174			34.71- 94.71	65.52
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.438	5.438	(1.032)	84	206465	20.0000	19.755	80.00- 120.00	100.00
5.438	5.438	(1.032)	56	305753			120.40- 180.40	148.09
5.438	5.438	(1.032)	41	173004			54.20- 114.20	83.79
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.452	5.466	(1.034)	97	353780	20.0000	19.035	80.00- 120.00	100.00
5.452	5.466	(1.034)	99	226711			33.76- 93.76	64.08
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
5.578	5.578	(1.058)	119	354645	20.0000	20.718	80.00- 120.00	100.00
5.578	5.578	(1.058)	117	369659			73.68- 133.68	104.23
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
5.606	5.606	(0.909)	110	86731	20.0000	19.946	80.00- 120.00	100.00
5.606	5.606	(0.909)	75	225888			231.09- 291.09	260.45
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
5.774	5.774	(1.096)	57	933654	20.0000	20.443	80.00- 120.00	100.00
5.774	5.774	(1.096)	56	290883			1.12- 61.12	31.16
5.774	5.774	(1.096)	41	258502			0.00- 57.49	27.69
-----								
102 Benzene						CAS #: 71-43-2		
5.788	5.788	(0.939)	78	428096	20.0000	19.634	80.00- 120.00	100.00
5.788	5.788	(0.939)	77	100116			0.00- 53.80	23.39
-----								
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
5.816	5.816	(1.104)	65	368537	25.0000	25.394	80.00- 120.00	100.00
5.816	5.816	(1.104)	67	184306			21.66- 81.66	50.01
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
5.858	5.858	(0.950)	87	120883	20.0000	20.792	80.00- 120.00	100.00
5.858	5.858	(0.950)	73	475761			365.20- 425.20	393.57
5.858	5.858	(0.950)	55	144092			91.31- 151.31	119.20
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
5.886	5.886	(0.955)	62	242448	20.0000	19.314	80.00- 120.00	100.00
5.886	5.886	(0.955)	64	75740			1.20- 61.20	31.24
-----								
107 Heptane						CAS #: 142-82-5		
5.942	5.942	(0.964)	71	166097	20.0000	19.340	80.00- 120.00	100.00
5.942	5.942	(0.964)	43	348495			179.02- 239.02	209.81
5.942	5.942	(0.964)	57	189277			84.85- 144.85	113.96
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.166	6.180	(1.000)	114	955496	25.0000		80.00- 120.00	100.00
6.166	6.180	(1.000)	88	150786			0.00- 45.52	15.78
-----								
110 n-Butanol						CAS #: 71-36-3		
6.348	6.348	(1.030)	56	135772	20.0000	19.427	80.00- 120.00	100.00
6.348	6.348	(1.030)	41	97586			40.21- 100.21	71.87
6.348	6.348	(1.030)	43	75984			25.00- 85.00	55.96
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.362	6.362	(1.032)	95	210526	20.0000	19.246	80.00- 120.00	100.00
6.362	6.362	(1.032)	130	220731			74.96- 134.96	104.85
6.362	6.362	(1.032)	97	136718			34.80- 94.80	64.94
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
6.585	6.586	(1.068)	63	88762	20.0000	17.562	80.00- 120.00	100.00
6.585	6.586	(1.068)	62	71989			52.03- 112.03	81.10
6.585	6.586	(1.068)	41	85754			79.97- 139.97	96.61
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
6.664	6.664	(0.774)	69	173646	20.0000	19.932	80.00- 120.00	100.00
6.664	6.664	(0.774)	41	278436			134.02- 194.02	160.35
6.664	6.664	(0.774)	100	67667			9.54- 69.54	38.97
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
6.699	6.699	(1.087)	88	111628	20.0000	20.210	80.00- 120.00	100.00
6.699	6.699	(1.087)	58	94250			55.80- 115.80	84.43
6.692	6.699	(1.085)	57	41965			8.68- 68.68	37.59
-----								
118 Dibromomethane						CAS #: 74-95-3		
6.714	6.721	(0.780)	174	191623	20.0000	19.750	80.00- 120.00	100.00
6.714	6.721	(0.780)	93	188128			67.27- 127.27	98.18
6.714	6.721	(0.780)	95	155218			50.92- 110.92	81.00
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
6.836	6.836	(1.109)	83	348185	20.0000	19.000	80.00- 120.00	100.00
6.836	6.836	(1.109)	85	221251			34.31- 94.31	63.54
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.208	7.208	(1.169)	75	273558	20.0000	20.084	80.00- 120.00	100.00
7.208	7.208	(1.169)	77	88939			1.42- 61.42	32.51
7.208	7.208	(1.169)	39	191840			38.56- 98.56	70.13
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.460	6.460	(1.048)	83	285545	20.0000	19.521	80.00- 120.00	100.00
6.460	6.460	(1.048)	98	127891			15.60- 75.60	44.79



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.460	6.460	(1.048)	55	287852			78.53- 138.53	100.81
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.315	7.316	(1.186)	58	182321	20.0000	19.686	80.00- 120.00	100.00
7.315	7.316	(1.186)	43	476447			231.30- 291.30	261.32
7.315	7.316	(1.186)	85	69771			8.94- 68.94	38.27
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.380	7.387	(1.197)	98	986180	25.0000	25.058	80.00- 120.00	100.00
7.380	7.387	(1.197)	70	114166			0.00- 41.47	11.58
7.380	7.387	(1.197)	100	654564			36.47- 96.47	66.37
-----								
137 Toluene CAS #: 108-88-3								
7.437	7.437	(1.206)	91	589912	20.0000	20.163	80.00- 120.00	100.00
7.437	7.437	(1.206)	92	342233			28.30- 88.30	58.01
-----								
136 Octane CAS #: 111-65-9								
7.444	7.444	(1.207)	57	200106	20.0000	20.558	80.00- 120.00	100.00
7.444	7.444	(1.207)	85	198709			67.11- 127.11	99.30
7.444	7.444	(1.207)	43	493159			214.21- 274.21	246.45
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
7.688	7.688	(0.893)	75	269205	20.0000	20.191	80.00- 120.00	100.00
7.688	7.688	(0.893)	77	86100			2.15- 62.15	31.98
7.688	7.688	(0.893)	39	181147			36.09- 96.09	67.29
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
7.838	7.846	(0.910)	97	204634	20.0000	19.957	80.00- 120.00	100.00
7.838	7.846	(0.910)	99	125849			31.62- 91.62	61.50
7.838	7.846	(0.910)	83	177971			56.35- 116.35	86.97
-----								
142 Tetrachloroethene CAS #: 127-18-4								
7.874	7.881	(0.914)	166	286206	20.0000	20.181	80.00- 120.00	100.00
7.874	7.881	(0.914)	129	225244			48.71- 108.71	78.70
7.874	7.881	(0.914)	131	221908			46.55- 106.55	77.53
-----								
143 2-Hexanone CAS #: 591-78-6								
8.003	8.003	(0.929)	58	249131	20.0000	21.152	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	465953			157.91- 217.91	187.03
8.003	8.003	(0.929)	100	45265			0.00- 47.86	18.17
-----								
144 1,3-Dichloropropane CAS #: 142-28-9								
7.989	7.989	(1.296)	76	281259	20.0000	20.149	80.00- 120.00	100.00
7.989	7.989	(1.296)	41	321798			82.96- 142.96	114.41
7.989	7.989	(1.296)	78	91933			2.55- 62.55	32.69
-----								

RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO
				RESPONSE	ON-COL		
==	=====	=====	=====	CAL-AMT ( PPBV)	ON-COL ( PPBV)	=====	=====
-----							
146 Dibromochloromethane				CAS #: 124-48-1			
8.154	8.154	(0.947)	129	400555	20.0000	20.591 80.00- 120.00	100.00
8.154	8.154	(0.947)	127	309809		47.77- 107.77	77.34
-----							
148 1,2-Dibromoethane (EDB)				CAS #: 106-93-4			
8.261	8.268	(0.959)	107	325483	20.0000	20.440 80.00- 120.00	100.00
8.261	8.268	(0.959)	109	308152		64.60- 124.60	94.68
-----							
151 1-Bromo-2-Chloroethane				CAS #: 107-04-0			
7.115	7.115	(1.154)	63	355559	20.0000	20.106 80.00- 120.00	100.00
7.115	7.115	(1.154)	65	109912		0.95- 60.95	30.91
7.115	7.122	(1.154)	144	36823		0.00- 40.45	10.36
-----							
* 153 Chlorobenzene-d5	CAS #: 3114-55-4						
8.612	8.619	(1.000)	117	905256	25.0000	80.00- 120.00	100.00
8.612	8.619	(1.000)	82	503885		25.46- 85.46	55.66
-----							
154 Chlorobenzene				CAS #: 108-90-7			
8.641	8.641	(1.003)	112	497423	20.0000	20.105 80.00- 120.00	100.00
8.641	8.641	(1.003)	114	163024		2.13- 62.13	32.77
8.641	8.641	(1.003)	77	283757		26.35- 86.35	57.05
-----							
155 Ethyl Benzene				CAS #: 100-41-4			
8.684	8.684	(1.008)	106	257953	20.0000	20.850 80.00- 120.00	100.00
8.684	8.684	(1.008)	91	805391		282.48- 342.48	312.22
-----							
156 Nonane				CAS #: 111-84-2			
8.705	8.705	(1.011)	43	511680	20.0000	21.338 80.00- 120.00	100.00
8.705	8.705	(1.011)	57	461512		59.52- 119.52	90.20
8.705	8.705	(1.011)	85	155284		0.00- 59.76	30.35
-----							
158 m,p-Xylene				CAS #: 108-38-3			
8.784	8.784	(1.020)	106	316131	20.0000	20.539 80.00- 120.00	100.00
8.784	8.784	(1.020)	91	644124		171.36- 231.36	203.75
-----							
164 o-Xylene				CAS #: 95-47-6			
9.121	9.128	(1.059)	106	306102	20.0000	20.949 80.00- 120.00	100.00
9.121	9.128	(1.059)	91	645277		179.99- 239.99	210.80
-----							
165 Styrene				CAS #: 100-42-5			
9.142	9.149	(1.062)	104	529383	20.0000	20.912 80.00- 120.00	100.00
9.142	9.149	(1.062)	78	262274		19.09- 79.09	49.54
-----							
167 Bromoform				CAS #: 75-25-2			
9.350	9.350	(1.086)	173	383414	20.0000	20.786 80.00- 120.00	100.00
9.350	9.350	(1.086)	171	199648		21.45- 81.45	52.07
-----							

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
9.407	9.414	(1.092)	105	965419	20.0000	20.898	80.00- 120.00	100.00
9.414	9.414	(1.093)	120	262721			0.00- 56.99	27.21
9.407	9.407	(1.092)	51	114165			0.00- 41.77	11.83
-----								
169 Cyclohexanone						CAS #: 108-94-1		
9.579	9.579	(1.112)	55	288233	20.0000	19.826	80.00- 120.00	100.00
9.579	9.579	(1.112)	98	111377			9.22- 69.22	38.64
9.579	9.579	(1.112)	42	205722			42.60- 102.60	71.37
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
9.600	9.601	(1.115)	174	601735	25.0000	25.130	80.00- 120.00	100.00
9.600	9.601	(1.115)	95	749593			93.06- 153.06	124.57
9.600	9.601	(1.115)	176	564236			62.87- 122.87	93.77
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
9.737	9.737	(1.131)	83	471108	20.0000	20.568	80.00- 120.00	100.00
9.737	9.737	(1.131)	85	302417			34.35- 94.35	64.19
-----								
177 Bromobenzene						CAS #: 108-86-1		
9.729	9.729	(1.130)	156	305636	20.0000	21.282	80.00- 120.00	100.00
9.729	9.737	(1.130)	158	293703			67.29- 127.29	96.10
9.729	9.729	(1.130)	77	498110			132.41- 192.41	162.97
-----								
178 Propylbenzene						CAS #: 103-65-1		
9.758	9.758	(1.133)	91	1151787	20.0000	21.368	80.00- 120.00	100.00
9.758	9.758	(1.133)	120	273172			0.00- 53.77	23.72
9.758	9.758	(1.133)	105	43998			0.00- 33.81	3.82
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
9.787	9.787	(1.136)	110	143818	20.0000	20.844	80.00- 120.00	100.00
9.787	9.787	(1.136)	75	453627			285.00- 345.00	315.42
9.787	9.787	(1.136)	61	122921			54.06- 114.06	85.47
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
9.787	9.787	(1.136)	53	112999	20.0000	20.697	80.00- 120.00	100.00
9.787	9.787	(1.136)	89	48773			21.19- 81.19	43.16
9.787	9.787	(1.136)	75	453627			372.45- 432.45	401.44
-----								
182 Decane						CAS #: 124-18-5		
9.808	9.808	(1.139)	57	600354	20.0000	21.540	80.00- 120.00	100.00
9.808	9.808	(1.139)	71	205326			4.13- 64.13	34.20
9.808	9.815	(1.139)	142	27594			0.00- 34.73	4.60
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.144)	120	293774	20.0000	21.026	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
9.851	9.851	(1.144)	105	962719			296.79- 356.79	327.71
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
9.873	9.873	(1.146)	126	241975	20.0000	21.314	80.00- 120.00	100.00
9.873	9.873	(1.146)	91	875996			336.29- 396.29	362.02
9.873	9.873	(1.146)	65	119876			38.83- 98.83	49.54
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
9.901	9.901	(1.150)	120	406512	20.0000	20.714	80.00- 120.00	100.00
9.901	9.901	(1.150)	105	838492			176.40- 236.40	206.27
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
10.102	10.102	(1.173)	118	429983	20.0000	21.393	80.00- 120.00	100.00
10.102	10.102	(1.173)	103	242282			26.64- 86.64	56.35
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
10.166	10.174	(1.180)	119	779597	20.0000	21.591	80.00- 120.00	100.00
10.166	10.174	(1.180)	134	188686			0.00- 54.82	24.20
10.166	10.174	(1.180)	91	525911			36.92- 96.92	67.46
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
10.224	10.224	(1.187)	105	810102	20.0000	20.934	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	374725			16.58- 76.58	46.26
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
10.360	10.360	(1.203)	134	244206	20.0000	20.939	80.00- 120.00	100.00
10.353	10.360	(1.202)	105	1180941			451.53- 511.53	483.58
10.353	10.353	(1.202)	91	188846			46.48- 106.48	77.33
-----								
194 p-Cymene CAS #: 99-87-6								
10.467	10.467	(1.215)	119	1040383	20.0000	21.301	80.00- 120.00	100.00
10.467	10.467	(1.215)	134	273377			0.00- 56.79	26.28
10.467	10.467	(1.215)	91	250444			0.00- 54.04	24.07
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
10.517	10.517	(1.221)	146	555180	20.0000	21.117	80.00- 120.00	100.00
10.517	10.517	(1.221)	148	354339			33.53- 93.53	63.82
10.517	10.517	(1.221)	111	229208			11.05- 71.05	41.29
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
10.596	10.596	(1.230)	146	564376	20.0000	20.841	80.00- 120.00	100.00
10.596	10.596	(1.230)	148	358009			33.47- 93.47	63.43
10.596	10.596	(1.230)	111	223496			9.65- 69.65	39.60
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
10.711	10.711	(1.244)	91	784223	20.0000	21.062	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT	ON-COL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
10.711	10.711	(1.244)	126	173331			0.00- 52.04	22.10
-----								
201 Undecane						CAS #: 1120-21-4		
10.804	10.804	(1.254)	57	693926	20.0000	21.128	80.00- 120.00	100.00
10.804	10.804	(1.254)	43	599450			55.86- 115.86	86.39
-----								
202 Butylbenzene						CAS #: 104-51-8		
10.818	10.818	(1.256)	134	264258	20.0000	20.867	80.00- 120.00	100.00
10.818	10.818	(1.256)	91	975496			331.99- 391.99	369.15
10.818	10.818	(1.256)	92	511283			161.01- 221.01	193.48
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
10.918	10.926	(1.268)	146	537905	20.0000	21.173	80.00- 120.00	100.00
10.918	10.926	(1.268)	148	339671			33.23- 93.23	63.15
10.918	10.918	(1.268)	111	228348			12.36- 72.36	42.45
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
11.606	11.606	(1.348)	157	312823	20.0000	21.235	80.00- 120.00	100.00
11.599	11.599	(1.347)	75	277182			58.96- 118.96	88.61
11.606	11.606	(1.348)	155	243263			47.82- 107.82	77.76
-----								
207 Dodecane						CAS #: 112-40-3		
11.714	11.714	(1.360)	57	692267	24.7200	24.926	80.00- 120.00	100.00
11.714	11.714	(1.360)	43	562156			50.85- 110.85	81.21
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
12.301	12.301	(1.428)	180	465565	25.1800	25.800	80.00- 120.00	100.00
12.301	12.301	(1.428)	182	448092			65.40- 125.40	96.25
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
12.387	12.387	(1.438)	225	368056	25.7400	27.002	80.00- 120.00	100.00
12.387	12.387	(1.438)	223	232220			33.70- 93.70	63.09
-----								
216 Naphthalene						CAS #: 91-20-3		
12.552	12.552	(1.457)	128	122845	2.54000	2.229	80.00- 120.00	100.00
12.552	12.552	(1.457)	127	15728			0.00- 43.10	12.80
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
12.802	12.802	(1.487)	180	443444	26.6200	26.855	80.00- 120.00	100.00
12.802	12.802	(1.487)	182	422798			65.67- 125.67	95.34
12.802	12.802	(1.487)	145	159126			6.02- 66.02	35.88
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062220.d  
 Lab Smp Id: ICAL Level 8  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 20ppbv (200ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	263723	8.35
108 1,4-Difluorobenze	874076	524446	1223706	955496	9.31
153 Chlorobenzene-d5	831223	498734	1163712	905256	8.91

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.27	-0.27
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.23
153 Chlorobenzene-d5	8.62	8.29	8.95	8.61	-0.08

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.

Date : 22-JUN-2021 22:44

Client ID:

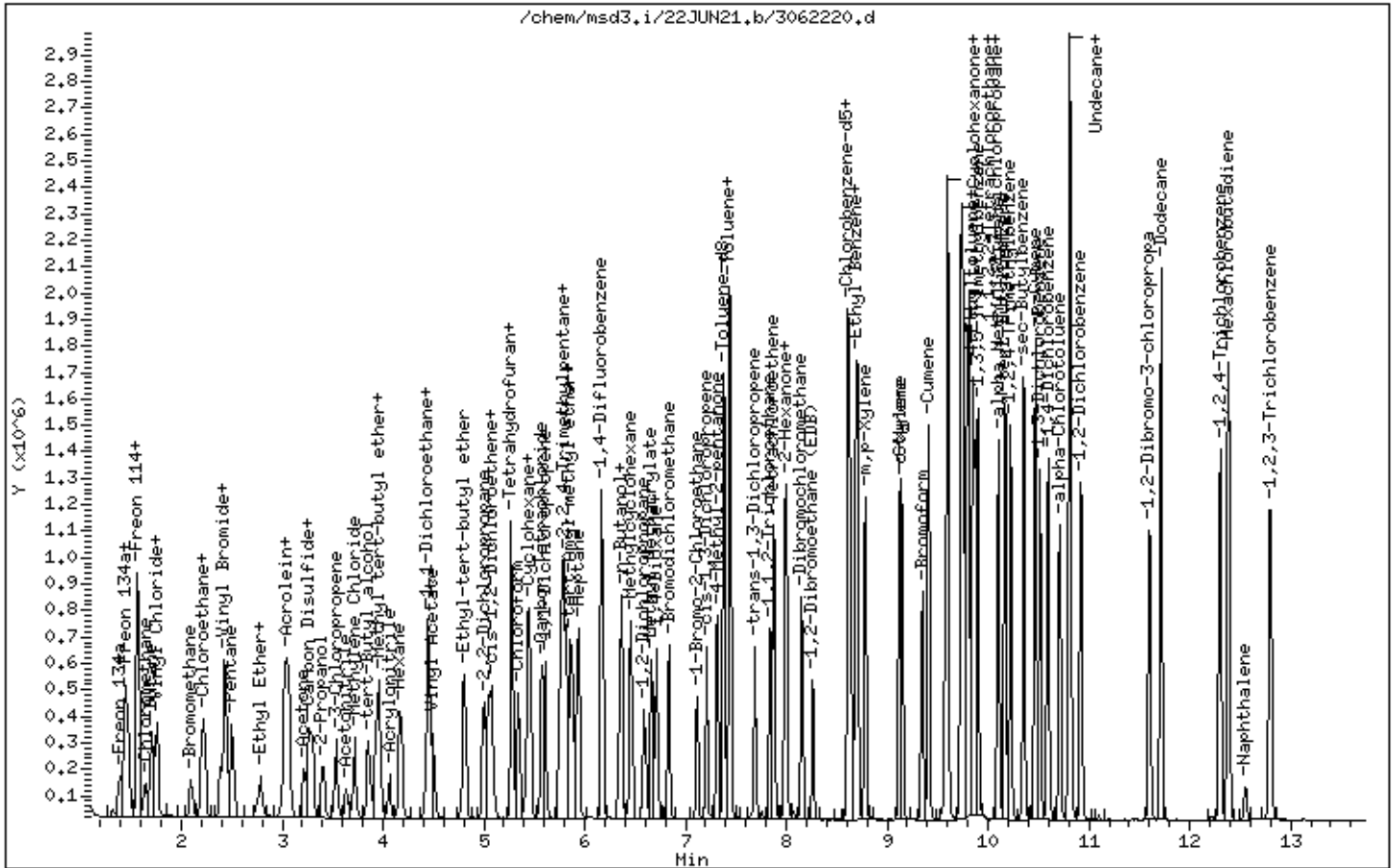
Instrument: msd3,i

Sample Info: 20mL 3018-2115

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062210.d  
 Lab Smp Id: ICAL Level 9  
 Inj Date : 22-JUN-2021 18:07  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 50mL 3018-2013  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Meth Date : 23-Jun-2021 11:20 lk8g Quant Type: ISTD  
 Cal Date : 22-JUN-2021 23:12 Cal File: 3062221.d  
 Als bottle: 5 Calibration Sample, Level: 9  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	240505	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	188690			48.46- 108.46	78.46
5.284	5.284	(1.000)	49	361684			120.39- 180.39	150.39
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.180	6.180	(1.000)	114	875857	25.0000		80.00- 120.00	100.00
6.180	6.180	(1.000)	88	135961			0.00- 45.52	15.52
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.619	8.619	(1.000)	117	827590	25.0000		80.00- 120.00	100.00
8.619	8.619	(1.000)	82	458953			25.46- 85.46	55.46
-----								
3 Freon 143a CAS #: 420-46-2								
1.353	1.353	(0.256)	65	203130	50.0000	50.491	80.00- 120.00	100.00
1.353	1.353	(0.256)	69	501917			217.09- 277.09	247.09
1.353	1.353	(0.256)	64	52555			0.00- 55.87	25.87
-----								
6 Propane CAS #: 74-98-6								
1.422	1.422	(0.269)	43	108458	50.0000	49.485	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.422	1.422	(0.269)	39	77673			41.62- 101.62	71.62
1.422	1.422	(0.269)	41	57452			22.97- 82.97	52.97
-----								
13 Freon 142b CAS #: 75-68-3								
1.604	1.604	(0.304)	65	649549	50.0000	50.772	80.00- 120.00	100.00
1.604	1.604	(0.304)	45	182976			0.00- 58.17	28.17
-----								
36 1-Pentene CAS #: 109-67-1								
2.444	2.444	(0.462)	55	411503	50.0000	50.649	80.00- 120.00	100.00
2.444	2.444	(0.462)	42	531533			99.17- 159.17	129.17
-----								
40 Freon 123a CAS #: 354-23-4								
2.878	2.878	(0.545)	117	479957	50.0000	50.732	80.00- 120.00	100.00
2.878	2.878	(0.545)	67	638983			103.13- 163.13	133.13
-----								
41 Freon 123 CAS #: 306-83-2								
2.976	2.976	(0.563)	83	698523	50.0000	50.342	80.00- 120.00	100.00
2.976	2.976	(0.563)	133	152375			0.00- 51.81	21.81
2.976	2.976	(0.563)	85	468904			37.13- 97.13	67.13
-----								
55 Cyclopentene CAS #: 142-29-0								
3.549	3.549	(0.672)	67	747040	50.0000	50.579	80.00- 120.00	100.00
3.549	3.549	(0.672)	68	283092			7.90- 67.90	37.90
3.549	3.549	(0.672)	53	185808			0.00- 54.87	24.87
-----								
56 Methyl Acetate CAS #: 79-20-9								
3.577	3.577	(0.677)	43	753266	50.0000	49.488	80.00- 120.00	100.00
3.577	3.577	(0.677)	74	129155			0.00- 47.15	17.15
-----								
74 Chloroprene CAS #: 126-99-8								
4.515	4.515	(0.854)	53	659922	50.0000	51.199	80.00- 120.00	100.00
4.515	4.515	(0.854)	88	279320			12.33- 72.33	42.33
4.515	4.515	(0.854)	50	182245			0.00- 57.62	27.62
-----								
75 1-Propanol CAS #: 71-23-8								
4.613	4.613	(0.873)	59	90362	50.0000	45.347	80.00- 120.00	100.00
4.613	4.613	(0.873)	42	75804			53.89- 113.89	83.89
4.613	4.613	(0.873)	41	48874			24.09- 84.09	54.09
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.130	5.130	(0.971)	55	775548	50.0000	50.066	80.00- 120.00	100.00
5.130	5.130	(0.971)	85	102700			0.00- 43.24	13.24
5.130	5.130	(0.971)	58	68476			0.00- 38.83	8.83
-----								
103 Isobutanol CAS #: 78-83-1								
5.774	5.774	(1.093)	39	109438	50.0000	38.444	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
5.774	5.774	(1.093)	43	391444			327.69- 387.69	357.69
5.774	5.774	(1.093)	41	292812			237.56- 297.56	267.56
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
6.474	6.474	(0.751)	99	61569	50.0000	46.554	80.00- 120.00	100.00
6.460	6.460	(0.749)	45	95230			124.67- 184.67	154.67
6.460	6.460	(0.749)	55	1004376			1601.30-1661.30	1631.30
-----								
115 2-Pentanone						CAS #: 107-87-9		
6.557	6.557	(0.761)	43	1482803	50.0000	47.934	80.00- 120.00	100.00
6.557	6.557	(0.761)	58	107563			0.00- 37.25	7.25
6.557	6.557	(0.761)	86	223633			0.00- 45.08	15.08
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.068	8.068	(1.305)	56	539276	50.0000	46.707	80.00- 120.00	100.00
8.068	8.068	(1.305)	73	189604			5.16- 65.16	35.16
8.068	8.068	(1.305)	43	1315845			214.00- 274.00	244.00
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
8.712	8.712	(1.011)	131	614036	50.0000	49.326	80.00- 120.00	100.00
8.712	8.712	(1.011)	117	418914			38.22- 98.22	68.22
8.712	8.712	(1.011)	95	230491			7.54- 67.54	37.54
-----								
166 2-Heptanone						CAS #: 110-43-0		
9.221	9.221	(1.745)	58	831136	50.0000	47.079	80.00- 120.00	100.00
9.221	9.221	(1.745)	43	1357775			133.36- 193.36	163.36
-----								
172 D-Limonene						CAS #: 5989-27-5		
10.417	10.417	(1.209)	68	785422	50.0000	52.236	80.00- 120.00	100.00
10.424	10.424	(1.209)	93	566139			42.08- 102.08	72.08
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
9.973	9.973	(1.157)	126	539265	50.0000	49.765	80.00- 120.00	100.00
9.966	9.966	(1.156)	91	1811592			305.94- 365.94	335.94
9.966	9.966	(1.156)	63	245019			15.44- 75.44	45.44
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
10.596	10.596	(1.229)	120	740798	50.0000	49.872	80.00- 120.00	100.00
10.596	10.596	(1.229)	105	1751480			206.43- 266.43	236.43
10.596	10.596	(1.229)	77	209551			0.00- 58.29	28.29
-----								
205 Hexachloroethane						CAS #: 67-72-1		
11.098	11.098	(1.288)	201	475431	50.0000	52.429	80.00- 120.00	100.00
11.098	11.098	(1.288)	117	664512			109.77- 169.77	139.77
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
-----								
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
11.728	11.728	(1.361)	180	962027	50.0000	48.656	80.00- 120.00	100.00
11.728	11.728	(1.361)	182	921537			65.79- 125.79	95.79
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.371	9.371	(1.087)	93	1284627	50.0000	50.199	80.00- 120.00	100.00
9.371	9.371	(1.087)	77	387101			0.13- 60.13	30.13
-----								
214 beta-Pinene						CAS #: 127-91-3		
9.944	9.944	(1.154)	93	1029595	50.0000	51.233	80.00- 120.00	100.00
9.966	9.966	(1.156)	91	1811592			145.95- 205.95	175.95
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3062210.d  
Lab Smp Id: ICAL Level 9  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
Misc Info: 50ppbv (200ppbv)

Calibration Date: 22-JUN-2021  
Calibration Time: 18:07  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	240505	144303	336707	240505	0.00
108 1,4-Difluorobenze	875857	525514	1226200	875857	0.00
153 Chlorobenzene-d5	827590	496554	1158626	827590	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.62	8.29	8.95	8.62	0.00

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.

Date : 22-JUN-2021 18:07

Client ID:

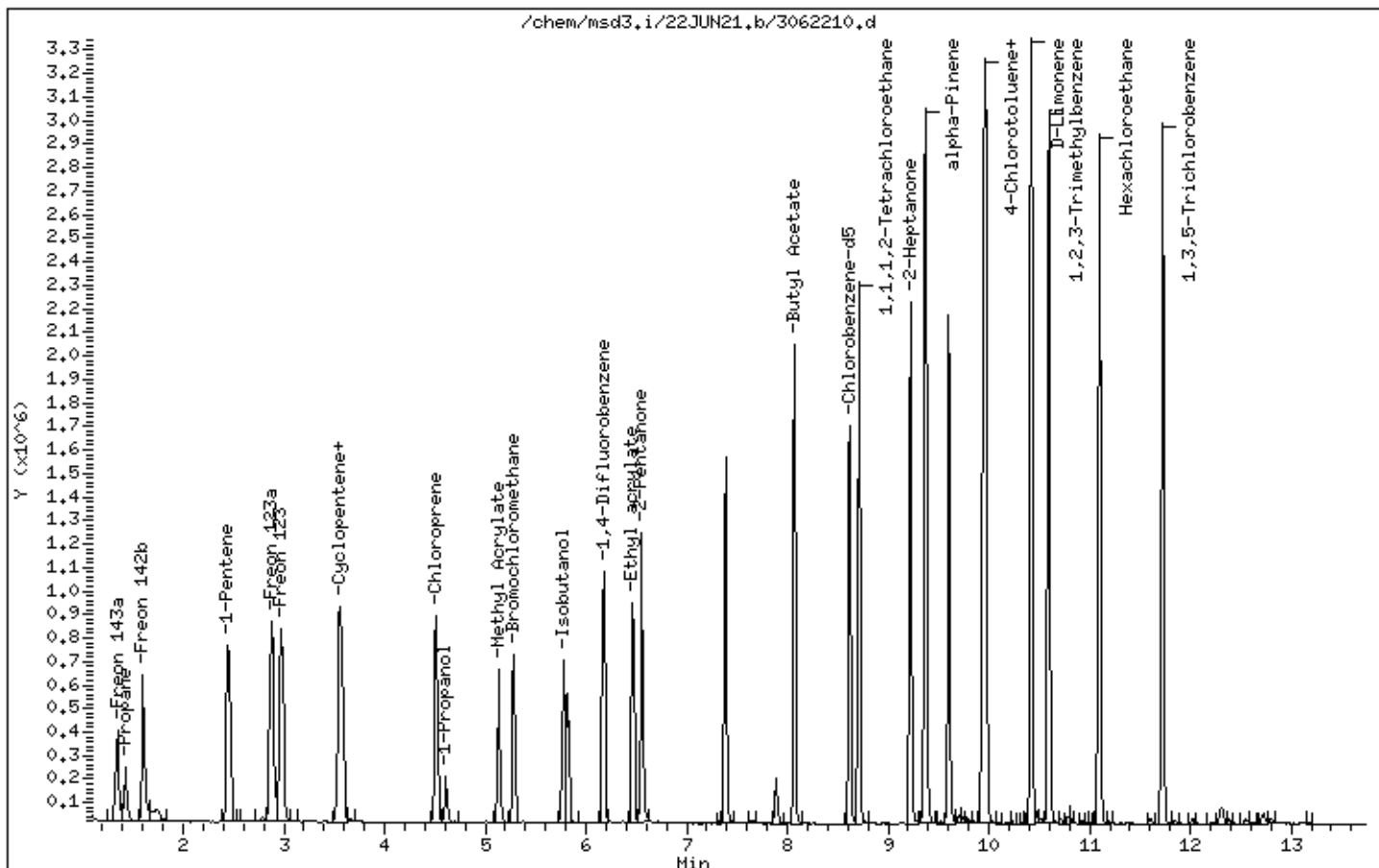
Instrument: msd3,i

Sample Info: 50mL 3018-2013

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062221.d  
 Lab Smp Id: ICAL Level 9  
 Inj Date : 22-JUN-2021 23:12  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 50mL 3018-2115  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
 Cal Date : 22-JUN-2021 23:12 Cal File: 3062221.d  
 Als bottle: 2 Calibration Sample, Level: 9  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.395	1.395	(0.264)	83	284157	50.0000	49.062	80.00- 120.00	100.00
1.395	1.395	(0.264)	69	232500			51.82- 111.82	81.82
1.479	1.479	(0.280)	51	639099			194.91- 254.91	224.91
-----								
5 Propylene CAS #: 115-07-1								
1.423	1.423	(0.269)	41	294407	50.0000	50.075	80.00- 120.00	100.00
1.423	1.423	(0.269)	42	193171			35.61- 95.61	65.61
1.423	1.423	(0.269)	39	213929			42.66- 102.66	72.66
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.437	1.437	(0.272)	65	181633	50.0000	47.393	80.00- 120.00	100.00
1.479	1.479	(0.280)	51	639099			321.86- 381.86	351.86
1.437	1.437	(0.272)	47	136835			45.34- 105.34	75.34
-----								
8 Freon 12 CAS #: 75-71-8								
1.465	1.465	(0.277)	85	797137	50.0000	47.012	80.00- 120.00	100.00
1.465	1.465	(0.277)	87	260143			2.63- 62.63	32.63
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.479	1.479	(0.280)	67	85241	50.0000	45.742	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.479	1.479	(0.280)	51	639099			719.76- 779.76	749.76
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.562	1.562	(0.296)	135	606702	50.0000	48.290	80.00- 120.00	100.00
1.562	1.562	(0.296)	137	194861			2.12- 62.12	32.12
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.576	1.576	(0.298)	43	657014	50.0000	49.719	80.00- 120.00	100.00
1.576	1.576	(0.298)	42	213159			2.44- 62.44	32.44
1.576	1.576	(0.298)	58	21428			0.00- 33.26	3.26
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.646	1.646	(0.312)	50	352835	50.0000	50.066	80.00- 120.00	100.00
1.646	1.646	(0.312)	52	114369			2.41- 62.41	32.41
-----								
18 Butane								
						CAS #: 106-97-8		
1.702	1.702	(0.322)	58	74284	50.0000	44.633	80.00- 120.00	100.00
1.702	1.702	(0.322)	43	562632			727.41- 787.41	757.41
-----								
19 Vinyl Chloride								
						CAS #: 75-01-4		
1.744	1.744	(0.330)	62	335767	50.0000	44.523	80.00- 120.00	100.00
1.744	1.744	(0.330)	64	105035			1.28- 61.28	31.28
-----								
20 1,3-Butadiene								
						CAS #: 106-99-0		
1.758	1.758	(0.333)	54	294521	50.0000	42.614	80.00- 120.00	100.00
1.758	1.758	(0.333)	39	292262			69.23- 129.23	99.23
-----								
24 Bromomethane								
						CAS #: 74-83-9		
2.094	2.094	(0.396)	94	277582	50.0000	46.540	80.00- 120.00	100.00
2.094	2.094	(0.396)	96	257551			62.78- 122.78	92.78
-----								
30 Chloroethane								
						CAS #: 75-00-3		
2.206	2.206	(0.417)	64	173670	50.0000	49.058	80.00- 120.00	100.00
2.206	2.206	(0.417)	66	54600			1.44- 61.44	31.44
2.206	2.206	(0.417)	49	59249			4.12- 64.12	34.12
-----								
31 Isopentane								
						CAS #: 78-78-4		
2.220	2.220	(0.420)	43	441673	50.0000	48.789	80.00- 120.00	100.00
2.220	2.220	(0.420)	57	303981			38.82- 98.82	68.82
-----								
32 Vinyl Bromide								
						CAS #: 593-60-2		
2.388	2.388	(0.452)	106	316129	50.0000	48.750	80.00- 120.00	100.00
2.388	2.388	(0.452)	108	294456			63.14- 123.14	93.14
-----								
33 Freon 11								
						CAS #: 75-69-4		
2.430	2.430	(0.460)	101	860106	50.0000	47.943	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.430	2.430	(0.460)	103	560066			35.12- 95.12	65.12
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.444	2.444	(0.462)	67	711822	50.0000	49.634	80.00- 120.00	100.00
2.444	2.444	(0.462)	69	218791			0.74- 60.74	30.74
-----								
35 Pentane CAS #: 109-66-0								
2.500	2.500	(0.473)	43	708333	50.0000	49.112	80.00- 120.00	100.00
2.500	2.500	(0.473)	57	113101			0.00- 45.97	15.97
2.500	2.500	(0.473)	72	57350			0.00- 38.10	8.10
-----								
38 Ethyl Ether CAS #: 60-29-7								
2.780	2.780	(0.526)	74	150840	50.0000	46.646	80.00- 120.00	100.00
2.780	2.780	(0.526)	59	268008			147.68- 207.68	177.68
2.780	2.780	(0.526)	45	356586			206.40- 266.40	236.40
-----								
39 Ethanol CAS #: 64-17-5								
2.766	2.766	(0.523)	46	64405	50.0000	44.377	80.00- 120.00	100.00
2.780	2.780	(0.526)	45	356168			523.01- 583.01	553.01
-----								
42 Acrolein CAS #: 107-02-8								
3.032	3.032	(0.574)	55	120208	50.0000	49.911	80.00- 120.00	100.00
3.032	3.032	(0.574)	56	168682			110.33- 170.33	140.33
-----								
43 Freon 113 CAS #: 76-13-1								
3.032	3.032	(0.574)	151	580955	50.0000	47.370	80.00- 120.00	100.00
3.032	3.032	(0.574)	153	370172			33.72- 93.72	63.72
3.032	3.032	(0.574)	101	695257			89.67- 149.67	119.67
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.074	3.074	(0.582)	96	328546	50.0000	44.476	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	208255			33.39- 93.39	63.39
3.074	3.074	(0.582)	61	636783			163.82- 223.82	193.82
-----								
47 Acetone CAS #: 67-64-1								
3.213	3.213	(0.608)	58	192966	50.0000	47.280	80.00- 120.00	100.00
3.213	3.213	(0.608)	43	636127			299.66- 359.66	329.66
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.297	3.297	(0.624)	76	899750	50.0000	48.956	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.269	3.269	(0.619)	142	873195	50.0000	54.944	80.00- 120.00	100.00
3.269	3.269	(0.619)	127	389245			14.58- 74.58	44.58
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.395	3.395	(0.643)	45	741880	50.0000	50.543	80.00- 120.00	100.00
3.395	3.395	(0.643)	43	138075			0.00- 48.61	18.61
-----								
54 3-Chloropropene						CAS #: 107-05-1		
3.535	3.535	(0.669)	76	145295	50.0000	45.918	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	534774			338.06- 398.06	368.06
-----								
57 Acetonitrile						CAS #: 75-05-8		
3.633	3.633	(0.688)	41	319360	50.0000	49.691	80.00- 120.00	100.00
3.633	3.633	(0.688)	40	165465			21.81- 81.81	51.81
3.633	3.633	(0.688)	38	37890			0.00- 41.86	11.86
-----								
59 Methylene Chloride						CAS #: 75-09-2		
3.717	3.717	(0.703)	49	472054	50.0000	48.327	80.00- 120.00	100.00
3.717	3.717	(0.703)	84	286866			30.77- 90.77	60.77
3.717	3.717	(0.703)	51	148173			1.39- 61.39	31.39
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
3.857	3.857	(0.730)	59	904991	50.0000	49.121	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	190462			0.00- 51.05	21.05
3.857	3.857	(0.730)	57	105718			0.00- 41.68	11.68
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
3.941	3.941	(0.746)	73	952511	50.0000	47.900	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	274918			0.00- 58.86	28.86
3.941	3.941	(0.746)	41	259771			0.00- 57.27	27.27
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
3.969	3.969	(0.751)	98	214998	50.0000	43.249	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	590364			244.59- 304.59	274.59
3.969	3.969	(0.751)	96	343649			129.84- 189.84	159.84
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.067	4.067	(0.770)	52	256275	50.0000	42.956	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	303684			88.50- 148.50	118.50
-----								
67 Hexane						CAS #: 110-54-3		
4.179	4.179	(0.791)	57	648110	50.0000	48.083	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	408223			32.99- 92.99	62.99
4.179	4.179	(0.791)	86	81408			0.00- 42.56	12.56
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.459	4.459	(0.844)	63	655941	50.0000	47.320	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	201779			0.76- 60.76	30.76
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.445	4.445	(0.841)	45	1410302	50.0000	49.578	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	301331			0.00- 51.37	21.37
4.445	4.445	(0.841)	59	156455			0.00- 41.09	11.09
73 Vinyl Acetate						CAS #: 108-05-4		
4.501	4.501	(0.852)	86	84268	50.0000	49.446	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	1197978			1391.63-1451.63	1421.63
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
4.809	4.809	(0.910)	59	1352357	50.0000	49.244	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	449268			3.22- 63.22	33.22
4.809	4.809	(0.910)	41	245055			0.00- 48.12	18.12
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.004	5.004	(0.947)	77	634214	50.0000	49.112	80.00- 120.00	100.00
5.004	5.004	(0.947)	79	202924			2.00- 62.00	32.00
5.004	5.004	(0.947)	97	148175			0.00- 53.36	23.36
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.046	5.046	(0.955)	98	220341	50.0000	44.714	80.00- 120.00	100.00
5.046	5.046	(0.955)	96	346411			127.22- 187.22	157.22
5.046	5.046	(0.955)	61	691531			283.85- 343.85	313.85
86 2-Butanone						CAS #: 78-93-3		
5.074	5.074	(0.960)	72	166176	50.0000	48.279	80.00- 120.00	100.00
5.074	5.074	(0.960)	43	1804252			1055.75-1115.75	1085.75
5.074	5.074	(0.960)	57	67453			10.59- 70.59	40.59
87 Ethyl Acetate						CAS #: 141-78-6		
5.088	5.088	(0.963)	45	143976	50.0000	50.739	80.00- 120.00	100.00
5.046	5.046	(0.955)	61	691531			450.31- 510.31	480.31
5.088	5.088	(0.963)	70	86986			30.42- 90.42	60.42
89 Tetrahydrofuran						CAS #: 109-99-9		
5.270	5.270	(0.997)	42	468847	50.0000	48.304	80.00- 120.00	100.00
5.270	5.270	(0.997)	71	154354			2.92- 62.92	32.92
5.270	5.270	(0.997)	72	157262			3.54- 63.54	33.54
* 90 Bromochloromethane						CAS #: 74-97-5		
5.284	5.284	(1.000)	130	243405	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	187819			48.46- 108.46	77.16
5.270	5.270	(1.000)	49	366478			120.39- 180.39	150.56
92 Chloroform						CAS #: 67-66-3		
5.340	5.340	(1.011)	83	722872	50.0000	47.368	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.340	5.340	(1.011)	85	467764			34.71- 94.71	64.71
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.438	5.438	(1.029)	84	446703	50.0000	46.309	80.00- 120.00	100.00
5.438	5.438	(1.029)	56	671853			120.40- 180.40	150.40
5.438	5.438	(1.029)	41	376139			54.20- 114.20	84.20
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.466	5.466	(1.034)	97	775232	50.0000	45.194	80.00- 120.00	100.00
5.466	5.466	(1.034)	99	494293			33.76- 93.76	63.76
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
5.578	5.578	(1.056)	119	786825	50.0000	49.803	80.00- 120.00	100.00
5.578	5.578	(1.056)	117	815784			73.68- 133.68	103.68
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
5.606	5.606	(0.907)	110	196065	50.0000	49.289	80.00- 120.00	100.00
5.606	5.606	(0.907)	75	511915			231.09- 291.09	261.09
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
5.774	5.774	(1.093)	57	2070229	50.0000	49.114	80.00- 120.00	100.00
5.774	5.774	(1.093)	56	644269			1.12- 61.12	31.12
5.774	5.774	(1.093)	41	569117			0.00- 57.49	27.49
-----								
102 Benzene						CAS #: 71-43-2		
5.788	5.788	(0.937)	78	968752	50.0000	48.568	80.00- 120.00	100.00
5.788	5.788	(0.937)	77	230565			0.00- 53.80	23.80
-----								
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
5.816	5.816	(1.101)	65	332625	25.0000	24.832	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	171829			21.66- 81.66	51.66
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
5.858	5.858	(0.948)	87	263298	50.0000	49.507	80.00- 120.00	100.00
5.858	5.858	(0.948)	73	1040562			365.20- 425.20	395.20
5.858	5.858	(0.948)	55	319398			91.31- 151.31	121.31
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
5.886	5.886	(0.952)	62	550376	50.0000	47.927	80.00- 120.00	100.00
5.886	5.886	(0.952)	64	171716			1.20- 61.20	31.20
-----								
107 Heptane						CAS #: 142-82-5		
5.942	5.942	(0.962)	71	363489	50.0000	46.267	80.00- 120.00	100.00
5.942	5.942	(0.962)	43	759758			179.02- 239.02	209.02
5.942	5.942	(0.962)	57	417473			84.85- 144.85	114.85
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.180	6.180	(1.000)	114	874076	25.0000		80.00- 120.00	100.00
6.180	6.180	(1.000)	88	137446			0.00- 45.52	15.72
-----								
110 n-Butanol						CAS #: 71-36-3		
6.348	6.348	(1.027)	56	318843	50.0000	49.871	80.00- 120.00	100.00
6.348	6.348	(1.027)	41	223844			40.21- 100.21	70.21
6.348	6.348	(1.027)	43	175356			25.00- 85.00	55.00
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.362	6.362	(1.029)	95	480894	50.0000	48.058	80.00- 120.00	100.00
6.362	6.362	(1.029)	130	504760			74.96- 134.96	104.96
6.362	6.362	(1.029)	97	311621			34.80- 94.80	64.80
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
6.586	6.586	(1.066)	63	160946	50.0000	34.810	80.00- 120.00	100.00
6.586	6.586	(1.066)	62	132017			52.03- 112.03	82.03
6.586	6.586	(1.066)	41	176994			79.97- 139.97	109.97
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
6.664	6.664	(0.773)	69	380639	50.0000	47.582	80.00- 120.00	100.00
6.664	6.664	(0.773)	41	624336			134.02- 194.02	164.02
6.664	6.664	(0.773)	100	150491			9.54- 69.54	39.54
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
6.699	6.699	(1.084)	88	246677	50.0000	48.820	80.00- 120.00	100.00
6.699	6.699	(1.084)	58	211647			55.80- 115.80	85.80
6.699	6.699	(1.084)	57	95411			8.68- 68.68	38.68
-----								
118 Dibromomethane						CAS #: 74-95-3		
6.721	6.721	(0.780)	174	437437	50.0000	49.100	80.00- 120.00	100.00
6.721	6.721	(0.780)	93	425485			67.27- 127.27	97.27
6.721	6.721	(0.780)	95	353956			50.92- 110.92	80.92
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
6.836	6.836	(1.106)	83	785560	50.0000	46.861	80.00- 120.00	100.00
6.836	6.836	(1.106)	85	505163			34.31- 94.31	64.31
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.208	7.208	(1.166)	75	622612	50.0000	49.970	80.00- 120.00	100.00
7.208	7.208	(1.166)	77	195644			1.42- 61.42	31.42
7.208	7.208	(1.166)	39	426887			38.56- 98.56	68.56
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.460	6.460	(1.045)	83	621789	50.0000	46.468	80.00- 120.00	100.00
6.460	6.460	(1.045)	98	283551			15.60- 75.60	45.60

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.460	6.460	(1.045)	55	674811			78.53- 138.53	108.53
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.316	7.316	(1.184)	58	397607	50.0000	46.931	80.00- 120.00	100.00
7.316	7.316	(1.184)	43	1038955			231.30- 291.30	261.30
7.316	7.316	(1.184)	85	154832			8.94- 68.94	38.94
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.387	7.387	(1.195)	98	904005	25.0000	25.110	80.00- 120.00	100.00
7.387	7.387	(1.195)	70	103668			0.00- 41.47	11.47
7.387	7.387	(1.195)	100	600870			36.47- 96.47	66.47
-----								
137 Toluene						CAS #: 108-88-3		
7.437	7.437	(1.203)	91	1301803	50.0000	48.641	80.00- 120.00	100.00
7.437	7.437	(1.203)	92	758903			28.30- 88.30	58.30
-----								
136 Octane						CAS #: 111-65-9		
7.444	7.444	(1.205)	57	435525	50.0000	48.911	80.00- 120.00	100.00
7.444	7.444	(1.205)	85	422920			67.11- 127.11	97.11
7.444	7.444	(1.205)	43	1063600			214.21- 274.21	244.21
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
7.688	7.688	(0.892)	75	595888	50.0000	48.674	80.00- 120.00	100.00
7.688	7.688	(0.892)	77	191552			2.15- 62.15	32.15
7.688	7.688	(0.892)	39	393842			36.09- 96.09	66.09
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
7.846	7.846	(0.910)	97	448705	50.0000	47.657	80.00- 120.00	100.00
7.846	7.846	(0.910)	99	276484			31.62- 91.62	61.62
7.846	7.846	(0.910)	83	387448			56.35- 116.35	86.35
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
7.881	7.881	(0.914)	166	631135	50.0000	48.467	80.00- 120.00	100.00
7.881	7.881	(0.914)	129	496786			48.71- 108.71	78.71
7.881	7.881	(0.914)	131	483117			46.55- 106.55	76.55
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.003	8.003	(0.929)	58	544103	50.0000	50.311	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	1022398			157.91- 217.91	187.91
8.003	8.003	(0.929)	100	97172			0.00- 47.86	17.86
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
7.989	7.989	(1.293)	76	617417	50.0000	48.352	80.00- 120.00	100.00
7.989	7.989	(1.293)	41	697427			82.96- 142.96	112.96
7.989	7.989	(1.293)	78	200948			2.55- 62.55	32.55
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.154	8.154	(0.946)	129	891015	50.0000	49.884	80.00- 120.00	100.00
8.154	8.154	(0.946)	127	692953			47.77- 107.77	77.77
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.268	8.268	(0.959)	107	719507	50.0000	49.209	80.00- 120.00	100.00
8.268	8.268	(0.959)	109	680686			64.60- 124.60	94.60
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.115	7.115	(1.151)	63	808634	50.0000	49.985	80.00- 120.00	100.00
7.115	7.115	(1.151)	65	250233			0.95- 60.95	30.95
7.122	7.122	(1.152)	144	84530			0.00- 40.45	10.45
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
8.619	8.619	(1.000)	117	831223	25.0000		80.00- 120.00	100.00
8.619	8.619	(1.000)	82	457929			25.46- 85.46	55.09
-----								
154 Chlorobenzene						CAS #: 108-90-7		
8.641	8.641	(1.002)	112	1085035	50.0000	47.761	80.00- 120.00	100.00
8.641	8.641	(1.002)	114	348609			2.13- 62.13	32.13
8.641	8.641	(1.002)	77	611405			26.35- 86.35	56.35
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
8.684	8.684	(1.007)	106	556944	50.0000	49.027	80.00- 120.00	100.00
8.684	8.684	(1.007)	91	1740322			282.48- 342.48	312.48
-----								
156 Nonane						CAS #: 111-84-2		
8.705	8.705	(1.010)	43	1099456	50.0000	49.933	80.00- 120.00	100.00
8.705	8.705	(1.010)	57	984285			59.52- 119.52	89.52
8.705	8.705	(1.010)	85	327172			0.00- 59.76	29.76
-----								
158 m,p-Xylene						CAS #: 108-38-3		
8.784	8.784	(1.019)	106	692050	50.0000	48.968	80.00- 120.00	100.00
8.784	8.784	(1.019)	91	1393518			171.36- 231.36	201.36
-----								
164 o-Xylene						CAS #: 95-47-6		
9.128	9.128	(1.059)	106	659123	50.0000	49.127	80.00- 120.00	100.00
9.128	9.128	(1.059)	91	1384085			179.99- 239.99	209.99
-----								
165 Styrene						CAS #: 100-42-5		
9.149	9.149	(1.061)	104	1152063	50.0000	49.562	80.00- 120.00	100.00
9.149	9.149	(1.061)	78	565543			19.09- 79.09	49.09
-----								
167 Bromoform						CAS #: 75-25-2		
9.350	9.350	(1.085)	173	850814	50.0000	50.234	80.00- 120.00	100.00
9.350	9.350	(1.085)	171	437768			21.45- 81.45	51.45
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
9.414	9.414	(1.092)	105	2075717	50.0000	48.933	80.00- 120.00	100.00
9.414	9.414	(1.092)	120	560258			0.00- 56.99	26.99
9.407	9.407	(1.091)	51	244414			0.00- 41.77	11.77
-----								
169 Cyclohexanone						CAS #: 108-94-1		
9.579	9.579	(1.111)	55	617741	50.0000	46.276	80.00- 120.00	100.00
9.579	9.579	(1.111)	98	242258			9.22- 69.22	39.22
9.579	9.579	(1.111)	42	448465			42.60- 102.60	72.60
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
9.601	9.601	(1.114)	174	555796	25.0000	25.279	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	683945			93.06- 153.06	123.06
9.601	9.601	(1.114)	176	516176			62.87- 122.87	92.87
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
9.737	9.737	(1.130)	83	1003904	50.0000	47.734	80.00- 120.00	100.00
9.737	9.737	(1.130)	85	646042			34.35- 94.35	64.35
-----								
177 Bromobenzene						CAS #: 108-86-1		
9.729	9.729	(1.129)	156	652747	50.0000	49.500	80.00- 120.00	100.00
9.737	9.737	(1.130)	158	635065			67.29- 127.29	97.29
9.729	9.729	(1.129)	77	1060120			132.41- 192.41	162.41
-----								
178 Propylbenzene						CAS #: 103-65-1		
9.758	9.758	(1.132)	91	2451939	50.0000	49.539	80.00- 120.00	100.00
9.758	9.758	(1.132)	120	582723			0.00- 53.77	23.77
9.758	9.758	(1.132)	105	93517			0.00- 33.81	3.81
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
9.787	9.787	(1.135)	110	309574	50.0000	48.865	80.00- 120.00	100.00
9.787	9.787	(1.135)	75	975160			285.00- 345.00	315.00
9.787	9.787	(1.135)	61	260223			54.06- 114.06	84.06
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
9.787	9.787	(1.135)	53	242305	50.0000	48.334	80.00- 120.00	100.00
9.787	9.787	(1.135)	89	124031			21.19- 81.19	51.19
9.787	9.787	(1.135)	75	975160			372.45- 432.45	402.45
-----								
182 Decane						CAS #: 124-18-5		
9.808	9.808	(1.138)	57	1264280	50.0000	49.400	80.00- 120.00	100.00
9.808	9.808	(1.138)	71	431474			4.13- 64.13	34.13
9.815	9.815	(1.139)	142	59836			0.00- 34.73	4.73
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.143)	120	625823	50.0000	48.780	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
9.851	9.851	(1.143)	105	2045098			296.79- 356.79	326.79
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
9.873	9.873	(1.145)	126	511437	50.0000	49.061	80.00- 120.00	100.00
9.873	9.873	(1.145)	91	1873358			336.29- 396.29	366.29
9.873	9.873	(1.145)	65	352019			38.83- 98.83	68.83
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
9.901	9.901	(1.149)	120	875517	50.0000	48.587	80.00- 120.00	100.00
9.901	9.901	(1.149)	105	1807106			176.40- 236.40	206.40
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.102	10.102	(1.172)	118	929249	50.0000	50.352	80.00- 120.00	100.00
10.102	10.102	(1.172)	103	526312			26.64- 86.64	56.64
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
10.174	10.174	(1.180)	119	1661718	50.0000	50.120	80.00- 120.00	100.00
10.174	10.174	(1.180)	134	412478			0.00- 54.82	24.82
10.174	10.174	(1.180)	91	1112004			36.92- 96.92	66.92
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
10.224	10.224	(1.186)	105	1735479	50.0000	48.842	80.00- 120.00	100.00
10.224	10.224	(1.186)	120	808333			16.58- 76.58	46.58
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
10.360	10.360	(1.202)	134	528908	50.0000	49.389	80.00- 120.00	100.00
10.360	10.360	(1.202)	105	2546830			451.53- 511.53	481.53
10.353	10.353	(1.201)	91	404509			46.48- 106.48	76.48
-----								
194 p-Cymene						CAS #: 99-87-6		
10.467	10.467	(1.214)	119	2233043	50.0000	49.792	80.00- 120.00	100.00
10.467	10.467	(1.214)	134	598181			0.00- 56.79	26.79
10.467	10.467	(1.214)	91	536886			0.00- 54.04	24.04
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
10.517	10.517	(1.220)	146	1210970	50.0000	50.163	80.00- 120.00	100.00
10.517	10.517	(1.220)	148	769344			33.53- 93.53	63.53
10.517	10.517	(1.220)	111	497099			11.05- 71.05	41.05
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
10.596	10.596	(1.229)	146	1221365	50.0000	49.118	80.00- 120.00	100.00
10.596	10.596	(1.229)	148	775158			33.47- 93.47	63.47
10.596	10.596	(1.229)	111	484328			9.65- 69.65	39.65
-----								
199 alpha-Chlorotoluene						CAS #: 100-44-7		
10.711	10.711	(1.243)	91	1711464	50.0000	50.059	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
10.711	10.711	(1.243)	126	377222			0.00- 52.04	22.04
-----								
201 Undecane CAS #: 1120-21-4								
10.804	10.804	(1.253)	57	1502052	50.0000	49.806	80.00- 120.00	100.00
10.804	10.804	(1.253)	43	1289714			55.86- 115.86	85.86
-----								
202 Butylbenzene CAS #: 104-51-8								
10.818	10.818	(1.255)	134	573948	50.0000	49.358	80.00- 120.00	100.00
10.818	10.818	(1.255)	91	2077626			331.99- 391.99	361.99
10.818	10.818	(1.255)	92	1096298			161.01- 221.01	191.01
-----								
204 1,2-Dichlorobenzene CAS #: 95-50-1								
10.926	10.926	(1.268)	146	1161793	50.0000	49.802	80.00- 120.00	100.00
10.926	10.926	(1.268)	148	734569			33.23- 93.23	63.23
10.918	10.918	(1.267)	111	492079			12.36- 72.36	42.36
-----								
206 1,2-Dibromo-3-chloropropane CAS #: 96-12-8								
11.606	11.606	(1.347)	157	677550	50.0000	50.091	80.00- 120.00	100.00
11.599	11.599	(1.346)	75	602730			58.96- 118.96	88.96
11.606	11.606	(1.347)	155	527267			47.82- 107.82	77.82
-----								
207 Dodecane CAS #: 112-40-3								
11.714	11.714	(1.359)	57	1591448	61.8000	62.406	80.00- 120.00	100.00
11.714	11.714	(1.359)	43	1286745			50.85- 110.85	80.85
-----								
213 1,2,4-Trichlorobenzene CAS #: 120-82-1								
12.301	12.301	(1.427)	180	1043013	62.9500	62.948	80.00- 120.00	100.00
12.301	12.301	(1.427)	182	995018			65.40- 125.40	95.40
-----								
215 Hexachlorobutadiene CAS #: 87-68-3								
12.387	12.387	(1.437)	225	804329	64.3500	64.263	80.00- 120.00	100.00
12.387	12.387	(1.437)	223	512377			33.70- 93.70	63.70
-----								
216 Naphthalene CAS #: 91-20-3								
12.552	12.552	(1.456)	128	276806	6.35000	5.471	80.00- 120.00	100.00
12.552	12.552	(1.456)	127	36248			0.00- 43.10	13.10
-----								
222 1,2,3-Trichlorobenzene CAS #: 87-61-6								
12.802	12.802	(1.485)	180	997150	66.5500	65.766	80.00- 120.00	100.00
12.802	12.802	(1.485)	182	953973			65.67- 125.67	95.67
12.802	12.802	(1.485)	145	359141			6.02- 66.02	36.02
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062221.d  
 Lab Smp Id: ICAL Level 9  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 50ppbv (200ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	243405	0.00
108 1,4-Difluorobenze	874076	524446	1223706	874076	0.00
153 Chlorobenzene-d5	831223	498734	1163712	831223	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.62	8.29	8.95	8.62	0.00

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.

Date : 22-JUN-2021 23:12

Client ID:

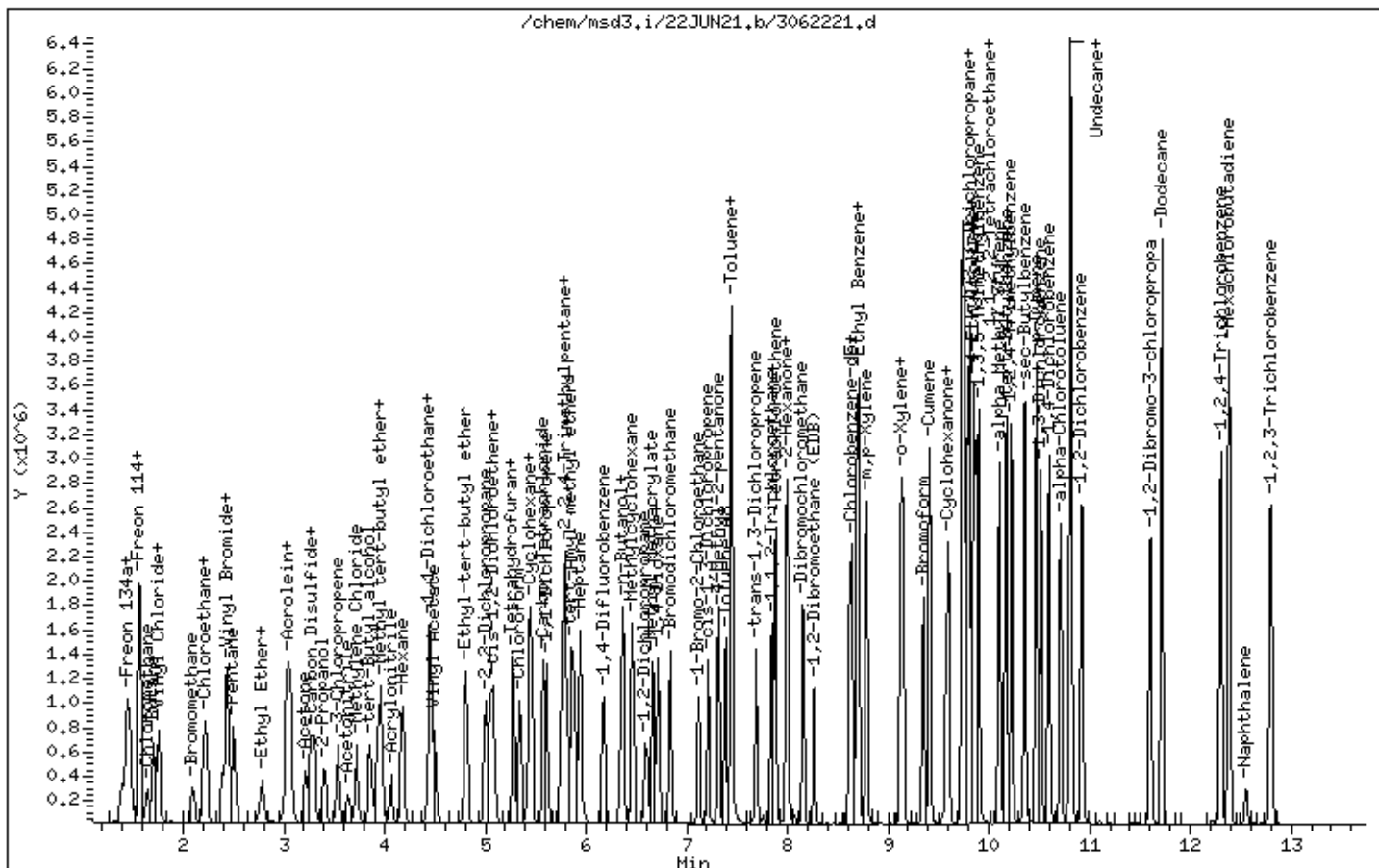
Instrument: msd3,i

Sample Info: 50mL 3018-2115

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062211.d  
Lab Smp Id: ICAL Level 10  
Inj Date : 22-JUN-2021 18:34  
Operator : LD  
Smp Info : 100mL 3018-2013  
Misc Info : 100ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Meth Date : 23-Jun-2021 12:22 lk8g  
Cal Date : 22-JUN-2021 23:39  
Als bottle: 5  
Dil Factor: 1.00000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062222.d  
Calibration Sample, Level: 10  
Compound Sublist: AT20spICAL.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.284	5.284	(1.000)	130	253083	25.0000		80.00- 120.00 100.00
5.284	5.284	(1.000)	128	197908			48.46- 108.46 78.20
5.284	5.270	(1.000)	49	379733			120.39- 180.39 150.04
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.180	6.180	(1.000)	114	922710	25.0000		80.00- 120.00 100.00
6.180	6.180	(1.000)	88	143994			0.00- 45.52 15.61
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
8.612	8.619	(1.000)	117	877543	25.0000		80.00- 120.00 100.00
8.612	8.619	(1.000)	82	481707			25.46- 85.46 54.89
-----							
3 Freon 143a CAS #: 420-46-2							
1.353	1.353	(0.256)	65	422301	100.000	99.752	80.00- 120.00 100.00
1.353	1.353	(0.256)	69	1045065			217.09- 277.09 247.47
1.353	1.353	(0.256)	64	103510			0.00- 55.87 24.51
-----							
6 Propane CAS #: 74-98-6							
1.437	1.422	(0.272)	43	220396	100.000	95.560	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.437	1.422	(0.272)	39	154993			41.62- 101.62	70.32
1.437	1.422	(0.272)	41	124136			22.97- 82.97	56.32
-----								
13 Freon 142b CAS #: 75-68-3								
1.605	1.604	(0.304)	65	1339634	100.000	99.508	80.00- 120.00	100.00
1.605	1.604	(0.304)	45	375942			0.00- 58.17	28.06
-----								
36 1-Pentene CAS #: 109-67-1								
2.458	2.444	(0.465)	55	858577	100.000	100.42	80.00- 120.00	100.00
2.444	2.444	(0.463)	42	1104782			99.17- 159.17	128.68
-----								
40 Freon 123a CAS #: 354-23-4								
2.878	2.878	(0.545)	117	995577	100.000	100.00	80.00- 120.00	100.00
2.878	2.878	(0.545)	67	1327677			103.13- 163.13	133.36
-----								
41 Freon 123 CAS #: 306-83-2								
2.976	2.976	(0.563)	83	1459229	100.000	99.939	80.00- 120.00	100.00
2.976	2.976	(0.563)	133	313282			0.00- 51.81	21.47
2.976	2.976	(0.563)	85	961907			37.13- 97.13	65.92
-----								
55 Cyclopentene CAS #: 142-29-0								
3.549	3.549	(0.672)	67	1570286	100.000	101.03	80.00- 120.00	100.00
3.549	3.549	(0.672)	68	593419			7.90- 67.90	37.79
3.549	3.549	(0.672)	53	385199			0.00- 54.87	24.53
-----								
56 Methyl Acetate CAS #: 79-20-9								
3.577	3.577	(0.677)	43	1560707	100.000	97.439	80.00- 120.00	100.00
3.577	3.577	(0.677)	74	264599			0.00- 47.15	16.95
-----								
74 Chloroprene CAS #: 126-99-8								
4.515	4.515	(0.854)	53	1367166	100.000	100.80	80.00- 120.00	100.00
4.515	4.515	(0.854)	88	580254			12.33- 72.33	42.44
4.515	4.515	(0.854)	50	373283			0.00- 57.62	27.30
-----								
75 1-Propanol CAS #: 71-23-8								
4.613	4.613	(0.873)	59	189442	100.000	90.344	80.00- 120.00	100.00
4.613	4.613	(0.873)	42	160675			53.89- 113.89	84.81
4.613	4.613	(0.873)	41	100475			24.09- 84.09	53.04
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.131	5.130	(0.971)	55	1620095	100.000	99.388	80.00- 120.00	100.00
5.131	5.130	(0.971)	85	212661			0.00- 43.24	13.13
5.131	5.130	(0.971)	58	139809			0.00- 38.83	8.63
-----								
103 Isobutanol CAS #: 78-83-1								
5.774	5.774	(1.093)	39	225396	100.000	75.243	80.00- 120.00	100.00

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT	ON-COL		
==	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)							
5.774	5.774	(1.093)	43	831274		327.69- 387.69	368.81
5.774	5.774	(1.093)	41	612193		237.56- 297.56	271.61
-----							
113 Ethyl acrylate							
						CAS #: 140-88-5	
6.460	6.474	(0.750)	99	128213	100.000	91.427 80.00- 120.00	100.00
6.460	6.460	(0.750)	45	194063		124.67- 184.67	151.36
6.460	6.460	(0.750)	55	2114618		1601.30-1661.30	1649.30
-----							
115 2-Pentanone							
						CAS #: 107-87-9	
6.558	6.557	(0.761)	43	3065851	100.000	93.467 80.00- 120.00	100.00
6.558	6.557	(0.761)	58	246156		0.00- 37.25	8.03
6.558	6.557	(0.761)	86	468245		0.00- 45.08	15.27
-----							
145 Butyl Acetate							
						CAS #: 123-86-4	
8.068	8.068	(1.305)	56	1130017	100.000	92.901 80.00- 120.00	100.00
8.068	8.068	(1.305)	73	396522		5.16- 65.16	35.09
8.068	8.068	(1.305)	43	2753919		214.00- 274.00	243.71
-----							
157 1,1,1,2-Tetrachloroethane							
						CAS #: 630-20-6	
8.712	8.712	(1.012)	131	1276488	100.000	96.705 80.00- 120.00	100.00
8.712	8.712	(1.012)	117	862064		38.22- 98.22	67.53
8.712	8.712	(1.012)	95	481397		7.54- 67.54	37.71
-----							
166 2-Heptanone							
						CAS #: 110-43-0	
9.221	9.221	(1.745)	58	1737838	100.000	93.545 80.00- 120.00	100.00
9.221	9.221	(1.745)	43	2814385		133.36- 193.36	161.95
-----							
172 D-Limonene							
						CAS #: 5989-27-5	
10.417	10.417	(1.210)	68	1639621	100.000	102.84 80.00- 120.00	100.00
10.417	10.424	(1.210)	93	1183759		42.08- 102.08	72.20
-----							
186 4-Chlorotoluene							
						CAS #: 106-43-4	
9.966	9.973	(1.157)	126	1122466	100.000	97.688 80.00- 120.00	100.00
9.966	9.966	(1.157)	91	3789856		305.94- 365.94	337.64
9.966	9.966	(1.157)	63	502773		15.44- 75.44	44.79
-----							
197 1,2,3-Trimethylbenzene							
						CAS #: 526-73-8	
10.596	10.596	(1.230)	120	1576820	100.000	100.11 80.00- 120.00	100.00
10.596	10.596	(1.230)	105	3678486		206.43- 266.43	233.29
10.596	10.596	(1.230)	77	434629		0.00- 58.29	27.56
-----							
205 Hexachloroethane							
						CAS #: 67-72-1	
11.098	11.098	(1.289)	201	994424	100.000	103.42 80.00- 120.00	100.00
11.098	11.098	(1.289)	117	1375706		109.77- 169.77	138.34
-----							

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
11.721	11.728	(1.361)	180	2099856	100.000	100.16	80.00- 120.00	100.00
11.728	11.728	(1.362)	182	1998399			65.79- 125.79	95.17
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.371	9.371	(1.088)	93	2674923	100.000	98.578	80.00- 120.00	100.00
9.371	9.371	(1.088)	77	798194			0.13- 60.13	29.84
-----								
214 beta-Pinene						CAS #: 127-91-3		
9.944	9.944	(1.155)	93	2112661	100.000	99.142	80.00- 120.00	100.00
9.966	9.966	(1.157)	91	3789856			145.95- 205.95	179.39
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062211.d  
 Lab Smp Id: ICAL Level 10  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 100ppbv (200ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	253083	3.98
108 1,4-Difluorobenze	874076	524446	1223706	922710	5.56
153 Chlorobenzene-d5	831223	498734	1163712	877543	5.57

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.62	8.29	8.95	8.61	-0.08

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.



Date : 22-JUN-2021 18:34

Client ID:

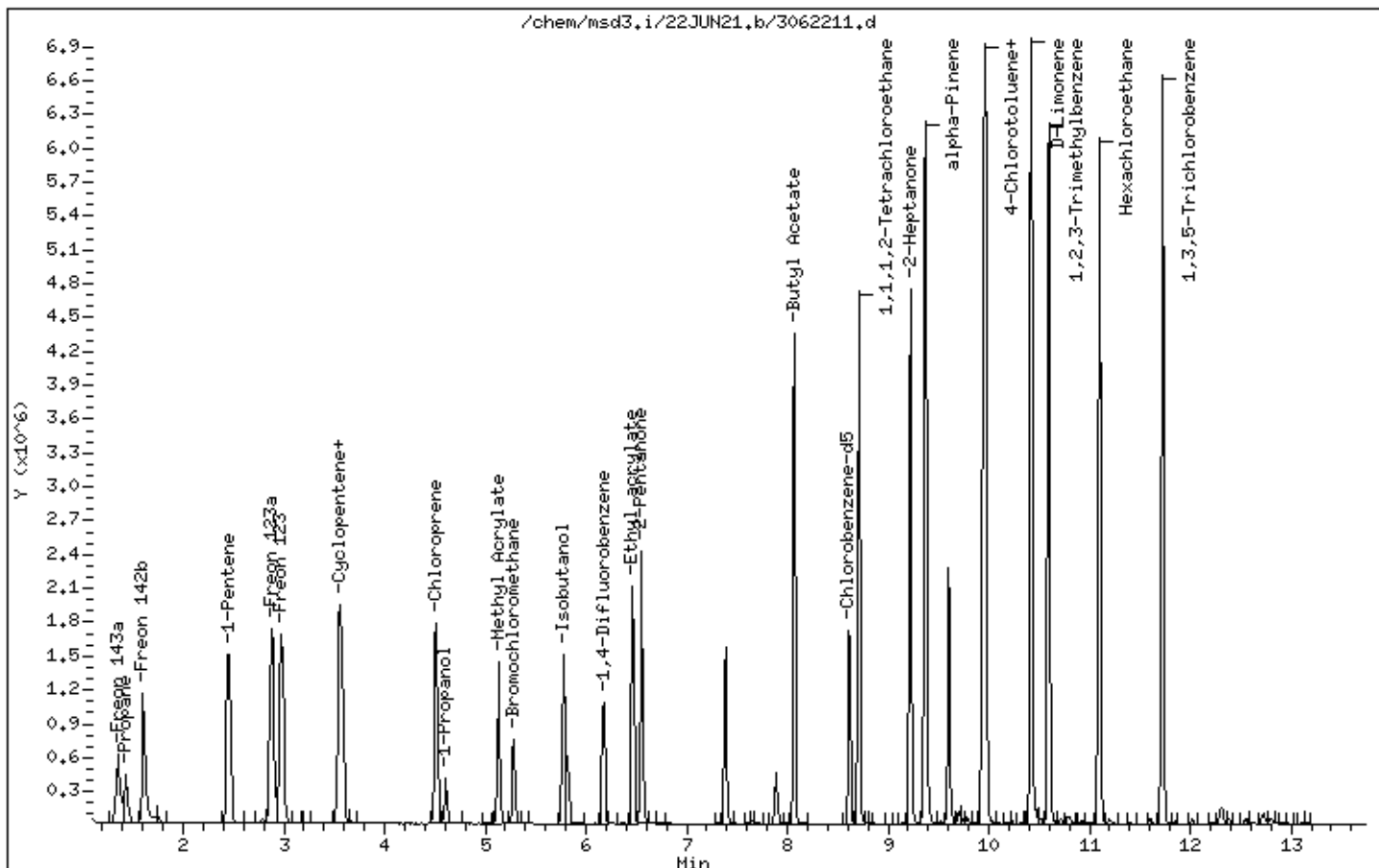
Instrument: msd3,i

Sample Info: 100mL 3018-2013

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062222.d  
Lab Smp Id: ICAL Level 10  
Inj Date : 22-JUN-2021 23:39  
Operator : LD Inst ID: msd3.i  
Smp Info : 100mL 3018-2115  
Misc Info : 100ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
Cal Date : 22-JUN-2021 23:39 Cal File: 3062222.d  
Als bottle: 2 Calibration Sample, Level: 10  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT (REL RT)	MASS	RESPONSE ( PPBV)	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
4 Freon 134a CAS #: 811-97-2							
1.395	1.395 (0.264)	83	613528	100.000	95.210	80.00- 120.00	100.00
1.395	1.395 (0.264)	69	511616			51.82- 111.82	83.39
1.492	1.479 (0.282)	51	1594986			194.91- 254.91	259.97
5 Propylene CAS #: 115-07-1							
1.437	1.423 (0.272)	41	636513	100.000	97.305	80.00- 120.00	100.00
1.437	1.423 (0.272)	42	424408			35.61- 95.61	66.68
1.437	1.423 (0.272)	39	467122			42.66- 102.66	73.39
7 1,1-Difluoroethane CAS #: 75-37-6							
1.450	1.437 (0.274)	65	401492	100.000	94.157	80.00- 120.00	100.00
1.492	1.479 (0.282)	51	1594986			321.86- 381.86	397.26
1.450	1.437 (0.274)	47	291028			45.34- 105.34	72.49
8 Freon 12 CAS #: 75-71-8							
1.464	1.465 (0.277)	85	1734118	100.000	91.921	80.00- 120.00	100.00
1.464	1.465 (0.277)	87	560580			2.63- 62.63	32.33
9 Chlorodifluoromethane CAS #: 75-45-6							
1.492	1.479 (0.282)	67	185750	100.000	89.588	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.492	1.479	(0.282)	51	1594986			719.76- 779.76	858.67
-----								
10 Freon 114 CAS #: 76-14-2								
1.576	1.562	(0.298)	135	1318387	100.000	94.316	80.00- 120.00	100.00
1.576	1.562	(0.298)	137	422419			2.12- 62.12	32.04
-----								
12 Isobutane CAS #: 75-28-5								
1.576	1.576	(0.298)	43	1436676	100.000	97.717	80.00- 120.00	100.00
1.576	1.576	(0.298)	42	471194			2.44- 62.44	32.80
1.576	1.576	(0.298)	58	49177			0.00- 33.26	3.42
-----								
15 Chloromethane CAS #: 74-87-3								
1.646	1.646	(0.312)	50	737502	100.000	94.057	80.00- 120.00	100.00
1.646	1.646	(0.312)	52	236973			2.41- 62.41	32.13
-----								
18 Butane CAS #: 106-97-8								
1.716	1.702	(0.325)	58	156059	100.000	84.277	80.00- 120.00	100.00
1.702	1.702	(0.322)	43	1166146			727.41- 787.41	747.25
-----								
19 Vinyl Chloride CAS #: 75-01-4								
1.744	1.744	(0.330)	62	713856	100.000	85.078	80.00- 120.00	100.00
1.744	1.744	(0.330)	64	217647			1.28- 61.28	30.49
-----								
20 1,3-Butadiene CAS #: 106-99-0								
1.758	1.758	(0.333)	54	619808	100.000	80.602	80.00- 120.00	100.00
1.758	1.758	(0.333)	39	613422			69.23- 129.23	98.97
-----								
24 Bromomethane CAS #: 74-83-9								
2.108	2.094	(0.399)	94	619825	100.000	93.404	80.00- 120.00	100.00
2.108	2.094	(0.399)	96	581336			62.78- 122.78	93.79
-----								
30 Chloroethane CAS #: 75-00-3								
2.206	2.206	(0.417)	64	373173	100.000	94.745	80.00- 120.00	100.00
2.206	2.206	(0.417)	66	116387			1.44- 61.44	31.19
2.206	2.206	(0.417)	49	119717			4.12- 64.12	32.08
-----								
31 Isopentane CAS #: 78-78-4								
2.220	2.220	(0.420)	43	956298	100.000	94.945	80.00- 120.00	100.00
2.220	2.220	(0.420)	57	662049			38.82- 98.82	69.23
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.402	2.388	(0.455)	106	674945	100.000	93.548	80.00- 120.00	100.00
2.402	2.388	(0.455)	108	624999			63.14- 123.14	92.60
-----								
33 Freon 11 CAS #: 75-69-4								
2.444	2.430	(0.462)	101	1856957	100.000	93.032	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.444	2.430	(0.462)	103	1205290			35.12- 95.12	64.91
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.444	2.444	(0.462)	67	1524106	100.000	95.517	80.00- 120.00	100.00
2.444	2.444	(0.462)	69	465350			0.74- 60.74	30.53
-----								
35 Pentane CAS #: 109-66-0								
2.500	2.500	(0.473)	43	1523095	100.000	94.916	80.00- 120.00	100.00
2.500	2.500	(0.473)	57	243603			0.00- 45.97	15.99
2.500	2.500	(0.473)	72	127162			0.00- 38.10	8.35
-----								
38 Ethyl Ether CAS #: 60-29-7								
2.794	2.780	(0.529)	74	326353	100.000	90.709	80.00- 120.00	100.00
2.780	2.780	(0.526)	59	579526			147.68- 207.68	177.58
2.780	2.780	(0.526)	45	779526			206.40- 266.40	238.86
-----								
39 Ethanol CAS #: 64-17-5								
2.766	2.766	(0.523)	46	138933	100.000	86.040	80.00- 120.00	100.00
2.780	2.780	(0.526)	45	778648			523.01- 583.01	560.45
-----								
42 Acrolein CAS #: 107-02-8								
3.032	3.032	(0.574)	55	264085	100.000	98.552	80.00- 120.00	100.00
3.032	3.032	(0.574)	56	363405			110.33- 170.33	137.61
-----								
43 Freon 113 CAS #: 76-13-1								
3.046	3.032	(0.576)	151	1250959	100.000	91.678	80.00- 120.00	100.00
3.046	3.032	(0.576)	153	798630			33.72- 93.72	63.84
3.032	3.032	(0.574)	101	1511159			89.67- 149.67	120.80
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.074	3.074	(0.582)	96	708836	100.000	86.246	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	448778			33.39- 93.39	63.31
3.074	3.074	(0.582)	61	1363659			163.82- 223.82	192.38
-----								
47 Acetone CAS #: 67-64-1								
3.213	3.213	(0.608)	58	418004	100.000	92.052	80.00- 120.00	100.00
3.213	3.213	(0.608)	43	1359990			299.66- 359.66	325.35
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.297	3.297	(0.624)	76	1958428	100.000	95.774	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.269	3.269	(0.619)	142	1769537	100.000	100.08	80.00- 120.00	100.00
3.269	3.269	(0.619)	127	783525			14.58- 74.58	44.28
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.409	3.395	(0.645)	45	1597988	100.000	97.850	80.00- 120.00	100.00
3.409	3.395	(0.645)	43	297202			0.00- 48.61	18.60
-----								
54 3-Chloropropene						CAS #: 107-05-1		
3.535	3.535	(0.669)	76	324026	100.000	92.040	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	1158928			338.06- 398.06	357.67
-----								
57 Acetonitrile						CAS #: 75-05-8		
3.633	3.633	(0.688)	41	683875	100.000	95.639	80.00- 120.00	100.00
3.633	3.633	(0.688)	40	358324			21.81- 81.81	52.40
3.633	3.633	(0.688)	38	82419			0.00- 41.86	12.05
-----								
59 Methylene Chloride						CAS #: 75-09-2		
3.731	3.717	(0.706)	49	1025987	100.000	94.407	80.00- 120.00	100.00
3.731	3.717	(0.706)	84	622839			30.77- 90.77	60.71
3.731	3.717	(0.706)	51	315351			1.39- 61.39	30.74
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
3.857	3.857	(0.730)	59	1954601	100.000	95.354	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	411903			0.00- 51.05	21.07
3.857	3.857	(0.730)	57	206768			0.00- 41.68	10.58
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
3.941	3.941	(0.746)	73	2039161	100.000	92.167	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	612141			0.00- 58.86	30.02
3.941	3.941	(0.746)	41	551449			0.00- 57.27	27.04
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
3.969	3.969	(0.751)	98	476616	100.000	86.173	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	1275368			244.59- 304.59	267.59
3.969	3.969	(0.751)	96	745512			129.84- 189.84	156.42
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.067	4.067	(0.770)	52	557795	100.000	84.032	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	664587			88.50- 148.50	119.15
-----								
67 Hexane						CAS #: 110-54-3		
4.179	4.179	(0.791)	57	1427094	100.000	95.160	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	899519			32.99- 92.99	63.03
4.179	4.179	(0.791)	86	172439			0.00- 42.56	12.08
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.459	4.459	(0.844)	63	1419983	100.000	92.070	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	436496			0.76- 60.76	30.74
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether								CAS #: 108-20-3
4.445	4.445	(0.841)	45	3060328	100.000	96.696	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	670085			0.00- 51.37	21.90
4.445	4.445	(0.841)	59	344177			0.00- 41.09	11.25
-----								
73 Vinyl Acetate								CAS #: 108-05-4
4.501	4.501	(0.852)	86	182859	100.000	96.437	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	2614522			1391.63-1451.63	1429.80
-----								
79 Ethyl-tert-butyl ether								CAS #: 637-92-3
4.809	4.809	(0.910)	59	2942184	100.000	96.293	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	985529			3.22- 63.22	33.50
4.809	4.809	(0.910)	41	533952			0.00- 48.12	18.15
-----								
84 2,2-Dichloropropane								CAS #: 594-20-7
5.004	5.004	(0.947)	77	1360664	100.000	94.702	80.00- 120.00	100.00
5.004	5.004	(0.947)	79	444158			2.00- 62.00	32.64
5.004	5.004	(0.947)	97	317666			0.00- 53.36	23.35
-----								
85 cis-1,2-Dichloroethene								CAS #: 156-59-2
5.046	5.046	(0.955)	98	491586	100.000	89.660	80.00- 120.00	100.00
5.046	5.046	(0.955)	96	761611			127.22- 187.22	154.93
5.046	5.046	(0.955)	61	1517092			283.85- 343.85	308.61
-----								
86 2-Butanone								CAS #: 78-93-3
5.060	5.074	(0.958)	72	370355	100.000	96.708	80.00- 120.00	100.00
5.074	5.074	(0.960)	43	3955007			1055.75-1115.75	1067.90
5.060	5.074	(0.958)	57	149566			10.59- 70.59	40.38
-----								
87 Ethyl Acetate								CAS #: 141-78-6
5.088	5.088	(0.963)	45	316451	100.000	100.23	80.00- 120.00	100.00
5.046	5.046	(0.955)	61	1517092			450.31- 510.31	479.41
5.088	5.088	(0.963)	70	192551			30.42- 90.42	60.85
-----								
89 Tetrahydrofuran								CAS #: 109-99-9
5.270	5.270	(0.997)	42	1035981	100.000	95.933	80.00- 120.00	100.00
5.270	5.270	(0.997)	71	333878			2.92- 62.92	32.23
5.270	5.270	(0.997)	72	344828			3.54- 63.54	33.29
-----								
* 90 Bromochloromethane								CAS #: 74-97-5
5.284	5.284	(1.000)	130	270814	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	210159			48.46- 108.46	77.60
5.270	5.270	(1.000)	49	408222			120.39- 180.39	150.74
-----								
92 Chloroform								CAS #: 67-66-3
5.340	5.340	(1.011)	83	1579112	100.000	93.002	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.340	5.340	(1.011)	85	1020939			34.71- 94.71	64.65
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.438	5.438	(1.029)	84	976098	100.000	90.950	80.00- 120.00	100.00
5.438	5.438	(1.029)	56	1468324			120.40- 180.40	150.43
5.438	5.438	(1.029)	41	805074			54.20- 114.20	82.48
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.466	5.466	(1.034)	97	1681907	100.000	88.126	80.00- 120.00	100.00
5.466	5.466	(1.034)	99	1071661			33.76- 93.76	63.72
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
5.578	5.578	(1.056)	119	1707419	100.000	97.135	80.00- 120.00	100.00
5.578	5.578	(1.056)	117	1780267			73.68- 133.68	104.27
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
5.606	5.606	(0.907)	110	429711	100.000	97.363	80.00- 120.00	100.00
5.606	5.606	(0.907)	75	1116661			231.09- 291.09	259.86
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
5.774	5.774	(1.093)	57	4500575	100.000	95.965	80.00- 120.00	100.00
5.774	5.774	(1.093)	56	1406154			1.12- 61.12	31.24
5.774	5.774	(1.093)	41	1217054			0.00- 57.49	27.04
-----								
102 Benzene						CAS #: 71-43-2		
5.788	5.788	(0.937)	78	2110049	100.000	95.345	80.00- 120.00	100.00
5.788	5.788	(0.937)	77	493874			0.00- 53.80	23.41
-----								
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
5.816	5.816	(1.101)	65	365334	25.0000	24.514	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	193990			21.66- 81.66	53.10
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
5.858	5.858	(0.948)	87	567701	100.000	96.206	80.00- 120.00	100.00
5.858	5.858	(0.948)	73	2251162			365.20- 425.20	396.54
5.858	5.858	(0.948)	55	682011			91.31- 151.31	120.14
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
5.886	5.886	(0.952)	62	1195487	100.000	93.828	80.00- 120.00	100.00
5.886	5.886	(0.952)	64	370222			1.20- 61.20	30.97
-----								
107 Heptane						CAS #: 142-82-5		
5.942	5.942	(0.962)	71	785763	100.000	90.143	80.00- 120.00	100.00
5.942	5.942	(0.962)	43	1642483			179.02- 239.02	209.03
5.942	5.942	(0.962)	57	909991			84.85- 144.85	115.81
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.180	6.180	(1.000)	114	969803	25.0000		80.00- 120.00	100.00
6.166	6.180	(1.000)	88	151552			0.00- 45.52	15.63
-----								
110 n-Butanol						CAS #: 71-36-3		
6.348	6.348	(1.027)	56	700436	100.000	98.744	80.00- 120.00	100.00
6.348	6.348	(1.027)	41	494892			40.21- 100.21	70.65
6.348	6.348	(1.027)	43	386523			25.00- 85.00	55.18
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.362	6.362	(1.029)	95	1049365	100.000	94.516	80.00- 120.00	100.00
6.362	6.362	(1.029)	130	1108357			74.96- 134.96	105.62
6.362	6.362	(1.029)	97	680678			34.80- 94.80	64.87
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
6.585	6.586	(1.066)	63	391457	100.000	76.309	80.00- 120.00	100.00
6.585	6.586	(1.066)	62	250711			52.03- 112.03	64.05
6.585	6.586	(1.066)	41	383309			79.97- 139.97	97.92
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
6.664	6.664	(0.774)	69	834771	100.000	94.078	80.00- 120.00	100.00
6.664	6.664	(0.774)	41	1363486			134.02- 194.02	163.34
6.664	6.664	(0.774)	100	333587			9.54- 69.54	39.96
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
6.699	6.699	(1.084)	88	540204	100.000	96.360	80.00- 120.00	100.00
6.692	6.699	(1.083)	58	467204			55.80- 115.80	86.49
6.692	6.699	(1.083)	57	199887			8.68- 68.68	37.00
-----								
118 Dibromomethane						CAS #: 74-95-3		
6.721	6.721	(0.780)	174	960834	100.000	97.231	80.00- 120.00	100.00
6.714	6.721	(0.780)	93	929216			67.27- 127.27	96.71
6.714	6.721	(0.780)	95	768363			50.92- 110.92	79.97
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
6.836	6.836	(1.106)	83	1724424	100.000	92.713	80.00- 120.00	100.00
6.836	6.836	(1.106)	85	1104118			34.31- 94.31	64.03
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.208	7.208	(1.166)	75	1346503	100.000	97.401	80.00- 120.00	100.00
7.208	7.208	(1.166)	77	430744			1.42- 61.42	31.99
7.208	7.208	(1.166)	39	915435			38.56- 98.56	67.99
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.460	6.460	(1.045)	83	1349887	100.000	90.923	80.00- 120.00	100.00
6.460	6.460	(1.045)	98	614901			15.60- 75.60	45.55



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.460	6.460	(1.045)	55	1514744			78.53- 138.53	112.21
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.315	7.316	(1.184)	58	860374	100.000	91.530	80.00- 120.00	100.00
7.315	7.316	(1.184)	43	2250859			231.30- 291.30	261.61
7.315	7.316	(1.184)	85	329277			8.94- 68.94	38.27
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.387	7.387	(1.195)	98	1005757	25.0000	25.179	80.00- 120.00	100.00
7.387	7.387	(1.195)	70	114191			0.00- 41.47	11.35
7.387	7.387	(1.195)	100	672050			36.47- 96.47	66.82
-----								
137 Toluene						CAS #: 108-88-3		
7.437	7.437	(1.203)	91	2815495	100.000	94.814	80.00- 120.00	100.00
7.437	7.437	(1.203)	92	1643396			28.30- 88.30	58.37
-----								
136 Octane						CAS #: 111-65-9		
7.444	7.444	(1.205)	57	941260	100.000	95.273	80.00- 120.00	100.00
7.444	7.444	(1.205)	85	918231			67.11- 127.11	97.55
7.444	7.444	(1.205)	43	2265956			214.21- 274.21	240.74
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
7.688	7.688	(0.893)	75	1313517	100.000	96.729	80.00- 120.00	100.00
7.688	7.688	(0.893)	77	417074			2.15- 62.15	31.75
7.688	7.688	(0.893)	39	852170			36.09- 96.09	64.88
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
7.846	7.846	(0.911)	97	978950	100.000	93.739	80.00- 120.00	100.00
7.846	7.846	(0.911)	99	608344			31.62- 91.62	62.14
7.846	7.846	(0.911)	83	846723			56.35- 116.35	86.49
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
7.881	7.881	(0.915)	166	1395971	100.000	96.647	80.00- 120.00	100.00
7.881	7.881	(0.915)	129	1092821			48.71- 108.71	78.28
7.881	7.881	(0.915)	131	1058130			46.55- 106.55	75.80
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.003	8.003	(0.929)	58	1182682	100.000	98.592	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	2214530			157.91- 217.91	187.25
8.003	8.003	(0.929)	100	213311			0.00- 47.86	18.04
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
7.989	7.989	(1.293)	76	1336647	100.000	94.344	80.00- 120.00	100.00
7.989	7.989	(1.293)	41	1510339			82.96- 142.96	112.99
7.989	7.989	(1.293)	78	439394			2.55- 62.55	32.87
-----								

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
146 Dibromochloromethane						CAS #: 124-48-1			
8.154	8.154	(0.947)	129	1948212	100.000	98.333	80.00- 120.00	100.00	
8.154	8.154	(0.947)	127	1522204			47.77- 107.77	78.13	
-----									
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4			
8.268	8.268	(0.960)	107	1576705	100.000	97.220	80.00- 120.00	100.00	
8.268	8.268	(0.960)	109	1483694			64.60- 124.60	94.10	
-----									
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0			
7.115	7.115	(1.151)	63	1772704	100.000	98.763	80.00- 120.00	100.00	
7.115	7.115	(1.151)	65	547792			0.95- 60.95	30.90	
7.115	7.122	(1.151)	144	182664			0.00- 40.45	10.30	
-----									
* 153 Chlorobenzene-d5							CAS #: 3114-55-4		
8.612	8.619	(1.000)	117	921990	25.0000		80.00- 120.00	100.00	
8.612	8.619	(1.000)	82	511597			25.46- 85.46	55.49	
-----									
154 Chlorobenzene						CAS #: 108-90-7			
8.641	8.641	(1.003)	112	2352628	100.000	93.362	80.00- 120.00	100.00	
8.641	8.641	(1.003)	114	762481			2.13- 62.13	32.41	
8.641	8.641	(1.003)	77	1324984			26.35- 86.35	56.32	
-----									
155 Ethyl Benzene						CAS #: 100-41-4			
8.684	8.684	(1.008)	106	1209107	100.000	95.957	80.00- 120.00	100.00	
8.684	8.684	(1.008)	91	3757569			282.48- 342.48	310.77	
-----									
156 Nonane						CAS #: 111-84-2			
8.705	8.705	(1.011)	43	2336438	100.000	95.666	80.00- 120.00	100.00	
8.705	8.705	(1.011)	57	2117667			59.52- 119.52	90.64	
8.705	8.705	(1.011)	85	691015			0.00- 59.76	29.58	
-----									
158 m,p-Xylene						CAS #: 108-38-3			
8.784	8.784	(1.020)	106	1489255	100.000	95.002	80.00- 120.00	100.00	
8.784	8.784	(1.020)	91	2985822			171.36- 231.36	200.49	
-----									
164 o-Xylene						CAS #: 95-47-6			
9.121	9.128	(1.059)	106	1431351	100.000	96.181	80.00- 120.00	100.00	
9.121	9.128	(1.059)	91	3022397			179.99- 239.99	211.16	
-----									
165 Styrene						CAS #: 100-42-5			
9.142	9.149	(1.062)	104	2491307	100.000	96.625	80.00- 120.00	100.00	
9.142	9.149	(1.062)	78	1233241			19.09- 79.09	49.50	
-----									
167 Bromoform						CAS #: 75-25-2			
9.350	9.350	(1.086)	173	1876827	100.000	99.903	80.00- 120.00	100.00	
9.350	9.350	(1.086)	171	970844			21.45- 81.45	51.73	
-----									

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
9.414	9.414	(1.093)	105	4441141	100.000	94.389	80.00- 120.00	100.00
9.414	9.414	(1.093)	120	1213205			0.00- 56.99	27.32
9.407	9.407	(1.092)	51	520168			0.00- 41.77	11.71
-----								
169 Cyclohexanone						CAS #: 108-94-1		
9.579	9.579	(1.112)	55	1357093	100.000	91.653	80.00- 120.00	100.00
9.579	9.579	(1.112)	98	519078			9.22- 69.22	38.25
9.579	9.579	(1.112)	42	966302			42.60- 102.60	71.20
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
9.600	9.601	(1.115)	174	617978	25.0000	25.340	80.00- 120.00	100.00
9.600	9.601	(1.115)	95	766815			93.06- 153.06	124.08
9.600	9.601	(1.115)	176	568534			62.87- 122.87	92.00
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
9.737	9.737	(1.131)	83	2172510	100.000	93.129	80.00- 120.00	100.00
9.737	9.737	(1.131)	85	1409525			34.35- 94.35	64.88
-----								
177 Bromobenzene						CAS #: 108-86-1		
9.737	9.729	(1.131)	156	1422294	100.000	97.240	80.00- 120.00	100.00
9.729	9.737	(1.130)	158	1378995			67.29- 127.29	96.96
9.729	9.729	(1.130)	77	2306309			132.41- 192.41	162.15
-----								
178 Propylbenzene						CAS #: 103-65-1		
9.758	9.758	(1.133)	91	5235902	100.000	95.372	80.00- 120.00	100.00
9.758	9.758	(1.133)	120	1259252			0.00- 53.77	24.05
9.758	9.758	(1.133)	105	201142			0.00- 33.81	3.84
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
9.787	9.787	(1.136)	110	664921	100.000	94.622	80.00- 120.00	100.00
9.787	9.787	(1.136)	75	2103413			285.00- 345.00	316.34
9.787	9.787	(1.136)	61	561893			54.06- 114.06	84.51
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
9.787	9.787	(1.136)	53	525143	100.000	94.441	80.00- 120.00	100.00
9.787	9.787	(1.136)	89	264898			21.19- 81.19	50.44
9.787	9.787	(1.136)	75	2103413			372.45- 432.45	400.54
-----								
182 Decane						CAS #: 124-18-5		
9.808	9.808	(1.139)	57	2704752	100.000	95.281	80.00- 120.00	100.00
9.815	9.808	(1.140)	71	909461			4.13- 64.13	33.62
9.815	9.815	(1.140)	142	126798			0.00- 34.73	4.69
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.144)	120	1347972	100.000	94.725	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
9.851	9.851	(1.144)	105	4384263			296.79- 356.79	325.25
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
9.873	9.873	(1.146)	126	1110440	100.000	96.036	80.00- 120.00	100.00
9.873	9.873	(1.146)	91	4029584			336.29- 396.29	362.88
9.873	9.873	(1.146)	65	638776			38.83- 98.83	57.52
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
9.901	9.901	(1.150)	120	1891863	100.000	94.653	80.00- 120.00	100.00
9.901	9.901	(1.150)	105	3870232			176.40- 236.40	204.57
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
10.102	10.102	(1.173)	118	2021719	100.000	98.763	80.00- 120.00	100.00
10.102	10.102	(1.173)	103	1137074			26.64- 86.64	56.24
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
10.174	10.174	(1.181)	119	3477934	100.000	94.572	80.00- 120.00	100.00
10.174	10.174	(1.181)	134	876103			0.00- 54.82	25.19
10.174	10.174	(1.181)	91	2342532			36.92- 96.92	67.35
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
10.224	10.224	(1.187)	105	3747431	100.000	95.082	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	1759100			16.58- 76.58	46.94
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
10.360	10.360	(1.203)	134	1142132	100.000	96.152	80.00- 120.00	100.00
10.353	10.360	(1.202)	105	5423689			451.53- 511.53	474.87
10.353	10.353	(1.202)	91	862410			46.48- 106.48	75.51
-----								
194 p-Cymene CAS #: 99-87-6								
10.467	10.467	(1.215)	119	4798506	100.000	96.464	80.00- 120.00	100.00
10.467	10.467	(1.215)	134	1298497			0.00- 56.79	27.06
10.467	10.467	(1.215)	91	1164811			0.00- 54.04	24.27
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
10.517	10.517	(1.221)	146	2608452	100.000	97.415	80.00- 120.00	100.00
10.517	10.517	(1.221)	148	1662791			33.53- 93.53	63.75
10.517	10.517	(1.221)	111	1080794			11.05- 71.05	41.43
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
10.596	10.596	(1.230)	146	2651837	100.000	96.147	80.00- 120.00	100.00
10.596	10.596	(1.230)	148	1689235			33.47- 93.47	63.70
10.596	10.596	(1.230)	111	1056200			9.65- 69.65	39.83
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
10.711	10.711	(1.244)	91	3738875	100.000	98.594	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
10.711	10.711	(1.244)	126	834770			0.00- 52.04	22.33
-----								
201 Undecane						CAS #: 1120-21-4		
10.804	10.804	(1.254)	57	3222859	100.000	96.345	80.00- 120.00	100.00
10.804	10.804	(1.254)	43	2761339			55.86- 115.86	85.68
-----								
202 Butylbenzene						CAS #: 104-51-8		
10.818	10.818	(1.256)	134	1249319	100.000	96.862	80.00- 120.00	100.00
10.818	10.818	(1.256)	91	4460893			331.99- 391.99	357.07
10.818	10.818	(1.256)	92	2360311			161.01- 221.01	188.93
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
10.918	10.926	(1.268)	146	2503101	100.000	96.737	80.00- 120.00	100.00
10.926	10.926	(1.269)	148	1595663			33.23- 93.23	63.75
10.918	10.918	(1.268)	111	1066702			12.36- 72.36	42.62
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
11.606	11.606	(1.348)	157	1470618	100.000	98.018	80.00- 120.00	100.00
11.606	11.599	(1.348)	75	1299661			58.96- 118.96	88.38
11.606	11.606	(1.348)	155	1132957			47.82- 107.82	77.04
-----								
207 Dodecane						CAS #: 112-40-3		
11.714	11.714	(1.360)	57	3458257	123.600	122.26	80.00- 120.00	100.00
11.714	11.714	(1.360)	43	2784562			50.85- 110.85	80.52
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
12.301	12.301	(1.428)	180	2232617	125.900	121.48	80.00- 120.00	100.00
12.301	12.301	(1.428)	182	2139821			65.40- 125.40	95.84
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
12.387	12.387	(1.438)	225	1709087	128.700	123.11	80.00- 120.00	100.00
12.387	12.387	(1.438)	223	1090155			33.70- 93.70	63.79
-----								
216 Naphthalene						CAS #: 91-20-3		
12.552	12.552	(1.457)	128	596371	12.7000	10.626	80.00- 120.00	100.00
12.552	12.552	(1.457)	127	78294			0.00- 43.10	13.13
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
12.802	12.802	(1.487)	180	2153358	133.100	128.04	80.00- 120.00	100.00
12.802	12.802	(1.487)	182	2052941			65.67- 125.67	95.34
12.802	12.802	(1.487)	145	775566			6.02- 66.02	36.02
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062222.d  
 Lab Smp Id: ICAL Level 10  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 100ppbv (200ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	270814	11.26
108 1,4-Difluorobenze	874076	524446	1223706	969803	10.95
153 Chlorobenzene-d5	831223	498734	1163712	921990	10.92

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	-0.00
153 Chlorobenzene-d5	8.62	8.29	8.95	8.61	-0.08

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.

Date : 22-JUN-2021 23:39

Client ID:

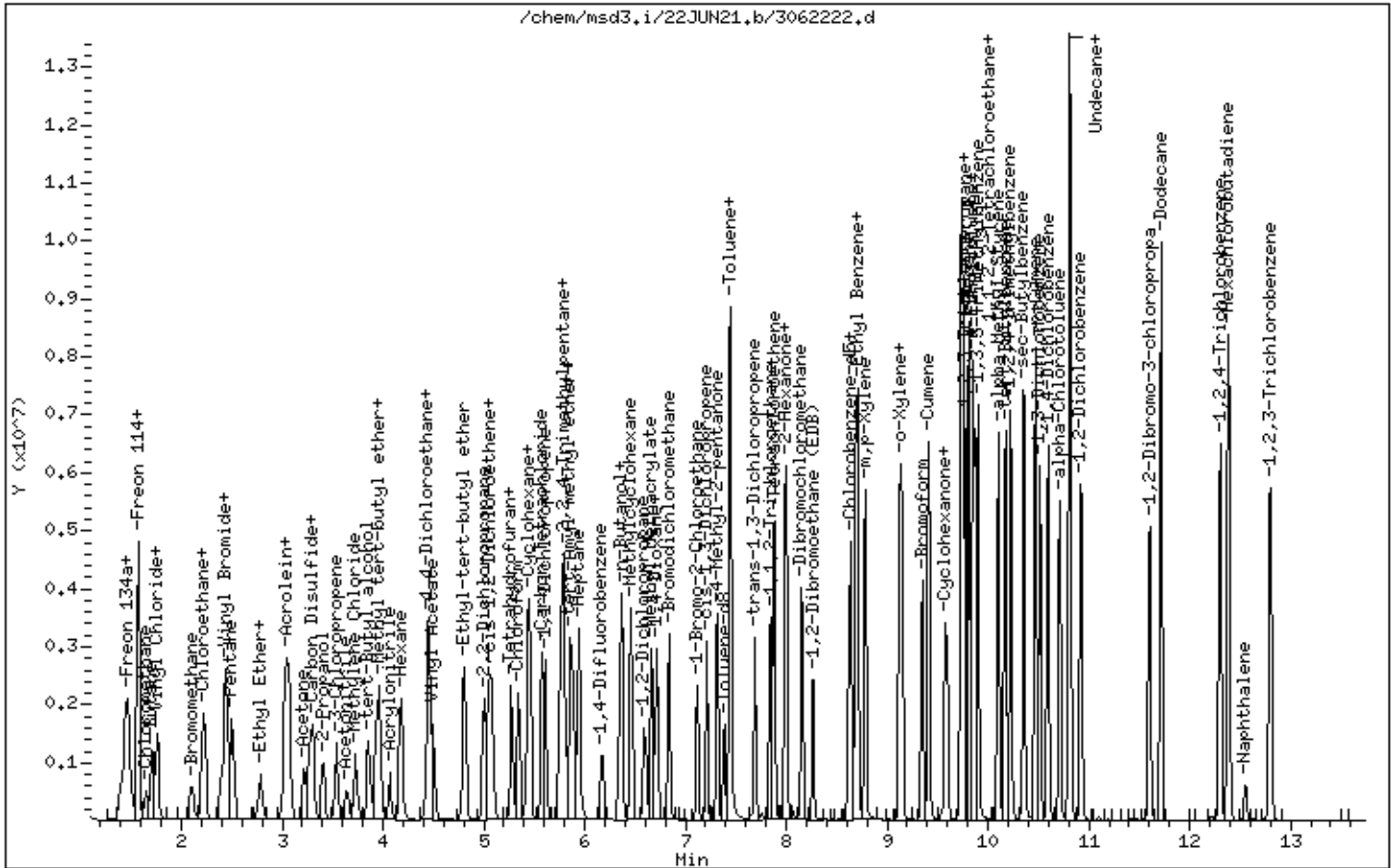
Instrument: msd3,i

Sample Info: 100mL 3018-2115

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062212.d  
Lab Smp Id: ICAL Level 11  
Inj Date : 22-JUN-2021 19:03  
Operator : LD  
Smp Info : 200mL 3018-2013  
Misc Info : 200ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
Meth Date : 23-Jun-2021 12:22 lk8g  
Cal Date : 23-JUN-2021 00:09  
Als bottle: 5  
Dil Factor: 1.00000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3062223.d  
Calibration Sample, Level: 11  
Compound Sublist: AT20spICAL.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.284	5.284	(1.000)	130	238686	25.0000		80.00- 120.00 100.00
5.284	5.284	(1.000)	128	184595			48.46- 108.46 77.34
5.284	5.270	(1.000)	49	359400			120.39- 180.39 150.57
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.180	6.180	(1.000)	114	855175	25.0000		80.00- 120.00 100.00
6.180	6.180	(1.000)	88	133937			0.00- 45.52 15.66
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
8.619	8.619	(1.000)	117	819732	25.0000		80.00- 120.00 100.00
8.619	8.619	(1.000)	82	458641			25.46- 85.46 55.95
-----							
3 Freon 143a CAS #: 420-46-2							
1.367	1.353	(0.259)	65	736095	200.000	184.36	80.00- 120.00 100.00
1.367	1.353	(0.259)	69	1817010			217.09- 277.09 246.84
1.367	1.353	(0.259)	64	176211			0.00- 55.87 23.94
-----							
6 Propane CAS #: 74-98-6							
1.437	1.422	(0.272)	43	408916	200.000	187.99	80.00- 120.00 100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO	
				CAL-AMT	ON-COL			
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.437	1.422	(0.272)	39	284533		41.62- 101.62	69.58	
1.437	1.422	(0.272)	41	226156		22.97- 82.97	55.31	
-----								
13 Freon 142b CAS #: 75-68-3								
1.604	1.604	(0.304)	65	2437918	200.000	192.01 80.00- 120.00	100.00	
1.604	1.604	(0.304)	45	682416		0.00- 58.17	27.99	
-----								
36 1-Pentene CAS #: 109-67-1								
2.458	2.444	(0.465)	55	1580097	200.000	195.96 80.00- 120.00	100.00	
2.458	2.444	(0.465)	42	2019285		99.17- 159.17	127.80	
-----								
40 Freon 123a CAS #: 354-23-4								
2.892	2.878	(0.547)	117	1818166	200.000	193.65 80.00- 120.00	100.00	
2.892	2.878	(0.547)	67	2459121		103.13- 163.13	135.25	
-----								
41 Freon 123 CAS #: 306-83-2								
2.990	2.976	(0.566)	83	2673564	200.000	194.15 80.00- 120.00	100.00	
2.990	2.976	(0.566)	133	572215		0.00- 51.81	21.40	
2.990	2.976	(0.566)	85	1774129		37.13- 97.13	66.36	
-----								
55 Cyclopentene CAS #: 142-29-0								
3.549	3.549	(0.672)	67	2877324	200.000	196.30 80.00- 120.00	100.00	
3.549	3.549	(0.672)	68	1088968		7.90- 67.90	37.85	
3.549	3.549	(0.672)	53	712030		0.00- 54.87	24.75	
-----								
56 Methyl Acetate CAS #: 79-20-9								
3.577	3.577	(0.677)	43	2853533	200.000	188.90 80.00- 120.00	100.00	
3.577	3.577	(0.677)	74	493560		0.00- 47.15	17.30	
-----								
74 Chloroprene CAS #: 126-99-8								
4.515	4.515	(0.854)	53	2498620	200.000	195.33 80.00- 120.00	100.00	
4.515	4.515	(0.854)	88	1063999		12.33- 72.33	42.58	
4.515	4.515	(0.854)	50	674100		0.00- 57.62	26.98	
-----								
75 1-Propanol CAS #: 71-23-8								
4.613	4.613	(0.873)	59	347356	200.000	175.64 80.00- 120.00	100.00	
4.613	4.613	(0.873)	42	296931		53.89- 113.89	85.48	
4.613	4.613	(0.873)	41	186816		24.09- 84.09	53.78	
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.130	5.130	(0.971)	55	2961043	200.000	192.61 80.00- 120.00	100.00	
5.130	5.130	(0.971)	85	391358		0.00- 43.24	13.22	
5.130	5.130	(0.971)	58	264860		0.00- 38.83	8.94	
-----								
103 Isobutanol CAS #: 78-83-1								
5.774	5.774	(1.093)	39	404518	200.000	143.18 80.00- 120.00	100.00	

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO	
				CAL-AMT	ON-COL			
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
5.774	5.774	(1.093)	43	1541951		327.69- 387.69	381.18	
5.774	5.774	(1.093)	41	1133973		237.56- 297.56	280.33	
-----								
113 Ethyl acrylate								
						CAS #: 140-88-5		
6.474	6.474	(0.751)	99	238652	200.000	182.18 80.00- 120.00	100.00	
6.460	6.460	(0.749)	45	367576		124.67- 184.67	154.02	
6.460	6.460	(0.749)	55	3959794		1601.30-1661.30	1659.23	
-----								
115 2-Pentanone								
						CAS #: 107-87-9		
6.558	6.557	(0.761)	43	5653052	200.000	184.50 80.00- 120.00	100.00	
6.558	6.557	(0.761)	58	456621		0.00- 37.25	8.08	
6.558	6.557	(0.761)	86	871681		0.00- 45.08	15.42	
-----								
145 Butyl Acetate								
						CAS #: 123-86-4		
8.068	8.068	(1.305)	56	2096069	200.000	185.93 80.00- 120.00	100.00	
8.068	8.068	(1.305)	73	730739		5.16- 65.16	34.86	
8.068	8.068	(1.305)	43	5054712		214.00- 274.00	241.15	
-----								
157 1,1,1,2-Tetrachloroethane								
						CAS #: 630-20-6		
8.712	8.712	(1.011)	131	2342378	200.000	189.97 80.00- 120.00	100.00	
8.712	8.712	(1.011)	117	1580451		38.22- 98.22	67.47	
8.712	8.712	(1.011)	95	883866		7.54- 67.54	37.73	
-----								
166 2-Heptanone								
						CAS #: 110-43-0		
9.221	9.221	(1.745)	58	3239163	200.000	184.88 80.00- 120.00	100.00	
9.221	9.221	(1.745)	43	5150416		133.36- 193.36	159.00	
-----								
172 D-Limonene								
						CAS #: 5989-27-5		
10.424	10.417	(1.209)	68	3016819	200.000	202.56 80.00- 120.00	100.00(A)	
10.424	10.424	(1.209)	93	2188422		42.08- 102.08	72.54	
-----								
186 4-Chlorotoluene								
						CAS #: 106-43-4		
9.973	9.973	(1.157)	126	2070941	200.000	192.94 80.00- 120.00	100.00	
9.966	9.966	(1.156)	91	6921803		305.94- 365.94	334.23	
9.966	9.966	(1.156)	63	912677		15.44- 75.44	44.07	
-----								
197 1,2,3-Trimethylbenzene								
						CAS #: 526-73-8		
10.596	10.596	(1.229)	120	2929619	200.000	199.12 80.00- 120.00	100.00	
10.596	10.596	(1.229)	105	6724542		206.43- 266.43	229.54	
10.596	10.596	(1.229)	77	803081		0.00- 58.29	27.41	
-----								
205 Hexachloroethane								
						CAS #: 67-72-1		
11.105	11.098	(1.288)	201	1859811	200.000	207.06 80.00- 120.00	100.00(A)	
11.098	11.098	(1.288)	117	2577561		109.77- 169.77	138.59	
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
11.728	11.728	(1.361)	180	3928237	200.000	200.58	80.00- 120.00	100.00(A)
11.728	11.728	(1.361)	182	3720649			65.79- 125.79	94.72
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.371	9.371	(1.087)	93	4909231	200.000	193.68	80.00- 120.00	100.00
9.371	9.371	(1.087)	77	1471700			0.13- 60.13	29.98
-----								
214 beta-Pinene						CAS #: 127-91-3		
9.944	9.944	(1.154)	93	3877029	200.000	194.77	80.00- 120.00	100.00
9.966	9.966	(1.156)	91	6921803			145.95- 205.95	178.53
-----								

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062212.d  
 Lab Smp Id: ICAL Level 11  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 200ppbv (200ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	238686	-1.94
108 1,4-Difluorobenze	874076	524446	1223706	855175	-2.16
153 Chlorobenzene-d5	831223	498734	1163712	819732	-1.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.62	8.29	8.95	8.62	0.00

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.

Date : 22-JUN-2021 19:03

Client ID:

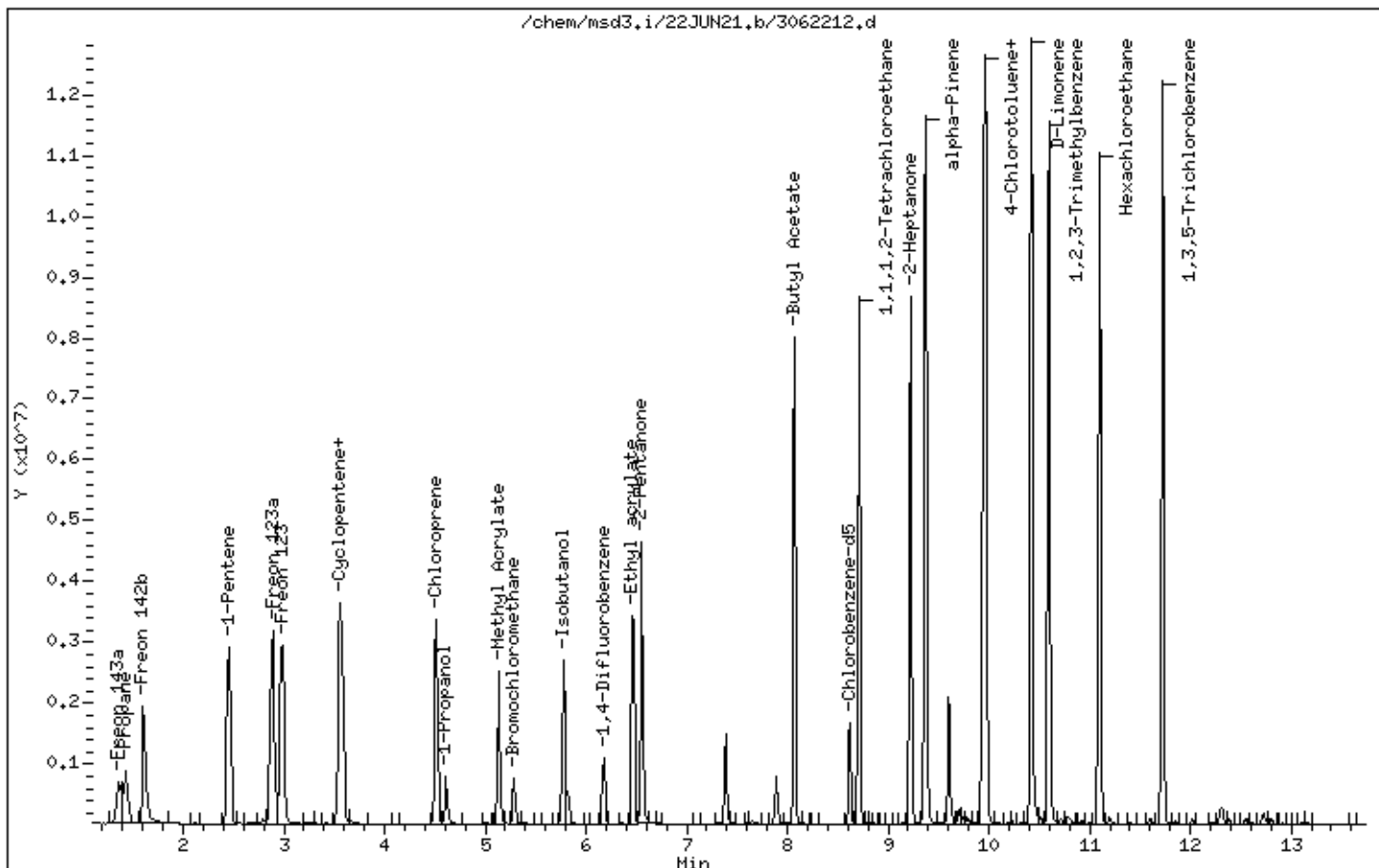
Instrument: msd3,i

Sample Info: 200mL 3018-2013

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062223.d  
 Lab Smp Id: ICAL Level 11  
 Inj Date : 23-JUN-2021 00:09  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL 3018-2115  
 Misc Info : 200ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Meth Date : 23-Jun-2021 12:22 lk8g Quant Type: ISTD  
 Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
 Als bottle: 2 Calibration Sample, Level: 11  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a				CAS #: 811-97-2				
1.409	1.395	(0.267)	83	1248422	200.000	186.97	80.00- 120.00	100.00
1.409	1.395	(0.267)	69	1149722			51.82- 111.82	92.09
1.493	1.479	(0.282)	51	4726763			194.91- 254.91	378.62
5 Propylene				CAS #: 115-07-1				
1.437	1.423	(0.272)	41	1303911	200.000	192.36	80.00- 120.00	100.00
1.437	1.423	(0.272)	42	862742			35.61- 95.61	66.17
1.437	1.423	(0.272)	39	941321			42.66- 102.66	72.19
7 1,1-Difluoroethane				CAS #: 75-37-6				
1.451	1.437	(0.275)	65	809939	200.000	183.31	80.00- 120.00	100.00
1.493	1.479	(0.282)	51	4726763			321.86- 381.86	583.59
1.465	1.437	(0.277)	47	547200			45.34- 105.34	67.56
8 Freon 12				CAS #: 75-71-8				
1.465	1.465	(0.277)	85	3426295	200.000	175.27	80.00- 120.00	100.00
1.465	1.465	(0.277)	87	1111289			2.63- 62.63	32.43
9 Chlorodifluoromethane				CAS #: 75-45-6				
1.493	1.479	(0.282)	67	376917	200.000	175.44	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.493	1.479	(0.282)	51	4726763			719.76- 779.76	1254.06
-----								
10 Freon 114 CAS #: 76-14-2								
1.577	1.562	(0.298)	135	2615427	200.000	180.57	80.00- 120.00	100.00
1.577	1.562	(0.298)	137	835578			2.12- 62.12	31.95
-----								
12 Isobutane CAS #: 75-28-5								
1.591	1.576	(0.301)	43	2851832	200.000	187.19	80.00- 120.00	100.00
1.591	1.576	(0.301)	42	908644			2.44- 62.44	31.86
1.577	1.576	(0.298)	58	94650			0.00- 33.26	3.32
-----								
15 Chloromethane CAS #: 74-87-3								
1.647	1.646	(0.312)	50	1438189	200.000	177.01	80.00- 120.00	100.00
1.647	1.646	(0.312)	52	428405			2.41- 62.41	29.79
-----								
18 Butane CAS #: 106-97-8								
1.716	1.702	(0.325)	58	306201	200.000	159.58	80.00- 120.00	100.00
1.716	1.702	(0.325)	43	2380035			727.41- 787.41	777.28
-----								
19 Vinyl Chloride CAS #: 75-01-4								
1.744	1.744	(0.330)	62	1437998	200.000	165.39	80.00- 120.00	100.00
1.744	1.744	(0.330)	64	435136			1.28- 61.28	30.26
-----								
20 1,3-Butadiene CAS #: 106-99-0								
1.772	1.758	(0.335)	54	1252672	200.000	157.21	80.00- 120.00	100.00
1.772	1.758	(0.335)	39	1248954			69.23- 129.23	99.70
-----								
24 Bromomethane CAS #: 74-83-9								
2.108	2.094	(0.399)	94	1217522	200.000	177.06	80.00- 120.00	100.00
2.108	2.094	(0.399)	96	1140143			62.78- 122.78	93.64
-----								
30 Chloroethane CAS #: 75-00-3								
2.206	2.206	(0.417)	64	759564	200.000	186.11	80.00- 120.00	100.00
2.206	2.206	(0.417)	66	229887			1.44- 61.44	30.27
2.206	2.206	(0.417)	49	240097			4.12- 64.12	31.61
-----								
31 Isopentane CAS #: 78-78-4								
2.220	2.220	(0.420)	43	1953607	200.000	187.18	80.00- 120.00	100.00
2.220	2.220	(0.420)	57	1353192			38.82- 98.82	69.27
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.402	2.388	(0.455)	106	1359049	200.000	181.78	80.00- 120.00	100.00
2.402	2.388	(0.455)	108	1264813			63.14- 123.14	93.07
-----								
33 Freon 11 CAS #: 75-69-4								
2.444	2.430	(0.463)	101	3711846	200.000	179.46	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.444	2.430	(0.463)	103	2428462			35.12- 95.12	65.42
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.458	2.444	(0.465)	67	3051239	200.000	184.54	80.00- 120.00	100.00
2.458	2.444	(0.465)	69	939246			0.74- 60.74	30.78
-----								
35 Pentane CAS #: 109-66-0								
2.500	2.500	(0.473)	43	3095149	200.000	186.14	80.00- 120.00	100.00
2.500	2.500	(0.473)	57	496522			0.00- 45.97	16.04
2.500	2.500	(0.473)	72	257490			0.00- 38.10	8.32
-----								
38 Ethyl Ether CAS #: 60-29-7								
2.794	2.780	(0.529)	74	670734	200.000	179.91	80.00- 120.00	100.00
2.794	2.780	(0.529)	59	1190553			147.68- 207.68	177.50
2.780	2.780	(0.526)	45	1586644			206.40- 266.40	236.55
-----								
39 Ethanol CAS #: 64-17-5								
2.766	2.766	(0.523)	46	277518	200.000	165.86	80.00- 120.00	100.00
2.780	2.780	(0.526)	45	1584044			523.01- 583.01	570.79
-----								
42 Acrolein CAS #: 107-02-8								
3.046	3.032	(0.576)	55	526592	200.000	189.65	80.00- 120.00	100.00
3.046	3.032	(0.576)	56	737600			110.33- 170.33	140.07
-----								
43 Freon 113 CAS #: 76-13-1								
3.046	3.032	(0.576)	151	2557928	200.000	180.91	80.00- 120.00	100.00
3.046	3.032	(0.576)	153	1629708			33.72- 93.72	63.71
3.046	3.032	(0.576)	101	3066258			89.67- 149.67	119.87
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.074	3.074	(0.582)	96	1446563	200.000	169.86	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	921828			33.39- 93.39	63.73
3.074	3.074	(0.582)	61	2754233			163.82- 223.82	190.40
-----								
47 Acetone CAS #: 67-64-1								
3.228	3.213	(0.611)	58	837664	200.000	178.02	80.00- 120.00	100.00
3.228	3.213	(0.611)	43	2686866			299.66- 359.66	320.76
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.312	3.297	(0.627)	76	3962561	200.000	187.01	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.284	3.269	(0.621)	142	3459520	200.000	188.81	80.00- 120.00	100.00
3.284	3.269	(0.621)	127	1527438			14.58- 74.58	44.15
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.409	3.395	(0.645)	45	3168063	200.000	187.21	80.00- 120.00	100.00
3.409	3.395	(0.645)	43	578653			0.00- 48.61	18.27
-----								
54 3-Chloropropene						CAS #: 107-05-1		
3.549	3.535	(0.672)	76	665132	200.000	182.33	80.00- 120.00	100.00
3.549	3.535	(0.672)	41	2336930			338.06- 398.06	351.35
-----								
57 Acetonitrile						CAS #: 75-05-8		
3.647	3.633	(0.690)	41	1434382	200.000	193.58	80.00- 120.00	100.00
3.647	3.633	(0.690)	40	735330			21.81- 81.81	51.26
3.647	3.633	(0.690)	38	161098			0.00- 41.86	11.23
-----								
59 Methylene Chloride						CAS #: 75-09-2		
3.731	3.717	(0.706)	49	2082765	200.000	184.95	80.00- 120.00	100.00
3.731	3.717	(0.706)	84	1258942			30.77- 90.77	60.45
3.731	3.717	(0.706)	51	640889			1.39- 61.39	30.77
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
3.857	3.857	(0.730)	59	3975050	200.000	187.14	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	826780			0.00- 51.05	20.80
3.857	3.857	(0.730)	57	422561			0.00- 41.68	10.63
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
3.941	3.941	(0.746)	73	4138145	200.000	180.50	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	1251638			0.00- 58.86	30.25
3.941	3.941	(0.746)	41	1110563			0.00- 57.27	26.84
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
3.969	3.969	(0.751)	98	969712	200.000	169.20	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	2604019			244.59- 304.59	268.54
3.969	3.969	(0.751)	96	1524600			129.84- 189.84	157.22
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.067	4.067	(0.770)	52	1162022	200.000	168.94	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	1354428			88.50- 148.50	116.56
-----								
67 Hexane						CAS #: 110-54-3		
4.179	4.179	(0.791)	57	2942768	200.000	189.37	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	1830463			32.99- 92.99	62.20
4.179	4.179	(0.791)	86	357479			0.00- 42.56	12.15
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.459	4.459	(0.844)	63	2931915	200.000	183.46	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	896339			0.76- 60.76	30.57
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.445	4.445	(0.841)	45	6207613	200.000	189.28	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	1358337			0.00- 51.37	21.88
4.445	4.445	(0.841)	59	701959			0.00- 41.09	11.31
73 Vinyl Acetate						CAS #: 108-05-4		
4.501	4.501	(0.852)	86	375695	200.000	191.21	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	5279652			1391.63-1451.63	1405.30
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
4.809	4.809	(0.910)	59	5999639	200.000	189.50	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	2013318			3.22- 63.22	33.56
4.809	4.809	(0.910)	41	1083834			0.00- 48.12	18.06
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.005	5.004	(0.947)	77	2776414	200.000	186.48	80.00- 120.00	100.00
5.005	5.004	(0.947)	79	898403			2.00- 62.00	32.36
5.005	5.004	(0.947)	97	660944			0.00- 53.36	23.81
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.047	5.046	(0.955)	98	1007295	200.000	177.30	80.00- 120.00	100.00
5.047	5.046	(0.955)	96	1561663			127.22- 187.22	155.04
5.047	5.046	(0.955)	61	3116398			283.85- 343.85	309.38
86 2-Butanone						CAS #: 78-93-3		
5.061	5.074	(0.958)	72	752204	200.000	189.55	80.00- 120.00	100.00
5.075	5.074	(0.960)	43	7965323			1055.75-1115.75	1058.93
5.061	5.074	(0.958)	57	303494			10.59- 70.59	40.35
87 Ethyl Acetate						CAS #: 141-78-6		
5.089	5.088	(0.963)	45	647543	200.000	197.94	80.00- 120.00	100.00
5.047	5.046	(0.955)	61	3116398			450.31- 510.31	481.27
5.089	5.088	(0.963)	70	398005			30.42- 90.42	61.46
89 Tetrahydrofuran						CAS #: 109-99-9		
5.270	5.270	(0.997)	42	2133956	200.000	190.70	80.00- 120.00	100.00
5.270	5.270	(0.997)	71	683656			2.92- 62.92	32.04
5.270	5.270	(0.997)	72	713970			3.54- 63.54	33.46
* 90 Bromochloromethane						CAS #: 74-97-5		
5.284	5.284	(1.000)	130	280621	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	221732			48.46- 108.46	79.01
5.284	5.270	(1.000)	49	420383			120.39- 180.39	149.80
92 Chloroform						CAS #: 67-66-3		
5.340	5.340	(1.011)	83	3231224	200.000	183.65	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.340	5.340	(1.011)	85	2099027			34.71- 94.71	64.96
-----								
94 Cyclohexane								
						CAS #: 110-82-7		
5.438	5.438	(1.029)	84	2003099	200.000	180.12	80.00- 120.00	100.00
5.438	5.438	(1.029)	56	3006241			120.40- 180.40	150.08
5.438	5.438	(1.029)	41	1654291			54.20- 114.20	82.59
-----								
96 1,1,1-Trichloroethane								
						CAS #: 71-55-6		
5.466	5.466	(1.034)	97	3390242	200.000	171.43	80.00- 120.00	100.00
5.466	5.466	(1.034)	99	2171642			33.76- 93.76	64.06
-----								
97 Carbon Tetrachloride								
						CAS #: 56-23-5		
5.578	5.578	(1.056)	119	3504381	200.000	192.40	80.00- 120.00	100.00
5.578	5.578	(1.056)	117	3650955			73.68- 133.68	104.18
-----								
99 1,1-Dichloropropene								
						CAS #: 563-58-6		
5.606	5.606	(0.907)	110	871622	200.000	185.92	80.00- 120.00	100.00
5.606	5.606	(0.907)	75	2259954			231.09- 291.09	259.28
-----								
101 2,2,4-Trimethylpentane								
						CAS #: 540-84-1		
5.760	5.774	(1.090)	57	9184710	200.000	189.00	80.00- 120.00	100.00
5.760	5.774	(1.090)	56	2853004			1.12- 61.12	31.06
5.760	5.774	(1.090)	41	2495514			0.00- 57.49	27.17
-----								
102 Benzene								
						CAS #: 71-43-2		
5.788	5.788	(0.937)	78	4310366	200.000	183.36	80.00- 120.00	100.00
5.788	5.788	(0.937)	77	1029979			0.00- 53.80	23.90
-----								
\$ 104 1,2-Dichloroethane-d4								
						CAS #: 17060-07-0		
5.816	5.816	(1.101)	65	365121	25.0000	23.643	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	213543			21.66- 81.66	58.49
-----								
105 tert-Amyl methyl ether								
						CAS #: 994-05-8		
5.858	5.858	(0.948)	87	1171898	200.000	186.96	80.00- 120.00	100.00
5.858	5.858	(0.948)	73	4600758			365.20- 425.20	392.59
5.858	5.858	(0.948)	55	1389945			91.31- 151.31	118.61
-----								
106 1,2-Dichloroethane								
						CAS #: 107-06-2		
5.886	5.886	(0.952)	62	2425778	200.000	179.23	80.00- 120.00	100.00
5.886	5.886	(0.952)	64	763575			1.20- 61.20	31.48
-----								
107 Heptane								
						CAS #: 142-82-5		
5.942	5.942	(0.962)	71	1600316	200.000	172.83	80.00- 120.00	100.00
5.942	5.942	(0.962)	43	3358124			179.02- 239.02	209.84
5.942	5.942	(0.962)	57	1864974			84.85- 144.85	116.54
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene								CAS #: 540-36-3
6.180	6.180	(1.000)	114	1030162	25.0000		80.00- 120.00	100.00
6.166	6.180	(1.000)	88	156599			0.00- 45.52	15.20
-----								
110 n-Butanol								CAS #: 71-36-3
6.348	6.348	(1.027)	56	1454858	200.000	193.08	80.00- 120.00	100.00
6.348	6.348	(1.027)	41	1016569			40.21- 100.21	69.87
6.348	6.348	(1.027)	43	800851			25.00- 85.00	55.05
-----								
111 Trichloroethene								CAS #: 79-01-6
6.362	6.362	(1.029)	95	2154997	200.000	182.73	80.00- 120.00	100.00
6.362	6.362	(1.029)	130	2276279			74.96- 134.96	105.63
6.362	6.362	(1.029)	97	1394870			34.80- 94.80	64.73
-----								
114 1,2-Dichloropropane								CAS #: 78-87-5
6.586	6.586	(1.066)	63	707267	200.000	129.79	80.00- 120.00	100.00
6.586	6.586	(1.066)	62	498517			52.03- 112.03	70.48
6.586	6.586	(1.066)	41	791037			79.97- 139.97	111.84
-----								
116 Methyl Methacrylate								CAS #: 80-62-6
6.664	6.664	(0.774)	69	1732766	200.000	185.90	80.00- 120.00	100.00
6.664	6.664	(0.774)	41	2771921			134.02- 194.02	159.97
6.664	6.664	(0.774)	100	689459			9.54- 69.54	39.79
-----								
117 1,4-Dioxane								CAS #: 123-91-1
6.692	6.699	(1.083)	88	1116627	200.000	187.51	80.00- 120.00	100.00
6.692	6.699	(1.083)	58	970635			55.80- 115.80	86.93
6.692	6.699	(1.083)	57	401009			8.68- 68.68	35.91
-----								
118 Dibromomethane								CAS #: 74-95-3
6.721	6.721	(0.780)	174	1973983	200.000	190.16	80.00- 120.00	100.00
6.714	6.721	(0.780)	93	1896487			67.27- 127.27	96.07
6.714	6.721	(0.780)	95	1584974			50.92- 110.92	80.29
-----								
122 Bromodichloromethane								CAS #: 75-27-4
6.836	6.836	(1.106)	83	3511830	200.000	177.75	80.00- 120.00	100.00
6.836	6.836	(1.106)	85	2273528			34.31- 94.31	64.74
-----								
126 cis-1,3-Dichloropropene								CAS #: 10061-01-5
7.208	7.208	(1.166)	75	2753100	200.000	187.48	80.00- 120.00	100.00
7.208	7.208	(1.166)	77	882386			1.42- 61.42	32.05
7.208	7.208	(1.166)	39	1880986			38.56- 98.56	68.32
-----								
127 Methylcyclohexane								CAS #: 108-87-2
6.460	6.460	(1.045)	83	2754207	200.000	174.64	80.00- 120.00	100.00
6.460	6.460	(1.045)	98	1262828			15.60- 75.60	45.85

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.460	6.460	(1.045)	55	3106460			78.53- 138.53	112.79
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.316	7.316	(1.184)	58	1786119	200.000	178.88	80.00- 120.00	100.00
7.316	7.316	(1.184)	43	4615020			231.30- 291.30	258.38
7.316	7.316	(1.184)	85	675752			8.94- 68.94	37.83
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.387	7.387	(1.195)	98	1046502	25.0000	24.664	80.00- 120.00	100.00
7.387	7.387	(1.195)	70	117636			0.00- 41.47	11.24
7.387	7.387	(1.195)	100	699156			36.47- 96.47	66.81
-----								
137 Toluene						CAS #: 108-88-3		
7.437	7.437	(1.203)	91	5725161	200.000	181.50	80.00- 120.00	100.00
7.437	7.437	(1.203)	92	3388088			28.30- 88.30	59.18
-----								
136 Octane						CAS #: 111-65-9		
7.445	7.444	(1.205)	57	1941160	200.000	184.97	80.00- 120.00	100.00
7.445	7.444	(1.205)	85	1885654			67.11- 127.11	97.14
7.445	7.444	(1.205)	43	4613237			214.21- 274.21	237.65
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
7.688	7.688	(0.893)	75	2690414	200.000	188.60	80.00- 120.00	100.00
7.688	7.688	(0.893)	77	860699			2.15- 62.15	31.99
7.688	7.688	(0.893)	39	1729052			36.09- 96.09	64.27
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
7.846	7.846	(0.911)	97	2005268	200.000	182.79	80.00- 120.00	100.00
7.846	7.846	(0.911)	99	1245924			31.62- 91.62	62.13
7.846	7.846	(0.911)	83	1746685			56.35- 116.35	87.10
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
7.881	7.881	(0.915)	166	2846291	200.000	187.59	80.00- 120.00	100.00
7.881	7.881	(0.915)	129	2242287			48.71- 108.71	78.78
7.881	7.881	(0.915)	131	2176960			46.55- 106.55	76.48
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.003	8.003	(0.929)	58	2423064	200.000	192.29	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	4499303			157.91- 217.91	185.69
8.003	8.003	(0.929)	100	434674			0.00- 47.86	17.94
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
7.989	7.989	(1.293)	76	2724813	200.000	181.06	80.00- 120.00	100.00
7.989	7.989	(1.293)	41	3071294			82.96- 142.96	112.72
7.989	7.989	(1.293)	78	895221			2.55- 62.55	32.85
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.154	8.154	(0.947)	129	4009938	200.000	192.67	80.00- 120.00	100.00
8.154	8.154	(0.947)	127	3128882			47.77- 107.77	78.03
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.261	8.268	(0.959)	107	3220648	200.000	189.04	80.00- 120.00	100.00
8.261	8.268	(0.959)	109	3039854			64.60- 124.60	94.39
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.115	7.115	(1.151)	63	3623818	200.000	190.06	80.00- 120.00	100.00
7.115	7.115	(1.151)	65	1124304			0.95- 60.95	31.03
7.122	7.122	(1.152)	144	384041			0.00- 40.45	10.60
-----								
* 153	Chlorobenzene-d5						CAS #: 3114-55-4	
8.612	8.619	(1.000)	117	968526	25.0000		80.00- 120.00	100.00
8.612	8.619	(1.000)	82	534124			25.46- 85.46	55.15
-----								
154 Chlorobenzene						CAS #: 108-90-7		
8.641	8.641	(1.003)	112	4789428	200.000	180.93	80.00- 120.00	100.00
8.641	8.641	(1.003)	114	1559401			2.13- 62.13	32.56
8.641	8.641	(1.003)	77	2694421			26.35- 86.35	56.26
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
8.684	8.684	(1.008)	106	2466472	200.000	186.34	80.00- 120.00	100.00
8.684	8.684	(1.008)	91	7515848			282.48- 342.48	304.72
-----								
156 Nonane						CAS #: 111-84-2		
8.705	8.705	(1.011)	43	4684239	200.000	182.58	80.00- 120.00	100.00
8.705	8.705	(1.011)	57	4249274			59.52- 119.52	90.71
8.705	8.705	(1.011)	85	1368284			0.00- 59.76	29.21
-----								
158 m,p-Xylene						CAS #: 108-38-3		
8.784	8.784	(1.020)	106	3054787	200.000	185.51	80.00- 120.00	100.00
8.784	8.784	(1.020)	91	6087484			171.36- 231.36	199.28
-----								
164 o-Xylene						CAS #: 95-47-6		
9.121	9.128	(1.059)	106	2940706	200.000	188.11	80.00- 120.00	100.00
9.121	9.128	(1.059)	91	6120254			179.99- 239.99	208.12
-----								
165 Styrene						CAS #: 100-42-5		
9.149	9.149	(1.062)	104	5129048	200.000	189.37	80.00- 120.00	100.00
9.142	9.149	(1.062)	78	2527067			19.09- 79.09	49.27
-----								
167 Bromoform						CAS #: 75-25-2		
9.350	9.350	(1.086)	173	3869043	200.000	196.05	80.00- 120.00	100.00
9.350	9.350	(1.086)	171	2017665			21.45- 81.45	52.15
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
9.414	9.414	(1.093)	105	8856968	200.000	179.20	80.00- 120.00	100.00
9.414	9.414	(1.093)	120	2474357			0.00- 56.99	27.94
9.407	9.407	(1.092)	51	1059754			0.00- 41.77	11.97
-----								
169 Cyclohexanone						CAS #: 108-94-1		
9.579	9.579	(1.112)	55	2761472	200.000	177.54	80.00- 120.00	100.00
9.579	9.579	(1.112)	98	1065852			9.22- 69.22	38.60
9.579	9.579	(1.112)	42	1967492			42.60- 102.60	71.25
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	640376	25.0000	24.997	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	797484			93.06- 153.06	124.53
9.601	9.601	(1.115)	176	605747			62.87- 122.87	94.59
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
9.737	9.737	(1.131)	83	4422270	200.000	180.46	80.00- 120.00	100.00
9.737	9.737	(1.131)	85	2877992			34.35- 94.35	65.08
-----								
177 Bromobenzene						CAS #: 108-86-1		
9.730	9.729	(1.130)	156	2908112	200.000	189.27	80.00- 120.00	100.00
9.730	9.737	(1.130)	158	2812927			67.29- 127.29	96.73
9.730	9.729	(1.130)	77	4663366			132.41- 192.41	160.36
-----								
178 Propylbenzene						CAS #: 103-65-1		
9.758	9.758	(1.133)	91	10270460	200.000	178.09	80.00- 120.00	100.00
9.758	9.758	(1.133)	120	2524198			0.00- 53.77	24.58
9.758	9.758	(1.133)	105	406300			0.00- 33.81	3.96
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
9.787	9.787	(1.136)	110	1357894	200.000	183.95	80.00- 120.00	100.00
9.787	9.787	(1.136)	75	4261505			285.00- 345.00	313.83
9.787	9.787	(1.136)	61	1147024			54.06- 114.06	84.47
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
9.787	9.787	(1.136)	53	1061786	200.000	181.78	80.00- 120.00	100.00
9.787	9.787	(1.136)	89	556074			21.19- 81.19	52.37
9.787	9.787	(1.136)	75	4261505			372.45- 432.45	401.35
-----								
182 Decane						CAS #: 124-18-5		
9.808	9.808	(1.139)	57	5394837	200.000	180.91	80.00- 120.00	100.00
9.808	9.808	(1.139)	71	1811637			4.13- 64.13	33.58
9.816	9.815	(1.140)	142	252871			0.00- 34.73	4.69
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.144)	120	2748666	200.000	183.87	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
9.851	9.851	(1.144)	105	8951786			296.79- 356.79	325.68
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
9.873	9.873	(1.146)	126	2280030	200.000	187.71	80.00- 120.00	100.00
9.873	9.873	(1.146)	91	8187497			336.29- 396.29	359.10
9.873	9.873	(1.146)	65	1552268			38.83- 98.83	68.08
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
9.901	9.901	(1.150)	120	3893688	200.000	185.45	80.00- 120.00	100.00
9.901	9.901	(1.150)	105	7694703			176.40- 236.40	197.62
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
10.102	10.102	(1.173)	118	4131575	200.000	192.13	80.00- 120.00	100.00
10.102	10.102	(1.173)	103	2350391			26.64- 86.64	56.89
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
10.174	10.174	(1.181)	119	7168687	200.000	185.56	80.00- 120.00	100.00
10.174	10.174	(1.181)	134	1814326			0.00- 54.82	25.31
10.174	10.174	(1.181)	91	4712707			36.92- 96.92	65.74
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
10.224	10.224	(1.187)	105	7574431	200.000	182.95	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	3624792			16.58- 76.58	47.86
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
10.360	10.360	(1.203)	134	2316459	200.000	185.64	80.00- 120.00	100.00
10.360	10.360	(1.203)	105	10717996			451.53- 511.53	462.69
10.360	10.353	(1.203)	91	1750377			46.48- 106.48	75.56
-----								
194 p-Cymene CAS #: 99-87-6								
10.467	10.467	(1.215)	119	9518485	200.000	182.15	80.00- 120.00	100.00
10.467	10.467	(1.215)	134	2670560			0.00- 56.79	28.06
10.467	10.467	(1.215)	91	2378503			0.00- 54.04	24.99
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
10.517	10.517	(1.221)	146	5324302	200.000	189.29	80.00- 120.00	100.00
10.517	10.517	(1.221)	148	3428685			33.53- 93.53	64.40
10.517	10.517	(1.221)	111	2249453			11.05- 71.05	42.25
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
10.596	10.596	(1.230)	146	5387311	200.000	185.94	80.00- 120.00	100.00
10.596	10.596	(1.230)	148	3449292			33.47- 93.47	64.03
10.596	10.596	(1.230)	111	2177041			9.65- 69.65	40.41
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
10.711	10.711	(1.244)	91	7588758	200.000	190.50	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
10.711	10.711	(1.244)	126	1728896			0.00- 52.04	22.78
-----								
201 Undecane						CAS #: 1120-21-4		
10.804	10.804	(1.254)	57	6455210	200.000	183.70	80.00- 120.00	100.00
10.804	10.804	(1.254)	43	5437451			55.86- 115.86	84.23
-----								
202 Butylbenzene						CAS #: 104-51-8		
10.818	10.818	(1.256)	134	2566869	200.000	189.45	80.00- 120.00	100.00
10.818	10.818	(1.256)	91	8905405			331.99- 391.99	346.94
10.818	10.818	(1.256)	92	4849144			161.01- 221.01	188.91
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
10.926	10.926	(1.269)	146	5152127	200.000	189.55	80.00- 120.00	100.00
10.926	10.926	(1.269)	148	3295260			33.23- 93.23	63.96
10.919	10.918	(1.268)	111	2226669			12.36- 72.36	43.22
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
11.606	11.606	(1.348)	157	3008551	200.000	190.89	80.00- 120.00	100.00
11.599	11.599	(1.347)	75	2640903			58.96- 118.96	87.78
11.606	11.606	(1.348)	155	2340600			47.82- 107.82	77.80
-----								
207 Dodecane						CAS #: 112-40-3		
11.714	11.714	(1.360)	57	6858381	247.200	230.81	80.00- 120.00	100.00(A)
11.714	11.714	(1.360)	43	5511292			50.85- 110.85	80.36
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
12.301	12.301	(1.428)	180	4542514	251.800	235.29	80.00- 120.00	100.00(A)
12.301	12.301	(1.428)	182	4306455			65.40- 125.40	94.80
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
12.387	12.387	(1.438)	225	3480322	257.400	238.65	80.00- 120.00	100.00(A)
12.387	12.387	(1.438)	223	2234146			33.70- 93.70	64.19
-----								
216 Naphthalene						CAS #: 91-20-3		
12.552	12.552	(1.457)	128	1217286	25.4000	20.648	80.00- 120.00	100.00
12.552	12.552	(1.457)	127	160451			0.00- 43.10	13.18
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
12.803	12.802	(1.487)	180	4317164	266.200	244.37	80.00- 120.00	100.00(A)
12.803	12.802	(1.487)	182	4109388			65.67- 125.67	95.19
12.803	12.802	(1.487)	145	1586688			6.02- 66.02	36.75
-----								

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062223.d  
 Lab Smp Id: ICAL Level 11  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 200ppbv (200ppbv)

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	280621	15.29
108 1,4-Difluorobenze	874076	524446	1223706	1030162	17.86
153 Chlorobenzene-d5	831223	498734	1163712	968526	16.52

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.62	8.29	8.95	8.61	-0.08

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.

Date : 23-JUN-2021 00:09

Client ID:

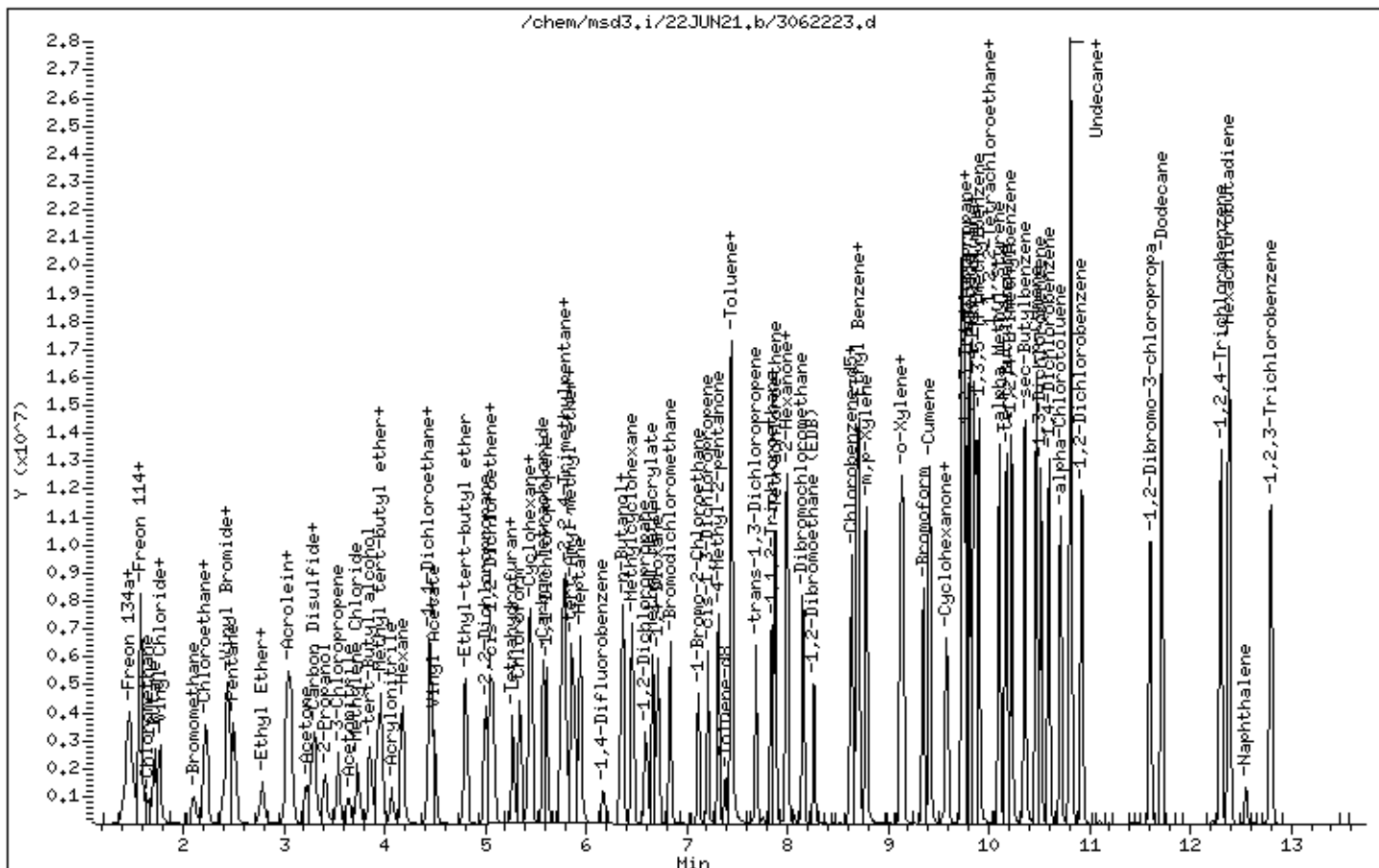
Instrument: msd3,i

Sample Info: 200mL 3018-2115

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/22JUN21.b/3062226.d  
 Lab Smp Id: ICV Client Smp ID: ICV  
 Inj Date : 23-JUN-2021 09:45  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 50mL 3018-2121  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/22JUN21.b/321q0622a.m  
 Meth Date : 23-Jun-2021 11:20 lk8g Quant Type: ISTD  
 Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
 Als bottle: 14 QC Sample: ICV  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	230839	25.0000		80.00- 120.00	100.00
5.284	5.284	(1.000)	128	179182			48.46- 108.46	77.62
5.270	5.270	(1.000)	49	344686			120.39- 180.39	149.32
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.180	6.180	(1.000)	114	830933	25.0000		80.00- 120.00	100.00
6.166	6.180	(1.000)	88	129192			0.00- 45.52	15.55
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.619	8.619	(1.000)	117	786155	25.0000		80.00- 120.00	100.00
8.612	8.619	(1.000)	82	431570			25.46- 85.46	54.90
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	307921	24.2394	24.239	80.00- 120.00	100.00
5.816	5.816	(1.101)	67	157280			21.66- 81.66	51.08
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.195)	98	848994	24.8065	24.806	80.00- 120.00	100.00
7.387	7.387	(1.195)	70	98028			0.00- 41.47	11.55

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	567231			36.47- 96.47	66.81
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.114)	174	514712	24.7527	24.753	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	638497			93.06- 153.06	124.05
9.601	9.601	(1.114)	176	486174			62.87- 122.87	94.46
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.395	1.395	(0.264)	83	276653	50.3672	50.367	80.00- 120.00	100.00
1.395	1.395	(0.264)	69	237465			51.82- 111.82	85.83
1.479	1.479	(0.280)	51	652737			194.91- 254.91	235.94
-----								
5 Propylene								
						CAS #: 115-07-1		
1.423	1.423	(0.269)	41	265441	47.6056	47.606	80.00- 120.00	100.00
1.423	1.423	(0.269)	42	180339			35.61- 95.61	67.94
1.423	1.423	(0.269)	39	191086			42.66- 102.66	71.99
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.437	1.437	(0.272)	65	181412	49.9119	49.912	80.00- 120.00	100.00
1.479	1.479	(0.280)	51	652737			321.86- 381.86	359.81
1.437	1.437	(0.272)	47	116541			45.34- 105.34	64.24
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.451	1.465	(0.275)	85	746394	46.4159	46.416	80.00- 120.00	100.00
1.451	1.465	(0.275)	87	242142			2.63- 62.63	32.44
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.479	1.479	(0.280)	67	73808	41.7626	41.762	80.00- 120.00	100.00
1.479	1.479	(0.280)	51	652737			719.76- 779.76	884.37
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.563	1.562	(0.296)	135	585845	49.1686	49.168	80.00- 120.00	100.00
1.563	1.562	(0.296)	137	187786			2.12- 62.12	32.05
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.577	1.576	(0.298)	43	609350	48.5739	48.574	80.00- 120.00	100.00
1.577	1.576	(0.298)	42	198445			2.44- 62.44	32.57
1.577	1.576	(0.298)	58	20678			0.00- 33.26	3.39
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.633	1.646	(0.309)	50	303441	45.4010	45.401	80.00- 120.00	100.00
1.633	1.646	(0.309)	52	103286			2.41- 62.41	34.04
-----								
18 Butane								
						CAS #: 106-97-8		
1.702	1.702	(0.322)	58	63208	40.0457	40.046	80.00- 120.00	100.00

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)								
1.702	1.702	(0.322)	43	477397		727.41- 787.41	755.28	
-----								
19 Vinyl Chloride CAS #: 75-01-4								
1.730	1.744	(0.327)	62	296122 41.4035	41.404	80.00- 120.00	100.00	
1.730	1.744	(0.327)	64	92690		1.28- 61.28	31.30	
-----								
20 1,3-Butadiene CAS #: 106-99-0								
1.758	1.758	(0.333)	54	263401 40.1855	40.185	80.00- 120.00	100.00	
1.758	1.758	(0.333)	39	247265		69.23- 129.23	93.87	
-----								
24 Bromomethane CAS #: 74-83-9								
2.094	2.094	(0.396)	94	261180 46.1739	46.174	80.00- 120.00	100.00	
2.094	2.094	(0.396)	96	245228		62.78- 122.78	93.89	
-----								
30 Chloroethane CAS #: 75-00-3								
2.192	2.206	(0.415)	64	163745 48.7725	48.772	80.00- 120.00	100.00	
2.192	2.206	(0.415)	66	52790		1.44- 61.44	32.24	
2.192	2.206	(0.415)	49	54045		4.12- 64.12	33.01	
-----								
31 Isopentane CAS #: 78-78-4								
2.220	2.220	(0.420)	43	412845 48.0872	48.087	80.00- 120.00	100.00	
2.220	2.220	(0.420)	57	288174		38.82- 98.82	69.80	
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.388	2.388	(0.452)	106	294472 47.8819	47.882	80.00- 120.00	100.00	
2.388	2.388	(0.452)	108	270982		63.14- 123.14	92.02	
-----								
33 Freon 11 CAS #: 75-69-4								
2.430	2.430	(0.460)	101	801961 47.1350	47.135	80.00- 120.00	100.00	
2.430	2.430	(0.460)	103	525485		35.12- 95.12	65.53	
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.444	2.444	(0.463)	67	668886 49.1789	49.179	80.00- 120.00	100.00	
2.444	2.444	(0.463)	69	205287		0.74- 60.74	30.69	
-----								
35 Pentane CAS #: 109-66-0								
2.500	2.500	(0.473)	43	636532 46.5367	46.537	80.00- 120.00	100.00	
2.500	2.500	(0.473)	57	102112		0.00- 45.97	16.04	
2.500	2.500	(0.473)	72	54671		0.00- 38.10	8.59	
-----								
38 Ethyl Ether CAS #: 60-29-7								
2.780	2.780	(0.526)	74	148680 48.4815	48.481	80.00- 120.00	100.00	
2.780	2.780	(0.526)	59	261727		147.68- 207.68	176.03	
2.780	2.780	(0.526)	45	348533		206.40- 266.40	234.42	
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
2.752	2.766	(0.521)	46	64671	46.9856	46.986	80.00- 120.00	100.00
2.780	2.780	(0.526)	45	348533			523.01- 583.01	538.93
42 Acrolein					CAS #: 107-02-8			
3.032	3.032	(0.574)	55	119957	52.5183	52.518	80.00- 120.00	100.00
3.032	3.032	(0.574)	56	170363			110.33- 170.33	142.02
43 Freon 113					CAS #: 76-13-1			
3.032	3.032	(0.574)	151	558862	48.0496	48.050	80.00- 120.00	100.00
3.032	3.032	(0.574)	153	357889			33.72- 93.72	64.04
3.032	3.032	(0.574)	101	669810			89.67- 149.67	119.85
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.074	3.074	(0.582)	96	320675	45.7741	45.774	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	205419			33.39- 93.39	64.06
3.060	3.074	(0.579)	61	608891			163.82- 223.82	189.88
47 Acetone					CAS #: 67-64-1			
3.214	3.213	(0.608)	58	182264	47.0884	47.088	80.00- 120.00	100.00
3.214	3.213	(0.608)	43	580286			299.66- 359.66	318.38
48 Carbon Disulfide					CAS #: 75-15-0			
3.298	3.297	(0.624)	76	862907	49.5071	49.507	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.270	3.269	(0.619)	142	871666	57.8336	57.834	80.00- 120.00	100.00
3.270	3.269	(0.619)	127	377131			14.58- 74.58	43.27
52 2-Propanol					CAS #: 67-63-0			
3.396	3.395	(0.643)	45	720407	51.7519	51.752	80.00- 120.00	100.00
3.396	3.395	(0.643)	43	130730			0.00- 48.61	18.15
54 3-Chloropropene					CAS #: 107-05-1			
3.535	3.535	(0.669)	76	140946	46.9689	46.969	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	498302			338.06- 398.06	353.54
57 Acetonitrile					CAS #: 75-05-8			
3.633	3.633	(0.688)	41	291218	47.7791	47.779	80.00- 120.00	100.00
3.633	3.633	(0.688)	40	154337			21.81- 81.81	53.00
3.633	3.633	(0.688)	38	35776			0.00- 41.86	12.28
59 Methylene Chloride					CAS #: 75-09-2			
3.717	3.717	(0.703)	49	441798	47.6921	47.692	80.00- 120.00	100.00
3.717	3.717	(0.703)	84	271820			30.77- 90.77	61.53
3.717	3.717	(0.703)	51	137904			1.39- 61.39	31.21



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
3.857	3.857	(0.730)	59	847744	48.5186	48.519	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	178217			0.00- 51.05	21.02
3.857	3.857	(0.730)	57	88570			0.00- 41.68	10.45
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
3.941	3.941	(0.746)	73	903456	47.9065	47.906	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	265771			0.00- 58.86	29.42
3.927	3.941	(0.743)	41	240075			0.00- 57.27	26.57
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
3.969	3.969	(0.751)	98	208277	44.1782	44.178	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	553514			244.59- 304.59	265.76
3.969	3.969	(0.751)	96	326683			129.84- 189.84	156.85
66 Acrylonitrile					CAS #: 107-13-1			
4.067	4.067	(0.770)	52	242318	42.8272	42.827	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	290915			88.50- 148.50	120.06
67 Hexane					CAS #: 110-54-3			
4.179	4.179	(0.791)	57	617136	48.2775	48.277	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	387908			32.99- 92.99	62.86
4.179	4.179	(0.791)	86	76914			0.00- 42.56	12.46
71 1,1-Dichloroethane					CAS #: 75-34-3			
4.459	4.459	(0.844)	63	617626	46.9813	46.981	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	187405			0.76- 60.76	30.34
72 Isopropyl ether					CAS #: 108-20-3			
4.445	4.445	(0.841)	45	1329420	49.2791	49.279	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	290396			0.00- 51.37	21.84
4.445	4.445	(0.841)	59	147222			0.00- 41.09	11.07
73 Vinyl Acetate					CAS #: 108-05-4			
4.501	4.501	(0.852)	86	80675	49.9148	49.915	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	1120059			1391.63-1451.63	1388.36
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
4.809	4.809	(0.910)	59	1275211	48.9632	48.963	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	426576			3.22- 63.22	33.45
4.809	4.809	(0.910)	41	228698			0.00- 48.12	17.93
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.005	5.004	(0.947)	77	590995	48.2566	48.256	80.00- 120.00	100.00
5.005	5.004	(0.947)	79	192709			2.00- 62.00	32.61
5.005	5.004	(0.947)	97	141275			0.00- 53.36	23.90

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene						CAS #: 156-59-2			
5.047	5.046	(0.955)	98	219389	46.9439	46.944	80.00- 120.00	100.00	
5.047	5.046	(0.955)	96	338814			127.22- 187.22	154.44	
5.047	5.046	(0.955)	61	695365			283.85- 343.85	316.96	
86 2-Butanone						CAS #: 78-93-3			
5.061	5.074	(0.958)	72	159453	48.8472	48.847	80.00- 120.00	100.00	
5.075	5.074	(0.960)	43	1698541			1055.75-1115.75	1065.23	
5.061	5.074	(0.958)	57	63424			10.59- 70.59	39.78	
87 Ethyl Acetate						CAS #: 141-78-6			
5.089	5.088	(0.963)	45	135429	50.3248	50.325	80.00- 120.00	100.00	
5.047	5.046	(0.955)	61	695365			450.31- 510.31	513.45	
5.089	5.088	(0.963)	70	82618			30.42- 90.42	61.00	
89 Tetrahydrofuran						CAS #: 109-99-9			
5.270	5.270	(0.997)	42	450175	48.9056	48.906	80.00- 120.00	100.00	
5.270	5.270	(0.997)	71	147888			2.92- 62.92	32.85	
5.270	5.270	(0.997)	72	150501			3.54- 63.54	33.43	
92 Chloroform						CAS #: 67-66-3			
5.340	5.340	(1.011)	83	682394	47.1495	47.149	80.00- 120.00	100.00	
5.340	5.340	(1.011)	85	443132			34.71- 94.71	64.94	
94 Cyclohexane						CAS #: 110-82-7			
5.438	5.438	(1.029)	84	426290	46.5989	46.599	80.00- 120.00	100.00	
5.438	5.438	(1.029)	56	637500			120.40- 180.40	149.55	
5.438	5.438	(1.029)	41	351146			54.20- 114.20	82.37	
96 1,1,1-Trichloroethane						CAS #: 71-55-6			
5.466	5.466	(1.034)	97	732951	45.0547	45.055	80.00- 120.00	100.00	
5.466	5.466	(1.034)	99	467751			33.76- 93.76	63.82	
97 Carbon Tetrachloride						CAS #: 56-23-5			
5.578	5.578	(1.056)	119	747752	49.9064	49.906	80.00- 120.00	100.00	
5.578	5.578	(1.056)	117	783754			73.68- 133.68	104.81	
99 1,1-Dichloropropene						CAS #: 563-58-6			
5.606	5.606	(0.907)	110	184273	48.7302	48.730	80.00- 120.00	100.00	
5.606	5.606	(0.907)	75	478848			231.09- 291.09	259.86	
101 2,2,4-Trimethylpentane						CAS #: 540-84-1			
5.774	5.774	(1.093)	57	1944713	48.6476	48.648	80.00- 120.00	100.00	
5.774	5.774	(1.093)	56	606500			1.12- 61.12	31.19	
5.774	5.774	(1.093)	41	525031			0.00- 57.49	27.00	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
5.788	5.788	(0.937)	78	923835	48.7211	48.721	80.00- 120.00	100.00
5.788	5.788	(0.937)	77	219980			0.00- 53.80	23.81
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
5.858	5.858	(0.948)	87	246941	48.8421	48.842	80.00- 120.00	100.00
5.858	5.858	(0.948)	73	988323			365.20- 425.20	400.23
5.858	5.858	(0.948)	55	292246			91.31- 151.31	118.35
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
5.886	5.886	(0.952)	62	514115	47.0940	47.094	80.00- 120.00	100.00
5.886	5.886	(0.952)	64	159770			1.20- 61.20	31.08
-----								
107 Heptane					CAS #: 142-82-5			
5.942	5.942	(0.962)	71	345477	46.2572	46.257	80.00- 120.00	100.00
5.942	5.942	(0.962)	43	714720			179.02- 239.02	206.88
5.942	5.942	(0.962)	57	389337			84.85- 144.85	112.70
-----								
110 n-Butanol					CAS #: 71-36-3			
6.348	6.348	(1.027)	56	362639	59.6668	59.667	80.00- 120.00	100.00
6.348	6.348	(1.027)	41	254365			40.21- 100.21	70.14
6.348	6.348	(1.027)	43	200559			25.00- 85.00	55.31
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.362	6.362	(1.029)	95	451180	47.4295	47.429	80.00- 120.00	100.00
6.362	6.362	(1.029)	130	479590			74.96- 134.96	106.30
6.362	6.362	(1.029)	97	293531			34.80- 94.80	65.06
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
6.586	6.586	(1.066)	63	177010	40.2725	40.272	80.00- 120.00	100.00
6.586	6.586	(1.066)	62	138474			52.03- 112.03	78.23
6.586	6.586	(1.066)	41	160835			79.97- 139.97	90.86
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
6.664	6.664	(0.773)	69	468768	61.9580	61.958	80.00- 120.00	100.00
6.664	6.664	(0.773)	41	579449			134.02- 194.02	123.61
6.664	6.664	(0.773)	100	141197			9.54- 69.54	30.12
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
6.700	6.699	(1.084)	88	233447	48.6009	48.601	80.00- 120.00	100.00
6.700	6.699	(1.084)	58	204594			55.80- 115.80	87.64
6.700	6.699	(1.084)	57	85755			8.68- 68.68	36.73
-----								
118 Dibromomethane					CAS #: 74-95-3			
6.721	6.721	(0.780)	174	410747	48.7473	48.747	80.00- 120.00	100.00
6.714	6.721	(0.779)	93	398942			67.27- 127.27	97.13

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL ( PPBV)	FINAL ( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
6.714	6.721	(0.779)	95	332955		50.92- 110.92	81.06	
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122 Bromodichloromethane CAS #: 75-27-4								
6.836	6.836	(1.106)	83	736581	46.2205	46.220 80.00- 120.00	100.00	
6.836	6.836	(1.106)	85	476785		34.31- 94.31	64.73	
-----								
126 cis-1,3-Dichloropropene CAS #: 10061-01-5								
7.208	7.208	(1.166)	75	584209	49.3222	49.322 80.00- 120.00	100.00	
7.208	7.208	(1.166)	77	186879		1.42- 61.42	31.99	
7.208	7.208	(1.166)	39	397058		38.56- 98.56	67.97	
-----								
127 Methylcyclohexane CAS #: 108-87-2								
6.460	6.460	(1.045)	83	581182	45.6885	45.688 80.00- 120.00	100.00	
6.460	6.460	(1.045)	98	267415		15.60- 75.60	46.01	
6.460	6.460	(1.045)	55	588990		78.53- 138.53	101.34	
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.316	7.316	(1.184)	58	375128	46.5771	46.577 80.00- 120.00	100.00	
7.316	7.316	(1.184)	43	987393		231.30- 291.30	263.21	
7.316	7.316	(1.184)	85	142840		8.94- 68.94	38.08	
-----								
137 Toluene CAS #: 108-88-3								
7.437	7.437	(1.203)	91	1211925	47.6336	47.634 80.00- 120.00	100.00	
7.437	7.437	(1.203)	92	705909		28.30- 88.30	58.25	
-----								
136 Octane CAS #: 111-65-9								
7.445	7.444	(1.205)	57	411162	48.5724	48.572 80.00- 120.00	100.00	
7.445	7.444	(1.205)	85	397266		67.11- 127.11	96.62	
7.445	7.444	(1.205)	43	993852		214.21- 274.21	241.72	
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
7.688	7.688	(0.892)	75	567866	49.0437	49.044 80.00- 120.00	100.00	
7.688	7.688	(0.892)	77	179211		2.15- 62.15	31.56	
7.688	7.688	(0.892)	39	362676		36.09- 96.09	63.87	
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
7.846	7.846	(0.910)	97	418129	46.9556	46.956 80.00- 120.00	100.00	
7.846	7.846	(0.910)	99	259959		31.62- 91.62	62.17	
7.846	7.846	(0.910)	83	364240		56.35- 116.35	87.11	
-----								
142 Tetrachloroethene CAS #: 127-18-4								
7.881	7.881	(0.914)	166	602834	48.9472	48.947 80.00- 120.00	100.00	
7.881	7.881	(0.914)	129	471766		48.71- 108.71	78.26	
7.881	7.881	(0.914)	131	456078		46.55- 106.55	75.66	
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone					CAS #: 591-78-6			
8.003	8.003	(0.929)	58	511144	49.9730	49.973	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	961960			157.91- 217.91	188.20
8.003	8.003	(0.929)	100	91824			0.00- 47.86	17.96
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144 1,3-Dichloropropane					CAS #: 142-28-9			
7.989	7.989	(1.293)	76	566994	46.7084	46.708	80.00- 120.00	100.00
7.989	7.989	(1.293)	41	641768			82.96- 142.96	113.19
7.989	7.989	(1.293)	78	186383			2.55- 62.55	32.87
-----					-----			
146 Dibromochloromethane					CAS #: 124-48-1			
8.154	8.154	(0.946)	129	846162	50.0883	50.088	80.00- 120.00	100.00
8.154	8.154	(0.946)	127	651984			47.77- 107.77	77.05
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148 1,2-Dibromoethane (EDB)					CAS #: 106-93-4			
8.268	8.268	(0.959)	107	678752	49.0832	49.083	80.00- 120.00	100.00
8.268	8.268	(0.959)	109	641952			64.60- 124.60	94.58
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151 1-Bromo-2-Chloroethane					CAS #: 107-04-0			
7.115	7.115	(1.151)	63	755211	49.1069	49.107	80.00- 120.00	100.00
7.115	7.115	(1.151)	65	231086			0.95- 60.95	30.60
7.122	7.122	(1.152)	144	79308			0.00- 40.45	10.50
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154 Chlorobenzene					CAS #: 108-90-7			
8.641	8.641	(1.002)	112	1023504	47.6349	47.635	80.00- 120.00	100.00
8.641	8.641	(1.002)	114	330682			2.13- 62.13	32.31
8.641	8.641	(1.002)	77	577849			26.35- 86.35	56.46
-----					-----			
155 Ethyl Benzene					CAS #: 100-41-4			
8.684	8.684	(1.007)	106	522969	48.6750	48.675	80.00- 120.00	100.00
8.684	8.684	(1.007)	91	1634715			282.48- 342.48	312.58
-----					-----			
156 Nonane					CAS #: 111-84-2			
8.705	8.705	(1.010)	43	1029711	49.4466	49.446	80.00- 120.00	100.00
8.705	8.705	(1.010)	57	930261			59.52- 119.52	90.34
8.705	8.705	(1.010)	85	309137			0.00- 59.76	30.02
-----					-----			
157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6			
8.712	8.712	(1.011)	131	506531	42.8350	42.835	80.00- 120.00	100.00
8.712	8.712	(1.011)	117	345244			38.22- 98.22	68.16
8.712	8.712	(1.011)	95	189031			7.54- 67.54	37.32
-----					-----			
158 m,p-Xylene					CAS #: 108-38-3			
8.784	8.784	(1.019)	106	656920	49.1467	49.147	80.00- 120.00	100.00
8.784	8.784	(1.019)	91	1321984			171.36- 231.36	201.24
-----					-----			

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene					CAS #: 95-47-6			
9.121	9.128	(1.058)	106	613695	48.3631	48.363	80.00- 120.00	100.00
9.121	9.128	(1.058)	91	1301162			179.99- 239.99	212.02
-----								
165 Styrene					CAS #: 100-42-5			
9.149	9.149	(1.061)	104	1061214	48.2705	48.270	80.00- 120.00	100.00
9.149	9.149	(1.061)	78	522635			19.09- 79.09	49.25
-----								
167 Bromoform					CAS #: 75-25-2			
9.350	9.350	(1.085)	173	806097	50.3223	50.322	80.00- 120.00	100.00
9.350	9.350	(1.085)	171	412227			21.45- 81.45	51.14
-----								
168 Cumene					CAS #: 98-82-8			
9.407	9.414	(1.091)	105	1900407	47.3689	47.369	80.00- 120.00	100.00
9.407	9.414	(1.091)	120	514504			0.00- 56.99	27.07
9.407	9.407	(1.091)	51	220885			0.00- 41.77	11.62
-----								
169 Cyclohexanone					CAS #: 108-94-1			
9.579	9.579	(1.111)	55	611030	48.3969	48.397	80.00- 120.00	100.00
9.579	9.579	(1.111)	98	236867			9.22- 69.22	38.77
9.579	9.579	(1.111)	42	437371			42.60- 102.60	71.58
-----								
175 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
9.737	9.737	(1.130)	83	936271	47.0699	47.070	80.00- 120.00	100.00
9.737	9.737	(1.130)	85	600808			34.35- 94.35	64.17
-----								
177 Bromobenzene					CAS #: 108-86-1			
9.737	9.729	(1.130)	156	607057	48.6747	48.675	80.00- 120.00	100.00
9.737	9.737	(1.130)	158	593292			67.29- 127.29	97.73
9.730	9.729	(1.129)	77	995300			132.41- 192.41	163.95
-----								
178 Propylbenzene					CAS #: 103-65-1			
9.758	9.758	(1.132)	91	2290878	48.9382	48.938	80.00- 120.00	100.00
9.758	9.758	(1.132)	120	541415			0.00- 53.77	23.63
9.758	9.758	(1.132)	105	86417			0.00- 33.81	3.77
-----								
179 1,2,3-Trichloropropane					CAS #: 96-18-4			
9.787	9.787	(1.135)	110	289933	48.3881	48.388	80.00- 120.00	100.00
9.787	9.787	(1.135)	75	1009679			285.00- 345.00	348.25
9.787	9.787	(1.135)	61	246266			54.06- 114.06	84.94
-----								
181 trans-1,4-Dichloro-2-butene					CAS #: 110-57-6			
9.787	9.787	(1.135)	53	315097	66.4580	66.458	80.00- 120.00	100.00(R)
9.787	9.787	(1.135)	89	163024			21.19- 81.19	51.74
9.787	9.787	(1.135)	75	1009679			372.45- 432.45	320.43
-----								

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane						CAS #: 124-18-5		
9.808	9.808	(1.138)	57	1197898	49.4898	49.490	80.00- 120.00	100.00
9.808	9.808	(1.138)	71	405230			4.13- 64.13	33.83
9.816	9.815	(1.139)	142	55996			0.00- 34.73	4.67
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.143)	120	585173	48.2264	48.226	80.00- 120.00	100.00
9.851	9.851	(1.143)	105	1911490			296.79- 356.79	326.65
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
9.873	9.873	(1.145)	126	476561	48.3366	48.337	80.00- 120.00	100.00
9.873	9.873	(1.145)	91	1735908			336.29- 396.29	364.26
9.873	9.873	(1.145)	65	325512			38.83- 98.83	68.30
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
9.901	9.901	(1.149)	120	799023	46.8837	46.884	80.00- 120.00	100.00
9.901	9.901	(1.149)	105	1648088			176.40- 236.40	206.26
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.102	10.102	(1.172)	118	855997	49.0416	49.042	80.00- 120.00	100.00
10.102	10.102	(1.172)	103	483742			26.64- 86.64	56.51
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
10.174	10.174	(1.180)	119	1502829	47.9258	47.926	80.00- 120.00	100.00
10.174	10.174	(1.180)	134	374135			0.00- 54.82	24.90
10.174	10.174	(1.180)	91	1013570			36.92- 96.92	67.44
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
10.224	10.224	(1.186)	105	1620169	48.2107	48.211	80.00- 120.00	100.00
10.224	10.224	(1.186)	120	750731			16.58- 76.58	46.34
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
10.360	10.360	(1.202)	134	485531	47.9377	47.938	80.00- 120.00	100.00
10.360	10.360	(1.202)	105	2338945			451.53- 511.53	481.73
10.360	10.353	(1.202)	91	369819			46.48- 106.48	76.17
-----								
194 p-Cymene						CAS #: 99-87-6		
10.467	10.467	(1.214)	119	2043204	48.1713	48.171	80.00- 120.00	100.00
10.475	10.467	(1.215)	134	548005			0.00- 56.79	26.82
10.467	10.467	(1.214)	91	490581			0.00- 54.04	24.01
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
10.517	10.517	(1.220)	146	1106363	48.4571	48.457	80.00- 120.00	100.00
10.517	10.517	(1.220)	148	703822			33.53- 93.53	63.62
10.517	10.517	(1.220)	111	455868			11.05- 71.05	41.20
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
10.596	10.596	(1.229)	146	1115809	47.4456	47.446	80.00- 120.00	100.00
10.596	10.596	(1.229)	148	716661			33.47- 93.47	64.23
10.596	10.596	(1.229)	111	449960			9.65- 69.65	40.33
-----								
199 alpha-Chlorotoluene					CAS #: 100-44-7			
10.711	10.711	(1.243)	91	1619916	50.0978	50.098	80.00- 120.00	100.00
10.711	10.711	(1.243)	126	353017			0.00- 52.04	21.79
-----								
201 Undecane					CAS #: 1120-21-4			
10.804	10.804	(1.253)	57	1303110	45.6864	45.686	80.00- 120.00	100.00
10.804	10.804	(1.253)	43	1118498			55.86- 115.86	85.83
-----								
202 Butylbenzene					CAS #: 104-51-8			
10.818	10.818	(1.255)	134	526009	47.8292	47.829	80.00- 120.00	100.00
10.818	10.818	(1.255)	91	1894116			331.99- 391.99	360.09
10.818	10.818	(1.255)	92	993791			161.01- 221.01	188.93
-----								
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
10.926	10.926	(1.268)	146	1049945	47.5881	47.588	80.00- 120.00	100.00
10.926	10.926	(1.268)	148	670191			33.23- 93.23	63.83
10.919	10.918	(1.267)	111	443537			12.36- 72.36	42.24
-----								
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
11.606	11.606	(1.347)	157	625255	48.8744	48.874	80.00- 120.00	100.00
11.599	11.599	(1.346)	75	554821			58.96- 118.96	88.74
11.606	11.606	(1.347)	155	488548			47.82- 107.82	78.14
-----								
207 Dodecane					CAS #: 112-40-3			
11.714	11.714	(1.359)	57	1020660	42.3179	42.318	80.00- 120.00	100.00
11.714	11.714	(1.359)	43	820544			50.85- 110.85	80.39
-----								
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
12.301	12.301	(1.427)	180	814851	51.9976	51.998	80.00- 120.00	100.00
12.301	12.301	(1.427)	182	773714			65.40- 125.40	94.95
-----								
215 Hexachlorobutadiene					CAS #: 87-68-3			
12.387	12.387	(1.437)	225	634879	53.6326	53.633	80.00- 120.00	100.00
12.387	12.387	(1.437)	223	401706			33.70- 93.70	63.27
-----								
216 Naphthalene					CAS #: 91-20-3			
12.559	12.552	(1.457)	128	213475	4.46106	4.461	80.00- 120.00	100.00
12.559	12.552	(1.457)	127	27510			0.00- 43.10	12.89
-----								
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
12.810	12.802	(1.486)	180	708948	49.4384	49.438	80.00- 120.00	100.00



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
12.810	12.802	(1.486)	182	672604			65.67- 125.67	94.87
12.810	12.802	(1.486)	145	253332			6.02- 66.02	35.73

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QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Report Date: 23-Jun-2021 11:20

## US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3062226.d  
 Lab Smp Id: ICV  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD

Calibration Date: 22-JUN-2021  
 Calibration Time: 23:12  
 Client Smp ID: ICV  
 Level: LOW  
 Sample Type: AIR

Method File: /chem/msd3.i/22JUN21.b/321q0622a.m

Misc Info: 50ppbv (200ppbv)

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	243405	146043	340767	230839	-5.16
108 1,4-Difluorobenze	874076	524446	1223706	830933	-4.94
153 Chlorobenzene-d5	831223	498734	1163712	786155	-5.42

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.62	8.29	8.95	8.62	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 22JUN21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: ICV Client Smp ID: ICV  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: ICV  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AT20LCS\_new.sub  
 Method File: /chem/msd3.i/22JUN21.b/321q0622a.m  
 Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	50.367	100.73	70-130
5 Propylene	50.000	47.606	95.21	70-130
7 1,1-Difluoroethan	50.000	49.912	99.82	70-130
8 Freon 12	50.000	46.416	92.83	70-130
9 Chlorodifluoromet	50.000	41.762	83.53	70-130
10 Freon 114	50.000	49.168	98.34	70-130
12 Isobutane	50.000	48.574	97.15	70-130
15 Chloromethane	50.000	45.401	90.80	70-130
18 Butane	50.000	40.046	80.09	70-130
19 Vinyl Chloride	50.000	41.404	82.81	70-130
20 1,3-Butadiene	50.000	40.185	80.37	70-130
24 Bromomethane	50.000	46.174	92.35	70-130
30 Chloroethane	50.000	48.772	97.55	70-130
31 Isopentane	50.000	48.087	96.17	70-130
32 Vinyl Bromide	50.000	47.882	95.76	70-130
33 Freon 11	50.000	47.135	94.27	70-130
34 Dichlorofluoromet	50.000	49.179	98.36	70-130
35 Pentane	50.000	46.537	93.07	70-130
38 Ethyl Ether	50.000	48.481	96.96	70-130
39 Ethanol	58.000	46.986	81.01	70-130
42 Acrolein	58.000	52.518	90.55	70-130
43 Freon 113	50.000	48.050	96.10	70-130
44 1,1-Dichloroethen	50.000	45.774	91.55	70-130
47 Acetone	50.000	47.088	94.18	70-130
48 Carbon Disulfide	50.000	49.507	99.01	70-130
49 Iodomethane	50.000	57.834	115.67	70-130
52 2-Propanol	50.000	51.752	103.50	70-130
54 3-Chloropropene	50.000	46.969	93.94	70-130
57 Acetonitrile	50.000	47.779	95.56	70-130
59 Methylene Chlorid	50.000	47.692	95.38	70-130
62 tert-Butyl alcoho	50.000	48.519	97.04	70-130
63 Methyl tert-butyl	50.000	47.906	95.81	70-130
64 trans-1,2-Dichlor	50.000	44.178	88.36	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	42.827	85.65	70-130
67 Hexane	50.000	48.277	96.55	70-130
71 1,1-Dichloroethan	50.000	46.981	93.96	70-130
72 Isopropyl ether	50.000	49.279	98.56	70-130
73 Vinyl Acetate	50.000	49.915	99.83	70-130
79 Ethyl-tert-butyl	50.000	48.963	97.93	70-130
84 2,2-Dichloropropa	50.000	48.256	96.51	70-130
85 cis-1,2-Dichloroe	50.000	46.944	93.89	70-130
86 2-Butanone	50.000	48.847	97.69	70-130
87 Ethyl Acetate	50.000	50.325	100.65	70-130
89 Tetrahydrofuran	50.000	48.906	97.81	70-130
92 Chloroform	50.000	47.149	94.30	70-130
94 Cyclohexane	50.000	46.599	93.20	70-130
96 1,1,1-Trichloroet	50.000	45.055	90.11	70-130
99 1,1-Dichloroprop	50.000	48.730	97.46	70-130
97 Carbon Tetrachlor	50.000	49.906	99.81	70-130
101 2,2,4-Trimethylpe	50.000	48.648	97.30	70-130
102 Benzene	50.000	48.721	97.44	70-130
105 tert-Amyl methyl	50.000	48.842	97.68	70-130
106 1,2-Dichloroethan	50.000	47.094	94.19	70-130
107 Heptane	50.000	46.257	92.51	70-130
110 n-Butanol	50.000	59.667	119.33	70-130
111 Trichloroethene	50.000	47.429	94.86	70-130
118 Dibromomethane	50.000	48.747	97.49	70-130
127 Methylcyclohexane	50.000	45.688	91.38	70-130
114 1,2-Dichloropropa	50.000	40.272	80.55	70-130
116 Methyl Methacryla	50.000	61.958	123.92	70-130
117 1,4-Dioxane	50.000	48.601	97.20	70-130
122 Bromodichlorometh	50.000	46.220	92.44	70-130
126 cis-1,3-Dichlorop	50.000	49.322	98.64	70-130
131 4-Methyl-2-pentan	50.000	46.577	93.15	70-130
136 Octane	50.000	48.572	97.14	70-130
137 Toluene	50.000	47.634	95.27	70-130
139 trans-1,3-Dichlor	50.000	49.044	98.09	70-130
141 1,1,2-Trichloroet	50.000	46.956	93.91	70-130
142 Tetrachloroethene	50.000	48.947	97.89	70-130
143 2-Hexanone	50.000	49.973	99.95	70-130
144 1,3-Dichloropropa	50.000	46.708	93.42	70-130
146 Dibromochlorometh	50.000	50.088	100.18	70-130
148 1,2-Dibromoethane	50.000	49.083	98.17	70-130
151 1-Bromo-2-Chloroe	50.000	49.107	98.21	70-130
154 Chlorobenzene	50.000	47.635	95.27	70-130
155 Ethyl Benzene	50.000	48.675	97.35	70-130
156 Nonane	50.000	49.446	98.89	70-130
157 1,1,1,2-Tetrachlo	50.000	42.835	85.67	70-130
158 m,p-Xylene	50.000	49.147	98.29	70-130
164 o-Xylene	50.000	48.363	96.73	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	48.270	96.54	70-130
167 Bromoform	50.000	50.322	100.64	70-130
168 Cumene	50.000	47.369	94.74	70-130
169 Cyclohexanone	50.000	48.397	96.79	70-130
175 1,1,2,2-Tetrachlo	50.000	47.070	94.14	70-130
177 Bromobenzene	50.000	48.675	97.35	70-130
178 Propylbenzene	50.000	48.938	97.88	70-130
179 1,2,3-Trichloropr	50.000	48.388	96.78	70-130
181 trans-1,4-Dichlor	50.000	66.458	132.92*	70-130
182 Decane	50.000	49.490	98.98	70-130
183 4-Ethyltoluene	50.000	48.226	96.45	70-130
184 2-Chlorotoluene	50.000	48.337	96.67	70-130
185 1,3,5-Trimethylbe	50.000	46.884	93.77	70-130
188 alpha Methyl Styr	50.000	49.042	98.08	70-130
189 tert-Butylbenzene	50.000	47.926	95.85	70-130
190 1,2,4-Trimethylbe	50.000	48.211	96.42	70-130
192 sec-Butylbenzene	50.000	47.938	95.88	70-130
194 p-Cymene	50.000	48.171	96.34	70-130
195 1,3-Dichlorobenze	50.000	48.457	96.91	70-130
196 1,4-Dichlorobenze	50.000	47.446	94.89	70-130
199 alpha-Chlorotolue	50.000	50.098	100.20	70-130
201 Undecane	50.000	45.686	91.37	70-130
202 Butylbenzene	50.000	47.829	95.66	70-130
204 1,2-Dichlorobenze	50.000	47.588	95.18	70-130
206 1,2-Dibromo-3-chl	50.000	48.874	97.75	70-130
207 Dodecane	50.000	42.318	84.64	70-130
213 1,2,4-Trichlorobe	58.000	51.998	89.65	70-130
215 Hexachlorobutadie	58.000	53.633	92.47	70-130
216 Naphthalene	5.800	4.461	76.91	60-140
222 1,2,3-Trichlorobe	58.000	49.438	85.24	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.239	96.96	70-130
\$ 134 Toluene-d8	25.000	24.806	99.23	70-130
\$ 170 4-Bromofluorobenz	25.000	24.753	99.01	70-130

Date : 23-JUN-2021 09:45

Client ID: ICV

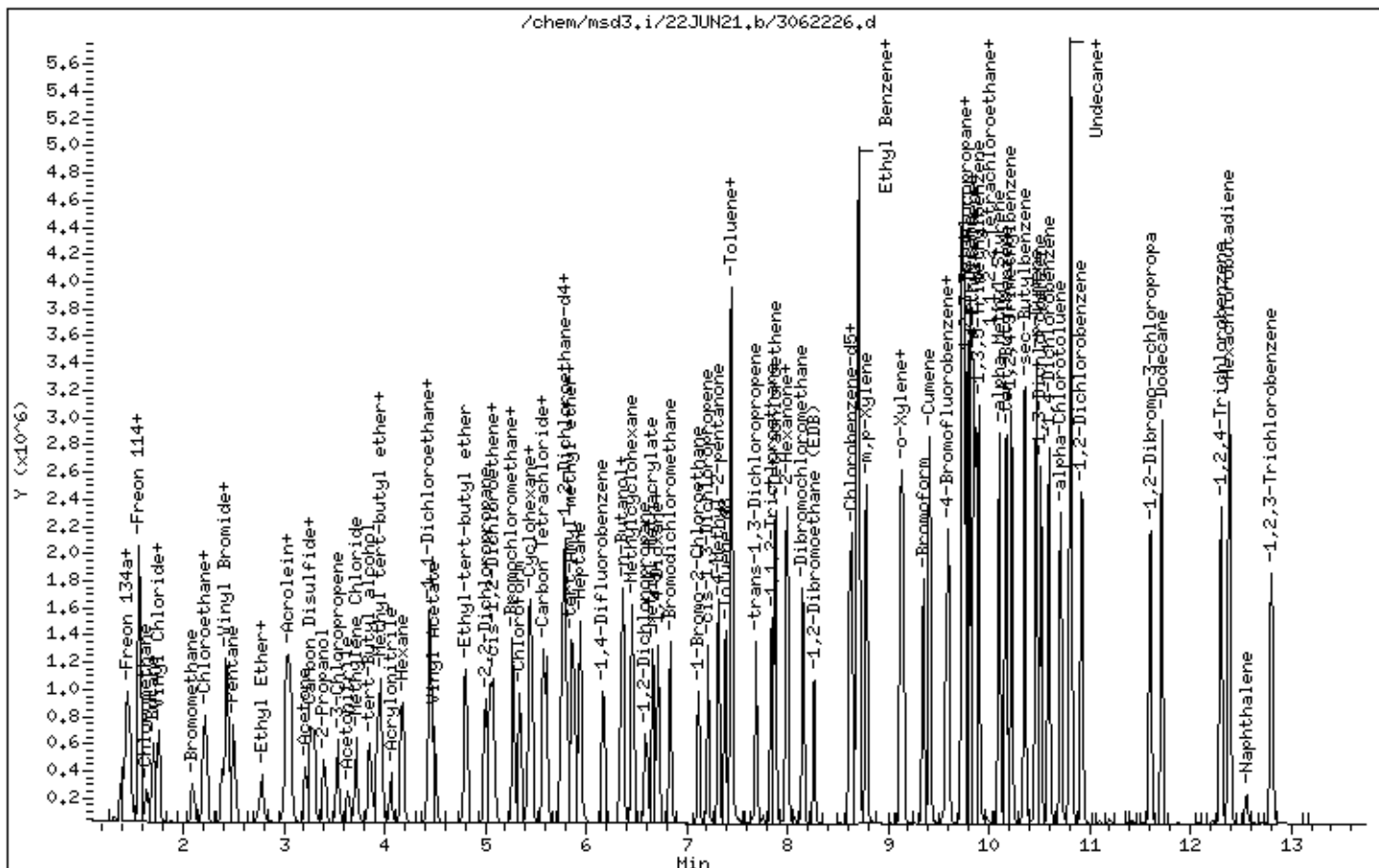
Instrument: msd3,i

Sample Info: 50mL 3018-2121

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



### MSD-3 MDL Case Narrative

A Method Detection Limit Study for TO-15 method was performed on 05/03/21, 05/04/24, and 05/05/21, 06/01/21, 06/02/22, 06/03/21, 06/04/21, 06/07/21 and 06/08/21.

#### **The MDL spikes were performed at:**

- 0.3 ppbv (5.0ppbv->0.3ppbv); spike load of 12mL of standard #3018-2045
- 0.4 ppbv (5.0ppbv->0.4ppbv); spike load of 16mL of standard #3018-2045
- 0.8 ppbv (5.0ppbv->0.8ppbv); spike load of 32ml of standard #3018-2045 and #3018-1973
- 2.0 ppbv (5.0ppbv->2.0ppbv); spike load of 80ml of standard #3018-2045 and #3018-1973

#### **The MDL verifications were analyzed on 6/15/21:**

- 3061507: (0.3ppbv spike compounds). 5.0ppbv->0.25ppbv; spike load of 10ml of standard #3018-1973
- 3061508: (0.4ppbv spike compounds). 5.0ppbv->0.30ppbv; spike load of 12ml of standard #3018-1973
- 3061509: (0.8ppbv RL compounds). 5.0ppbv->0.50ppbv; spike load of 20ml of standard #3018-1973
- 3061510: (2.0 ppbv RL compounds). 5.0ppbv->1.25ppbv; spike load of 50ml of standard #3018-1973
- 3061510a (Naph only). 5.0ppbv->0.125ppbv; spike load of 50ml of standard #3018-1973

#### **Notes:**

##### **1) The MDL values for the following compounds were taken from the MDL blank:**

- Toluene (0.12097ppbv)
- Tetrachloroethane (0.08847ppbv)
- m-p-Xylene (0.27315ppbv)
- o-Xylene (0.13368ppbv)
- 4-Ethyltoluene (0.12694ppbv)
- 1,3,5-Trimethylbenzene (0.07763ppbv)
- 1,2,4-Trimethylbenzene (0.18507ppbv)
- Acetone (0.35944ppbv)
- Carbon Disulfide (0.46909ppbv)

2) Dodecane mean recovered concentration and MDL ratio <1.

3) MDL verification for Naphthalene was less than 2-4X the MDL value.

4) The concentrations for Dodecane, 1,2,4-TCB, Hexachlorobutadiene, 1,2,3-TCB, and Naphthalene were adjusted in the MDL spikes due to the certified concentration exceeding more than 15% of the nominal concentration.

## **MDL expires 6/08/22**

01JUN21: D:\4ppbv-md1.rp

MSD-3T015 Quad MDL

Standard 3018-2045

Report Date : 04-Jun-2021 15:53

Page 1

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

16 ml load volume

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.1

Spike concentration  
0.4ppbv

ID	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
FILENAME:	3060109	3060110	3060111	3060209	3060210	3060211	3060312	3060313	3060314	3060313	3060314	3060314
INJ DATE:	01-JUN-2021	01-JUN-2021	01-JUN-2021	02-JUN-2021	02-JUN-2021	02-JUN-2021	03-JUN-2021	03-JUN-2021	03-JUN-2021	03-JUN-2021	03-JUN-2021	03-JUN-2021
INJ TIME:	14:01	14:29	14:56	14:10	14:38	15:05	16:50	17:18	17:45	17:45	17:45	17:45

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	454.29	450.99	459.72	449.89	450.96	521.90	520.12	437.40	476.88	469.13	31.20	90.37
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	470.39	474.93	474.26	523.77	487.91	489.27	456.20	442.84	499.62	479.91	23.84	69.05
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_ Date: 6/16/21  
 Reviewer 2 \_\_\_\_\_

MDL verification  
 Ratio of the mean  
 recovered concentration  
 and MDL values is

$\bar{X} = 90.78$   
 $2\bar{X} = 181.56$   
 $3\bar{X} = 272.34$   
 $4\bar{X} = 363.12$

Standard # 3018-1973 (5.0ppbv) between 1-20.  
 12 ml volume file # 3061508  
 spike concentration 0.300bv



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDI01	MDI02	MDI03	MDI04	MDI05	MDI06	MDI07	MDI08	MDI09	AVG CONC	STD DEV	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	520.09	567.60	562.12	528.99	641.59	506.36	653.03	614.57	703.97	588.70	68.09	197.20
20 1,3-Butadiene	538.14	632.50	627.40	629.38	532.48	659.05	526.06	637.99	669.42	605.83	56.97	164.99
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Freon 11	467.18	475.49	444.90	493.51	456.60	484.61	495.38	482.36	507.43	478.61	19.83	57.42
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PP1V RL 5 PRL

500 400  
500 400

500 400

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	438.251	36.011	104.271
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
43 Freon 113	490.98	485.04	500.151	532.821	449.701	514.811	533.101	480.821	478.981	496.271	27.181	18.721
44 1,1-Dichloroethene	471.231	417.051	403.581	502.551	401.291	415.871	413.261	466.251	453.201	438.251	36.011	104.271
45 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
61 1,2-Dichloro-1-Fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721
63 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	496.271	27.181	18.721

PRTV RL

SPL

500  
500

400  
800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
64 trans-1,2-Dichloroethel	434.58	437.36	418.44	594.77	392.87	379.26	366.41	352.78	407.49	420.44	71.59	207.331
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	460.96	500.76	523.53	501.36	329.25	401.49	385.40	412.03	485.66	444.49	65.47	189.58
67 Hexane	397.44	390.85	381.15	396.45	393.83	395.15	352.61	358.99	301.22	374.19	32.03	92.77
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 cis-1,2-Dichloroethene	406.23	339.12	394.79	410.43	459.76	386.12	407.07	400.11	391.34	399.44	31.16	90.23
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV RL  
SPL

500  
2000  
500  
800

500  
400

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	392.281	308.181	375.811	351.301	382.021	278.791	368.881	354.691	374.961	354.101	37.341	108.121
* 90 Bromochloromethane	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	0.001	0.001
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	421.161	433.621	432.471	402.301	353.961	357.571	385.821	409.641	331.391	391.991	37.051	107.301
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	441.861	416.571	401.451	496.611	437.541	450.661	466.791	463.291	457.401	448.021	28.171	81.571
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	366.021	354.981	374.911	364.341	345.241	369.911	351.321	336.421	342.331	356.161	13.371	38.721
102 Benzene	384.251	373.461	379.771	375.641	382.391	357.761	403.131	391.891	370.251	379.841	13.001	37.641
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
104 1,2-Dichloroethane-d4	126012.801	124530.931	125455.221	126543.261	127108.491	126931.371	127307.041	127270.321	127019.491	126464.321	953.121	2760.231
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 1,2-Dichloroethane	446.361	440.551	473.991	465.841	483.481	500.971	507.751	551.391	507.501	486.431	34.691	100.461
107 Heptane	324.961	372.591	369.771	307.081	314.821	300.271	322.251	312.991	378.201	333.661	30.851	89.341
* 108 1,4-Difluorobenzene	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	0.001	0.001
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

OPTV PL SPRL

500 800  
500 800  
500 400

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
111 Trichloroethene	432.98	412.78	434.49	426.79	398.78	467.28	457.60	449.98	423.39	433.78	21.72	62.9
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	424.16	543.68	543.45	628.55	524.98	560.69	610.59	571.80	548.48	550.71	58.07	168.16
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Dibromomethane	446.54	507.68	505.31	536.64	539.78	466.69	488.20	467.21	461.00	491.00	33.52	97.07
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	390.26	427.63	436.33	364.46	404.43	422.02	431.56	402.29	441.35	413.37	25.12	72.73
127 Methylcyclohexane	417.04	384.70	372.53	399.47	414.30	328.78	407.36	381.08	343.60	383.21	30.84	89.33
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	413.22	394.54	380.31	389.13	424.63	366.34	345.26	397.08	356.29	385.20	25.97	75.20
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	124812.98	125037.79	124745.78	124544.93	125002.36	124499.33	125124.77	125292.63	125011.02	124896.84	265.60	769.17

PRTV BL SPL MDL Blank

500 400  
500 400  
2000 400  
500 400  
80.81

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	377.73	417.60	441.05	395.95	398.25	394.68	417.99	394.54	399.15	404.11	18.51	53.61
137 Toluene	429.11	406.62	421.60	411.51	455.86	399.72	402.79	379.76	426.55	414.84	21.66	62.72
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloroprop	396.13	376.83	443.62	416.16	438.65	440.75	424.09	396.52	433.45	418.47	23.75	68.78
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	407.47	393.54	461.94	440.32	433.21	437.85	458.30	451.48	414.88	433.22	23.54	68.11
142 Tetrachloroethene	477.52	458.32	462.79	462.43	455.71	485.11	442.27	451.47	408.16	455.97	22.08	63.95
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	458.56	380.29	433.12	408.65	450.25	410.65	424.12	460.15	431.47	428.58	26.14	75.60
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	440.26	428.71	428.43	472.03	460.96	428.50	419.84	468.80	486.20	448.19	24.04	69.63
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (BDB)	417.98	426.05	414.82	421.18	435.58	444.67	448.51	411.32	408.04	425.35	14.55	42.14
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	0.00	0.00
154 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Ethyl Benzene	364.58	412.70	432.65	359.94	359.32	405.37	382.39	428.89	405.19	394.56	28.89	83.66
156 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	375.42	350.56	433.73	402.14	412.55	398.21	362.11	362.61	368.10	385.05	27.82	80.56

PPTV PL

SPL

MDL Blank

500 800 273,15

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	360.391	357.641	385.951	366.631	386.161	380.271	370.401	340.521	352.461	366.711	15.641	45.301
165 Styrene	364.411	347.641	373.591	377.481	380.051	357.021	333.961	350.601	321.001	356.201	20.091	58.191
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	426.941	444.591	437.911	458.931	427.021	434.011	459.301	458.581	464.411	445.741	14.901	43.141
168 Cumene	378.241	397.471	397.211	383.061	374.091	375.051	349.861	337.741	344.121	370.761	22.041	63.841
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromofluorobenzene	26228.511	26286.571	26715.371	26196.731	26575.591	26324.981	26555.741	26222.001	26548.371	26405.981	192.721	558.131
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	411.221	443.641	429.401	426.371	424.841	397.721	422.711	437.171	422.961	424.001	13.471	69.001
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	415.181	403.901	410.251	417.371	402.471	409.141	387.221	403.401	417.911	407.431	9.631	27.881
179 1,2,3-Trichloropropane	353.671	411.551	459.651	457.831	494.331	423.201	519.481	502.451	418.171	448.931	52.651	152.481
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV RL SPRL MDL Blank

133.6

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
183 4-Ethyltoluene	416.23	451.66	409.49	400.58	423.84	452.96	393.29	403.12	379.99	414.57	24.85	71.96
184 2-Chlorotoluene	399.81	443.34	404.82	459.95	412.16	455.86	417.43	432.16	434.47	428.89	21.74	62.95
185 1,3,5-Trimethylbenzene	386.43	396.74	425.00	409.73	396.70	401.73	440.80	357.16	387.96	400.25	23.91	69.24
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	368.66	361.27	347.68	364.57	378.24	362.63	327.92	352.95	373.95	359.76	15.26	44.18
189 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	371.01	404.88	382.39	386.33	381.42	368.31	349.08	354.63	367.82	373.98	16.98	49.18
191 Perchloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	374.76	355.04	391.28	426.93	393.20	338.76	390.14	364.61	386.77	380.17	25.60	74.12
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	395.01	369.71	354.29	381.01	387.47	358.95	362.91	369.07	330.28	367.63	19.36	56.08
195 1,3-Dichlorobenzene	420.15	448.97	452.39	479.41	459.18	441.28	450.12	496.82	465.52	457.09	22.09	63.92
196 1,4-Dichlorobenzene	436.69	444.02	449.75	444.21	448.35	427.96	448.94	422.21	457.05	442.13	11.18	32.39
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	387.37	418.08	392.75	402.39	415.91	404.49	414.03	404.91	376.73	401.85	13.92	40.31
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	377.98	409.21	399.32	376.58	371.53	391.53	321.56	388.79	377.51	379.33	24.85	71.97
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	459.79	458.84	436.36	432.09	432.68	452.83	459.30	470.11	467.48	452.16	14.76	42.75
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV PL SPRL MDL Blank



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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
206 1,2-Dibromo-3-chloropri	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

01JUN21: 0.3 ppbv -mdl.rp

MSD3 TO15 Quad MDL

Standard 3018-2045

Report Date : 04-Jun-2021 14:34

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Page 1  
12 mL vial volume

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.1

Spike concentration  
0.3 ppbv

ID	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09
FILENAME:	3060106	3060107	3060108	3060206	3060207	3060208	3060309	3060310	3060311
INJ. DATE:	01-JUN-2021	01-JUN-2021	01-JUN-2021	02-JUN-2021	02-JUN-2021	02-JUN-2021	03-JUN-2021	03-JUN-2021	03-JUN-2021
INJ. TIME:	12:41	13:07	13:34	12:50	13:16	13:42	15:30	15:56	16:22

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_  
Date: \_\_\_\_\_  
Date: 6/16/21

Ratio of the mean

recovered concentration

and MDL value

MDL verification  
Standard # 3018-1973 (5.0 ppbv) is between

10ml volume file # 3061507  
1-20,

$\bar{X} = 64.88$

$2\bar{X} = 129.76$

$3\bar{X} = 194.64$

$\sqrt{\bar{X}} = 259.52$

spike concentration 0.3 ppbv

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-Fluoroel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
64 trans-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	280.63	334.31	330.881	297.771	269.251	303.071	316.301	316.381	326.081	308.301	22.531	65.241
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 cis-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPV RL  
SPRL  
500  
300

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 90 Bromochloromethane	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	332.421	287.991	325.031	322.591	329.861	365.621	317.231	340.281	326.411	327.491	20.451	59.211
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	376.391	307.031	323.451	312.861	337.841	322.481	318.641	338.311	316.451	328.161	20.871	60.451
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	24732.82 24483.61 25193.83 26660.74 26303.99 26435.23 27396.85 27274.45 26821.81 26144.82	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1080.251	3128.411
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 108 1,4-Difluorobenzene	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	0.001	0.001
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ppm RL SPR2

59.21 500 300  
60.45 500 300



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	331.20	340.69	267.31	336.16	334.24	360.49	378.74	377.83	341.91	340.95	33.09	95.82
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetoneitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	125052.44	125009.73	124504.59	124843.88	125083.33	124789.81	125111.34	125186.81	125305.54	124987.50	240.58	696.71

PPTV RL SPR

500 300

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloropropyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
154 Chlorobenzene	334.43	330.38	345.54	321.64	328.85	348.25	311.55	354.66	354.62	336.66	15.09	43.69
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,1,1,2-Tetrachloroethyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV PL

SPRL

500

300

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis (chloromethyl) Ethel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromofluorobenzene	126639.07126542.32126711.43126659.23126349.17126729.05126446.99126674.80126523.06126586.12									129.201	374.171	
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Heptan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Hel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref DI	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

04JUN21: 0.8ppbv - mdl.vp.

Report Date : 15-Jun-2021 11:33

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

ID	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI
FILENAME:	3060406	3060407	3060408	3060707	3060708	3060709	3060808	3060809	3060810		
INJ. DATE:	04-JUN-2021	04-JUN-2021	04-JUN-2021	07-JUN-2021	07-JUN-2021	07-JUN-2021	08-JUN-2021	08-JUN-2021	08-JUN-2021		
INJ. TIME:	13:05	13:31	13:58	13:00	13:27	13:53	14:43	15:09	15:36		

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	1020.23	880.17	1137.26	943.95	891.36	853.33	1032.03	892.71	1006.14	961.91	93.26
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	1361.40	1219.84	962.01	1224.96	1173.73	979.39	1194.48	1247.62	1008.83	1152.47	137.65
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	878.19	794.03	684.12	845.10	813.74	808.70	782.30	774.87	774.82	795.10	53.90
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1  
Reviewer 2

Date: 6/16/21  
Date: 6/17/21

$\bar{X} = 181.36$   
 $2\bar{X} = 362.73$   
 $3\bar{X} = 544.08$   
 $4\bar{X} = 725.44$

MPL verification  
Standard # 3018-1973 (5.0 ppbv)  
20ml Naure File # 3061509  
spike concentration 0.50 ppbv

Ratio of the mean recovered concentration and MDL value is between 1-20 minus Dodecane.

MSD-3 TO15 based MDL Standards 3018-2045  
3018-1973

32ml total volume  
Spike concentration

ppbv pl  
sppl  
Naph a<sup>1</sup>



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	783.68	843.96	823.06	874.54	969.30	862.75	804.65	796.67	834.38	843.67	55.83	161.70
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Dichlorofluoromethane	905.08	894.83	906.95	913.77	843.49	898.09	850.30	875.24	837.60	880.59	29.74	86.12
35 Pentane	740.14	744.53	796.56	870.47	692.97	855.75	768.27	787.27	794.77	783.42	55.81	161.84
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	803.87	833.64	752.75	1085.11	920.17	831.38	749.95	878.33	685.15	837.82	116.75	338.12
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	901.59	898.26	821.32	851.78	966.60	747.03	805.43	779.77	900.80	852.51	70.23	203.39
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-Fluoroel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethel	778.85	724.05	719.70	833.74	759.76	807.87	747.85	783.09	830.76	776.18	42.32	122.57

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.1/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.1/04JUN21.b  
Inst ID: msd3.1

PPTV PL SPRV

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEV	MDL
64 trans-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	871.58	818.11	897.42	892.83	834.53	857.33	830.86	860.00	863.58	858.47	27.07	78.43
85 cis-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL		
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
* 90 Bromochloromethane	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
99 1,1-Dichloropropene	899.88	905.84	829.55	980.05	897.19	789.24	789.83	884.79	788.68	862.78	67.06	194.21		
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
\$ 104 1,2-Dichloroethane-d4	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47	127490.57 126926.33 127656.30 127169.14 126370.11 126940.63 126165.27 126835.14 127387.76 126993.47
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
* 108 1,4-Difluorobenzene	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

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PTV PL SPRL

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	655.66	687.48	633.20	608.87	671.67	722.86	704.74	698.78	655.65	670.99	36.45	665.57
117 1,4-Dioxane	772.62	846.73	843.41	798.64	795.20	863.42	854.90	857.64	796.94	825.50	34.20	99.05
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	124688.19	125025.38	124938.39	125296.89	125010.04	125129.01	124732.71	124853.10	124734.30	124934.22	203.48	589.28

PPTV PL SPRL

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
154 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	768.89	759.40	673.44	706.68	690.61	692.59	714.72	748.57	723.94	719.87	33.10	95.85
157 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PTV PL SPR

2000 800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis(chloromethyl) Ethel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 Cyclohexanone	717.421	667.631	709.261	677.521	710.731	716.141	753.631	864.921	825.561	738.091	66.241	191.82
170 4-Bromofluorobenzene	126725.291	126946.131	126904.461	126509.831	126650.791	126586.991	126867.071	126857.171	126525.591	126730.371	169.231	490.091
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	836.901	856.611	830.421	879.251	816.641	875.301	838.051	875.701	897.361	856.251	27.161	98.671
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	810.421	662.401	714.501	617.171	597.391	694.131	795.481	717.511	707.981	701.881	71.321	306.551
182 Decane	881.511	765.941	920.421	810.181	785.491	795.671	690.771	760.671	748.961	795.511	69.411	201.011

PPTV PL SPPL

2000 800

2000 800

2000 800  
2000 800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 tert-Butylbenzene	794.34	808.051	771.831	740.781	800.671	812.761	806.771	826.591	806.851	796.511	25.621	74.20
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	477.931	619.001	628.301	482.521	641.521	659.511	448.671	644.951	677.961	586.711	89.821	260.11
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

RTV PL

SPL

MP  
Blank

2000

800

2000

800

94.31  
127.04  
up 6/11/2



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	140.321	409.601	509.311	198.461	454.371	517.471	291.671	482.121	574.241	397.511	152.331	441.141
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	36.661	67.501	84.441	37.011	70.861	89.411	46.821	88.211	90.791	67.971	22.521	65.211
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

RL SPRL MDRBkm

2000 800 42,10

1000 800 55, 32, 20

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEV	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Hel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref DI	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

04JUN21:2.0ppbv-mdl.rp

MSD-3 TOLS Quad MDL Standards 3018-2045

Report Date : 15-Jun-2021 11:51

Page 1 3018 - 1973

US32TARI METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

80 ml load volume  
Spike concentration  
2.0ppbv

ID	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	MDL10	MDL11
FILENAME:	3060409	3060410	3060411	3060710	3060711	3060712	3060811	3060812	3060813	3060812	3060813
INJ. DATE:	04-JUN-2021	04-JUN-2021	04-JUN-2021	07-JUN-2021	07-JUN-2021	07-JUN-2021	08-JUN-2021	08-JUN-2021	08-JUN-2021	08-JUN-2021	08-JUN-2021
INJ. TIME:	14:24	14:51	15:18	14:20	14:47	15:14	16:03	16:30	16:57	16:57	16:57

PPTV RL SPRL

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 133a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	1895.271	1886.721	2016.751	2124.371	2008.501	2054.541	2262.161	1965.021	1844.811	2006.461	130.511	377.951
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	1772.531	1771.551	2123.151	1910.861	1785.641	1982.541	1961.371	1901.371	2087.221	1921.801	130.911	379.111
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	2446.431	2396.331	2229.581	2457.741	2520.191	2184.141	1960.471	2164.841	2410.411	2307.791	182.911	529.721
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

2000 2000

5000 5000

Reviewer 1 \_\_\_\_\_ Date: 6/17/21  
Reviewer 2 \_\_\_\_\_

MDL Verification

Ratio of the mean recovered concentration

2X = 711.04 Standard # 3018 - 1973 (5.0ppbv)

3X = 1066.56 50 ml volume file # 3061510 and MDL value is between 1-20,

4X = 1422.08 Spike concentration 1.25ppbv

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
18 Butane	3183.451	2279.061	3026.361	2558.651	3212.021	2317.471	2489.831	2920.021	2728.771	2746.181	357.091	1034.131
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	224.221
24 Bromomethane	2395.511	2439.941	2380.811	2531.051	2511.351	2478.221	2328.681	2332.321	2346.021	2415.991	77.421	224.221
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	403.201
30 Chloroethane	1880.591	1938.871	2234.461	2059.511	2192.551	1963.371	2222.991	1965.711	1925.321	2042.601	139.231	2000
31 Isopentane	1900.931	1823.401	1959.411	1734.971	1927.371	1869.931	1974.601	2015.101	1844.441	1894.461	86.541	250.611
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
39 Ethanol	2224.571	2056.441	2095.671	2045.091	1935.111	2001.721	1584.641	1981.081	1778.211	1966.951	187.501	243.011

PPTV PL SPRL

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL	
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	2183.921	2172.731	1737.461	1732.351	1757.321	1896.961	1777.441	1555.181	1856.451	1852.201	207.711	601.531	2000 2000
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	2147.221	2237.761	2296.681	2131.301	2222.891	2159.671	2322.431	2173.111	2217.201	2212.031	66.271	191.921	5000 5000
48 Carbon Disulfide	1934.241	1985.161	2039.491	2049.091	2040.181	2100.171	2073.161	2126.951	1990.511	2037.661	60.161	174.231	2000 2000
49 Iodomethane	1589.111	1635.171	1581.921	1587.371	1613.221	1691.751	1811.641	1803.181	1757.051	1674.491	94.361	273.271	2000 2000
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	1794.361	1822.541	1711.421	1791.571	1797.781	1796.451	1798.991	1857.551	1717.831	1787.611	46.311	134.121	2000 2000
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	2218.441	1733.461	1851.281	2534.211	2300.441	2012.331	1876.981	2324.731	2139.381	2110.141	261.611	157.621	2000 2000
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	2074.201	1893.471	1964.981	1963.631	1866.351	2124.241	1845.831	1971.891	1853.781	1950.931	98.091	284.071	5000 5000
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	1956.211	1860.611	2011.151	1914.121	2020.151	1968.711	2013.421	1901.201	1866.051	1945.741	62.861	182.051	2000 2000
63 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

RTV PL SPRL

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
64 trans-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 Isopropyl ether	1603.291	1674.621	1673.981	1668.641	1676.931	1665.611	1752.291	1740.611	1633.261	1676.581	46.471	134.571
73 Vinyl Acetate	1822.001	1897.091	1775.471	1954.361	1918.141	1849.381	1773.451	1506.561	1930.171	1825.181	136.371	394.941
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	1680.621	1698.951	1744.651	1759.021	1820.781	1765.831	1823.591	1807.511	1728.221	1758.801	51.591	149.401
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 cis-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 2-Butanone	1718.931	1997.911	1789.771	1970.411	1908.841	2026.981	1936.141	1728.271	2009.261	1898.501	121.651	352.311

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
87 Ethyl Acetate	1716.251	1997.761	2140.831	2102.541	2320.201	1795.831	2259.671	2103.621	2003.391	2048.901	197.401	571.671
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 90 Bromochloromethane	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	0.001	0.001
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
104 1,2-Dichloroethane-d4	127065.781	127211.111	127839.351	126921.861	127261.091	127437.371	127796.971	127288.391	127087.911	127323.311	317.071	918.221
105 tert-Amyl methyl ether	1898.821	1883.771	1874.831	2063.711	1929.811	2037.461	2151.641	2086.731	2020.481	1994.141	100.271	290.381
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 108 1,4-Difluorobenzene	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	0.001	0.001
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	1805.091	1680.561	1702.491	1641.931	1728.461	1636.981	2012.851	1909.701	1958.211	1786.251	141.931	411.031

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METHOD DETECTION LIMIT SUMMARY REPORT

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Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	125056.76	124865.10	125701.80	125100.41	124712.41	125001.62	125005.75	125024.33	125090.63	125062.09	269.46	780.36

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METHOD DETECTION LIMIT SUMMARY REPORT

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Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloropropi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	1468.291	1603.581	1609.321	1602.551	1560.391	1549.621	1655.201	1643.821	1638.501	1592.361	58.611	169.751
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	1973.651	1911.111	1988.341	1949.811	1904.011	1949.841	1903.351	1999.371	1964.311	1949.311	36.181	104.781
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	0.001	0.001
154 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis (chloromethyl) EtHe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromofluorobenzene	26871.86 26931.67 26614.16 26384.82 26782.21 26706.69 26303.23 26768.32 26674.45 26670.82	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	209.70	607.29
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDI01	MDI02	MDI03	MDI04	MDI05	MDI06	MDI07	MDI08	MDI09	AVG	CONCI	STD	DEVI	MDL
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Hel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref DI	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naphi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

03MAY21: EPA LB - MD1.rp

MSD-3 Blank MDL

Report Date : 17-JUN-2021 13:23

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Can# 35157

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/05MAY21.b/321q0317a.m

Spiked ID(s) Spiked Vol(s)

Batch File: /chem/msd3.i/05MAY21.b

Instrument Names: msd3.i

Student T 2.896 for 9 Replicates with 99% Confidence

ID	MDI01	MDI02	MDI03	MDI04	MDI05	MDI06	MDI07	MDI08	MDI09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
FILENAME:	3050306EPALB	3050307EPALB	3050308EPALB	3050406EPALB	3050407EPALB	3050408EPALB	3050506EPALB	3050507EPALB	3050508EPALB						
INJ. DATE:	03-MAY-2021	03-MAY-2021	03-MAY-2021	04-MAY-2021	04-MAY-2021	04-MAY-2021	05-MAY-2021	05-MAY-2021	05-MAY-2021						
INJ. TIME:	11:47	13:00	13:29	13:28	14:13	14:42	12:40	13:28	13:58						

Compound	MDI01	MDI02	MDI03	MDI04	MDI05	MDI06	MDI07	MDI08	MDI09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
1 Freon 134a	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
2 Propylene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
3 1,1-Difluoroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
4 Freon 12	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
5 Chlorodifluoromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
6 Freon 114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
7 Isobutane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
8 Chloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.00	1.00	0.000000
9 Butane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
10 Vinyl Chloride	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
11 1,3-Butadiene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.00	1.00	0.000000
12 Bromomethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
13 Chloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
14 Isopentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
15 Vinyl Bromide	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
16 Freon 11	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
17 Dichlorofluoromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
18 Pentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
19 Ethanol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.00	1.00	0.000000
20 Ethyl Ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
21 Acrolein	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000

Reviewer 1 \_\_\_\_\_ Date: 6/17/21

Reviewer 2 \_\_\_\_\_ Date: 6/17/21



US32TARI

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/05MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/05MAY21.b  
Instrument Names: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
22 Freon 113	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
23 1,1-Dichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
24 Acetone	298.34	251.09	309.57	0.000000	359.44	92.36	167.90	235.09	194.44	212.03	113.07	0.000000	5.00	0.647	327.46
25 Iodomethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
26 Carbon Disulfide	339.14	319.54	300.16	139.62	136.38	122.01	154.39	119.39	122.79	194.82	94.71	0.000000	2.00	0.710	674.27
27 2-Propanol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	0.115	108.75
28 3-Chloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
29 Acetonitrile	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
30 Methylene Chloride	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.00	1.00	0.000000
31 tert-Butyl alcohol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
32 Methyl tert-butyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
33 trans-1,2-Dichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
34 Acrylonitrile	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
35 Hexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
36 Isopropyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
37 1,1-Dichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.300	1.00	0.000000
38 Vinyl Acetate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
39 Ethyl-tert-butyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
40 2,2-Dichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
41 cis-1,2-Dichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
42 2-Butanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
43 Ethyl Acetate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
44 Tetrahydrofuran	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
* 45 Bromochloromethane	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	2.00	1.00	0.000000
46 Chloroform	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.300	1.00	0.000000
47 Cyclohexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
48 1,1,1-Trichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.300	1.00	0.000000
49 Carbon Tetrachloride	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000

PPTV

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

US32TAR1

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/05MAY21.b/321q0317a.m

Batch File: /chem/msd3.i/05MAY21.b

Instrument Names: msd3.i

PPTV

Compound	MDI01	MDI02	MDI03	MDI04	MDI05	MDI06	MDI07	MDI08	MDI09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
50 1,1-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
51 2,2,4-Trimethylpentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
52 Benzene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
53 1,2-Dichloroethane-d4	23867.00	123965.00	125269.00	124324.00	25031.00	124883.00	124739.00	125158.00	125187.00	124713.67	534.92	10.000000	2.00	15.95	1549.11
54 tert-Amyl methyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
55 1,2-Dichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
56 Heptane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
* 57 1,4-Difluorobenzene	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	2.00	1.00	0.000000
58 n-Butanol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
59 Trichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
60 Methylcyclohexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
61 1,2-Dichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
62 Methyl Methacrylate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
63 1,4-Dioxane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
64 Dibromomethane	33.73	43.38	30.60	51.13	65.68	44.43	49.34	18.84	35.12	41.36	13.62	10.000000	0.400	1.05	39.45
65 Bromodichloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.300	1.00	0.000000
66 1-Bromo-2-Chloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
67 cis-1,3-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
68 4-Methyl-2-pentanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
69 Toluene-d8	124542.00	124548.00	125114.00	124548.00	124850.00	124479.00	124603.00	125251.00	125182.00	124790.78	313.26	10.000000	2.00	27.33	907.21
70 Toluene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.210	126.86
71 Octane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
72 trans-1,3-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
73 1,1,2-Trichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
74 Tetrachloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.270	97.85
75 1,3-Dichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
76 2-Hexanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
77 Dibromochloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
78 1,2-Dibromoethane (EDB)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
* 79 Chlorobenzene-d5	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	2.00	1.00	0.000000



Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

**MSD-3 MDL Case Narrative**

A Method Detection Limit study for select TA TO-15 specials was performed on 05/03/21, 05/04/24, and 05/05/21.

The MDL was performed at:

- 0.4ppbv(5.0ppbv->0.4ppbv) for 1,1,1,2-tetrachloroethane;16ml of #3018-1908

MDL verification was analyzed on 06/03/21:

- 3060308: (for 1,1,1,2-tetrachloroethane only). 5.0ppbv->0.25ppbv. 10ml of #3018-2078

No MDL values were taken from the MDL blank.

**MDL expires 5/05/22**

03MAY21: 1112PCE-md1.rpr

Report Date : 03-Jun-2021 08:29

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

1,1,1,2-tetrachloroethane only

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FOISquad MPLNSD:  
Standard 3018-1908 (50ppbv)  
16ml load volume  
Spike concentration  
0.4ppbv

ID	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
FILENAME:	3050309	3050310	3050311	3050409	3050410	3050411	3050509	3050510	3050511			3050511
INI. DATE:	03-MAY-2021	03-MAY-2021	03-MAY-2021	04-MAY-2021	04-MAY-2021	04-MAY-2021	05-MAY-2021	05-MAY-2021	05-MAY-2021			05-MAY-2021
INI. TIME:	13:57	14:24	14:52	15:10	15:38	16:05	14:25	14:53	15:21			15:21

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_  
Date: 6/3/21  
Date: 6/3/21

The ratio of the mean recovered

MDL verification  
standard # 3018-2078 (50ppbv)  
10 ml volume file # 3060306  
concentration is the MDL is

between 1-20,

spike concentration  
0.25 ppbv

X = 73.89  
2X = 147.78  
3X = 221.67  
4X = 295.56

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEV	MDL
135 1-Methoxy-2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	125000.001	250000.001	250000.001	250000.001	250000.001	250000.001	250000.001	250000.001	250000.001	250000.001	0.001	0.001
154 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,1,1,2-Tetrachloroeth	526.98	516.97	486.41	540.40	522.14	530.23	475.21	539.09	553.76	521.24	25.52	73.89
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV RL

MDL Blank

400/500/2600

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-Fluoroel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

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Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
64 trans-1,2-Dichloroethel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 90 Bromochloromethane	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	24697.90	24426.87	25043.25	25132.82	24889.42	25163.20	24848.38	25046.03	25137.35	24931.69	244.97	709.44
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 108 1,4-Difluorobenzene	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	24676.03	24895.10	24771.68	24765.70	24403.43	24714.67	24398.32	24695.85	24589.38	24656.69	166.82	483.12

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis(chloromethyl) Etbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromofluorobenzene	26453.98 26346.98 26114.19 26233.78 26044.32 26017.80 26203.48 25748.42 26019.91 26131.43	208.00	602.36	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 vert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 bis(2-Chloroethyl) Ethl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.1/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.1/03MAY21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Heptan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Hel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

03MAY21: EPA LB1112PCE - md1.1p

MSD 3 Blank 1,1,1,2PCE MDL  
CAN # 35157

Report Date : 04-JUN-2021 10:42

US32TARI

Page 1

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Spiked ID(s) Spiked Vol(s)

Method File: /chem/msd3.i/05MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/05MAY21.b  
Instrument Names: msd3.1

Student T 2.896 for 9 Replicates with 99% Confidence

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09
FILENAME:	3050306LB1112PCE	3050307LB1112PCE	3050308LB1112PCE	3050406LB1112PCE	3050407LB1112PCE	3050408LB1112PCE	3050409LB1112PCE	3050506LB1112PCE	3050507LB1112PCE
INJ.DATE:	03-MAY-2021	03-MAY-2021	04-MAY-2021	04-MAY-2021	04-MAY-2021	04-MAY-2021	05-MAY-2021	05-MAY-2021	05-MAY-2021
INJ.TIME:	11:47	13:00	13:29	13:28	14:13	14:42	12:40	13:28	13:58

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
* 1 Bromochloromethane	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	1.00	0.000000
1,2-Dichloroethane-d4	123867.00	123965.00	125269.00	124324.00	125031.00	124883.00	124739.00	125158.00	125187.00	124713.67	534.92	0.000000	2.00	15.95	1549.11
* 3 1,4-Difluorobenzene	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	1.00	0.000000
4 Toluene-d8	124542.00	124548.00	125114.00	124548.00	124850.00	124479.00	124603.00	125251.00	125182.00	124790.78	313.26	0.000000	2.00	27.33	907.21
* 5 Chlorobenzene-d5	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	1.00	0.000000
6 1,1,1,2-Tetrachloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
7 4-Bromofluorobenzene	125896.00	125913.00	125873.00	125941.00	126040.00	126188.00	126321.00	125639.00	125907.00	125968.67	196.25	0.000000	2.00	45.69	568.34

Reviewer 1 \_\_\_\_\_ Date: 6/4/21  
 Reviewer 2 \_\_\_\_\_ Date: 6/7/21

Client Sample ID: CCV

Lab ID#: 2107284-28A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/26/21 10:10 AM

Compound	%Recovery
1,1,1,2-Tetrachloroethane	105
1,1,1-Trichloroethane	85
1,1,2,2-Tetrachloroethane	104
1,1,2-Trichloroethane	99
1,1-Dichloroethane	92
1,1-Dichloroethene	88
1,1-Difluoroethane	97
1,2,3-Trichloropropane	106
1,2,4-Trichlorobenzene	83
1,2,4-Trimethylbenzene	98
1,2-Dibromo-3-chloropropane	98
1,2-Dibromoethane (EDB)	101
1,2-Dichlorobenzene	102
1,2-Dichloroethane	102
1,2-Dichloropropane	86
1,3,5-Trimethylbenzene	101
1,3-Butadiene	98
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	101
1,4-Dioxane	94
2,2,4-Trimethylpentane	84
2-Butanone (Methyl Ethyl Ketone)	93
2-Hexanone	95
2-Propanol	92
3-Chloropropene	87
4-Ethyltoluene	104
4-Methyl-2-pentanone	83
Acetone	94
Acrolein	94
Acrylonitrile	79
alpha-Chlorotoluene	93
Benzene	99
Bromodichloromethane	94
Bromoform	113
Bromomethane	98
Carbon Disulfide	98
Carbon Tetrachloride	94
Chlorobenzene	98
Chloroethane	99
Chloroform	93
Chloromethane	114
cis-1,2-Dichloroethene	88

Client Sample ID: CCV

Lab ID#: 2107284-28A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/26/21 10:10 AM

Compound	%Recovery
cis-1,3-Dichloropropene	92
Cumene	107
Cyclohexane	82
Dibromochloromethane	106
Dibromomethane	108
Ethanol	80
Ethyl Acetate	94
Ethyl Benzene	100
Ethyl-tert-butyl ether	89
Freon 11	103
Freon 12	101
Freon 113	97
Freon 114	100
Freon 134a	104
Heptane	89
Hexachlorobutadiene	85
Hexachloroethane	106
Hexane	88
Iodomethane	106
Isopropyl ether	89
m,p-Xylene	98
Methyl tert-butyl ether	87
Methylene Chloride	94
Naphthalene	62
o-Xylene	98
Propylbenzene	107
Propylene	92
Styrene	101
tert-Amyl methyl ether	94
tert-Butyl alcohol	87
Tetrachloroethene	104
Tetrahydrofuran	88
Toluene	95
TPH ref. to Gasoline (MW=100)	100
trans-1,2-Dichloroethene	87
trans-1,3-Dichloropropene	96
Trichloroethene	97
Vinyl Acetate	92
Vinyl Bromide	97
Vinyl Chloride	104

Container Type: NA - Not Applicable

**Client Sample ID: CCV**
**Lab ID#: 2107284-28A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3072602</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 7/26/21 10:10 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	108	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072602.d  
Lab Smp Id: CCV Client Smp ID: CCV  
Inj Date : 26-JUL-2021 10:10  
Operator : LD Inst ID: msd3.i  
Smp Info : 100mL 3018-2071A  
Misc Info : 50ppbv (100ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 26-Jul-2021 15:35 lk8g Quant Type: ISTD  
Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
Als bottle: 13 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20\_new.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
=	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane				CAS #: 74-97-5		
5.284	5.284	(1.000)	130	263983	25.0000		80.00- 120.00 100.00
5.284	5.284	(1.000)	128	205634			48.46- 108.46 77.90
5.270	5.270	(1.000)	49	382986			120.39- 180.39 145.08
-----							
* 108	1,4-Difluorobenzene				CAS #: 540-36-3		
6.166	6.166	(1.000)	114	833448	25.0000		80.00- 120.00 100.00
6.166	6.166	(1.000)	88	121546			0.00- 45.52 14.58
-----							
* 153	Chlorobenzene-d5				CAS #: 3114-55-4		
8.612	8.612	(1.000)	117	741338	25.0000		80.00- 120.00 100.00
8.612	8.612	(1.000)	82	391078			25.46- 85.46 52.75
-----							
\$ 104	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
5.816	5.816	(1.101)	65	344289	25.0000	23.700	80.00- 120.00 100.00
5.816	5.816	(1.101)	67	171323			21.66- 81.66 49.76
-----							
\$ 134	Toluene-d8				CAS #: 2037-26-5		
7.387	7.387	(1.198)	98	828093	25.0000	24.123	80.00- 120.00 100.00
7.380	7.380	(1.197)	70	92038			0.00- 41.47 11.11

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.198)	100	551657			36.47- 96.47	66.62
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	530026	25.0000	27.030	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	613431			93.06- 153.06	115.74
9.601	9.601	(1.115)	176	489102			62.87- 122.87	92.28
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.395	1.395	(0.264)	83	325654	50.0000	51.844	80.00- 120.00	100.00
1.395	1.395	(0.264)	69	257601			51.82- 111.82	79.10
1.493	1.493	(0.282)	51	754485			194.91- 254.91	231.68
-----								
5 Propylene								
						CAS #: 115-07-1		
1.423	1.423	(0.269)	41	292680	50.0000	45.900	80.00- 120.00	100.00
1.423	1.423	(0.269)	42	196714			35.61- 95.61	67.21
1.423	1.423	(0.269)	39	220951			42.66- 102.66	75.49
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.451	1.451	(0.275)	65	201389	50.0000	48.452	80.00- 120.00	100.00
1.493	1.493	(0.282)	51	754485			321.86- 381.86	374.64
1.451	1.451	(0.275)	47	160702			45.34- 105.34	79.80
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.465	1.465	(0.277)	85	927201	50.0000	50.420	80.00- 120.00	100.00
1.465	1.465	(0.277)	87	296074			2.63- 62.63	31.93
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.493	1.493	(0.282)	67	101930	50.0000	50.433	80.00- 120.00	100.00
1.493	1.493	(0.282)	51	754485			719.76- 779.76	740.20
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.563	1.563	(0.296)	135	681143	50.0000	49.989	80.00- 120.00	100.00
1.563	1.563	(0.296)	137	220536			2.12- 62.12	32.38
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.577	1.577	(0.298)	43	684155	50.0000	47.738	80.00- 120.00	100.00
1.577	1.577	(0.298)	42	227097			2.44- 62.44	33.19
1.577	1.577	(0.298)	58	23433			0.00- 33.26	3.43
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.646	1.646	(0.312)	50	437369	50.0000	57.223	80.00- 120.00	100.00
1.646	1.646	(0.312)	52	142587			2.41- 62.41	32.60
-----								
18 Butane								
						CAS #: 106-97-8		
1.702	1.702	(0.322)	58	94248	50.0000	52.214	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)								
1.702	1.702	(0.322)	43	696154			727.41- 787.41	738.64
-----								
19 Vinyl Chloride CAS #: 75-01-4								
1.744	1.744	(0.330)	62	425167	50.0000	51.983	80.00- 120.00	100.00
1.744	1.744	(0.330)	64	128568			1.28- 61.28	30.24
-----								
20 1,3-Butadiene CAS #: 106-99-0								
1.758	1.758	(0.333)	54	367984	50.0000	49.092	80.00- 120.00	100.00
1.758	1.758	(0.333)	39	340772			69.23- 129.23	92.61
-----								
24 Bromomethane CAS #: 74-83-9								
2.094	2.094	(0.396)	94	316300	50.0000	48.898	80.00- 120.00	100.00
2.094	2.094	(0.396)	96	296570			62.78- 122.78	93.76
-----								
30 Chloroethane CAS #: 75-00-3								
2.206	2.206	(0.417)	64	189461	50.0000	49.347	80.00- 120.00	100.00
2.206	2.206	(0.417)	66	56862			1.44- 61.44	30.01
2.206	2.206	(0.417)	49	61324			4.12- 64.12	32.37
-----								
31 Isopentane CAS #: 78-78-4								
2.220	2.220	(0.420)	43	457664	50.0000	46.615	80.00- 120.00	100.00
2.220	2.220	(0.420)	57	321032			38.82- 98.82	70.15
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.388	2.388	(0.452)	106	341526	50.0000	48.561	80.00- 120.00	100.00
2.388	2.388	(0.452)	108	314323			63.14- 123.14	92.03
-----								
33 Freon 11 CAS #: 75-69-4								
2.430	2.430	(0.460)	101	1004729	50.0000	51.638	80.00- 120.00	100.00
2.430	2.430	(0.460)	103	653042			35.12- 95.12	65.00
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.444	2.444	(0.463)	67	798550	50.0000	51.341	80.00- 120.00	100.00
2.444	2.444	(0.463)	69	242209			0.74- 60.74	30.33
-----								
35 Pentane CAS #: 109-66-0								
2.500	2.500	(0.473)	43	721781	50.0000	46.144	80.00- 120.00	100.00
2.500	2.500	(0.473)	57	117592			0.00- 45.97	16.29
2.500	2.500	(0.473)	72	61407			0.00- 38.10	8.51
-----								
38 Ethyl Ether CAS #: 60-29-7								
2.780	2.780	(0.526)	74	152591	50.0000	43.510	80.00- 120.00	100.00
2.780	2.780	(0.526)	59	279865			147.68- 207.68	183.41
2.780	2.780	(0.526)	45	367712			206.40- 266.40	240.98
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol						CAS #: 64-17-5		
2.766	2.766	(0.523)	46	63307	50.0000	40.220	80.00- 120.00	100.00
2.780	2.780	(0.526)	45	367093			523.01- 583.01	579.86
-----								
42 Acrolein						CAS #: 107-02-8		
3.032	3.032	(0.574)	55	123479	50.0000	47.273	80.00- 120.00	100.00
3.032	3.032	(0.574)	56	171012			110.33- 170.33	138.49
-----								
43 Freon 113						CAS #: 76-13-1		
3.032	3.032	(0.574)	151	647341	50.0000	48.669	80.00- 120.00	100.00
3.032	3.032	(0.574)	153	414878			33.72- 93.72	64.09
3.032	3.032	(0.574)	101	783667			89.67- 149.67	121.06
-----								
44 1,1-Dichloroethene						CAS #: 75-35-4		
3.074	3.074	(0.582)	96	350870	50.0000	43.796	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	225140			33.39- 93.39	64.17
3.074	3.074	(0.582)	61	715023			163.82- 223.82	203.79
-----								
47 Acetone						CAS #: 67-64-1		
3.214	3.214	(0.608)	58	207163	50.0000	46.801	80.00- 120.00	100.00
3.214	3.214	(0.608)	43	697475			299.66- 359.66	336.68
-----								
48 Carbon Disulfide						CAS #: 75-15-0		
3.298	3.298	(0.624)	76	977808	50.0000	49.056	80.00- 120.00	100.00
-----								
49 Iodomethane						CAS #: 74-88-4		
3.270	3.270	(0.619)	142	909705	50.0000	52.779	80.00- 120.00	100.00
3.270	3.270	(0.619)	127	432460			14.58- 74.58	47.54
-----								
52 2-Propanol						CAS #: 67-63-0		
3.395	3.395	(0.643)	45	735625	50.0000	46.210	80.00- 120.00	100.00
3.395	3.395	(0.643)	43	152032			0.00- 48.61	20.67
-----								
54 3-Chloropropene						CAS #: 107-05-1		
3.535	3.535	(0.669)	76	150130	50.0000	43.748	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	524081			338.06- 398.06	349.08
-----								
57 Acetonitrile						CAS #: 75-05-8		
3.633	3.633	(0.688)	41	320311	50.0000	45.954	80.00- 120.00	100.00
3.633	3.633	(0.688)	40	170561			21.81- 81.81	53.25
3.633	3.633	(0.688)	38	39543			0.00- 41.86	12.35
-----								
59 Methylene Chloride						CAS #: 75-09-2		
3.717	3.717	(0.703)	49	499455	50.0000	47.147	80.00- 120.00	100.00
3.717	3.717	(0.703)	84	300839			30.77- 90.77	60.23
3.717	3.717	(0.703)	51	151693			1.39- 61.39	30.37
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol						CAS #: 75-65-0		
3.857	3.857	(0.730)	59	867312	50.0000	43.406	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	204930			0.00- 51.05	23.63
3.857	3.857	(0.730)	57	95268			0.00- 41.68	10.98
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
3.941	3.941	(0.746)	73	936876	50.0000	43.441	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	283146			0.00- 58.86	30.22
3.941	3.941	(0.746)	41	274158			0.00- 57.27	29.26
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
3.969	3.969	(0.751)	98	233573	50.0000	43.323	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	617550			244.59- 304.59	264.39
3.969	3.969	(0.751)	96	366294			129.84- 189.84	156.82
66 Acrylonitrile						CAS #: 107-13-1		
4.067	4.067	(0.770)	52	255536	50.0000	39.493	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	302273			88.50- 148.50	118.29
67 Hexane						CAS #: 110-54-3		
4.179	4.179	(0.791)	57	644915	50.0000	44.116	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	395054			32.99- 92.99	61.26
4.179	4.179	(0.791)	86	79382			0.00- 42.56	12.31
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.459	4.459	(0.844)	63	692966	50.0000	46.094	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	213902			0.76- 60.76	30.87
72 Isopropyl ether						CAS #: 108-20-3		
4.445	4.445	(0.841)	45	1378715	50.0000	44.690	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	305689			0.00- 51.37	22.17
4.445	4.445	(0.841)	59	159218			0.00- 41.09	11.55
73 Vinyl Acetate						CAS #: 108-05-4		
4.501	4.501	(0.852)	86	85480	50.0000	46.248	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	1181184			1391.63-1451.63	1381.81
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
4.809	4.809	(0.910)	59	1329772	50.0000	44.648	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	441698			3.22- 63.22	33.22
4.809	4.809	(0.910)	41	262576			0.00- 48.12	19.75
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.005	5.005	(0.947)	77	637168	50.0000	45.495	80.00- 120.00	100.00
5.005	5.005	(0.947)	79	202317			2.00- 62.00	31.75
5.005	5.005	(0.947)	97	151062			0.00- 53.36	23.71

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.046	5.046	(0.955)	98	234514	50.0000	43.880	80.00- 120.00	100.00
5.046	5.046	(0.955)	96	366396			127.22- 187.22	156.24
5.046	5.046	(0.955)	61	754590			283.85- 343.85	321.77
-----								
86 2-Butanone						CAS #: 78-93-3		
5.060	5.060	(0.958)	72	173953	50.0000	46.599	80.00- 120.00	100.00
5.074	5.074	(0.960)	43	1820666			1055.75-1115.75	1046.64
5.060	5.060	(0.958)	57	70444			10.59- 70.59	40.50
-----								
87 Ethyl Acetate						CAS #: 141-78-6		
5.088	5.088	(0.963)	45	143940	50.0000	46.772	80.00- 120.00	100.00
5.046	5.046	(0.955)	61	754590			450.31- 510.31	524.24
5.088	5.088	(0.963)	70	84206			30.42- 90.42	58.50
-----								
89 Tetrahydrofuran						CAS #: 109-99-9		
5.270	5.270	(0.997)	42	460675	50.0000	43.763	80.00- 120.00	100.00
5.270	5.270	(0.997)	71	150450			2.92- 62.92	32.66
5.270	5.270	(0.997)	72	159622			3.54- 63.54	34.65
-----								
92 Chloroform						CAS #: 67-66-3		
5.340	5.340	(1.011)	83	771716	50.0000	46.626	80.00- 120.00	100.00
5.340	5.340	(1.011)	85	498416			34.71- 94.71	64.59
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.438	5.438	(1.029)	84	427529	50.0000	40.867	80.00- 120.00	100.00
5.438	5.438	(1.029)	56	626558			120.40- 180.40	146.55
5.438	5.438	(1.029)	41	355213			54.20- 114.20	83.09
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.452	5.452	(1.032)	97	794060	50.0000	42.683	80.00- 120.00	100.00
5.452	5.452	(1.032)	99	508967			33.76- 93.76	64.10
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
5.578	5.578	(1.056)	119	802191	50.0000	46.818	80.00- 120.00	100.00
5.578	5.578	(1.056)	117	836522			73.68- 133.68	104.28
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
5.606	5.606	(0.909)	110	190114	50.0000	50.123	80.00- 120.00	100.00
5.606	5.606	(0.909)	75	490171			231.09- 291.09	257.83
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
5.774	5.774	(1.093)	57	1926587	50.0000	42.143	80.00- 120.00	100.00
5.774	5.774	(1.093)	56	596874			1.12- 61.12	30.98
5.774	5.774	(1.093)	41	548029			0.00- 57.49	28.45
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene						CAS #: 71-43-2		
5.788	5.788	(0.939)	78	943664	50.0000	49.617	80.00- 120.00	100.00
5.788	5.788	(0.939)	77	222338			0.00- 53.80	23.56
105 tert-Amyl methyl ether						CAS #: 994-05-8		
5.858	5.858	(0.950)	87	239078	50.0000	47.144	80.00- 120.00	100.00
5.858	5.858	(0.950)	73	950012			365.20- 425.20	397.36
5.858	5.858	(0.950)	55	312741			91.31- 151.31	130.81
106 1,2-Dichloroethane						CAS #: 107-06-2		
5.886	5.886	(0.955)	62	559629	50.0000	51.108	80.00- 120.00	100.00
5.886	5.886	(0.955)	64	173965			1.20- 61.20	31.09
107 Heptane						CAS #: 142-82-5		
5.942	5.942	(0.964)	71	334681	50.0000	44.676	80.00- 120.00	100.00
5.942	5.942	(0.964)	43	667097			179.02- 239.02	199.32
5.942	5.942	(0.964)	57	386536			84.85- 144.85	115.49
110 n-Butanol						CAS #: 71-36-3		
6.348	6.348	(1.030)	56	289613	50.0000	47.508	80.00- 120.00	100.00
6.348	6.348	(1.030)	41	200110			40.21- 100.21	69.10
6.348	6.348	(1.030)	43	157634			25.00- 85.00	54.43
111 Trichloroethene						CAS #: 79-01-6		
6.362	6.362	(1.032)	95	464059	50.0000	48.636	80.00- 120.00	100.00
6.362	6.362	(1.032)	130	495529			74.96- 134.96	106.78
6.362	6.362	(1.032)	97	298104			34.80- 94.80	64.24
114 1,2-Dichloropropane						CAS #: 78-87-5		
6.586	6.586	(1.068)	63	189974	50.0000	43.092	80.00- 120.00	100.00
6.586	6.586	(1.068)	62	127508			52.03- 112.03	67.12
6.586	6.586	(1.068)	41	171304			79.97- 139.97	90.17
116 Methyl Methacrylate						CAS #: 80-62-6		
6.664	6.664	(0.774)	69	337093	50.0000	47.248	80.00- 120.00	100.00
6.664	6.664	(0.774)	41	528362			134.02- 194.02	156.74
6.664	6.664	(0.774)	100	138275			9.54- 69.54	41.02
117 1,4-Dioxane						CAS #: 123-91-1		
6.700	6.700	(1.087)	88	227234	50.0000	47.165	80.00- 120.00	100.00
6.700	6.700	(1.087)	58	191338			55.80- 115.80	84.20
6.692	6.692	(1.085)	57	93651			8.68- 68.68	41.21
118 Dibromomethane						CAS #: 74-95-3		
6.721	6.721	(0.780)	174	427754	50.0000	53.835	80.00- 120.00	100.00
6.714	6.714	(0.780)	93	417413			67.27- 127.27	97.58

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
6.714	6.714	(0.780)	95	351754			50.92- 110.92	82.23
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
6.836	6.836	(1.109)	83	752358	50.0000	47.068	80.00- 120.00	100.00
6.836	6.836	(1.109)	85	479932			34.31- 94.31	63.79
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.208	7.208	(1.169)	75	544502	50.0000	45.831	80.00- 120.00	100.00
7.208	7.208	(1.169)	77	173387			1.42- 61.42	31.84
7.208	7.208	(1.169)	39	372618			38.56- 98.56	68.43
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.460	6.460	(1.048)	83	568878	50.0000	44.586	80.00- 120.00	100.00
6.460	6.460	(1.048)	98	262794			15.60- 75.60	46.20
6.460	6.460	(1.048)	55	603772			78.53- 138.53	106.13
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.316	7.316	(1.186)	58	335987	50.0000	41.591	80.00- 120.00	100.00
7.316	7.316	(1.186)	43	864057			231.30- 291.30	257.17
7.316	7.316	(1.186)	85	124951			8.94- 68.94	37.19
-----								
137 Toluene						CAS #: 108-88-3		
7.437	7.437	(1.206)	91	1217295	50.0000	47.700	80.00- 120.00	100.00
7.437	7.437	(1.206)	92	697650			28.30- 88.30	57.31
-----								
136 Octane						CAS #: 111-65-9		
7.444	7.444	(1.207)	57	384837	50.0000	45.325	80.00- 120.00	100.00
7.444	7.444	(1.207)	85	370108			67.11- 127.11	96.17
7.444	7.444	(1.207)	43	871858			214.21- 274.21	226.55
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
7.688	7.688	(0.893)	75	524693	50.0000	48.054	80.00- 120.00	100.00
7.688	7.688	(0.893)	77	166082			2.15- 62.15	31.65
7.688	7.688	(0.893)	39	339375			36.09- 96.09	64.68
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
7.846	7.846	(0.911)	97	415446	50.0000	49.475	80.00- 120.00	100.00
7.846	7.846	(0.911)	99	250055			31.62- 91.62	60.19
7.846	7.846	(0.911)	83	353139			56.35- 116.35	85.00
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
7.881	7.881	(0.915)	166	601169	50.0000	51.763	80.00- 120.00	100.00
7.874	7.874	(0.914)	129	458603			48.71- 108.71	76.29
7.874	7.874	(0.914)	131	449557			46.55- 106.55	74.78
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6		
8.003	8.003	(0.929)	58	460022	50.0000	47.694	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	845380			157.91- 217.91	183.77
8.003	8.003	(0.929)	100	84350			0.00- 47.86	18.34
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
7.989	7.989	(1.296)	76	556489	50.0000	45.705	80.00- 120.00	100.00
7.989	7.989	(1.296)	41	585652			82.96- 142.96	105.24
7.989	7.989	(1.296)	78	182198			2.55- 62.55	32.74
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.154	8.154	(0.947)	129	840792	50.0000	52.779	80.00- 120.00	100.00
8.154	8.154	(0.947)	127	657265			47.77- 107.77	78.17
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.261	8.261	(0.959)	107	661471	50.0000	50.725	80.00- 120.00	100.00
8.261	8.261	(0.959)	109	621977			64.60- 124.60	94.03
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.115	7.115	(1.154)	63	736752	50.0000	47.762	80.00- 120.00	100.00
7.115	7.115	(1.154)	65	222271			0.95- 60.95	30.17
7.115	7.115	(1.154)	144	83481			0.00- 40.45	11.33
-----								
154 Chlorobenzene						CAS #: 108-90-7		
8.641	8.641	(1.003)	112	990472	50.0000	48.884	80.00- 120.00	100.00
8.641	8.641	(1.003)	114	317571			2.13- 62.13	32.06
8.641	8.641	(1.003)	77	517985			26.35- 86.35	52.30
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
8.684	8.684	(1.008)	106	504200	50.0000	49.765	80.00- 120.00	100.00
8.684	8.684	(1.008)	91	1569609			282.48- 342.48	311.31
-----								
156 Nonane						CAS #: 111-84-2		
8.705	8.705	(1.011)	43	883884	50.0000	45.010	80.00- 120.00	100.00
8.705	8.705	(1.011)	57	821901			59.52- 119.52	92.99
8.705	8.705	(1.011)	85	280860			0.00- 59.76	31.78
-----								
158 m,p-Xylene						CAS #: 108-38-3		
8.784	8.784	(1.020)	106	618905	50.0000	49.102	80.00- 120.00	100.00
8.784	8.784	(1.020)	91	1212617			171.36- 231.36	195.93
-----								
164 o-Xylene						CAS #: 95-47-6		
9.121	9.121	(1.059)	106	587802	50.0000	49.123	80.00- 120.00	100.00
9.121	9.121	(1.059)	91	1238389			179.99- 239.99	210.68
-----								
165 Styrene						CAS #: 100-42-5		
9.149	9.149	(1.062)	104	1044976	50.0000	50.405	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
165 Styrene (continued)								
9.142	9.142	(1.062)	78	491261			19.09- 79.09	47.01
-----								
167 Bromoform								
						CAS #: 75-25-2		
9.350	9.350	(1.086)	173	854118	50.0000	56.543	80.00- 120.00	100.00
9.350	9.350	(1.086)	171	442728			21.45- 81.45	51.83
-----								
168 Cumene								
						CAS #: 98-82-8		
9.407	9.407	(1.092)	105	2016520	50.0000	53.302	80.00- 120.00	100.00
9.407	9.407	(1.092)	120	544619			0.00- 56.99	27.01
9.407	9.407	(1.092)	51	237088			0.00- 41.77	11.76
-----								
169 Cyclohexanone								
						CAS #: 108-94-1		
9.579	9.579	(1.112)	55	578674	50.0000	48.605	80.00- 120.00	100.00
9.579	9.579	(1.112)	98	224367			9.22- 69.22	38.77
9.579	9.579	(1.112)	42	404670			42.60- 102.60	69.93
-----								
175 1,1,2,2-Tetrachloroethane								
						CAS #: 79-34-5		
9.737	9.737	(1.131)	83	978037	50.0000	52.142	80.00- 120.00	100.00
9.737	9.737	(1.131)	85	629254			34.35- 94.35	64.34
-----								
177 Bromobenzene								
						CAS #: 108-86-1		
9.729	9.729	(1.130)	156	646109	50.0000	54.938	80.00- 120.00	100.00
9.729	9.729	(1.130)	158	631465			67.29- 127.29	97.73
9.729	9.729	(1.130)	77	998488			132.41- 192.41	154.54
-----								
178 Propylbenzene								
						CAS #: 103-65-1		
9.751	9.751	(1.132)	91	2352932	50.0000	53.302	80.00- 120.00	100.00
9.758	9.758	(1.133)	120	560819			0.00- 53.77	23.83
9.751	9.751	(1.132)	105	88546			0.00- 33.81	3.76
-----								
179 1,2,3-Trichloropropane								
						CAS #: 96-18-4		
9.787	9.787	(1.136)	110	300386	50.0000	53.163	80.00- 120.00	100.00
9.787	9.787	(1.136)	75	904000			285.00- 345.00	300.95
9.787	9.787	(1.136)	61	249611			54.06- 114.06	83.10
-----								
181 trans-1,4-Dichloro-2-butene								
						CAS #: 110-57-6		
9.787	9.787	(1.136)	53	226669	50.0000	50.698	80.00- 120.00	100.00
9.787	9.787	(1.136)	89	106210			21.19- 81.19	46.86
9.787	9.787	(1.136)	75	904000			372.45- 432.45	398.82
-----								
182 Decane								
						CAS #: 124-18-5		
9.808	9.808	(1.139)	57	1105255	50.0000	48.423	80.00- 120.00	100.00
9.808	9.808	(1.139)	71	376982			4.13- 64.13	34.11
9.815	9.815	(1.140)	142	55467			0.00- 34.73	5.02
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.144)	120	593871	50.0000	51.902	80.00- 120.00	100.00
9.851	9.851	(1.144)	105	1941965			296.79- 356.79	327.00
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
9.873	9.873	(1.146)	126	500419	50.0000	53.825	80.00- 120.00	100.00
9.873	9.873	(1.146)	91	1743965			336.29- 396.29	348.50
9.873	9.873	(1.146)	65	324427			38.83- 98.83	64.83
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
9.901	9.901	(1.150)	120	814221	50.0000	50.664	80.00- 120.00	100.00
9.901	9.901	(1.150)	105	1648931			176.40- 236.40	202.52
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.102	10.102	(1.173)	118	794343	50.0000	48.260	80.00- 120.00	100.00
10.102	10.102	(1.173)	103	445315			26.64- 86.64	56.06
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
10.174	10.174	(1.181)	119	1494510	50.0000	50.542	80.00- 120.00	100.00
10.174	10.174	(1.181)	134	375001			0.00- 54.82	25.09
10.166	10.166	(1.180)	91	958146			36.92- 96.92	64.11
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
10.224	10.224	(1.187)	105	1555569	50.0000	49.087	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	732579			16.58- 76.58	47.09
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
10.353	10.353	(1.202)	134	480062	50.0000	50.263	80.00- 120.00	100.00
10.353	10.353	(1.202)	105	2280906			451.53- 511.53	475.13
10.353	10.353	(1.202)	91	357427			46.48- 106.48	74.45
-----								
194 p-Cymene						CAS #: 99-87-6		
10.467	10.467	(1.215)	119	2002984	50.0000	50.078	80.00- 120.00	100.00
10.467	10.467	(1.215)	134	534440			0.00- 56.79	26.68
10.467	10.467	(1.215)	91	466476			0.00- 54.04	23.29
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
10.517	10.517	(1.221)	146	1120056	50.0000	52.022	80.00- 120.00	100.00
10.517	10.517	(1.221)	148	714317			33.53- 93.53	63.78
10.517	10.517	(1.221)	111	440370			11.05- 71.05	39.32
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
10.596	10.596	(1.230)	146	1124662	50.0000	50.713	80.00- 120.00	100.00
10.596	10.596	(1.230)	148	707817			33.47- 93.47	62.94
10.596	10.596	(1.230)	111	428475			9.65- 69.65	38.10
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene						CAS #: 100-44-7		
10.711	10.711	(1.244)	91	1418673	50.0000	46.526	80.00- 120.00	100.00
10.711	10.711	(1.244)	126	321068			0.00- 52.04	22.63
-----								
201 Undecane						CAS #: 1120-21-4		
10.804	10.804	(1.254)	57	1165238	50.0000	43.322	80.00- 120.00	100.00
10.804	10.804	(1.254)	43	995878			55.86- 115.86	85.47
-----								
202 Butylbenzene						CAS #: 104-51-8		
10.818	10.818	(1.256)	134	523916	50.0000	50.519	80.00- 120.00	100.00
10.818	10.818	(1.256)	91	1869084			331.99- 391.99	356.75
10.818	10.818	(1.256)	92	969238			161.01- 221.01	185.00
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
10.919	10.919	(1.268)	146	1059029	50.0000	50.902	80.00- 120.00	100.00
10.926	10.926	(1.269)	148	676040			33.23- 93.23	63.84
10.919	10.919	(1.268)	111	433070			12.36- 72.36	40.89
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
11.606	11.606	(1.348)	157	594383	50.0000	49.270	80.00- 120.00	100.00
11.599	11.599	(1.347)	75	486043			58.96- 118.96	81.77
11.606	11.606	(1.348)	155	466619			47.82- 107.82	78.50
-----								
207 Dodecane						CAS #: 112-40-3		
11.714	11.714	(1.360)	57	886106	61.8000	38.960	80.00- 120.00	100.00
11.714	11.714	(1.360)	43	704633			50.85- 110.85	79.52
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
12.301	12.301	(1.428)	180	769237	62.9500	52.054	80.00- 120.00	100.00
12.301	12.301	(1.428)	182	740856			65.40- 125.40	96.31
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
12.387	12.387	(1.438)	225	611151	64.3500	54.749	80.00- 120.00	100.00
12.387	12.387	(1.438)	223	391020			33.70- 93.70	63.98
-----								
216 Naphthalene						CAS #: 91-20-3		
12.559	12.559	(1.458)	128	176940	6.35000	3.921	80.00- 120.00	100.00
12.552	12.552	(1.457)	127	23363			0.00- 43.10	13.20
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
12.810	12.810	(1.487)	180	665255	66.5500	49.196	80.00- 120.00	100.00
12.810	12.810	(1.487)	182	628238			65.67- 125.67	94.44
12.810	12.810	(1.487)	145	232877			6.02- 66.02	35.01
-----								

US32TAR1

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                    Injection Date: 26-JUL-2021 10:10  
 Lab File ID: 3072602.d                Init. Cal. Date(s): 22-JUN-2021 23-JUN-2021  
 Analysis Type: AIR                     Init. Cal. Times: 15:51 00:09  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msd3.i/26JUL21.b/321q0622a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
\$ 104 1,2-Dichloroethane-d4	1.37578	1.30421	0.010	5.20171	30.00000	Averaged	
\$ 134 Toluene-d8	1.02971	0.99357	0.010	3.50907	30.00000	Averaged	
\$ 170 4-Bromofluorobenzene	0.66126	0.71496	0.010	-8.12027	30.00000	Averaged	
4 Freon 134a	0.59487	0.61681	0.010	-3.68900	30.00000	Averaged	
5 Propylene	0.60387	0.55436	0.010	8.19902	30.00000	Averaged	
7 1,1-Difluoroethane	0.39363	0.38144	0.010	3.09674	30.00000	Averaged	
8 Freon 12	1.74153	1.75618	0.010	-0.84077	30.00000	Averaged	
9 Chlorodifluoromethane	0.19140	0.19306	0.010	-0.86697	30.00000	Averaged	
10 Freon 114	1.29040	1.29013	0.010	0.02147	30.00000	Averaged	
12 Isobutane	1.35725	1.29583	0.010	4.52488	30.00000	Averaged	
15 Chloromethane	0.72383	0.82841	0.010	-14.44675	30.00000	Averaged	
18 Butane	0.17094	0.17851	0.010	-4.42907	30.00000	Averaged	
19 Vinyl Chloride	0.77458	0.80529	0.010	-3.96563	30.00000	Averaged	
20 1,3-Butadiene	0.70987	0.69699	0.010	1.81518	30.00000	Averaged	
24 Bromomethane	0.61260	0.59909	0.010	2.20439	30.00000	Averaged	
30 Chloroethane	0.36360	0.35885	0.010	1.30582	30.00000	Averaged	
31 Isopentane	0.92980	0.86684	0.010	6.77079	30.00000	Averaged	
32 Vinyl Bromide	0.66605	0.64687	0.010	2.87878	30.00000	Averaged	
33 Freon 11	1.84264	1.90302	0.010	-3.27680	30.00000	Averaged	
34 Dichlorofluoromethane	1.47301	1.51250	0.010	-2.68150	30.00000	Averaged	
35 Pentane	1.48134	1.36710	0.010	7.71235	30.00000	Averaged	
38 Ethyl Ether	0.33213	0.28902	0.010	12.98056	30.00000	Averaged	
39 Ethanol	0.14907	0.11991	0.010	19.56033	30.00000	Averaged	
42 Acrolein	0.24737	0.23388	0.010	5.45409	30.00000	Averaged	
43 Freon 113	1.25964	1.22610	0.010	2.66214	30.00000	Averaged	
44 1,1-Dichloroethene	0.75871	0.66457	0.010	12.40799	30.00000	Averaged	
47 Acetone	0.41920	0.39238	0.010	6.39701	30.00000	Averaged	
48 Carbon Disulfide	1.88768	1.85203	0.010	1.88847	30.00000	Averaged	
49 Iodomethane	1.63230	1.72304	0.010	-5.55866	30.00000	Averaged	
52 2-Propanol	1.50759	1.39332	0.010	7.57956	30.00000	Averaged	
54 3-Chloropropene	0.32499	0.28436	0.010	12.50396	30.00000	Averaged	
57 Acetonitrile	0.66010	0.60669	0.010	8.09161	30.00000	Averaged	
59 Methylene Chloride	1.00325	0.94600	0.010	5.70634	30.00000	Averaged	
62 tert-Butyl alcohol	1.89229	1.64274	0.010	13.18753	30.00000	Averaged	
63 Methyl tert-butyl ether	2.04241	1.77450	0.010	13.11741	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                    Injection Date: 26-JUL-2021 10:10  
 Lab File ID: 3072602.d                Init. Cal. Date(s): 22-JUN-2021 23-JUN-2021  
 Analysis Type: AIR                     Init. Cal. Times: 15:51 00:09  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msd3.i/26JUL21.b/321q0622a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
64 trans-1,2-Dichloroethene	0.51058	0.44240	0.010	13.35317	30.00000	Averaged	
66 Acrylonitrile	0.61277	0.48400	0.010	21.01403	30.00000	Averaged	
67 Hexane	1.38442	1.22151	0.010	11.76735	30.00000	Averaged	
71 1,1-Dichloroethane	1.42374	1.31252	0.010	7.81192	30.00000	Averaged	
72 Isopropyl ether	2.92166	2.61137	0.010	10.62035	30.00000	Averaged	
73 Vinyl Acetate	0.17504	0.16191	0.010	7.50398	30.00000	Averaged	
79 Ethyl-tert-butyl ether	2.82061	2.51867	0.010	10.70487	30.00000	Averaged	
84 2,2-Dichloropropane	1.32635	1.20684	0.010	9.01075	30.00000	Averaged	
85 cis-1,2-Dichloroethene	0.50614	0.44418	0.010	12.24013	30.00000	Averaged	
86 2-Butanone	0.35353	0.32948	0.010	6.80262	30.00000	Averaged	
87 Ethyl Acetate	0.29145	0.27263	0.010	6.45556	30.00000	Averaged	
89 Tetrahydrofuran	0.99690	0.87255	0.010	12.47439	30.00000	Averaged	
92 Chloroform	1.56743	1.46168	0.010	6.74711	30.00000	Averaged	
94 Cyclohexane	0.99074	0.80977	0.010	18.26661	30.00000	Averaged	
96 1,1,1-Trichloroethane	1.76184	1.50400	0.010	14.63458	30.00000	Averaged	
97 Carbon Tetrachloride	1.62268	1.51940	0.010	6.36461	30.00000	Averaged	
99 1,1-Dichloropropene	0.11377	0.11405	0.010	-0.24637	30.00000	Averaged	
101 2,2,4-Trimethylpentane	4.32938	3.64907	0.010	15.71366	30.00000	Averaged	
102 Benzene	0.57049	0.56612	0.010	0.76671	30.00000	Averaged	
105 tert-Amyl methyl ether	0.15212	0.14343	0.010	5.71150	30.00000	Averaged	
106 1,2-Dichloroethane	0.32845	0.33573	0.010	-2.21694	30.00000	Averaged	
107 Heptane	0.22471	0.20078	0.010	10.64704	30.00000	Averaged	
110 n-Butanol	0.18286	0.17374	0.010	4.98444	30.00000	Averaged	
111 Trichloroethene	0.28620	0.27840	0.010	2.72758	30.00000	Averaged	
114 1,2-Dichloropropane	0.13224	0.11397	0.010	13.81649	30.00000	Averaged	
116 Methyl Methacrylate	0.24060	0.22735	0.010	5.50442	30.00000	Averaged	
117 1,4-Dioxane	0.14452	0.13632	0.010	5.67049	30.00000	Averaged	
118 Dibromomethane	0.26795	0.28850	0.010	-7.66961	30.00000	Averaged	
122 Bromodichloromethane	0.47947	0.45135	0.010	5.86385	30.00000	Averaged	
126 cis-1,3-Dichloropropene	0.35637	0.32666	0.010	8.33760	30.00000	Averaged	
127 Methylcyclohexane	0.38272	0.34128	0.010	10.82731	30.00000	Averaged	
131 4-Methyl-2-pentanone	0.24232	0.20156	0.010	16.81707	30.00000	Averaged	
137 Toluene	0.76548	0.73028	0.010	4.59938	30.00000	Averaged	
136 Octane	0.25468	0.23087	0.010	9.34932	30.00000	Averaged	
139 trans-1,3-Dichloropropene	0.36821	0.35388	0.010	3.89087	30.00000	Averaged	

US32TAR1

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                      Injection Date: 26-JUL-2021 10:10  
 Lab File ID: 3072602.d                  Init. Cal. Date(s): 22-JUN-2021 23-JUN-2021  
 Analysis Type: AIR                        Init. Cal. Times: 15:51 00:09  
 Lab Sample ID: CCV                        Quant Type: ISTD  
 Method: /chem/msd3.i/26JUL21.b/321q0622a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
141 1,1,2-Trichloroethane	0.28317	0.28020	0.010	1.05047	30.00000	Averaged	
142 Tetrachloroethene	0.39165	0.40546	0.010	-3.52575	30.00000	Averaged	
143 2-Hexanone	0.32527	0.31026	0.010	4.61219	30.00000	Averaged	
144 1,3-Dichloropropane	0.36522	0.33385	0.010	8.59048	30.00000	Averaged	
146 Dibromochloromethane	0.53722	0.56708	0.010	-5.55841	30.00000	Averaged	
148 1,2-Dibromoethane (EDB)	0.43975	0.44613	0.010	-1.45044	30.00000	Averaged	
151 1-Bromo-2-Chloroethane	0.46270	0.44199	0.010	4.47596	30.00000	Averaged	
154 Chlorobenzene	0.68328	0.66803	0.010	2.23143	30.00000	Averaged	
155 Ethyl Benzene	0.34167	0.34006	0.010	0.46978	30.00000	Averaged	
156 Nonane	0.66223	0.59614	0.010	9.98020	30.00000	Averaged	
158 m,p-Xylene	0.42506	0.41742	0.010	1.79642	30.00000	Averaged	
164 o-Xylene	0.40353	0.39645	0.010	1.75419	30.00000	Averaged	
165 Styrene	0.69912	0.70479	0.010	-0.81071	30.00000	Averaged	
167 Bromoform	0.50940	0.57606	0.010	-13.08697	30.00000	Averaged	
168 Cumene	1.27581	1.36005	0.010	-6.60342	30.00000	Averaged	
169 Cyclohexanone	0.40149	0.39029	0.010	2.79007	30.00000	Averaged	
175 1,1,2,2-Tetrachloroethane	0.63254	0.65964	0.010	-4.28430	30.00000	Averaged	
177 Bromobenzene	0.39660	0.43577	0.010	-9.87571	30.00000	Averaged	
178 Propylbenzene	1.48863	1.58695	0.010	-6.60492	30.00000	Averaged	
179 1,2,3-Trichloropropane	0.19054	0.20260	0.010	-6.32686	30.00000	Averaged	
181 trans-1,4-Dichloro-2-butene	0.15077	0.15288	0.010	-1.39506	30.00000	Averaged	
182 Decane	0.76973	0.74545	0.010	3.15433	30.00000	Averaged	
183 4-Ethyltoluene	0.38586	0.40054	0.010	-3.80405	30.00000	Averaged	
184 2-Chlorotoluene	0.31353	0.33751	0.010	-7.64978	30.00000	Averaged	
185 1,3,5-Trimethylbenzene	0.54196	0.54916	0.010	-1.32730	30.00000	Averaged	
188 alpha Methyl Styrene	0.55506	0.53575	0.010	3.47890	30.00000	Averaged	
189 tert-Butylbenzene	0.99718	1.00798	0.010	-1.08362	30.00000	Averaged	
190 1,2,4-Trimethylbenzene	1.06868	1.04916	0.010	1.82660	30.00000	Averaged	
192 sec-Butylbenzene	0.32209	0.32378	0.010	-0.52628	30.00000	Averaged	
194 p-Cymene	1.34882	1.35092	0.010	-0.15559	30.00000	Averaged	
195 1,3-Dichlorobenzene	0.72606	0.75543	0.010	-4.04499	30.00000	Averaged	
196 1,4-Dichlorobenzene	0.74787	0.75853	0.010	-1.42611	30.00000	Averaged	
199 alpha-Chlorotoluene	1.02827	0.95683	0.010	6.94702	30.00000	Averaged	
201 Undecane	0.90704	0.78590	0.010	13.35528	30.00000	Averaged	
202 Butylbenzene	0.34973	0.35336	0.010	-1.03757	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                    Injection Date: 26-JUL-2021 10:10  
 Lab File ID: 3072602.d                Init. Cal. Date(s): 22-JUN-2021 23-JUN-2021  
 Analysis Type: AIR                     Init. Cal. Times: 15:51                00:09  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msd3.i/26JUL21.b/321q0622a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
204 1,2-Dichlorobenzene	0.70162	0.71427	0.010	-1.80315	30.00000	Averaged	
206 1,2-Dibromo-3-chloropropane	0.40682	0.40089	0.010	1.45988	30.00000	Averaged	
207 Dodecane	0.76699	0.48353	0.010	36.95771	30.00000	Averaged	<-
213 1,2,4-Trichlorobenzene	0.49834	0.41209	0.010	17.30838	30.00000	Averaged	
215 Hexachlorobutadiene	0.37644	0.32028	0.010	14.91957	30.00000	Averaged	
216 Naphthalene	1.52174	0.93967	0.010	38.25021	30.00000	Averaged	<-
222 1,2,3-Trichlorobenzene	0.45602	0.33710	0.010	26.07666	30.00000	Averaged	

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 26-JUL-2021
Lab File ID: 3072602.d	Calibration Time: 11:42
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m	
Misc Info: 50ppbv (100ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	268159	160895	375423	263983	-1.56
108 1,4-Difluorobenze	904098	542459	1265737	833448	-7.81
153 Chlorobenzene-d5	786166	471700	1100632	741338	-5.70

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.17	-0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	-0.00

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.

Date : 26-JUL-2021 10:10

Client ID: CCV

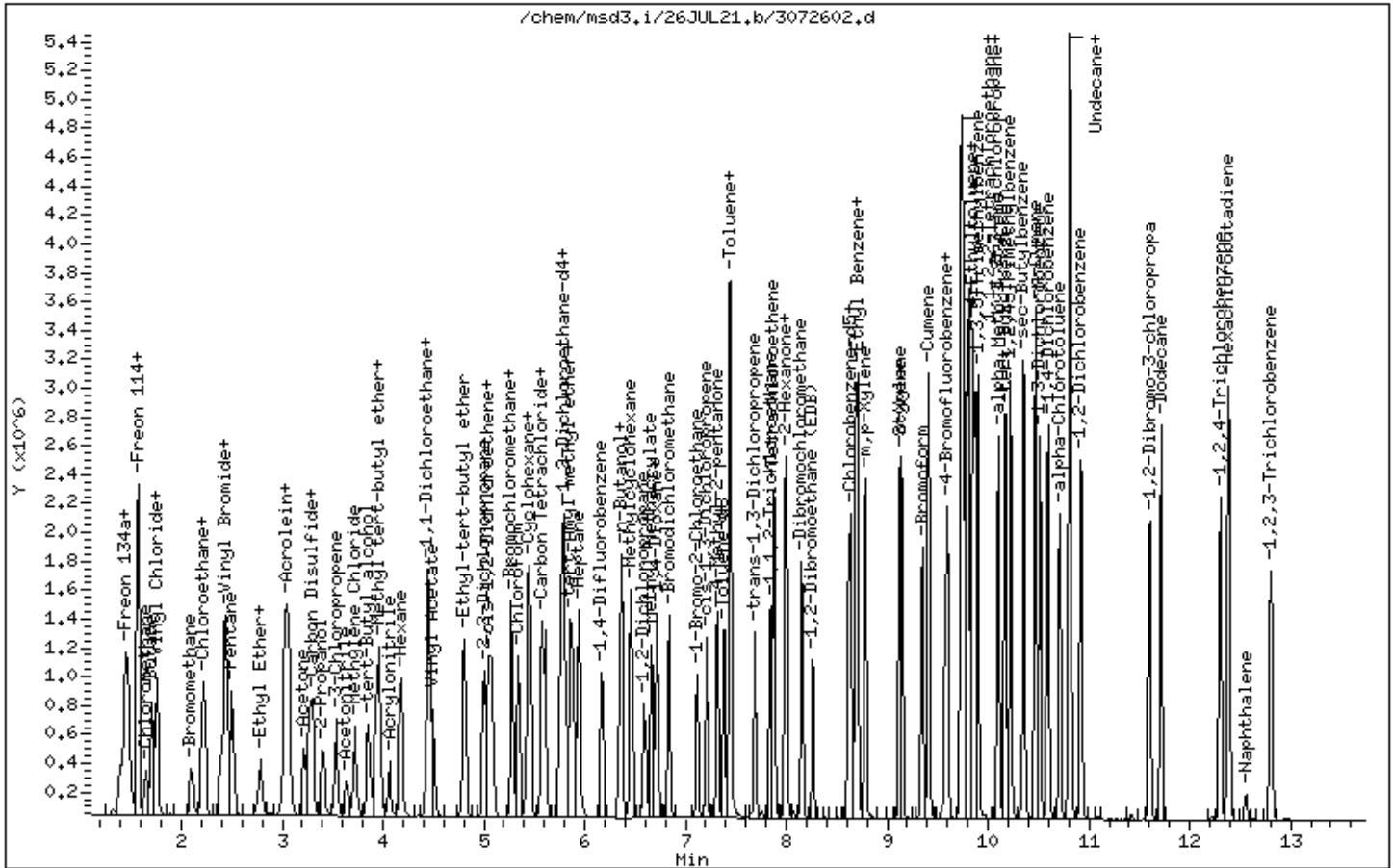
Instrument: msd3,i

Sample Info: 100mL 3018-2071A

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Client Sample ID: CCV

Lab ID#: 2107284-28B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/27/21 11:36 AM

Compound	%Recovery
1,1,1,2-Tetrachloroethane	104
1,1,1-Trichloroethane	89
1,1,2,2-Tetrachloroethane	106
1,1,2-Trichloroethane	98
1,1-Dichloroethane	96
1,1-Dichloroethene	91
1,1-Difluoroethane	101
1,2,3-Trichloropropane	109
1,2,4-Trichlorobenzene	85
1,2,4-Trimethylbenzene	102
1,2-Dibromo-3-chloropropane	100
1,2-Dibromoethane (EDB)	101
1,2-Dichlorobenzene	102
1,2-Dichloroethane	101
1,2-Dichloropropane	74
1,3,5-Trimethylbenzene	106
1,3-Butadiene	92
1,3-Dichlorobenzene	105
1,4-Dichlorobenzene	102
1,4-Dioxane	94
2,2,4-Trimethylpentane	85
2-Butanone (Methyl Ethyl Ketone)	96
2-Hexanone	95
2-Propanol	94
3-Chloropropene	89
4-Ethyltoluene	108
4-Methyl-2-pentanone	82
Acetone	96
Acrolein	94
Acrylonitrile	81
alpha-Chlorotoluene	92
Benzene	98
Bromodichloromethane	91
Bromoform	109
Bromomethane	100
Carbon Disulfide	100
Carbon Tetrachloride	98
Chlorobenzene	98
Chloroethane	97
Chloroform	93
Chloromethane	118
cis-1,2-Dichloroethene	92



Client Sample ID: CCV

Lab ID#: 2107284-28B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/27/21 11:36 AM

Compound	%Recovery
cis-1,3-Dichloropropene	90
Cumene	101
Cyclohexane	86
Dibromochloromethane	105
Dibromomethane	108
Ethanol	83
Ethyl Acetate	96
Ethyl Benzene	98
Ethyl-tert-butyl ether	90
Freon 11	105
Freon 12	100
Freon 113	99
Freon 114	103
Freon 134a	104
Heptane	86
Hexachlorobutadiene	86
Hexachloroethane	112
Hexane	89
Iodomethane	107
Isopropyl ether	92
m,p-Xylene	101
Methyl tert-butyl ether	89
Methylene Chloride	96
Naphthalene	63
o-Xylene	99
Propylbenzene	109
Propylene	95
Styrene	102
tert-Amyl methyl ether	93
tert-Butyl alcohol	88
Tetrachloroethene	104
Tetrahydrofuran	87
Toluene	93
TPH ref. to Gasoline (MW=100)	100
trans-1,2-Dichloroethene	87
trans-1,3-Dichloropropene	96
Trichloroethene	96
Vinyl Acetate	92
Vinyl Bromide	97
Vinyl Chloride	105

Container Type: NA - Not Applicable

Client Sample ID: CCV

Lab ID#: 2107284-28B

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/27/21 11:36 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	108	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/27JUL21.b/3072703.d  
Lab Smp Id: CCV Client Smp ID: CCV  
Inj Date : 27-JUL-2021 11:36  
Operator : LD Inst ID: msd3.i  
Smp Info : 100mL 3018-2071A  
Misc Info : 50ppbv (100ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/27JUL21.b/321q0622a.m  
Meth Date : 27-Jul-2021 15:31 lk8g Quant Type: ISTD  
Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
Als bottle: 13 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20\_new.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane				CAS #: 74-97-5		
5.284	5.284	(1.000)	130	238986	25.0000		80.00- 120.00 100.00
5.284	5.284	(1.000)	128	187500			48.46- 108.46 78.46
5.270	5.270	(1.000)	49	338226			120.39- 180.39 141.53
-----							
* 108	1,4-Difluorobenzene				CAS #: 540-36-3		
6.180	6.180	(1.000)	114	785289	25.0000		80.00- 120.00 100.00
6.180	6.180	(1.000)	88	114138			0.00- 45.52 14.53
-----							
* 153	Chlorobenzene-d5				CAS #: 3114-55-4		
8.612	8.612	(1.000)	117	683596	25.0000		80.00- 120.00 100.00
8.612	8.612	(1.000)	82	366865			25.46- 85.46 53.67
-----							
\$ 104	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
5.816	5.816	(1.101)	65	318581	25.0000	24.224	80.00- 120.00 100.00
5.816	5.816	(1.101)	67	162161			21.66- 81.66 50.90
-----							
\$ 134	Toluene-d8				CAS #: 2037-26-5		
7.387	7.387	(1.195)	98	774218	25.0000	23.936	80.00- 120.00 100.00
7.387	7.387	(1.195)	70	82736			0.00- 41.47 10.69

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	511317			36.47- 96.47	66.04
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	490326	25.0000	27.118	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	562729			93.06- 153.06	114.77
9.601	9.601	(1.115)	176	454164			62.87- 122.87	92.62
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.395	1.395	(0.264)	83	297232	50.0000	52.269	80.00- 120.00	100.00
1.395	1.395	(0.264)	69	236527			51.82- 111.82	79.58
1.479	1.479	(0.280)	51	727436			194.91- 254.91	244.74
-----								
5 Propylene								
						CAS #: 115-07-1		
1.423	1.423	(0.269)	41	275154	50.0000	47.665	80.00- 120.00	100.00
1.423	1.423	(0.269)	42	183011			35.61- 95.61	66.51
1.423	1.423	(0.269)	39	207006			42.66- 102.66	75.23
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.437	1.437	(0.272)	65	189731	50.0000	50.421	80.00- 120.00	100.00
1.479	1.479	(0.280)	51	727436			321.86- 381.86	383.40
1.451	1.451	(0.275)	47	145666			45.34- 105.34	76.78
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.465	1.465	(0.277)	85	834632	50.0000	50.134	80.00- 120.00	100.00
1.465	1.465	(0.277)	87	271246			2.63- 62.63	32.50
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.493	1.493	(0.282)	67	94331	50.0000	51.556	80.00- 120.00	100.00
1.479	1.479	(0.280)	51	727436			719.76- 779.76	771.15
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.563	1.563	(0.296)	135	634091	50.0000	51.403	80.00- 120.00	100.00
1.563	1.563	(0.296)	137	204445			2.12- 62.12	32.24
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.577	1.577	(0.298)	43	629387	50.0000	48.509	80.00- 120.00	100.00
1.577	1.577	(0.298)	42	207244			2.44- 62.44	32.93
1.577	1.577	(0.298)	58	21931			0.00- 33.26	3.48
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.646	1.646	(0.312)	50	408963	50.0000	59.103	80.00- 120.00	100.00
1.646	1.646	(0.312)	52	132499			2.41- 62.41	32.40
-----								
18 Butane								
						CAS #: 106-97-8		
1.702	1.702	(0.322)	58	85670	50.0000	52.427	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)								
1.702	1.702	(0.322)	43	652469			727.41- 787.41	761.60
-----								
19 Vinyl Chloride CAS #: 75-01-4								
1.744	1.744	(0.330)	62	387463	50.0000	52.328	80.00- 120.00	100.00
1.744	1.744	(0.330)	64	116032			1.28- 61.28	29.95
-----								
20 1,3-Butadiene CAS #: 106-99-0								
1.758	1.758	(0.333)	54	313233	50.0000	46.159	80.00- 120.00	100.00
1.758	1.758	(0.333)	39	304174			69.23- 129.23	97.11
-----								
24 Bromomethane CAS #: 74-83-9								
2.094	2.094	(0.396)	94	293237	50.0000	50.074	80.00- 120.00	100.00
2.094	2.094	(0.396)	96	274864			62.78- 122.78	93.73
-----								
30 Chloroethane CAS #: 75-00-3								
2.206	2.206	(0.417)	64	169108	50.0000	48.653	80.00- 120.00	100.00
2.206	2.206	(0.417)	66	50039			1.44- 61.44	29.59
2.206	2.206	(0.417)	49	57560			4.12- 64.12	34.04
-----								
31 Isopentane CAS #: 78-78-4								
2.220	2.220	(0.420)	43	412969	50.0000	46.462	80.00- 120.00	100.00
2.220	2.220	(0.420)	57	295006			38.82- 98.82	71.44
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.388	2.388	(0.452)	106	308689	50.0000	48.482	80.00- 120.00	100.00
2.388	2.388	(0.452)	108	295127			63.14- 123.14	95.61
-----								
33 Freon 11 CAS #: 75-69-4								
2.430	2.430	(0.460)	101	927720	50.0000	52.668	80.00- 120.00	100.00
2.430	2.430	(0.460)	103	601548			35.12- 95.12	64.84
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.444	2.444	(0.463)	67	737811	50.0000	52.397	80.00- 120.00	100.00
2.444	2.444	(0.463)	69	224965			0.74- 60.74	30.49
-----								
35 Pentane CAS #: 109-66-0								
2.500	2.500	(0.473)	43	668749	50.0000	47.225	80.00- 120.00	100.00
2.500	2.500	(0.473)	57	109674			0.00- 45.97	16.40
2.500	2.500	(0.473)	72	55876			0.00- 38.10	8.36
-----								
38 Ethyl Ether CAS #: 60-29-7								
2.780	2.780	(0.526)	74	144920	50.0000	45.645	80.00- 120.00	100.00
2.780	2.780	(0.526)	59	254129			147.68- 207.68	175.36
2.780	2.780	(0.526)	45	336274			206.40- 266.40	232.04
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AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol						CAS #: 64-17-5		
2.766	2.766	(0.523)	46	59181	50.0000	41.531	80.00- 120.00	100.00
2.780	2.780	(0.526)	45	335667			523.01- 583.01	567.18
-----								
42 Acrolein						CAS #: 107-02-8		
3.032	3.032	(0.574)	55	111458	50.0000	47.134	80.00- 120.00	100.00
3.032	3.032	(0.574)	56	161637			110.33- 170.33	145.02
-----								
43 Freon 113						CAS #: 76-13-1		
3.032	3.032	(0.574)	151	597400	50.0000	49.612	80.00- 120.00	100.00
3.046	3.046	(0.576)	153	383583			33.72- 93.72	64.21
3.032	3.032	(0.574)	101	725031			89.67- 149.67	121.36
-----								
44 1,1-Dichloroethene						CAS #: 75-35-4		
3.074	3.074	(0.582)	96	330534	50.0000	45.573	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	206586			33.39- 93.39	62.50
3.074	3.074	(0.582)	61	655237			163.82- 223.82	198.24
-----								
47 Acetone						CAS #: 67-64-1		
3.214	3.214	(0.608)	58	192956	50.0000	48.151	80.00- 120.00	100.00
3.214	3.214	(0.608)	43	645474			299.66- 359.66	334.52
-----								
48 Carbon Disulfide						CAS #: 75-15-0		
3.298	3.298	(0.624)	76	906165	50.0000	50.216	80.00- 120.00	100.00
-----								
49 Iodomethane						CAS #: 74-88-4		
3.270	3.270	(0.619)	142	831755	50.0000	53.304	80.00- 120.00	100.00
3.270	3.270	(0.619)	127	385841			14.58- 74.58	46.39
-----								
52 2-Propanol						CAS #: 67-63-0		
3.409	3.409	(0.645)	45	674523	50.0000	46.804	80.00- 120.00	100.00
3.395	3.395	(0.643)	43	140813			0.00- 48.61	20.88
-----								
54 3-Chloropropene						CAS #: 107-05-1		
3.535	3.535	(0.669)	76	138248	50.0000	44.499	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	483332			338.06- 398.06	349.61
-----								
57 Acetonitrile						CAS #: 75-05-8		
3.633	3.633	(0.688)	41	304244	50.0000	48.214	80.00- 120.00	100.00
3.633	3.633	(0.688)	40	153674			21.81- 81.81	50.51
3.633	3.633	(0.688)	38	35542			0.00- 41.86	11.68
-----								
59 Methylene Chloride						CAS #: 75-09-2		
3.717	3.717	(0.703)	49	462560	50.0000	48.231	80.00- 120.00	100.00
3.717	3.717	(0.703)	84	278242			30.77- 90.77	60.15
3.717	3.717	(0.703)	51	142007			1.39- 61.39	30.70
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AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol						CAS #: 75-65-0		
3.857	3.857	(0.730)	59	798528	50.0000	44.144	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	190448			0.00- 51.05	23.85
3.857	3.857	(0.730)	57	85814			0.00- 41.68	10.75
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
3.941	3.941	(0.746)	73	873227	50.0000	44.725	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	262612			0.00- 58.86	30.07
3.941	3.941	(0.746)	41	254934			0.00- 57.27	29.19
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
3.969	3.969	(0.751)	98	211590	50.0000	43.351	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	569856			244.59- 304.59	269.32
3.969	3.969	(0.751)	96	332803			129.84- 189.84	157.29
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.067	4.067	(0.770)	52	238041	50.0000	40.637	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	273286			88.50- 148.50	114.81
-----								
67 Hexane						CAS #: 110-54-3		
4.179	4.179	(0.791)	57	591878	50.0000	44.723	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	364332			32.99- 92.99	61.56
4.179	4.179	(0.791)	86	73183			0.00- 42.56	12.36
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.459	4.459	(0.844)	63	657093	50.0000	48.279	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	196947			0.76- 60.76	29.97
-----								
72 Isopropyl ether						CAS #: 108-20-3		
4.445	4.445	(0.841)	45	1278897	50.0000	45.790	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	280799			0.00- 51.37	21.96
4.445	4.445	(0.841)	59	149703			0.00- 41.09	11.71
-----								
73 Vinyl Acetate						CAS #: 108-05-4		
4.501	4.501	(0.852)	86	76999	50.0000	46.017	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	1100470			1391.63-1451.63	1429.19
-----								
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
4.809	4.809	(0.910)	59	1207137	50.0000	44.769	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	401818			3.22- 63.22	33.29
4.809	4.809	(0.910)	41	241786			0.00- 48.12	20.03
-----								
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.005	5.005	(0.947)	77	604837	50.0000	47.703	80.00- 120.00	100.00
5.005	5.005	(0.947)	79	197596			2.00- 62.00	32.67
5.005	5.005	(0.947)	97	140567			0.00- 53.36	23.24

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene			CAS #: 156-59-2					
5.046	5.046	(0.955)	98	222984	50.0000	46.086	80.00- 120.00	100.00
5.046	5.046	(0.955)	96	343187			127.22- 187.22	153.91
5.046	5.046	(0.955)	61	723962			283.85- 343.85	324.67
86 2-Butanone			CAS #: 78-93-3					
5.074	5.074	(0.960)	72	161700	50.0000	47.847	80.00- 120.00	100.00
5.074	5.074	(0.960)	43	1729666			1055.75-1115.75	1069.67
5.074	5.074	(0.960)	57	67340			10.59- 70.59	41.64
87 Ethyl Acetate			CAS #: 141-78-6					
5.088	5.088	(0.963)	45	134561	50.0000	48.298	80.00- 120.00	100.00
5.046	5.046	(0.955)	61	723962			450.31- 510.31	538.02
5.088	5.088	(0.963)	70	80201			30.42- 90.42	59.60
89 Tetrahydrofuran			CAS #: 109-99-9					
5.270	5.270	(0.997)	42	415892	50.0000	43.641	80.00- 120.00	100.00
5.270	5.270	(0.997)	71	138664			2.92- 62.92	33.34
5.270	5.270	(0.997)	72	143107			3.54- 63.54	34.41
92 Chloroform			CAS #: 67-66-3					
5.340	5.340	(1.011)	83	700237	50.0000	46.733	80.00- 120.00	100.00
5.340	5.340	(1.011)	85	455445			34.71- 94.71	65.04
94 Cyclohexane			CAS #: 110-82-7					
5.438	5.438	(1.029)	84	405831	50.0000	42.850	80.00- 120.00	100.00
5.438	5.438	(1.029)	56	610004			120.40- 180.40	150.31
5.438	5.438	(1.029)	41	340033			54.20- 114.20	83.79
96 1,1,1-Trichloroethane			CAS #: 71-55-6					
5.466	5.466	(1.034)	97	753632	50.0000	44.747	80.00- 120.00	100.00
5.466	5.466	(1.034)	99	476946			33.76- 93.76	63.29
97 Carbon Tetrachloride			CAS #: 56-23-5					
5.578	5.578	(1.056)	119	761651	50.0000	49.101	80.00- 120.00	100.00
5.578	5.578	(1.056)	117	785502			73.68- 133.68	103.13
99 1,1-Dichloropropene			CAS #: 563-58-6					
5.606	5.606	(0.907)	110	177408	50.0000	49.642	80.00- 120.00	100.00
5.606	5.606	(0.907)	75	462822			231.09- 291.09	260.88
101 2,2,4-Trimethylpentane			CAS #: 540-84-1					
5.774	5.774	(1.093)	57	1768312	50.0000	42.727	80.00- 120.00	100.00
5.774	5.774	(1.093)	56	578102			1.12- 61.12	32.69
5.774	5.774	(1.093)	41	488487			0.00- 57.49	27.62



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene						CAS #: 71-43-2		
5.788	5.788	(0.937)	78	881998	50.0000	49.218	80.00- 120.00	100.00
5.788	5.788	(0.937)	77	213588			0.00- 53.80	24.22
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
5.858	5.858	(0.948)	87	222888	50.0000	46.647	80.00- 120.00	100.00
5.858	5.858	(0.948)	73	876961			365.20- 425.20	393.45
5.858	5.858	(0.948)	55	303311			91.31- 151.31	136.08
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
5.886	5.886	(0.952)	62	519966	50.0000	50.398	80.00- 120.00	100.00
5.886	5.886	(0.952)	64	163436			1.20- 61.20	31.43
-----								
107 Heptane						CAS #: 142-82-5		
5.942	5.942	(0.962)	71	304904	50.0000	43.198	80.00- 120.00	100.00
5.942	5.942	(0.962)	43	614601			179.02- 239.02	201.57
5.942	5.942	(0.962)	57	373088			84.85- 144.85	122.36
-----								
110 n-Butanol						CAS #: 71-36-3		
6.348	6.348	(1.027)	56	269453	50.0000	46.911	80.00- 120.00	100.00
6.348	6.348	(1.027)	41	180146			40.21- 100.21	66.86
6.348	6.348	(1.027)	43	142726			25.00- 85.00	52.97
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.362	6.362	(1.029)	95	429619	50.0000	47.788	80.00- 120.00	100.00
6.362	6.362	(1.029)	130	457013			74.96- 134.96	106.38
6.362	6.362	(1.029)	97	273648			34.80- 94.80	63.70
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
6.586	6.586	(1.066)	63	153945	50.0000	37.061	80.00- 120.00	100.00
6.586	6.586	(1.066)	62	135945			52.03- 112.03	88.31
6.586	6.586	(1.066)	41	154131			79.97- 139.97	100.12
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
6.664	6.664	(0.774)	69	313820	50.0000	47.701	80.00- 120.00	100.00
6.664	6.664	(0.774)	41	481505			134.02- 194.02	153.43
6.664	6.664	(0.774)	100	122752			9.54- 69.54	39.12
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
6.700	6.700	(1.084)	88	213388	50.0000	47.007	80.00- 120.00	100.00
6.700	6.700	(1.084)	58	176834			55.80- 115.80	82.87
6.700	6.700	(1.084)	57	65421			8.68- 68.68	30.66
-----								
118 Dibromomethane						CAS #: 74-95-3		
6.721	6.721	(0.780)	174	396878	50.0000	54.168	80.00- 120.00	100.00
6.714	6.714	(0.780)	93	385416			67.27- 127.27	97.11

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
6.721	6.721	(0.780)	95	318875			50.92- 110.92	80.35
-----								
122 Bromodichloromethane CAS #: 75-27-4								
6.836	6.836	(1.106)	83	687162	50.0000	45.626	80.00- 120.00	100.00
6.836	6.836	(1.106)	85	444173			34.31- 94.31	64.64
-----								
126 cis-1,3-Dichloropropene CAS #: 10061-01-5								
7.208	7.208	(1.166)	75	505501	50.0000	45.158	80.00- 120.00	100.00
7.208	7.208	(1.166)	77	160396			1.42- 61.42	31.73
7.208	7.208	(1.166)	39	340190			38.56- 98.56	67.30
-----								
127 Methylcyclohexane CAS #: 108-87-2								
6.460	6.460	(1.045)	83	522573	50.0000	43.469	80.00- 120.00	100.00
6.460	6.460	(1.045)	98	242516			15.60- 75.60	46.41
6.460	6.460	(1.045)	55	555370			78.53- 138.53	106.28
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.316	7.316	(1.184)	58	311803	50.0000	40.965	80.00- 120.00	100.00
7.316	7.316	(1.184)	43	798684			231.30- 291.30	256.15
7.316	7.316	(1.184)	85	118302			8.94- 68.94	37.94
-----								
137 Toluene CAS #: 108-88-3								
7.437	7.437	(1.203)	91	1116802	50.0000	46.446	80.00- 120.00	100.00
7.437	7.437	(1.203)	92	638244			28.30- 88.30	57.15
-----								
136 Octane CAS #: 111-65-9								
7.444	7.444	(1.205)	57	345691	50.0000	43.212	80.00- 120.00	100.00
7.444	7.444	(1.205)	85	338333			67.11- 127.11	97.87
7.444	7.444	(1.205)	43	782458			214.21- 274.21	226.35
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
7.688	7.688	(0.893)	75	484199	50.0000	48.092	80.00- 120.00	100.00
7.688	7.688	(0.893)	77	153043			2.15- 62.15	31.61
7.688	7.688	(0.893)	39	312182			36.09- 96.09	64.47
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
7.846	7.846	(0.911)	97	377713	50.0000	48.781	80.00- 120.00	100.00
7.846	7.846	(0.911)	99	236082			31.62- 91.62	62.50
7.846	7.846	(0.911)	83	330363			56.35- 116.35	87.46
-----								
142 Tetrachloroethene CAS #: 127-18-4								
7.881	7.881	(0.915)	166	556140	50.0000	51.930	80.00- 120.00	100.00
7.881	7.881	(0.915)	129	429650			48.71- 108.71	77.26
7.874	7.874	(0.914)	131	412771			46.55- 106.55	74.22
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6		
8.003	8.003	(0.929)	58	424130	50.0000	47.687	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	775872			157.91- 217.91	182.93
8.003	8.003	(0.929)	100	77149			0.00- 47.86	18.19
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
7.989	7.989	(1.293)	76	512805	50.0000	44.700	80.00- 120.00	100.00
7.989	7.989	(1.293)	41	544359			82.96- 142.96	106.15
7.989	7.989	(1.293)	78	167277			2.55- 62.55	32.62
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.154	8.154	(0.947)	129	774405	50.0000	52.718	80.00- 120.00	100.00
8.154	8.154	(0.947)	127	603279			47.77- 107.77	77.90
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.261	8.261	(0.959)	107	607847	50.0000	50.550	80.00- 120.00	100.00
8.261	8.261	(0.959)	109	571076			64.60- 124.60	93.95
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.115	7.115	(1.151)	63	679997	50.0000	46.786	80.00- 120.00	100.00
7.115	7.115	(1.151)	65	209990			0.95- 60.95	30.88
7.122	7.122	(1.152)	144	74752			0.00- 40.45	10.99
-----								
154 Chlorobenzene						CAS #: 108-90-7		
8.641	8.641	(1.003)	112	913652	50.0000	48.902	80.00- 120.00	100.00
8.641	8.641	(1.003)	114	294174			2.13- 62.13	32.20
8.641	8.641	(1.003)	77	491665			26.35- 86.35	53.81
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
8.684	8.684	(1.008)	106	459018	50.0000	49.132	80.00- 120.00	100.00
8.684	8.684	(1.008)	91	1439882			282.48- 342.48	313.69
-----								
156 Nonane						CAS #: 111-84-2		
8.705	8.705	(1.011)	43	825944	50.0000	45.612	80.00- 120.00	100.00
8.705	8.705	(1.011)	57	758137			59.52- 119.52	91.79
8.705	8.705	(1.011)	85	260803			0.00- 59.76	31.58
-----								
158 m,p-Xylene						CAS #: 108-38-3		
8.784	8.784	(1.020)	106	585551	50.0000	50.380	80.00- 120.00	100.00
8.784	8.784	(1.020)	91	1162462			171.36- 231.36	198.52
-----								
164 o-Xylene						CAS #: 95-47-6		
9.121	9.121	(1.059)	106	545303	50.0000	49.420	80.00- 120.00	100.00
9.121	9.121	(1.059)	91	1155970			179.99- 239.99	211.99
-----								
165 Styrene						CAS #: 100-42-5		
9.149	9.149	(1.062)	104	975960	50.0000	51.053	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
165 Styrene (continued)								
9.142	9.142	(1.062)	78	460193			19.09- 79.09	47.15
-----								
167 Bromoform CAS #: 75-25-2								
9.350	9.350	(1.086)	173	761363	50.0000	54.660	80.00- 120.00	100.00
9.350	9.350	(1.086)	171	392743			21.45- 81.45	51.58
-----								
168 Cumene CAS #: 98-82-8								
9.414	9.414	(1.093)	105	1768268	50.0000	50.688	80.00- 120.00	100.00
9.414	9.414	(1.093)	120	479459			0.00- 56.99	27.11
9.407	9.407	(1.092)	51	204153			0.00- 41.77	11.55
-----								
169 Cyclohexanone CAS #: 108-94-1								
9.579	9.579	(1.112)	55	532657	50.0000	48.519	80.00- 120.00	100.00
9.579	9.579	(1.112)	98	206505			9.22- 69.22	38.77
9.579	9.579	(1.112)	42	372034			42.60- 102.60	69.84
-----								
175 1,1,2,2-Tetrachloroethane CAS #: 79-34-5								
9.737	9.737	(1.131)	83	921272	50.0000	53.265	80.00- 120.00	100.00
9.737	9.737	(1.131)	85	593860			34.35- 94.35	64.46
-----								
177 Bromobenzene CAS #: 108-86-1								
9.730	9.730	(1.130)	156	604980	50.0000	55.786	80.00- 120.00	100.00
9.737	9.737	(1.131)	158	590566			67.29- 127.29	97.62
9.730	9.730	(1.130)	77	930896			132.41- 192.41	153.87
-----								
178 Propylbenzene CAS #: 103-65-1								
9.758	9.758	(1.133)	91	2219191	50.0000	54.519	80.00- 120.00	100.00
9.758	9.758	(1.133)	120	525592			0.00- 53.77	23.68
9.758	9.758	(1.133)	105	85289			0.00- 33.81	3.84
-----								
179 1,2,3-Trichloropropane CAS #: 96-18-4								
9.787	9.787	(1.136)	110	284906	50.0000	54.683	80.00- 120.00	100.00
9.787	9.787	(1.136)	75	857877			285.00- 345.00	301.11
9.787	9.787	(1.136)	61	237150			54.06- 114.06	83.24
-----								
181 trans-1,4-Dichloro-2-butene CAS #: 110-57-6								
9.787	9.787	(1.136)	53	211869	50.0000	51.390	80.00- 120.00	100.00
9.787	9.787	(1.136)	89	102773			21.19- 81.19	48.51
9.787	9.787	(1.136)	75	857877			372.45- 432.45	404.91
-----								
182 Decane CAS #: 124-18-5								
9.808	9.808	(1.139)	57	1061558	50.0000	50.437	80.00- 120.00	100.00
9.808	9.808	(1.139)	71	360588			4.13- 64.13	33.97
9.808	9.808	(1.139)	142	51084			0.00- 34.73	4.81
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.144)	120	567762	50.0000	53.812	80.00- 120.00	100.00
9.851	9.851	(1.144)	105	1841978			296.79- 356.79	324.43
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
9.873	9.873	(1.146)	126	472225	50.0000	55.083	80.00- 120.00	100.00
9.873	9.873	(1.146)	91	1661050			336.29- 396.29	351.75
9.873	9.873	(1.146)	65	238533			38.83- 98.83	50.51
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
9.901	9.901	(1.150)	120	786677	50.0000	53.084	80.00- 120.00	100.00
9.901	9.901	(1.150)	105	1594417			176.40- 236.40	202.68
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.102	10.102	(1.173)	118	754867	50.0000	49.736	80.00- 120.00	100.00
10.102	10.102	(1.173)	103	425217			26.64- 86.64	56.33
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
10.174	10.174	(1.181)	119	1399786	50.0000	51.337	80.00- 120.00	100.00
10.174	10.174	(1.181)	134	352018			0.00- 54.82	25.15
10.174	10.174	(1.181)	91	906931			36.92- 96.92	64.79
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
10.224	10.224	(1.187)	105	1483125	50.0000	50.754	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	698580			16.58- 76.58	47.10
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
10.360	10.360	(1.203)	134	451515	50.0000	51.267	80.00- 120.00	100.00
10.353	10.353	(1.202)	105	2163387			451.53- 511.53	479.14
10.353	10.353	(1.202)	91	338394			46.48- 106.48	74.95
-----								
194 p-Cymene						CAS #: 99-87-6		
10.467	10.467	(1.215)	119	1843828	50.0000	49.992	80.00- 120.00	100.00
10.467	10.467	(1.215)	134	492389			0.00- 56.79	26.70
10.467	10.467	(1.215)	91	426652			0.00- 54.04	23.14
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
10.517	10.517	(1.221)	146	1038447	50.0000	52.306	80.00- 120.00	100.00
10.517	10.517	(1.221)	148	656123			33.53- 93.53	63.18
10.517	10.517	(1.221)	111	409606			11.05- 71.05	39.44
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
10.596	10.596	(1.230)	146	1044420	50.0000	51.073	80.00- 120.00	100.00
10.596	10.596	(1.230)	148	656127			33.47- 93.47	62.82
10.596	10.596	(1.230)	111	390504			9.65- 69.65	37.39
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene						CAS #: 100-44-7		
10.711	10.711	(1.244)	91	1300080	50.0000	46.239	80.00- 120.00	100.00
10.711	10.711	(1.244)	126	291725			0.00- 52.04	22.44
-----								
201 Undecane						CAS #: 1120-21-4		
10.804	10.804	(1.254)	57	1077012	50.0000	43.424	80.00- 120.00	100.00
10.804	10.804	(1.254)	43	915697			55.86- 115.86	85.02
-----								
202 Butylbenzene						CAS #: 104-51-8		
10.818	10.818	(1.256)	134	484536	50.0000	50.668	80.00- 120.00	100.00
10.818	10.818	(1.256)	91	1741696			331.99- 391.99	359.46
10.818	10.818	(1.256)	92	901366			161.01- 221.01	186.03
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
10.926	10.926	(1.269)	146	980296	50.0000	51.097	80.00- 120.00	100.00
10.926	10.926	(1.269)	148	620331			33.23- 93.23	63.28
10.919	10.919	(1.268)	111	396843			12.36- 72.36	40.48
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
11.606	11.606	(1.348)	157	557249	50.0000	50.094	80.00- 120.00	100.00
11.599	11.599	(1.347)	75	457438			58.96- 118.96	82.09
11.606	11.606	(1.348)	155	428351			47.82- 107.82	76.87
-----								
207 Dodecane						CAS #: 112-40-3		
11.714	11.714	(1.360)	57	829398	61.8000	39.547	80.00- 120.00	100.00
11.714	11.714	(1.360)	43	665605			50.85- 110.85	80.25
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
12.301	12.301	(1.428)	180	726264	62.9500	53.298	80.00- 120.00	100.00
12.301	12.301	(1.428)	182	697634			65.40- 125.40	96.06
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
12.387	12.387	(1.438)	225	572552	64.3500	55.624	80.00- 120.00	100.00
12.387	12.387	(1.438)	223	362494			33.70- 93.70	63.31
-----								
216 Naphthalene						CAS #: 91-20-3		
12.559	12.559	(1.458)	128	165849	6.35000	3.986	80.00- 120.00	100.00
12.559	12.559	(1.458)	127	21965			0.00- 43.10	13.24
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
12.810	12.810	(1.487)	180	629667	66.5500	50.497	80.00- 120.00	100.00
12.810	12.810	(1.487)	182	599674			65.67- 125.67	95.24
12.802	12.802	(1.487)	145	221171			6.02- 66.02	35.13
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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                    Injection Date: 27-JUL-2021 11:36  
 Lab File ID: 3072703.d                Init. Cal. Date(s): 22-JUN-2021 23-JUN-2021  
 Analysis Type: AIR                     Init. Cal. Times: 15:51                    00:09  
 Lab Sample ID: CCV                     Quant Type:    ISTD  
 Method: /chem/msd3.i/27JUL21.b/321q0622a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
\$ 104 1,2-Dichloroethane-d4	1.37578	1.33305	0.010	3.10557	30.00000	Averaged	
\$ 134 Toluene-d8	1.02971	0.98590	0.010	4.25419	30.00000	Averaged	
\$ 170 4-Bromofluorobenzene	0.66126	0.71727	0.010	-8.47061	30.00000	Averaged	
4 Freon 134a	0.59487	0.62186	0.010	-4.53813	30.00000	Averaged	
5 Propylene	0.60387	0.57567	0.010	4.66933	30.00000	Averaged	
7 1,1-Difluoroethane	0.39363	0.39695	0.010	-0.84252	30.00000	Averaged	
8 Freon 12	1.74153	1.74619	0.010	-0.26744	30.00000	Averaged	
9 Chlorodifluoromethane	0.19140	0.19736	0.010	-3.11100	30.00000	Averaged	
10 Freon 114	1.29040	1.32663	0.010	-2.80694	30.00000	Averaged	
12 Isobutane	1.35725	1.31678	0.010	2.98113	30.00000	Averaged	
15 Chloromethane	0.72383	0.85562	0.010	-18.20663	30.00000	Averaged	
18 Butane	0.17094	0.17924	0.010	-4.85348	30.00000	Averaged	
19 Vinyl Chloride	0.77458	0.81064	0.010	-4.65588	30.00000	Averaged	
20 1,3-Butadiene	0.70987	0.65534	0.010	7.68207	30.00000	Averaged	
24 Bromomethane	0.61260	0.61350	0.010	-0.14794	30.00000	Averaged	
30 Chloroethane	0.36360	0.35380	0.010	2.69410	30.00000	Averaged	
31 Isopentane	0.92980	0.86400	0.010	7.07636	30.00000	Averaged	
32 Vinyl Bromide	0.66605	0.64583	0.010	3.03523	30.00000	Averaged	
33 Freon 11	1.84264	1.94095	0.010	-5.33520	30.00000	Averaged	
34 Dichlorofluoromethane	1.47301	1.54363	0.010	-4.79430	30.00000	Averaged	
35 Pentane	1.48134	1.39914	0.010	5.54945	30.00000	Averaged	
38 Ethyl Ether	0.33213	0.30320	0.010	8.71070	30.00000	Averaged	
39 Ethanol	0.14907	0.12382	0.010	16.93734	30.00000	Averaged	
42 Acrolein	0.24737	0.23319	0.010	5.73210	30.00000	Averaged	
43 Freon 113	1.25964	1.24986	0.010	0.77612	30.00000	Averaged	
44 1,1-Dichloroethene	0.75871	0.69153	0.010	8.85400	30.00000	Averaged	
47 Acetone	0.41920	0.40370	0.010	3.69752	30.00000	Averaged	
48 Carbon Disulfide	1.88768	1.89585	0.010	-0.43310	30.00000	Averaged	
49 Iodomethane	1.63230	1.74017	0.010	-6.60839	30.00000	Averaged	
52 2-Propanol	1.50759	1.41122	0.010	6.39245	30.00000	Averaged	
54 3-Chloropropene	0.32499	0.28924	0.010	11.00109	30.00000	Averaged	
57 Acetonitrile	0.66010	0.63653	0.010	3.57082	30.00000	Averaged	
59 Methylene Chloride	1.00325	0.96775	0.010	3.53792	30.00000	Averaged	
62 tert-Butyl alcohol	1.89229	1.67066	0.010	11.71242	30.00000	Averaged	
63 Methyl tert-butyl ether	2.04241	1.82694	0.010	10.54999	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                      Injection Date: 27-JUL-2021 11:36  
 Lab File ID: 3072703.d                    Init. Cal. Date(s): 22-JUN-2021 23-JUN-2021  
 Analysis Type: AIR                         Init. Cal. Times: 15:51 00:09  
 Lab Sample ID: CCV                         Quant Type: ISTD  
 Method: /chem/msd3.i/27JUL21.b/321q0622a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
64 trans-1,2-Dichloroethene	0.51058	0.44268	0.010	13.29796	30.00000	Averaged	
66 Acrylonitrile	0.61277	0.49802	0.010	18.72571	30.00000	Averaged	
67 Hexane	1.38442	1.23831	0.010	10.55372	30.00000	Averaged	
71 1,1-Dichloroethane	1.42374	1.37475	0.010	3.44110	30.00000	Averaged	
72 Isopropyl ether	2.92166	2.67567	0.010	8.41960	30.00000	Averaged	
73 Vinyl Acetate	0.17504	0.16110	0.010	7.96673	30.00000	Averaged	
79 Ethyl-tert-butyl ether	2.82061	2.52553	0.010	10.46149	30.00000	Averaged	
84 2,2-Dichloropropane	1.32635	1.26542	0.010	4.59356	30.00000	Averaged	
85 cis-1,2-Dichloroethene	0.50614	0.46652	0.010	7.82695	30.00000	Averaged	
86 2-Butanone	0.35353	0.33831	0.010	4.30589	30.00000	Averaged	
87 Ethyl Acetate	0.29145	0.28153	0.010	3.40426	30.00000	Averaged	
89 Tetrahydrofuran	0.99690	0.87012	0.010	12.71819	30.00000	Averaged	
92 Chloroform	1.56743	1.46501	0.010	6.53424	30.00000	Averaged	
94 Cyclohexane	0.99074	0.84907	0.010	14.29982	30.00000	Averaged	
96 1,1,1-Trichloroethane	1.76184	1.57673	0.010	10.50670	30.00000	Averaged	
97 Carbon Tetrachloride	1.62268	1.59350	0.010	1.79784	30.00000	Averaged	
99 1,1-Dichloropropene	0.11377	0.11296	0.010	0.71612	30.00000	Averaged	
101 2,2,4-Trimethylpentane	4.32938	3.69961	0.010	14.54644	30.00000	Averaged	
102 Benzene	0.57049	0.56158	0.010	1.56337	30.00000	Averaged	
105 tert-Amyl methyl ether	0.15212	0.14191	0.010	6.70559	30.00000	Averaged	
106 1,2-Dichloroethane	0.32845	0.33107	0.010	-0.79695	30.00000	Averaged	
107 Heptane	0.22471	0.19413	0.010	13.60480	30.00000	Averaged	
110 n-Butanol	0.18286	0.17156	0.010	6.17726	30.00000	Averaged	
111 Trichloroethene	0.28620	0.27354	0.010	4.42395	30.00000	Averaged	
114 1,2-Dichloropropane	0.13224	0.09802	0.010	25.87856	30.00000	Averaged	
116 Methyl Methacrylate	0.24060	0.22954	0.010	4.59770	30.00000	Averaged	
117 1,4-Dioxane	0.14452	0.13587	0.010	5.98577	30.00000	Averaged	
118 Dibromomethane	0.26795	0.29029	0.010	-8.33606	30.00000	Averaged	
122 Bromodichloromethane	0.47947	0.43752	0.010	8.74855	30.00000	Averaged	
126 cis-1,3-Dichloropropene	0.35637	0.32186	0.010	9.68441	30.00000	Averaged	
127 Methylcyclohexane	0.38272	0.33273	0.010	13.06221	30.00000	Averaged	
131 4-Methyl-2-pentanone	0.24232	0.19853	0.010	18.07048	30.00000	Averaged	
137 Toluene	0.76548	0.71108	0.010	7.10752	30.00000	Averaged	
136 Octane	0.25468	0.22010	0.010	13.57674	30.00000	Averaged	
139 trans-1,3-Dichloropropene	0.36821	0.35416	0.010	3.81660	30.00000	Averaged	



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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                    Injection Date: 27-JUL-2021 11:36  
 Lab File ID: 3072703.d                Init. Cal. Date(s): 22-JUN-2021 23-JUN-2021  
 Analysis Type: AIR                     Init. Cal. Times: 15:51 00:09  
 Lab Sample ID: CCV                    Quant Type: ISTD  
 Method: /chem/msd3.i/27JUL21.b/321q0622a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
141 1,1,2-Trichloroethane	0.28317	0.27627	0.010	2.43865	30.00000	Averaged	
142 Tetrachloroethene	0.39165	0.40678	0.010	-3.86105	30.00000	Averaged	
143 2-Hexanone	0.32527	0.31022	0.010	4.62596	30.00000	Averaged	
144 1,3-Dichloropropane	0.36522	0.32651	0.010	10.60026	30.00000	Averaged	
146 Dibromochloromethane	0.53722	0.56642	0.010	-5.43611	30.00000	Averaged	
148 1,2-Dibromoethane (EDB)	0.43975	0.44460	0.010	-1.10085	30.00000	Averaged	
151 1-Bromo-2-Chloroethane	0.46270	0.43296	0.010	6.42763	30.00000	Averaged	
154 Chlorobenzene	0.68328	0.66827	0.010	2.19635	30.00000	Averaged	
155 Ethyl Benzene	0.34167	0.33574	0.010	1.73489	30.00000	Averaged	
156 Nonane	0.66223	0.60412	0.010	8.77579	30.00000	Averaged	
158 m,p-Xylene	0.42506	0.42829	0.010	-0.75931	30.00000	Averaged	
164 o-Xylene	0.40353	0.39885	0.010	1.15887	30.00000	Averaged	
165 Styrene	0.69912	0.71384	0.010	-2.10563	30.00000	Averaged	
167 Bromoform	0.50940	0.55688	0.010	-9.32104	30.00000	Averaged	
168 Cumene	1.27581	1.29336	0.010	-1.37574	30.00000	Averaged	
169 Cyclohexanone	0.40149	0.38960	0.010	2.96206	30.00000	Averaged	
175 1,1,2,2-Tetrachloroethane	0.63254	0.67384	0.010	-6.52930	30.00000	Averaged	
177 Bromobenzene	0.39660	0.44250	0.010	-11.57164	30.00000	Averaged	
178 Propylbenzene	1.48863	1.62317	0.010	-9.03848	30.00000	Averaged	
179 1,2,3-Trichloropropane	0.19054	0.20839	0.010	-9.36589	30.00000	Averaged	
181 trans-1,4-Dichloro-2-butene	0.15077	0.15497	0.010	-2.78020	30.00000	Averaged	
182 Decane	0.76973	0.77645	0.010	-0.87382	30.00000	Averaged	
183 4-Ethyltoluene	0.38586	0.41528	0.010	-7.62316	30.00000	Averaged	
184 2-Chlorotoluene	0.31353	0.34540	0.010	-10.16545	30.00000	Averaged	
185 1,3,5-Trimethylbenzene	0.54196	0.57540	0.010	-6.16901	30.00000	Averaged	
188 alpha Methyl Styrene	0.55506	0.55213	0.010	0.52770	30.00000	Averaged	
189 tert-Butylbenzene	0.99718	1.02384	0.010	-2.67402	30.00000	Averaged	
190 1,2,4-Trimethylbenzene	1.06868	1.08480	0.010	-1.50784	30.00000	Averaged	
192 sec-Butylbenzene	0.32209	0.33025	0.010	-2.53484	30.00000	Averaged	
194 p-Cymene	1.34882	1.34862	0.010	0.01488	30.00000	Averaged	
195 1,3-Dichlorobenzene	0.72606	0.75955	0.010	-4.61229	30.00000	Averaged	
196 1,4-Dichlorobenzene	0.74787	0.76392	0.010	-2.14568	30.00000	Averaged	
199 alpha-Chlorotoluene	1.02827	0.95091	0.010	7.52272	30.00000	Averaged	
201 Undecane	0.90704	0.78776	0.010	13.15089	30.00000	Averaged	
202 Butylbenzene	0.34973	0.35440	0.010	-1.33616	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                    Injection Date: 27-JUL-2021 11:36  
 Lab File ID: 3072703.d                Init. Cal. Date(s): 22-JUN-2021 23-JUN-2021  
 Analysis Type: AIR                     Init. Cal. Times: 15:51                    00:09  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msd3.i/27JUL21.b/321q0622a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
204 1,2-Dichlorobenzene	0.70162	0.71701	0.010	-2.19455	30.00000	Averaged	
206 1,2-Dibromo-3-chloropropane	0.40682	0.40759	0.010	-0.18742	30.00000	Averaged	
207 Dodecane	0.76699	0.49081	0.010	36.00783	30.00000	Averaged	<-
213 1,2,4-Trichlorobenzene	0.49834	0.42193	0.010	15.33324	30.00000	Averaged	
215 Hexachlorobutadiene	0.37644	0.32539	0.010	13.56030	30.00000	Averaged	
216 Naphthalene	1.52174	0.95517	0.010	37.23167	30.00000	Averaged	<-
222 1,2,3-Trichlorobenzene	0.45602	0.34602	0.010	24.12104	30.00000	Averaged	

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 27-JUL-2021
Lab File ID: 3072703.d	Calibration Time: 13:07
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m	
Misc Info: 50ppbv (100ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	270618	162371	378865	238986	-11.69
108 1,4-Difluorobenze	961738	577043	1346433	785289	-18.35
153 Chlorobenzene-d5	790057	474034	1106080	683596	-13.48

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	-0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	-0.00

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.

Date : 27-JUL-2021 11:36

Client ID: CCV

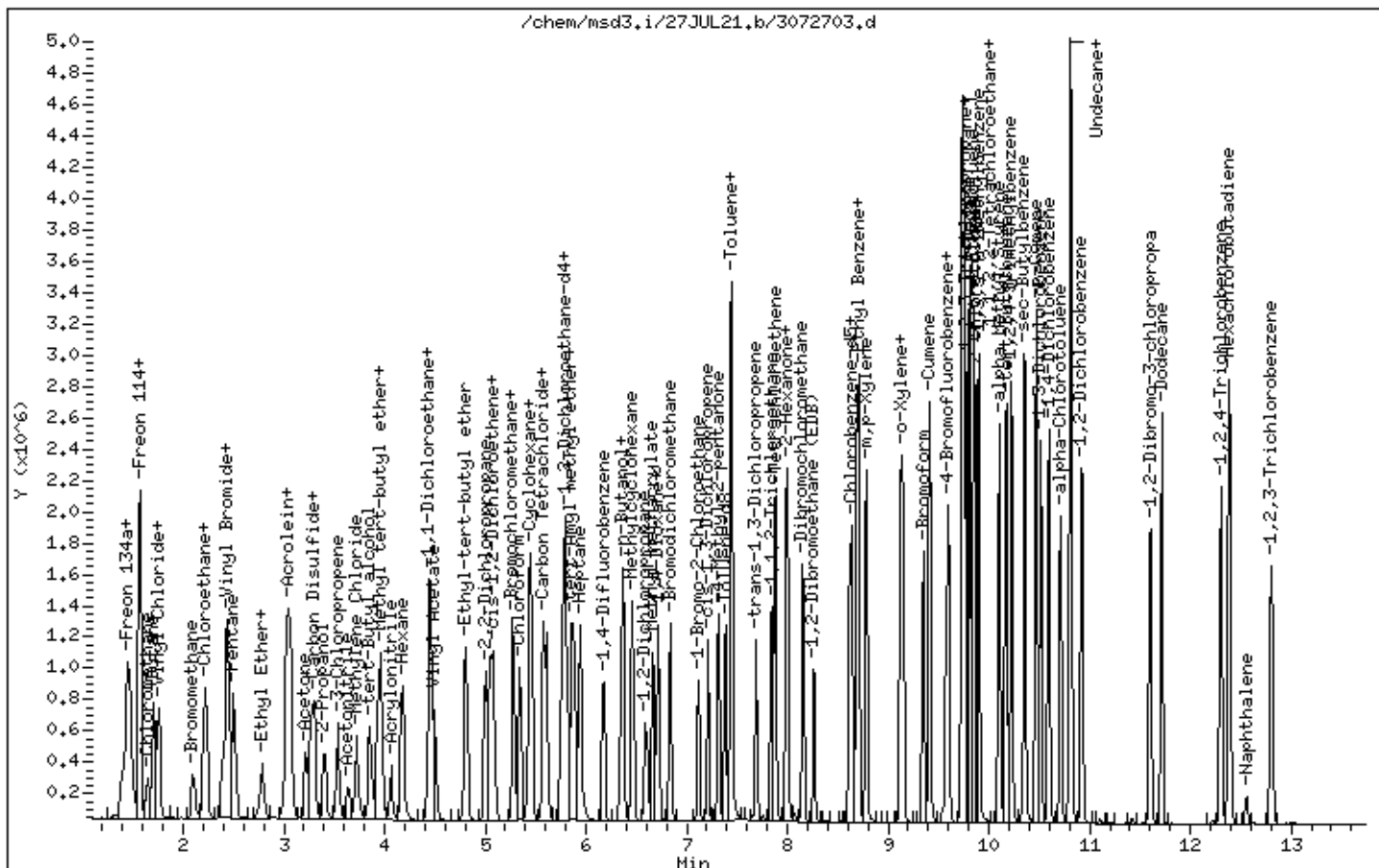
Instrument: msd3,i

Sample Info: 100mL 3018-2071A

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Client Sample ID: LCS

Lab ID#: 2107284-29A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072603a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/26/21 10:47 AM

Compound	%Recovery	Method Limits
1,1,1-Trichloroethane	88	70-130
1,1,2,2-Tetrachloroethane	97	70-130
1,1,2-Trichloroethane	97	70-130
1,1-Dichloroethane	92	70-130
1,1-Dichloroethene	93	70-130
1,2,4-Trichlorobenzene	105	70-130
1,2,4-Trimethylbenzene	99	70-130
1,2-Dibromoethane (EDB)	101	70-130
1,2-Dichlorobenzene	101	70-130
1,2-Dichloroethane	103	70-130
1,2-Dichloropropane	83	70-130
1,3,5-Trimethylbenzene	96	70-130
1,3-Butadiene	98	70-130
1,3-Dichlorobenzene	103	70-130
1,4-Dichlorobenzene	102	70-130
1,4-Dioxane	95	70-130
2,2,4-Trimethylpentane	85	70-130
2-Butanone (Methyl Ethyl Ketone)	95	70-130
2-Hexanone	94	70-130
2-Propanol	98	70-130
3-Chloropropene	90	70-130
4-Ethyltoluene	100	70-130
4-Methyl-2-pentanone	83	70-130
Acetone	96	70-130
alpha-Chlorotoluene	95	70-130
Benzene	100	70-130
Bromodichloromethane	92	70-130
Bromoform	114	70-130
Bromomethane	98	70-130
Carbon Disulfide	101	70-130
Carbon Tetrachloride	96	70-130
Chlorobenzene	98	70-130
Chloroethane	99	70-130
Chloroform	95	70-130
Chloromethane	111	70-130
cis-1,2-Dichloroethene	91	70-130
cis-1,3-Dichloropropene	91	70-130
Cumene	103	70-130
Cyclohexane	85	70-130
Dibromochloromethane	105	70-130
Ethanol	69 Q	70-130
Ethyl Benzene	100	70-130

Client Sample ID: LCS

Lab ID#: 2107284-29A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072603a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/26/21 10:47 AM

Compound	%Recovery	Method Limits
Freon 11	106	70-130
Freon 12	102	70-130
Freon 113	100	70-130
Freon 114	105	70-130
Heptane	90	70-130
Hexachlorobutadiene	107	70-130
Hexane	92	70-130
m,p-Xylene	100	70-130
Methyl tert-butyl ether	92	70-130
Methylene Chloride	96	70-130
Naphthalene	79	60-140
o-Xylene	101	70-130
Propylbenzene	100	70-130
Propylene	96	70-130
Styrene	102	70-130
Tetrachloroethene	104	70-130
Tetrahydrofuran	89	70-130
Toluene	94	70-130
trans-1,2-Dichloroethene	88	70-130
trans-1,3-Dichloropropene	97	70-130
Trichloroethene	97	70-130
Vinyl Acetate	92	70-130
Vinyl Chloride	103	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	105	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072603a.d  
Lab Smp Id: LCS Client Smp ID: LCS  
Inj Date : 26-JUL-2021 10:47  
Operator : LD Inst ID: msd3.i  
Smp Info : 100mL 3018-2121A  
Misc Info : 50ppbv (100ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
Meth Date : 28-Jul-2021 12:16 uexa Quant Type: ISTD  
Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
Als bottle: 14 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5		
5.284	5.284	(1.000)	130	278488	25.0000	80.00- 120.00	100.00	
5.284	5.284	(1.000)	128	215739		48.46- 108.46	77.47	
5.270	5.284	(1.000)	49	397682		120.39- 180.39	142.80	
-----								
* 108	1,4-Difluorobenzene					CAS #: 540-36-3		
6.166	6.166	(1.000)	114	900018	25.0000	80.00- 120.00	100.00	
6.166	6.166	(1.000)	88	133825		0.00- 45.52	14.87	
-----								
* 153	Chlorobenzene-d5					CAS #: 3114-55-4		
8.612	8.612	(1.000)	117	790831	25.0000	80.00- 120.00	100.00	
8.612	8.612	(1.000)	82	421521		25.46- 85.46	53.30	
-----								
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.816	5.816	(1.101)	65	363647	23.7283	23.728 80.00- 120.00	100.00	
5.816	5.816	(1.101)	67	183488		21.66- 81.66	50.46	
-----								
\$ 134	Toluene-d8					CAS #: 2037-26-5		
7.380	7.387	(1.197)	98	896871	24.1938	24.194 80.00- 120.00	100.00	
7.380	7.387	(1.197)	70	101434		0.00- 41.47	11.31	

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		RESPONSE	TARGET	RANGE	RATIO
				ON-COL	FINAL				
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)									
7.380	7.387	(1.197)	100	591906			36.47-	96.47	66.00
-----									
\$ 170 4-Bromofluorobenzene									
									CAS #: 460-00-4
9.601	9.601	(1.115)	174	549918	26.2894	26.289	80.00-	120.00	100.00
9.601	9.601	(1.115)	95	633834			93.06-	153.06	115.26
9.601	9.601	(1.115)	176	515012			62.87-	122.87	93.65
-----									
4 Freon 134a									
									CAS #: 811-97-2
1.395	1.395	(0.264)	83	373516	56.3669	56.367	80.00-	120.00	100.00
1.395	1.395	(0.264)	69	298653			51.82-	111.82	79.96
1.493	1.493	(0.282)	51	815679			194.91-	254.91	218.38
-----									
5 Propylene									
									CAS #: 115-07-1
1.437	1.423	(0.272)	41	321809	47.8400	47.840	80.00-	120.00	100.00
1.437	1.423	(0.272)	42	210885			35.61-	95.61	65.53
1.437	1.423	(0.272)	39	234195			42.66-	102.66	72.77
-----									
7 1,1-Difluoroethane									
									CAS #: 75-37-6
1.451	1.451	(0.275)	65	220162	50.2092	50.209	80.00-	120.00	100.00
1.493	1.493	(0.282)	51	815679			321.86-	381.86	370.49
1.451	1.451	(0.275)	47	167206			45.34-	105.34	75.95
-----									
8 Freon 12									
									CAS #: 75-71-8
1.465	1.465	(0.277)	85	990349	51.0493	51.049	80.00-	120.00	100.00
1.465	1.465	(0.277)	87	318076			2.63-	62.63	32.12
-----									
9 Chlorodifluoromethane									
									CAS #: 75-45-6
1.493	1.493	(0.282)	67	104553	49.0369	49.037	80.00-	120.00	100.00
1.493	1.493	(0.282)	51	815679			719.76-	779.76	780.16
-----									
10 Freon 114									
									CAS #: 76-14-2
1.563	1.563	(0.296)	135	751922	52.3095	52.309	80.00-	120.00	100.00
1.577	1.563	(0.298)	137	241188			2.12-	62.12	32.08
-----									
12 Isobutane									
									CAS #: 75-28-5
1.577	1.577	(0.298)	43	742222	49.0918	49.092	80.00-	120.00	100.00
1.577	1.577	(0.298)	42	240725			2.44-	62.44	32.43
1.577	1.577	(0.298)	58	25851			0.00-	33.26	3.48
-----									
15 Chloromethane									
									CAS #: 74-87-3
1.646	1.646	(0.312)	50	449218	55.7123	55.712	80.00-	120.00	100.00
1.646	1.646	(0.312)	52	145896			2.41-	62.41	32.48
-----									
18 Butane									
									CAS #: 106-97-8
1.702	1.702	(0.322)	58	96713	50.7891	50.789	80.00-	120.00	100.00



CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
1.702	1.702	(0.322)	43	700005				727.41- 787.41	723.80
-----									
19 Vinyl Chloride									
								CAS #: 75-01-4	
1.744	1.744	(0.330)	62	446333	51.7283	51.728		80.00- 120.00	100.00
1.744	1.744	(0.330)	64	132585				1.28- 61.28	29.71
-----									
20 1,3-Butadiene									
								CAS #: 106-99-0	
1.758	1.758	(0.333)	54	387987	49.0649	49.065		80.00- 120.00	100.00
1.758	1.758	(0.333)	39	352813				69.23- 129.23	90.93
-----									
24 Bromomethane									
								CAS #: 74-83-9	
2.094	2.094	(0.396)	94	335323	49.1386	49.139		80.00- 120.00	100.00
2.094	2.094	(0.396)	96	314129				62.78- 122.78	93.68
-----									
30 Chloroethane									
								CAS #: 75-00-3	
2.206	2.206	(0.417)	64	199971	49.3715	49.372		80.00- 120.00	100.00
2.206	2.206	(0.417)	66	59868				1.44- 61.44	29.94
2.206	2.206	(0.417)	49	69215				4.12- 64.12	34.61
-----									
31 Isopentane									
								CAS #: 78-78-4	
2.220	2.220	(0.420)	43	489278	47.2390	47.239		80.00- 120.00	100.00
2.220	2.220	(0.420)	57	351342				38.82- 98.82	71.81
-----									
32 Vinyl Bromide									
								CAS #: 593-60-2	
2.388	2.388	(0.452)	106	362432	48.8491	48.849		80.00- 120.00	100.00
2.388	2.388	(0.452)	108	334342				63.14- 123.14	92.25
-----									
33 Freon 11									
								CAS #: 75-69-4	
2.430	2.430	(0.460)	101	1082760	52.7504	52.750		80.00- 120.00	100.00
2.430	2.430	(0.460)	103	709294				35.12- 95.12	65.51
-----									
34 Dichlorofluoromethane									
								CAS #: 75-43-4	
2.444	2.444	(0.462)	67	854209	52.0587	52.059		80.00- 120.00	100.00
2.444	2.444	(0.462)	69	261551				0.74- 60.74	30.62
-----									
35 Pentane									
								CAS #: 109-66-0	
2.500	2.500	(0.473)	43	751003	45.5113	45.511		80.00- 120.00	100.00
2.500	2.500	(0.473)	57	124234				0.00- 45.97	16.54
2.500	2.500	(0.473)	72	62026				0.00- 38.10	8.26
-----									
38 Ethyl Ether									
								CAS #: 60-29-7	
2.780	2.780	(0.526)	74	176945	47.8260	47.826		80.00- 120.00	100.00
2.780	2.780	(0.526)	59	311641				147.68- 207.68	176.12
2.780	2.780	(0.526)	45	405542				206.40- 266.40	229.19
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
2.766	2.766	(0.523)	46	66770	40.2105	40.210	80.00- 120.00	100.00(R)
2.780	2.766	(0.526)	45	404853			523.01- 583.01	606.34
42 Acrolein					CAS #: 107-02-8			
3.032	3.032	(0.574)	55	144177	52.3219	52.322	80.00- 120.00	100.00
3.032	3.032	(0.574)	56	202569			110.33- 170.33	140.50
43 Freon 113					CAS #: 76-13-1			
3.032	3.032	(0.574)	151	703383	50.1279	50.128	80.00- 120.00	100.00
3.032	3.032	(0.574)	153	450501			33.72- 93.72	64.05
3.032	3.032	(0.574)	101	852833			89.67- 149.67	121.25
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.074	3.074	(0.582)	96	394806	46.7134	46.713	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	249598			33.39- 93.39	63.22
3.074	3.074	(0.582)	61	778380			163.82- 223.82	197.16
47 Acetone					CAS #: 67-64-1			
3.214	3.214	(0.608)	58	225380	48.2649	48.265	80.00- 120.00	100.00
3.214	3.214	(0.608)	43	746719			299.66- 359.66	331.32
48 Carbon Disulfide					CAS #: 75-15-0			
3.298	3.298	(0.624)	76	1066508	50.7189	50.719	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.270	3.270	(0.619)	142	1012996	55.7109	55.711	80.00- 120.00	100.00
3.270	3.270	(0.619)	127	470398			14.58- 74.58	46.44
52 2-Propanol					CAS #: 67-63-0			
3.395	3.395	(0.643)	45	825108	49.1317	49.132	80.00- 120.00	100.00
3.395	3.395	(0.643)	43	166591			0.00- 48.61	20.19
54 3-Chloropropene					CAS #: 107-05-1			
3.535	3.535	(0.669)	76	162663	44.9313	44.931	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	565246			338.06- 398.06	347.50
57 Acetonitrile					CAS #: 75-05-8			
3.633	3.633	(0.688)	41	335850	45.6739	45.674	80.00- 120.00	100.00
3.633	3.633	(0.688)	40	177926			21.81- 81.81	52.98
3.633	3.633	(0.688)	38	44279			0.00- 41.86	13.18
59 Methylene Chloride					CAS #: 75-09-2			
3.717	3.717	(0.703)	49	534172	47.7976	47.798	80.00- 120.00	100.00
3.717	3.717	(0.703)	84	325292			30.77- 90.77	60.90
3.717	3.717	(0.703)	51	165096			1.39- 61.39	30.91

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol						CAS #: 75-65-0		
3.857	3.857	(0.730)	59	951971	45.1617	45.162	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	222036			0.00- 51.05	23.32
3.857	3.857	(0.730)	57	99918			0.00- 41.68	10.50
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
3.941	3.941	(0.746)	73	1047239	46.0294	46.029	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	304876			0.00- 58.86	29.11
3.941	3.941	(0.746)	41	290971			0.00- 57.27	27.78
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
3.969	3.969	(0.751)	98	250216	43.9931	43.993	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	667833			244.59- 304.59	266.90
3.969	3.969	(0.751)	96	392581			129.84- 189.84	156.90
66 Acrylonitrile						CAS #: 107-13-1		
4.067	4.067	(0.770)	52	276695	40.5358	40.536	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	328318			88.50- 148.50	118.66
67 Hexane						CAS #: 110-54-3		
4.179	4.179	(0.791)	57	708975	45.9724	45.972	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	435806			32.99- 92.99	61.47
4.179	4.179	(0.791)	86	85660			0.00- 42.56	12.08
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.459	4.459	(0.844)	63	726664	45.8180	45.818	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	221651			0.76- 60.76	30.50
72 Isopropyl ether						CAS #: 108-20-3		
4.445	4.445	(0.841)	45	1433886	44.0573	44.057	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	318109			0.00- 51.37	22.19
4.445	4.445	(0.841)	59	165785			0.00- 41.09	11.56
73 Vinyl Acetate						CAS #: 108-05-4		
4.501	4.501	(0.852)	86	89882	46.0963	46.096	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	1235239			1391.63-1451.63	1374.29
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
4.809	4.809	(0.910)	59	1370059	43.6043	43.604	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	458436			3.22- 63.22	33.46
4.809	4.809	(0.910)	41	266820			0.00- 48.12	19.48
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.005	5.005	(0.947)	77	685729	46.4118	46.412	80.00- 120.00	100.00
5.005	5.005	(0.947)	79	220730			2.00- 62.00	32.19
5.005	5.005	(0.947)	97	162039			0.00- 53.36	23.63

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.046	5.046	(0.955)	98	255443	45.3065	45.306	80.00- 120.00	100.00
5.046	5.046	(0.955)	96	398569			127.22- 187.22	156.03
5.046	5.046	(0.955)	61	818829			283.85- 343.85	320.55
86 2-Butanone					CAS #: 78-93-3			
5.060	5.060	(0.958)	72	187847	47.6995	47.700	80.00- 120.00	100.00
5.074	5.060	(0.960)	43	1947169			1055.75-1115.75	1036.57
5.060	5.060	(0.958)	57	75949			10.59- 70.59	40.43
87 Ethyl Acetate					CAS #: 141-78-6			
5.088	5.088	(0.963)	45	152131	46.8588	46.859	80.00- 120.00	100.00
5.046	5.046	(0.955)	61	818829			450.31- 510.31	538.24
5.088	5.088	(0.963)	70	90385			30.42- 90.42	59.41
89 Tetrahydrofuran					CAS #: 109-99-9			
5.270	5.270	(0.997)	42	492174	44.3199	44.320	80.00- 120.00	100.00
5.270	5.270	(0.997)	71	166761			2.92- 62.92	33.88
5.270	5.270	(0.997)	72	173023			3.54- 63.54	35.15
92 Chloroform					CAS #: 67-66-3			
5.340	5.340	(1.011)	83	831336	47.6125	47.612	80.00- 120.00	100.00
5.340	5.340	(1.011)	85	541740			34.71- 94.71	65.16
94 Cyclohexane					CAS #: 110-82-7			
5.438	5.438	(1.029)	84	467606	42.3695	42.370	80.00- 120.00	100.00
5.438	5.438	(1.029)	56	673164			120.40- 180.40	143.96
5.438	5.438	(1.029)	41	377748			54.20- 114.20	80.78
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
5.452	5.452	(1.032)	97	862239	43.9335	43.933	80.00- 120.00	100.00
5.452	5.452	(1.032)	99	550172			33.76- 93.76	63.81
97 Carbon Tetrachloride					CAS #: 56-23-5			
5.578	5.578	(1.056)	119	871325	48.2039	48.204	80.00- 120.00	100.00
5.578	5.578	(1.056)	117	903254			73.68- 133.68	103.66
99 1,1-Dichloropropene					CAS #: 563-58-6			
5.606	5.606	(0.909)	110	203973	49.7994	49.799	80.00- 120.00	100.00
5.606	5.606	(0.909)	75	524157			231.09- 291.09	256.97
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
5.774	5.774	(1.093)	57	2061009	42.7354	42.735	80.00- 120.00	100.00
5.774	5.774	(1.093)	56	640544			1.12- 61.12	31.08
5.774	5.774	(1.093)	41	580179			0.00- 57.49	28.15

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
5.788	5.788	(0.939)	78	1026245	49.9676	49.968	80.00- 120.00	100.00
5.788	5.788	(0.939)	77	246369			0.00- 53.80	24.01
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
5.858	5.858	(0.950)	87	263894	48.1888	48.189	80.00- 120.00	100.00
5.858	5.858	(0.950)	73	1038753			365.20- 425.20	393.63
5.858	5.858	(0.950)	55	324459			91.31- 151.31	122.95
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
5.886	5.886	(0.955)	62	609753	51.5673	51.567	80.00- 120.00	100.00
5.886	5.886	(0.955)	64	189985			1.20- 61.20	31.16
-----								
107 Heptane					CAS #: 142-82-5			
5.942	5.942	(0.964)	71	363011	44.8740	44.874	80.00- 120.00	100.00
5.942	5.942	(0.964)	43	721017			179.02- 239.02	198.62
5.942	5.942	(0.964)	57	415853			84.85- 144.85	114.56
-----								
110 n-Butanol					CAS #: 71-36-3			
6.348	6.348	(1.030)	56	313361	47.6012	47.601	80.00- 120.00	100.00
6.348	6.348	(1.030)	41	214066			40.21- 100.21	68.31
6.348	6.348	(1.030)	43	166395			25.00- 85.00	53.10
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.362	6.362	(1.032)	95	499686	48.4965	48.496	80.00- 120.00	100.00
6.362	6.362	(1.032)	130	539010			74.96- 134.96	107.87
6.362	6.362	(1.032)	97	323254			34.80- 94.80	64.69
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
6.586	6.586	(1.068)	63	196889	41.3569	41.357	80.00- 120.00	100.00
6.586	6.586	(1.068)	62	133800			52.03- 112.03	67.96
6.586	6.586	(1.068)	41	184708			79.97- 139.97	93.81
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
6.664	6.664	(0.774)	69	425844	55.9518	55.952	80.00- 120.00	100.00
6.664	6.664	(0.774)	41	558314			134.02- 194.02	131.11
6.664	6.664	(0.774)	100	145601			9.54- 69.54	34.19
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
6.700	6.700	(1.087)	88	247264	47.5260	47.526	80.00- 120.00	100.00
6.692	6.700	(1.085)	58	236421			55.80- 115.80	95.61
6.692	6.700	(1.085)	57	75860			8.68- 68.68	30.68
-----								
118 Dibromomethane					CAS #: 74-95-3			
6.714	6.721	(0.780)	174	457595	53.9861	53.986	80.00- 120.00	100.00
6.714	6.714	(0.780)	93	443814			67.27- 127.27	96.99

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
6.714	6.714	(0.780)	95	364779		50.92- 110.92	79.72		
-----									
122 Bromodichloromethane					CAS #: 75-27-4				
6.836	6.836	(1.109)	83	797828	46.2209	46.221	80.00- 120.00	100.00	
6.836	6.836	(1.109)	85	511454		34.31-	94.31	64.11	
-----									
126 cis-1,3-Dichloropropene					CAS #: 10061-01-5				
7.208	7.208	(1.169)	75	586768	45.7357	45.736	80.00- 120.00	100.00	
7.208	7.208	(1.169)	77	188541		1.42-	61.42	32.13	
7.208	7.208	(1.169)	39	395756		38.56-	98.56	67.45	
-----									
127 Methylcyclohexane					CAS #: 108-87-2				
6.460	6.460	(1.048)	83	607646	44.1022	44.102	80.00- 120.00	100.00	
6.460	6.460	(1.048)	98	280447		15.60-	75.60	46.15	
6.460	6.460	(1.048)	55	599241		78.53-	138.53	98.62	
-----									
131 4-Methyl-2-pentanone					CAS #: 108-10-1				
7.316	7.316	(1.186)	58	360912	41.3723	41.372	80.00- 120.00	100.00	
7.316	7.316	(1.186)	43	923746		231.30-	291.30	255.95	
7.316	7.316	(1.186)	85	139205		8.94-	68.94	38.57	
-----									
137 Toluene					CAS #: 108-88-3				
7.437	7.437	(1.206)	91	1298284	47.1110	47.111	80.00- 120.00	100.00	
7.437	7.437	(1.206)	92	744043		28.30-	88.30	57.31	
-----									
136 Octane					CAS #: 111-65-9				
7.444	7.444	(1.207)	57	405263	44.2006	44.200	80.00- 120.00	100.00	
7.444	7.444	(1.207)	85	399579		67.11-	127.11	98.60	
7.444	7.444	(1.207)	43	929964		214.21-	274.21	229.47	
-----									
139 trans-1,3-Dichloropropene					CAS #: 10061-02-6				
7.688	7.688	(0.893)	75	565610	48.5601	48.560	80.00- 120.00	100.00	
7.688	7.688	(0.893)	77	178976		2.15-	62.15	31.64	
7.688	7.688	(0.893)	39	368047		36.09-	96.09	65.07	
-----									
141 1,1,2-Trichloroethane					CAS #: 79-00-5				
7.846	7.846	(0.911)	97	436637	48.7441	48.744	80.00- 120.00	100.00	
7.846	7.846	(0.911)	99	270523		31.62-	91.62	61.96	
7.838	7.846	(0.910)	83	379096		56.35-	116.35	86.82	
-----									
142 Tetrachloroethene					CAS #: 127-18-4				
7.874	7.881	(0.914)	166	641561	51.7836	51.784	80.00- 120.00	100.00	
7.874	7.881	(0.914)	129	497951		48.71-	108.71	77.62	
7.874	7.881	(0.914)	131	478296		46.55-	106.55	74.55	
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6		
8.003	8.003	(0.929)	58	481050	46.7527	46.753	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	886515			157.91- 217.91	184.29
8.003	8.003	(0.929)	100	89868			0.00- 47.86	18.68
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
7.989	7.989	(1.296)	76	572083	43.5102	43.510	80.00- 120.00	100.00
7.989	7.989	(1.296)	41	613833			82.96- 142.96	107.30
7.989	7.989	(1.296)	78	186482			2.55- 62.55	32.60
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.154	8.154	(0.947)	129	892183	52.5002	52.500	80.00- 120.00	100.00
8.154	8.154	(0.947)	127	694303			47.77- 107.77	77.82
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.261	8.261	(0.959)	107	704080	50.6137	50.614	80.00- 120.00	100.00
8.261	8.261	(0.959)	109	666860			64.60- 124.60	94.71
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.115	7.115	(1.154)	63	770363	46.2471	46.247	80.00- 120.00	100.00
7.115	7.115	(1.154)	65	237873			0.95- 60.95	30.88
7.115	7.115	(1.154)	144	84155			0.00- 40.45	10.92
-----								
154 Chlorobenzene						CAS #: 108-90-7		
8.641	8.641	(1.003)	112	1057734	48.9369	48.937	80.00- 120.00	100.00
8.641	8.641	(1.003)	114	341985			2.13- 62.13	32.33
8.641	8.641	(1.003)	77	564254			26.35- 86.35	53.35
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
8.684	8.684	(1.008)	106	538438	49.8185	49.818	80.00- 120.00	100.00
8.684	8.684	(1.008)	91	1671275			282.48- 342.48	310.39
-----								
156 Nonane						CAS #: 111-84-2		
8.705	8.705	(1.011)	43	939545	44.8501	44.850	80.00- 120.00	100.00
8.705	8.705	(1.011)	57	881382			59.52- 119.52	93.81
8.705	8.705	(1.011)	85	307324			0.00- 59.76	32.71
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
8.712	8.712	(1.012)	131	539443	45.3485	45.348	80.00- 120.00	100.00
8.712	8.712	(1.012)	117	361253			38.22- 98.22	66.97
8.705	8.712	(1.011)	95	200333			7.54- 67.54	37.14
-----								
158 m,p-Xylene						CAS #: 108-38-3		
8.784	8.784	(1.020)	106	669181	49.7679	49.768	80.00- 120.00	100.00
8.784	8.784	(1.020)	91	1327370			171.36- 231.36	198.36

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene					CAS #: 95-47-6			
9.121	9.121	(1.059)	106	644420	50.4841	50.484	80.00- 120.00	100.00
9.121	9.121	(1.059)	91	1350071			179.99- 239.99	209.50
-----								
165 Styrene					CAS #: 100-42-5			
9.142	9.149	(1.062)	104	1124874	50.8636	50.864	80.00- 120.00	100.00
9.142	9.149	(1.062)	78	538389			19.09- 79.09	47.86
-----								
167 Bromoform					CAS #: 75-25-2			
9.350	9.350	(1.086)	173	918553	57.0035	57.004	80.00- 120.00	100.00
9.350	9.350	(1.086)	171	475992			21.45- 81.45	51.82
-----								
168 Cumene					CAS #: 98-82-8			
9.407	9.407	(1.092)	105	2086554	51.7013	51.701	80.00- 120.00	100.00
9.414	9.407	(1.093)	120	565234			0.00- 56.99	27.09
9.407	9.407	(1.092)	51	242514			0.00- 41.77	11.62
-----								
169 Cyclohexanone					CAS #: 108-94-1			
9.579	9.579	(1.112)	55	570212	44.8968	44.897	80.00- 120.00	100.00
9.579	9.579	(1.112)	98	223631			9.22- 69.22	39.22
9.579	9.579	(1.112)	42	398673			42.60- 102.60	69.92
-----								
175 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
9.737	9.737	(1.131)	83	971862	48.5703	48.570	80.00- 120.00	100.00
9.737	9.737	(1.131)	85	628059			34.35- 94.35	64.62
-----								
177 Bromobenzene					CAS #: 108-86-1			
9.729	9.729	(1.130)	156	649418	51.7634	51.763	80.00- 120.00	100.00
9.729	9.729	(1.130)	158	629455			67.29- 127.29	96.93
9.729	9.729	(1.130)	77	986853			132.41- 192.41	151.96
-----								
178 Propylbenzene					CAS #: 103-65-1			
9.758	9.751	(1.133)	91	2361376	50.1460	50.146	80.00- 120.00	100.00
9.758	9.751	(1.133)	120	560189			0.00- 53.77	23.72
9.758	9.751	(1.133)	105	87747			0.00- 33.81	3.72
-----								
179 1,2,3-Trichloropropane					CAS #: 96-18-4			
9.787	9.787	(1.136)	110	302428	50.1750	50.175	80.00- 120.00	100.00
9.787	9.787	(1.136)	75	1001925			285.00- 345.00	331.29
9.787	9.787	(1.136)	61	258837			54.06- 114.06	85.59
-----								
181 trans-1,4-Dichloro-2-butene					CAS #: 110-57-6			
9.787	9.787	(1.136)	53	312102	65.4371	65.437	80.00- 120.00	100.00(R)
9.787	9.787	(1.136)	89	157208			21.19- 81.19	50.37
9.787	9.787	(1.136)	75	1001925			372.45- 432.45	321.02
-----								



CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane						CAS #: 124-18-5			
9.808	9.808	(1.139)	57	1116452	45.8522	45.852	80.00-	120.00	100.00
9.808	9.808	(1.139)	71	383991			4.13-	64.13	34.39
9.815	9.815	(1.140)	142	57079			0.00-	34.73	5.11
-----									
183 4-Ethyltoluene						CAS #: 622-96-8			
9.851	9.851	(1.144)	120	610065	49.9805	49.980	80.00-	120.00	100.00
9.851	9.851	(1.144)	105	1974261			296.79-	356.79	323.61
-----									
184 2-Chlorotoluene						CAS #: 95-49-8			
9.873	9.873	(1.146)	126	502939	50.7105	50.710	80.00-	120.00	100.00
9.873	9.873	(1.146)	91	1764818			336.29-	396.29	350.90
9.873	9.873	(1.146)	65	277212			38.83-	98.83	55.12
-----									
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
9.901	9.901	(1.150)	120	826307	48.1979	48.198	80.00-	120.00	100.00
9.901	9.901	(1.150)	105	1672968			176.40-	236.40	202.46
-----									
188 alpha Methyl Styrene						CAS #: 98-83-9			
10.102	10.102	(1.173)	118	804311	45.8080	45.808	80.00-	120.00	100.00
10.102	10.102	(1.173)	103	454435			26.64-	86.64	56.50
-----									
189 tert-Butylbenzene						CAS #: 98-06-6			
10.174	10.174	(1.181)	119	1561405	49.4994	49.499	80.00-	120.00	100.00
10.174	10.174	(1.181)	134	387353			0.00-	54.82	24.81
10.174	10.166	(1.181)	91	1006578			36.92-	96.92	64.47
-----									
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
10.224	10.224	(1.187)	105	1666734	49.3030	49.303	80.00-	120.00	100.00
10.224	10.224	(1.187)	120	786875			16.58-	76.58	47.21
-----									
192 sec-Butylbenzene						CAS #: 135-98-8			
10.360	10.353	(1.203)	134	512253	50.2770	50.277	80.00-	120.00	100.00
10.353	10.353	(1.202)	105	2436368			451.53-	511.53	475.62
10.353	10.353	(1.202)	91	378073			46.48-	106.48	73.81
-----									
194 p-Cymene						CAS #: 99-87-6			
10.467	10.467	(1.215)	119	2146538	50.3083	50.308	80.00-	120.00	100.00
10.467	10.467	(1.215)	134	574325			0.00-	56.79	26.76
10.467	10.467	(1.215)	91	495201			0.00-	54.04	23.07
-----									
195 1,3-Dichlorobenzene						CAS #: 541-73-1			
10.517	10.517	(1.221)	146	1187034	51.6829	51.683	80.00-	120.00	100.00
10.517	10.517	(1.221)	148	751005			33.53-	93.53	63.27
10.510	10.517	(1.220)	111	472393			11.05-	71.05	39.80
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
10.596	10.596	(1.230)	146	1205553	50.9585	50.958	80.00- 120.00	100.00
10.596	10.596	(1.230)	148	759669			33.47- 93.47	63.01
10.596	10.596	(1.230)	111	456063			9.65- 69.65	37.83
-----								
199 alpha-Chlorotoluene					CAS #: 100-44-7			
10.711	10.711	(1.244)	91	1540055	47.3464	47.346	80.00- 120.00	100.00
10.711	10.711	(1.244)	126	346528			0.00- 52.04	22.50
-----								
201 Undecane					CAS #: 1120-21-4			
10.804	10.804	(1.254)	57	1276942	44.5043	44.504	80.00- 120.00	100.00
10.804	10.804	(1.254)	43	1082872			55.86- 115.86	84.80
-----								
202 Butylbenzene					CAS #: 104-51-8			
10.818	10.818	(1.256)	134	561578	50.7615	50.761	80.00- 120.00	100.00
10.818	10.818	(1.256)	91	2007843			331.99- 391.99	357.54
10.818	10.818	(1.256)	92	1037293			161.01- 221.01	184.71
-----								
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
10.926	10.919	(1.269)	146	1124762	50.6777	50.678	80.00- 120.00	100.00
10.926	10.919	(1.269)	148	713853			33.23- 93.23	63.47
10.919	10.919	(1.268)	111	455177			12.36- 72.36	40.47
-----								
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
11.606	11.606	(1.348)	157	641293	49.8317	49.832	80.00- 120.00	100.00
11.599	11.599	(1.347)	75	521566			58.96- 118.96	81.33
11.606	11.606	(1.348)	155	499598			47.82- 107.82	77.90
-----								
207 Dodecane					CAS #: 112-40-3			
11.714	11.714	(1.360)	57	1123935	46.3243	46.324	80.00- 120.00	100.00
11.714	11.714	(1.360)	43	882979			50.85- 110.85	78.56
-----								
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
12.301	12.301	(1.428)	180	957549	60.7422	60.742	80.00- 120.00	100.00
12.301	12.301	(1.428)	182	914704			65.40- 125.40	95.53
-----								
215 Hexachlorobutadiene					CAS #: 87-68-3			
12.387	12.387	(1.438)	225	739613	62.1108	62.111	80.00- 120.00	100.00
12.387	12.387	(1.438)	223	471933			33.70- 93.70	63.81
-----								
216 Naphthalene					CAS #: 91-20-3			
12.552	12.559	(1.457)	128	221220	4.59558	4.596	80.00- 120.00	100.00
12.552	12.559	(1.457)	127	29040			0.00- 43.10	13.13
-----								
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
12.802	12.810	(1.487)	180	870027	60.3124	60.312	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
12.802	12.810	(1.487)	182	836307			65.67- 125.67	96.12
12.802	12.810	(1.487)	145	308017			6.02- 66.02	35.40

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 26-JUL-2021
Lab File ID: 3072603a.d	Calibration Time: 10:10
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m	
Misc Info: 50ppbv (100ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	278488	5.49
108 1,4-Difluorobenze	833448	500069	1166827	900018	7.99
153 Chlorobenzene-d5	741338	444803	1037873	790831	6.68

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.17	0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: LCS  
 SpikeList File: AT20sh.spk Quant Type: ISTD  
 Sublist File: AT20LCS\_new.sub  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 50ppbv (100ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
5 Propylene	50.000	47.840	95.68	70-130
7 1,1-Difluoroethan	50.000	50.209	100.42	70-130
8 Freon 12	50.000	51.049	102.10	70-130
10 Freon 114	50.000	52.309	104.62	70-130
15 Chloromethane	50.000	55.712	111.42	70-130
18 Butane	50.000	50.789	101.58	70-130
19 Vinyl Chloride	50.000	51.728	103.46	70-130
20 1,3-Butadiene	50.000	49.065	98.13	70-130
24 Bromomethane	50.000	49.139	98.28	70-130
30 Chloroethane	50.000	49.372	98.74	70-130
31 Isopentane	50.000	47.239	94.48	70-130
32 Vinyl Bromide	50.000	48.849	97.70	70-130
33 Freon 11	50.000	52.750	105.50	70-130
34 Dichlorofluoromet	50.000	52.059	104.12	70-130
39 Ethanol	58.000	40.210	69.33*	70-130
43 Freon 113	50.000	50.128	100.26	70-130
44 1,1-Dichloroethen	50.000	46.713	93.43	70-130
47 Acetone	50.000	48.265	96.53	70-130
48 Carbon Disulfide	50.000	50.719	101.44	70-130
52 2-Propanol	50.000	49.132	98.26	70-130
54 3-Chloropropene	50.000	44.931	89.86	70-130
59 Methylene Chlorid	50.000	47.798	95.60	70-130
63 Methyl tert-butyl	50.000	46.029	92.06	70-130
64 trans-1,2-Dichlor	50.000	43.993	87.99	70-130
67 Hexane	50.000	45.972	91.94	70-130
71 1,1-Dichloroethan	50.000	45.818	91.64	70-130
73 Vinyl Acetate	50.000	46.096	92.19	70-130
85 cis-1,2-Dichloroe	50.000	45.306	90.61	70-130
86 2-Butanone	50.000	47.700	95.40	70-130
87 Ethyl Acetate	50.000	46.859	93.72	70-130
89 Tetrahydrofuran	50.000	44.320	88.64	70-130
92 Chloroform	50.000	47.612	95.22	70-130
94 Cyclohexane	50.000	42.370	84.74	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
96 1,1,1-Trichloroet	50.000	43.933	87.87	70-130
99 1,1-Dichloroprope	50.000	49.799	99.60	70-130
97 Carbon Tetrachlor	50.000	48.204	96.41	70-130
101 2,2,4-Trimethylpe	50.000	42.735	85.47	70-130
102 Benzene	50.000	49.968	99.94	70-130
106 1,2-Dichloroethan	50.000	51.567	103.13	70-130
107 Heptane	50.000	44.874	89.75	70-130
111 Trichloroethene	50.000	48.496	96.99	70-130
127 Methylcyclohexane	50.000	44.102	88.20	70-130
114 1,2-Dichloropropa	50.000	41.357	82.71	70-130
117 1,4-Dioxane	50.000	47.526	95.05	70-130
122 Bromodichlorometh	50.000	46.221	92.44	70-130
126 cis-1,3-Dichlorop	50.000	45.736	91.47	70-130
131 4-Methyl-2-pentan	50.000	41.372	82.74	70-130
136 Octane	50.000	44.200	88.40	70-130
137 Toluene	50.000	47.111	94.22	70-130
139 trans-1,3-Dichlor	50.000	48.560	97.12	70-130
141 1,1,2-Trichloroet	50.000	48.744	97.49	70-130
142 Tetrachloroethene	50.000	51.784	103.57	70-130
143 2-Hexanone	50.000	46.753	93.51	70-130
144 1,3-Dichloropropa	50.000	43.510	87.02	70-130
146 Dibromochlorometh	50.000	52.500	105.00	70-130
148 1,2-Dibromoethane	50.000	50.614	101.23	70-130
154 Chlorobenzene	50.000	48.937	97.87	70-130
155 Ethyl Benzene	50.000	49.818	99.64	70-130
156 Nonane	50.000	44.850	89.70	70-130
157 1,1,1,2-Tetrachlo	50.000	45.348	90.70	70-130
158 m,p-Xylene	50.000	49.768	99.54	70-130
164 o-Xylene	50.000	50.484	100.97	70-130
165 Styrene	50.000	50.864	101.73	70-130
167 Bromoform	50.000	57.004	114.01	70-130
168 Cumene	50.000	51.701	103.40	70-130
175 1,1,2,2-Tetrachlo	50.000	48.570	97.14	70-130
177 Bromobenzene	50.000	51.763	103.53	70-130
178 Propylbenzene	50.000	50.146	100.29	70-130
181 trans-1,4-Dichlor	50.000	65.437	130.87*	70-130
183 4-Ethyltoluene	50.000	49.980	99.96	70-130
185 1,3,5-Trimethylbe	50.000	48.198	96.40	70-130
188 alpha Methyl Styr	50.000	45.808	91.62	70-130
190 1,2,4-Trimethylbe	50.000	49.303	98.61	70-130
195 1,3-Dichlorobenze	50.000	51.683	103.37	70-130
196 1,4-Dichlorobenze	50.000	50.958	101.92	70-130
199 alpha-Chlorotolue	50.000	47.346	94.69	70-130
204 1,2-Dichlorobenze	50.000	50.678	101.36	70-130
213 1,2,4-Trichlorobe	58.000	60.742	104.73	70-130
215 Hexachlorobutadie	58.000	62.111	107.09	70-130
216 Naphthalene	5.800	4.596	79.23	60-140

2TAR1

Y REPORT

Client Name: Client SDG: 26JUL21  
Smple Matrix: GAS Fraction: VOA  
Lb Smp Id: LCS Client Smp ID: LCS  
Lvel: LOW Operator: LD  
Dta Type: MS DATA SampleType: LCS  
SikeList File: AT20sh.sp Quant Type: ISTD  
Sblist File: AT20LCS\_new  
Mthod File: /chem/msd3.iq0622a.m  
Msc Info: 50ppbv (100ppb

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	23.728	94.91	70-130
\$ 134 Toluene-d8	25.000	24.194	96.78	70-130
\$ 170 4-Bromofluorobenz	25.000	26.289	105.16	70-130

Date : 26-JUL-2021 10:47

Client ID: LCS

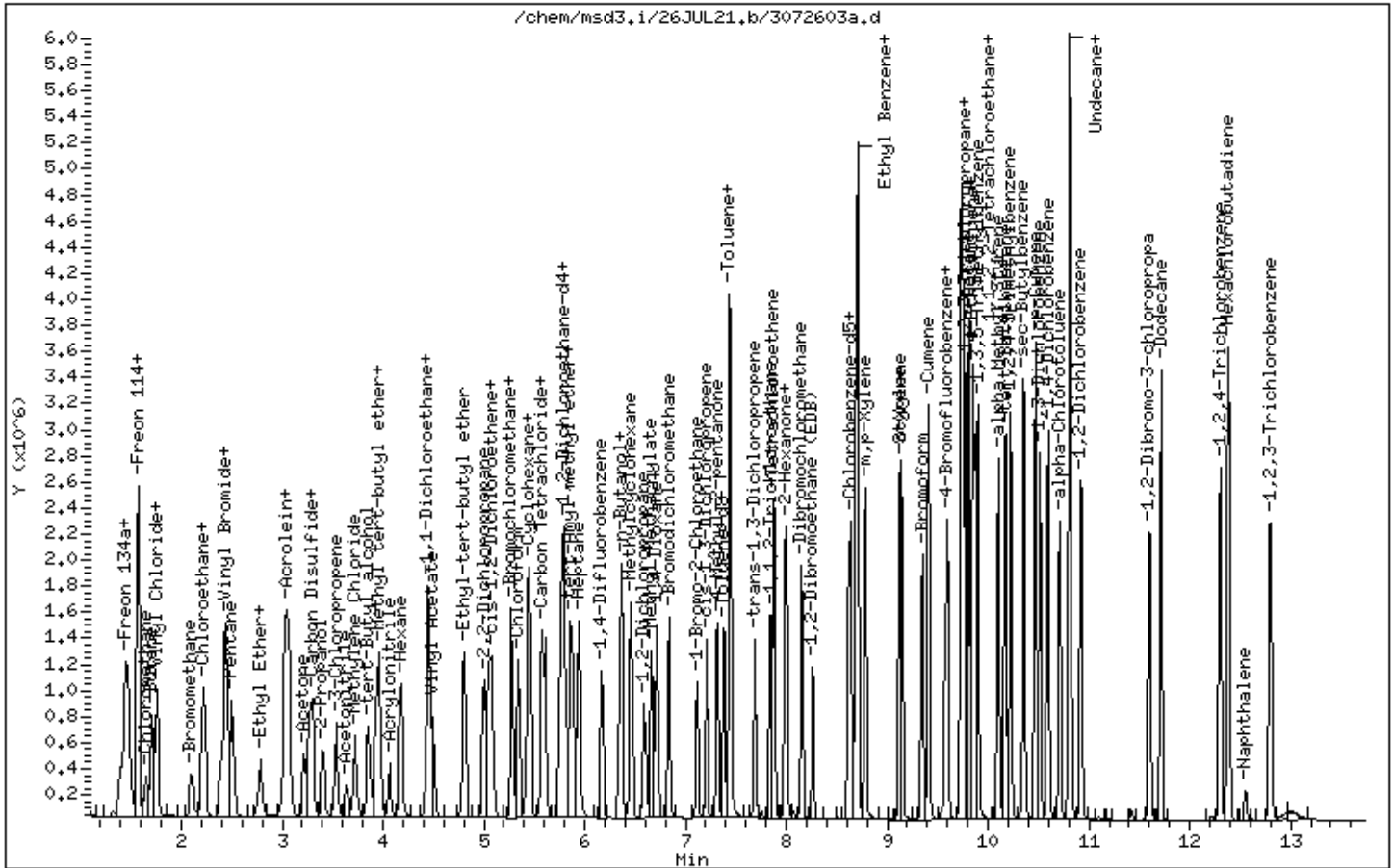
Instrument: msd3,i

Sample Info: 100mL 3018-2121A

Operator: LD

Column phase: RTX-624

Column diameter: 0.25





Client Sample ID: LCSD

Lab ID#: 2107284-29AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072606a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/26/21 12:20 PM

Compound	%Recovery	Method Limits
1,1,1-Trichloroethane	94	70-130
1,1,2,2-Tetrachloroethane	97	70-130
1,1,2-Trichloroethane	96	70-130
1,1-Dichloroethane	93	70-130
1,1-Dichloroethene	96	70-130
1,2,4-Trichlorobenzene	116	70-130
1,2,4-Trimethylbenzene	99	70-130
1,2-Dibromoethane (EDB)	100	70-130
1,2-Dichlorobenzene	103	70-130
1,2-Dichloroethane	101	70-130
1,2-Dichloropropane	74	70-130
1,3,5-Trimethylbenzene	97	70-130
1,3-Butadiene	102	70-130
1,3-Dichlorobenzene	103	70-130
1,4-Dichlorobenzene	102	70-130
1,4-Dioxane	94	70-130
2,2,4-Trimethylpentane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	95	70-130
2-Hexanone	94	70-130
2-Propanol	101	70-130
3-Chloropropene	95	70-130
4-Ethyltoluene	100	70-130
4-Methyl-2-pentanone	79	70-130
Acetone	97	70-130
alpha-Chlorotoluene	94	70-130
Benzene	98	70-130
Bromodichloromethane	91	70-130
Bromoform	106	70-130
Bromomethane	103	70-130
Carbon Disulfide	104	70-130
Carbon Tetrachloride	106	70-130
Chlorobenzene	98	70-130
Chloroethane	100	70-130
Chloroform	96	70-130
Chloromethane	117	70-130
cis-1,2-Dichloroethene	90	70-130
cis-1,3-Dichloropropene	87	70-130
Cumene	96	70-130
Cyclohexane	91	70-130
Dibromochloromethane	104	70-130
Ethanol	71	70-130
Ethyl Benzene	99	70-130

Client Sample ID: LCSD

Lab ID#: 2107284-29AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072606a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/26/21 12:20 PM

Compound	%Recovery	Method Limits
Freon 11	110	70-130
Freon 12	105	70-130
Freon 113	104	70-130
Freon 114	107	70-130
Heptane	89	70-130
Hexachlorobutadiene	119	70-130
Hexane	94	70-130
m,p-Xylene	99	70-130
Methyl tert-butyl ether	96	70-130
Methylene Chloride	97	70-130
Naphthalene	89	60-140
o-Xylene	96	70-130
Propylbenzene	100	70-130
Propylene	96	70-130
Styrene	97	70-130
Tetrachloroethene	103	70-130
Tetrahydrofuran	84	70-130
Toluene	84	70-130
trans-1,2-Dichloroethene	91	70-130
trans-1,3-Dichloropropene	98	70-130
Trichloroethene	96	70-130
Vinyl Acetate	95	70-130
Vinyl Chloride	110	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	90	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	100	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/26JUL21.b/3072606a.d  
 Lab Smp Id: LCSD Client Smp ID: LCSD  
 Inj Date : 26-JUL-2021 12:20  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 100mL 3018-2121A  
 Misc Info : 50ppbv (100ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/26JUL21.b/321q0622a.m  
 Meth Date : 28-Jul-2021 12:16 uexa Quant Type: ISTD  
 Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
 Als bottle: 14 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.284	5.284	(1.000)	130	264503	25.0000	80.00- 120.00	100.00	
5.284	5.284	(1.000)	128	208777		48.46- 108.46	78.93	
5.270	5.284	(1.000)	49	364021		120.39- 180.39	137.62	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.180	6.166	(1.000)	114	983852	25.0000	80.00- 120.00	100.00	
6.166	6.166	(1.000)	88	144782		0.00- 45.52	14.72	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
8.612	8.612	(1.000)	117	787648	25.0000	80.00- 120.00	100.00	
8.612	8.612	(1.000)	82	419902		25.46- 85.46	53.31	
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
5.816	5.816	(1.101)	65	388196	26.6694	26.669 80.00- 120.00	100.00	
5.816	5.816	(1.101)	67	203027		21.66- 81.66	52.30	
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.387	7.387	(1.195)	98	910591	22.4709	22.471 80.00- 120.00	100.00	
7.387	7.387	(1.195)	70	101725		0.00- 41.47	11.17	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	600787			36.47- 96.47	65.98
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.115)	174	522284	25.0692	25.069	80.00- 120.00	100.00
9.601	9.601	(1.115)	95	590510			93.06- 153.06	113.06
9.601	9.601	(1.115)	176	480547			62.87- 122.87	92.01
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.395	1.395	(0.264)	83	365606	58.0904	58.090	80.00- 120.00	100.00
1.395	1.395	(0.264)	69	291944			51.82- 111.82	79.85
1.493	1.493	(0.282)	51	792464			194.91- 254.91	216.75
-----								
5 Propylene								
						CAS #: 115-07-1		
1.437	1.423	(0.272)	41	308456	48.2794	48.279	80.00- 120.00	100.00
1.437	1.423	(0.272)	42	205213			35.61- 95.61	66.53
1.437	1.423	(0.272)	39	235775			42.66- 102.66	76.44
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.451	1.451	(0.275)	65	212516	51.0280	51.028	80.00- 120.00	100.00
1.493	1.493	(0.282)	51	792464			321.86- 381.86	372.90
1.451	1.451	(0.275)	47	168803			45.34- 105.34	79.43
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.465	1.465	(0.277)	85	968426	52.5586	52.559	80.00- 120.00	100.00
1.465	1.465	(0.277)	87	312202			2.63- 62.63	32.24
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.493	1.493	(0.282)	67	104524	51.6153	51.615	80.00- 120.00	100.00
1.493	1.493	(0.282)	51	792464			719.76- 779.76	758.16
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.563	1.563	(0.296)	135	728021	53.3246	53.324	80.00- 120.00	100.00
1.563	1.563	(0.296)	137	235703			2.12- 62.12	32.38
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.577	1.577	(0.298)	43	710699	49.4922	49.492	80.00- 120.00	100.00
1.577	1.577	(0.298)	42	232805			2.44- 62.44	32.76
1.577	1.577	(0.298)	58	24675			0.00- 33.26	3.47
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.647	1.646	(0.312)	50	447236	58.3992	58.399	80.00- 120.00	100.00
1.647	1.646	(0.312)	52	145401			2.41- 62.41	32.51
-----								
18 Butane								
						CAS #: 106-97-8		
1.702	1.702	(0.322)	58	96707	53.4712	53.471	80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
1.702	1.702	(0.322)	43	716989				727.41- 787.41	741.40
-----									
19 Vinyl Chloride									
								CAS #: 75-01-4	
1.744	1.744	(0.330)	62	451048	55.0387	55.039		80.00- 120.00	100.00
1.744	1.744	(0.330)	64	135095				1.28- 61.28	29.95
-----									
20 1,3-Butadiene									
								CAS #: 106-99-0	
1.758	1.758	(0.333)	54	383243	51.0275	51.027		80.00- 120.00	100.00
1.758	1.758	(0.333)	39	354423				69.23- 129.23	92.48
-----									
24 Bromomethane									
								CAS #: 74-83-9	
2.094	2.094	(0.396)	94	332826	51.3515	51.351		80.00- 120.00	100.00
2.094	2.094	(0.396)	96	305128				62.78- 122.78	91.68
-----									
30 Chloroethane									
								CAS #: 75-00-3	
2.206	2.206	(0.417)	64	192465	50.0308	50.031		80.00- 120.00	100.00
2.206	2.206	(0.417)	66	58128				1.44- 61.44	30.20
2.206	2.206	(0.417)	49	64042				4.12- 64.12	33.27
-----									
31 Isopentane									
								CAS #: 78-78-4	
2.220	2.220	(0.420)	43	471022	47.8809	47.881		80.00- 120.00	100.00
2.220	2.220	(0.420)	57	337429				38.82- 98.82	71.64
-----									
32 Vinyl Bromide									
								CAS #: 593-60-2	
2.388	2.388	(0.452)	106	352262	49.9886	49.989		80.00- 120.00	100.00
2.388	2.388	(0.452)	108	329712				63.14- 123.14	93.60
-----									
33 Freon 11									
								CAS #: 75-69-4	
2.430	2.430	(0.460)	101	1068279	54.7966	54.797		80.00- 120.00	100.00
2.430	2.430	(0.460)	103	691017				35.12- 95.12	64.69
-----									
34 Dichlorofluoromethane									
								CAS #: 75-43-4	
2.444	2.444	(0.463)	67	830477	53.2884	53.288		80.00- 120.00	100.00
2.444	2.444	(0.463)	69	255200				0.74- 60.74	30.73
-----									
35 Pentane									
								CAS #: 109-66-0	
2.500	2.500	(0.473)	43	723715	46.1765	46.176		80.00- 120.00	100.00
2.500	2.500	(0.473)	57	118653				0.00- 45.97	16.39
2.500	2.500	(0.473)	72	61785				0.00- 38.10	8.54
-----									
38 Ethyl Ether									
								CAS #: 60-29-7	
2.780	2.780	(0.526)	74	170216	48.4398	48.440		80.00- 120.00	100.00
2.780	2.780	(0.526)	59	300679				147.68- 207.68	176.65
2.780	2.780	(0.526)	45	386017				206.40- 266.40	226.78
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
2.766	2.766	(0.523)	46	65352	41.4374	41.437	80.00- 120.00	100.00
2.780	2.766	(0.526)	45	386017			523.01- 583.01	590.67
-----								
42 Acrolein					CAS #: 107-02-8			
3.032	3.032	(0.574)	55	137334	52.4737	52.474	80.00- 120.00	100.00
3.032	3.032	(0.574)	56	194980			110.33- 170.33	141.98
-----								
43 Freon 113					CAS #: 76-13-1			
3.032	3.032	(0.574)	151	690409	51.8048	51.805	80.00- 120.00	100.00
3.032	3.032	(0.574)	153	436709			33.72- 93.72	63.25
3.032	3.032	(0.574)	101	831249			89.67- 149.67	120.40
-----								
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.074	3.074	(0.582)	96	383414	47.7641	47.764	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	246695			33.39- 93.39	64.34
3.074	3.074	(0.582)	61	757961			163.82- 223.82	197.69
-----								
47 Acetone					CAS #: 67-64-1			
3.214	3.214	(0.608)	58	214347	48.3291	48.329	80.00- 120.00	100.00
3.214	3.214	(0.608)	43	724531			299.66- 359.66	338.02
-----								
48 Carbon Disulfide					CAS #: 75-15-0			
3.298	3.298	(0.624)	76	1039962	52.0714	52.071	80.00- 120.00	100.00
-----								
49 Iodomethane					CAS #: 74-88-4			
3.270	3.270	(0.619)	142	1003225	58.0907	58.091	80.00- 120.00	100.00
3.270	3.270	(0.619)	127	468995			14.58- 74.58	46.75
-----								
52 2-Propanol					CAS #: 67-63-0			
3.410	3.395	(0.645)	45	806564	50.5668	50.567	80.00- 120.00	100.00
3.396	3.395	(0.643)	43	164770			0.00- 48.61	20.43
-----								
54 3-Chloropropene					CAS #: 107-05-1			
3.535	3.535	(0.669)	76	163987	47.6920	47.692	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	554969			338.06- 398.06	338.42
-----								
57 Acetonitrile					CAS #: 75-05-8			
3.633	3.633	(0.688)	41	323471	46.3163	46.316	80.00- 120.00	100.00
3.633	3.633	(0.688)	40	169283			21.81- 81.81	52.33
3.633	3.633	(0.688)	38	39891			0.00- 41.86	12.33
-----								
59 Methylene Chloride					CAS #: 75-09-2			
3.717	3.717	(0.703)	49	514282	48.4510	48.451	80.00- 120.00	100.00
3.717	3.717	(0.703)	84	318032			30.77- 90.77	61.84
3.717	3.717	(0.703)	51	159661			1.39- 61.39	31.05
-----								

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
3.857	3.857	(0.730)	59	929932	46.4487	46.449	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	209911			0.00- 51.05	22.57
3.857	3.857	(0.730)	57	101942			0.00- 41.68	10.96
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
3.941	3.941	(0.746)	73	1034016	47.8512	47.851	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	301600			0.00- 58.86	29.17
3.941	3.941	(0.746)	41	282309			0.00- 57.27	27.30
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
3.969	3.969	(0.751)	98	245885	45.5174	45.517	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	653540			244.59- 304.59	265.79
3.969	3.969	(0.751)	96	387148			129.84- 189.84	157.45
66 Acrylonitrile					CAS #: 107-13-1			
4.067	4.067	(0.770)	52	267884	41.3199	41.320	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	317795			88.50- 148.50	118.63
67 Hexane					CAS #: 110-54-3			
4.179	4.179	(0.791)	57	686955	46.8998	46.900	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	419023			32.99- 92.99	61.00
4.179	4.179	(0.791)	86	86851			0.00- 42.56	12.64
71 1,1-Dichloroethane					CAS #: 75-34-3			
4.459	4.459	(0.844)	63	703651	46.7128	46.713	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	213418			0.76- 60.76	30.33
72 Isopropyl ether					CAS #: 108-20-3			
4.445	4.445	(0.841)	45	1381404	44.6890	44.689	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	313350			0.00- 51.37	22.68
4.445	4.445	(0.841)	59	163818			0.00- 41.09	11.86
73 Vinyl Acetate					CAS #: 108-05-4			
4.501	4.501	(0.852)	86	87658	47.3326	47.333	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	1205467			1391.63-1451.63	1375.19
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
4.809	4.809	(0.910)	59	1350101	45.2410	45.241	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	453565			3.22- 63.22	33.59
4.809	4.809	(0.910)	41	259478			0.00- 48.12	19.22
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.005	5.005	(0.947)	77	649266	46.2673	46.267	80.00- 120.00	100.00
5.005	5.005	(0.947)	79	206844			2.00- 62.00	31.86
5.005	5.005	(0.947)	97	152592			0.00- 53.36	23.50

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene					CAS #: 156-59-2				
5.047	5.046	(0.955)	98	241997	45.1911	45.191	80.00- 120.00	100.00	
5.047	5.046	(0.955)	96	379879			127.22- 187.22	156.98	
5.047	5.046	(0.955)	61	723991			283.85- 343.85	299.17	
86 2-Butanone					CAS #: 78-93-3				
5.061	5.060	(0.958)	72	177268	47.3932	47.393	80.00- 120.00	100.00	
5.075	5.060	(0.960)	43	1794296			1055.75-1115.75	1012.19	
5.061	5.060	(0.958)	57	70607			10.59- 70.59	39.83	
87 Ethyl Acetate					CAS #: 141-78-6				
5.089	5.088	(0.963)	45	143861	46.6544	46.654	80.00- 120.00	100.00	
5.047	5.046	(0.955)	61	723991			450.31- 510.31	503.26	
5.089	5.088	(0.963)	70	86131			30.42- 90.42	59.87	
89 Tetrahydrofuran					CAS #: 109-99-9				
5.270	5.270	(0.997)	42	445782	42.2647	42.265	80.00- 120.00	100.00	
5.270	5.270	(0.997)	71	159425			2.92- 62.92	35.76	
5.270	5.270	(0.997)	72	160906			3.54- 63.54	36.10	
92 Chloroform					CAS #: 67-66-3				
5.340	5.340	(1.011)	83	800004	48.2406	48.240	80.00- 120.00	100.00	
5.340	5.340	(1.011)	85	518430			34.71- 94.71	64.80	
94 Cyclohexane					CAS #: 110-82-7				
5.438	5.438	(1.029)	84	478762	45.6740	45.674	80.00- 120.00	100.00	
5.438	5.438	(1.029)	56	708505			120.40- 180.40	147.99	
5.438	5.438	(1.029)	41	390411			54.20- 114.20	81.55	
96 1,1,1-Trichloroethane					CAS #: 71-55-6				
5.452	5.452	(1.032)	97	881313	47.2796	47.280	80.00- 120.00	100.00	
5.466	5.452	(1.034)	99	557602			33.76- 93.76	63.27	
97 Carbon Tetrachloride					CAS #: 56-23-5				
5.578	5.578	(1.056)	119	906795	52.8186	52.818	80.00- 120.00	100.00	
5.578	5.578	(1.056)	117	943595			73.68- 133.68	104.06	
99 1,1-Dichloropropene					CAS #: 563-58-6				
5.606	5.606	(0.907)	110	212718	47.5091	47.509	80.00- 120.00	100.00	
5.606	5.606	(0.907)	75	556317			231.09- 291.09	261.53	
101 2,2,4-Trimethylpentane					CAS #: 540-84-1				
5.774	5.774	(1.093)	57	2246136	49.0366	49.036	80.00- 120.00	100.00	
5.774	5.774	(1.093)	56	701042			1.12- 61.12	31.21	
5.774	5.774	(1.093)	41	615597			0.00- 57.49	27.41	



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
5.788	5.788	(0.937)	78	1103579	49.1544	49.154	80.00- 120.00	100.00
5.788	5.788	(0.937)	77	259826			0.00- 53.80	23.54
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
5.858	5.858	(0.948)	87	282982	47.2712	47.271	80.00- 120.00	100.00
5.858	5.858	(0.948)	73	1123724			365.20- 425.20	397.10
5.858	5.858	(0.948)	55	356537			91.31- 151.31	125.99
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
5.886	5.886	(0.952)	62	651702	50.4186	50.418	80.00- 120.00	100.00
5.886	5.886	(0.952)	64	201088			1.20- 61.20	30.86
-----								
107 Heptane					CAS #: 142-82-5			
5.942	5.942	(0.962)	71	394791	44.6440	44.644	80.00- 120.00	100.00
5.942	5.942	(0.962)	43	792154			179.02- 239.02	200.65
5.942	5.942	(0.962)	57	455756			84.85- 144.85	115.44
-----								
110 n-Butanol					CAS #: 71-36-3			
6.348	6.348	(1.027)	56	340801	47.3582	47.358	80.00- 120.00	100.00
6.348	6.348	(1.027)	41	232557			40.21- 100.21	68.24
6.348	6.348	(1.027)	43	181471			25.00- 85.00	53.25
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.362	6.362	(1.029)	95	540872	48.0208	48.021	80.00- 120.00	100.00
6.362	6.362	(1.029)	130	581180			74.96- 134.96	107.45
6.362	6.362	(1.029)	97	345953			34.80- 94.80	63.96
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
6.586	6.586	(1.066)	63	191722	36.8400	36.840	80.00- 120.00	100.00
6.586	6.586	(1.066)	62	130105			52.03- 112.03	67.86
6.586	6.586	(1.066)	41	191542			79.97- 139.97	99.91
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
6.664	6.664	(0.774)	69	489956	64.6357	64.636	80.00- 120.00	100.00
6.664	6.664	(0.774)	41	616020			134.02- 194.02	125.73
6.664	6.664	(0.774)	100	158613			9.54- 69.54	32.37
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
6.700	6.700	(1.084)	88	268247	47.1657	47.166	80.00- 120.00	100.00
6.700	6.700	(1.084)	58	264196			55.80- 115.80	98.49
6.700	6.700	(1.084)	57	83716			8.68- 68.68	31.21
-----								
118 Dibromomethane					CAS #: 74-95-3			
6.721	6.721	(0.780)	174	491096	58.1727	58.173	80.00- 120.00	100.00
6.714	6.714	(0.780)	93	473643			67.27- 127.27	96.45

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
6.714	6.714	(0.780)	95	396066		50.92- 110.92	80.65		
-----									
122 Bromodichloromethane CAS #: 75-27-4									
6.836	6.836	(1.106)	83	859996	45.5771	45.577	80.00- 120.00	100.00	
6.836	6.836	(1.106)	85	551919		34.31- 94.31	64.18		
-----									
126 cis-1,3-Dichloropropene CAS #: 10061-01-5									
7.208	7.208	(1.166)	75	612845	43.6980	43.698	80.00- 120.00	100.00	
7.208	7.208	(1.166)	77	197448		1.42- 61.42	32.22		
7.208	7.208	(1.166)	39	416289		38.56- 98.56	67.93		
-----									
127 Methylcyclohexane CAS #: 108-87-2									
6.460	6.460	(1.045)	83	658920	43.7486	43.748	80.00- 120.00	100.00	
6.460	6.460	(1.045)	98	304868		15.60- 75.60	46.27		
6.460	6.460	(1.045)	55	653916		78.53- 138.53	99.24		
-----									
131 4-Methyl-2-pentanone CAS #: 108-10-1									
7.316	7.316	(1.184)	58	375061	39.3307	39.331	80.00- 120.00	100.00	
7.316	7.316	(1.184)	43	961401		231.30- 291.30	256.33		
7.316	7.316	(1.184)	85	144209		8.94- 68.94	38.45		
-----									
137 Toluene CAS #: 108-88-3									
7.437	7.437	(1.203)	91	1274017	42.2911	42.291	80.00- 120.00	100.00	
7.437	7.437	(1.203)	92	723280		28.30- 88.30	56.77		
-----									
136 Octane CAS #: 111-65-9									
7.445	7.444	(1.205)	57	395597	39.4698	39.470	80.00- 120.00	100.00	
7.445	7.444	(1.205)	85	396138		67.11- 127.11	100.14		
7.445	7.444	(1.205)	43	906745		214.21- 274.21	229.21		
-----									
139 trans-1,3-Dichloropropene CAS #: 10061-02-6									
7.688	7.688	(0.893)	75	566072	48.7961	48.796	80.00- 120.00	100.00	
7.688	7.688	(0.893)	77	177342		2.15- 62.15	31.33		
7.688	7.688	(0.893)	39	363206		36.09- 96.09	64.16		
-----									
141 1,1,2-Trichloroethane CAS #: 79-00-5									
7.846	7.846	(0.911)	97	430677	48.2731	48.273	80.00- 120.00	100.00	
7.846	7.846	(0.911)	99	270773		31.62- 91.62	62.87		
7.839	7.846	(0.910)	83	371808		56.35- 116.35	86.33		
-----									
142 Tetrachloroethene CAS #: 127-18-4									
7.881	7.881	(0.915)	166	633208	51.3159	51.316	80.00- 120.00	100.00	
7.881	7.881	(0.915)	129	488944		48.71- 108.71	77.22		
7.881	7.881	(0.915)	131	477127		46.55- 106.55	75.35		
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6		
8.003	8.003	(0.929)	58	480955	46.9324	46.932	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	874949			157.91- 217.91	181.92
8.003	8.003	(0.929)	100	89274			0.00- 47.86	18.56
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
7.989	7.989	(1.293)	76	573763	39.9196	39.920	80.00- 120.00	100.00
7.989	7.989	(1.293)	41	599930			82.96- 142.96	104.56
7.989	7.989	(1.293)	78	187422			2.55- 62.55	32.67
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.154	8.154	(0.947)	129	879885	51.9858	51.986	80.00- 120.00	100.00
8.154	8.154	(0.947)	127	688043			47.77- 107.77	78.20
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.261	8.261	(0.959)	107	696061	50.2394	50.239	80.00- 120.00	100.00
8.261	8.261	(0.959)	109	657345			64.60- 124.60	94.44
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.115	7.115	(1.151)	63	833135	45.7536	45.754	80.00- 120.00	100.00
7.115	7.115	(1.151)	65	251681			0.95- 60.95	30.21
7.115	7.115	(1.151)	144	90011			0.00- 40.45	10.80
-----								
154 Chlorobenzene						CAS #: 108-90-7		
8.641	8.641	(1.003)	112	1057823	49.1388	49.139	80.00- 120.00	100.00
8.641	8.641	(1.003)	114	343192			2.13- 62.13	32.44
8.641	8.641	(1.003)	77	551891			26.35- 86.35	52.17
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
8.684	8.684	(1.008)	106	531090	49.3372	49.337	80.00- 120.00	100.00
8.684	8.684	(1.008)	91	1663598			282.48- 342.48	313.24
-----								
156 Nonane						CAS #: 111-84-2		
8.705	8.705	(1.011)	43	911996	43.7109	43.711	80.00- 120.00	100.00
8.705	8.705	(1.011)	57	853008			59.52- 119.52	93.53
8.705	8.705	(1.011)	85	295668			0.00- 59.76	32.42
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
8.712	8.712	(1.012)	131	531351	44.8488	44.849	80.00- 120.00	100.00
8.712	8.712	(1.012)	117	360480			38.22- 98.22	67.84
8.712	8.712	(1.012)	95	197184			7.54- 67.54	37.11
-----								
158 m,p-Xylene						CAS #: 108-38-3		
8.784	8.784	(1.020)	106	662161	49.4449	49.445	80.00- 120.00	100.00
8.784	8.784	(1.020)	91	1320955			171.36- 231.36	199.49

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene						CAS #: 95-47-6		
9.121	9.121	(1.059)	106	609912	47.9738	47.974	80.00- 120.00	100.00
9.121	9.121	(1.059)	91	1273735			179.99- 239.99	208.84
-----								
165 Styrene						CAS #: 100-42-5		
9.142	9.149	(1.062)	104	1067885	48.4819	48.482	80.00- 120.00	100.00
9.142	9.149	(1.062)	78	501865			19.09- 79.09	47.00
-----								
167 Bromoform						CAS #: 75-25-2		
9.350	9.350	(1.086)	173	849507	52.9317	52.932	80.00- 120.00	100.00
9.350	9.350	(1.086)	171	436292			21.45- 81.45	51.36
-----								
168 Cumene						CAS #: 98-82-8		
9.407	9.407	(1.092)	105	1931450	48.0515	48.051	80.00- 120.00	100.00
9.407	9.407	(1.092)	120	525825			0.00- 56.99	27.22
9.407	9.407	(1.092)	51	220091			0.00- 41.77	11.40
-----								
169 Cyclohexanone						CAS #: 108-94-1		
9.579	9.579	(1.112)	55	530026	41.9013	41.901	80.00- 120.00	100.00
9.579	9.579	(1.112)	98	214945			9.22- 69.22	40.55
9.579	9.579	(1.112)	42	372079			42.60- 102.60	70.20
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
9.737	9.737	(1.131)	83	968237	48.5847	48.585	80.00- 120.00	100.00
9.737	9.737	(1.131)	85	625201			34.35- 94.35	64.57
-----								
177 Bromobenzene						CAS #: 108-86-1		
9.730	9.729	(1.130)	156	642729	51.4373	51.437	80.00- 120.00	100.00
9.730	9.729	(1.130)	158	627437			67.29- 127.29	97.62
9.730	9.729	(1.130)	77	976466			132.41- 192.41	151.92
-----								
178 Propylbenzene						CAS #: 103-65-1		
9.758	9.751	(1.133)	91	2352775	50.1652	50.165	80.00- 120.00	100.00
9.758	9.751	(1.133)	120	561216			0.00- 53.77	23.85
9.758	9.751	(1.133)	105	88233			0.00- 33.81	3.75
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
9.787	9.787	(1.136)	110	301625	50.2441	50.244	80.00- 120.00	100.00
9.787	9.787	(1.136)	75	999914			285.00- 345.00	331.51
9.787	9.787	(1.136)	61	252539			54.06- 114.06	83.73
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
9.787	9.787	(1.136)	53	306673	64.5587	64.559	80.00- 120.00	100.00
9.787	9.787	(1.136)	89	160428			21.19- 81.19	52.31
9.787	9.787	(1.136)	75	999914			372.45- 432.45	326.05
-----								

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane					CAS #: 124-18-5			
9.808	9.808	(1.139)	57	1104027	45.5252	45.525	80.00- 120.00	100.00
9.808	9.808	(1.139)	71	384837			4.13- 64.13	34.86
9.808	9.815	(1.139)	142	57132			0.00- 34.73	5.17
-----					-----			
183 4-Ethyltoluene					CAS #: 622-96-8			
9.851	9.851	(1.144)	120	609601	50.1444	50.144	80.00- 120.00	100.00
9.851	9.851	(1.144)	105	1965716			296.79- 356.79	322.46
-----					-----			
184 2-Chlorotoluene					CAS #: 95-49-8			
9.873	9.873	(1.146)	126	501574	50.7772	50.777	80.00- 120.00	100.00
9.873	9.873	(1.146)	91	1753312			336.29- 396.29	349.56
9.873	9.873	(1.146)	65	325796			38.83- 98.83	64.95
-----					-----			
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
9.901	9.901	(1.150)	120	829269	48.5662	48.566	80.00- 120.00	100.00
9.901	9.901	(1.150)	105	1681234			176.40- 236.40	202.74
-----					-----			
188 alpha Methyl Styrene					CAS #: 98-83-9			
10.102	10.102	(1.173)	118	808031	46.2058	46.206	80.00- 120.00	100.00
10.102	10.102	(1.173)	103	449650			26.64- 86.64	55.65
-----					-----			
189 tert-Butylbenzene					CAS #: 98-06-6			
10.174	10.174	(1.181)	119	1558426	49.6047	49.605	80.00- 120.00	100.00
10.174	10.174	(1.181)	134	393750			0.00- 54.82	25.27
10.174	10.166	(1.181)	91	1008351			36.92- 96.92	64.70
-----					-----			
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
10.224	10.224	(1.187)	105	1660312	49.3116	49.312	80.00- 120.00	100.00
10.224	10.224	(1.187)	120	791844			16.58- 76.58	47.69
-----					-----			
192 sec-Butylbenzene					CAS #: 135-98-8			
10.353	10.353	(1.202)	134	515786	50.8284	50.828	80.00- 120.00	100.00
10.353	10.353	(1.202)	105	2407222			451.53- 511.53	466.71
10.353	10.353	(1.202)	91	379702			46.48- 106.48	73.62
-----					-----			
194 p-Cymene					CAS #: 99-87-6			
10.467	10.467	(1.215)	119	2133234	50.1985	50.198	80.00- 120.00	100.00
10.467	10.467	(1.215)	134	579306			0.00- 56.79	27.16
10.467	10.467	(1.215)	91	495121			0.00- 54.04	23.21
-----					-----			
195 1,3-Dichlorobenzene					CAS #: 541-73-1			
10.518	10.517	(1.221)	146	1182773	51.7055	51.706	80.00- 120.00	100.00
10.518	10.517	(1.221)	148	751952			33.53- 93.53	63.58
10.510	10.517	(1.220)	111	462763			11.05- 71.05	39.13
-----					-----			

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
10.596	10.596	(1.230)	146	1203978	51.0976	51.098	80.00- 120.00	100.00
10.596	10.596	(1.230)	148	765455			33.47- 93.47	63.58
10.596	10.596	(1.230)	111	456680			9.65- 69.65	37.93
-----								
199 alpha-Chlorotoluene					CAS #: 100-44-7			
10.711	10.711	(1.244)	91	1532081	47.2916	47.292	80.00- 120.00	100.00
10.711	10.711	(1.244)	126	345449			0.00- 52.04	22.55
-----								
201 Undecane					CAS #: 1120-21-4			
10.804	10.804	(1.254)	57	1321109	46.2297	46.230	80.00- 120.00	100.00
10.804	10.804	(1.254)	43	1112824			55.86- 115.86	84.23
-----								
202 Butylbenzene					CAS #: 104-51-8			
10.818	10.818	(1.256)	134	562321	51.0340	51.034	80.00- 120.00	100.00
10.818	10.818	(1.256)	91	2001577			331.99- 391.99	355.95
10.818	10.818	(1.256)	92	1036492			161.01- 221.01	184.32
-----								
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
10.926	10.919	(1.269)	146	1135345	51.3613	51.361	80.00- 120.00	100.00
10.926	10.919	(1.269)	148	713967			33.23- 93.23	62.89
10.919	10.919	(1.268)	111	459280			12.36- 72.36	40.45
-----								
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
11.606	11.606	(1.348)	157	659606	51.4618	51.462	80.00- 120.00	100.00
11.606	11.599	(1.348)	75	532543			58.96- 118.96	80.74
11.606	11.606	(1.348)	155	512067			47.82- 107.82	77.63
-----								
207 Dodecane					CAS #: 112-40-3			
11.714	11.714	(1.360)	57	1362590	56.3877	56.388	80.00- 120.00	100.00
11.714	11.714	(1.360)	43	1064149			50.85- 110.85	78.10
-----								
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
12.301	12.301	(1.428)	180	1057647	67.3631	67.363	80.00- 120.00	100.00
12.301	12.301	(1.428)	182	1004498			65.40- 125.40	94.97
-----								
215 Hexachlorobutadiene					CAS #: 87-68-3			
12.387	12.387	(1.438)	225	820721	69.2006	69.200	80.00- 120.00	100.00
12.387	12.387	(1.438)	223	522391			33.70- 93.70	63.65
-----								
216 Naphthalene					CAS #: 91-20-3			
12.559	12.559	(1.458)	128	246801	5.14771	5.148	80.00- 120.00	100.00
12.559	12.559	(1.458)	127	33381			0.00- 43.10	13.53
-----								
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
12.810	12.810	(1.487)	180	1006841	70.0788	70.079	80.00- 120.00	100.00

CONCENTRATIONS

ON-COL      FINAL

RT	EXP RT	(REL RT)	MASS	RESPONSE	( PPBV)	( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====

222 1,2,3-Trichlorobenzene (continued)

12.810	12.810	(1.487)	182	959871			65.67- 125.67	95.33
12.803	12.810	(1.487)	145	351695			6.02- 66.02	34.93

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072606a.d  
Lab Smp Id: LCSD  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
Misc Info: 50ppbv (100ppbv)

Calibration Date: 26-JUL-2021  
Calibration Time: 10:10  
Client Smp ID: LCSD  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	263983	158390	369576	264503	0.20
108 1,4-Difluorobenze	833448	500069	1166827	983852	18.05
153 Chlorobenzene-d5	741338	444803	1037873	787648	6.25

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.17	5.84	6.50	6.18	0.23
153 Chlorobenzene-d5	8.61	8.28	8.94	8.61	0.00

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.



US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 26JUL21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCSD Client Smp ID: LCSD  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: LCSD  
 SpikeList File: AT20sh.spk Quant Type: ISTD  
 Sublist File: AT20LCS\_new.sub  
 Method File: /chem/msd3.i/26JUL21.b/321q0622a.m  
 Misc Info: 50ppbv (100ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
5 Propylene	50.000	48.279	96.56	70-130
7 1,1-Difluoroethan	50.000	51.028	102.06	70-130
8 Freon 12	50.000	52.559	105.12	70-130
10 Freon 114	50.000	53.324	106.65	70-130
15 Chloromethane	50.000	58.399	116.80	70-130
18 Butane	50.000	53.471	106.94	70-130
19 Vinyl Chloride	50.000	55.039	110.08	70-130
20 1,3-Butadiene	50.000	51.027	102.05	70-130
24 Bromomethane	50.000	51.351	102.70	70-130
30 Chloroethane	50.000	50.031	100.06	70-130
31 Isopentane	50.000	47.881	95.76	70-130
32 Vinyl Bromide	50.000	49.989	99.98	70-130
33 Freon 11	50.000	54.797	109.59	70-130
34 Dichlorofluoromet	50.000	53.288	106.58	70-130
39 Ethanol	58.000	41.437	71.44	70-130
43 Freon 113	50.000	51.805	103.61	70-130
44 1,1-Dichloroethen	50.000	47.764	95.53	70-130
47 Acetone	50.000	48.329	96.66	70-130
48 Carbon Disulfide	50.000	52.071	104.14	70-130
52 2-Propanol	50.000	50.567	101.13	70-130
54 3-Chloropropene	50.000	47.692	95.38	70-130
59 Methylene Chlorid	50.000	48.451	96.90	70-130
63 Methyl tert-butyl	50.000	47.851	95.70	70-130
64 trans-1,2-Dichlor	50.000	45.517	91.03	70-130
67 Hexane	50.000	46.900	93.80	70-130
71 1,1-Dichloroethan	50.000	46.713	93.43	70-130
73 Vinyl Acetate	50.000	47.333	94.67	70-130
85 cis-1,2-Dichloroe	50.000	45.191	90.38	70-130
86 2-Butanone	50.000	47.393	94.79	70-130
87 Ethyl Acetate	50.000	46.654	93.31	70-130
89 Tetrahydrofuran	50.000	42.265	84.53	70-130
92 Chloroform	50.000	48.240	96.48	70-130
94 Cyclohexane	50.000	45.674	91.35	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
96 1,1,1-Trichloroet	50.000	47.280	94.56	70-130
99 1,1-Dichloroprope	50.000	47.509	95.02	70-130
97 Carbon Tetrachlor	50.000	52.818	105.64	70-130
101 2,2,4-Trimethylpe	50.000	49.036	98.07	70-130
102 Benzene	50.000	49.154	98.31	70-130
106 1,2-Dichloroethan	50.000	50.418	100.84	70-130
107 Heptane	50.000	44.644	89.29	70-130
111 Trichloroethene	50.000	48.021	96.04	70-130
127 Methylcyclohexane	50.000	43.748	87.50	70-130
114 1,2-Dichloropropa	50.000	36.840	73.68	70-130
117 1,4-Dioxane	50.000	47.166	94.33	70-130
122 Bromodichlorometh	50.000	45.577	91.15	70-130
126 cis-1,3-Dichlorop	50.000	43.698	87.40	70-130
131 4-Methyl-2-pentan	50.000	39.331	78.66	70-130
136 Octane	50.000	39.470	78.94	70-130
137 Toluene	50.000	42.291	84.58	70-130
139 trans-1,3-Dichlor	50.000	48.796	97.59	70-130
141 1,1,2-Trichloroet	50.000	48.273	96.55	70-130
142 Tetrachloroethene	50.000	51.316	102.63	70-130
143 2-Hexanone	50.000	46.932	93.86	70-130
144 1,3-Dichloropropa	50.000	39.920	79.84	70-130
146 Dibromochlorometh	50.000	51.986	103.97	70-130
148 1,2-Dibromoethane	50.000	50.239	100.48	70-130
154 Chlorobenzene	50.000	49.139	98.28	70-130
155 Ethyl Benzene	50.000	49.337	98.67	70-130
156 Nonane	50.000	43.711	87.42	70-130
157 1,1,1,2-Tetrachlo	50.000	44.849	89.70	70-130
158 m,p-Xylene	50.000	49.445	98.89	70-130
164 o-Xylene	50.000	47.974	95.95	70-130
165 Styrene	50.000	48.482	96.96	70-130
167 Bromoform	50.000	52.932	105.86	70-130
168 Cumene	50.000	48.051	96.10	70-130
175 1,1,2,2-Tetrachlo	50.000	48.585	97.17	70-130
177 Bromobenzene	50.000	51.437	102.87	70-130
178 Propylbenzene	50.000	50.165	100.33	70-130
181 trans-1,4-Dichlor	50.000	64.559	129.12	70-130
183 4-Ethyltoluene	50.000	50.144	100.29	70-130
185 1,3,5-Trimethylbe	50.000	48.566	97.13	70-130
188 alpha Methyl Styr	50.000	46.206	92.41	70-130
190 1,2,4-Trimethylbe	50.000	49.312	98.62	70-130
195 1,3-Dichlorobenze	50.000	51.706	103.41	70-130
196 1,4-Dichlorobenze	50.000	51.098	102.20	70-130
199 alpha-Chlorotolue	50.000	47.292	94.58	70-130
204 1,2-Dichlorobenze	50.000	51.361	102.72	70-130
213 1,2,4-Trichlorobe	58.000	67.363	116.14	70-130
215 Hexachlorobutadie	58.000	69.200	119.31	70-130
216 Naphthalene	5.800	5.148	88.75	60-140

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Y REPORT

Client Name: Client SDG: 26JUL21  
Smp Matrix: GAS Fraction: VOA  
Lb Smp Id: LCSD Client Smp ID: LCSD  
Lvel: LOW Operator: LD  
Dta Type: MS DATA SampleType: LCSD  
SikeList File: AT20sh.sp Quant Type: ISTD  
Sblist File: AT20LCS\_new  
Mthod File: /chem/msd3.iq0622a.m  
Msc Info: 50ppbv (100ppb

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	26.669	106.68	70-130
\$ 134 Toluene-d8	25.000	22.471	89.88	70-130
\$ 170 4-Bromofluorobenz	25.000	25.069	100.28	70-130

Date : 26-JUL-2021 12:20

Client ID: LCSD

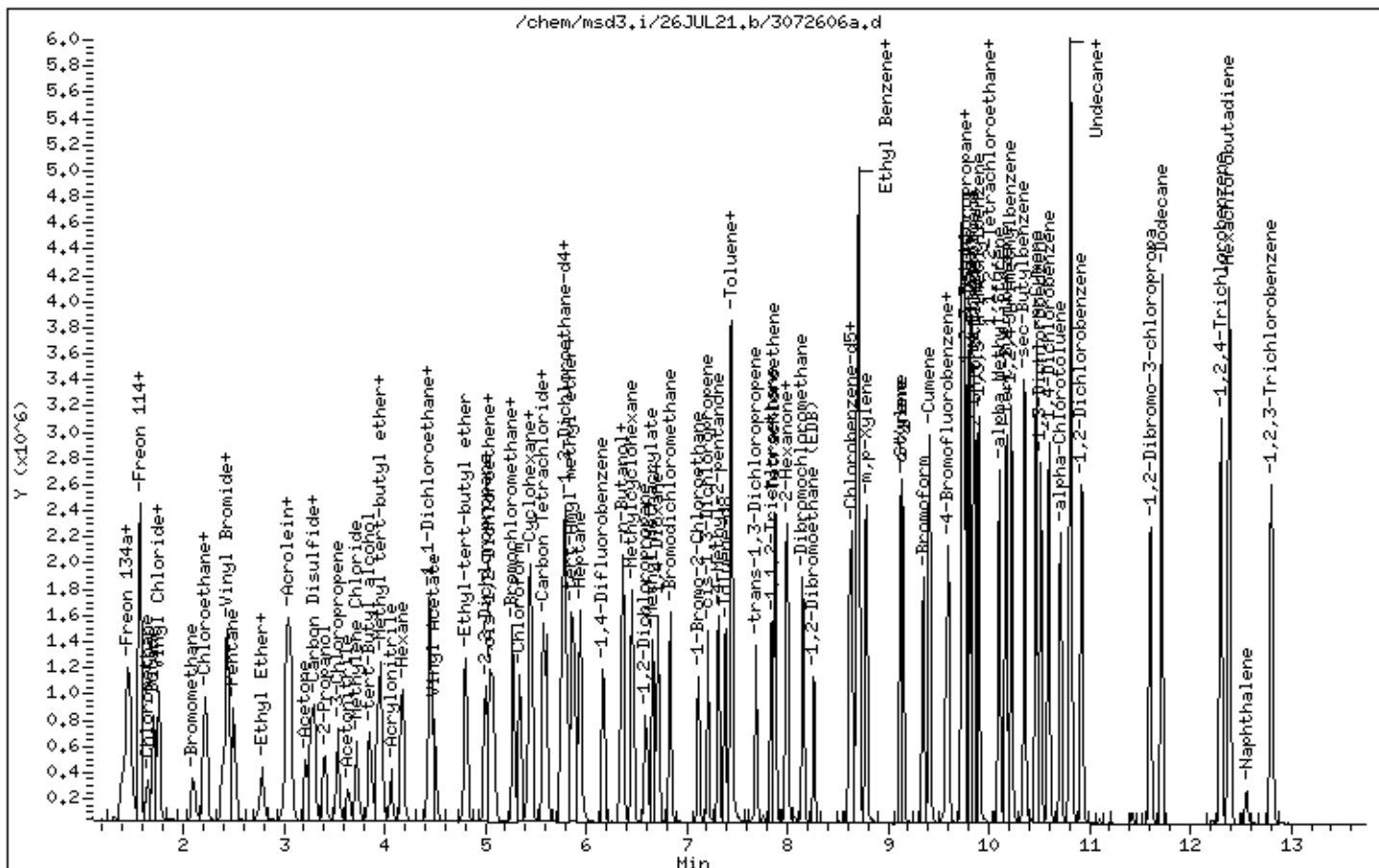
Instrument: msd3,i

Sample Info: 100mL 3018-2121A

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Client Sample ID: LCS

Lab ID#: 2107284-29B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072704a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/27/21 12:13 PM

Compound	%Recovery	Method Limits
1,1,1-Trichloroethane	90	70-130
1,1,1,2-Tetrachloroethane	99	70-130
1,1,2-Trichloroethane	97	70-130
1,1-Dichloroethane	92	70-130
1,1-Dichloroethene	93	70-130
1,2,4-Trichlorobenzene	101	70-130
1,2,4-Trimethylbenzene	104	70-130
1,2-Dibromoethane (EDB)	100	70-130
1,2-Dichlorobenzene	107	70-130
1,2-Dichloroethane	101	70-130
1,2-Dichloropropane	84	70-130
1,3,5-Trimethylbenzene	100	70-130
1,3-Butadiene	92	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	104	70-130
1,4-Dioxane	90	70-130
2,2,4-Trimethylpentane	93	70-130
2-Butanone (Methyl Ethyl Ketone)	94	70-130
2-Hexanone	92	70-130
2-Propanol	98	70-130
3-Chloropropene	93	70-130
4-Ethyltoluene	100	70-130
4-Methyl-2-pentanone	78	70-130
Acetone	96	70-130
alpha-Chlorotoluene	96	70-130
Benzene	103	70-130
Bromodichloromethane	88	70-130
Bromoform	104	70-130
Bromomethane	100	70-130
Carbon Disulfide	103	70-130
Carbon Tetrachloride	98	70-130
Chlorobenzene	97	70-130
Chloroethane	100	70-130
Chloroform	94	70-130
Chloromethane	113	70-130
cis-1,2-Dichloroethene	89	70-130
cis-1,3-Dichloropropene	86	70-130
Cumene	95	70-130
Cyclohexane	86	70-130
Dibromochloromethane	104	70-130
Ethanol	71	70-130
Ethyl Benzene	98	70-130

Client Sample ID: LCS

Lab ID#: 2107284-29B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072704a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/27/21 12:13 PM

Compound	%Recovery	Method Limits
Freon 11	106	70-130
Freon 12	100	70-130
Freon 113	101	70-130
Freon 114	105	70-130
Heptane	88	70-130
Hexachlorobutadiene	105	70-130
Hexane	91	70-130
m,p-Xylene	98	70-130
Methyl tert-butyl ether	91	70-130
Methylene Chloride	96	70-130
Naphthalene	78	60-140
o-Xylene	95	70-130
Propylbenzene	102	70-130
Propylene	94	70-130
Styrene	95	70-130
Tetrachloroethene	102	70-130
Tetrahydrofuran	88	70-130
Toluene	89	70-130
trans-1,2-Dichloroethene	88	70-130
trans-1,3-Dichloropropene	95	70-130
Trichloroethene	92	70-130
Vinyl Acetate	93	70-130
Vinyl Chloride	104	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	101	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/27JUL21.b/3072704a.d  
Lab Smp Id: LCS Client Smp ID: LCS  
Inj Date : 27-JUL-2021 12:13  
Operator : LD Inst ID: msd3.i  
Smp Info : 100mL 3018-2121A  
Misc Info : 50ppbv (100ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/27JUL21.b/321q0622a.m  
Meth Date : 27-Jul-2021 15:31 lk8g Quant Type: ISTD  
Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
Als bottle: 14 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.284	5.284	(1.000)	130	250619	25.0000	80.00- 120.00	100.00		
5.284	5.284	(1.000)	128	195621		48.46- 108.46	78.06		
5.270	5.270	(1.000)	49	359605		120.39- 180.39	143.49		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.180	6.180	(1.000)	114	851577	25.0000	80.00- 120.00	100.00		
6.180	6.180	(1.000)	88	126178		0.00- 45.52	14.82		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
8.619	8.612	(1.000)	117	720138	25.0000	80.00- 120.00	100.00		
8.612	8.612	(1.000)	82	379169		25.46- 85.46	52.65		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
5.816	5.816	(1.101)	65	345267	25.0342	25.034 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	181038		21.66- 81.66	52.43		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.387	7.387	(1.195)	98	809153	23.0692	23.069 80.00- 120.00	100.00		
7.387	7.387	(1.195)	70	87521		0.00- 41.47	10.82		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	528003			36.47- 96.47	65.25
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.114)	174	479657	25.1815	25.182	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	546665			93.06- 153.06	113.97
9.601	9.601	(1.114)	176	445781			62.87- 122.87	92.94
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.395	1.395	(0.264)	83	333763	55.9688	55.969	80.00- 120.00	100.00
1.395	1.395	(0.264)	69	271190			51.82- 111.82	81.25
1.493	1.479	(0.282)	51	761789			194.91- 254.91	228.24
-----								
5 Propylene								
						CAS #: 115-07-1		
1.423	1.423	(0.269)	41	284461	46.9903	46.990	80.00- 120.00	100.00
1.423	1.423	(0.269)	42	195283			35.61- 95.61	68.65
1.423	1.423	(0.269)	39	217182			42.66- 102.66	76.35
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.451	1.437	(0.275)	65	202290	51.2634	51.263	80.00- 120.00	100.00
1.493	1.479	(0.282)	51	761789			321.86- 381.86	376.58
1.451	1.451	(0.275)	47	151587			45.34- 105.34	74.94
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.465	1.465	(0.277)	85	877175	50.2435	50.244	80.00- 120.00	100.00
1.465	1.465	(0.277)	87	283337			2.63- 62.63	32.30
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.493	1.493	(0.282)	67	94454	49.2265	49.226	80.00- 120.00	100.00
1.493	1.479	(0.282)	51	761789			719.76- 779.76	806.52
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.563	1.563	(0.296)	135	679372	52.5180	52.518	80.00- 120.00	100.00
1.563	1.563	(0.296)	137	217509			2.12- 62.12	32.02
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.577	1.577	(0.298)	43	669710	49.2214	49.221	80.00- 120.00	100.00
1.577	1.577	(0.298)	42	219671			2.44- 62.44	32.80
1.577	1.577	(0.298)	58	24026			0.00- 33.26	3.59
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.647	1.646	(0.312)	50	411656	56.7311	56.731	80.00- 120.00	100.00
1.647	1.646	(0.312)	52	133938			2.41- 62.41	32.54
-----								
18 Butane								
						CAS #: 106-97-8		
1.703	1.702	(0.322)	58	87919	51.3052	51.305	80.00- 120.00	100.00



CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
1.703	1.702	(0.322)	43	655806				727.41- 787.41	745.92
-----									
19 Vinyl Chloride CAS #: 75-01-4									
1.745	1.744	(0.330)	62	402342	51.8152	51.815		80.00- 120.00	100.00
1.745	1.744	(0.330)	64	121604				1.28- 61.28	30.22
-----									
20 1,3-Butadiene CAS #: 106-99-0									
1.759	1.758	(0.333)	54	327848	46.0701	46.070		80.00- 120.00	100.00
1.759	1.758	(0.333)	39	319383				69.23- 129.23	97.42
-----									
24 Bromomethane CAS #: 74-83-9									
2.094	2.094	(0.396)	94	308116	50.1726	50.172		80.00- 120.00	100.00
2.094	2.094	(0.396)	96	287377				62.78- 122.78	93.27
-----									
30 Chloroethane CAS #: 75-00-3									
2.206	2.206	(0.417)	64	182631	50.1045	50.104		80.00- 120.00	100.00
2.206	2.206	(0.417)	66	55616				1.44- 61.44	30.45
2.206	2.206	(0.417)	49	59314				4.12- 64.12	32.48
-----									
31 Isopentane CAS #: 78-78-4									
2.220	2.220	(0.420)	43	444476	47.6854	47.685		80.00- 120.00	100.00
2.220	2.220	(0.420)	57	313955				38.82- 98.82	70.63
-----									
32 Vinyl Bromide CAS #: 593-60-2									
2.388	2.388	(0.452)	106	323129	48.3947	48.395		80.00- 120.00	100.00
2.388	2.388	(0.452)	108	296620				63.14- 123.14	91.80
-----									
33 Freon 11 CAS #: 75-69-4									
2.430	2.430	(0.460)	101	981862	53.1540	53.154		80.00- 120.00	100.00
2.430	2.430	(0.460)	103	637774				35.12- 95.12	64.96
-----									
34 Dichlorofluoromethane CAS #: 75-43-4									
2.444	2.444	(0.463)	67	770674	52.1906	52.191		80.00- 120.00	100.00
2.444	2.444	(0.463)	69	234886				0.74- 60.74	30.48
-----									
35 Pentane CAS #: 109-66-0									
2.500	2.500	(0.473)	43	679095	45.7299	45.730		80.00- 120.00	100.00
2.500	2.500	(0.473)	57	109100				0.00- 45.97	16.07
2.500	2.500	(0.473)	72	57191				0.00- 38.10	8.42
-----									
38 Ethyl Ether CAS #: 60-29-7									
2.780	2.780	(0.526)	74	158257	47.5315	47.532		80.00- 120.00	100.00
2.780	2.780	(0.526)	59	282183				147.68- 207.68	178.31
2.780	2.780	(0.526)	45	359126				206.40- 266.40	226.93
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
2.766	2.766	(0.523)	46	61594	41.2182	41.218	80.00- 120.00	100.00
2.780	2.780	(0.526)	45	358264			523.01- 583.01	581.65
42 Acrolein					CAS #: 107-02-8			
3.032	3.032	(0.574)	55	127869	51.5638	51.564	80.00- 120.00	100.00
3.032	3.032	(0.574)	56	179602			110.33- 170.33	140.46
43 Freon 113					CAS #: 76-13-1			
3.046	3.032	(0.576)	151	636654	50.4178	50.418	80.00- 120.00	100.00
3.046	3.046	(0.576)	153	404040			33.72- 93.72	63.46
3.032	3.032	(0.574)	101	761755			89.67- 149.67	119.65
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.074	3.074	(0.582)	96	355249	46.7071	46.707	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	225794			33.39- 93.39	63.56
3.074	3.074	(0.582)	61	699044			163.82- 223.82	196.78
47 Acetone					CAS #: 67-64-1			
3.214	3.214	(0.608)	58	201139	47.8635	47.864	80.00- 120.00	100.00
3.214	3.214	(0.608)	43	666128			299.66- 359.66	331.18
48 Carbon Disulfide					CAS #: 75-15-0			
3.298	3.298	(0.624)	76	971801	51.3542	51.354	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.270	3.270	(0.619)	142	900572	55.0356	55.036	80.00- 120.00	100.00
3.270	3.270	(0.619)	127	416889			14.58- 74.58	46.29
52 2-Propanol					CAS #: 67-63-0			
3.410	3.409	(0.645)	45	741924	49.0911	49.091	80.00- 120.00	100.00
3.396	3.395	(0.643)	43	152240			0.00- 48.61	20.52
54 3-Chloropropene					CAS #: 107-05-1			
3.535	3.535	(0.669)	76	152036	46.6658	46.666	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	516943			338.06- 398.06	340.01
57 Acetonitrile					CAS #: 75-05-8			
3.633	3.633	(0.688)	41	316568	47.8390	47.839	80.00- 120.00	100.00
3.633	3.633	(0.688)	40	160241			21.81- 81.81	50.62
3.633	3.633	(0.688)	38	36853			0.00- 41.86	11.64
59 Methylene Chloride					CAS #: 75-09-2			
3.717	3.717	(0.703)	49	482345	47.9596	47.960	80.00- 120.00	100.00
3.731	3.717	(0.706)	84	293223			30.77- 90.77	60.79
3.717	3.717	(0.703)	51	146890			1.39- 61.39	30.45

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
3.857	3.857	(0.730)	59	856451	45.1483	45.148	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	194429			0.00- 51.05	22.70
3.857	3.857	(0.730)	57	92509			0.00- 41.68	10.80
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
3.941	3.941	(0.746)	73	932312	45.5348	45.535	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	277959			0.00- 58.86	29.81
3.941	3.941	(0.746)	41	266499			0.00- 57.27	28.58
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
3.969	3.969	(0.751)	98	224553	43.8713	43.871	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	601545			244.59- 304.59	267.89
3.969	3.969	(0.751)	96	353711			129.84- 189.84	157.52
66 Acrylonitrile					CAS #: 107-13-1			
4.067	4.067	(0.770)	52	249191	40.5660	40.566	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	297250			88.50- 148.50	119.29
67 Hexane					CAS #: 110-54-3			
4.179	4.179	(0.791)	57	634798	45.7398	45.740	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	389866			32.99- 92.99	61.42
4.179	4.179	(0.791)	86	75828			0.00- 42.56	11.95
71 1,1-Dichloroethane					CAS #: 75-34-3			
4.459	4.459	(0.844)	63	655962	45.9593	45.959	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	200640			0.76- 60.76	30.59
72 Isopropyl ether					CAS #: 108-20-3			
4.445	4.445	(0.841)	45	1277983	43.6336	43.634	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	285465			0.00- 51.37	22.34
4.445	4.445	(0.841)	59	146667			0.00- 41.09	11.48
73 Vinyl Acetate					CAS #: 108-05-4			
4.501	4.501	(0.852)	86	81653	46.5327	46.533	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	1137687			1391.63-1451.63	1393.32
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
4.809	4.809	(0.910)	59	1228192	43.4359	43.436	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	408232			3.22- 63.22	33.24
4.809	4.809	(0.910)	41	238920			0.00- 48.12	19.45
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.005	5.005	(0.947)	77	615125	46.2628	46.263	80.00- 120.00	100.00
5.005	5.005	(0.947)	79	194943			2.00- 62.00	31.69
5.005	5.005	(0.947)	97	142011			0.00- 53.36	23.09

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.047	5.046	(0.955)	98	225832	44.5087	44.509	80.00- 120.00	100.00
5.047	5.046	(0.955)	96	349618			127.22- 187.22	154.81
5.047	5.046	(0.955)	61	691469			283.85- 343.85	306.19
86 2-Butanone					CAS #: 78-93-3			
5.075	5.074	(0.960)	72	165849	46.7967	46.797	80.00- 120.00	100.00
5.075	5.074	(0.960)	43	1714508			1055.75-1115.75	1033.78
5.075	5.074	(0.960)	57	67073			10.59- 70.59	40.44
87 Ethyl Acetate					CAS #: 141-78-6			
5.089	5.088	(0.963)	45	136666	46.7763	46.776	80.00- 120.00	100.00
5.047	5.046	(0.955)	61	691469			450.31- 510.31	505.96
5.089	5.088	(0.963)	70	80925			30.42- 90.42	59.21
89 Tetrahydrofuran					CAS #: 109-99-9			
5.270	5.270	(0.997)	42	442649	44.2927	44.293	80.00- 120.00	100.00
5.270	5.270	(0.997)	71	145630			2.92- 62.92	32.90
5.270	5.270	(0.997)	72	152957			3.54- 63.54	34.55
92 Chloroform					CAS #: 67-66-3			
5.340	5.340	(1.011)	83	737613	46.9424	46.942	80.00- 120.00	100.00
5.340	5.340	(1.011)	85	476370			34.71- 94.71	64.58
94 Cyclohexane					CAS #: 110-82-7			
5.438	5.438	(1.029)	84	424816	42.7727	42.773	80.00- 120.00	100.00
5.438	5.438	(1.029)	56	629667			120.40- 180.40	148.22
5.438	5.438	(1.029)	41	349279			54.20- 114.20	82.22
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
5.466	5.466	(1.034)	97	791199	44.7967	44.797	80.00- 120.00	100.00
5.466	5.466	(1.034)	99	508314			33.76- 93.76	64.25
97 Carbon Tetrachloride					CAS #: 56-23-5			
5.578	5.578	(1.056)	119	796723	48.9781	48.978	80.00- 120.00	100.00
5.578	5.578	(1.056)	117	834228			73.68- 133.68	104.71
99 1,1-Dichloropropene					CAS #: 563-58-6			
5.606	5.606	(0.907)	110	195976	50.5687	50.569	80.00- 120.00	100.00
5.606	5.606	(0.907)	75	508703			231.09- 291.09	259.57
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
5.774	5.774	(1.093)	57	2021866	46.5857	46.586	80.00- 120.00	100.00
5.774	5.774	(1.093)	56	662324			1.12- 61.12	32.76
5.774	5.774	(1.093)	41	541320			0.00- 57.49	26.77

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
5.788	5.788	(0.937)	78	1000888	51.5051	51.505	80.00- 120.00	100.00
5.788	5.788	(0.937)	77	239377			0.00- 53.80	23.92
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
5.858	5.858	(0.948)	87	246912	47.6525	47.652	80.00- 120.00	100.00
5.858	5.858	(0.948)	73	977723			365.20- 425.20	395.98
5.858	5.858	(0.948)	55	326363			91.31- 151.31	132.18
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
5.886	5.886	(0.952)	62	566127	50.6012	50.601	80.00- 120.00	100.00
5.886	5.886	(0.952)	64	174233			1.20- 61.20	30.78
-----								
107 Heptane					CAS #: 142-82-5			
5.942	5.942	(0.962)	71	338476	44.2211	44.221	80.00- 120.00	100.00
5.942	5.942	(0.962)	43	687022			179.02- 239.02	202.98
5.942	5.942	(0.962)	57	410936			84.85- 144.85	121.41
-----								
110 n-Butanol					CAS #: 71-36-3			
6.348	6.348	(1.027)	56	279722	44.9083	44.908	80.00- 120.00	100.00
6.348	6.348	(1.027)	41	194040			40.21- 100.21	69.37
6.348	6.348	(1.027)	43	151463			25.00- 85.00	54.15
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.362	6.362	(1.029)	95	450162	46.1753	46.175	80.00- 120.00	100.00
6.362	6.362	(1.029)	130	485023			74.96- 134.96	107.74
6.362	6.362	(1.029)	97	295455			34.80- 94.80	65.63
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
6.586	6.586	(1.066)	63	190051	42.1914	42.191	80.00- 120.00	100.00
6.586	6.586	(1.066)	62	119178			52.03- 112.03	62.71
6.586	6.586	(1.066)	41	164632			79.97- 139.97	86.63
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
6.664	6.664	(0.773)	69	325857	47.0174	47.017	80.00- 120.00	100.00
6.664	6.664	(0.773)	41	507113			134.02- 194.02	155.62
6.664	6.664	(0.773)	100	128238			9.54- 69.54	39.35
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
6.700	6.700	(1.084)	88	222565	45.2121	45.212	80.00- 120.00	100.00
6.700	6.700	(1.084)	58	181412			55.80- 115.80	81.51
6.700	6.700	(1.084)	57	69378			8.68- 68.68	31.17
-----								
118 Dibromomethane					CAS #: 74-95-3			
6.721	6.721	(0.780)	174	411033	53.2532	53.253	80.00- 120.00	100.00
6.714	6.714	(0.779)	93	405609			67.27- 127.27	98.68

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
6.714	6.721	(0.779)	95	334803		50.92- 110.92	81.45	
-----								
122 Bromodichloromethane CAS #: 75-27-4								
6.836	6.836	(1.106)	83	720792	44.1333	44.133	80.00- 120.00	100.00
6.836	6.836	(1.106)	85	459566		34.31- 94.31	63.76	
-----								
126 cis-1,3-Dichloropropene CAS #: 10061-01-5								
7.208	7.208	(1.166)	75	525230	43.2679	43.268	80.00- 120.00	100.00
7.208	7.208	(1.166)	77	167532		1.42- 61.42	31.90	
7.208	7.208	(1.166)	39	360572		38.56- 98.56	68.65	
-----								
127 Methylcyclohexane CAS #: 108-87-2								
6.460	6.460	(1.045)	83	555319	42.5971	42.597	80.00- 120.00	100.00
6.460	6.460	(1.045)	98	255085		15.60- 75.60	45.93	
6.460	6.460	(1.045)	55	603738		78.53- 138.53	108.72	
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.316	7.316	(1.184)	58	321989	39.0100	39.010	80.00- 120.00	100.00
7.316	7.316	(1.184)	43	834614		231.30- 291.30	259.21	
7.316	7.316	(1.184)	85	125337		8.94- 68.94	38.93	
-----								
137 Toluene CAS #: 108-88-3								
7.437	7.437	(1.203)	91	1161791	44.5562	44.556	80.00- 120.00	100.00
7.437	7.437	(1.203)	92	668781		28.30- 88.30	57.56	
-----								
136 Octane CAS #: 111-65-9								
7.445	7.444	(1.205)	57	346723	39.9669	39.967	80.00- 120.00	100.00
7.445	7.444	(1.205)	85	348914		67.11- 127.11	100.63	
7.445	7.444	(1.205)	43	807438		214.21- 274.21	232.88	
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
7.688	7.688	(0.892)	75	505722	47.6806	47.681	80.00- 120.00	100.00
7.688	7.688	(0.892)	77	162540		2.15- 62.15	32.14	
7.688	7.688	(0.892)	39	327248		36.09- 96.09	64.71	
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
7.846	7.846	(0.910)	97	394652	48.3820	48.382	80.00- 120.00	100.00
7.846	7.846	(0.910)	99	242609		31.62- 91.62	61.47	
7.846	7.846	(0.910)	83	339110		56.35- 116.35	85.93	
-----								
142 Tetrachloroethene CAS #: 127-18-4								
7.882	7.881	(0.914)	166	575229	50.9874	50.987	80.00- 120.00	100.00
7.882	7.881	(0.914)	129	449621		48.71- 108.71	78.16	
7.882	7.874	(0.914)	131	429966		46.55- 106.55	74.75	
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone					CAS #: 591-78-6			
8.003	8.003	(0.929)	58	431319	46.0345	46.034	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	793827			157.91- 217.91	184.05
8.003	8.003	(0.929)	100	79836			0.00- 47.86	18.51
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144 1,3-Dichloropropane					CAS #: 142-28-9			
7.989	7.989	(1.293)	76	519760	41.7794	41.779	80.00- 120.00	100.00
7.989	7.989	(1.293)	41	544787			82.96- 142.96	104.82
7.989	7.989	(1.293)	78	168402			2.55- 62.55	32.40
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146 Dibromochloromethane					CAS #: 124-48-1			
8.154	8.154	(0.946)	129	804899	52.0135	52.014	80.00- 120.00	100.00
8.154	8.154	(0.946)	127	627520			47.77- 107.77	77.96
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148 1,2-Dibromoethane (EDB)					CAS #: 106-93-4			
8.268	8.261	(0.959)	107	633264	49.9918	49.992	80.00- 120.00	100.00
8.268	8.261	(0.959)	109	595945			64.60- 124.60	94.11
-----					-----			
151 1-Bromo-2-Chloroethane					CAS #: 107-04-0			
7.115	7.115	(1.151)	63	699623	44.3895	44.389	80.00- 120.00	100.00
7.115	7.115	(1.151)	65	209271			0.95- 60.95	29.91
7.122	7.122	(1.152)	144	77308			0.00- 40.45	11.05
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154 Chlorobenzene					CAS #: 108-90-7			
8.641	8.641	(1.002)	112	953549	48.4474	48.447	80.00- 120.00	100.00
8.641	8.641	(1.002)	114	307504			2.13- 62.13	32.25
8.641	8.641	(1.002)	77	517993			26.35- 86.35	54.32
-----					-----			
155 Ethyl Benzene					CAS #: 100-41-4			
8.684	8.684	(1.007)	106	483736	49.1508	49.151	80.00- 120.00	100.00
8.684	8.684	(1.007)	91	1495211			282.48- 342.48	309.10
-----					-----			
156 Nonane					CAS #: 111-84-2			
8.705	8.705	(1.010)	43	825960	43.2984	43.298	80.00- 120.00	100.00
8.705	8.705	(1.010)	57	764338			59.52- 119.52	92.54
8.705	8.705	(1.010)	85	265463			0.00- 59.76	32.14
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157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6			
8.712	8.712	(1.011)	131	485415	44.8124	44.812	80.00- 120.00	100.00
8.712	8.712	(1.011)	117	324937			38.22- 98.22	66.94
8.712	8.712	(1.011)	95	181367			7.54- 67.54	37.36
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158 m,p-Xylene					CAS #: 108-38-3			
8.784	8.784	(1.019)	106	598342	48.8679	48.868	80.00- 120.00	100.00
8.784	8.784	(1.019)	91	1189548			171.36- 231.36	198.81
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CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene						CAS #: 95-47-6			
9.121	9.121	(1.058)	106	552716	47.5506	47.550	80.00-	120.00	100.00
9.121	9.121	(1.058)	91	1152650			179.99-	239.99	208.54
-----									
165 Styrene						CAS #: 100-42-5			
9.149	9.149	(1.061)	104	957151	47.5282	47.528	80.00-	120.00	100.00
9.142	9.142	(1.061)	78	451784			19.09-	79.09	47.20
-----									
167 Bromoform						CAS #: 75-25-2			
9.350	9.350	(1.085)	173	765859	52.1932	52.193	80.00-	120.00	100.00
9.350	9.350	(1.085)	171	396505			21.45-	81.45	51.77
-----									
168 Cumene						CAS #: 98-82-8			
9.414	9.414	(1.092)	105	1746256	47.5168	47.517	80.00-	120.00	100.00
9.414	9.414	(1.092)	120	472939			0.00-	56.99	27.08
9.407	9.407	(1.091)	51	197131			0.00-	41.77	11.29
-----									
169 Cyclohexanone						CAS #: 108-94-1			
9.579	9.579	(1.111)	55	486376	42.0552	42.055	80.00-	120.00	100.00
9.579	9.579	(1.111)	98	193828			9.22-	69.22	39.85
9.579	9.579	(1.111)	42	340309			42.60-	102.60	69.97
-----									
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5			
9.737	9.737	(1.130)	83	905399	49.6906	49.691	80.00-	120.00	100.00
9.737	9.737	(1.130)	85	589355			34.35-	94.35	65.09
-----									
177 Bromobenzene						CAS #: 108-86-1			
9.730	9.730	(1.129)	156	600045	52.5231	52.523	80.00-	120.00	100.00
9.737	9.737	(1.130)	158	584368			67.29-	127.29	97.39
9.730	9.730	(1.129)	77	921497			132.41-	192.41	153.57
-----									
178 Propylbenzene						CAS #: 103-65-1			
9.758	9.758	(1.132)	91	2176651	50.7607	50.761	80.00-	120.00	100.00
9.758	9.758	(1.132)	120	519859			0.00-	53.77	23.88
9.758	9.758	(1.132)	105	81006			0.00-	33.81	3.72
-----									
179 1,2,3-Trichloropropane						CAS #: 96-18-4			
9.787	9.787	(1.135)	110	279553	50.9328	50.933	80.00-	120.00	100.00
9.787	9.787	(1.135)	75	935004			285.00-	345.00	334.46
9.787	9.787	(1.135)	61	238650			54.06-	114.06	85.37
-----									
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6			
9.787	9.787	(1.135)	53	291463	67.1087	67.109	80.00-	120.00	100.00
9.787	9.787	(1.135)	89	149224			21.19-	81.19	51.20
9.787	9.787	(1.135)	75	935004			372.45-	432.45	320.80
-----									



CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane					CAS #: 124-18-5				
9.808	9.808	(1.138)	57	1015228	45.7880	45.788	80.00- 120.00	100.00	
9.808	9.808	(1.138)	71	350411			4.13- 64.13	34.52	
9.808	9.808	(1.138)	142	50583			0.00- 34.73	4.98	
-----									
183 4-Ethyltoluene					CAS #: 622-96-8				
9.851	9.851	(1.143)	120	559056	50.2977	50.298	80.00- 120.00	100.00	
9.851	9.851	(1.143)	105	1814024			296.79- 356.79	324.48	
-----									
184 2-Chlorotoluene					CAS #: 95-49-8				
9.873	9.873	(1.145)	126	467902	51.8090	51.809	80.00- 120.00	100.00	
9.873	9.873	(1.145)	91	1645842			336.29- 396.29	351.75	
9.873	9.873	(1.145)	65	307454			38.83- 98.83	65.71	
-----									
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8				
9.902	9.901	(1.149)	120	781289	50.0457	50.046	80.00- 120.00	100.00	
9.902	9.901	(1.149)	105	1584548			176.40- 236.40	202.81	
-----									
188 alpha Methyl Styrene					CAS #: 98-83-9				
10.102	10.102	(1.172)	118	733138	45.8533	45.853	80.00- 120.00	100.00	
10.102	10.102	(1.172)	103	412922			26.64- 86.64	56.32	
-----									
189 tert-Butylbenzene					CAS #: 98-06-6				
10.174	10.174	(1.180)	119	1409650	49.0754	49.075	80.00- 120.00	100.00	
10.174	10.174	(1.180)	134	360368			0.00- 54.82	25.56	
10.174	10.174	(1.180)	91	910061			36.92- 96.92	64.56	
-----									
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6				
10.224	10.224	(1.186)	105	1602255	52.0484	52.048	80.00- 120.00	100.00	
10.224	10.224	(1.186)	120	755361			16.58- 76.58	47.14	
-----									
192 sec-Butylbenzene					CAS #: 135-98-8				
10.360	10.360	(1.202)	134	468284	50.4734	50.473	80.00- 120.00	100.00	
10.360	10.353	(1.202)	105	2267313			451.53- 511.53	484.17	
10.360	10.353	(1.202)	91	355423			46.48- 106.48	75.90	
-----									
194 p-Cymene					CAS #: 99-87-6				
10.467	10.467	(1.214)	119	1978394	50.9192	50.919	80.00- 120.00	100.00	
10.467	10.467	(1.214)	134	536288			0.00- 56.79	27.11	
10.467	10.467	(1.214)	91	456663			0.00- 54.04	23.08	
-----									
195 1,3-Dichlorobenzene					CAS #: 541-73-1				
10.518	10.517	(1.220)	146	1116042	53.3621	53.362	80.00- 120.00	100.00	
10.518	10.517	(1.220)	148	704699			33.53- 93.53	63.14	
10.518	10.517	(1.220)	111	440917			11.05- 71.05	39.51	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
10.596	10.596	(1.229)	146	1118514	51.9206	51.921	80.00- 120.00	100.00
10.596	10.596	(1.229)	148	711562			33.47- 93.47	63.62
10.596	10.596	(1.229)	111	433013			9.65- 69.65	38.71
-----								
199 alpha-Chlorotoluene					CAS #: 100-44-7			
10.711	10.711	(1.243)	91	1419574	47.9266	47.927	80.00- 120.00	100.00
10.711	10.711	(1.243)	126	317903			0.00- 52.04	22.39
-----								
201 Undecane					CAS #: 1120-21-4			
10.804	10.804	(1.253)	57	1193121	45.6649	45.665	80.00- 120.00	100.00
10.804	10.804	(1.253)	43	1011813			55.86- 115.86	84.80
-----								
202 Butylbenzene					CAS #: 104-51-8			
10.818	10.818	(1.255)	134	521333	51.7496	51.750	80.00- 120.00	100.00
10.818	10.818	(1.255)	91	1866078			331.99- 391.99	357.94
10.818	10.818	(1.255)	92	961144			161.01- 221.01	184.36
-----								
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
10.919	10.926	(1.267)	146	1081781	53.5259	53.526	80.00- 120.00	100.00
10.926	10.926	(1.268)	148	680448			33.23- 93.23	62.90
10.919	10.919	(1.267)	111	446007			12.36- 72.36	41.23
-----								
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
11.606	11.606	(1.347)	157	575609	49.1184	49.118	80.00- 120.00	100.00
11.599	11.599	(1.346)	75	464055			58.96- 118.96	80.62
11.606	11.606	(1.347)	155	446041			47.82- 107.82	77.49
-----								
207 Dodecane					CAS #: 112-40-3			
11.714	11.714	(1.359)	57	976305	44.1897	44.190	80.00- 120.00	100.00
11.714	11.714	(1.359)	43	769957			50.85- 110.85	78.86
-----								
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
12.301	12.301	(1.427)	180	843023	58.7269	58.727	80.00- 120.00	100.00
12.301	12.301	(1.427)	182	812988			65.40- 125.40	96.44
-----								
215 Hexachlorobutadiene					CAS #: 87-68-3			
12.387	12.387	(1.437)	225	658779	60.7534	60.753	80.00- 120.00	100.00
12.387	12.387	(1.437)	223	419101			33.70- 93.70	63.62
-----								
216 Naphthalene					CAS #: 91-20-3			
12.552	12.559	(1.456)	128	197443	4.50428	4.504	80.00- 120.00	100.00
12.552	12.559	(1.456)	127	27369			0.00- 43.10	13.86
-----								
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
12.803	12.810	(1.485)	180	778947	59.2994	59.299	80.00- 120.00	100.00

CONCENTRATIONS

ON-COL      FINAL

RT	EXP RT	(REL RT)	MASS	RESPONSE	( PPBV)	( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====

222 1,2,3-Trichlorobenzene (continued)

12.803	12.810	(1.485)	182	737572			65.67- 125.67	94.69
12.803	12.802	(1.485)	145	267620			6.02- 66.02	34.36

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072704a.d  
Lab Smp Id: LCS  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: 50ppbv (100ppbv)

Calibration Date: 27-JUL-2021  
Calibration Time: 11:36  
Client Smp ID: LCS  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	238986	143392	334580	250619	4.87
108 1,4-Difluorobenze	785289	471173	1099405	851577	8.44
153 Chlorobenzene-d5	683596	410158	957034	720138	5.35

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 27JUL21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: LCS  
 SpikeList File: AT12.spk Quant Type: ISTD  
 Sublist File: AT20LCS\_new.sub  
 Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
 Misc Info: 50ppbv (100ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
5 Propylene	50.000	46.990	93.98	70-130
8 Freon 12	50.000	50.244	100.49	70-130
10 Freon 114	50.000	52.518	105.04	70-130
15 Chloromethane	50.000	56.731	113.46	70-130
18 Butane	50.000	51.305	102.61	70-130
19 Vinyl Chloride	50.000	51.815	103.63	70-130
20 1,3-Butadiene	50.000	46.070	92.14	70-130
24 Bromomethane	50.000	50.172	100.35	70-130
30 Chloroethane	50.000	50.104	100.21	70-130
31 Isopentane	50.000	47.685	95.37	70-130
33 Freon 11	50.000	53.154	106.31	70-130
39 Ethanol	58.000	41.218	71.07	70-130
43 Freon 113	50.000	50.418	100.84	70-130
44 1,1-Dichloroethen	50.000	46.707	93.41	70-130
47 Acetone	50.000	47.864	95.73	70-130
48 Carbon Disulfide	50.000	51.354	102.71	70-130
52 2-Propanol	50.000	49.091	98.18	70-130
54 3-Chloropropene	50.000	46.666	93.33	70-130
59 Methylene Chlorid	50.000	47.960	95.92	70-130
63 Methyl tert-butyl	50.000	45.535	91.07	70-130
64 trans-1,2-Dichlor	50.000	43.871	87.74	70-130
67 Hexane	50.000	45.740	91.48	70-130
71 1,1-Dichloroethan	50.000	45.959	91.92	70-130
73 Vinyl Acetate	50.000	46.533	93.07	70-130
85 cis-1,2-Dichloroe	50.000	44.509	89.02	70-130
86 2-Butanone	50.000	46.797	93.59	70-130
89 Tetrahydrofuran	50.000	44.293	88.59	70-130
92 Chloroform	50.000	46.942	93.88	70-130
94 Cyclohexane	50.000	42.773	85.55	70-130
96 1,1,1-Trichloroet	50.000	44.797	89.59	70-130
97 Carbon Tetrachlor	50.000	48.978	97.96	70-130
101 2,2,4-Trimethylpe	50.000	46.586	93.17	70-130
102 Benzene	50.000	51.505	103.01	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
106 1,2-Dichloroethan	50.000	50.601	101.20	70-130
107 Heptane	50.000	44.221	88.44	70-130
111 Trichloroethene	50.000	46.175	92.35	70-130
127 Methylcyclohexane	50.000	42.597	85.19	70-130
114 1,2-Dichloropropa	50.000	42.191	84.38	70-130
117 1,4-Dioxane	50.000	45.212	90.42	70-130
122 Bromodichlorometh	50.000	44.133	88.27	70-130
126 cis-1,3-Dichlorop	50.000	43.268	86.54	70-130
131 4-Methyl-2-pentan	50.000	39.010	78.02	70-130
137 Toluene	50.000	44.556	89.11	70-130
139 trans-1,3-Dichlor	50.000	47.681	95.36	70-130
141 1,1,2-Trichloroet	50.000	48.382	96.76	70-130
142 Tetrachloroethene	50.000	50.987	101.97	70-130
143 2-Hexanone	50.000	46.034	92.07	70-130
146 Dibromochlorometh	50.000	52.014	104.03	70-130
148 1,2-Dibromoethane	50.000	49.992	99.98	70-130
154 Chlorobenzene	50.000	48.447	96.89	70-130
155 Ethyl Benzene	50.000	49.151	98.30	70-130
158 m,p-Xylene	50.000	48.868	97.74	70-130
164 o-Xylene	50.000	47.550	95.10	70-130
165 Styrene	50.000	47.528	95.06	70-130
167 Bromoform	50.000	52.193	104.39	70-130
168 Cumene	50.000	47.517	95.03	70-130
175 1,1,2,2-Tetrachlo	50.000	49.691	99.38	70-130
178 Propylbenzene	50.000	50.761	101.52	70-130
183 4-Ethyltoluene	50.000	50.298	100.60	70-130
185 1,3,5-Trimethylbe	50.000	50.046	100.09	70-130
190 1,2,4-Trimethylbe	50.000	52.048	104.10	70-130
195 1,3-Dichlorobenze	50.000	53.362	106.72	70-130
196 1,4-Dichlorobenze	50.000	51.921	103.84	70-130
199 alpha-Chlorotolue	50.000	47.927	95.85	70-130
204 1,2-Dichlorobenze	50.000	53.526	107.05	70-130
213 1,2,4-Trichlorobe	58.000	58.727	101.25	70-130
215 Hexachlorobutadie	58.000	60.753	104.75	70-130
216 Naphthalene	5.800	4.504	77.66	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	25.034	100.14	70-130
\$ 134 Toluene-d8	25.000	23.069	92.28	70-130
\$ 170 4-Bromofluorobenz	25.000	25.182	100.73	70-130

Date : 27-JUL-2021 12:13

Client ID: LCS

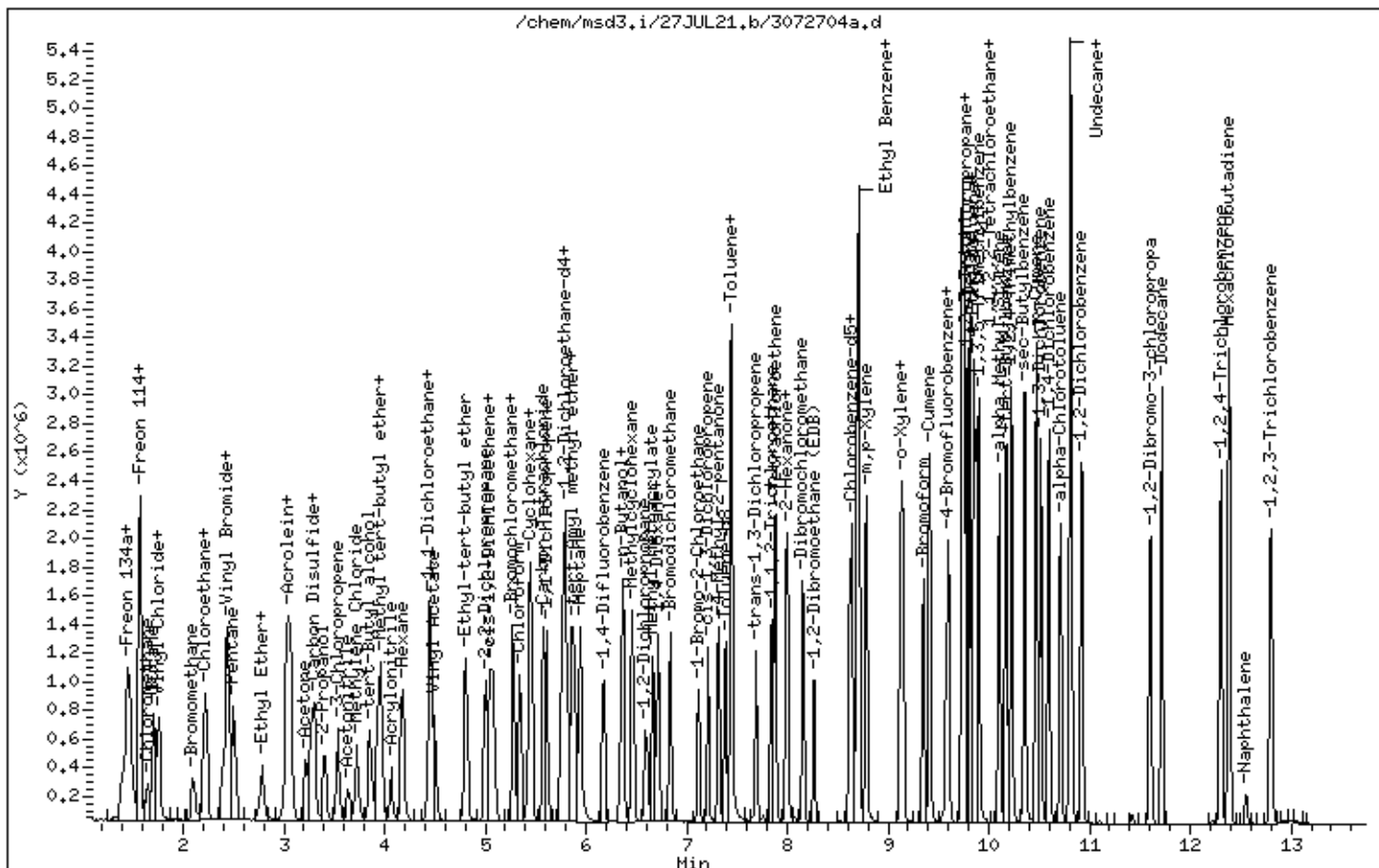
Instrument: msd3,i

Sample Info: 100mL 3018-2121A

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Client Sample ID: LCSD

Lab ID#: 2107284-29BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072705a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/27/21 12:40 PM

Compound	%Recovery	Method Limits
1,1,1-Trichloroethane	90	70-130
1,1,1,2-Tetrachloroethane	97	70-130
1,1,2-Trichloroethane	96	70-130
1,1-Dichloroethane	95	70-130
1,1-Dichloroethene	97	70-130
1,2,4-Trichlorobenzene	114	70-130
1,2,4-Trimethylbenzene	98	70-130
1,2-Dibromoethane (EDB)	101	70-130
1,2-Dichlorobenzene	103	70-130
1,2-Dichloroethane	96	70-130
1,2-Dichloropropane	74	70-130
1,3,5-Trimethylbenzene	97	70-130
1,3-Butadiene	96	70-130
1,3-Dichlorobenzene	104	70-130
1,4-Dichlorobenzene	101	70-130
1,4-Dioxane	94	70-130
2,2,4-Trimethylpentane	89	70-130
2-Butanone (Methyl Ethyl Ketone)	97	70-130
2-Hexanone	94	70-130
2-Propanol	102	70-130
3-Chloropropene	96	70-130
4-Ethyltoluene	98	70-130
4-Methyl-2-pentanone	81	70-130
Acetone	100	70-130
alpha-Chlorotoluene	94	70-130
Benzene	94	70-130
Bromodichloromethane	89	70-130
Bromoform	105	70-130
Bromomethane	102	70-130
Carbon Disulfide	105	70-130
Carbon Tetrachloride	99	70-130
Chlorobenzene	98	70-130
Chloroethane	104	70-130
Chloroform	94	70-130
Chloromethane	116	70-130
cis-1,2-Dichloroethene	91	70-130
cis-1,3-Dichloropropene	89	70-130
Cumene	96	70-130
Cyclohexane	87	70-130
Dibromochloromethane	105	70-130
Ethanol	74	70-130
Ethyl Benzene	99	70-130



Client Sample ID: LCSD

Lab ID#: 2107284-29BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3072705a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/27/21 12:40 PM

Compound	%Recovery	Method Limits
Freon 11	109	70-130
Freon 12	104	70-130
Freon 113	104	70-130
Freon 114	108	70-130
Heptane	84	70-130
Hexachlorobutadiene	117	70-130
Hexane	95	70-130
m,p-Xylene	98	70-130
Methyl tert-butyl ether	96	70-130
Methylene Chloride	99	70-130
Naphthalene	86	60-140
o-Xylene	95	70-130
Propylbenzene	98	70-130
Propylene	100	70-130
Styrene	95	70-130
Tetrachloroethene	104	70-130
Tetrahydrofuran	87	70-130
Toluene	90	70-130
trans-1,2-Dichloroethene	92	70-130
trans-1,3-Dichloropropene	96	70-130
Trichloroethene	98	70-130
Vinyl Acetate	96	70-130
Vinyl Chloride	107	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	99	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/27JUL21.b/3072705a.d  
Lab Smp Id: LCSD Client Smp ID: LCSD  
Inj Date : 27-JUL-2021 12:40  
Operator : LD Inst ID: msd3.i  
Smp Info : 100mL 3018-2121A  
Misc Info : 50ppbv (100ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/27JUL21.b/321q0622a.m  
Meth Date : 27-Jul-2021 15:31 lk8g Quant Type: ISTD  
Cal Date : 23-JUN-2021 00:09 Cal File: 3062223.d  
Als bottle: 14 QC Sample: LCSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.284	5.284	(1.000)	130	243047	25.0000	80.00- 120.00	100.00		
5.284	5.284	(1.000)	128	189928		48.46- 108.46	78.14		
5.284	5.270	(1.000)	49	338027		120.39- 180.39	139.08		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.180	6.180	(1.000)	114	877445	25.0000	80.00- 120.00	100.00		
6.180	6.180	(1.000)	88	129432		0.00- 45.52	14.75		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
8.619	8.612	(1.000)	117	719626	25.0000	80.00- 120.00	100.00		
8.619	8.612	(1.000)	82	385622		25.46- 85.46	53.59		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
5.816	5.816	(1.101)	65	332394	24.8517	24.852 80.00- 120.00	100.00		
5.816	5.816	(1.101)	67	173528		21.66- 81.66	52.21		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.387	7.387	(1.195)	98	837339	23.1690	23.169 80.00- 120.00	100.00		
7.387	7.387	(1.195)	70	91942		0.00- 41.47	10.98		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.387	7.387	(1.195)	100	553973			36.47- 96.47	66.16
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
9.601	9.601	(1.114)	174	472828	24.8406	24.841	80.00- 120.00	100.00
9.601	9.601	(1.114)	95	538908			93.06- 153.06	113.98
9.601	9.601	(1.114)	176	438110			62.87- 122.87	92.66
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.395	1.395	(0.264)	83	332500	57.4941	57.494	80.00- 120.00	100.00
1.395	1.395	(0.264)	69	269063			51.82- 111.82	80.92
1.493	1.479	(0.282)	51	769087			194.91- 254.91	231.30
-----								
5 Propylene								
						CAS #: 115-07-1		
1.423	1.423	(0.269)	41	292192	49.7711	49.771	80.00- 120.00	100.00
1.423	1.423	(0.269)	42	197311			35.61- 95.61	67.53
1.423	1.423	(0.269)	39	216909			42.66- 102.66	74.24
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.451	1.437	(0.275)	65	197655	51.6493	51.649	80.00- 120.00	100.00
1.493	1.479	(0.282)	51	769087			321.86- 381.86	389.11
1.451	1.451	(0.275)	47	154211			45.34- 105.34	78.02
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.465	1.465	(0.277)	85	883553	52.1856	52.186	80.00- 120.00	100.00
1.465	1.465	(0.277)	87	292822			2.63- 62.63	33.14
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.493	1.493	(0.282)	67	99099	53.2564	53.256	80.00- 120.00	100.00
1.493	1.479	(0.282)	51	769087			719.76- 779.76	776.08
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.563	1.563	(0.296)	135	674909	53.7984	53.798	80.00- 120.00	100.00
1.563	1.563	(0.296)	137	215383			2.12- 62.12	31.91
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.577	1.577	(0.298)	43	668806	50.6864	50.686	80.00- 120.00	100.00
1.577	1.577	(0.298)	42	214869			2.44- 62.44	32.13
1.577	1.577	(0.298)	58	24794			0.00- 33.26	3.71
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.647	1.646	(0.312)	50	408064	57.9881	57.988	80.00- 120.00	100.00
1.647	1.646	(0.312)	52	133352			2.41- 62.41	32.68
-----								
18 Butane								
						CAS #: 106-97-8		
1.702	1.702	(0.322)	58	89189	53.6678	53.668	80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
1.702	1.702	(0.322)	43	655719				727.41- 787.41	735.20
-----									
19 Vinyl Chloride CAS #: 75-01-4									
1.744	1.744	(0.330)	62	404277	53.6865	53.686		80.00- 120.00	100.00
1.744	1.744	(0.330)	64	121176				1.28- 61.28	29.97
-----									
20 1,3-Butadiene CAS #: 106-99-0									
1.758	1.758	(0.333)	54	333078	48.2632	48.263		80.00- 120.00	100.00
1.758	1.758	(0.333)	39	315738				69.23- 129.23	94.79
-----									
24 Bromomethane CAS #: 74-83-9									
2.094	2.094	(0.396)	94	305482	51.2934	51.293		80.00- 120.00	100.00
2.094	2.094	(0.396)	96	288033				62.78- 122.78	94.29
-----									
30 Chloroethane CAS #: 75-00-3									
2.206	2.206	(0.417)	64	183146	51.8112	51.811		80.00- 120.00	100.00
2.206	2.206	(0.417)	66	55828				1.44- 61.44	30.48
2.206	2.206	(0.417)	49	59246				4.12- 64.12	32.35
-----									
31 Isopentane CAS #: 78-78-4									
2.220	2.220	(0.420)	43	442460	48.9480	48.948		80.00- 120.00	100.00
2.220	2.220	(0.420)	57	316744				38.82- 98.82	71.59
-----									
32 Vinyl Bromide CAS #: 593-60-2									
2.388	2.388	(0.452)	106	327273	50.5424	50.542		80.00- 120.00	100.00
2.388	2.388	(0.452)	108	302525				63.14- 123.14	92.44
-----									
33 Freon 11 CAS #: 75-69-4									
2.430	2.430	(0.460)	101	980329	54.7244	54.724		80.00- 120.00	100.00
2.444	2.430	(0.463)	103	643045				35.12- 95.12	65.59
-----									
34 Dichlorofluoromethane CAS #: 75-43-4									
2.444	2.444	(0.463)	67	770452	53.8011	53.801		80.00- 120.00	100.00
2.444	2.444	(0.463)	69	235734				0.74- 60.74	30.60
-----									
35 Pentane CAS #: 109-66-0									
2.500	2.500	(0.473)	43	678892	47.1405	47.140		80.00- 120.00	100.00
2.500	2.500	(0.473)	57	112196				0.00- 45.97	16.53
2.500	2.500	(0.473)	72	57328				0.00- 38.10	8.44
-----									
38 Ethyl Ether CAS #: 60-29-7									
2.794	2.780	(0.529)	74	160226	49.6221	49.622		80.00- 120.00	100.00
2.780	2.780	(0.526)	59	282989				147.68- 207.68	176.62
2.780	2.780	(0.526)	45	363562				206.40- 266.40	226.91
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
2.766	2.766	(0.523)	46	62412	43.0667	43.067	80.00- 120.00	100.00
2.780	2.780	(0.526)	45	362071			523.01- 583.01	580.13
42 Acrolein					CAS #: 107-02-8			
3.032	3.032	(0.574)	55	129199	53.7233	53.723	80.00- 120.00	100.00
3.032	3.032	(0.574)	56	178279			110.33- 170.33	137.99
43 Freon 113					CAS #: 76-13-1			
3.046	3.032	(0.576)	151	637959	52.0951	52.095	80.00- 120.00	100.00
3.046	3.046	(0.576)	153	407364			33.72- 93.72	63.85
3.032	3.032	(0.574)	101	774340			89.67- 149.67	121.38
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.074	3.074	(0.582)	96	359541	48.7441	48.744	80.00- 120.00	100.00
3.074	3.074	(0.582)	98	230520			33.39- 93.39	64.12
3.074	3.074	(0.582)	61	706879			163.82- 223.82	196.61
47 Acetone					CAS #: 67-64-1			
3.214	3.214	(0.608)	58	203055	49.8248	49.825	80.00- 120.00	100.00
3.214	3.214	(0.608)	43	674244			299.66- 359.66	332.05
48 Carbon Disulfide					CAS #: 75-15-0			
3.298	3.298	(0.624)	76	965474	52.6093	52.609	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.270	3.270	(0.619)	142	919579	57.9479	57.948	80.00- 120.00	100.00
3.270	3.270	(0.619)	127	427407			14.58- 74.58	46.48
52 2-Propanol					CAS #: 67-63-0			
3.409	3.409	(0.645)	45	748810	51.0903	51.090	80.00- 120.00	100.00
3.409	3.395	(0.645)	43	153434			0.00- 48.61	20.49
54 3-Chloropropene					CAS #: 107-05-1			
3.535	3.535	(0.669)	76	151228	47.8639	47.864	80.00- 120.00	100.00
3.535	3.535	(0.669)	41	518662			338.06- 398.06	342.97
57 Acetonitrile					CAS #: 75-05-8			
3.633	3.633	(0.688)	41	298477	46.5104	46.510	80.00- 120.00	100.00
3.633	3.633	(0.688)	40	165439			21.81- 81.81	55.43
3.633	3.633	(0.688)	38	36271			0.00- 41.86	12.15
59 Methylene Chloride					CAS #: 75-09-2			
3.731	3.717	(0.706)	49	484218	49.6458	49.646	80.00- 120.00	100.00
3.731	3.717	(0.706)	84	294045			30.77- 90.77	60.73
3.717	3.717	(0.703)	51	147945			1.39- 61.39	30.55

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
3.857	3.857	(0.730)	59	862080	46.8608	46.861	80.00- 120.00	100.00
3.857	3.857	(0.730)	41	196834			0.00- 51.05	22.83
3.857	3.857	(0.730)	57	93898			0.00- 41.68	10.89
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
3.941	3.941	(0.746)	73	952644	47.9774	47.977	80.00- 120.00	100.00
3.941	3.941	(0.746)	57	280946			0.00- 58.86	29.49
3.941	3.941	(0.746)	41	267333			0.00- 57.27	28.06
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
3.969	3.969	(0.751)	98	228110	45.9547	45.955	80.00- 120.00	100.00
3.969	3.969	(0.751)	61	606867			244.59- 304.59	266.04
3.969	3.969	(0.751)	96	360026			129.84- 189.84	157.83
66 Acrylonitrile					CAS #: 107-13-1			
4.067	4.067	(0.770)	52	252748	42.4269	42.427	80.00- 120.00	100.00
4.067	4.067	(0.770)	53	298572			88.50- 148.50	118.13
67 Hexane					CAS #: 110-54-3			
4.179	4.179	(0.791)	57	639618	47.5229	47.523	80.00- 120.00	100.00
4.179	4.179	(0.791)	43	393822			32.99- 92.99	61.57
4.179	4.179	(0.791)	86	82046			0.00- 42.56	12.83
71 1,1-Dichloroethane					CAS #: 75-34-3			
4.459	4.459	(0.844)	63	657313	47.4888	47.489	80.00- 120.00	100.00
4.459	4.459	(0.844)	65	202113			0.76- 60.76	30.75
72 Isopropyl ether					CAS #: 108-20-3			
4.445	4.445	(0.841)	45	1291178	45.4575	45.458	80.00- 120.00	100.00
4.445	4.445	(0.841)	87	291872			0.00- 51.37	22.61
4.445	4.445	(0.841)	59	147939			0.00- 41.09	11.46
73 Vinyl Acetate					CAS #: 108-05-4			
4.501	4.501	(0.852)	86	81281	47.7638	47.764	80.00- 120.00	100.00
4.501	4.501	(0.852)	43	1149311			1391.63-1451.63	1414.00
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
4.809	4.809	(0.910)	59	1236835	45.1043	45.104	80.00- 120.00	100.00
4.809	4.809	(0.910)	87	417187			3.22- 63.22	33.73
4.809	4.809	(0.910)	41	238976			0.00- 48.12	19.32
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.005	5.005	(0.947)	77	593355	46.0157	46.016	80.00- 120.00	100.00
5.005	5.005	(0.947)	79	190376			2.00- 62.00	32.08
5.005	5.005	(0.947)	97	139027			0.00- 53.36	23.43

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene					CAS #: 156-59-2				
5.047	5.046	(0.955)	98	223025	45.3248	45.325	80.00- 120.00	100.00	
5.047	5.046	(0.955)	96	344352			127.22- 187.22	154.40	
5.047	5.046	(0.955)	61	670853			283.85- 343.85	300.80	
86 2-Butanone					CAS #: 78-93-3				
5.075	5.074	(0.960)	72	166077	48.3210	48.321	80.00- 120.00	100.00	
5.075	5.074	(0.960)	43	1669843			1055.75-1115.75	1005.46	
5.075	5.074	(0.960)	57	65345			10.59- 70.59	39.35	
87 Ethyl Acetate					CAS #: 141-78-6				
5.089	5.088	(0.963)	45	132907	46.9070	46.907	80.00- 120.00	100.00	
5.047	5.046	(0.955)	61	670722			450.31- 510.31	504.66	
5.089	5.088	(0.963)	70	79981			30.42- 90.42	60.18	
89 Tetrahydrofuran					CAS #: 109-99-9				
5.270	5.270	(0.997)	42	420429	43.3799	43.380	80.00- 120.00	100.00	
5.270	5.270	(0.997)	71	140129			2.92- 62.92	33.33	
5.270	5.270	(0.997)	72	148745			3.54- 63.54	35.38	
92 Chloroform					CAS #: 67-66-3				
5.340	5.340	(1.011)	83	713906	46.8491	46.849	80.00- 120.00	100.00	
5.340	5.340	(1.011)	85	462280			34.71- 94.71	64.75	
94 Cyclohexane					CAS #: 110-82-7				
5.438	5.438	(1.029)	84	417782	43.3750	43.375	80.00- 120.00	100.00	
5.438	5.438	(1.029)	56	614589			120.40- 180.40	147.11	
5.438	5.438	(1.029)	41	340291			54.20- 114.20	81.45	
96 1,1,1-Trichloroethane					CAS #: 71-55-6				
5.466	5.466	(1.034)	97	771052	45.0161	45.016	80.00- 120.00	100.00	
5.466	5.466	(1.034)	99	494729			33.76- 93.76	64.16	
97 Carbon Tetrachloride					CAS #: 56-23-5				
5.578	5.578	(1.056)	119	784256	49.7137	49.714	80.00- 120.00	100.00	
5.578	5.578	(1.056)	117	819986			73.68- 133.68	104.56	
99 1,1-Dichloropropene					CAS #: 563-58-6				
5.620	5.606	(0.909)	110	186609	46.7321	46.732	80.00- 120.00	100.00	
5.606	5.606	(0.907)	75	476360			231.09- 291.09	255.27	
101 2,2,4-Trimethylpentane					CAS #: 540-84-1				
5.774	5.774	(1.093)	57	1872661	44.4922	44.492	80.00- 120.00	100.00	
5.774	5.774	(1.093)	56	577627			1.12- 61.12	30.85	
5.774	5.774	(1.093)	41	513022			0.00- 57.49	27.40	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
5.788	5.788	(0.937)	78	941107	47.0011	47.001	80.00- 120.00	100.00
5.788	5.788	(0.937)	77	222815			0.00- 53.80	23.68
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
5.858	5.858	(0.948)	87	239431	44.8464	44.846	80.00- 120.00	100.00
5.858	5.858	(0.948)	73	939520			365.20- 425.20	392.40
5.858	5.858	(0.948)	55	305804			91.31- 151.31	127.72
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
5.886	5.886	(0.952)	62	554290	48.0827	48.083	80.00- 120.00	100.00
5.886	5.886	(0.952)	64	171495			1.20- 61.20	30.94
-----								
107 Heptane					CAS #: 142-82-5			
5.942	5.942	(0.962)	71	329899	41.8299	41.830	80.00- 120.00	100.00
5.942	5.942	(0.962)	43	650971			179.02- 239.02	197.32
5.942	5.942	(0.962)	57	389374			84.85- 144.85	118.03
-----								
110 n-Butanol					CAS #: 71-36-3			
6.348	6.348	(1.027)	56	302937	47.2016	47.202	80.00- 120.00	100.00
6.348	6.348	(1.027)	41	201509			40.21- 100.21	66.52
6.348	6.348	(1.027)	43	163424			25.00- 85.00	53.95
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.362	6.362	(1.029)	95	491685	48.9476	48.948	80.00- 120.00	100.00
6.376	6.362	(1.032)	130	519849			74.96- 134.96	105.73
6.376	6.362	(1.032)	97	314369			34.80- 94.80	63.94
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
6.586	6.586	(1.066)	63	171037	36.8508	36.851	80.00- 120.00	100.00
6.586	6.586	(1.066)	62	129148			52.03- 112.03	75.51
6.586	6.586	(1.066)	41	171194			79.97- 139.97	100.09
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
6.664	6.664	(0.773)	69	347624	50.1938	50.194	80.00- 120.00	100.00
6.664	6.664	(0.773)	41	550212			134.02- 194.02	158.28
6.664	6.664	(0.773)	100	139260			9.54- 69.54	40.06
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
6.700	6.700	(1.084)	88	237725	46.8680	46.868	80.00- 120.00	100.00
6.700	6.700	(1.084)	58	233076			55.80- 115.80	98.04
6.700	6.700	(1.084)	57	88815			8.68- 68.68	37.36
-----								
118 Dibromomethane					CAS #: 74-95-3			
6.721	6.721	(0.780)	174	436660	56.6137	56.614	80.00- 120.00	100.00
6.721	6.714	(0.780)	93	426214			67.27- 127.27	97.61



CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
6.721	6.721	(0.780)	95	355021			50.92- 110.92	81.30
-----								
122 Bromodichloromethane					CAS #: 75-27-4			
6.836	6.836	(1.106)	83	748581	44.4835	44.484	80.00- 120.00	100.00
6.836	6.836	(1.106)	85	482558			34.31- 94.31	64.46
-----								
126 cis-1,3-Dichloropropene					CAS #: 10061-01-5			
7.208	7.208	(1.166)	75	558857	44.6808	44.681	80.00- 120.00	100.00
7.208	7.208	(1.166)	77	178131			1.42- 61.42	31.87
7.208	7.208	(1.166)	39	376274			38.56- 98.56	67.33
-----								
127 Methylcyclohexane					CAS #: 108-87-2			
6.460	6.460	(1.045)	83	588823	43.8355	43.836	80.00- 120.00	100.00
6.460	6.460	(1.045)	98	273498			15.60- 75.60	46.45
6.460	6.460	(1.045)	55	592527			78.53- 138.53	100.63
-----								
131 4-Methyl-2-pentanone					CAS #: 108-10-1			
7.316	7.316	(1.184)	58	346326	40.7216	40.722	80.00- 120.00	100.00
7.316	7.316	(1.184)	43	885034			231.30- 291.30	255.55
7.316	7.316	(1.184)	85	133956			8.94- 68.94	38.68
-----								
137 Toluene					CAS #: 108-88-3			
7.437	7.437	(1.203)	91	1216479	45.2781	45.278	80.00- 120.00	100.00
7.445	7.437	(1.205)	92	698293			28.30- 88.30	57.40
-----								
136 Octane					CAS #: 111-65-9			
7.445	7.444	(1.205)	57	367969	41.1655	41.166	80.00- 120.00	100.00
7.445	7.444	(1.205)	85	365301			67.11- 127.11	99.27
7.445	7.444	(1.205)	43	847745			214.21- 274.21	230.38
-----								
139 trans-1,3-Dichloropropene					CAS #: 10061-02-6			
7.688	7.688	(0.892)	75	511898	48.2972	48.297	80.00- 120.00	100.00
7.688	7.688	(0.892)	77	163426			2.15- 62.15	31.93
7.688	7.688	(0.892)	39	334027			36.09- 96.09	65.25
-----								
141 1,1,2-Trichloroethane					CAS #: 79-00-5			
7.846	7.846	(0.910)	97	393681	48.2973	48.297	80.00- 120.00	100.00
7.846	7.846	(0.910)	99	245912			31.62- 91.62	62.46
7.846	7.846	(0.910)	83	342339			56.35- 116.35	86.96
-----								
142 Tetrachloroethene					CAS #: 127-18-4			
7.881	7.881	(0.914)	166	583842	51.7877	51.788	80.00- 120.00	100.00
7.881	7.881	(0.914)	129	448400			48.71- 108.71	76.80
7.881	7.874	(0.914)	131	433649			46.55- 106.55	74.28
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone					CAS #: 591-78-6			
8.003	8.003	(0.929)	58	441646	47.1702	47.170	80.00- 120.00	100.00
8.003	8.003	(0.929)	43	800916			157.91- 217.91	181.35
8.003	8.003	(0.929)	100	83430			0.00- 47.86	18.89
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144 1,3-Dichloropropane					CAS #: 142-28-9			
7.989	7.989	(1.293)	76	521974	40.7204	40.720	80.00- 120.00	100.00
7.989	7.989	(1.293)	41	548267			82.96- 142.96	105.04
7.989	7.989	(1.293)	78	170187			2.55- 62.55	32.60
-----					-----			
146 Dibromochloromethane					CAS #: 124-48-1			
8.154	8.154	(0.946)	129	813244	52.5902	52.590	80.00- 120.00	100.00
8.154	8.154	(0.946)	127	630984			47.77- 107.77	77.59
-----					-----			
148 1,2-Dibromoethane (EDB)					CAS #: 106-93-4			
8.268	8.261	(0.959)	107	637605	50.3703	50.370	80.00- 120.00	100.00
8.268	8.261	(0.959)	109	602701			64.60- 124.60	94.53
-----					-----			
151 1-Bromo-2-Chloroethane					CAS #: 107-04-0			
7.115	7.115	(1.151)	63	745772	45.9226	45.922	80.00- 120.00	100.00
7.122	7.115	(1.152)	65	232876			0.95- 60.95	31.23
7.122	7.122	(1.152)	144	80852			0.00- 40.45	10.84
-----					-----			
154 Chlorobenzene					CAS #: 108-90-7			
8.641	8.641	(1.002)	112	964821	49.0550	49.055	80.00- 120.00	100.00
8.641	8.641	(1.002)	114	310196			2.13- 62.13	32.15
8.641	8.641	(1.002)	77	512157			26.35- 86.35	53.08
-----					-----			
155 Ethyl Benzene					CAS #: 100-41-4			
8.691	8.684	(1.008)	106	487590	49.5777	49.578	80.00- 120.00	100.00
8.684	8.684	(1.007)	91	1509744			282.48- 342.48	309.63
-----					-----			
156 Nonane					CAS #: 111-84-2			
8.705	8.705	(1.010)	43	824864	43.2718	43.272	80.00- 120.00	100.00
8.705	8.705	(1.010)	57	785976			59.52- 119.52	95.29
8.705	8.705	(1.010)	85	269379			0.00- 59.76	32.66
-----					-----			
157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6			
8.712	8.712	(1.011)	131	489317	45.2048	45.205	80.00- 120.00	100.00
8.712	8.712	(1.011)	117	333273			38.22- 98.22	68.11
8.712	8.712	(1.011)	95	181504			7.54- 67.54	37.09
-----					-----			
158 m,p-Xylene					CAS #: 108-38-3			
8.784	8.784	(1.019)	106	596573	48.7581	48.758	80.00- 120.00	100.00
8.784	8.784	(1.019)	91	1193910			171.36- 231.36	200.13
-----					-----			

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene						CAS #: 95-47-6			
9.128	9.121	(1.059)	106	552333	47.5514	47.551	80.00-	120.00	100.00
9.121	9.121	(1.058)	91	1168785			179.99-	239.99	211.61
-----									
165 Styrene						CAS #: 100-42-5			
9.149	9.149	(1.061)	104	959229	47.6653	47.665	80.00-	120.00	100.00
9.149	9.142	(1.061)	78	456053			19.09-	79.09	47.54
-----									
167 Bromoform						CAS #: 75-25-2			
9.350	9.350	(1.085)	173	767077	52.3134	52.313	80.00-	120.00	100.00
9.350	9.350	(1.085)	171	396410			21.45-	81.45	51.68
-----									
168 Cumene						CAS #: 98-82-8			
9.414	9.414	(1.092)	105	1762729	47.9992	47.999	80.00-	120.00	100.00
9.414	9.414	(1.092)	120	483117			0.00-	56.99	27.41
9.407	9.407	(1.091)	51	199495			0.00-	41.77	11.32
-----									
169 Cyclohexanone						CAS #: 108-94-1			
9.579	9.579	(1.111)	55	482447	41.7451	41.745	80.00-	120.00	100.00
9.579	9.579	(1.111)	98	193707			9.22-	69.22	40.15
9.579	9.579	(1.111)	42	335390			42.60-	102.60	69.52
-----									
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5			
9.737	9.737	(1.130)	83	879560	48.3069	48.307	80.00-	120.00	100.00
9.737	9.737	(1.130)	85	575212			34.35-	94.35	65.40
-----									
177 Bromobenzene						CAS #: 108-86-1			
9.737	9.730	(1.130)	156	584952	51.2384	51.238	80.00-	120.00	100.00
9.737	9.737	(1.130)	158	567706			67.29-	127.29	97.05
9.730	9.730	(1.129)	77	890773			132.41-	192.41	152.28
-----									
178 Propylbenzene						CAS #: 103-65-1			
9.758	9.758	(1.132)	91	2108947	49.2168	49.217	80.00-	120.00	100.00
9.758	9.758	(1.132)	120	504184			0.00-	53.77	23.91
9.758	9.758	(1.132)	105	77910			0.00-	33.81	3.69
-----									
179 1,2,3-Trichloropropane						CAS #: 96-18-4			
9.787	9.787	(1.135)	110	270389	49.2983	49.298	80.00-	120.00	100.00
9.787	9.787	(1.135)	75	905727			285.00-	345.00	334.97
9.787	9.787	(1.135)	61	231047			54.06-	114.06	85.45
-----									
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6			
9.787	9.787	(1.135)	53	282527	65.0975	65.098	80.00-	120.00	100.00
9.787	9.787	(1.135)	89	146003			21.19-	81.19	51.68
9.787	9.787	(1.135)	75	905727			372.45-	432.45	320.58
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane						CAS #: 124-18-5		
9.808	9.808	(1.138)	57	990780	44.7172	44.717	80.00- 120.00	100.00
9.808	9.808	(1.138)	71	348342			4.13- 64.13	35.16
9.816	9.808	(1.139)	142	49590			0.00- 34.73	5.01
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
9.851	9.851	(1.143)	120	546566	49.2090	49.209	80.00- 120.00	100.00
9.851	9.851	(1.143)	105	1779863			296.79- 356.79	325.64
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
9.873	9.873	(1.145)	126	453886	50.2928	50.293	80.00- 120.00	100.00
9.873	9.873	(1.145)	91	1599401			336.29- 396.29	352.38
9.873	9.873	(1.145)	65	295847			38.83- 98.83	65.18
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
9.901	9.901	(1.149)	120	757607	48.5633	48.563	80.00- 120.00	100.00
9.901	9.901	(1.149)	105	1526556			176.40- 236.40	201.50
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.102	10.102	(1.172)	118	725874	45.4313	45.431	80.00- 120.00	100.00
10.102	10.102	(1.172)	103	407059			26.64- 86.64	56.08
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
10.174	10.174	(1.180)	119	1364736	47.5456	47.546	80.00- 120.00	100.00
10.174	10.174	(1.180)	134	351786			0.00- 54.82	25.78
10.174	10.174	(1.180)	91	885899			36.92- 96.92	64.91
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
10.224	10.224	(1.186)	105	1514245	49.2244	49.224	80.00- 120.00	100.00
10.224	10.224	(1.186)	120	720286			16.58- 76.58	47.57
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
10.360	10.360	(1.202)	134	456416	49.2292	49.229	80.00- 120.00	100.00
10.360	10.353	(1.202)	105	2189121			451.53- 511.53	479.63
10.360	10.353	(1.202)	91	342617			46.48- 106.48	75.07
-----								
194 p-Cymene						CAS #: 99-87-6		
10.467	10.467	(1.214)	119	1948184	50.1773	50.177	80.00- 120.00	100.00
10.467	10.467	(1.214)	134	520411			0.00- 56.79	26.71
10.467	10.467	(1.214)	91	450003			0.00- 54.04	23.10
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
10.518	10.517	(1.220)	146	1082245	51.7829	51.783	80.00- 120.00	100.00
10.518	10.517	(1.220)	148	690215			33.53- 93.53	63.78
10.518	10.517	(1.220)	111	426236			11.05- 71.05	39.38
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
10.596	10.596	(1.229)	146	1086417	50.4666	50.466	80.00- 120.00	100.00
10.596	10.596	(1.229)	148	694528			33.47- 93.47	63.93
10.596	10.596	(1.229)	111	416148			9.65- 69.65	38.30
-----					-----			
199 alpha-Chlorotoluene					CAS #: 100-44-7			
10.711	10.711	(1.243)	91	1396522	47.1819	47.182	80.00- 120.00	100.00
10.711	10.711	(1.243)	126	315762			0.00- 52.04	22.61
-----					-----			
201 Undecane					CAS #: 1120-21-4			
10.804	10.804	(1.253)	57	1188679	45.5273	45.527	80.00- 120.00	100.00
10.804	10.804	(1.253)	43	999871			55.86- 115.86	84.12
-----					-----			
202 Butylbenzene					CAS #: 104-51-8			
10.818	10.818	(1.255)	134	511967	50.8561	50.856	80.00- 120.00	100.00
10.818	10.818	(1.255)	91	1825523			331.99- 391.99	356.57
10.818	10.818	(1.255)	92	938161			161.01- 221.01	183.25
-----					-----			
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
10.926	10.926	(1.268)	146	1043847	51.6857	51.686	80.00- 120.00	100.00
10.926	10.926	(1.268)	148	662012			33.23- 93.23	63.42
10.919	10.919	(1.267)	111	421427			12.36- 72.36	40.37
-----					-----			
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
11.606	11.606	(1.347)	157	622835	53.1862	53.186	80.00- 120.00	100.00
11.606	11.599	(1.347)	75	515889			58.96- 118.96	82.83
11.606	11.606	(1.347)	155	482139			47.82- 107.82	77.41
-----					-----			
207 Dodecane					CAS #: 112-40-3			
11.714	11.714	(1.359)	57	1279263	57.9435	57.943	80.00- 120.00	100.00
11.714	11.714	(1.359)	43	1015447			50.85- 110.85	79.38
-----					-----			
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
12.301	12.301	(1.427)	180	949246	66.1737	66.174	80.00- 120.00	100.00
12.301	12.301	(1.427)	182	905084			65.40- 125.40	95.35
-----					-----			
215 Hexachlorobutadiene					CAS #: 87-68-3			
12.387	12.387	(1.437)	225	734886	67.8202	67.820	80.00- 120.00	100.00
12.387	12.387	(1.437)	223	463511			33.70- 93.70	63.07
-----					-----			
216 Naphthalene					CAS #: 91-20-3			
12.552	12.559	(1.456)	128	218647	4.99156	4.992	80.00- 120.00	100.00
12.552	12.559	(1.456)	127	28980			0.00- 43.10	13.25
-----					-----			
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
12.803	12.810	(1.485)	180	895119	68.1917	68.192	80.00- 120.00	100.00

CONCENTRATIONS

ON-COL      FINAL

RT	EXP RT	(REL RT)	MASS	RESPONSE	( PPBV)	( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====

222 1,2,3-Trichlorobenzene (continued)

12.803	12.810	(1.485)	182	853575			65.67- 125.67	95.36
12.803	12.802	(1.485)	145	311081			6.02- 66.02	34.75

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3072705a.d  
Lab Smp Id: LCSD  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
Misc Info: 50ppbv (100ppbv)

Calibration Date: 27-JUL-2021  
Calibration Time: 11:36  
Client Smp ID: LCSD  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	238986	143392	334580	243047	1.70
108 1,4-Difluorobenze	785289	471173	1099405	877445	11.74
153 Chlorobenzene-d5	683596	410158	957034	719626	5.27

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.28	4.95	5.61	5.28	0.00
108 1,4-Difluorobenze	6.18	5.85	6.51	6.18	0.00
153 Chlorobenzene-d5	8.61	8.28	8.94	8.62	0.08

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 27JUL21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCSD Client Smp ID: LCSD  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: LCSD  
 SpikeList File: AT12.spk Quant Type: ISTD  
 Sublist File: AT20LCS\_new.sub  
 Method File: /chem/msd3.i/27JUL21.b/321q0622a.m  
 Misc Info: 50ppbv (100ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
5 Propylene	50.000	49.771	99.54	70-130
8 Freon 12	50.000	52.186	104.37	70-130
10 Freon 114	50.000	53.798	107.60	70-130
15 Chloromethane	50.000	57.988	115.98	70-130
18 Butane	50.000	53.668	107.34	70-130
19 Vinyl Chloride	50.000	53.686	107.37	70-130
20 1,3-Butadiene	50.000	48.263	96.53	70-130
24 Bromomethane	50.000	51.293	102.59	70-130
30 Chloroethane	50.000	51.811	103.62	70-130
31 Isopentane	50.000	48.948	97.90	70-130
33 Freon 11	50.000	54.724	109.45	70-130
39 Ethanol	58.000	43.067	74.25	70-130
43 Freon 113	50.000	52.095	104.19	70-130
44 1,1-Dichloroethen	50.000	48.744	97.49	70-130
47 Acetone	50.000	49.825	99.65	70-130
48 Carbon Disulfide	50.000	52.609	105.22	70-130
52 2-Propanol	50.000	51.090	102.18	70-130
54 3-Chloropropene	50.000	47.864	95.73	70-130
59 Methylene Chlorid	50.000	49.646	99.29	70-130
63 Methyl tert-butyl	50.000	47.977	95.95	70-130
64 trans-1,2-Dichlor	50.000	45.955	91.91	70-130
67 Hexane	50.000	47.523	95.05	70-130
71 1,1-Dichloroethan	50.000	47.489	94.98	70-130
73 Vinyl Acetate	50.000	47.764	95.53	70-130
85 cis-1,2-Dichloroe	50.000	45.325	90.65	70-130
86 2-Butanone	50.000	48.321	96.64	70-130
89 Tetrahydrofuran	50.000	43.380	86.76	70-130
92 Chloroform	50.000	46.849	93.70	70-130
94 Cyclohexane	50.000	43.375	86.75	70-130
96 1,1,1-Trichloroet	50.000	45.016	90.03	70-130
97 Carbon Tetrachlor	50.000	49.714	99.43	70-130
101 2,2,4-Trimethylpe	50.000	44.492	88.98	70-130
102 Benzene	50.000	47.001	94.00	70-130



SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
106 1,2-Dichloroethan	50.000	48.083	96.17	70-130
107 Heptane	50.000	41.830	83.66	70-130
111 Trichloroethene	50.000	48.948	97.90	70-130
127 Methylcyclohexane	50.000	43.836	87.67	70-130
114 1,2-Dichloropropa	50.000	36.851	73.70	70-130
117 1,4-Dioxane	50.000	46.868	93.74	70-130
122 Bromodichlorometh	50.000	44.484	88.97	70-130
126 cis-1,3-Dichlorop	50.000	44.681	89.36	70-130
131 4-Methyl-2-pentan	50.000	40.722	81.44	70-130
137 Toluene	50.000	45.278	90.56	70-130
139 trans-1,3-Dichlor	50.000	48.297	96.59	70-130
141 1,1,2-Trichloroet	50.000	48.297	96.59	70-130
142 Tetrachloroethene	50.000	51.788	103.58	70-130
143 2-Hexanone	50.000	47.170	94.34	70-130
146 Dibromochlorometh	50.000	52.590	105.18	70-130
148 1,2-Dibromoethane	50.000	50.370	100.74	70-130
154 Chlorobenzene	50.000	49.055	98.11	70-130
155 Ethyl Benzene	50.000	49.578	99.16	70-130
158 m,p-Xylene	50.000	48.758	97.52	70-130
164 o-Xylene	50.000	47.551	95.10	70-130
165 Styrene	50.000	47.665	95.33	70-130
167 Bromoform	50.000	52.313	104.63	70-130
168 Cumene	50.000	47.999	96.00	70-130
175 1,1,2,2-Tetrachlo	50.000	48.307	96.61	70-130
178 Propylbenzene	50.000	49.217	98.43	70-130
183 4-Ethyltoluene	50.000	49.209	98.42	70-130
185 1,3,5-Trimethylbe	50.000	48.563	97.13	70-130
190 1,2,4-Trimethylbe	50.000	49.224	98.45	70-130
195 1,3-Dichlorobenze	50.000	51.783	103.57	70-130
196 1,4-Dichlorobenze	50.000	50.466	100.93	70-130
199 alpha-Chlorotolue	50.000	47.182	94.36	70-130
204 1,2-Dichlorobenze	50.000	51.686	103.37	70-130
213 1,2,4-Trichlorobe	58.000	66.174	114.09	70-130
215 Hexachlorobutadie	58.000	67.820	116.93	70-130
216 Naphthalene	5.800	4.992	86.06	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.852	99.41	70-130
\$ 134 Toluene-d8	25.000	23.169	92.68	70-130
\$ 170 4-Bromofluorobenz	25.000	24.841	99.36	70-130

Date : 27-JUL-2021 12:40

Client ID: LCSD

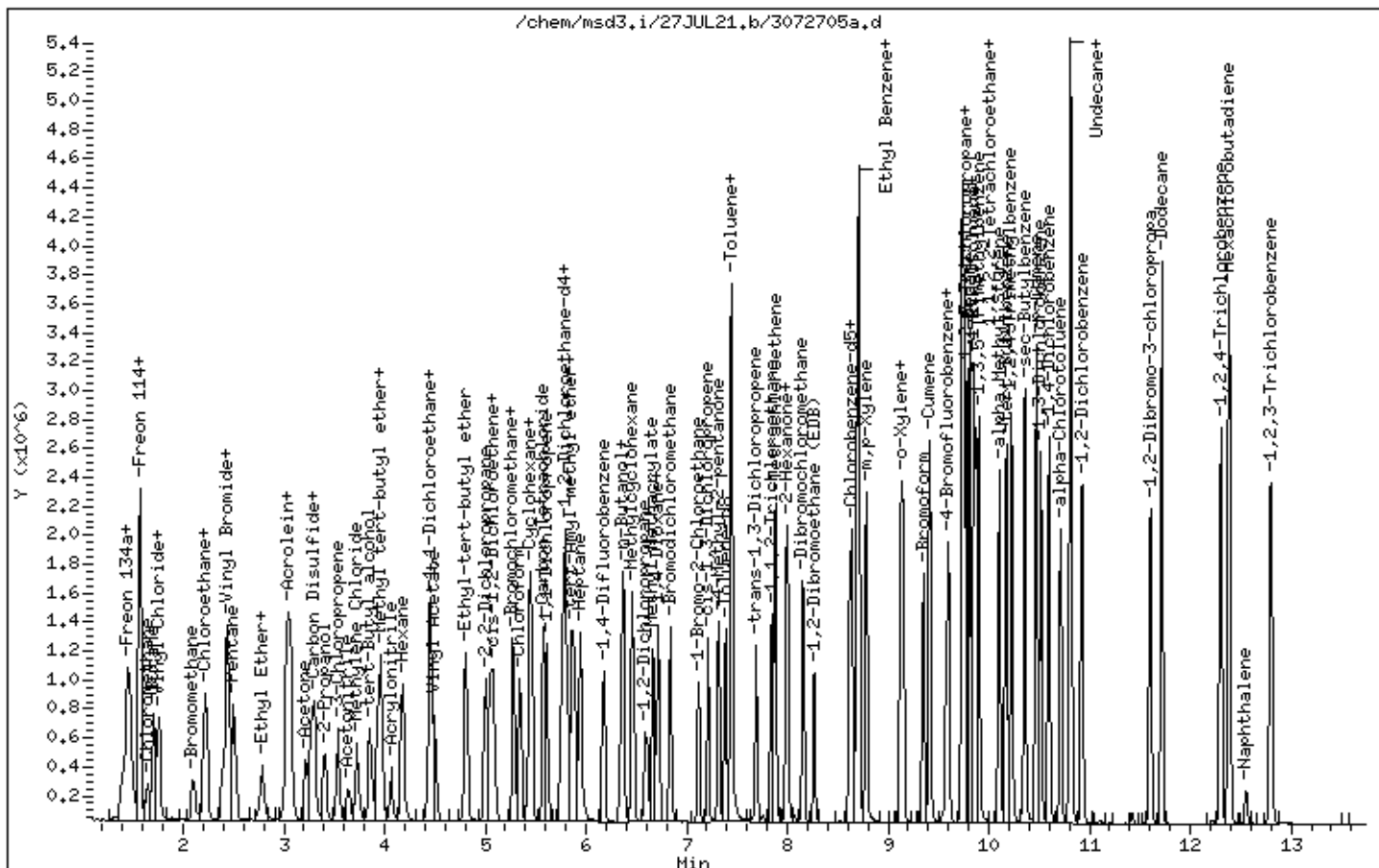
Instrument: msd3,i

Sample Info: 100mL 3018-2121A

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



		MSD3		Method TO-15/TO-14	
BFB Tune Verification: (246528/264832) * 100 =93.08%		3234-42		SOP# 6	
BCM1	3234-42	Exp. Date:	9/22/2021	Vacuum:	NA
1.4-DFB	833448	Surrogate # 3234-42	3018-2071A	Exp Date:	9/22/2021
CB-DF	741338	CCV	3018-2071A	Exp Date:	9/22/2021
		CCV SP 1 #	NA	Exp Date:	NA
		CCV SP 2 #	NA	Exp Date:	NA
		CCV SP 3 #	NA	Exp Date:	NA
		CCV SP 4 #	NA	Exp Date:	NA
Verified CCV vs. ICAI midpoint (-40%): LD					
Method: 321q0622a.m					

Use	File #	Enter/Scan Sample IDs	Canister#	Cart Pos.	Pressure	Amount	DF	Verify Load	Loaded Inlt.	Date Analyzed	Time	Review Inlt	Comments
V	3072601	BFB Tune Check	3234-42	8	36mg	200ml	1.00	LD	LD	07/26/21	0933	LD	Exp. 9/22/21; leg validation
V	3072602	CCV	3018-2071A	13	50ppbv (100ppbv)	100ml	1.00	LD	LD	07/26/21	1010	LD	Exp. 9/2/21; 1 out AT-20. Naph @ 38%
V	3072603	LCS	3018-2121A	14	50ppbv (100ppbv)	100ml	1.00	LD	LD	07/26/21	1047	LD	Exp. 9/22/21; 1 out AT-12, 1 out AT-20
X	3072604	LCS	3018-2121A	14	50ppbv (100ppbv)	100ml	1.00	LD	LD	07/26/21	1114	LD	Exp. 9/22/21; 15 out
V	3072605	CCVsp	3018-2013	12	50ppbv (200ppbv)	50ml	1.00	LD	LD	07/26/21	1142	LD	Exp. 8/04/21; 0 out
V	3072606	LCS	3018-2121A	14	50ppbv (100ppbv)	100ml	1.00	LD	LD	07/26/21	1220	LD	Exp. 9/22/21; RPD ok
V	3072607	TRHg Calib	3234-26A	11	500ppbv (625ppbv)	160ml	1.00	LD	LD	07/26/21	1303	LD	Exp. 9/3/21
V	3072608	Lab Blank	34353	11	Humid	200ml	1.00	LD	LD	07/26/21	1416	LD	leg validation
V	3072609	2107284-01A	N5590	1	5.7 Hg->9.9 psi	200ml	2.07	DF	LD	07/26/21	1516	DF	
V	3072610	2107284-02A	F1981	2	5.9 Hg->10.1 psi	200ml	2.10	DF	LD	07/26/21	1545	DF	
V	3072611	2107284-03A	N3412	3	6.3 Hg->9.8 psi	200ml	2.11	DF	LD	07/26/21	1614	DF	
V	3072612	2107284-04A	O1060	4	7.8 Hg->10 psi	200ml	2.27	DF	LD	07/26/21	1643	DF	
V	3072613	2107284-05A	N3824	5	5.7 Hg->9.8 psi	200ml	2.06	DF	LD	07/26/21	1713	DF	
V	3072614	2107284-06A	34000754	6	6.1 Hg->9.8 psi	200ml	2.09	DF	LD	07/26/21	1742	DF	
V	3072615	2107284-07A	111747	7	8.6 Hg->9.9 psi	200ml	2.34	DF	LD	07/26/21	1811	DF	
V	3072616	2107284-08A	3009	8	8.4 Hg->9.9 psi	200ml	2.32	DF	LD	07/26/21	1840	DF	duped
V	3072617	2107284-09A	111812	9	9 Hg->9.6 psi	200ml	2.36	DF	LD	07/26/21	1909	DF	
V	3072618	2107284-10A	N2667	1	8.2 Hg->10 psi	200ml	2.31	DF	DF	07/26/21	2227	DF	did not dup needs confirmation
V	3072619	2107284-11A	O0849	2	10.2 Hg->9.9 psi	200ml	2.54	DF	DF	07/26/21	2256	LD	
V	3072620	2107284-12A	33637	3	9.8 Hg->10 psi	200ml	2.50	LD	DF	07/26/21	2326	LD	
V	3072621	2107284-13A	112705	4	7.8 Hg->9.9 psi	200ml	2.26	LD	DF	07/26/21	2355	LD	
V	3072622	2107284-14A	N3851	5	8.4 Hg->9.9 psi	200ml	2.32	LD	DF	07/27/21	0024	LD	duped
V	3072623	2107284-15A	N2640	6	9 Hg->10 psi	200ml	2.40	LD	DF	07/27/21	0053	LD	
V	3072624	2107284-16A	O0882	7	6.5 Hg->9.9 psi	200ml	2.14	LD	DF	07/27/21	0122	LD	
V	3072625	2107284-17A	N1981	8	5.5 Hg->8 psi	200ml	2.04	LD	DF	07/27/21	0151	LD	"E" 1.1-DFAs->00
X	3072626	2107284-18A	O0825	9	4.9 Hg->10 psi	200ml	2.01	LD	DF	07/27/21	0221	LD	possible carryover
V	3072627	2107284-19A	N3462	10	7.6 Hg->10 psi	200ml	2.25	LD	DF	07/27/21	0250	LD	1.1-DFAs ND
V	3072628	2107284-20A	N1995	11	9.2 Hg->10 psi	200ml	2.42	LD	DF	07/27/21	0319	LD	
C	3072629	2107284-10A	N2667	1	8.2 Hg->10 psi	200ml	2.31	LD	LD	07/27/21	0737	LD	confirmation
V	3072630	2107284-18A	O0825	9	4.9 Hg->10 psi	200ml	2.01	LD	LD	07/27/21	0806	LD	

7/10/21

		MSD3		Method TO-15/TO-14		SOP# 6	
BFB Tune Verification: (204544/218304) * 100 =93.70%				Vacuum:			
BCM	3234-42	238986	9/22/2021	Surrogate # 3234-42	3018-2071A	Exp Date:	9/22/2021
1,4-DFB		785289		CCV	3018-2071A	Exp Date:	9/2/2021
CB-d5		683596		CCV SP 1 #	NA	Exp Date:	NA
				CCV SP 2 #	NA	Exp Date:	NA
				CCV SP 3 #	NA	Exp Date:	NA
				CCV SP 4 #	NA	Exp Date:	NA
Verified CCV vs. ICAI midpoint (40%): LD							
Method: 321q0622a.m							

Use	File #	Enter/Scan Sample IDs	Canister#	Cart Pos.	Pressure	Amount	DF	Verify Load	Loaded Init.	Date Analyzed	Time	Review Init	Comments
✓	3072702	BFB Tune Check	3234-42	8	36mg	200ml	1.00	LD	LD	07/27/21	1102	LD	Exp: 9/22/21;
✓	3072703	CCV	3018-2071A	13	50ppbv (100ppbv)	100ml	1.00	LD	LD	07/27/21	1136	LD	Exp: 9/2/21; 1 out AT-20, Naph @ 37%
✓	3072704	LCS	3018-2121A	14	50ppbv (100ppbv)	100ml	1.00	LD	LD	07/27/21	1213	LD	Exp: 9/22/21; 1 out AT-20
✓	3072705	LCS	3018-2121A	14	50ppbv (100ppbv)	100ml	1.00	LD	LD	07/27/21	1240	LD	Exp: 9/22/21; 1 out AT-20 RPD
✓	3072706	CCVsp	3018-2013	12	50ppbv (200ppbv)	50ml	1.00	LD	LD	07/27/21	1307	LD	Exp: 8/04/21; 0 out
✓	3072707	System Blank	34353	12	Humid	200ml	1.00	LD	LD	07/27/21	1433	LD	Chemstation froze after loading TPHg Calib, double IS
✓	3072708	TPHg Calib	3234-26A	11	500ppbv (625ppbv)	160ml	1.00	LD	LD	07/27/21	1501	LD	Exp: 9/3/21
✓	3072709	Lab Blank	34353	11	Humid	200ml	1.00	LD	LD	07/27/21	1547	LD	
✓	3072710	2107284-21A	00853	1	7.1 Hg->10 psi	200ml	2.20	KK	LD	07/27/21	1701	KK	
✓	3072711	2107284-22A	00775	2	7.3 Hg->9.9 psi	200ml	2.21	KK	LD	07/27/21	1730	KK	E' 1,1-DEA >400ppbv
✓	3072712	2107284-23A	34001086cl	3	6.3 Hg->10 psi	200ml	2.13	KK	LD	07/27/21	1800	KK	confirmation needed
✓	3072713	2107284-24A	N2619	4	6.9 Hg->10 psi	200ml	2.18	KK	LD	07/27/21	1829	KK	
✓	3072714	2107284-25A	00732	5	6.7 Hg->9.9 psi	200ml	2.15	KK	LD	07/27/21	1858	KK	
✓	3072715	2107284-26A	S1120	6	6.5 Hg->10.1 psi	200ml	2.15	KK	LD	07/27/21	1927	KK	
✓	3072716	2107362-04A	1028	7	6.5 Hg->10.1 psi	140ml	3.08	KK	LD	07/27/21	1955	KK	dil tc
✓	3072717	2107362-03A	S0605	8	6.5 Hg->10.1 psi	100ml	8620	KK	LD	07/27/21	2022	KK	Can dil #AT9302 2000X, DF=8620, dil tc. "E" 1,1-DEA <400ppbv
✓	3072718	2107470-01A	O0887	10	5.5 Hg->10 psi	200ml	2.06	KK	LD	07/27/21	2052	KK	high matrix
✓	3072719	System Blank	34353	2	Humid	200ml	1.00	KK	KK	07/27/21	2138	KK	leg validation Matrix Carryover: 1,1-DEA ND
✓	3072720	System Blank	34353	1	Humid	200ml	1.00	KK	KK	07/27/21	2236	KK	
✓	3072721	2107284-23AX	34001086cl	3	6.3 Hg->10 psi	200ml	2.13	LD	KK	07/27/21	2347	LD	confirmation
✓	3072722	2107361-01A	O0252	1	5.0 Hg->10 psi	200ml	2.02	LD	KK	07/28/21	0016	LD	Green dot, P: 7.3 psi -> P: 3.9 psi

Handwritten signature: *BA 7/26/21*

US32TAR1

Data file : /chem/msd3.i/22JUN21.b/3062204.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 22-JUN-2021 14:28  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL #3234-42;BFB;BFB  
 Misc Info : 36ng  
 Comment :  
 Method : /chem/msd3.i/22JUN21.b/bfb30.m  
 Meth Date : 03-Sep-2019 11:54 u7js Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 3 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS

ON-COL FINAL

RT EXP RT DLT RT MASS RESPONSE ( ug/L) ( ug/L) TARGET RANGE RATIO

RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
1	bfb						CAS #: 460-00-4	
9.601	9.729	-0.128	95	429760			100.00- 100.00	100.00
9.601	9.729	-0.128	50	101149			8.00- 40.00	23.54
9.601	9.729	-0.128	75	210688			30.00- 66.00	49.02
9.601	9.729	-0.128	96	28103			5.00- 9.00	6.54
9.601	9.729	-0.128	173	2948			0.00- 1.99	0.86
9.601	9.729	-0.128	174	343594			50.01- 120.00	79.95
9.601	9.729	-0.128	175	25293			4.00- 9.00	7.36
9.601	9.729	-0.128	176	322005			93.00- 101.00	93.72
9.601	9.729	-0.128	177	20616			5.00- 9.00	6.40

Date : 22-JUN-2021 14:28

Client ID: BFB

Instrument: msd3.i

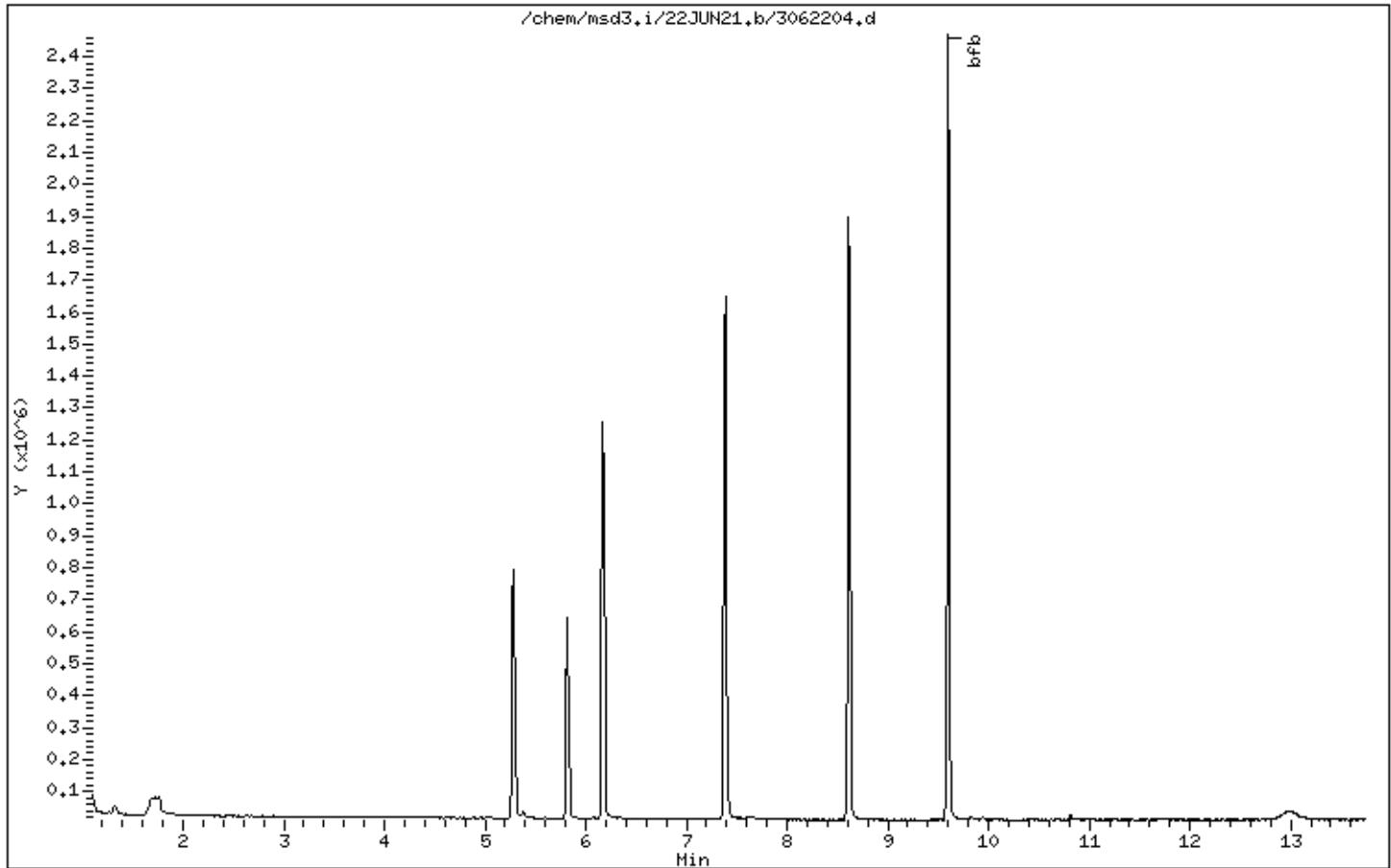
Sample Info: 200mL #3234-42;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00



Date : 22-JUN-2021 14:28

Client ID: BFB

Instrument: msd3,i

Sample Info: 200mL #3234-42:BFB:BFB

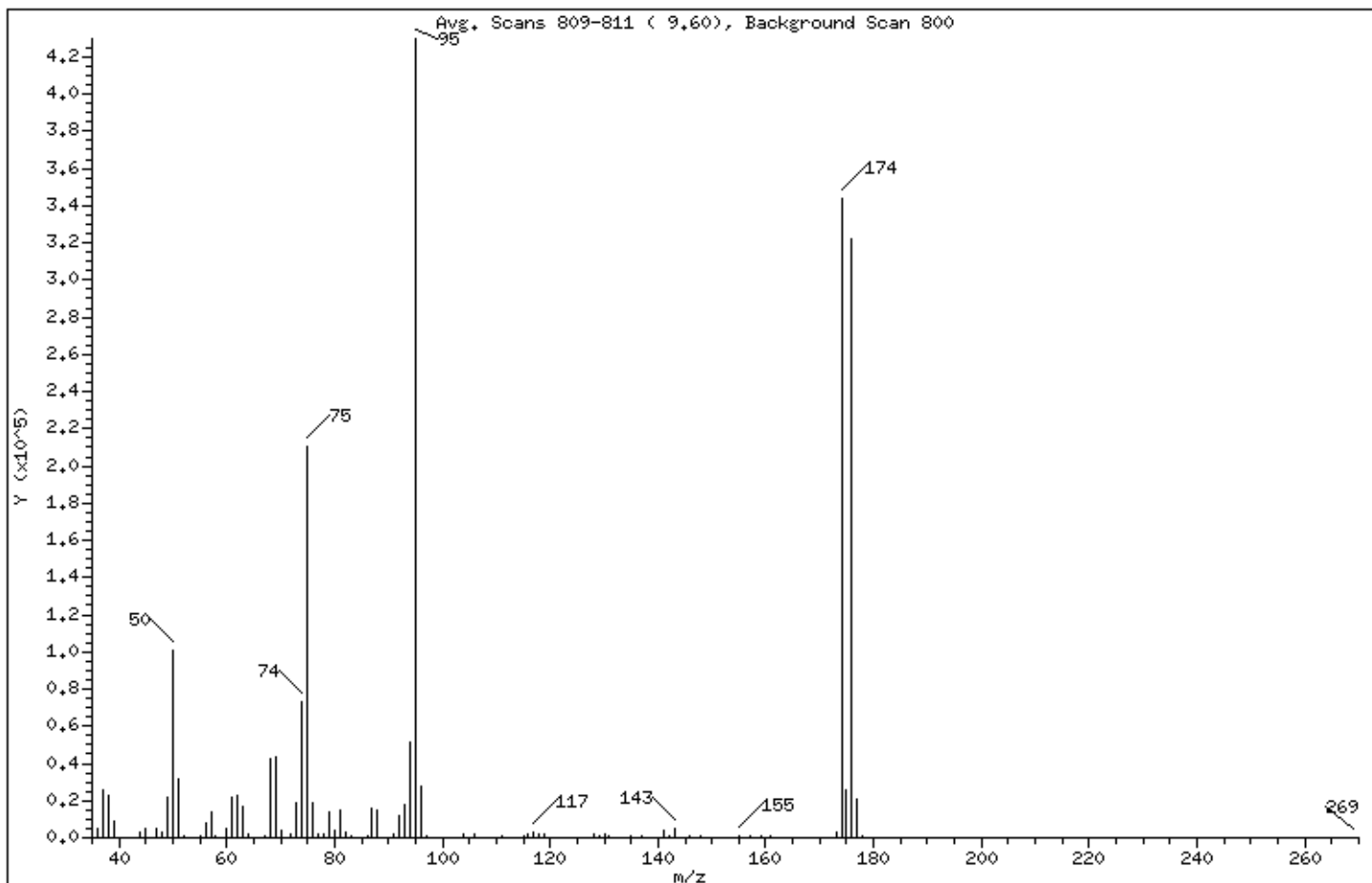
Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	23.54
75	30.00 - 66.00% of mass 95	49.02
96	5.00 - 9.00% of mass 95	6.54
173	Less than 1.99% of mass 174	0.69 ( 0.86)
174	50.01 - 120.00% of mass 95	79.95
175	4.00 - 9.00% of mass 174	5.89 ( 7.36)
176	93.00 - 101.00% of mass 174	74.93 ( 93.72)
177	5.00 - 9.00% of mass 176	4.80 ( 6.40)

Date : 22-JUN-2021 14:28

Client ID: BFB

Instrument: msd3.i

Sample Info: 200mL #3234-42:BFB:BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

Data File: 3062204.d

Spectrum: Avg. Scans 809-811 ( 9.60), Background Scan 800

Location of Maximum: 95.00

Number of points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4504	68.00	42848	103.00	330	141.00	4396
37.00	25512	69.00	43752	104.00	2056	142.00	523
38.00	22744	70.00	3773	105.00	469	143.00	4590
39.00	8447	71.00	269	106.00	2024	144.00	322
40.00	157	72.00	2366	107.00	483	145.00	433
41.00	69	73.00	18816	109.00	67	146.00	637
43.00	165	74.00	72928	110.00	353	147.00	396
44.00	2826	75.00	210688	111.00	572	148.00	1053
45.00	4597	76.00	18984	112.00	355	149.00	356
46.00	419	77.00	2253	113.00	447	150.00	452
47.00	5056	78.00	1535	115.00	628	152.00	327
48.00	3443	79.00	13872	116.00	1822	153.00	320
49.00	22064	80.00	4129	117.00	2804	154.00	254
50.00	101144	81.00	14515	118.00	1705	155.00	1016
51.00	31392	82.00	3092	119.00	2266	156.00	163
52.00	1423	83.00	528	122.00	76	157.00	761
54.00	251	84.00	226	124.00	368	159.00	512
55.00	1464	85.00	44	125.00	72	161.00	510
56.00	7902	86.00	505	126.00	144	170.00	139
57.00	14003	87.00	15958	127.00	236	171.00	290
58.00	781	88.00	14979	128.00	1617	173.00	2948
59.00	267	91.00	1747	129.00	757	174.00	343552
60.00	4525	92.00	12126	130.00	1780	175.00	25288
61.00	22168	93.00	17944	131.00	715	176.00	321984
62.00	22640	94.00	51824	135.00	920	177.00	20616
63.00	17000	95.00	429760	136.00	240	178.00	598
64.00	1668	96.00	28096	137.00	858	269.00	86
65.00	146	97.00	1066	139.00	79		
67.00	968	98.00	262	140.00	326		



US32TAR1

Data file : /chem/msd3.i/26JUL21.b/3072601.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 26-JUL-2021 09:33  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL #3234-42;BFB;BFB  
 Misc Info : 36ng  
 Comment :  
 Method : /chem/msd3.i/26JUL21.b/bfb30.m  
 Meth Date : 03-Sep-2019 11:54 u7js Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 8 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS

ON-COL FINAL

RT EXP RT DLT RT MASS RESPONSE ( ug/L) ( ug/L) TARGET RANGE RATIO  
 == =====

RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
1	bfb						CAS #: 460-00-4	
9.601	9.729	-0.128	95	297685			100.00- 100.00	100.00
9.601	9.729	-0.128	50	73626			8.00- 40.00	24.73
9.601	9.729	-0.128	75	151642			30.00- 66.00	50.94
9.601	9.729	-0.128	96	19613			5.00- 9.00	6.59
9.601	9.729	-0.128	173	2332			0.00- 1.99	0.88
9.601	9.729	-0.128	174	264853			50.01- 120.00	88.97
9.601	9.729	-0.128	175	20426			4.00- 9.00	7.71
9.601	9.729	-0.128	176	246528			93.00- 101.00	93.08
9.601	9.729	-0.128	177	16521			5.00- 9.00	6.70

Date : 26-JUL-2021 09:33

Client ID: BFB

Instrument: msd3,i

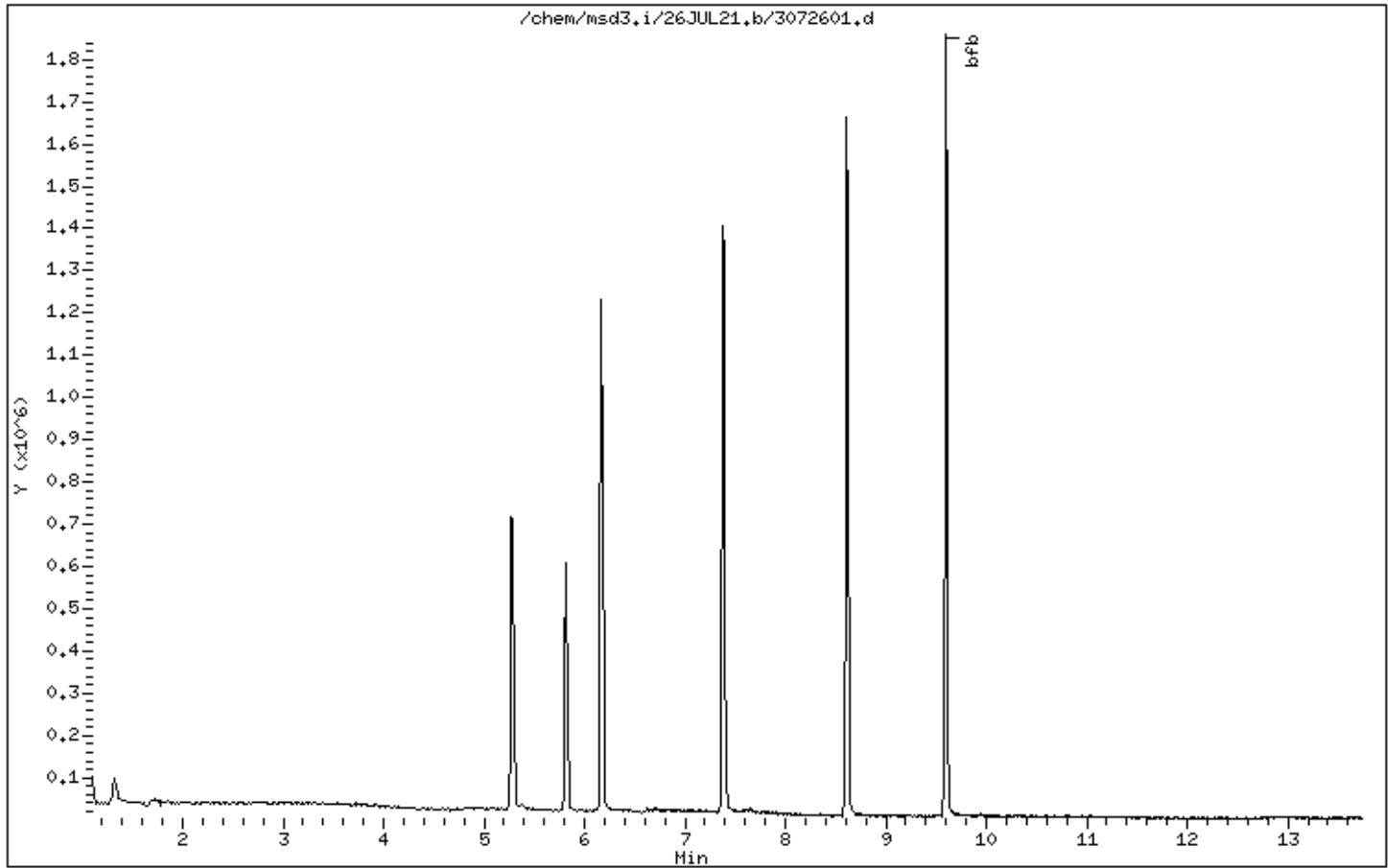
Sample Info: 200mL #3234-42;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00



Date : 26-JUL-2021 09:33

Client ID: BFB

Instrument: msd3,i

Sample Info: 200mL #3234-42;BFB;BFB

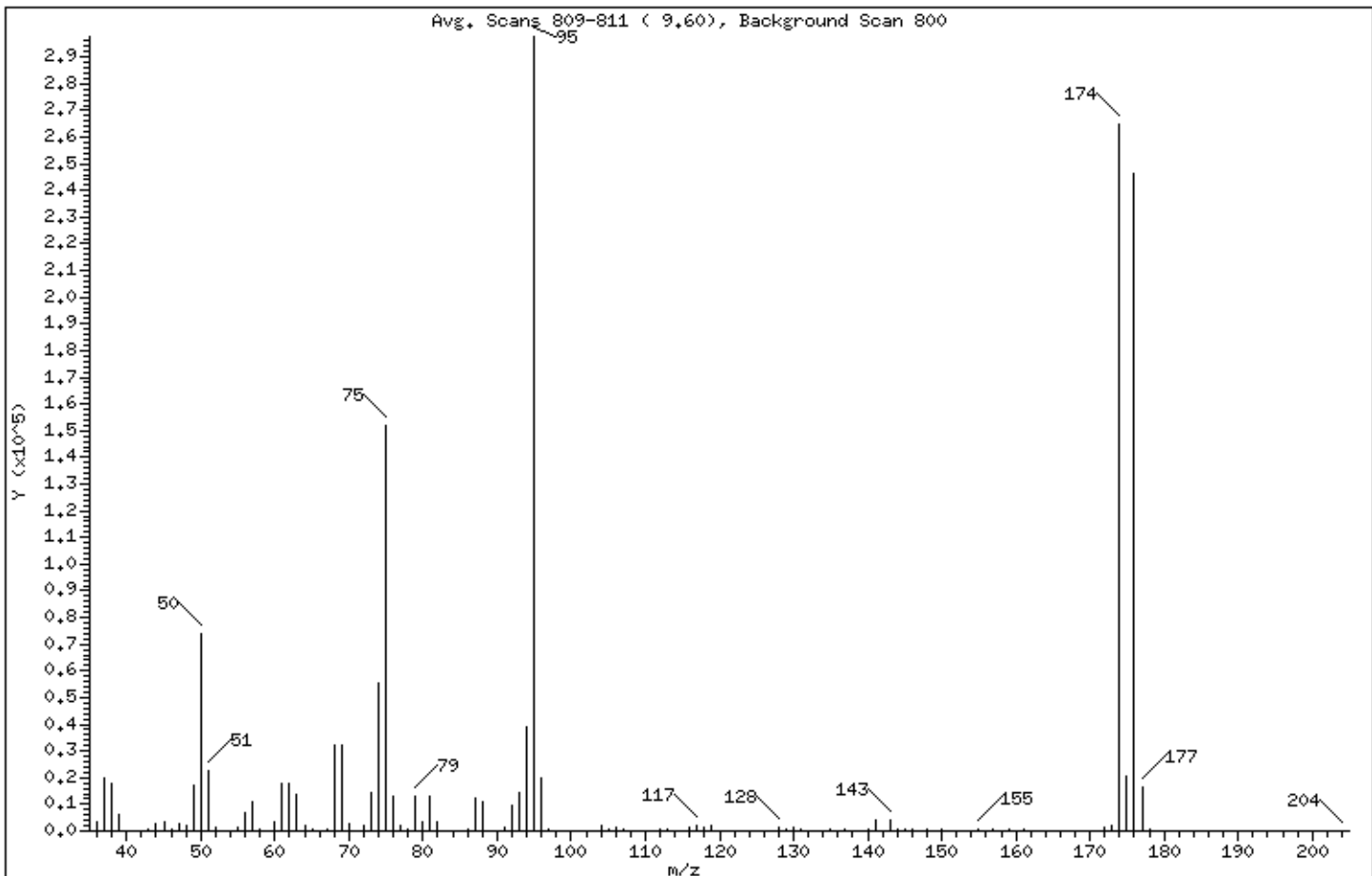
Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	24.73
75	30.00 - 66.00% of mass 95	50.94
96	5.00 - 9.00% of mass 95	6.59
173	Less than 1.99% of mass 174	0.78 ( 0.88)
174	50.01 - 120.00% of mass 95	88.97
175	4.00 - 9.00% of mass 174	6.86 ( 7.71)
176	93.00 - 101.00% of mass 174	82.82 ( 93.08)
177	5.00 - 9.00% of mass 176	5.55 ( 6.70)

Date : 26-JUL-2021 09:33

Client ID: BFB

Instrument: msd3.i

Sample Info: 200mL #3234-42;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

Data File: 3072601.d

Spectrum: Avg. Scans 809-811 ( 9.60), Background Scan 800

Location of Maximum: 95.00

Number of points: 121

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3276	69.00	32496	107.00	406	144.00	348
37.00	19760	70.00	2718	110.00	273	145.00	408
38.00	17528	71.00	264	111.00	295	146.00	502
39.00	6035	72.00	2027	112.00	523	147.00	327
40.00	295	73.00	14407	113.00	427	148.00	803
41.00	108	74.00	55232	114.00	97	149.00	220
42.00	215	75.00	151616	115.00	330	150.00	422
43.00	518	76.00	13327	116.00	1585	151.00	104
44.00	2433	77.00	1823	117.00	2298	152.00	244
45.00	3433	78.00	955	118.00	1277	153.00	254
46.00	635	79.00	13017	119.00	2055	154.00	203
47.00	3023	80.00	3585	122.00	73	155.00	903
48.00	2287	81.00	12847	123.00	303	156.00	188
49.00	17016	82.00	3146	124.00	342	157.00	650
50.00	73624	83.00	295	125.00	208	159.00	454
51.00	22896	85.00	75	126.00	256	161.00	398
52.00	1064	86.00	461	127.00	267	166.00	67
55.00	1027	87.00	12337	128.00	1334	167.00	69
56.00	6552	88.00	11232	129.00	812	169.00	236
57.00	11190	90.00	77	130.00	1301	170.00	197
58.00	458	91.00	1404	131.00	618	172.00	1248
59.00	162	92.00	9721	132.00	70	173.00	2332
60.00	3256	93.00	14185	134.00	99	174.00	264832
61.00	17816	94.00	39160	135.00	788	175.00	20424
62.00	18080	95.00	297664	136.00	263	176.00	246528
63.00	13772	96.00	19608	137.00	756	177.00	16520
64.00	1728	97.00	597	139.00	106	178.00	518
65.00	672	103.00	304	140.00	347	204.00	78
66.00	154	104.00	1736	141.00	3896		
67.00	889	105.00	709	142.00	248		
68.00	32120	106.00	1691	143.00	4375		

US32TAR1

Data file : /chem/msd3.i/27JUL21.b/3072702.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 27-JUL-2021 11:02  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL #3234-42;BFB;BFB  
 Misc Info : 36ng  
 Comment :  
 Method : /chem/msd3.i/27JUL21.b/bfb30.m  
 Meth Date : 03-Sep-2019 11:54 u7js Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 8 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS

ON-COL FINAL

RT EXP RT DLT RT MASS RESPONSE ( ug/L) ( ug/L) TARGET RANGE RATIO  
 == =====

RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
1	bfb						CAS #: 460-00-4	
9.600	9.729	-0.129	95	251099			100.00- 100.00	100.00
9.600	9.729	-0.129	50	63072			8.00- 40.00	25.12
9.600	9.729	-0.129	75	130070			30.00- 66.00	51.80
9.600	9.729	-0.129	96	16687			5.00- 9.00	6.65
9.600	9.729	-0.129	173	3007			0.00- 1.99	1.38
9.600	9.729	-0.129	174	218304			50.01- 120.00	86.94
9.600	9.729	-0.129	175	15960			4.00- 9.00	7.31
9.600	9.729	-0.129	176	204565			93.00- 101.00	93.71
9.600	9.729	-0.129	177	12914			5.00- 9.00	6.31

Date : 27-JUL-2021 11:02

Client ID: BFB

Instrument: msd3,i

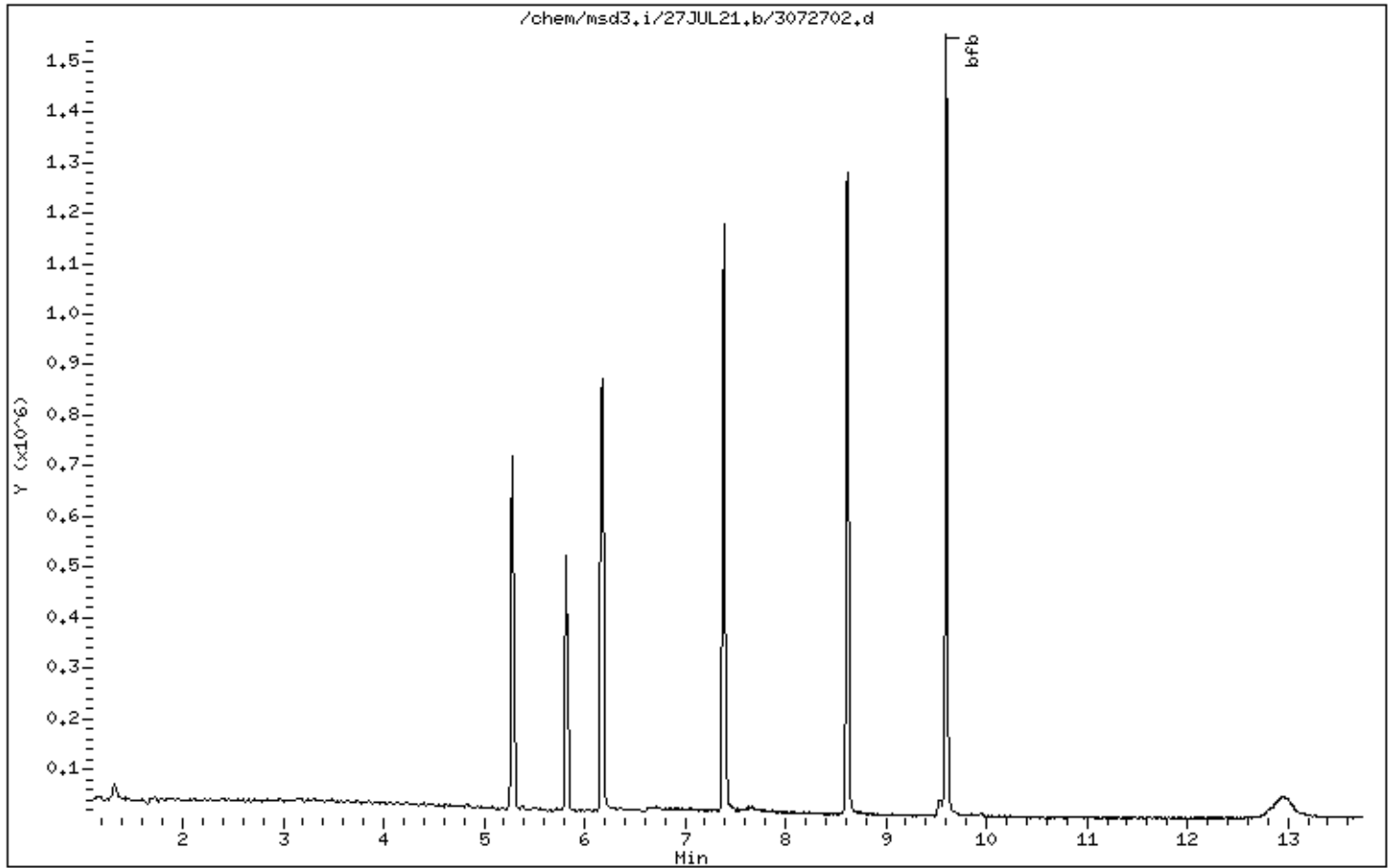
Sample Info: 200mL #3234-42;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00



Date : 27-JUL-2021 11:02

Client ID: BFB

Instrument: msd3,i

Sample Info: 200mL #3234-42;BFB;BFB

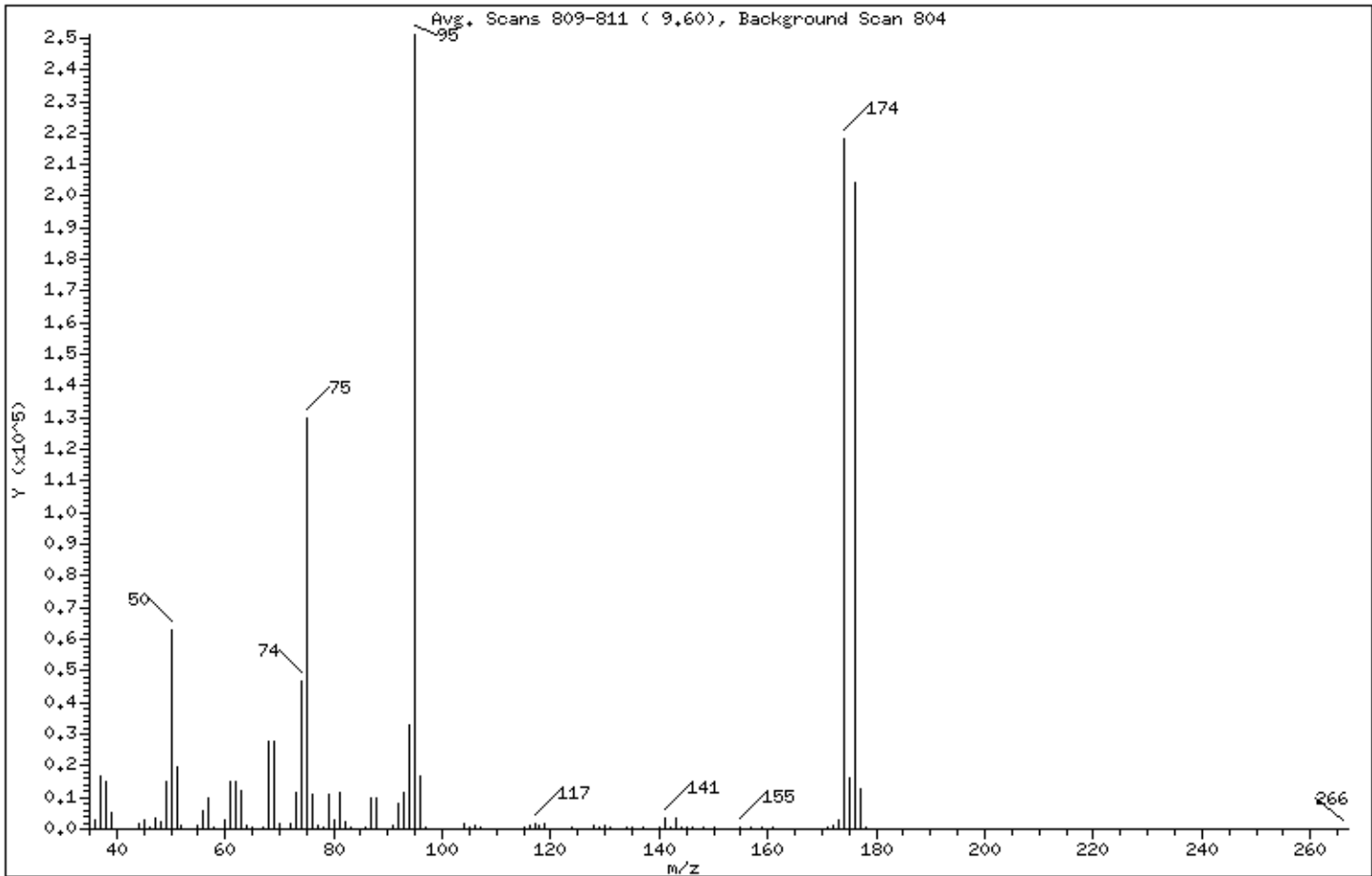
Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	25.12
75	30.00 - 66.00% of mass 95	51.80
96	5.00 - 9.00% of mass 95	6.65
173	Less than 1.99% of mass 174	1.20 ( 1.38)
174	50.01 - 120.00% of mass 95	86.94
175	4.00 - 9.00% of mass 174	6.36 ( 7.31)
176	93.00 - 101.00% of mass 174	81.47 ( 93.71)
177	5.00 - 9.00% of mass 176	5.14 ( 6.31)

Date : 27-JUL-2021 11:02

Client ID: BFB

Instrument: msd3.i

Sample Info: 200mL #3234-42:BFB:BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

Data File: 3072702.d

Spectrum: Avg. Scans 809-811 ( 9.60), Background Scan 804

Location of Maximum: 95.00

Number of points: 111

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2599	70.00	1941	106.00	1407	145.00	460
37.00	16864	71.00	199	107.00	382	146.00	465
38.00	14977	72.00	1521	110.00	34	148.00	653
39.00	5406	73.00	11540	112.00	145	149.00	259
42.00	49	74.00	46712	113.00	171	150.00	349
44.00	1866	75.00	130064	115.00	497	152.00	265
45.00	2988	76.00	10901	116.00	1171	153.00	179
46.00	476	77.00	1314	117.00	1933	154.00	265
47.00	3379	78.00	823	118.00	1426	155.00	818
48.00	2284	79.00	11168	119.00	1783	156.00	79
49.00	15224	80.00	3109	120.00	187	157.00	515
50.00	63072	81.00	11364	123.00	86	158.00	93
51.00	19656	82.00	2176	124.00	353	159.00	460
52.00	943	83.00	511	126.00	177	161.00	427
53.00	109	85.00	69	128.00	1013	165.00	76
55.00	1192	86.00	337	129.00	609	167.00	73
56.00	5724	87.00	9922	130.00	1185	169.00	141
57.00	9801	88.00	9842	131.00	488	170.00	213
58.00	556	90.00	78	134.00	337	171.00	314
60.00	3004	91.00	1164	135.00	378	172.00	1109
61.00	15198	92.00	8131	136.00	262	173.00	3007
62.00	15221	93.00	11360	137.00	675	174.00	218304
63.00	12305	94.00	32960	139.00	188	175.00	15960
64.00	1337	95.00	251072	140.00	414	176.00	204544
65.00	408	96.00	16680	141.00	3454	177.00	12914
67.00	861	97.00	554	142.00	464	178.00	537
68.00	27744	104.00	1509	143.00	3373	266.00	76
69.00	27896	105.00	472	144.00	337		



## **Shipping/Receiving Documents**

## **Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page**

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Discrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Air Toxics, Ltd. at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

**Please note** : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**

**Hours 6:30 A.M to 5:30 P.M. PST**

180 Blue Ravine Rd. Suite B, Folsom, CA 95630  
 Phone (800) 985-5955; Fax (916) 351-8279

PID: \_\_\_\_\_  
 Workorder #: **2107284**

page--of--...

Client: AECOM  
 Project Name: SMUD 59th ST  
 Project Manager: Robert Kahlhardt  
 Sampler: T. Doherty  
 Site Name: \_\_\_\_\_

Special Instructions/Notes:  
 Invoicing To: Level IV Reporting  
 STOPP Queen  
 Report Email To: Robert.Kahlhardt@AECOM.com

Project # 606327936

Lab ID	Field Sample Identification(Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N <sub>2</sub> / He	Turnaround Time (Rush surcharges may apply)	Standard <input checked="" type="checkbox"/> <u>X</u>	Canister Vacuum/Pressure	Rush <input type="checkbox"/>	Lab Use Only	Requested Analyses (Specify)	
				Date	Time	Date	Time											
01A	SG-VW57A-02	113398	25440	7/14/21	0701	7/14/21	0707	-27	-5									
02A	SG-VW56B-02	12170	21472	7/14/21	0735	7/14/21	0742	-28	-5									
03A	SG-VW56A-02	113191	22582	7/14/21	0808	7/14/21	0813	-28	-5									
04A	SG-VW39R-02	1122846	25337	7/14/21	0836	7/14/21	0841	-26	-5									
05A	SG-VW39A-02	1138866	25485	7/14/21	0911	7/14/21	0916	-27	-5									
06A	SG-VW38B-03	3400754	22262	7/14/21	0935	7/14/21	0942	-28	-5									
07A	SG-VW38A-02	115747	24576	7/14/21	1014	7/14/21	1024	-25	-5									
08A	SG-VW38A-03	3009	24576	7/14/21	1014	7/14/21	1024	-25	-5									
09A	SG-VW15-02	111812	22410	7/14/21	1056	7/14/21	1134	-27	-5									
10A	SG-VW15-03	112480	22410	7/14/21	1056	7/14/21	1134	-27	-5									
11A	SG-VW33A-02	112437	21548	7/14/21	1210	7/14/21	1218	-27	-5									
12A	SG-VW33B-02	111999	22405	7/14/21	1296	7/14/21	1241	-28	-5									
13A	SG-VW34A-02	112705	30792	7/14/21	1317	7/14/21	1350	-26	-5									
14A	SG-VW34A-03	113880	30792	7/14/21	1317	7/14/21	1330	-26	-5									
15A	SG-VW34B-02	1122952	24587	7/14/21	1406	7/14/21	1411	-26	-5									
16A	SG-VW35B-02	1122495	30617	7/14/21	1431	7/14/21	1440	-27	-5									
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time	Date		Time						
_____				7/14/21	1500	_____		7/14/21	3:01									
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time	Date		Time						
_____				7/14/21	3:45	_____		7/14/21	1545									
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time	Date		Time						
_____						_____												

Shipper Name: ATE Courier Custody Seals Intact?  Yes  No None

Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples. D.O.T Hotline (800) 467-4922

180 Blue Ravine Rd. Suite B, Folsom, CA 95630  
 Phone (800) 985-5955; Fax (916) 351-8279

For Laboratory Use Only  
 PID: \_\_\_\_\_  
 Workorder #: 2102284

page--of--

Client: AECOM  
 Project Name: SMVD 59th St.  
 Project Manager: Robert Kohlhardt Project # 666321936  
 Sampler: Tamara Healdier  
 Site Name: \_\_\_\_\_  
 Special Instructions/Notes: Level IV Reporting  
Invoking to:  
SWEP Queen  
Report Email to:  
Robert.Kohlhardt@AECOM.com

Lab ID	Field Sample Identification(Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N <sub>2</sub> / He	Requested Analyses
				Date	Time	Date	Time					
18A	SG-VW60A-01	1L2613	25490	7/14/21	0729	7/14/21	0734	-27	-5			X
19A	SG-VW60B-01	1L2490	22367	7/14/21	0801	7/14/21	0807	-27	-5			X
20A	SG-VW54B-02	1L3096	20593	7/14/21	0849	7/14/21	0858	-26.5	-5			X
21A	SG-VW24B-02	1L681	30650	7/14/21	0937	7/14/21	0947	-26.5	-5			X
22A	SG-VW58A-01	1L2449	25435	7/14/21	1024	7/14/21	1029	-27	-5			X
23A	SG-VW58B-01	1L2395	24608	7/14/21	1047	7/14/21	1052	-26.5	-5			X
24A	SG-VW23B-02	1086	25357	7/14/21	1131	7/14/21	1137	-26	-5			X
25A	SG-VW23A-02	1L2900	25288	7/14/21	1234	7/14/21	1240	-27	-4			X
26A	SG-VW22B-02	1L2337	25486	7/14/21	1304	7/14/21	1310	-27	-5			X
27A	SG-VW20A-02	LC170	30810	7/14/21	1402	7/14/21	1410	-25.5	-5			X
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			
				7/14/21	1500	Eudais		7/15/21	3:09			
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			
				7/14/21	3:45			7/14/21	1545			

Shipper Name: ETA Carrie Custody Seals Intact? Yes No None

**Sample Transportation Notice:** Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples. D.O.T Hotline (800) 467-4922

## SAMPLE RECEIPT SUMMARY

### WORKORDER 2107284

**Client**

Mr. Robert Kohlhardt  
AECOM  
2020 L Street, Suite 400  
Sacramento, CA 95811

**Phone**

916-679-2000

**Fax**

916-679-2900

**Date Promised:** 07/28/21

**Date Completed:**

**Date Received:** 7/14/21

**PO#:**

**Project#:** 606327936 SMUD 59th ST

**Total \$:** \$ 5,019.00

**Logged By:** CH

**Sales Rep:** DaV

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
01A	SG-VW57A-02	TO-15	7/14/2021	\$150.00
02A	SG-VW56B-02	TO-15	7/14/2021	\$150.00
03A	SG-VW56A-02	TO-15	7/14/2021	\$150.00
04A	SG-VW39B-02	TO-15	7/14/2021	\$150.00
05A	SG-VW39A-02	TO-15	7/14/2021	\$150.00
06A	SG-VW38B-03	TO-15	7/14/2021	\$150.00
07A	SG-VW38A-02	TO-15	7/14/2021	\$150.00
08A	SG-VW38A-03	TO-15	7/14/2021	\$150.00
09A	SG-VW15-02	TO-15	7/14/2021	\$150.00
10A	SG-VW15-03	TO-15	7/14/2021	\$150.00
11A	SG-VW33A-02	TO-15	7/14/2021	\$150.00
12A	SG-VW33B-02	TO-15	7/14/2021	\$150.00
13A	SG-VW34A-02	TO-15	7/14/2021	\$150.00
14A	SG-VW34A-03	TO-15	7/14/2021	\$150.00
15A	SG-VW34B-02	TO-15	7/14/2021	\$150.00
16A	SG-VW55B-02	TO-15	7/14/2021	\$150.00
17A	SG-VW60A-01	TO-15	7/14/2021	\$150.00
18A	SG-VW60B-01	TO-15	7/14/2021	\$150.00
19A	SG-VW54B-02	TO-15	7/14/2021	\$150.00
20A	SG-VW24B-02	TO-15	7/14/2021	\$150.00

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.  
Atlas Project Name/Profile#: SMUD 59th Street Corporation Yard/25677

**BILL TO:** Mr. Jerry Montgomery  
SWPPQueen  
7202 Gloria Drive #25  
Sacramento, CA 95831

Analysis Code: TO-14A

**TERMS:**

Reporting Method: TO-15 (Sp)-AECOM (SMUD 59th)

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

## **Other Records**

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072609.d  
Sample #: 2107284-01A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.07

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	12	(12246558.7702856 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072609.d

Sample #: 2107284-01A

Client ID:

Spike Level: 0

Dilution Factor: 2.07

	Compounds	RT	Peak Area	10
<input type="checkbox"/>	Unknown Peak 1.3108	1.311	14616906	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.6885	1.689	73974	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.7305	1.731	58827	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.8984	1.898	25229	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.2416	3.242	66022	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.2976	3.298	36608	<input type="checkbox"/>
<input type="checkbox"/>	2-Propanol	3.424	56371	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.8713	3.871	15670	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Hexane	4.179	63297	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.8087	4.809	32518	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.8927	4.893	17438	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	5.284	1343285	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.3824	5.382	40754	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	5.816	945097	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	6.180	2044228	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	7.387	2169549	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6022	7.602	12654	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6523	7.652	83304	<input type="checkbox"/>
<input type="checkbox"/>	Tetrachloroethene	7.882	486561	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Chlorobenzene-d5	8.619	2356023	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.5219	9.522	38703	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Bromofluorobenzene	9.601	2758805	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.9445	9.945	12253	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.510	10.510	14859	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.391	11.391	21279	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.132	13.132	16185	<input type="checkbox"/>



# Air Toxics Ltd.

## File Results

Data File: File Information: 3072610.d  
Sample #: 2107284-02A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	95	(14462092.5939582 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072610.d

Sample #: 2107284-02A

Client ID:

Spike Level: 0

















Dilution Factor: 2.1

	Compounds	RT	Peak Area	10
<input type="checkbox"/>	Unknown Peak 1.3108	1.311	26023752	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 1.5207	1.521	201403	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 1.7026	1.703	72905	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 1.7305	1.731	50187	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 1.8845	1.885	70166	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.2417	3.242	33901	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	5.285	1407838	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 5.3824	5.382	40302	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	5.816	916278	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	6.180	2091646	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	7.387	2358025	<input type="checkbox"/>
<input type="checkbox"/>	Tetrachloroethene	7.882	115902	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.0893	8.089	10816	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Chlorobenzene-d5	8.612	2425581	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.7053	8.705	26238	<input type="checkbox"/>
<input checked="" type="checkbox"/>	m,p-Xylene	8.784	73570	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.1208	9.121	48750	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.4144	9.414	16689	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.5219	9.522	14850	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Bromofluorobenzene	9.601	2870066	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Ethyltoluene	9.830	174014	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,3,5-Trimethylbenzene	9.902	62824	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.9445	9.945	11859	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.087	10.088	40649	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2,4-Trimethylbenzene	10.224	131513	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.295	10.296	11043	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.345	10.346	15826	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.410	10.410	11743	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.467	10.467	12092	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.510	10.510	32136	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.596	10.596	60238	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.739	10.740	22074	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.804	10.804	194313	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.983	10.983	109652	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.033	11.033	28176	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.061	11.062	37494	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.126	11.126	53909	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.248	11.248	16355	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.355	11.356	10282	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.398	11.399	30610	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.470	11.470	60841	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.513	11.513	47583	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.592	11.592	39128	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.713	11.714	109555	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.763	11.764	56853	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.806	11.807	42413	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.885	11.886	107312	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.907	11.907	54391	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.935	11.936	39177	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.986	11.986	21794	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.086	12.086	35157	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.186	12.187	66019	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072610.d  
Sample #: 2107284-02A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

	Compounds	RT	Peak Area	10
	Unknown Peak 12.215	12.215	63308	
	Unknown Peak 12.315	12.316	96698	
	Unknown Peak 12.372	12.373	22785	
	Unknown Peak 12.487	12.487	28131	
	Naphthalene	12.552	114497	
	Unknown Peak 12.630	12.631	55012	
	Unknown Peak 12.730	12.731	19726	
	Unknown Peak 12.852	12.853	20662	

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072611.d  
Sample #: 2107284-03A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.11

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	10	(12194537.7291899 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072611.d

Sample #: 2107284-03A

Client ID:

Spike Level: 0

Dilution Factor: 2.11

	Compounds	RT	Peak Area	10
<input type="checkbox"/>	Unknown Peak 1.3106	1.311	12073147	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 1.5205	1.521	95695	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.7164	1.716	79488	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.7444	1.744	42695	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.8983	1.898	22070	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.7378	2.738	20815	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.1296	3.130	16216	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.2415	3.242	41098	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.4234	3.423	54034	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.7452	3.745	20006	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.3608	4.361	18297	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.4728	4.473	15364	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.9765	4.977	19786	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	5.284	1420545	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.3822	5.382	45075	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	5.816	906700	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	6.180	1946400	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.6207	6.621	17210	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	7.387	2204104	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6450	7.645	14820	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Tetrachloroethene	7.881	168187	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Chlorobenzene-d5	8.619	2356308	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Bromofluorobenzene	9.601	2754217	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.9515	9.952	11104	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072612.d  
Sample #: 2107284-04A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.27

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	99	(14358814.469777 - 11915177.5144896 / 56027)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072612.d

Sample #: 2107284-04A

Client ID:

Spike Level: 0

Dilution Factor: 2.27

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3105	1.311	8306295	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6883	1.688	39663	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7582	1.758	60023	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8981	1.898	17031	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.4158	2.416	19048	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.5697	2.570	16074	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2414	3.241	21214	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.4232	3.423	23252	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.6191	3.619	20272	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0883	5.088	19664	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1594881	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3821	5.382	192877	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	1035812	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.166	2303406	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.7925	6.793	12451	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1363	7.136	16880	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2577362	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.437	145281	<input type="checkbox"/>
<input checked="" type="checkbox"/> Tetrachloroethene	7.874	99625	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0890	8.089	21839	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.4901	8.490	14088	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.612	2784630	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3210	9.321	11209	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.600	3264732	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9514	9.951	16001	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.409	10.410	13097	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.391	11.391	18400	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072613.d  
Sample #: 2107284-05A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.06

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	0	(11340256.0779365 - 11915177.5144896 / 56027



# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072613.d

Sample #: 2107284-05A

Client ID:

Spike Level: 0

Dilution Factor: 2.06

	Compounds	RT	Peak Area	10
<input type="checkbox"/>	Unknown Peak 1.3108	1.311	8121281	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.6745	1.675	28635	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.7305	1.731	48099	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.2342	2.234	16067	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.1297	3.130	19331	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.2416	3.242	52825	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.4235	3.424	57758	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	5.284	1255697	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.3824	5.382	96196	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	5.816	878947	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	6.180	1969496	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.6208	6.621	29049	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.9145	6.915	16000	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	7.387	2011789	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.4374	7.437	39667	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Tetrachloroethene	7.882	112482	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Chlorobenzene-d5	8.619	2151502	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Bromofluorobenzene	9.601	2541712	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.9516	9.952	15003	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072614.d  
Sample #: 2107284-06A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.09

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	100	(14590346.8184488 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072614.d

Sample #: 2107284-06A

Client ID:

Spike Level: 0

Dilution Factor: 2.09

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3245	1.325	12033367	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5204	1.520	169401	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.6324	1.632	33703	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.6743	1.674	27479	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.8842	1.884	45769	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.9262	1.926	41977	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.0661	2.066	18138	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.3319	2.332	21181	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.4159	2.416	64903	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.8077	2.808	24490	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.8776	2.878	40055	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.2414	3.241	109718	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.2834	3.283	91762	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.4653	3.465	48774	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9130	3.913	62299	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.9204	4.920	41823	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.9624	4.962	34022	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.1023	5.102	45708	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.270	1623605	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.340	319076	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4241	5.424	381631	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5641	5.564	41543	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	1087912	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.8859	5.886	26903	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.166	2363335	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.3336	6.334	43984	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.7854	6.785	26225	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1435	7.144	15913	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.380	2704993	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.437	259747	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.6449	7.645	111418	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.7309	7.731	14027	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.874	238128	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.0819	8.082	28974	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1463	8.146	26693	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.2753	8.275	30746	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.4687	8.469	27508	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.612	2915556	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.6907	8.691	13879	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.228	9.228	12008	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3139	9.314	16753	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5288	9.529	20348	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.600	3358821	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9443	9.944	16274	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.323	10.324	16321	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.402	10.403	13316	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.961	10.961	12912	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072615.d  
Sample #: 2107284-07A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.34

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	8.8	(12126835.2200198 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072615.d  
 Sample #: 2107284-07A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.34

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2965	1.297	4652861	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.5764	1.576	25089	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6743	1.674	35806	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8842	1.884	130105	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.3599	2.360	15278	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.5278	2.528	21108	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6537	2.654	47919	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6957	2.696	38759	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.7937	2.794	17880	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.0175	3.018	19909	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2414	3.241	64961	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.4513	3.451	61273	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.6612	3.661	18050	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.6686	4.669	17954	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9624	4.962	15425	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1227216	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4101	5.410	68597	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	814562	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	1736733	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.2357	6.236	63428	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6636	6.664	17203	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.7925	6.793	11852	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1507	7.151	11651	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2062133	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4587	7.459	22099	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6592	7.659	42590	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7237	7.724	25823	<input type="checkbox"/>
<input checked="" type="checkbox"/> Tetrachloroethene	7.881	537315	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0819	8.082	30563	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1535	8.154	39715	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2036	8.204	13279	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2753	8.275	33755	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.4758	8.476	43356	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.619	2158750	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.8053	8.805	10749	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3139	9.314	13724	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5288	9.529	44056	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.600	2488317	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9514	9.951	13918	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.331	10.331	26368	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.610	10.610	10456	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.975	10.976	15564	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.391	11.391	13548	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072616.d  
Sample #: 2107284-08A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.32

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	100	(14345842.8794089 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072616.d  
Sample #: 2107284-08A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.32

	Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 11.384	11.384	20204	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.322	12.323	13199	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072616.d  
 Sample #: 2107284-08A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.32

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3107	1.311	4762058	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.4226	1.423	84452	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5345	1.535	34380	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.6885	1.688	25776	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.8843	1.884	92555	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2061	2.206	17884	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.4160	2.416	17399	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.8638	2.864	23786	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.1016	3.102	15329	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.242	166149	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.3535	3.354	15675	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.451	59369	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.5913	3.591	37611	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.8152	3.815	15617	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.249	4.249	39512	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.8926	4.893	22879	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9625	4.963	34616	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.270	1640297	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4103	5.410	222013	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.5222	5.522	20482	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	1078211	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.166	2352668	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 6.2638	6.264	19944	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 6.6566	6.657	52958	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.7067	6.707	15647	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.7998	6.800	11189	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9359	6.936	13035	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.380	2663693	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.4445	7.445	34453	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.6594	7.659	83722	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.7883	7.788	13763	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.874	705660	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.9459	7.946	29240	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.9960	7.996	16246	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.0892	8.089	30562	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1465	8.147	29631	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.2682	8.268	41478	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.4760	8.476	56402	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.612	2875491	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.7911	8.791	23861	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3140	9.314	20198	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5218	9.522	33569	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	3365127	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.794	9.794	10179	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9444	9.944	20688	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.109	10.109	12808	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.324	10.324	37692	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.402	10.403	28659	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.675	10.675	11908	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.918	10.919	14539	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.968	10.969	22141	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.047	11.048	26223	<input type="checkbox"/>



# Air Toxics Ltd.

## File Results

Data File: File Information: 3072617.d  
Sample #: 2107284-09A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.36

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	75	(13687999.8961719 - 11915177.5144896 / 5602)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072617.d  
 Sample #: 2107284-09A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.36

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2548	1.255	45400	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.3248	1.325	2876530	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.5766	1.577	39851	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7026	1.703	64649	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7306	1.731	56859	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8005	1.801	19642	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8985	1.899	81440	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.4861	2.486	23825	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.7799	2.780	62269	<input type="checkbox"/>
<input checked="" type="checkbox"/> Acetone	3.228	139071	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2976	3.298	22468	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.4096	3.410	23704	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.8713	3.871	31449	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0746	5.075	47448	<input type="checkbox"/>
<input checked="" type="checkbox"/> Tetrahydrofuran	5.285	14965	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.285	1552044	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3824	5.382	25032	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	988676	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0820	6.082	25059	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	2078819	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.3619	6.362	17287	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6638	6.664	11006	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2338111	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.8744	7.874	24298	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0965	8.097	27162	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.612	2511822	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3213	9.321	17282	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	2967358	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.7798	9.780	13498	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9374	9.937	10266	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.080	10.081	15805	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.223	10.224	15772	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.324	10.324	83196	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.403	10.403	62935	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.517	10.518	12789	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.610	10.611	23402	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.675	10.675	67531	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.961	10.962	10800	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.384	11.384	96826	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.713	11.714	11787	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.322	12.323	20384	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.146	13.146	31412	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072618.d  
Sample #: 2107284-10A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.31

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	110	(14614622.5088895 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072618.d  
 Sample #: 2107284-10A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.31

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2546	1.255	84844	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.3246	1.325	2617593	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5764	1.576	43610	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.7024	1.702	112913	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.8982	1.898	98932	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.3740	2.374	14834	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.7797	2.780	24576	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.1155	3.116	21482	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.228	163178	<input type="checkbox"/>
<input type="checkbox"/> Carbon Disulfide	3.311	196783	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.423	61760	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7032	3.703	18628	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.8711	3.871	39041	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9550	3.955	28394	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.5287	4.529	21325	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.8925	4.893	20696	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.9625	4.963	30140	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.0184	5.018	21237	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.0884	5.088	26367	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1343093	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3822	5.382	88786	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4382	5.438	46029	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5501	5.550	26018	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	934958	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9839	5.984	25088	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	1939175	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.4596	6.460	20165	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6207	6.621	19949	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6565	6.657	16090	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8141	6.814	22657	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9072	6.907	47848	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.2080	7.208	16111	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2201625	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4372	7.437	61683	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.6450	7.645	845043	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.8814	7.881	32514	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.0174	8.017	12586	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.0962	8.096	23948	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.2896	8.290	11944	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3899	8.390	13179	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.619	2287198	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	8.684	204966	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	8.784	113653	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.8627	8.863	12791	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9272	8.927	11664	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.1277	9.128	38122	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3211	9.321	18101	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.4142	9.414	49359	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.4501	9.450	30089	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 9.5217	9.522	347808	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	2728162	<input type="checkbox"/>
<input checked="" type="checkbox"/> Propylbenzene	9.758	92491	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072618.d

Sample #: 2107284-10A

Client ID:

Spike Level: 0

Dilution Factor: 2.31

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> 4-Ethyltoluene	9.830	161293	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,3,5-Trimethylbenzene	9.901	87259	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.080	10.080	103696	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	10.224	404735	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.323	10.324	100968	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.402	10.403	66196	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.510	10.510	23589	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.596	10.596	159605	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.682	10.682	37602	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.739	10.739	98876	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.789	10.790	281813	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.897	10.897	12981	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.968	10.969	58424	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.040	11.040	79416	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.054	11.055	79822	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.126	11.126	122220	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.190	11.191	23657	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.248	11.248	72139	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.391	11.391	103173	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.470	11.470	73300	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.513	11.513	96285	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.599	11.599	17859	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.699	11.699	23120	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.763	11.764	42818	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.907	11.907	85753	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.078	12.079	15113	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.186	12.186	11748	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.322	12.322	27548	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.472	12.473	20145	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.551	12.552	97202	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.131	13.132	18594	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072619.d

Sample #: 2107284-11A

Client ID:

Spike Level: 0

Dilution Factor: 2.54

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	71	(13487781.4867827 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072619.d  
 Sample #: 2107284-11A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.54

	Compounds	RT	Peak Area	10
<input type="checkbox"/>	Unknown Peak 1.2548	1.255	37833	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 1.3108	1.311	1280391	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.4507	1.451	77563	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.5766	1.577	53695	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.7025	1.703	89093	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.8844	1.884	52126	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.0104	2.010	25997	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.3881	2.388	18950	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.8359	2.836	19882	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Acetone	3.242	152342	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Carbon Disulfide	3.284	108989	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.4655	3.466	61513	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.8992	3.899	40836	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.0466	5.047	63410	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	5.270	1313247	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.4244	5.424	51255	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.5923	5.592	23247	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	5.816	851522	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	6.166	1901056	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.7999	6.800	11044	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.8500	6.850	13850	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	7.380	2187879	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene	7.437	64886	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6451	7.645	303084	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Tetrachloroethene	7.874	75507	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.0893	8.089	25174	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.1466	8.147	11705	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.2683	8.268	15922	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.4761	8.476	17435	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Chlorobenzene-d5	8.612	2373810	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.6766	8.677	46231	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.7841	8.784	41905	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.1279	9.128	32247	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.2210	9.221	14499	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.3643	9.364	24577	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.5219	9.522	68774	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Bromofluorobenzene	9.601	2708487	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.6723	9.672	24756	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.8227	9.823	15932	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.9445	9.945	14554	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.087	10.088	18401	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.223	10.224	45026	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.324	10.324	16593	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.417	10.417	26368	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.467	10.467	12581	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.596	10.596	46246	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.675	10.675	10980	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.746	10.747	23332	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.789	10.790	50613	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.961	10.962	22812	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.040	11.040	35155	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.061	11.062	33824	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072619.d  
Sample #: 2107284-11A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.54

	Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 11.126	11.126	36885	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.384	11.384	16926	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.470	11.470	19552	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.513	11.513	26068	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.559	12.559	18032	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.132	13.132	31410	<input type="checkbox"/>



# Air Toxics Ltd.

## File Results

Data File: File Information: 3072620.d  
Sample #: 2107284-12A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.5

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	98	(14102791.2105139 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072620.d  
 Sample #: 2107284-12A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.5

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3105	1.311	3994148	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.464	80585	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6044	1.604	32283	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7023	1.702	75117	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7443	1.744	33587	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.9122	1.912	24242	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.304	2.304	15922	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2414	3.241	84139	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.423	58240	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.8850	3.885	19146	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9484	4.948	19275	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1537135	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.340	11849	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	1017090	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.166	2232254	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6421	6.642	20664	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2459094	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.5375	7.538	12622	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.881	284000	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0890	8.089	13744	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2681	8.268	11878	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.4758	8.476	19370	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.612	2685954	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3211	9.321	15263	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5216	9.522	309018	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.600	3125624	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9299	9.930	25010	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.316	10.317	13317	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.402	10.403	21667	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.682	10.682	26706	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.796	10.797	11011	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.047	11.047	41359	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.384	11.384	21935	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.598	11.599	32177	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.713	11.714	32043	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.279	12.279	13366	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.616	12.616	57520	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.669	13.669	43259	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072621.d  
Sample #: 2107284-13A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.26

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	0	(10991960.8524721 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072621.d

Sample #: 2107284-13A

Client ID:

Spike Level: 0

Dilution Factor: 2.26

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2968	1.297	4388951	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6186	1.619	25269	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6885	1.689	29176	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8844	1.884	89531	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.4021	2.402	21332	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.8639	2.864	15805	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2276	3.228	62405	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.4235	3.424	26323	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.9972	3.997	16986	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9626	4.963	20309	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.1026	5.103	24730	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1163214	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3964	5.396	54084	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	814023	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	1725189	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.3758	6.376	17381	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6495	6.650	33148	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1437	7.144	14959	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2055258	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4446	7.445	36444	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6165	7.617	14576	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6451	7.645	64574	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7311	7.731	13583	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.882	110196	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1036	8.104	16448	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2612	8.261	17939	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.619	2179064	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3213	9.321	11550	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.4216	9.422	12999	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5219	9.522	15377	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	2330625	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.716	12.717	11122	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.816	12.817	29276	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.852	12.853	29262	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072622.d  
Sample #: 2107284-14A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.32

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	0	(11293929.711488 - 11915177.5144896 / 56027)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072622.d

Sample #: 2107284-14A

Client ID:

Spike Level: 0

Dilution Factor: 2.32

	Compounds	RT	Peak Area	10
<input type="checkbox"/>	Unknown Peak 1.3106	1.311	4017730	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.4505	1.451	80700	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.6184	1.618	31336	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.7024	1.702	23136	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.7304	1.730	21009	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.7863	1.786	16471	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.8983	1.898	34987	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.3740	2.374	19587	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.2415	3.242	97524	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.4234	3.423	34670	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.8711	3.871	26870	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.5287	4.529	34718	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.8925	4.893	15221	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.0184	5.018	25084	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	5.284	1261795	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.3822	5.382	87770	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	5.816	822620	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	6.180	1721337	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.3617	6.362	21079	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.1507	7.151	17429	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	7.387	1956534	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6522	7.652	211837	<input type="checkbox"/>
<input type="checkbox"/>	Tetrachloroethene	7.881	115476	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.4759	8.476	14333	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Chlorobenzene-d5	8.619	2164291	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.5217	9.522	65122	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Bromofluorobenzene	9.608	2446137	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.796	10.797	26158	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.212	11.212	16173	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072623.d  
Sample #: 2107284-15A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.4

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	100	(14274046.3637306 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072623.d

Sample #: 2107284-15A

Client ID:

Spike Level: 0

Dilution Factor: 2.4

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3107	1.311	6802907	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.465	72731	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.6185	1.619	41304	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.6745	1.675	62250	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.7584	1.758	44658	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.8984	1.898	68403	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.9543	1.954	24346	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2202	2.220	28268	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.4021	2.402	86548	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.8778	2.878	28216	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.9477	2.948	19992	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.2276	3.228	66474	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.4235	3.424	59920	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9272	3.927	73689	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.0111	4.011	29636	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.4449	4.445	22956	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.8226	4.823	19359	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.8926	4.893	27519	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 4.9486	4.949	40278	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1597449	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.3823	5.382	196394	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4523	5.452	63813	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5642	5.564	26030	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	1088727	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.166	2308541	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.3757	6.376	19577	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1365	7.137	32125	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2550164	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5448	7.545	11245	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5949	7.595	16610	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.6451	7.645	93348	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.7310	7.731	18986	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.882	170041	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0892	8.089	11363	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1393	8.139	15021	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2683	8.268	32561	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.4688	8.469	19442	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.612	2999466	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3857	9.386	12157	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5218	9.522	80691	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	3416919	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 9.6794	9.679	14093	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 9.9444	9.944	16445	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.309	10.310	13963	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.811	10.811	16517	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.961	10.962	32182	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.706	11.707	10137	<input type="checkbox"/>



# Air Toxics Ltd.

## File Results

Data File: File Information: 3072624.d  
Sample #: 2107284-16A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.14

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	0	(11056452.396985 - 11915177.5144896 / 56027)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072624.d

Sample #: 2107284-16A

Client ID:

Spike Level: 0

Dilution Factor: 2.14

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3107	1.311	9154266	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5485	1.549	75178	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6884	1.688	33483	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7304	1.730	20968	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.9963	1.996	17566	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.1082	2.108	15874	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2415	3.242	47528	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.4234	3.423	66961	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.5773	3.577	20757	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4868	4.487	38362	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.5428	4.543	18427	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.6267	4.627	17685	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1272714	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3823	5.382	40990	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	843759	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	1788740	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6207	6.621	19266	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2006099	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6021	7.602	10199	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.881	46625	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.619	2187823	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.7911	8.791	11211	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.608	2546575	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9444	9.944	15056	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.302	10.303	16411	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072625.d  
Sample #: 2107284-17A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.04

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	1800	(60036910.9906555 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072625.d  
 Sample #: 2107284-17A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.04

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3105	1.311	1339456	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.450	68872793	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7023	1.702	1285960	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8003	1.800	122401	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8982	1.898	127319	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.2200	2.220	777429	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.4999	2.500	640491	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6817	2.682	136735	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.8077	2.808	52793	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.8776	2.878	110040	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.0175	3.018	159597	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.227	304729	<input type="checkbox"/>
<input type="checkbox"/> Carbon Disulfide	3.311	155591	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.423	125640	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.6052	3.605	1627708	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.6892	3.689	125038	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.8850	3.885	937446	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.0949	4.095	71701	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.179	2579498	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3048	4.305	19226	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3608	4.361	82537	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4167	4.417	163792	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4727	4.473	18271	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.5986	4.599	58530	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.7106	4.711	637556	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.8085	4.809	853530	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9204	4.920	28926	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.0184	5.018	997023	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.2143	5.214	33225	<input type="checkbox"/>
<input checked="" type="checkbox"/> Tetrahydrofuran	5.284	15872	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1281947	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3822	5.382	740756	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclohexane	5.438	1065925	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5501	5.550	1195094	<input type="checkbox"/>
<input checked="" type="checkbox"/> 2,2,4-Trimethylpentane	5.774	2712381	<input type="checkbox"/>
<input type="checkbox"/> Benzene	5.788	275945	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	8112101	<input type="checkbox"/>
<input checked="" type="checkbox"/> Heptane	5.942	339589	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.1097	6.110	39779	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	1864969	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.2916	6.292	43127	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.4595	6.460	1652590	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.5435	6.544	242353	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6278	6.628	150147	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6779	6.678	228305	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8069	6.807	1975257	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9143	6.914	2713698	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.0862	7.086	466119	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.2151	7.215	668552	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.2939	7.294	558351	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2023763	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.444	3102361	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072625.d  
 Sample #: 2107284-17A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.04

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 7.5518	7.552	60689	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.602	7.602	98875	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6521	7.652	425016	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6951	7.695	382866	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7595	7.760	73783	<input type="checkbox"/>
<input checked="" type="checkbox"/> Tetrachloroethene	7.881	359426	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.9315	7.931	74894	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0174	8.017	86247	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0819	8.082	116172	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1249	8.125	431946	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2251	8.225	113769	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3111	8.311	201571	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3899	8.390	48836	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.4615	8.462	57038	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.5546	8.555	90660	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.619	2243674	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	8.691	379074	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	8.784	978514	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.8483	8.848	42289	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9271	8.927	35817	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.0202	9.020	269756	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	9.128	245613	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.228	9.228	97739	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2638	9.264	42218	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3068	9.307	23819	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3712	9.371	765897	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.4572	9.457	44475	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5216	9.522	5298836	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.608	2680445	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.7580	9.758	22783	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	9.830	362756	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,3,5-Trimethylbenzene	9.908	73068	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9514	9.951	65300	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.087	10.088	199563	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	10.224	150864	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.302	10.302	168002	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.352	10.353	73620	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.424	10.424	71562	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.517	10.517	79824	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.546	10.546	21722	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.610	10.610	62863	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.689	10.689	45583	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.825	10.825	173851	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.054	11.055	670121	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.233	11.234	24689	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.362	11.363	27671	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.477	11.477	21609	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.541	11.542	17856	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.598	11.599	16149	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.720	11.721	59653	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.322	12.322	15066	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072630.d  
Sample #: 2107284-18A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.01

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	95	(14571647.3089801 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072630.d  
 Sample #: 2107284-18A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.01

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3105	1.311	6759311	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.450	697703	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.464	20973	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.6883	1.688	28365	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.7302	1.730	34092	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.9121	1.912	84337	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.5977	2.598	16136	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.8216	2.822	16997	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.8776	2.878	24376	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.2413	3.241	47144	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.3113	3.311	18269	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.423	156830	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.5911	3.591	82776	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.7311	3.731	19447	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.8710	3.871	109216	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.179	1580040	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.8084	4.808	160944	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.0183	5.018	981795	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1277096	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3821	5.382	130566	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.62	5.620	31232	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	840566	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0677	6.068	25739	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	1949279	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6205	6.621	27392	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2047057	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.6520	7.652	425538	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.881	691509	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0603	8.060	13058	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0961	8.096	20911	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.619	2183614	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.7909	8.791	11565	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2350	9.235	12349	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3138	9.314	14036	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 9.5216	9.522	5864110	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.600	2856574	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.8081	9.808	61928	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9370	9.937	37787	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.216	10.216	41197	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.295	10.295	57282	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.417	10.417	40468	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.682	10.682	11525	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.047	11.047	862765	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.713	11.713	53087	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.616	12.616	12151	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072627.d  
Sample #: 2107284-19A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.25

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	93	(14238609.7726704 - 11915177.5144896 / 56027



# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072627.d

Sample #: 2107284-19A

Client ID:

Spike Level: 0

Dilution Factor: 2.25

	Compounds	RT	Peak Area	10
<input type="checkbox"/>	Unknown Peak 1.2967	1.297	16228249	<input type="checkbox"/>
<input type="checkbox"/>	Freon 12	1.465	649655	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 1.7025	1.703	33445	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.8844	1.884	47678	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.4161	2.416	22115	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.5700	2.570	26186	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.2416	3.242	112845	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.4375	3.438	43129	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.7173	3.717	14704	<input type="checkbox"/>
<input type="checkbox"/>	tert-Butyl alcohol	3.899	79253	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.2630	4.263	20013	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.3749	4.375	15872	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.7387	4.739	20364	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.9626	4.963	19407	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.0325	5.033	24682	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	5.284	1487690	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.3963	5.396	266140	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.4943	5.494	130954	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	5.816	960175	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	6.166	2114708	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.3618	6.362	37813	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.6351	6.635	14956	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.7139	6.714	22438	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.8428	6.843	10404	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	7.387	2343585	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6451	7.645	371141	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.7382	7.738	14235	<input type="checkbox"/>
<input type="checkbox"/>	Tetrachloroethene	7.874	278833	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Chlorobenzene-d5	8.612	2540897	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.7769	8.777	18818	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.5361	9.536	279810	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Bromofluorobenzene	9.601	3058645	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.9516	9.952	18749	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.316	10.317	10595	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.417	10.417	17402	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.517	10.518	12072	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.682	10.682	12570	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.961	10.962	18247	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.040	11.040	12087	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.104	11.105	48817	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.312	11.313	14354	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.391	11.391	10273	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.132	13.132	24040	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072628.d  
Sample #: 2107284-20A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.42

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	76	(13674672.9218113 - 11915177.5144896 / 56027

# Air Toxics Ltd.

## List of Selected Compounds









Data File: File Information: 3072628.d  
 Sample #: 2107284-20A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.42

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2967	1.297	10006216	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.451	380563	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.5206	1.521	131048	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6325	1.633	143080	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6745	1.675	92123	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7585	1.759	77288	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.8984	1.898	200820	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.2202	2.220	61892	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.4021	2.402	393197	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.7519	2.752	84844	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.8638	2.864	123690	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.1017	3.102	36122	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2416	3.242	67359	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2976	3.298	52985	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.466	135464	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.7873	3.787	22466	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.9132	3.913	201466	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4589	4.459	26917	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9206	4.921	73103	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1231651	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4103	5.410	381861	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5363	5.536	63681	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	900564	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	1744898	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.2778	6.278	26853	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6495	6.649	11655	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.7855	6.786	21611	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1509	7.151	39707	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2003348	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4517	7.452	61596	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.5448	7.545	13042	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6523	7.652	189922	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7311	7.731	31150	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.882	1364959	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0821	8.082	37681	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1465	8.147	57478	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1967	8.197	26500	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2755	8.275	74797	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.4832	8.483	46974	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.619	2208303	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.7625	8.763	23679	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.8055	8.806	29764	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2281	9.228	15588	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2926	9.293	22833	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5290	9.529	165137	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	2484409	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9444	9.944	13130	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.324	10.324	13100	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.410	10.410	10668	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.517	10.518	19472	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.682	10.682	26449	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.968	10.969	11860	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072628.d  
Sample #: 2107284-20A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.42

	Compounds	RT	Peak Area	10
	Unknown Peak 11.047	11.048	11255	
	Unknown Peak 11.104	11.105	21238	
	Unknown Peak 11.384	11.384	28524	
	Unknown Peak 11.534	11.535	16716	

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072710.d  
Sample #: 2107284-21A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.2

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	360	(22176146.7755316 - 12649746.8507207 / 57499

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072710.d  
 Sample #: 2107284-21A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.2

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2548	1.255	49666	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.3108	1.311	557926	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.437	3330554	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6886	1.689	328905	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.7865	1.787	21891	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8844	1.884	93886	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.2063	2.206	52969	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.4161	2.416	37626	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.4861	2.486	48106	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6960	2.696	18019	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.7939	2.794	47908	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.9898	2.990	18670	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.1437	3.144	56414	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.242	522105	<input type="checkbox"/>
<input type="checkbox"/> Carbon Disulfide	3.284	84518	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.466	198425	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.5775	3.578	98493	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.8573	3.857	128392	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.165	609871	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.5429	4.543	18517	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.6968	4.697	43482	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.7947	4.795	112897	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9067	4.907	28496	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.0466	5.047	1006905	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.271	1402773	<input type="checkbox"/>
<input checked="" type="checkbox"/> Tetrahydrofuran	5.285	8133	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4244	5.424	252632	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5643	5.564	206896	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.6063	5.606	87840	<input type="checkbox"/>
<input checked="" type="checkbox"/> 2,2,4-Trimethylpentane	5.760	113812	<input type="checkbox"/>
<input type="checkbox"/> Benzene	5.788	61255	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	1357573	<input type="checkbox"/>
<input checked="" type="checkbox"/> Heptane	5.942	35685	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.166	1947397	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.4598	6.460	74387	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.7999	6.800	127203	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9074	6.907	147568	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.0793	7.079	35583	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.2082	7.208	35775	<input type="checkbox"/>
<input type="checkbox"/> 4-Methyl-2-pentanone	7.323	89912	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.380	2249441	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.437	1683764	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.6523	7.652	1697990	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.874	905728	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0176	8.018	13703	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0678	8.068	61307	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1179	8.118	96942	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2254	8.225	30327	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3113	8.311	89095	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3901	8.390	27990	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.5549	8.555	11371	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.612	2468387	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072710.d

Sample #: 2107284-21A

Client ID:

Spike Level: 0

Dilution Factor: 2.2

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Ethyl Benzene	8.684	424107	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	8.777	952268	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.0133	9.013	61995	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	9.121	295701	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.1781	9.178	41698	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2354	9.235	43281	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2640	9.264	42154	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3715	9.371	392772	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.4574	9.457	41134	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 9.5219	9.522	8434982	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	3272940	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.7511	9.751	77529	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	9.823	443448	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,3,5-Trimethylbenzene	9.902	156030	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9445	9.945	101422	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.080	10.081	174928	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	10.224	304579	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.302	10.303	212001	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.345	10.346	65137	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.417	10.417	153872	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.467	10.467	77959	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.517	10.518	113915	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.603	10.604	68411	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.682	10.682	76688	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.746	10.747	17319	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.804	10.804	190497	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.961	10.962	73516	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.047	11.048	3309530	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.126	11.126	27377	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.233	11.234	15265	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.298	11.298	16269	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.384	11.384	68905	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.470	11.470	21349	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.527	11.528	29044	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.592	11.592	15000	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.713	11.714	98374	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.771	11.771	12741	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.093	12.093	12359	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.322	12.323	13624	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.602	12.602	225766	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.859	12.860	10931	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 13.676	13.676	26174	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072711.d  
Sample #: 2107284-22A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.21

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	77	(14643403.1089959 - 12649746.8507207 / 57495



# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072711.d  
 Sample #: 2107284-22A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.21

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3106	1.311	9459220	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.451	26188285	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.8003	1.800	29223	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.9122	1.912	59134	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.9542	1.954	23261	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.4299	2.430	29530	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.2414	3.241	73562	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.3114	3.311	34393	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.423	168098	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.5912	3.591	72220	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.8711	3.871	96166	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.179	660659	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.7945	4.795	108016	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.0184	5.018	866570	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1452009	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3822	5.382	59434	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4242	5.424	43435	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.6340	5.634	16784	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	1001988	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9279	5.928	24877	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0678	6.068	24415	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	2118630	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.4736	6.474	18150	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6564	6.656	11210	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8069	6.807	14527	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9143	6.914	22388	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2343530	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.437	13939	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.5948	7.595	15517	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.6521	7.652	942121	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.7739	7.774	66353	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.881	1831496	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0604	8.060	18839	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0962	8.096	29978	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.619	2507350	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.6836	8.684	25312	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.7839	8.784	20907	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.1349	9.135	11994	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3211	9.321	14083	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 9.5217	9.522	7611122	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	3293394	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.8082	9.808	94469	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9443	9.944	20989	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.109	10.109	16441	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.216	10.217	55545	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.302	10.302	95255	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.417	10.417	48434	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.517	10.517	28739	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.674	10.675	27414	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.803	10.804	29014	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.968	10.969	16085	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.047	11.047	1959414	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072711.d

Sample #: 2107284-22A

Client ID:

Spike Level: 0

Dilution Factor: 2.21

	Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 11.384	11.384	28213	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.713	11.714	97986	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.601	12.602	45068	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072712.d  
Sample #: 2107284-23A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.13

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	46	(13904815.7225638 - 12649746.8507207 / 57495

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072712.d  
 Sample #: 2107284-23A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.13

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3106	1.311	7350886	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.451	251647	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6044	1.604	32686	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7023	1.702	72615	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8143	1.814	30878	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8842	1.884	37859	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2414	3.241	51325	<input type="checkbox"/>
<input type="checkbox"/> Carbon Disulfide	3.311	98455	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.423	67427	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1493582	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3822	5.382	57842	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	966176	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	2167232	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.3756	6.376	15900	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6206	6.621	19267	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6564	6.656	19154	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.7137	6.714	11394	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1507	7.151	10750	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2483939	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.602	7.602	30457	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6521	7.652	173256	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.881	790543	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0962	8.096	14272	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.619	2567886	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3211	9.321	12299	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3784	9.378	15174	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.4429	9.443	11305	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5360	9.536	355349	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	3108282	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9443	9.944	24572	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.331	10.331	15316	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.417	10.417	19468	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.674	10.675	23985	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.047	11.047	18857	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.384	11.384	11275	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.139	13.139	20594	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.676	13.676	11868	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072713.d  
Sample #: 2107284-24A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.18

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	85	(14890587.5860796 - 12649746.8507207 / 57496

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072713.d

Sample #: 2107284-24A

Client ID:

Spike Level: 0

Dilution Factor: 2.18

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2967	1.297	4956182	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.4786	1.479	1238473	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6045	1.605	130337	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7864	1.786	23623	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8844	1.884	60938	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.2062	2.206	39143	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.3321	2.332	21628	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.7799	2.780	31123	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2416	3.242	81416	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.466	75070	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.9132	3.913	27501	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.8926	4.893	21435	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9626	4.963	20435	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1381486	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.340	152742	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4103	5.410	121185	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5502	5.550	36180	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	891745	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.166	1988379	<input type="checkbox"/>
<input type="checkbox"/> Trichloroethene	6.362	48766	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.4457	6.446	34085	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6709	6.671	17976	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.7927	6.793	28590	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2254365	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.437	260760	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6523	7.652	15948	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.874	582459	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0892	8.089	35358	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1465	8.147	34449	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2110	8.211	14902	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2754	8.275	32887	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.4760	8.476	33490	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.612	2454024	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	8.691	89888	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	8.784	170054	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.0132	9.013	18010	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	9.121	78586	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.221	9.221	13766	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3069	9.307	15319	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3714	9.371	33361	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5361	9.536	180259	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	2811044	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.7582	9.758	30808	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	9.830	148376	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9015	9.902	48897	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9373	9.937	25507	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.087	10.088	75465	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	10.224	167935	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.324	10.324	27001	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.345	10.346	18019	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.417	10.417	82481	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.467	10.467	60497	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072713.d

Sample #: 2107284-24A

Client ID:

Spike Level: 0

Dilution Factor: 2.18

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 10.596	10.596	67651	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.746	10.747	40039	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.789	10.790	97027	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.968	10.969	24683	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.054	11.055	70195	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.126	11.126	56008	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.205	11.205	19040	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.240	11.241	29229	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.391	11.391	21814	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.470	11.470	16480	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.534	11.535	64212	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.706	11.707	21613	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.763	11.764	17240	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.907	11.907	72427	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.229	12.229	13238	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.322	12.323	30273	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.465	12.466	10724	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.558	12.559	17846	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.609	12.609	12190	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072714.d  
Sample #: 2107284-25A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.15

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	85	(14920857.77333 - 12649746.8507207 / 57499) *



# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072714.d  
 Sample #: 2107284-25A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.15

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.3107	1.311	10008467	<input type="checkbox"/>
<input type="checkbox"/> Unknown	1.311	10008467	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.451	2137691	<input type="checkbox"/>
<input type="checkbox"/> Ethane, 1-chloro-1,1-difluoro-	1.605	295978	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.6745	1.675	41993	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8844	1.884	145751	<input type="checkbox"/>
<input type="checkbox"/> Unknown	1.884	145751	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0383	2.038	18112	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.2622	2.262	42821	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.3321	2.332	29754	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.4161	2.416	28830	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethanol	2.794	85423	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.8638	2.864	59314	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.0457	3.046	24372	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.1157	3.116	29868	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.242	233815	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.438	69465	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.8992	3.899	34271	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.6688	4.669	19111	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.8926	4.893	20325	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9626	4.963	64238	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0885	5.089	67036	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.284	1481503	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.340	206427	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3964	5.396	449797	<input type="checkbox"/>
<input type="checkbox"/> Unknown	5.396	449797	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.6062	5.606	23444	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	1029663	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.166	2161582	<input type="checkbox"/>
<input type="checkbox"/> Trichloroethene	6.362	83118	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6566	6.657	15119	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9145	6.915	13106	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1437	7.144	12725	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2391872	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.437	252596	<input type="checkbox"/>
<input type="checkbox"/> Cyclotrisiloxane, hexamethyl-	7.645	346981	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7311	7.731	17745	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.882	846155	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0821	8.082	36913	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1465	8.147	50194	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2110	8.211	18766	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2683	8.268	62920	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.4760	8.476	51543	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.612	2591919	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2282	9.228	11727	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3069	9.307	50631	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.4072	9.407	11848	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclotetrasiloxane, octamethyl-	9.522	192498	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	3035365	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9516	9.952	15954	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.324	10.324	18086	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.402	10.403	42043	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3072715.d  
Sample #: 2107284-26A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.15

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	0	(11617677.4391644 - 12649746.8507207 / 57499

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3072715.d

Sample #: 2107284-26A

Client ID:

Spike Level: 0

Dilution Factor: 2.15

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2968	1.297	19536020	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.437	1573443	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.6886	1.689	115635	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.7585	1.759	89171	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8844	1.884	445594	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.4441	2.444	22744	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.7939	2.794	37061	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.1297	3.130	28656	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.242	205216	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.4655	3.466	47494	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.9133	3.913	26026	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.2211	4.221	36574	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.5149	4.515	22922	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.8927	4.893	21395	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9627	4.963	40188	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0886	5.089	33368	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.285	1222570	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4244	5.424	53592	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5923	5.592	20956	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	5.816	773791	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0540	6.054	17225	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.180	1698042	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.3758	6.376	31888	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6638	6.664	23530	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.7856	6.786	10591	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.387	2028887	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6595	7.660	25151	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	7.882	181470	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0893	8.089	19010	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	8.619	2146550	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.3213	9.321	12962	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5362	9.536	56364	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	9.601	2466022	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.6866	9.687	14137	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.9445	9.945	13289	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.324	10.324	53410	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.402	10.403	22240	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.675	10.675	26031	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.047	11.048	13797	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.391	11.391	16448	<input type="checkbox"/>

*Air Toxics Ltd.*

Curve Response Factors  
3072708.d

Compound	Ave. RF	% RSD
TPH	57499	0.00014

LD 7/27/21

# Air Toxics Ltd.

## File Response Factors

Data File: 3072708.d  
Sample #: 3234-26A  
Client ID: Calib  
Spike Level: 500  
Dilution Factor: 1

Compound	RF	RT
TPH	57498.919087980	

# Air Toxics Ltd.

## List of Selected Compounds

Data File: 3072708.d  
 Sample #: 3234-26A  
 Client ID: Calib  
 Spike Level: 500  
 Dilution Factor: 1

	Compounds	% Area	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 1.3247	0.31	1.325	127628	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.5766	0.08	1.577	32671	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Butane	0.89	1.717	368957	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.7725	0.12	1.773	51676	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.8984	0.08	1.898	35001	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.0943	0.04	2.094	18238	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Isopentane	3.53	2.220	1463793	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.5001	1.21	2.500	501013	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.668	0.24	2.668	99456	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Ethanol	1.44	2.766	595766	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.8778	0.41	2.878	170322	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.0177	0.11	3.018	46768	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.2276	0.06	3.228	24594	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.5494	1.57	3.549	652423	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.5914	1.13	3.591	467709	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.8713	0.72	3.871	297754	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.0951	0.13	4.095	52892	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Hexane	0.81	4.179	337001	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.361	0.13	4.361	54946	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.4029	0.12	4.403	50038	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.4869	0.09	4.487	37579	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.5569	0.09	4.557	35378	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.7108	1.25	4.711	516200	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.7947	0.59	4.795	244966	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.8647	0.12	4.865	51341	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	4.03	5.284	1671004	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Tetrahydrofuran	0.57	5.382	238134	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Cyclohexane	1.41	5.438	583467	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.5503	0.69	5.550	285727	<input type="checkbox"/>
<input checked="" type="checkbox"/>	2,2,4-Trimethylpentane	12.16	5.760	5041726	<input type="checkbox"/>
<input type="checkbox"/>	Benzene	0.10	5.788	39815	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	5.78	5.816	2397489	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Heptane	0.86	5.942	355898	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.082	0.22	6.082	92310	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	6.16	6.166	2554203	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.3058	0.14	6.306	58101	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Methylcyclohexane	1.88	6.460	781223	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.5437	0.76	6.544	315544	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.6208	0.16	6.621	66293	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.671	0.04	6.671	14910	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.7999	3.61	6.800	1496635	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.9073	5.75	6.907	2381812	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.0792	0.51	7.079	212406	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.2153	1.20	7.215	496977	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.2870	0.20	7.287	82672	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	6.44	7.380	2669096	<input type="checkbox"/>
<input type="checkbox"/>	4-Methyl-2-pentanone	0.02	7.380	8992	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene	4.03	7.437	1669426	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.5162	0.05	7.516	20501	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6451	0.05	7.645	21336	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6953	0.17	7.695	72091	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.8314	0.03	7.831	12035	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: 3072708.d  
 Sample #: 3234-26A  
 Client ID: Calib  
 Spike Level: 500  
 Dilution Factor: 1

	Compounds	% Area	RT	Peak Area	10
✓	Unknown Peak 7.9245	0.11	7.925	43707	
✓	Unknown Peak 8.0821	0.09	8.082	36169	
✓	Unknown Peak 8.2182	0.05	8.218	21528	
✓	Unknown Peak 8.2826	0.14	8.283	57121	
✓	Unknown Peak 8.3829	0.07	8.383	30029	
✓	Unknown Peak 8.4617	0.06	8.462	26096	
✓	Unknown Peak 8.5477	0.07	8.548	30513	
✓	Chlorobenzene-d5	6.78	8.612	2809510	
✓	Ethyl Benzene	0.87	8.684	361921	
✓	m,p-Xylene	2.56	8.784	1061671	
✓	Unknown Peak 8.9345	0.03	8.935	12971	
✓	Unknown Peak 8.9989	0.03	8.999	11746	
✓	o-Xylene	0.93	9.121	385902	
✓	Unknown Peak 9.3213	0.03	9.321	13426	
✓	Cumene	0.24	9.407	99352	
✓	Unknown Peak 9.4502	0.34	9.450	139960	
✓	Unknown Peak 9.5218	0.16	9.522	65133	
✓	4-Bromofluorobenzene	8.34	9.601	3456495	
✓	Propylbenzene	0.20	9.751	81994	
✓	4-Ethyltoluene	1.12	9.830	465238	
✓	1,3,5-Trimethylbenzene	0.35	9.902	143482	
✓	Unknown Peak 10.080	0.54	10.081	222701	
✓	1,2,4-Trimethylbenzene	1.09	10.224	451628	
✓	Unknown Peak 10.302	0.50	10.303	207092	
✓	Unknown Peak 10.424	0.16	10.424	65882	
✓	Unknown Peak 10.510	0.57	10.510	237396	
✓	Unknown Peak 10.596	0.26	10.596	108146	
✓	Unknown Peak 10.689	0.25	10.689	103462	
✓	Unknown Peak 10.746	0.15	10.747	63465	
✓	Unknown Peak 10.782	0.44	10.783	182433	
✓	Unknown Peak 10.897	0.08	10.897	31112	
✓	Unknown Peak 10.968	0.05	10.969	21242	
✓	Unknown Peak 11.040	0.21	11.040	86898	
✓	Unknown Peak 11.119	0.11	11.119	46207	
✓	Unknown Peak 11.248	0.10	11.248	41145	
✓	Unknown Peak 11.391	0.04	11.391	17032	
✓	Unknown Peak 11.470	0.15	11.470	60633	
✓	Unknown Peak 11.513	0.07	11.513	26942	
✓	Unknown Peak 11.763	0.06	11.764	23220	
✓	Unknown Peak 11.828	0.03	11.828	13538	
✓	Unknown Peak 11.914	0.10	11.914	41880	
✓	Unknown Peak 12.186	0.03	12.187	10547	
✓	Unknown Peak 12.229	0.03	12.230	11884	
✓	Unknown Peak 12.315	0.06	12.315	25880	
✓	Unknown Peak 12.559	0.05	12.559	19751	

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Curve Response Factors  
3072607.d

Compound	Ave. RF	% RSD
TPH	56027	0.00014

WD 7/26/21



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File Response Factors

Data File: 3072607.d  
Sample #: 3234-26A  
Client ID: Calib  
Spike Level: 500  
Dilution Factor: 1

Compound	RF	RT
TPH	56027.0768934	0

# Air Toxics Ltd.

## List of Selected Compounds

Data File: 3072607.d  
 Sample #: 3234-26A  
 Client ID: Calib  
 Spike Level: 500  
 Dilution Factor: 1

	Compounds	% Area	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 1.1847	0.08	1.185	34988	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.3247	0.35	1.325	149865	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.5765	0.09	1.577	38289	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Butane	0.93	1.702	395401	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.8843	0.10	1.884	43234	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Isopentane	3.34	2.220	1416275	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.5	1.15	2.500	489109	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.6679	0.20	2.668	85142	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Ethanol	1.37	2.766	581666	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.8777	0.38	2.878	163155	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.0177	0.14	3.018	58688	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.5494	1.48	3.549	629937	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.5913	1.43	3.591	606064	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.8712	0.66	3.871	279865	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.0950	0.09	4.095	38494	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Hexane	0.73	4.179	310557	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.3049	0.09	4.305	37506	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.3609	0.13	4.361	55408	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.4029	0.13	4.403	53440	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.4868	0.09	4.487	36481	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.5568	0.14	4.557	58624	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.7107	1.26	4.711	536801	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.7946	0.57	4.795	243813	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.8646	0.13	4.865	56414	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.2144	0.07	5.214	28049	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	4.00	5.284	1696745	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Tetrahydrofuran	0.68	5.382	288490	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Cyclohexane	1.47	5.438	624390	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.5502	0.67	5.550	284224	<input type="checkbox"/>
<input type="checkbox"/>	2,2,4-Trimethylpentane	5.82	5.774	2471759	<input type="checkbox"/>
<input type="checkbox"/>	Benzene	0.10	5.788	40437	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	15.84	5.816	6722996	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Heptane	0.58	5.942	246253	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.0819	0.19	6.082	80174	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	5.46	6.166	2317788	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.2778	0.05	6.278	21768	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.3197	0.07	6.320	31280	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.4317	1.44	6.432	610637	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Methylcyclohexane	1.47	6.460	624189	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.5436	0.65	6.544	274855	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.6207	0.11	6.621	45709	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.6637	0.04	6.664	18458	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.7998	3.50	6.800	1486488	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.9073	5.27	6.907	2236483	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.0863	0.45	7.086	191313	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.2153	1.22	7.215	517854	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.2797	0.17	7.280	73876	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	6.07	7.380	2576242	<input type="checkbox"/>
<input type="checkbox"/>	4-Methyl-2-pentanone	0.02	7.380	10588	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene	3.63	7.437	1540954	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6021	0.06	7.602	27452	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6450	0.10	7.645	41166	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: 3072607.d  
 Sample #: 3234-26A  
 Client ID: Calib  
 Spike Level: 500  
 Dilution Factor: 1

	Compounds	% Area	RT	Peak Area	10
✓	Unknown Peak 7.6952	0.24	7.695	103169	
✓	Unknown Peak 7.8241	0.03	7.824	12583	
✓	Unknown Peak 7.9387	0.10	7.939	42951	
✓	Unknown Peak 8.0175	0.04	8.018	18134	
✓	Unknown Peak 8.0820	0.11	8.082	45914	
✓	Unknown Peak 8.2252	0.05	8.225	23336	
✓	Unknown Peak 8.2826	0.15	8.283	65298	
✓	Unknown Peak 8.3828	0.09	8.383	36878	
✓	Unknown Peak 8.4545	0.09	8.455	37652	
✓	Unknown Peak 8.5547	0.14	8.555	61128	
✓	Chlorobenzene-d5	6.33	8.612	2688619	
✓	Ethyl Benzene	0.86	8.684	364028	
✓	m,p-Xylene	2.47	8.784	1049644	
✓	Unknown Peak 8.9344	0.04	8.934	16723	
✓	o-Xylene	0.89	9.121	379820	
✓	Unknown Peak 9.3140	0.02	9.314	10525	
✓	Cumene	0.25	9.407	105005	
✓	Unknown Peak 9.4573	0.32	9.457	135203	
✓	Unknown Peak 9.5218	0.08	9.522	32345	
✓	4-Bromofluorobenzene	7.59	9.601	3223996	
✓	Propylbenzene	0.17	9.758	73379	
✓	4-Ethyltoluene	1.03	9.823	437938	
✓	1,3,5-Trimethylbenzene	0.30	9.901	128295	
✓	Unknown Peak 9.9372	0.04	9.937	17392	
✓	Unknown Peak 10.080	0.49	10.081	208145	
✓	1,2,4-Trimethylbenzene	1.08	10.224	457601	
✓	Unknown Peak 10.302	0.31	10.303	131973	
✓	Unknown Peak 10.424	0.06	10.424	23764	
✓	Unknown Peak 10.467	0.03	10.467	14277	
✓	Unknown Peak 10.510	0.42	10.510	179715	
✓	Unknown Peak 10.596	0.21	10.596	88258	
✓	Unknown Peak 10.689	0.18	10.689	75488	
✓	Unknown Peak 10.746	0.13	10.747	54004	
✓	Unknown Peak 10.789	0.35	10.790	149559	
✓	Unknown Peak 10.897	0.06	10.897	26597	
✓	Unknown Peak 10.968	0.03	10.969	12550	
✓	Unknown Peak 11.033	0.07	11.033	29760	
✓	Unknown Peak 11.047	0.11	11.048	45536	
✓	Unknown Peak 11.126	0.11	11.126	45711	
✓	Unknown Peak 11.248	0.06	11.248	26824	
✓	Unknown Peak 11.391	0.04	11.391	18995	
✓	Unknown Peak 11.470	0.13	11.470	53413	
✓	Unknown Peak 11.513	0.07	11.513	27816	
✓	Unknown Peak 11.763	0.06	11.764	24046	
✓	Unknown Peak 11.914	0.10	11.914	44483	
✓	Unknown Peak 12.186	0.02	12.186	10253	
✓	Unknown Peak 12.322	0.07	12.323	27657	
✓	Unknown Peak 12.387	0.02	12.387	10210	
✓	Unknown Peak 12.558	0.06	12.559	25080	

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure ("Hg)} * (14.7\text{psi}/30\text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
0.0	1.14	1.34	1.68	2.02
0.2	1.14	1.35	1.69	2.03
0.4	1.15	1.36	1.70	2.05
0.5	1.16	1.36	1.71	2.05
0.6	1.16	1.37	1.71	2.06
0.8	1.17	1.38	1.73	2.08
1.0	1.18	1.39	1.74	2.09
1.2	1.18	1.40	1.75	2.10
1.4	1.19	1.40	1.76	2.12
1.5	1.20	1.41	1.77	2.13
1.6	1.20	1.42	1.77	2.13
1.8	1.21	1.42	1.79	2.15
2.0	1.22	1.44	1.80	2.16
2.2	1.23	1.45	1.81	2.18
2.4	1.23	1.46	1.83	2.20
2.5	1.24	1.46	1.83	2.20
2.6	1.24	1.47	1.84	2.21
2.8	1.25	1.48	1.85	2.23
3.0	1.26	1.49	1.87	2.24
3.2	1.27	1.50	1.88	2.26
3.4	1.28	1.51	1.90	2.28
3.5	1.29	1.52	1.90	2.29
3.6	1.29	1.52	1.91	2.30
3.8	1.30	1.53	1.92	2.31
4.0	1.31	1.55	1.94	2.33
4.2	1.32	1.56	1.95	2.35
4.4	1.33	1.57	1.97	2.37
4.5	1.34	1.58	1.98	2.38
4.6	1.34	1.58	1.98	2.39
4.8	1.35	1.60	2.00	2.40
5.0	1.36	1.61	2.02	2.42
5.2	1.37	1.62	2.03	2.44
5.4	1.39	1.63	2.05	2.46
5.5	1.39	1.64	2.06	2.47
5.6	1.40	1.65	2.07	2.48
5.8	1.41	1.66	2.08	2.50
6.0	1.42	1.68	2.10	2.52
6.2	1.43	1.69	2.12	2.55
6.4	1.44	1.70	2.14	2.57
6.5	1.45	1.71	2.15	2.58
6.6	1.46	1.72	2.15	2.59
6.8	1.47	1.73	2.17	2.61
7.0	1.48	1.75	2.19	2.64
7.2	1.49	1.76	2.21	2.66
7.4	1.51	1.78	2.23	2.68
7.5	1.51	1.79	2.24	2.69
7.6	1.52	1.79	2.25	2.70

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
7.7	1.53	1.80	2.26	2.72
7.8	1.54	1.81	2.27	2.73
8.0	1.55	1.83	2.29	2.76
8.2	1.56	1.84	2.31	2.78
8.4	1.58	1.86	2.33	2.81
8.5	1.59	1.87	2.34	2.82
8.6	1.59	1.88	2.36	2.83
8.8	1.61	1.90	2.38	2.86
9.0	1.62	1.91	2.40	2.89
9.2	1.64	1.93	2.42	2.91
9.4	1.65	1.95	2.45	2.94
9.5	1.66	1.96	2.46	2.96
9.6	1.67	1.97	2.47	2.97
9.8	1.69	1.99	2.50	3.00
10.0	1.70	2.01	2.52	3.03
10.2	1.72	2.03	2.55	3.06
10.4	1.74	2.05	2.57	3.09
10.5	1.75	2.06	2.59	3.11
10.6	1.76	2.07	2.60	3.12
10.8	1.78	2.09	2.63	3.16
11.0	1.79	2.12	2.65	3.19
11.2	1.81	2.14	2.68	3.22
11.4	1.83	2.16	2.71	3.26
11.5	1.84	2.17	2.72	3.28
11.6	1.85	2.18	2.74	3.29
11.8	1.87	2.21	2.77	3.33
12.0	1.89	2.23	2.80	3.37
12.2	1.91	2.26	2.83	3.40
12.4	1.94	2.28	2.86	3.44
12.5	1.95	2.30	2.88	3.46
12.6	1.96	2.31	2.90	3.48
12.8	1.98	2.34	2.93	3.52
13.0	2.00	2.36	2.97	3.56
13.2	2.03	2.39	3.00	3.61
13.4	2.05	2.42	3.04	3.65
13.5	2.07	2.44	3.06	3.67
13.6	2.08	2.45	3.07	3.70
13.8	2.10	2.48	3.11	3.74
14.0	2.13	2.51	3.15	3.79
14.2	2.16	2.54	3.19	3.84
14.4	2.18	2.58	3.23	3.88
14.5	2.20	2.59	3.25	3.91
14.6	2.21	2.61	3.27	3.94
14.8	2.24	2.64	3.32	3.99
15.0	2.27	2.68	3.36	4.04
15.2	2.30	2.72	3.41	4.10
15.4	2.33	2.75	3.45	4.15

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
15.5	<b>2.35</b>	2.77	<b>3.48</b>	4.18
15.6	<b>2.37</b>	2.79	<b>3.50</b>	4.21
15.8	<b>2.40</b>	2.83	<b>3.55</b>	4.27
16.0	<b>2.43</b>	2.87	<b>3.60</b>	4.33
16.2	<b>2.47</b>	2.91	<b>3.65</b>	4.39
16.4	<b>2.51</b>	2.96	<b>3.71</b>	4.46
16.5	<b>2.52</b>	2.98	<b>3.73</b>	4.49
16.6	<b>2.54</b>	3.00	<b>3.76</b>	4.52
16.8	<b>2.58</b>	3.05	<b>3.82</b>	4.59
17.0	<b>2.62</b>	3.09	<b>3.88</b>	4.66
17.2	<b>2.66</b>	3.14	<b>3.94</b>	4.74
17.4	<b>2.70</b>	3.19	<b>4.00</b>	4.81
17.5	<b>2.73</b>	3.22	<b>4.03</b>	4.85
17.6	<b>2.75</b>	3.24	<b>4.07</b>	4.89
17.8	<b>2.79</b>	3.30	<b>4.13</b>	4.97
18.0	<b>2.84</b>	3.35	<b>4.20</b>	5.05
18.2	<b>2.89</b>	3.41	<b>4.27</b>	5.14
18.4	<b>2.94</b>	3.47	<b>4.35</b>	5.22
18.5	<b>2.96</b>	3.50	<b>4.38</b>	5.27
18.6	<b>2.99</b>	3.53	<b>4.42</b>	5.32
18.8	<b>3.04</b>	3.59	<b>4.50</b>	5.41
19.0	<b>3.10</b>	3.65	<b>4.58</b>	5.51
19.2	<b>3.16</b>	3.72	<b>4.67</b>	5.61
19.4	<b>3.22</b>	3.79	<b>4.76</b>	5.72
19.5	<b>3.25</b>	3.83	<b>4.80</b>	5.77
19.6	<b>3.28</b>	3.87	<b>4.85</b>	5.83
19.8	<b>3.34</b>	3.94	<b>4.94</b>	5.94
20.0	<b>3.41</b>	4.02	<b>5.04</b>	6.06
20.2	<b>3.48</b>	4.10	<b>5.14</b>	6.18
20.4	<b>3.55</b>	4.19	<b>5.25</b>	6.31
20.5	<b>3.59</b>	4.23	<b>5.31</b>	6.38
20.6	<b>3.63</b>	4.28	<b>5.36</b>	6.45
20.8	<b>3.70</b>	4.37	<b>5.48</b>	6.59
21.0	<b>3.79</b>	4.47	<b>5.60</b>	6.73
21.2	<b>3.87</b>	4.57	<b>5.73</b>	6.89
21.4	<b>3.96</b>	4.67	<b>5.86</b>	7.05
21.5	<b>4.01</b>	4.73	<b>5.93</b>	7.13
21.6	<b>4.06</b>	4.79	<b>6.00</b>	7.22
21.8	<b>4.16</b>	4.90	<b>6.15</b>	7.39
22.0	<b>4.26</b>	5.03	<b>6.30</b>	7.58
22.4	<b>4.48</b>	5.29	<b>6.63</b>	7.98

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
22.5	<b>4.54</b>	5.36	<b>6.72</b>	8.08
22.6	<b>4.61</b>	5.43	<b>6.81</b>	8.19
22.8	<b>4.73</b>	5.58	<b>7.00</b>	8.42
23.0	<b>4.87</b>	5.74	<b>7.20</b>	8.66
23.2	<b>5.01</b>	5.91	<b>7.41</b>	8.91
23.4	<b>5.16</b>	6.09	<b>7.64</b>	9.18
23.5	<b>5.24</b>	6.19	<b>7.76</b>	9.32
23.6	<b>5.33</b>	6.28	<b>7.88</b>	9.47
23.8	<b>5.50</b>	6.48	<b>8.13</b>	9.78
24.0	<b>5.68</b>	6.70	<b>8.40</b>	10.10
24.2	<b>5.88</b>	6.93	<b>8.69</b>	10.45
24.4	<b>6.09</b>	7.18	<b>9.00</b>	10.82
24.5	<b>6.20</b>	7.31	<b>9.17</b>	11.02
24.6	<b>6.31</b>	7.45	<b>9.33</b>	11.22
24.8	<b>6.55</b>	7.73	<b>9.69</b>	11.66
25.0	<b>6.82</b>	8.04	<b>10.08</b>	12.12
25.2	<b>7.10</b>	8.38	<b>10.50</b>	12.63
25.4	<b>7.41</b>	8.74	<b>10.96</b>	13.18
25.5	<b>7.57</b>	8.93	<b>11.20</b>	13.47
25.6	<b>7.75</b>	9.14	<b>11.46</b>	13.78
25.8	<b>8.11</b>	9.57	<b>12.00</b>	14.43
26.0	<b>8.52</b>	10.05	<b>12.60</b>	15.15
26.2	<b>8.97</b>	10.58	<b>13.27</b>	15.95
26.4	<b>9.47</b>	11.17	<b>14.00</b>	16.84
26.5	<b>9.74</b>	11.49	<b>14.40</b>	17.32
26.6	<b>10.02</b>	11.82	<b>14.83</b>	17.83
26.8	<b>10.65</b>	12.56	<b>15.75</b>	18.94
27.0	<b>11.36</b>	13.40	<b>16.80</b>	20.20
27.2	<b>12.17</b>	14.36	<b>18.00</b>	21.65
27.4	<b>13.11</b>	15.46	<b>19.39</b>	23.31
27.5	<b>13.63</b>	16.08	<b>20.16</b>	24.24
27.6	<b>14.20</b>	16.75	<b>21.00</b>	25.26
27.8	<b>15.49</b>	18.27	<b>22.91</b>	27.55
28.0	<b>17.04</b>	20.10	<b>25.20</b>	30.31
28.2	<b>18.93</b>	22.34	<b>28.00</b>	33.67
28.4	<b>21.30</b>	25.13	<b>31.51</b>	37.88
28.5	<b>22.72</b>	26.80	<b>33.61</b>	40.41
28.6	<b>24.34</b>	28.72	<b>36.01</b>	43.29
28.8	<b>28.40</b>	33.50	<b>42.01</b>	50.51
29.0	<b>34.08</b>	40.20	<b>50.41</b>	60.61



Air Toxics

Method:TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)

CAS Number	Compound	Rpt. Limit(ppbv)
630-20-6	1,1,1,2-Tetrachloroethane	2.0
71-55-6	1,1,1-Trichloroethane	0.5
79-34-5	1,1,2,2-Tetrachloroethane	0.5
79-00-5	1,1,2-Trichloroethane	0.5
75-34-3	1,1-Dichloroethane	0.5
75-35-4	1,1-Dichloroethene	0.5
75-37-6	1,1-Difluoroethane	2.0
96-18-4	1,2,3-Trichloropropane	2.0
120-82-1	1,2,4-Trichlorobenzene	2.0
95-63-6	1,2,4-Trimethylbenzene	0.5
96-12-8	1,2-Dibromo-3-chloropropane	2.0
106-93-4	1,2-Dibromoethane (EDB)	0.5
95-50-1	1,2-Dichlorobenzene	0.5
107-06-2	1,2-Dichloroethane	0.5
78-87-5	1,2-Dichloropropane	0.5
108-67-8	1,3,5-Trimethylbenzene	0.5
106-99-0	1,3-Butadiene	0.5
541-73-1	1,3-Dichlorobenzene	0.5
106-46-7	1,4-Dichlorobenzene	0.5
123-91-1	1,4-Dioxane	2.0
540-84-1	2,2,4-Trimethylpentane	0.5
78-93-3	2-Butanone (Methyl Ethyl Ketone)	2.0
591-78-6	2-Hexanone	2.0
67-63-0	2-Propanol	2.0
107-05-1	3-Chloropropene	2.0
622-96-8	4-Ethyltoluene	0.5
108-10-1	4-Methyl-2-pentanone	0.5
67-64-1	Acetone	5.0
107-02-8	Acrolein	2.0
107-13-1	Acrylonitrile	2.0
100-44-7	alpha-Chlorotoluene	0.5
71-43-2	Benzene	0.5

75-27-4 Bromodichloromethane 0.5  
Method:TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)

CAS Number	Compound	Rpt. Limit(ppbv)
75-25-2	Bromoform	0.5
74-83-9	Bromomethane	5.0
75-15-0	Carbon Disulfide	2.0
56-23-5	Carbon Tetrachloride	0.5
108-90-7	Chlorobenzene	0.5
75-00-3	Chloroethane	2.0
67-66-3	Chloroform	0.5
74-87-3	Chloromethane	5.0
156-59-2	cis-1,2-Dichloroethene	0.5
10061-01-5	cis-1,3-Dichloropropene	0.5
98-82-8	Cumene	0.5
110-82-7	Cyclohexane	0.5
124-48-1	Dibromochloromethane	0.5
74-95-3	Dibromomethane	2.0
64-17-5	Ethanol	5.0
141-78-6	Ethyl Acetate	2.0
100-41-4	Ethyl Benzene	0.5
637-92-3	Ethyl-tert-butyl ether	2.0
75-69-4	Freon 11	0.5
76-13-1	Freon 113	0.5
76-14-2	Freon 114	0.5
75-71-8	Freon 12	0.5
811-97-2	Freon 134a	2.0
142-82-5	Heptane	0.5
87-68-3	Hexachlorobutadiene	2.0
67-72-1	Hexachloroethane	2.0
110-54-3	Hexane	0.5
74-88-4	Iodomethane	5.0
108-20-3	Isopropyl ether	2.0
108-38-3	m,p-Xylene	0.5
1634-04-4	Methyl tert-butyl ether	2.0
75-09-2	Methylene Chloride	5.0
91-20-3	Naphthalene	1.0
95-47-6	o-Xylene	0.5
103-65-1	Propylbenzene	0.5

115-07-1	Propylene	2.0
100-42-5	Styrene	0.5
994-05-8	tert-Amyl methyl ether	2.0
75-65-0	tert-Butyl alcohol	2.0
127-18-4	Tetrachloroethene	0.5
109-99-9	Tetrahydrofuran	0.5
108-88-3	Toluene	0.5
9999-9999-038	TPH ref. to Gasoline (MW=100)	50.0
156-60-5	trans-1,2-Dichloroethene	0.5
10061-02-6	trans-1,3-Dichloropropene	0.5
79-01-6	Trichloroethene	0.5
108-05-4	Vinyl Acetate	2.0
593-60-2	Vinyl Bromide	2.0
75-01-4	Vinyl Chloride	0.5

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	Surrogate	Method Limits
17060-07-0	1,2-Dichloroethane-d4	70-130
460-00-4	4-Bromofluorobenzene	70-130
2037-26-5	Toluene-d8	70-130



Eurofins Air Toxics		Data Review Checklist		Release Date: 10/22/19
Workorder # 2107284		Form F1.27	Revision #17	Revision Date: 10/22/19
				Page 1 of 2

S	S	S	S	D	<b>Section 1 - Spec Out</b>
1	2	3	4		Initials/Instrument/Date
					S1: MSD3 7/26/21 S2: MSD3 7/27/21 S3: S4:
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Manual Integrations included and approved
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Chain of Custody verified for special comments/notes and analyses requested (add comments below)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Non-standard Target sublist verified (MDL, LOD, RL, control limits, etc.)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Verified standard expiration dates

Profile, analyses, reporting, special notes and unusual circumstances: S1: QC - 1 out ICAL, 1 out US, 10-08a. S2: QC - 1 out ICAL, 0 out daily, 10-09a.

A	A	A	A	D	<b>Section 2 - Sample Analysis</b>
1	2	3	4		Initials/Date
					A1: RF 7/26/21 A2: CD 7/27/21 A3: ML 7/27/21 A4:
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, Canister #s Verified and dilution ranges are met per SOP (ex. Over-ranged/overdiluted)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Manual Integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12/24 Hr clock time & Hold Time met for all samples
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Re-analysis of sample(s) has been evaluated for comparability and/or sample(s) has/have been checked for trends (Inf/Eff), field dups/trip blanks, samples following bad loads on auto samplers have been verified (system blks, confirmation runs)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)

Analytical and special notes: A1: OIA - 10A full load 0.7A full load 10A Mech column  
A2: 11A-20A - Full loads: 10A confirmation - 3072629.  
13A 14A duped, 17A "E" 11DFA OK per ppm. A3: 21A, 22A, 24A-26A, 23A Full load. 23A confirmation 3072721.

D	D	D	D	T	3	<b>Section 3 - Target Data Reduction</b>	Technical Review Needed? Circle one: Yes/No	T:
1	2	3	4			Initials/Instrument/Date	D1: EA 7/26/21	D2: D3: D4:
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CAR # (if applicable)		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Spectra Verified (documentation of spectral defense included if applicable)		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	TICs resemble reference spectra/ TICs between sample dups. are consistent (if applicable)		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lab Narrative is correct		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	TPH/NMOC calculations complete and included in folder		

Special notes: PD confirmed

A	3	<b>Section 4- Atlas Data Entry</b>	Lumen verified and included in folder	Circle one: Yes/No
1	T	Initials/Date: EA 7/28/21	3 <sup>rd</sup> Tier: (needed only for DOD or per client request)	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample Discrepancy Report (SDR) complete and approved (if applicable)		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Manually entered results are checked		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	At least one result per sample is verified against Target quant sheets		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Appropriate data qualifier flags are applied		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Final Invoice is correct/ Final PDF report, COC and EDD reviewed and correct		

Special Notes:

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply  
Note (2) 3<sup>rd</sup> Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Eurofins Air Toxics  Reissued	Data Review Checklist			Release Date: 10/22/19
	Form F1.27	Revision #17	Revision Date: 10/22/19	Page 2 of 2

<b>Workorder # :</b>					<b>Reason for Reissue:</b>						
<b>W</b>	<b>T</b>	<b>3T</b>	<b>Q</b>								
				Reissue Request form Present							
				Client or QA or Lab contact present with reason for reissue							
				Review all affected data							
				Report header has correct R1, R2 etc							
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)							
				Date for Reissue in Report Header matches date in Lab Narrative							
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)							
				Corrective Action issued - #							
				The reissued workorder has been approved by QA Manager or a Technical Director							
<b>Additional Comments:</b>											
<b>Write Up</b> (Initials/Date)			<b>Tech Review</b> (Initials/Date)			<b>*3<sup>rd</sup> Tier Review</b> <i>* 3<sup>rd</sup> Tier Report Review is for DoD &amp; Client Specific projects only</i> (Initials/Date)			<b>QA Review</b> (Initials/Date)		

<b>Workorder # :</b>					<b>Reason for Reissue:</b>						
<b>W</b>	<b>T</b>	<b>3T</b>	<b>Q</b>								
				Reissue Request form Present							
				Client or QA or Lab contact present with reason for reissue							
				Review all affected data							
				Report header has correct R1, R2 etc							
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)							
				Date for Reissue in Report Header matches date in Lab Narrative							
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)							
				Corrective Action issued - #							
				The reissued workorder has been approved by QA Manager or a Technical Director							
<b>Additional Comments:</b>											
<b>Write Up</b> (Initials/Date)			<b>Tech Review</b> (Initials/Date)			<b>*3<sup>rd</sup> Tier Review</b> <i>* 3<sup>rd</sup> Tier Report Review is for DoD &amp; Client Specific projects only</i> (Initials/Date)			<b>QA Review</b> (Initials/Date)		

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply  
Note (2) 3<sup>rd</sup> Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

**Not Applicable**



eurofins

Air Toxics

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# Electronic Comprehensive Validation Package (eCVP)

*Vera Belitsky*

Vera Belitsky

08-25-2021

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**WORK ORDER #: 2108390**

Work Order Summary

**CLIENT:** Mr. Robert Kohlhardt  
 AECOM  
 2020 L Street, Suite 400  
 Sacramento, CA 95811

**BILL TO:** Mr. Jerry Montgomery  
 SWPPQueen  
 7202 Gloria Drive #25  
 Sacramento, CA 95831

**PHONE:** 916-679-2000

**P.O. #**

**FAX:** 916-679-2900

**PROJECT #** 60632793.6 SMUD 59th ST.

**DATE RECEIVED:** 08/17/2021

**CONTACT:** Monica Tran

**DATE COMPLETED:** 08/24/2021

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SG-VW35A-03	TO-15	6.0 "Hg	10 psi
02A	SG-VW44A-03	TO-15	6.5 "Hg	10 psi
03A	SG-VW17A-03	TO-15	5.0 "Hg	10 psi
04A	SG-VW58A-02	TO-15	7.0 "Hg	10 psi
05A	SG-VW58B-02	TO-15	5.5 "Hg	10 psi
06A	SG-VW60B-02	TO-15	6.0 "Hg	10 psi
07A	SG-VW60A-02	TO-15	5.0 "Hg	10 psi
08A	SG-VW61A-02	TO-15	7.0 "Hg	10 psi
09A	SG-VW63A-02	TO-15	6.0 "Hg	10 psi
10A	SG-VW63B-02	TO-15	6.0 "Hg	10 psi
11A	SG-VW63B-03	TO-15	6.0 "Hg	10 psi
12A	SG-VW55A-03	TO-15	5.0 "Hg	10 psi
13A	SG-VW20A-03	TO-15	4.5 "Hg	10 psi
14A	SG-VW21A-04	TO-15	4.0 "Hg	10 psi
15A	SG-VW24A-05	TO-15	5.0 "Hg	10 psi
16A	SG-VW29A-03	TO-15	6.5 "Hg	10 psi
17A	SG-VW64A-02	TO-15	5.5 "Hg	10 psi
18A	SG-VW59A-02	TO-15	5.0 "Hg	10 psi
19A	SG-VW59B-02	TO-15	6.0 "Hg	10 psi
20A	SSV-FSS01-02	TO-15	5.5 "Hg	10 psi
21A	SSV-FSS01-03	TO-15	5.5 "Hg	10 psi
22A	SSV-FSS02-02	TO-15	4.5 "Hg	10.6 psi
23A	SSV-GSS01-02	TO-15	5.5 "Hg	10 psi

Continued on next page

**WORK ORDER #: 2108390**

Work Order Summary

<b>CLIENT:</b>	Mr. Robert Kohlhardt AECOM 2020 L Street, Suite 400 Sacramento, CA 95811	<b>BILL TO:</b>	Mr. Jerry Montgomery SWPPQueen 7202 Gloria Drive #25 Sacramento, CA 95831
<b>PHONE:</b>	916-679-2000	<b>P.O. #</b>	
<b>FAX:</b>	916-679-2900	<b>PROJECT #</b>	60632793.6 SMUD 59th ST.
<b>DATE RECEIVED:</b>	08/17/2021	<b>CONTACT:</b>	Monica Tran
<b>DATE COMPLETED:</b>	08/24/2021		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
24A	SSV-GSS02-02	TO-15	6.5 "Hg	10 psi
25A	SSV-HMBSS01-02	TO-15	5.5 "Hg	10 psi
26A	SSV-JSS01-02	TO-15	6.0 "Hg	10 psi
27A	Lab Blank	TO-15	NA	NA
27B	Lab Blank	TO-15	NA	NA
28A	CCV	TO-15	NA	NA
28B	CCV	TO-15	NA	NA
29A	LCS	TO-15	NA	NA
29AA	LCSD	TO-15	NA	NA
29B	LCS	TO-15	NA	NA
29BB	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 08/24/21

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**AECOM**  
**Workorder# 2108390**

Twenty-six 1 Liter Summa Canister samples were received on August 17, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

The US EPA released a document on December 17, 2010 outlining possible data quality concerns for Acrolein measured by EPA Method TO-15. As a result, Acrolein is reported as estimated. Please refer to EPA document titled "Data Quality Evaluation Guidelines for Ambient Air Acrolein Measurements December 17, 2010" located on-line at [www.epa.gov/ttn/amtic/airtox.html](http://www.epa.gov/ttn/amtic/airtox.html) for complete details.

**Definition of Data Qualifying Flags**

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



**Table 1**

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample	Sample Extract		Sample Condition
					Holding Time (Days)	Date Analyzed	Holding Time (Days)	
SG-VW35A-03	2108390-01A	08/16/2021	08/17/2021	NA	4	08/20/2021	NA	GOOD
SG-VW44A-03	2108390-02A	08/16/2021	08/17/2021	NA	4	08/20/2021	NA	GOOD
SG-VW17A-03	2108390-03A	08/16/2021	08/17/2021	NA	4	08/20/2021	NA	GOOD
SG-VW58A-02	2108390-04A	08/16/2021	08/17/2021	NA	5	08/21/2021	NA	GOOD
SG-VW58B-02	2108390-05A	08/16/2021	08/17/2021	NA	4	08/20/2021	NA	GOOD
SG-VW60B-02	2108390-06A	08/16/2021	08/17/2021	NA	4	08/20/2021	NA	GOOD
SG-VW60A-02	2108390-07A	08/16/2021	08/17/2021	NA	4	08/20/2021	NA	GOOD
SG-VW61A-02	2108390-08A	08/16/2021	08/17/2021	NA	5	08/21/2021	NA	GOOD
SG-VW63A-02	2108390-09A	08/16/2021	08/17/2021	NA	4	08/20/2021	NA	GOOD
SG-VW63B-02	2108390-10A	08/16/2021	08/17/2021	NA	4	08/20/2021	NA	GOOD
SG-VW63B-03	2108390-11A	08/16/2021	08/17/2021	NA	4	08/20/2021	NA	GOOD
SG-VW55A-03	2108390-12A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SG-VW20A-03	2108390-13A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SG-VW21A-04	2108390-14A	08/17/2021	08/17/2021	NA	3	08/20/2021	NA	GOOD
SG-VW24A-05	2108390-15A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SG-VW29A-03	2108390-16A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SG-VW64A-02	2108390-17A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SG-VW59A-02	2108390-18A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SG-VW59B-02	2108390-19A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SSV-FSS01-02	2108390-20A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SSV-FSS01-03	2108390-21A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SSV-FSS02-02	2108390-22A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SSV-GSS01-02	2108390-23A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SSV-GSS02-02	2108390-24A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SSV-HMBSS01-02	2108390-25A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
SSV-JSS01-02	2108390-26A	08/17/2021	08/17/2021	NA	4	08/21/2021	NA	GOOD
Lab Blank	2108390-27A	NA	NA	NA	NA	08/20/2021	NA	GOOD
Lab Blank	2108390-27B	NA	NA	NA	NA	08/21/2021	NA	GOOD
CCV	2108390-28A	NA	NA	NA	NA	08/20/2021	NA	GOOD
CCV	2108390-28B	NA	NA	NA	NA	08/21/2021	NA	GOOD
LCS	2108390-29A	NA	NA	NA	NA	08/20/2021	NA	GOOD
LCSD	2108390-29AA	NA	NA	NA	NA	08/20/2021	NA	GOOD
LCS	2108390-29B	NA	NA	NA	NA	08/21/2021	NA	GOOD
LCSD	2108390-29BB	NA	NA	NA	NA	08/21/2021	NA	GOOD

## **Sample Results and Raw Data**

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW35A-03**

**Lab ID#: 2108390-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,2,4-Trimethylbenzene	1.0	1.4	5.2	7.0
4-Methyl-2-pentanone	1.0	1.2	4.3	5.1
Cyclohexane	1.0	6.8	3.6	24
Ethyl Benzene	1.0	3.0	4.6	13
Hexane	1.0	1200 E	3.7	4300 E
m,p-Xylene	1.0	12	4.6	53
o-Xylene	1.0	4.2	4.6	18
Tetrachloroethene	1.0	59	7.1	400
Toluene	1.0	1.4	4.0	5.2
TPH ref. to Gasoline (MW=100)	100	1900	430	7800

**Client Sample ID: SG-VW44A-03**

**Lab ID#: 2108390-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,1-Difluoroethane	4.3	7.7	12	21
1,2,4-Trimethylbenzene	1.1	1.8	5.2	8.7
4-Ethyltoluene	1.1	1.2	5.3	5.7
4-Methyl-2-pentanone	1.1	1.8	4.4	7.2
Chloroform	1.1	7.2	5.2	35
Cyclohexane	1.1	1.1	3.7	3.9
Ethyl Benzene	1.1	3.6	4.6	16
Hexane	1.1	250	3.8	890
m,p-Xylene	1.1	13	4.6	56
o-Xylene	1.1	4.7	4.6	20
Tetrachloroethene	1.1	1.6	7.2	11
Toluene	1.1	1.8	4.0	6.7
TPH ref. to Gasoline (MW=100)	110	460	440	1900

**Client Sample ID: SG-VW17A-03**

**Lab ID#: 2108390-03A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
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**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW17A-03**

**Lab ID#: 2108390-03A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,1-Difluoroethane	4.0	4.0	11	11
1,2,4-Trimethylbenzene	1.0	1.6	5.0	7.7
2-Propanol	4.0	5.2	9.9	13
4-Ethyltoluene	1.0	1.1	5.0	5.3
4-Methyl-2-pentanone	1.0	1.3	4.1	5.4
Chloroform	1.0	39	4.9	190
Cyclohexane	1.0	2.7	3.5	9.2
Ethyl Benzene	1.0	2.1	4.4	9.1
Hexane	1.0	670 E	3.6	2400 E
m,p-Xylene	1.0	8.7	4.4	38
o-Xylene	1.0	3.5	4.4	15
Tetrachloroethene	1.0	16	6.8	110
Toluene	1.0	1.3	3.8	5.0
TPH ref. to Gasoline (MW=100)	100	1000	410	4100

**Client Sample ID: SG-VW58A-02**

**Lab ID#: 2108390-04A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
4-Methyl-2-pentanone	1.1	1.2	4.5	4.7
Acetone	11	11	26	27
Ethyl Benzene	1.1	1.6	4.8	6.9
Freon 12	1.1	1.4	5.4	7.0
Hexane	1.1	200	3.8	700
m,p-Xylene	1.1	5.6	4.8	24
o-Xylene	1.1	2.4	4.8	10
Tetrachloroethene	1.1	24	7.4	160
Toluene	1.1	2.5	4.1	9.4
TPH ref. to Gasoline (MW=100)	110	300	450	1200

**Client Sample ID: SG-VW58B-02**

**Lab ID#: 2108390-05A**

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW58B-02**

**Lab ID#: 2108390-05A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.1	8.4	10	21
Chloroform	1.0	1.2	5.0	5.6
Freon 12	1.0	3.7	5.1	18
Hexane	1.0	110	3.6	390
m,p-Xylene	1.0	3.3	4.5	14
o-Xylene	1.0	1.2	4.5	5.0
Tetrachloroethene	1.0	55	7.0	380
TPH ref. to Gasoline (MW=100)	100	190	420	780

**Client Sample ID: SG-VW60B-02**

**Lab ID#: 2108390-06A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Chloroform	1.0	1.1	5.1	5.4
Freon 12	1.0	3.4	5.2	17
Hexane	1.0	86	3.7	300
m,p-Xylene	1.0	2.2	4.6	9.4
Tetrachloroethene	1.0	30	7.1	200
Toluene	1.0	2.7	4.0	10
TPH ref. to Gasoline (MW=100)	100	160	430	650

**Client Sample ID: SG-VW60A-02**

**Lab ID#: 2108390-07A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Benzene	1.0	1.5	3.2	4.7
Freon 12	1.0	1.6	5.0	7.7
Hexane	1.0	120	3.6	420
m,p-Xylene	1.0	2.2	4.4	9.8
o-Xylene	1.0	1.1	4.4	4.6
Tetrachloroethene	1.0	14	6.8	96
Toluene	1.0	1.9	3.8	7.0
TPH ref. to Gasoline (MW=100)	100	230	410	940

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW60A-02**

**Lab ID#: 2108390-07A**

**Client Sample ID: SG-VW61A-02**

**Lab ID#: 2108390-08A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,1-Difluoroethane	4.4	5.2	12	14
Acetone	11	17	26	40
Bromodichloromethane	1.1	2.2	7.3	15
Chloroform	1.1	49	5.3	240
Ethyl Benzene	1.1	1.8	4.8	7.7
Freon 12	1.1	1.3	5.4	6.3
Hexane	1.1	86	3.8	300
m,p-Xylene	1.1	4.5	4.8	19
o-Xylene	1.1	2.2	4.8	9.4
Tetrachloroethene	1.1	17	7.4	120
Toluene	1.1	2.9	4.1	11
TPH ref. to Gasoline (MW=100)	110	210	450	860

**Client Sample ID: SG-VW63A-02**

**Lab ID#: 2108390-09A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.2	8.9	10	22
Acetone	10	14	25	34
Chloroform	1.0	2.6	5.1	13
Freon 12	1.0	2.3	5.2	11
Hexane	1.0	53	3.7	190
m,p-Xylene	1.0	1.2	4.6	5.5
Tetrachloroethene	1.0	2.1	7.1	14
TPH ref. to Gasoline (MW=100)	100	140	430	570

**Client Sample ID: SG-VW63B-02**

**Lab ID#: 2108390-10A**

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW63B-02**

**Lab ID#: 2108390-10A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Bromodichloromethane	1.0	1.7	7.0	11
Chloroform	1.0	32	5.1	150
Freon 12	1.0	4.6	5.2	22
Hexane	1.0	150	3.7	530
Tetrachloroethene	1.0	18	7.1	120
TPH ref. to Gasoline (MW=100)	100	240	430	980

**Client Sample ID: SG-VW63B-03**

**Lab ID#: 2108390-11A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Bromodichloromethane	1.0	1.8	7.0	12
Chloroform	1.0	31	5.1	150
Freon 12	1.0	4.3	5.2	21
Hexane	1.0	56	3.7	200
Tetrachloroethene	1.0	18	7.1	120
TPH ref. to Gasoline (MW=100)	100	110	430	450

**Client Sample ID: SG-VW55A-03**

**Lab ID#: 2108390-12A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,2,4-Trimethylbenzene	1.0	2.1	5.0	10
4-Ethyltoluene	1.0	2.2	5.0	10
Benzene	1.0	1.0	3.2	3.2
Cyclohexane	1.0	1.6	3.5	5.4
Ethanol	10	19	19	36
Ethyl Benzene	1.0	2.4	4.4	10
Hexane	1.0	190	3.6	670
m,p-Xylene	1.0	9.3	4.4	40
o-Xylene	1.0	3.2	4.4	14
Toluene	1.0	8.6	3.8	32
TPH ref. to Gasoline (MW=100)	100	320	410	1300

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW55A-03**

**Lab ID#: 2108390-12A**

**Client Sample ID: SG-VW20A-03**

**Lab ID#: 2108390-13A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,2,4-Trimethylbenzene	0.99	1.6	4.9	7.7
4-Ethyltoluene	0.99	1.5	4.9	7.3
Cyclohexane	0.99	1.0	3.4	3.4
Ethanol	9.9	11	19	22
Ethyl Benzene	0.99	1.6	4.3	7.0
Hexane	0.99	98	3.5	350
m,p-Xylene	0.99	6.5	4.3	28
o-Xylene	0.99	2.2	4.3	9.7
Tetrachloroethene	0.99	4.9	6.7	33
Toluene	0.99	5.4	3.7	20
TPH ref. to Gasoline (MW=100)	99	180	400	740

**Client Sample ID: SG-VW21A-04**

**Lab ID#: 2108390-14A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,1,1-Trichloroethane	0.97	1.0	5.3	5.8
1,1-Difluoroethane	3.9	84	10	230
1,2,4-Trimethylbenzene	0.97	3.4	4.8	16
1,3,5-Trimethylbenzene	0.97	1.1	4.8	5.6
2,2,4-Trimethylpentane	0.97	1.2	4.5	5.8
2-Propanol	3.9	6.1	9.5	15
4-Ethyltoluene	0.97	3.6	4.8	18
Acetone	9.7	22	23	52
Benzene	0.97	1.8	3.1	5.7
Chloroform	0.97	1.8	4.7	9.0
Cyclohexane	0.97	2.7	3.3	9.2
Ethanol	9.7	32	18	61
Ethyl Benzene	0.97	4.2	4.2	18



**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW21A-04**

**Lab ID#: 2108390-14A**

Heptane	0.97	1.2	4.0	4.8
Hexane	0.97	220	3.4	760
m,p-Xylene	0.97	16	4.2	70
o-Xylene	0.97	5.4	4.2	24
Propylene	3.9	5.0	6.7	8.7
Tetrachloroethene	0.97	14	6.6	99
Toluene	0.97	13	3.6	50
TPH ref. to Gasoline (MW=100)	97	470	400	1900
Trichloroethene	0.97	3.4	5.2	18

**Client Sample ID: SG-VW24A-05**

**Lab ID#: 2108390-15A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Difluoroethane	4.0	6.8	11	18
1,2,4-Trimethylbenzene	1.0	1.4	5.0	7.1
2-Propanol	4.0	5.2	9.9	13
4-Ethyltoluene	1.0	1.4	5.0	7.1
Acetone	10	10	24	25
Carbon Disulfide	4.0	4.8	12	15
Cyclohexane	1.0	1.1	3.5	3.7
Ethanol	10	12	19	22
Ethyl Benzene	1.0	1.6	4.4	6.9
Freon 12	1.0	1.6	5.0	7.8
Hexane	1.0	76	3.6	270
m,p-Xylene	1.0	5.9	4.4	26
o-Xylene	1.0	2.1	4.4	9.2
Tetrachloroethene	1.0	39	6.8	260
Toluene	1.0	4.2	3.8	16
TPH ref. to Gasoline (MW=100)	100	160	410	650
Trichloroethene	1.0	1.9	5.4	10

**Client Sample ID: SG-VW29A-03**

**Lab ID#: 2108390-16A**

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW29A-03**

**Lab ID#: 2108390-16A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,2,4-Trimethylbenzene	1.1	1.6	5.2	8.1
2-Propanol	4.3	7.6	10	19
4-Ethyltoluene	1.1	1.4	5.3	6.9
Ethanol	11	13	20	25
Ethyl Benzene	1.1	1.3	4.6	5.7
Freon 12	1.1	1.2	5.3	5.7
Hexane	1.1	68	3.8	240
m,p-Xylene	1.1	4.9	4.6	21
o-Xylene	1.1	1.8	4.6	7.8
Tetrachloroethene	1.1	21	7.2	140
Toluene	1.1	3.6	4.0	13
TPH ref. to Gasoline (MW=100)	110	120	440	490

**Client Sample ID: SG-VW64A-02**

**Lab ID#: 2108390-17A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
1,2,4-Trimethylbenzene	1.0	1.3	5.1	6.4
2-Propanol	4.1	4.0 J	10	9.9 J
4-Ethyltoluene	1.0	1.1	5.1	5.6
Bromodichloromethane	1.0	1.5	6.9	10
Chloroform	1.0	46	5.0	220
Ethanol	10	10	19	20
Ethyl Benzene	1.0	1.3	4.5	5.8
Freon 12	1.0	2.4	5.1	12
Hexane	1.0	48	3.6	170
m,p-Xylene	1.0	4.1	4.5	18
o-Xylene	1.0	1.7	4.5	7.4
Tetrachloroethene	1.0	45	7.0	300
Toluene	1.0	4.2	3.9	16
TPH ref. to Gasoline (MW=100)	100	140	420	570

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SG-VW59A-02**

**Lab ID#: 2108390-18A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Ethanol	10	12	19	22
Ethyl Benzene	1.0	1.0	4.4	4.4
Freon 12	1.0	1.5	5.0	7.5
Hexane	1.0	42	3.6	150
m,p-Xylene	1.0	3.7	4.4	16
o-Xylene	1.0	1.4	4.4	6.1
Tetrachloroethene	1.0	15	6.8	100
Toluene	1.0	3.7	3.8	14

**Client Sample ID: SG-VW59B-02**

**Lab ID#: 2108390-19A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Ethanol	10	14	20	27
Freon 12	1.0	5.3	5.2	26
Hexane	1.0	36	3.7	130
m,p-Xylene	1.0	2.5	4.6	11
o-Xylene	1.0	1.1	4.6	4.7
Tetrachloroethene	1.0	45	7.1	300
Toluene	1.0	1.7	4.0	6.5

**Client Sample ID: SSV-FSS01-02**

**Lab ID#: 2108390-20A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Hexane	1.0	22	3.6	77
m,p-Xylene	1.0	1.1	4.5	4.8
Tetrachloroethene	1.0	1.4	7.0	9.4

**Client Sample ID: SSV-FSS01-03**

**Lab ID#: 2108390-21A**

### Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: SSV-FSS01-03**

**Lab ID#: 2108390-21A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	1.0	15	3.6	54
m,p-Xylene	1.0	1.3	4.5	5.5
Tetrachloroethene	1.0	1.4	7.0	9.7

**Client Sample ID: SSV-FSS02-02**

**Lab ID#: 2108390-22A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trimethylbenzene	1.0	2.0	5.0	10
4-Ethyltoluene	1.0	1.7	5.0	8.3
Ethanol	10	12	19	22
Hexane	1.0	28	3.6	97
m,p-Xylene	1.0	3.4	4.4	15
o-Xylene	1.0	1.6	4.4	7.1
Propylene	4.0	4.8	7.0	8.2
Tetrachloroethene	1.0	9.3	6.8	63
Toluene	1.0	2.0	3.8	7.7
TPH ref. to Gasoline (MW=100)	100	130	410	530

**Client Sample ID: SSV-GSS01-02**

**Lab ID#: 2108390-23A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	1.0	14	3.6	50
m,p-Xylene	1.0	1.3	4.5	5.5

**Client Sample ID: SSV-GSS02-02**

**Lab ID#: 2108390-24A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.3	12	10	31
Ethanol	11	16	20	30

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SSV-GSS02-02**

**Lab ID#: 2108390-24A**

Hexane	1.1	21	3.8	75
m,p-Xylene	1.1	1.7	4.6	7.5
Tetrachloroethene	1.1	44	7.2	300
Tetrahydrofuran	1.1	1.6	3.2	4.6
Toluene	1.1	1.1	4.0	4.3
----- TPH ref. to Gasoline (MW=100)	110	120	440	490

**Client Sample ID: SSV-HMBSS01-02**

**Lab ID#: 2108390-25A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.1	5.2	10	13
Hexane	1.0	16	3.6	58
m,p-Xylene	1.0	1.6	4.5	6.7
Tetrachloroethene	1.0	11	7.0	72

**Client Sample ID: SSV-JSS01-02**

**Lab ID#: 2108390-26A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
2-Propanol	4.2	8.0	10	20
Carbon Disulfide	4.2	10	13	32
Ethanol	10	23	20	44
Hexane	1.0	35	3.7	120
m,p-Xylene	1.0	2.2	4.6	9.5
----- Tetrachloroethene	1.0	3.4	7.1	23
Toluene	1.0	1.4	4.0	5.2
TPH ref. to Gasoline (MW=100)	100	120	430	490

Client Sample ID: SG-VW35A-03

Lab ID#: 2108390-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082008	Date of Collection:	8/16/21 9:01:00 AM
Dil. Factor:	2.10	Date of Analysis:	8/20/21 03:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.2	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	1.4	5.2	7.0
1,2-Dibromo-3-chloropropane	4.2	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected
2-Propanol	4.2	Not Detected	10	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.0	1.2	4.3	5.1
Acetone	10	Not Detected	25	Not Detected
Acrolein	4.2	Not Detected	9.6	Not Detected
Acrylonitrile	4.2	Not Detected	9.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
Chloromethane	10	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected



Air Toxics

Client Sample ID: SG-VW35A-03

Lab ID#: 2108390-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082008	Date of Collection:	8/16/21 9:01:00 AM
Dil. Factor:	2.10	Date of Analysis:	8/20/21 03:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
Cyclohexane	1.0	6.8	3.6	24
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
Dibromomethane	4.2	Not Detected	30	Not Detected
Ethanol	10	Not Detected	20	Not Detected
Ethyl Acetate	4.2	Not Detected	15	Not Detected
Ethyl Benzene	1.0	3.0	4.6	13
Ethyl-tert-butyl ether	4.2	Not Detected	18	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 12	1.0	Not Detected	5.2	Not Detected
Freon 113	1.0	Not Detected	8.0	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Freon 134a	4.2	Not Detected	18	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected
Hexachloroethane	4.2	Not Detected	41	Not Detected
Hexane	1.0	1200 E	3.7	4300 E
Iodomethane	10	Not Detected	61	Not Detected
Isopropyl ether	4.2	Not Detected	18	Not Detected
m,p-Xylene	1.0	12	4.6	53
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	4.2	4.6	18
Propylbenzene	1.0	Not Detected	5.2	Not Detected
Propylene	4.2	Not Detected	7.2	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
tert-Amyl methyl ether	4.2	Not Detected	18	Not Detected
tert-Butyl alcohol	4.2	Not Detected	13	Not Detected
Tetrachloroethene	1.0	59	7.1	400
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Toluene	1.0	1.4	4.0	5.2
TPH ref. to Gasoline (MW=100)	100	1900	430	7800
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Vinyl Acetate	4.2	Not Detected	15	Not Detected
Vinyl Bromide	4.2	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected

**Client Sample ID: SG-VW35A-03**
**Lab ID#: 2108390-01A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p082008</b>	<b>Date of Collection: 8/16/21 9:01:00 AM</b>
<b>Dil. Factor:</b>	<b>2.10</b>	<b>Date of Analysis: 8/20/21 03:57 PM</b>

E = Exceeds instrument calibration range.

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	103	70-130



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082008.d  
 Lab Smp Id: 2108390-01A  
 Inj Date : 20-AUG-2021 15:57  
 Operator : mjb Inst ID: msdp.i  
 Smp Info : 200ml N3129  
 Misc Info : 6.0 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5fl Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 1  
 Dil Factor: 2.10000  
 Integrator: HP RTE Compound Sublist: AEC25677.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	111350	25.0000	80.00- 120.00	100.00	
5.785	5.785	(1.000)	128	89276		48.23- 108.23	80.18	
5.785	5.778	(1.000)	49	253864		150.57- 210.57	227.99	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	427337	25.0000	80.00- 120.00	100.00	
6.659	6.659	(1.000)	88	61064		0.00- 45.71	14.29	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	424317	25.0000	80.00- 120.00	100.00	
9.460	9.460	(1.000)	82	218267		23.78- 83.78	51.44	
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	174226	28.3520	28.352 80.00- 120.00	100.00	
6.315	6.315	(1.092)	67	80984		27.21- 87.21	46.48	
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	462142	24.9044	24.904 80.00- 120.00	100.00	
7.891	7.891	(1.184)	70	48755		0.00- 40.44	10.55	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	297784			34.95- 94.95	64.44
-----								
\$ 170 4-Bromofluorobenzene CAS #: 460-00-4								
10.921	10.921	(1.154)	174	281844	25.8668	25.867	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	333987			95.92- 155.92	118.50
10.921	10.921	(1.154)	176	271833			66.89- 126.89	96.45
-----								
67 Hexane CAS #: 110-54-3								
4.696	4.697	(0.812)	57	6421609	585.419	1229.4	80.00- 120.00	100.00(A)
4.696	4.697	(0.812)	43	4909420			37.52- 97.52	76.45
4.696	4.697	(0.812)	86	632395			0.00- 41.48	9.85
-----								
94 Cyclohexane CAS #: 110-82-7								
5.957	5.957	(1.030)	84	22785	3.25298	6.831	80.00- 120.00	100.00
5.957	5.957	(1.030)	56	44214			142.57- 202.57	194.05
5.957	5.957	(1.030)	41	28624			62.09- 122.09	125.63
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.798	7.798	(1.170)	58	4331	0.58992	1.239	80.00- 120.00	100.00
7.798	7.798	(1.170)	43	13604			242.35- 302.35	314.09
7.798	7.798	(1.170)	85	1061			3.24- 63.24	24.50
-----								
137 Toluene CAS #: 108-88-3								
7.956	7.956	(1.193)	91	12701	0.65281	1.371	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	6992			28.38- 88.38	55.05
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.464	8.464	(0.895)	166	273273	28.2583	59.342	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	213183			47.84- 107.84	78.01
8.464	8.464	(0.895)	131	207281			45.29- 105.29	75.85
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.567	9.567	(1.011)	106	12726	1.44444	3.033	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	38238			273.74- 333.74	300.47
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.718	9.718	(1.027)	106	63815	5.78326	12.145	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	117675			163.73- 223.73	184.40
-----								
164 o-Xylene CAS #: 95-47-6								
10.226	10.226	(1.081)	106	20999	1.98624	4.171	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	43471			177.45- 237.45	207.01
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.816	11.817	(1.249)	105	18925	0.68003	1.428	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
190 1,2,4-Trimethylbenzene (continued)								
11.816	11.817	(1.249)	120	9301			19.05- 79.05	49.15

---

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p082008.d  
Lab Smp Id: 2108390-01A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: mjb  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
Calibration Time: 11:13  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	111350	1.81
108 1,4-Difluorobenze	406799	244079	569519	427337	5.05
153 Chlorobenzene-d5	400841	240505	561177	424317	5.86

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.10
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-01A  
Level: LOW Operator: mjb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	28.352	113.41	70-130
\$ 134 Toluene-d8	25.000	24.904	99.62	70-130
\$ 170 4-Bromofluorobenz	25.000	25.867	103.47	70-130

Date : 20-AUG-2021 15:57

Client ID:

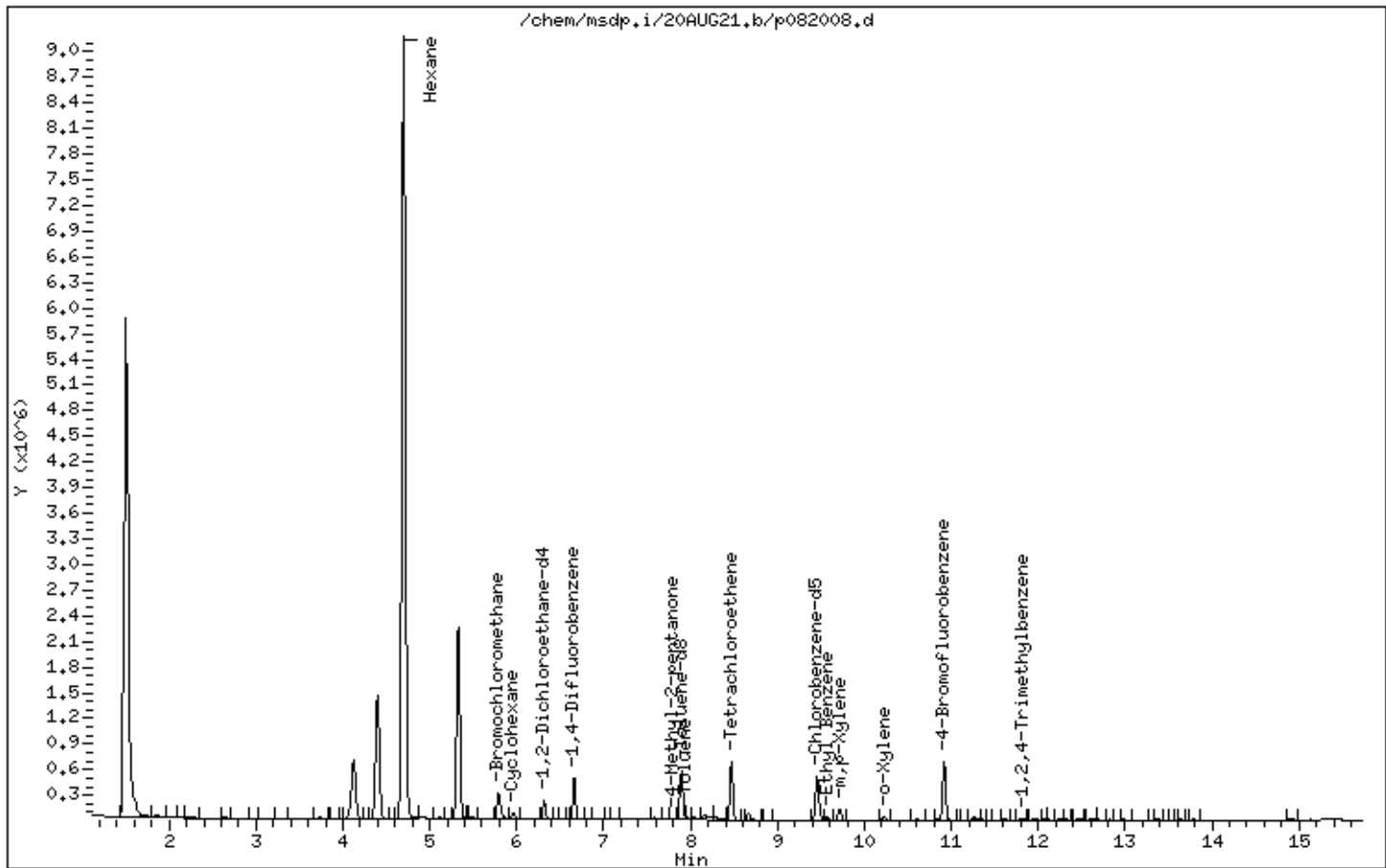
Instrument: msdp.i

Sample Info: 200ml N3129

Operator: mjb

Column phase: RTX-624

Column diameter: 0.25



Date : 20-AUG-2021 15:57

Client ID:

Instrument: msdp.i

Sample Info: 200ml N3129

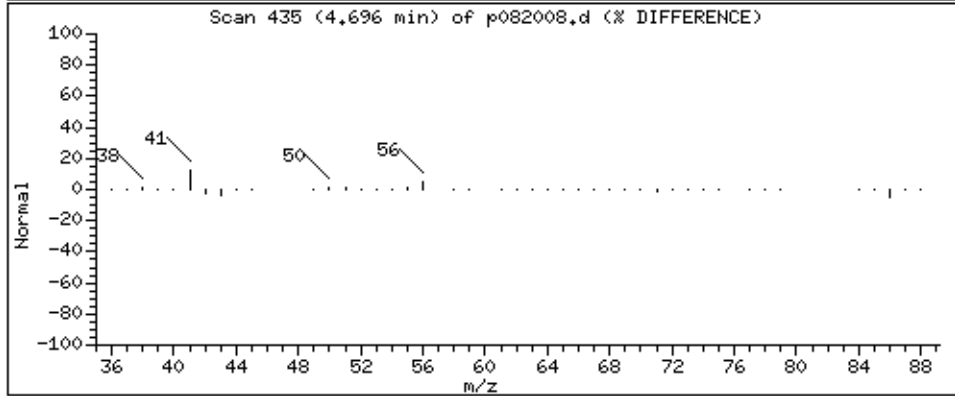
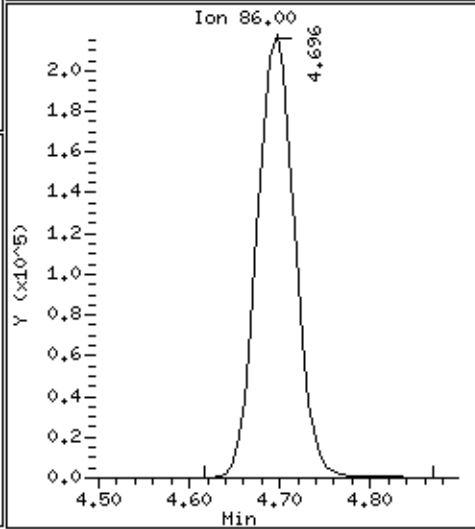
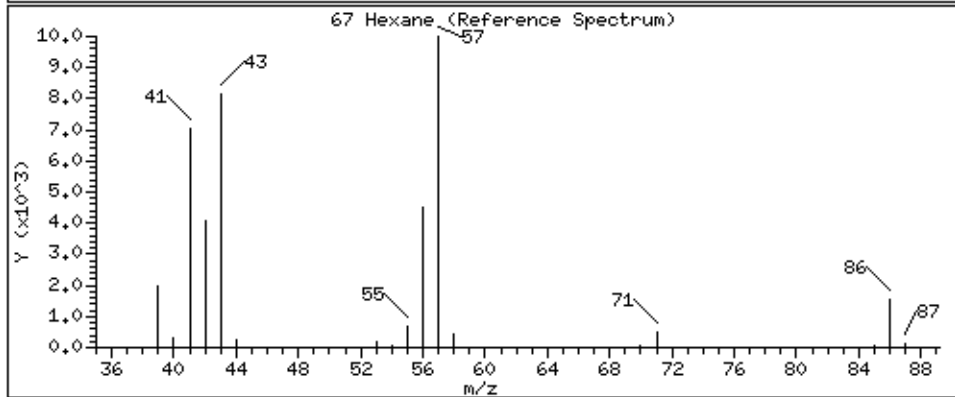
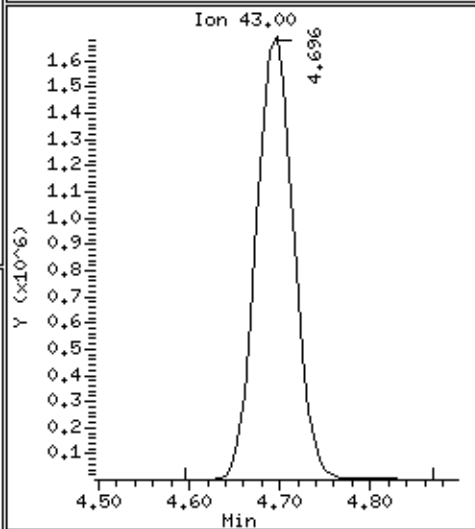
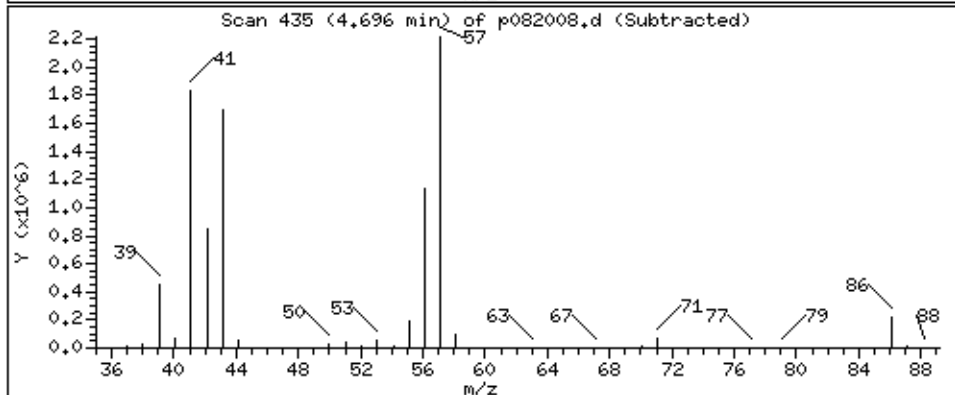
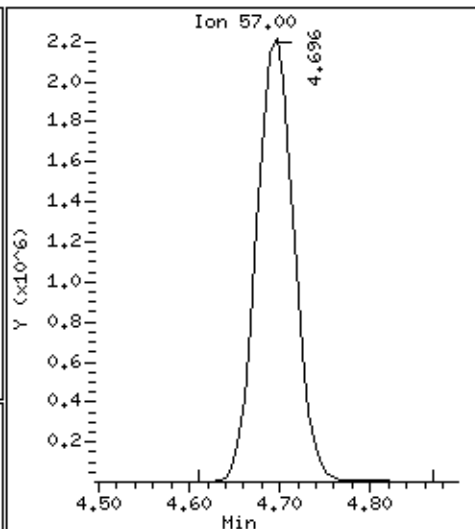
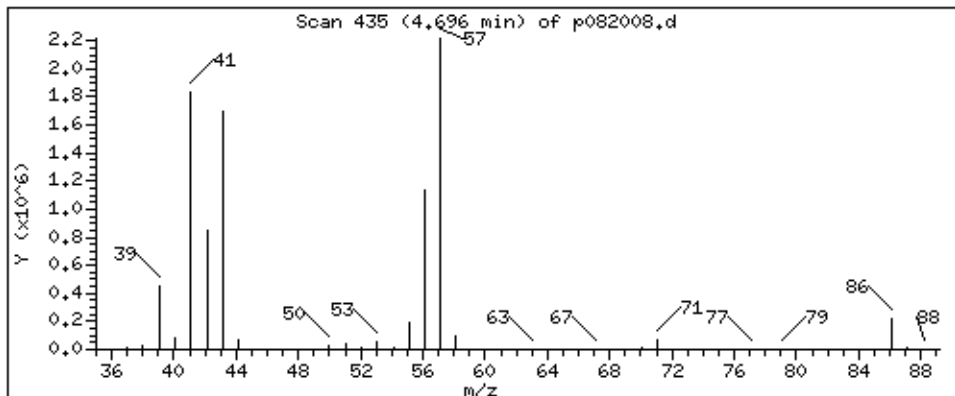
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 1229.4 PPBV



Date : 20-AUG-2021 15:57

Client ID:

Instrument: msdp.i

Sample Info: 200ml N3129

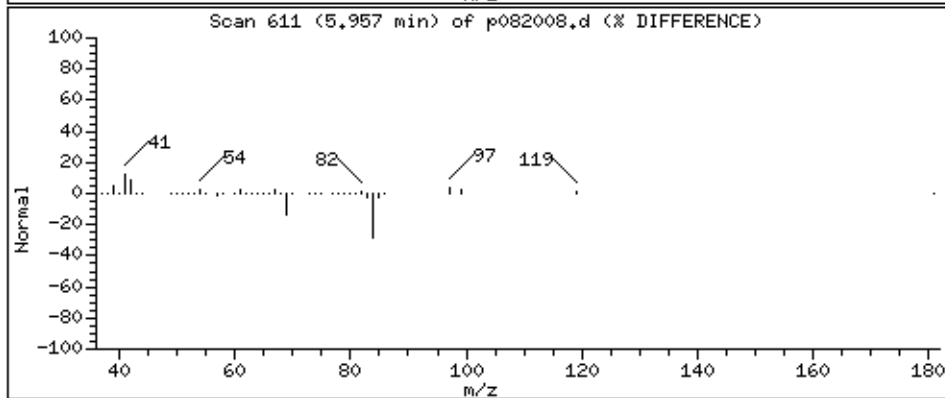
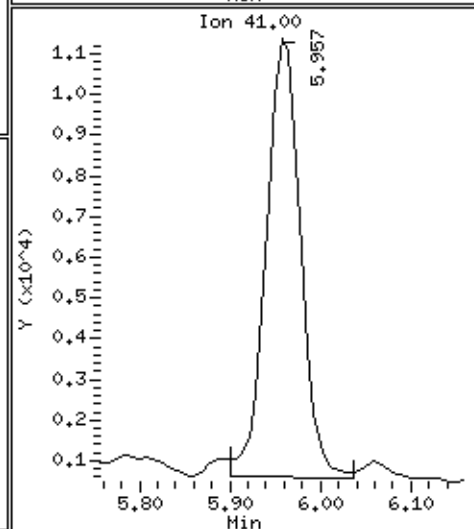
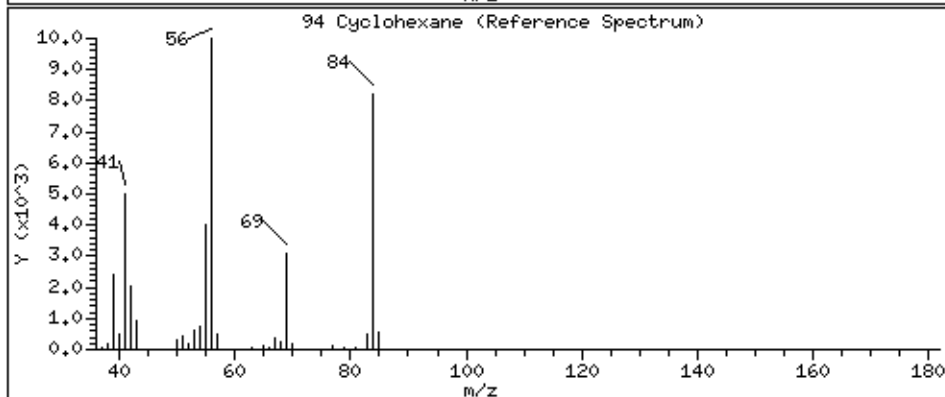
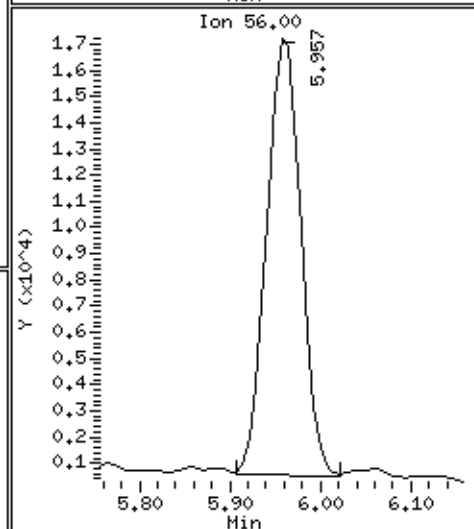
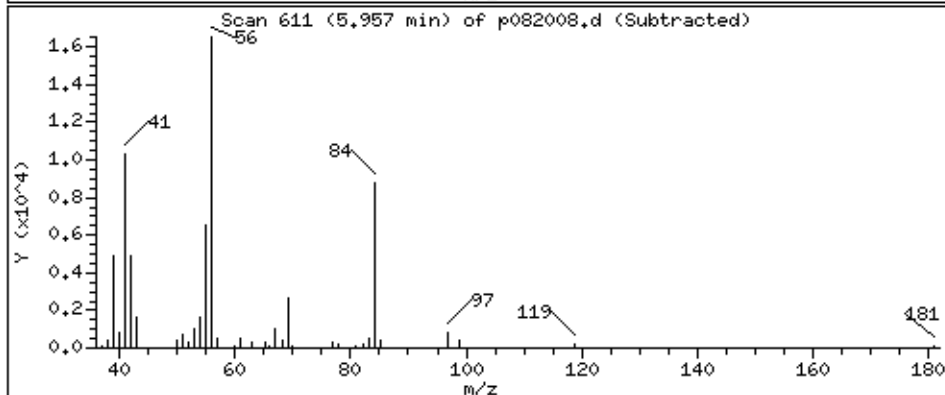
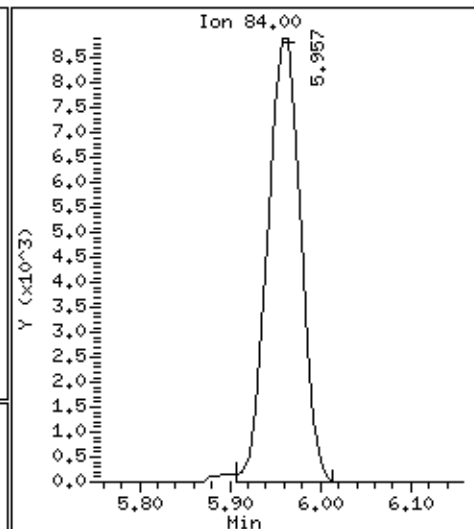
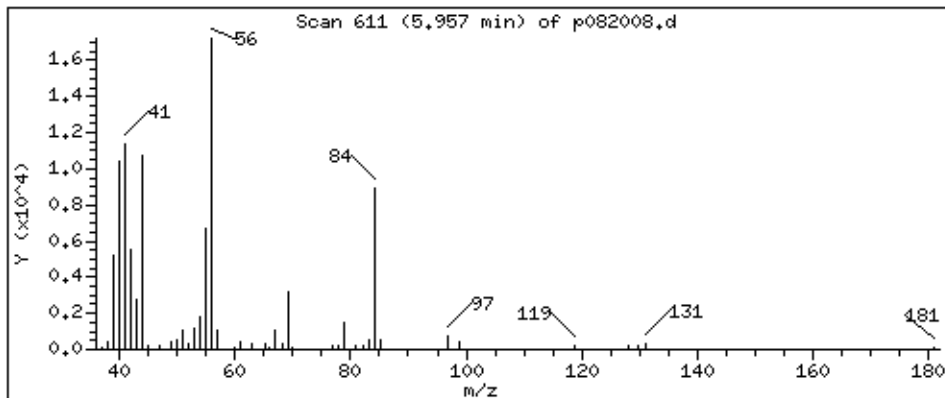
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

94 Cyclohexane

Concentration: 6.831 PPBV





Date : 20-AUG-2021 15:57

Client ID:

Instrument: msdp.i

Sample Info: 200ml N3129

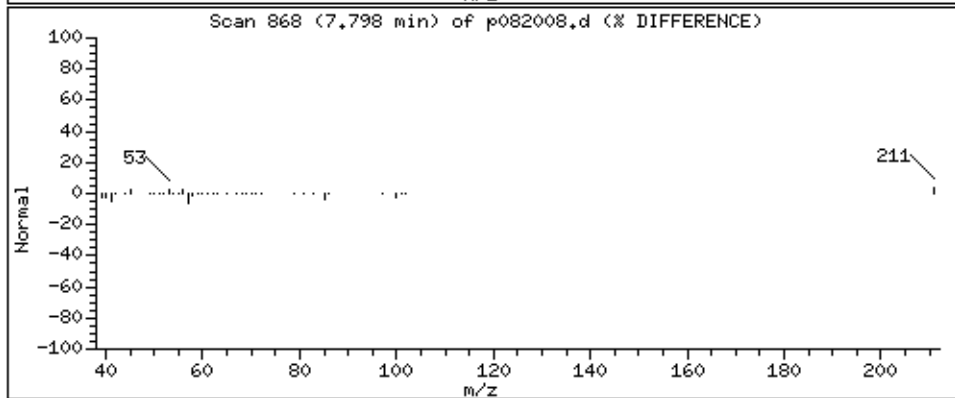
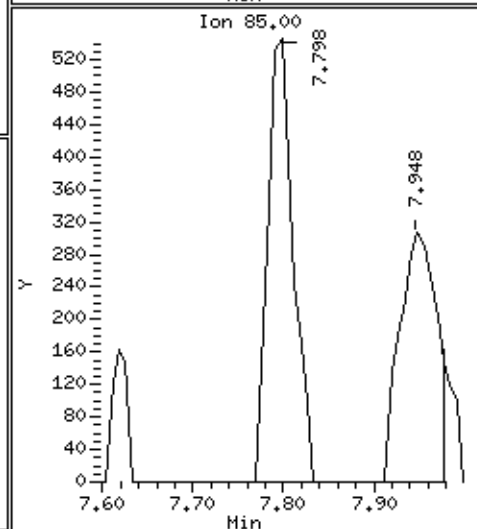
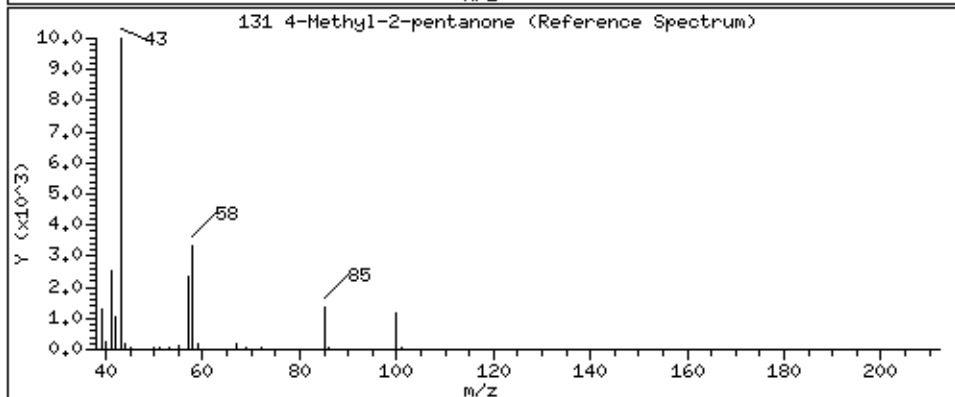
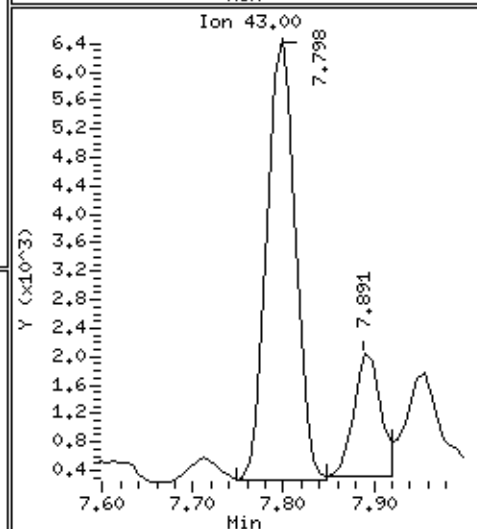
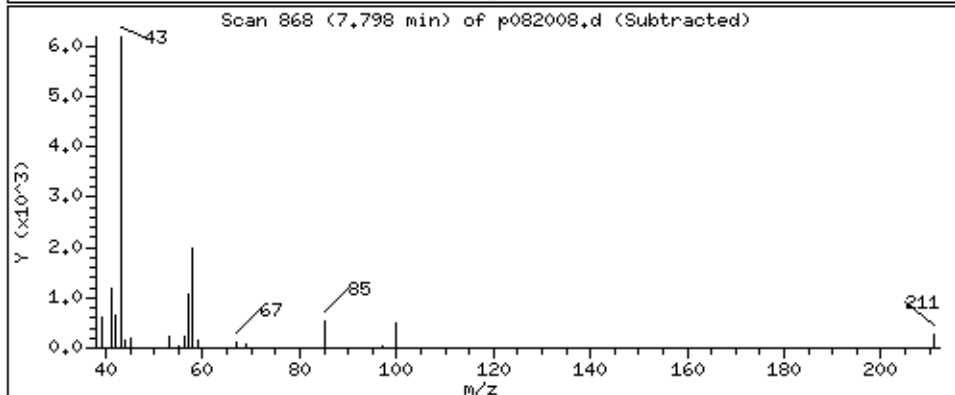
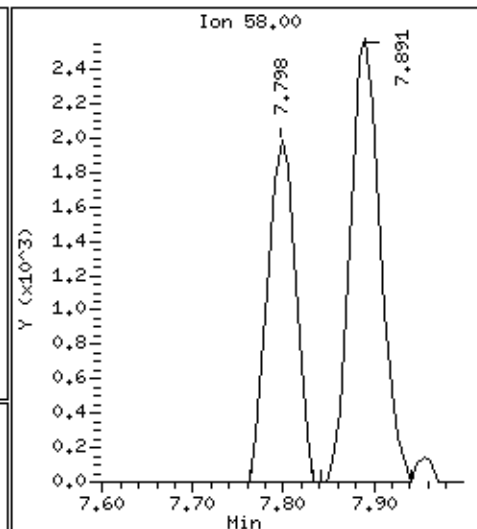
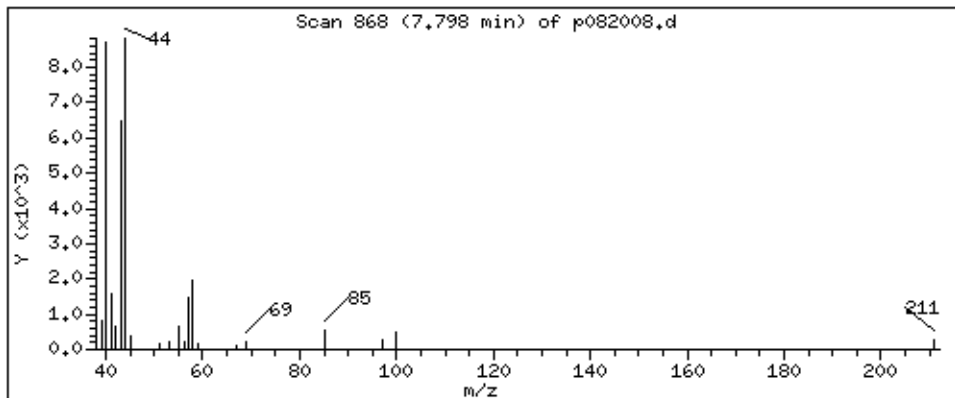
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

131 4-Methyl-2-pentanone

Concentration: 1.239 PPBV



Date : 20-AUG-2021 15:57

Client ID:

Instrument: msdp.i

Sample Info: 200ml N3129

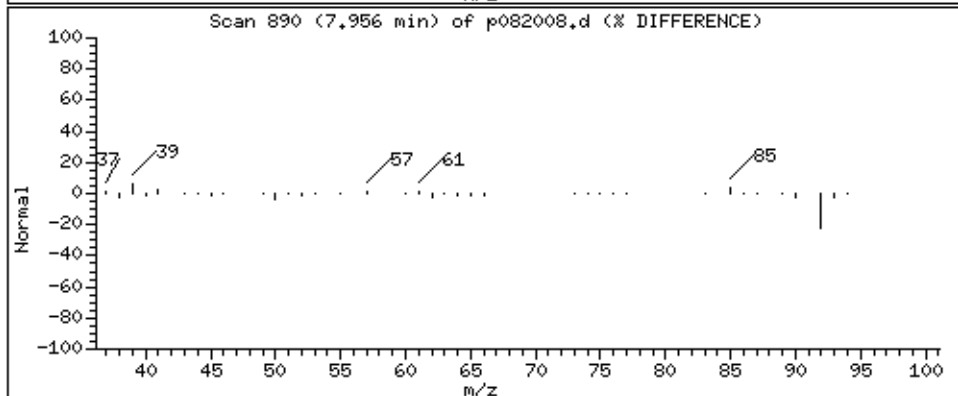
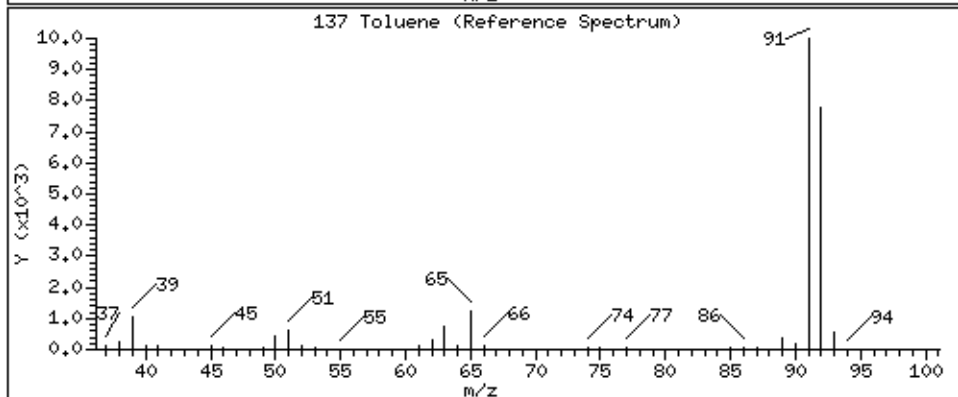
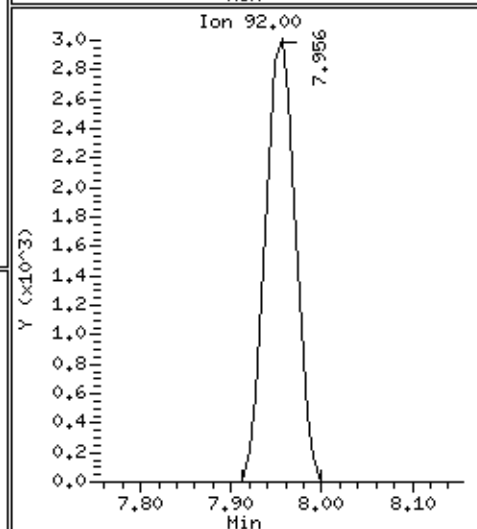
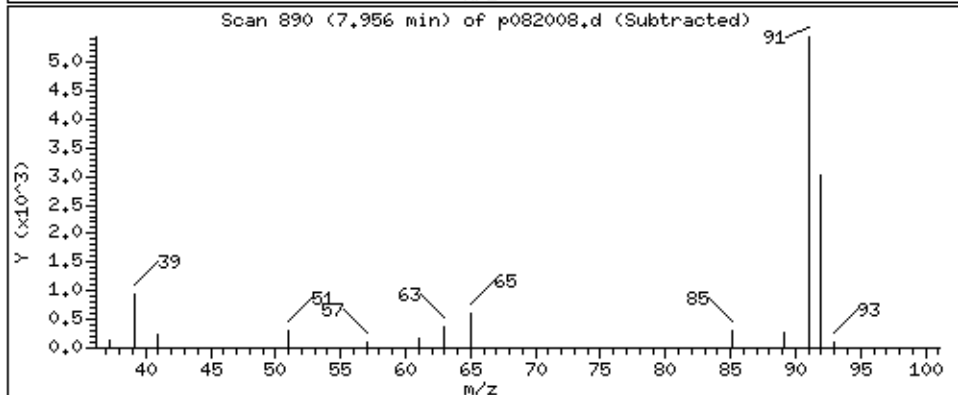
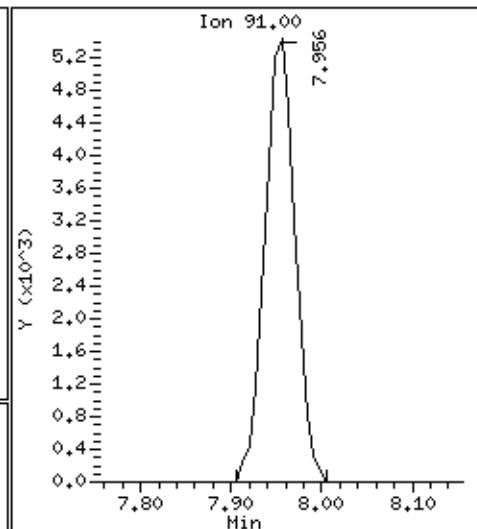
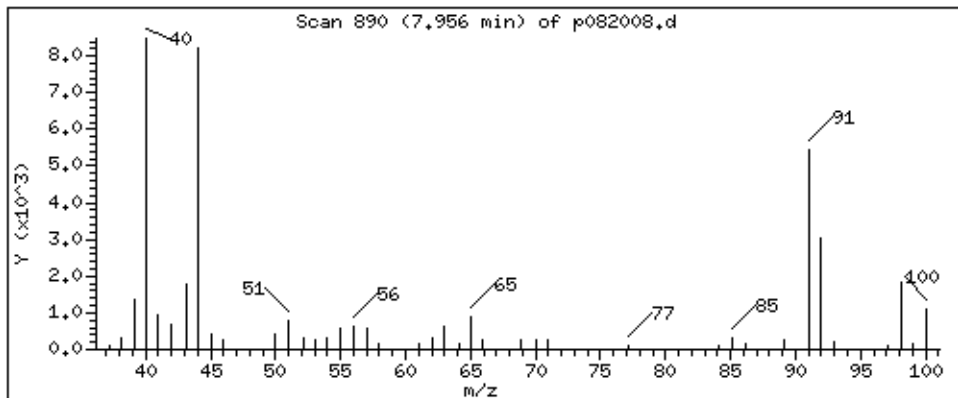
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 1,371 PPBV



Date : 20-AUG-2021 15:57

Client ID:

Instrument: msdp.i

Sample Info: 200ml N3129

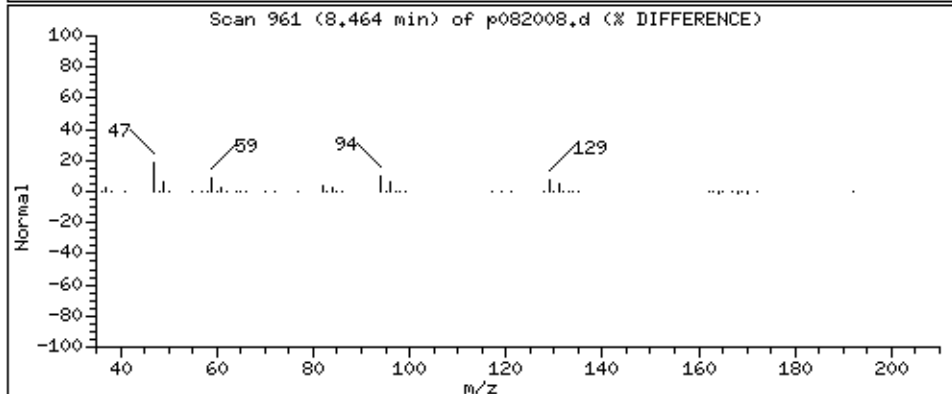
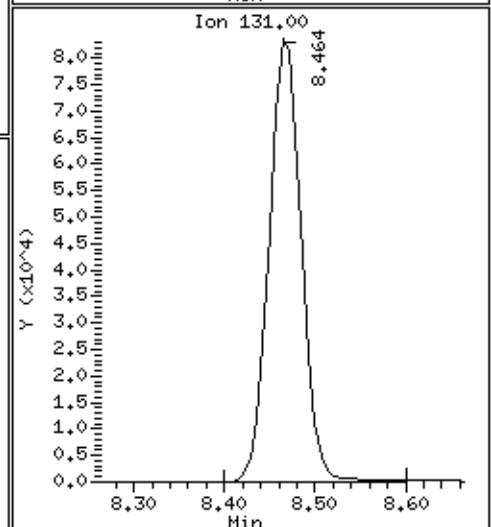
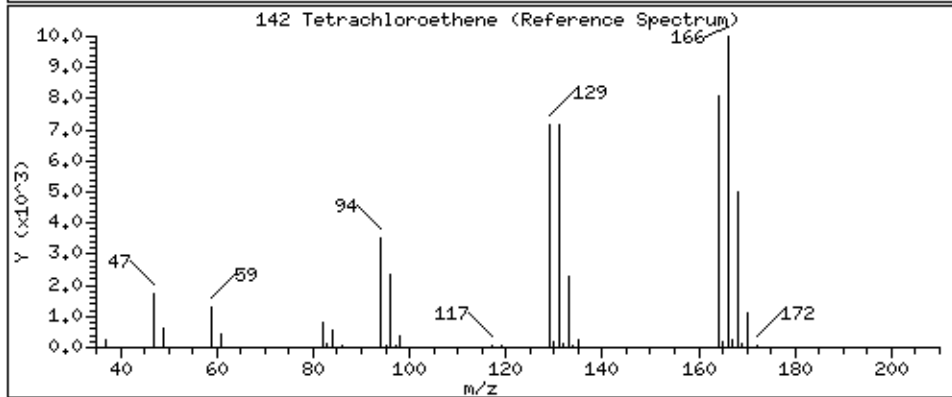
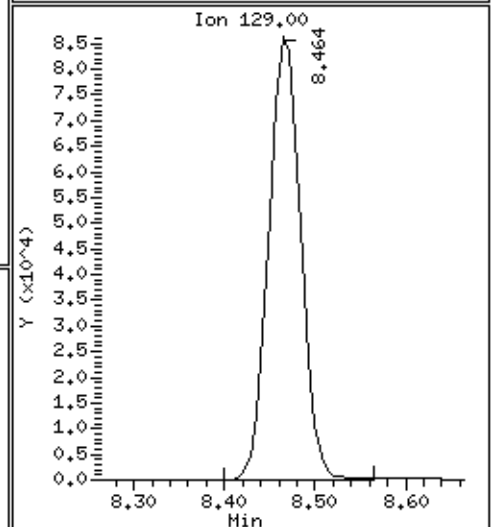
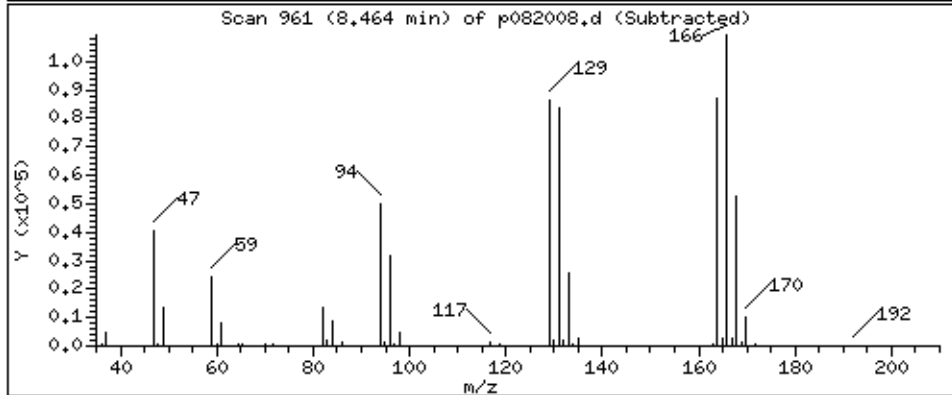
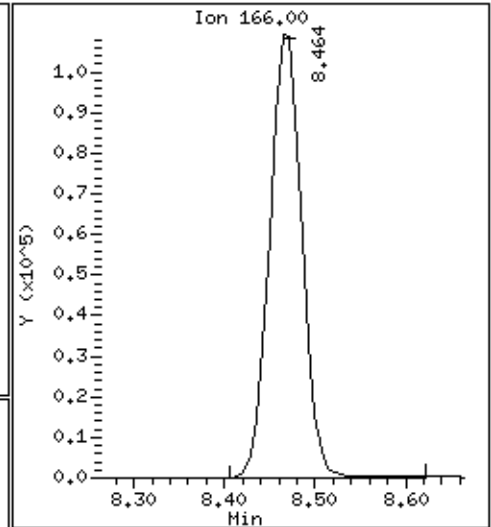
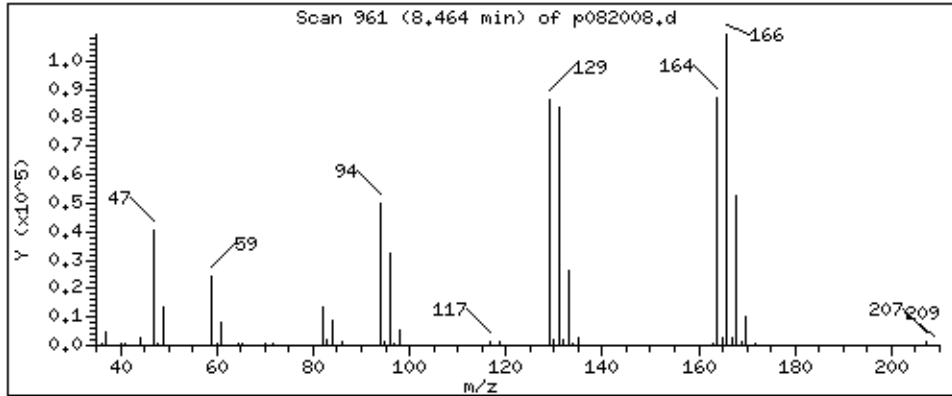
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 59,342 PPBV



Date : 20-AUG-2021 15:57

Client ID:

Instrument: msdp.i

Sample Info: 200ml N3129

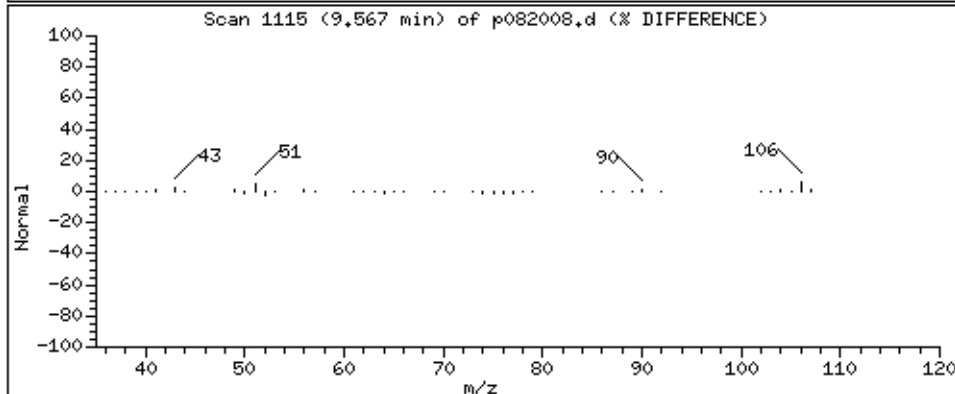
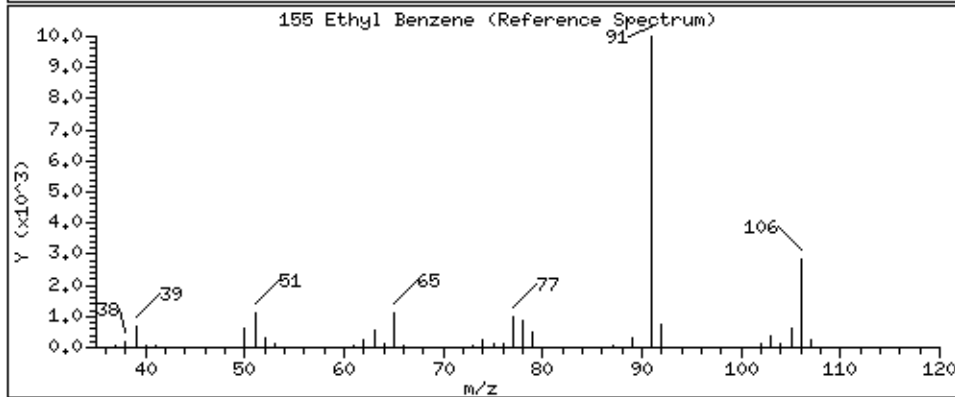
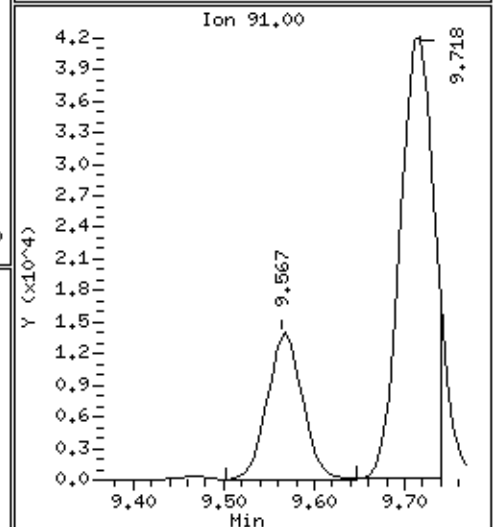
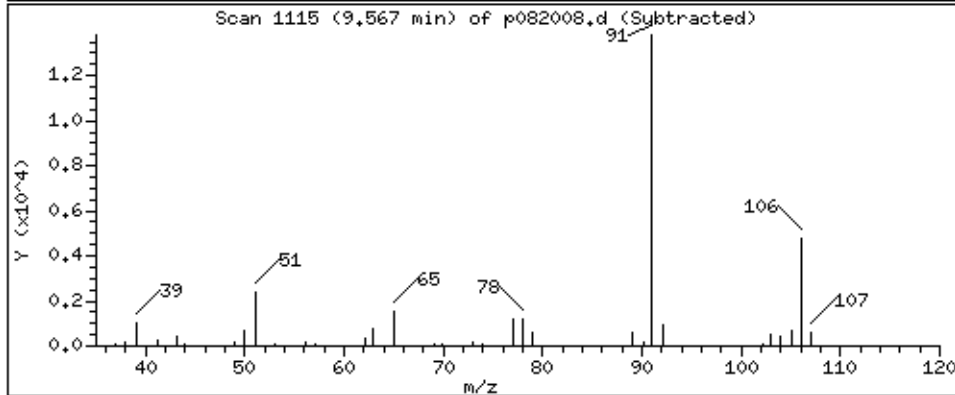
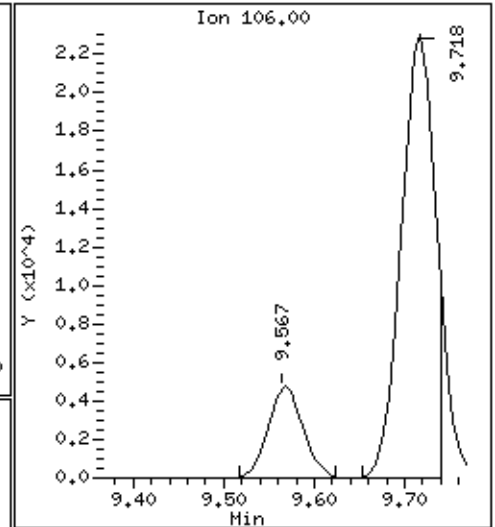
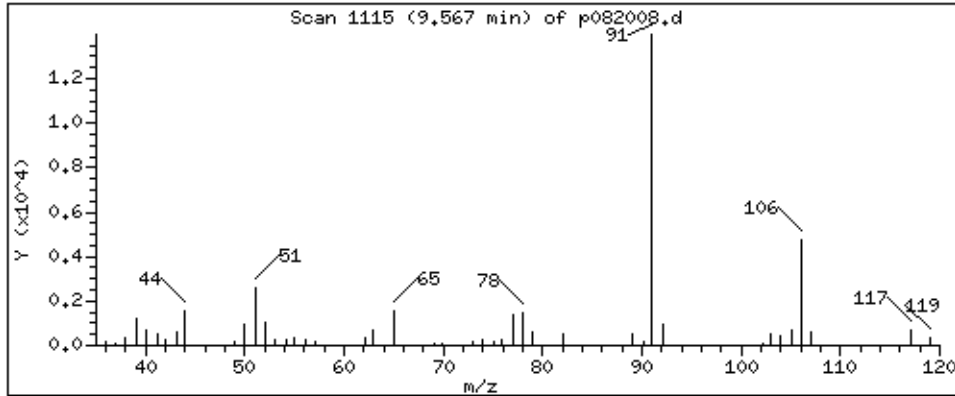
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 3.033 PPBV



Date : 20-AUG-2021 15:57

Client ID:

Instrument: msdp.i

Sample Info: 200ml N3129

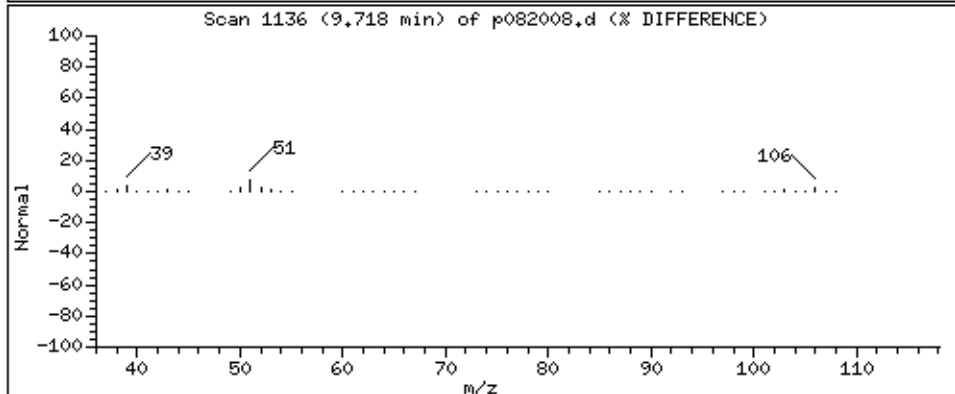
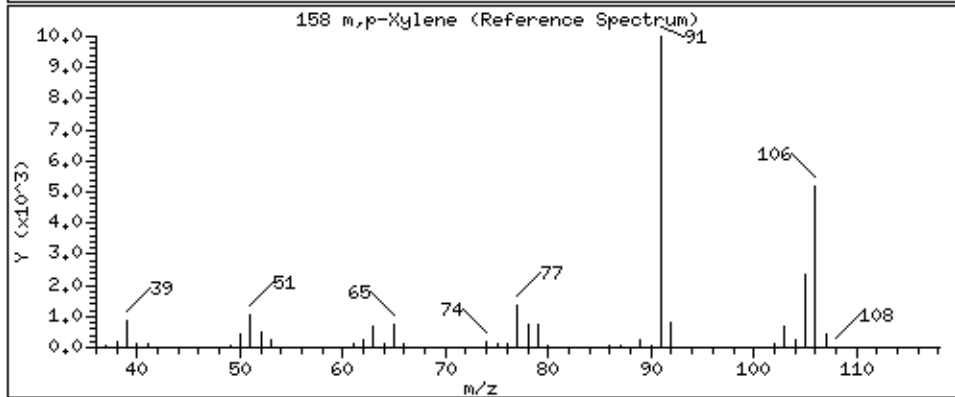
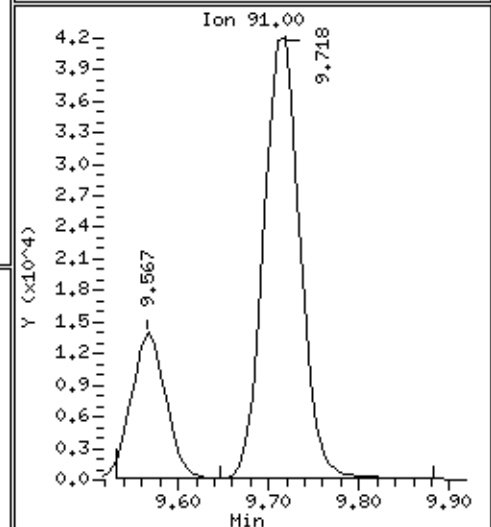
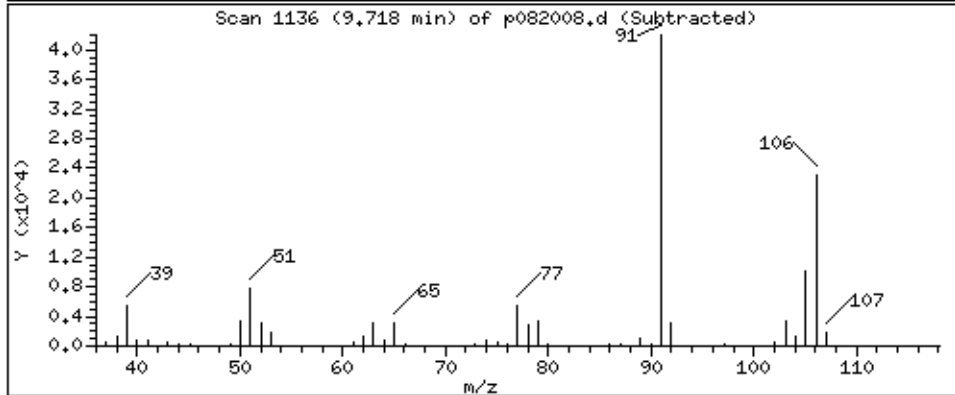
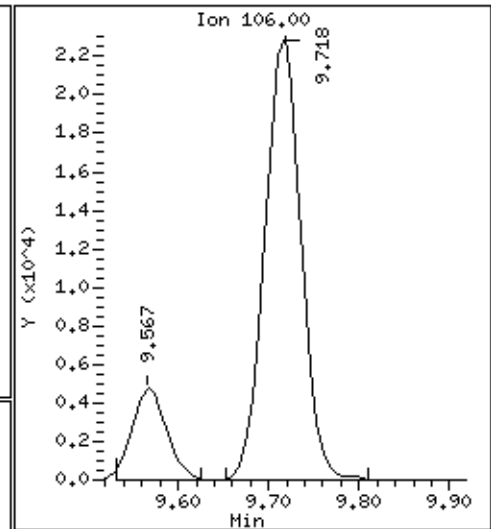
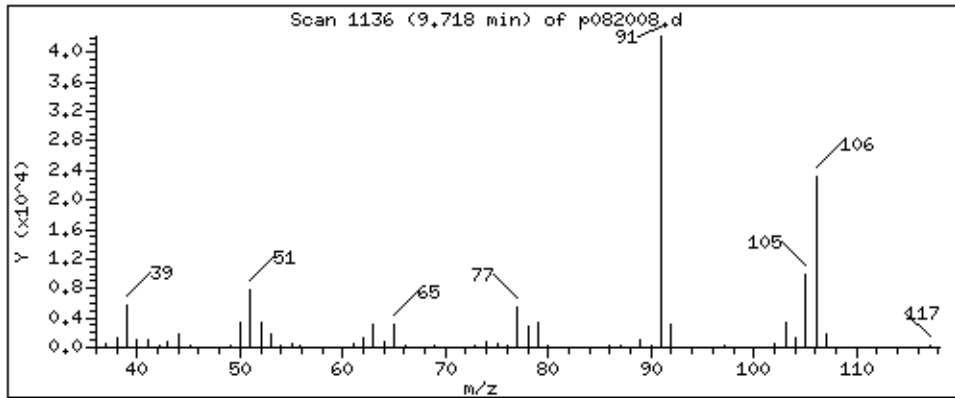
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 12,145 PPBV



Date : 20-AUG-2021 15:57

Client ID:

Instrument: msdp.i

Sample Info: 200ml N3129

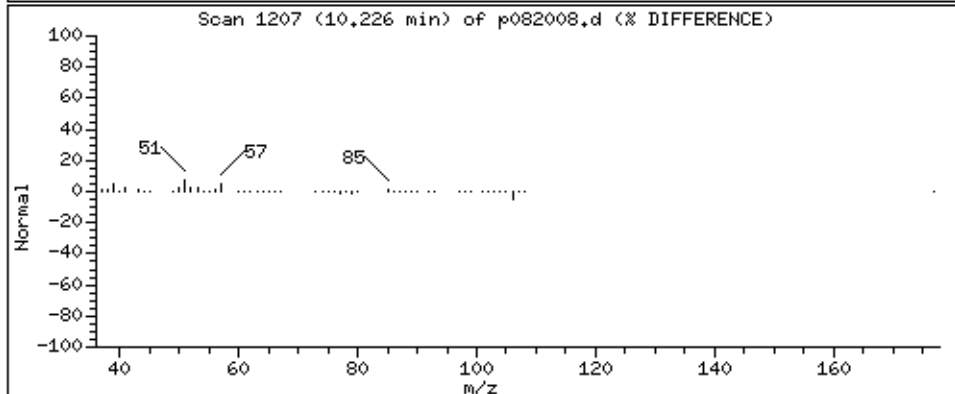
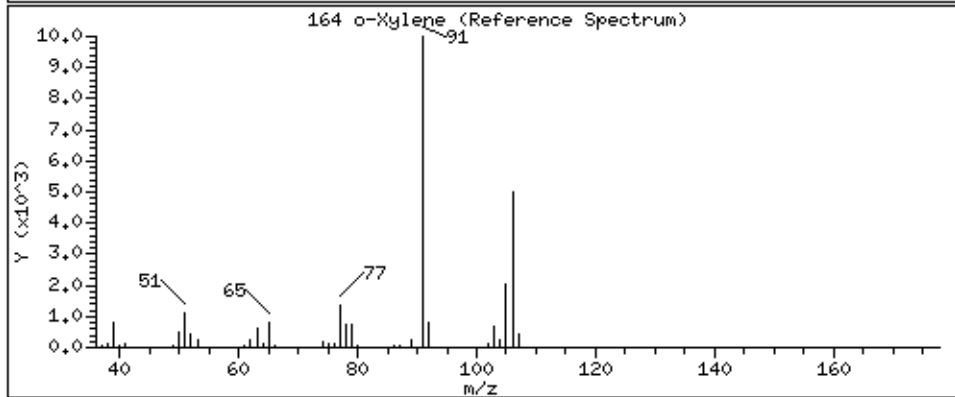
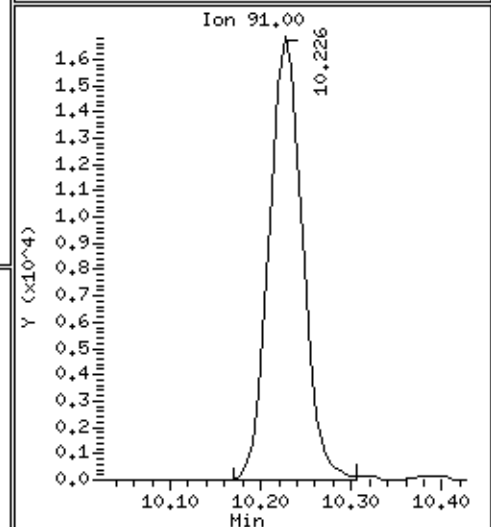
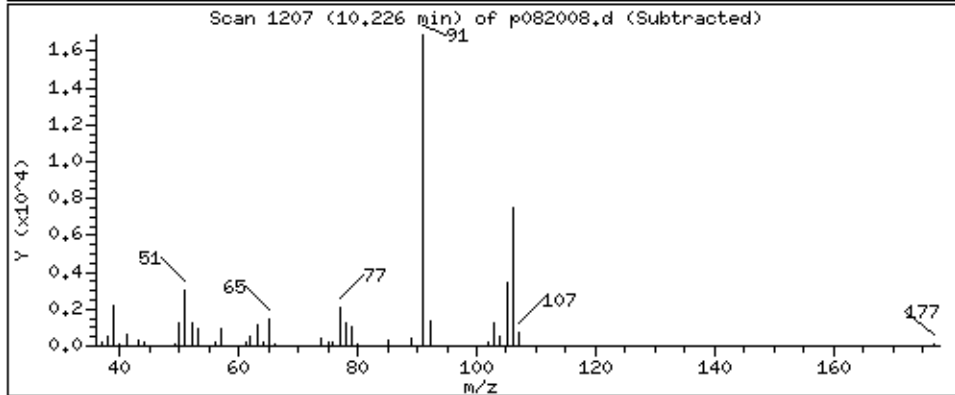
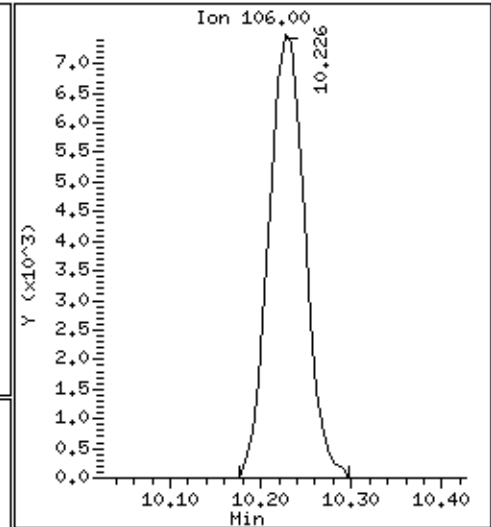
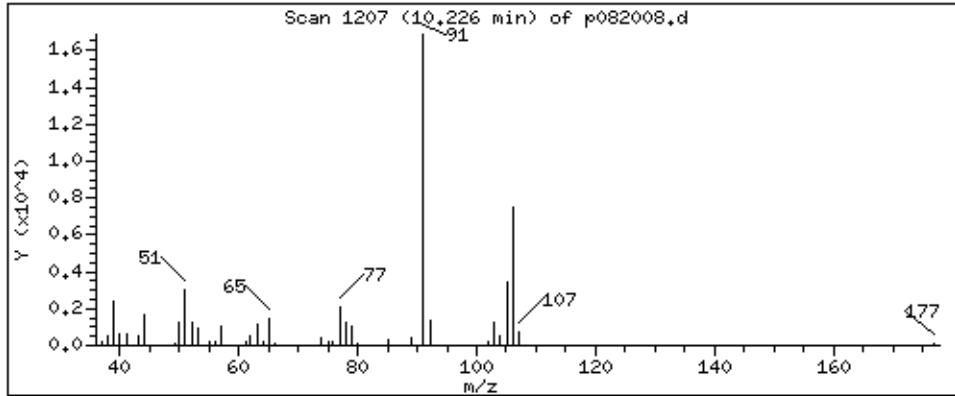
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 4.171 PPBV



Date : 20-AUG-2021 15:57

Client ID:

Instrument: msdp.i

Sample Info: 200ml N3129

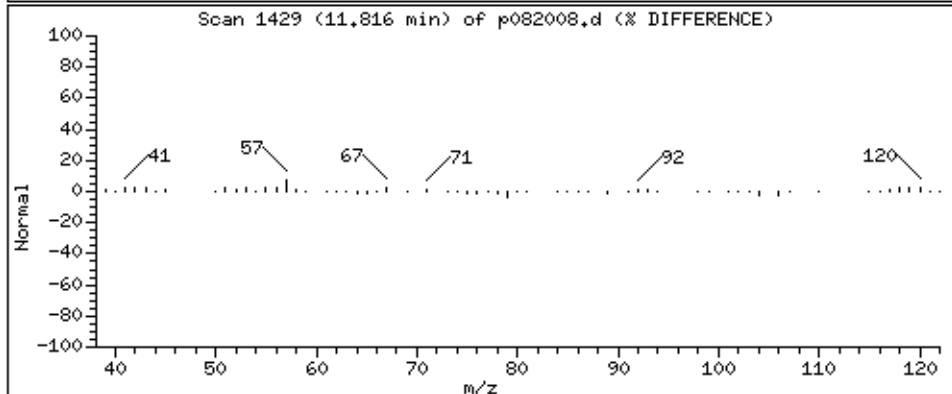
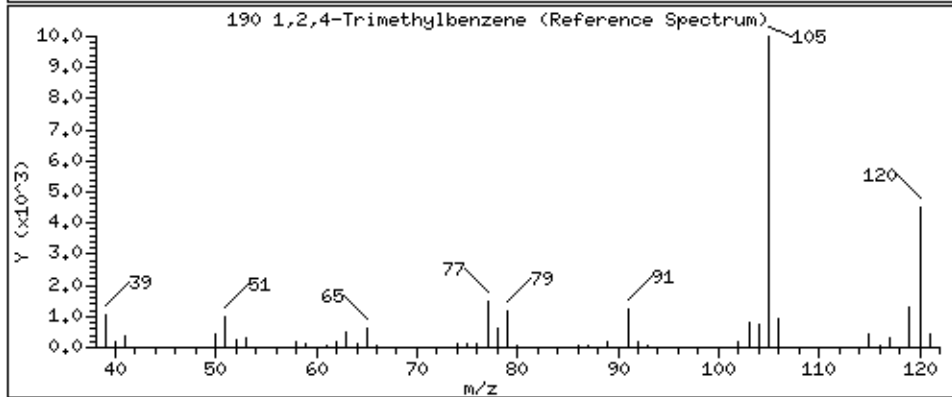
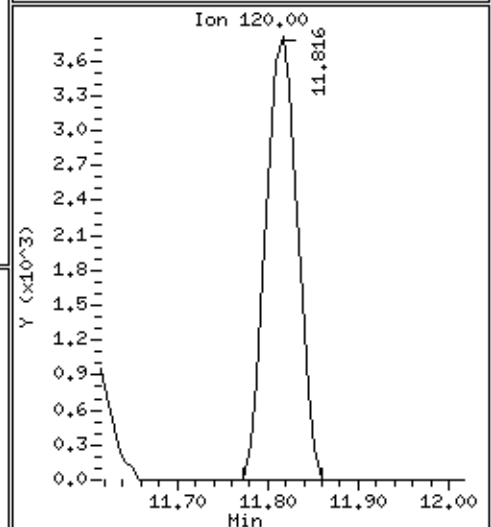
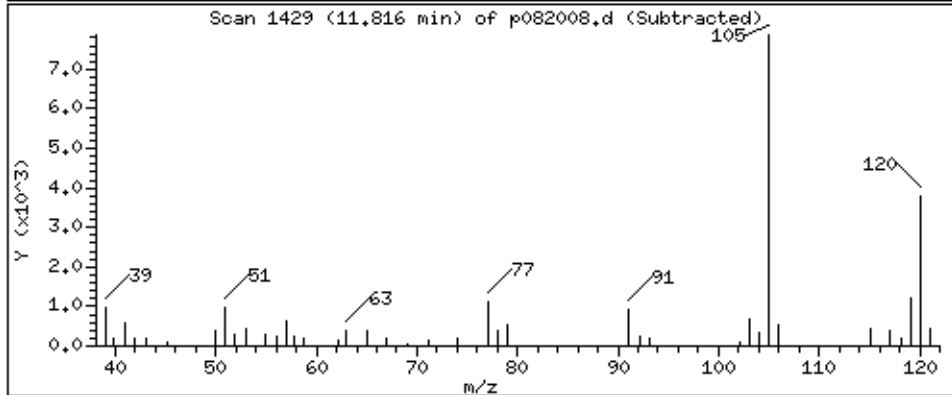
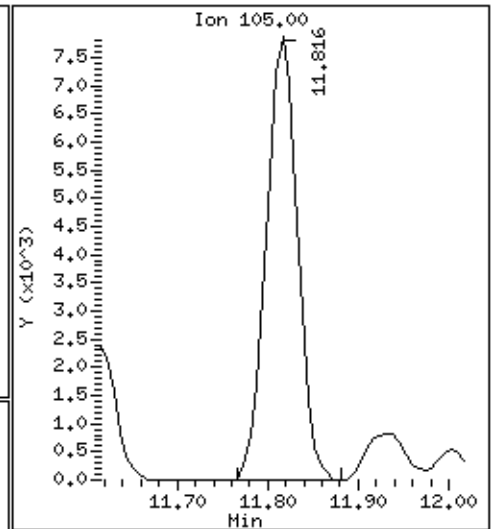
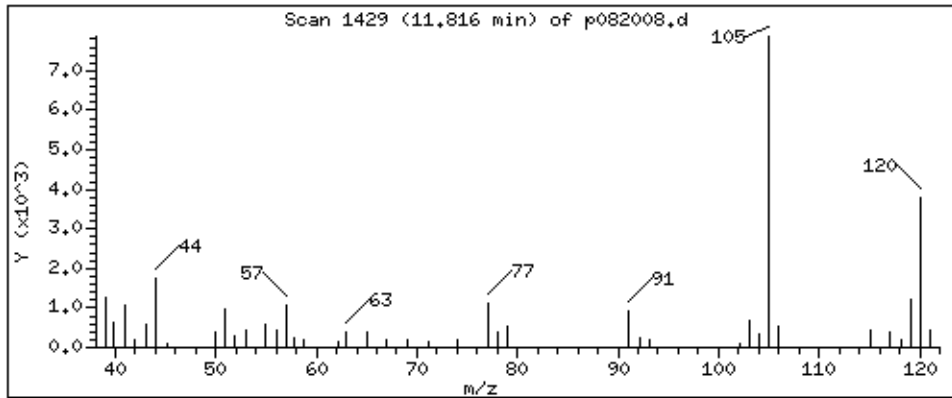
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 1.428 PPBV



Client Sample ID: SG-VW44A-03

Lab ID#: 2108390-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082009	Date of Collection:	8/16/21 9:53:00 AM
Dil. Factor:	2.14	Date of Analysis:	8/20/21 04:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.3	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.3	7.7	12	21
1,2,3-Trichloropropane	4.3	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	1.1	1.8	5.2	8.7
1,2-Dibromo-3-chloropropane	4.3	Not Detected	41	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	13	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected
2-Propanol	4.3	Not Detected	10	Not Detected
3-Chloropropene	4.3	Not Detected	13	Not Detected
4-Ethyltoluene	1.1	1.2	5.3	5.7
4-Methyl-2-pentanone	1.1	1.8	4.4	7.2
Acetone	11	Not Detected	25	Not Detected
Acrolein	4.3	Not Detected	9.8	Not Detected
Acrylonitrile	4.3	Not Detected	9.3	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.5	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Carbon Disulfide	4.3	Not Detected	13	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Chloroform	1.1	7.2	5.2	35
Chloromethane	11	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected



Client Sample ID: SG-VW44A-03

Lab ID#: 2108390-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082009	Date of Collection:	8/16/21 9:53:00 AM
Dil. Factor:	2.14	Date of Analysis:	8/20/21 04:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
Cumene	1.1	Not Detected	5.2	Not Detected
Cyclohexane	1.1	1.1	3.7	3.9
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
Dibromomethane	4.3	Not Detected	30	Not Detected
Ethanol	11	Not Detected	20	Not Detected
Ethyl Acetate	4.3	Not Detected	15	Not Detected
Ethyl Benzene	1.1	3.6	4.6	16
Ethyl-tert-butyl ether	4.3	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
Freon 114	1.1	Not Detected	7.5	Not Detected
Freon 134a	4.3	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected
Hexachloroethane	4.3	Not Detected	41	Not Detected
Hexane	1.1	250	3.8	890
Iodomethane	11	Not Detected	62	Not Detected
Isopropyl ether	4.3	Not Detected	18	Not Detected
m,p-Xylene	1.1	13	4.6	56
Methyl tert-butyl ether	4.3	Not Detected	15	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.1	4.7	4.6	20
Propylbenzene	1.1	Not Detected	5.3	Not Detected
Propylene	4.3	Not Detected	7.4	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
tert-Amyl methyl ether	4.3	Not Detected	18	Not Detected
tert-Butyl alcohol	4.3	Not Detected	13	Not Detected
Tetrachloroethene	1.1	1.6	7.2	11
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Toluene	1.1	1.8	4.0	6.7
TPH ref. to Gasoline (MW=100)	110	460	440	1900
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
Vinyl Acetate	4.3	Not Detected	15	Not Detected
Vinyl Bromide	4.3	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW44A-03**
**Lab ID#: 2108390-02A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p082009</b>	<b>Date of Collection: 8/16/21 9:53:00 AM</b>
<b>Dil. Factor:</b>	<b>2.14</b>	<b>Date of Analysis: 8/20/21 04:27 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	104	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082009.d  
Lab Smp Id: 2108390-02A  
Inj Date : 20-AUG-2021 16:27  
Operator : mjb  
Smp Info : 200ml 1040  
Misc Info : 6.5 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
Meth Date : 20-Aug-2021 12:59 p5fl  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 2  
Dil Factor: 2.14000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL ( PPBV)	FINAL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	112788	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	86922			48.23- 108.23	77.07
5.785	5.778	(1.000)	49	252357			150.57- 210.57	223.74
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	412871	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	60021			0.00- 45.71	14.54
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	418553	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	214308			23.78- 83.78	51.20
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	170609	27.4094	27.409	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	80156			27.21- 87.21	46.98
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	446438	24.9010	24.901	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	47408			0.00- 40.44	10.62

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	292288			34.95- 94.95	65.47
-----								
§ 170 4-Bromofluorobenzene CAS #: 460-00-4								
10.921	10.921	(1.154)	174	280544	26.1021	26.102	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	328809			95.92- 155.92	117.20
10.921	10.921	(1.154)	176	266088			66.89- 126.89	94.85
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.716	1.703	(0.297)	65	9237	3.61307	7.732	80.00- 120.00	100.00
1.772	1.759	(0.306)	51	3750616			597.63- 657.63	40604.19
1.758	1.717	(0.304)	47	80295			33.72- 93.72	869.28
-----								
67 Hexane CAS #: 110-54-3								
4.696	4.697	(0.812)	57	1313914	118.254	253.06	80.00- 120.00	100.00
4.696	4.697	(0.812)	43	1019144			37.52- 97.52	77.57
4.696	4.697	(0.812)	86	129670			0.00- 41.48	9.87
-----								
92 Chloroform CAS #: 67-66-3								
5.842	5.843	(1.010)	83	33115	3.37446	7.221	80.00- 120.00	100.00
5.842	5.843	(1.010)	85	21748			34.70- 94.70	65.68
-----								
94 Cyclohexane CAS #: 110-82-7								
5.957	5.957	(1.030)	84	3796	0.53504	1.145	80.00- 120.00	100.00
5.957	5.957	(1.030)	56	9708			142.57- 202.57	255.70
5.964	5.957	(1.031)	41	6365			62.09- 122.09	167.66
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.798	7.798	(1.170)	58	5808	0.81882	1.752	80.00- 120.00	100.00
7.798	7.798	(1.170)	43	19719			242.35- 302.35	339.49
7.805	7.798	(1.171)	85	1518			3.24- 63.24	26.15
-----								
137 Toluene CAS #: 108-88-3								
7.955	7.956	(1.193)	91	15674	0.83384	1.784	80.00- 120.00	100.00
7.955	7.956	(1.193)	92	8979			28.38- 88.38	57.29
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.464	8.464	(0.895)	166	7293	0.76453	1.636	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	6335			47.84- 107.84	86.86
8.464	8.464	(0.895)	131	5687			45.29- 105.29	77.98
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.567	9.567	(1.011)	106	14720	1.69377	3.625	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	42313			273.74- 333.74	287.45
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.718	9.718	(1.027)	106	65981	6.06190	12.972	80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		CONCENTRATIONS		TARGET RANGE	RATIO
				( PPBV)	( PPBV)	ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
158 m,p-Xylene (continued)									
9.718	9.718	(1.027)	91	127900			163.73-	223.73	193.84
-----									
164 o-Xylene									
10.226	10.226	(1.081)	106	23098	2.21486	4.740	80.00-	120.00	100.00
10.226	10.226	(1.081)	91	48272			177.45-	237.45	208.98
-----									
183 4-Ethyltoluene									
11.250	11.287	(1.189)	120	5714	0.54091	1.158	80.00-	120.00	100.00
11.258	11.287	(1.190)	105	16622			284.55-	344.55	290.86
-----									
190 1,2,4-Trimethylbenzene									
11.816	11.817	(1.249)	105	22793	0.83029	1.777	80.00-	120.00	100.00
11.816	11.817	(1.249)	120	11616			19.05-	79.05	50.96
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082009.d  
 Lab Smp Id: 2108390-02A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: mjb  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 6.5 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	112788	3.12
108 1,4-Difluorobenze	406799	244079	569519	412871	1.49
153 Chlorobenzene-d5	400841	240505	561177	418553	4.42

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.10
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-02A  
Level: LOW Operator: mjb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.5 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.409	109.64	70-130
\$ 134 Toluene-d8	25.000	24.901	99.60	70-130
\$ 170 4-Bromofluorobenz	25.000	26.102	104.41	70-130

Date : 20-AUG-2021 16:27

Client ID:

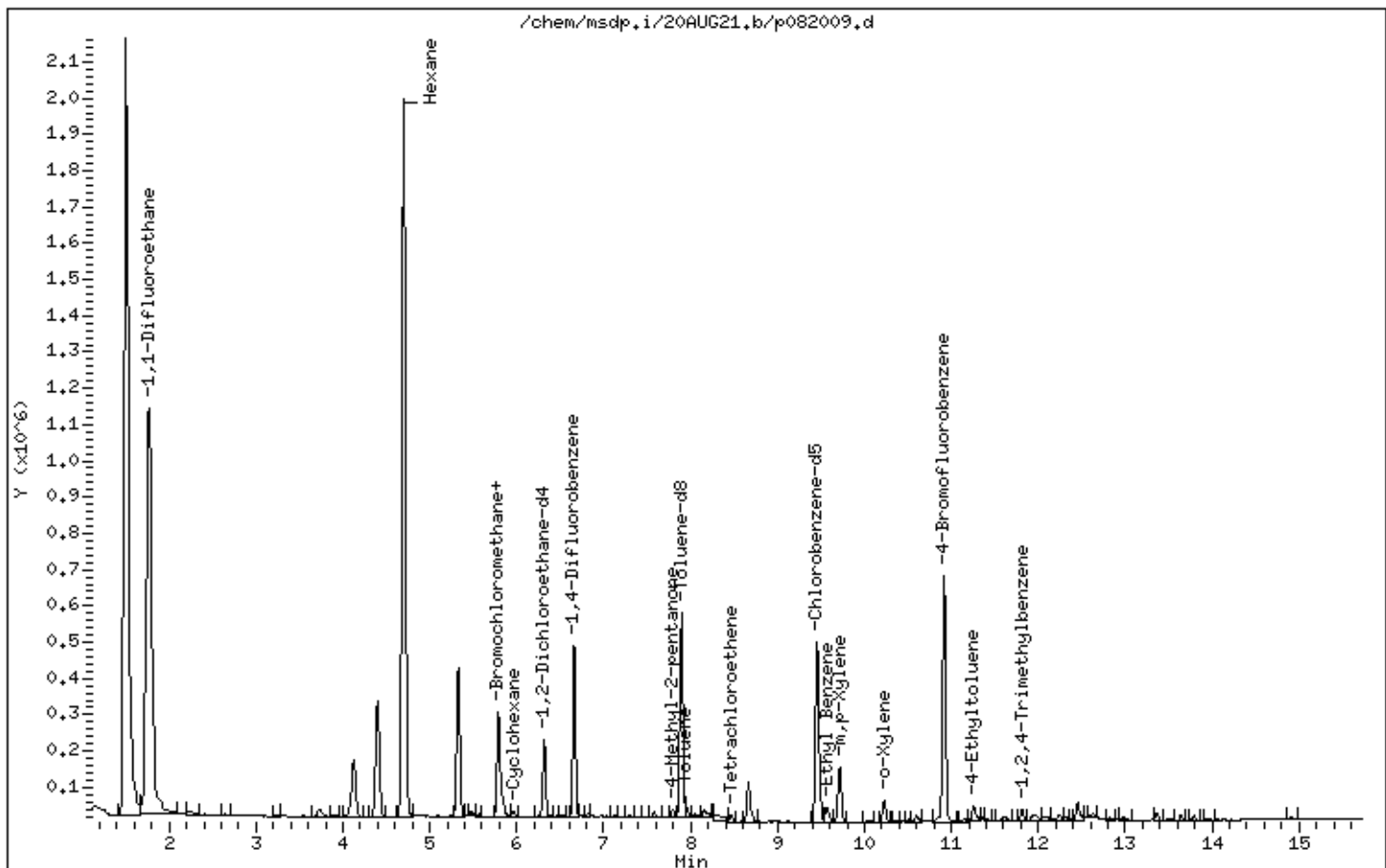
Instrument: msdp.i

Sample Info: 200ml 1040

Operator: mjb

Column phase: RTX-624

Column diameter: 0.25





Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

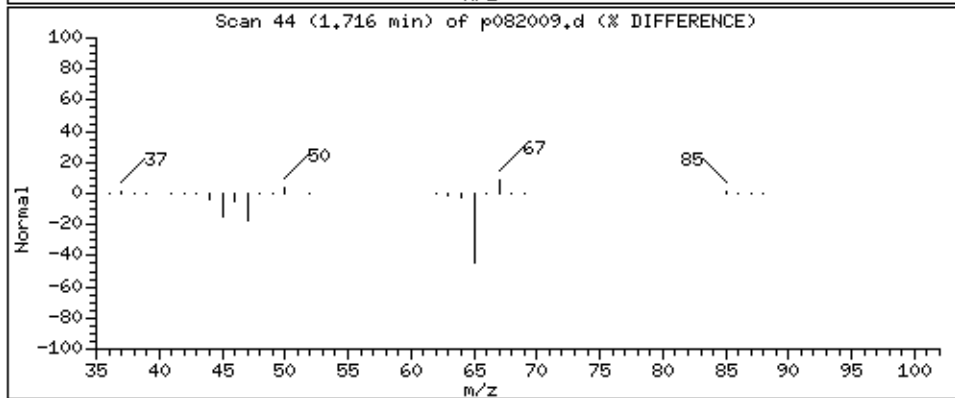
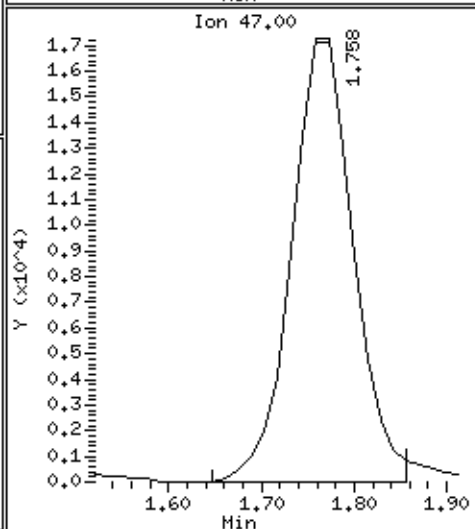
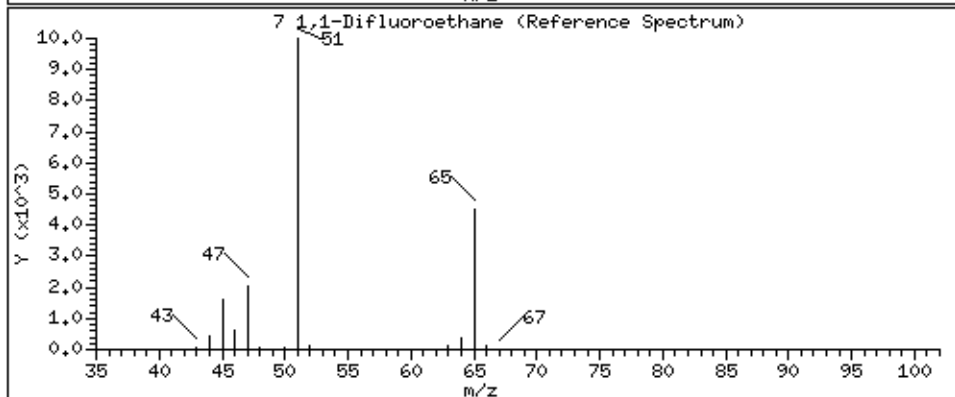
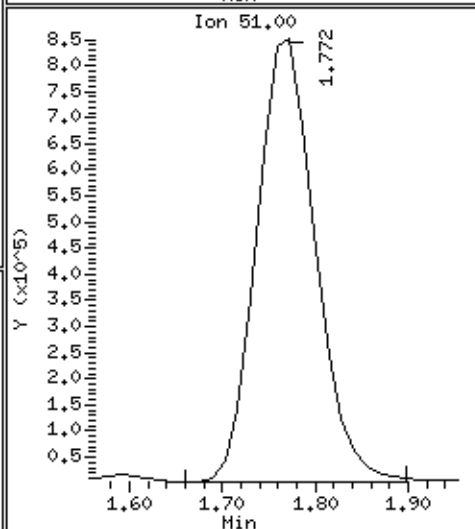
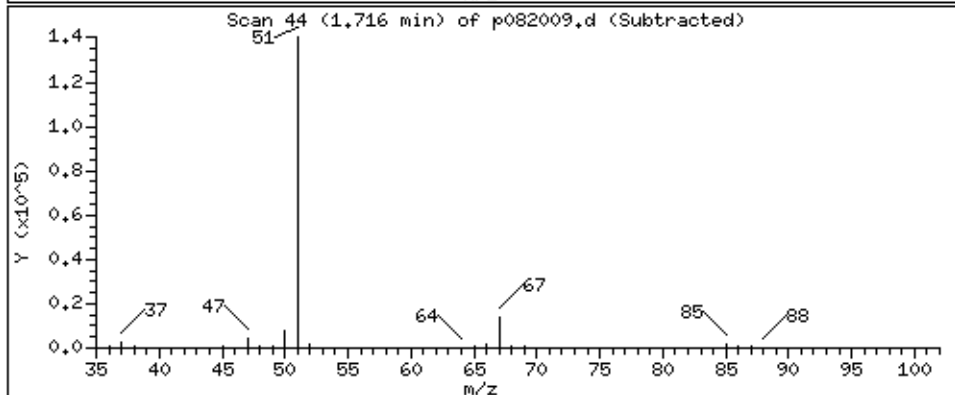
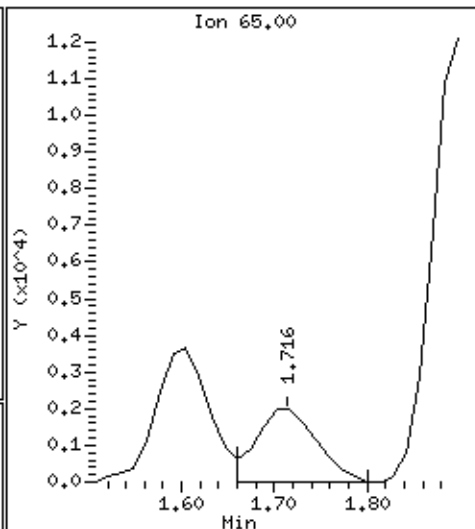
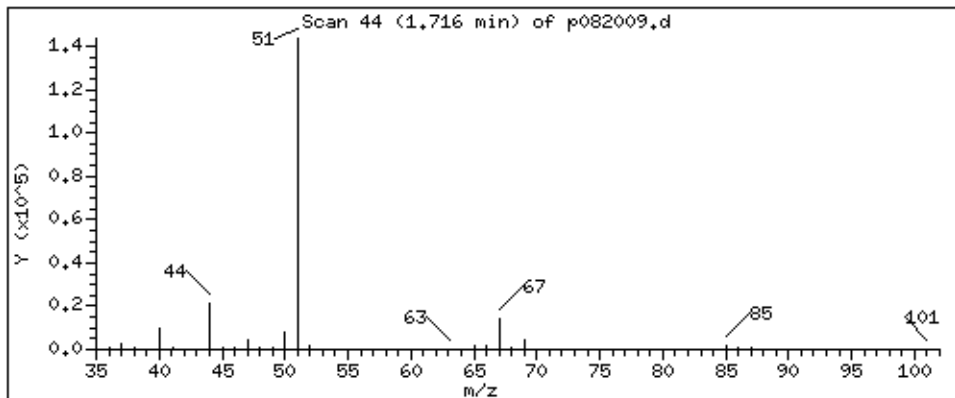
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 7.732 PPBV



Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

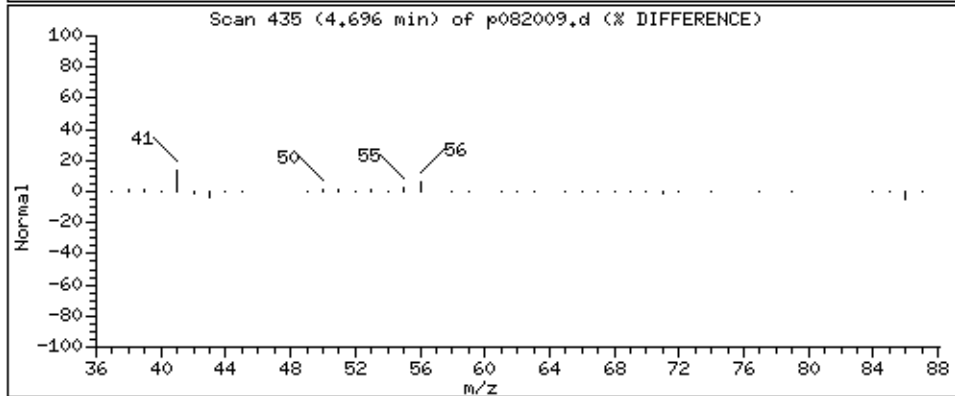
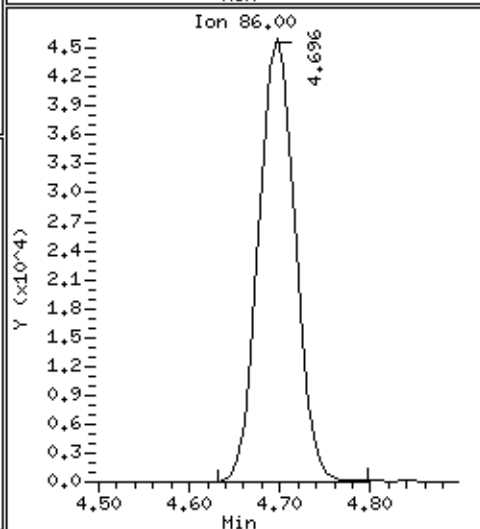
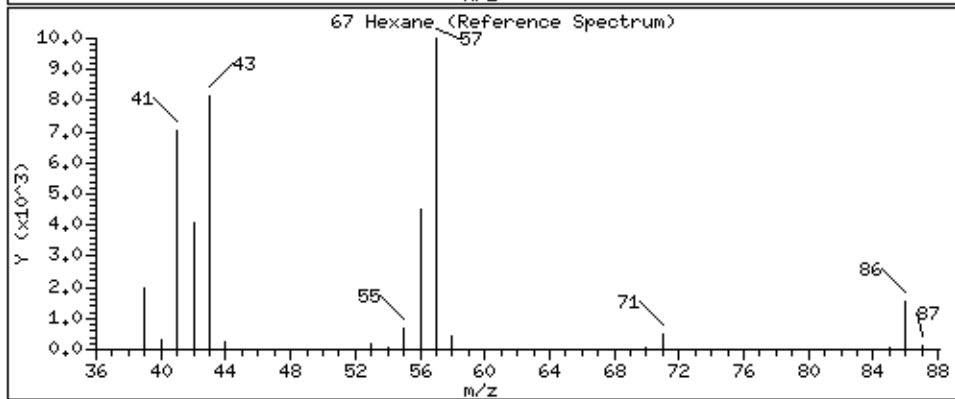
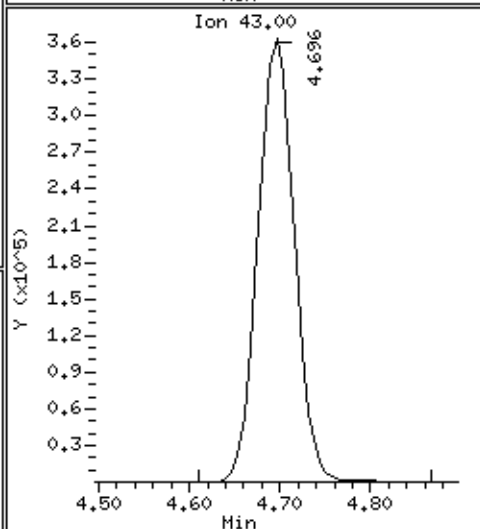
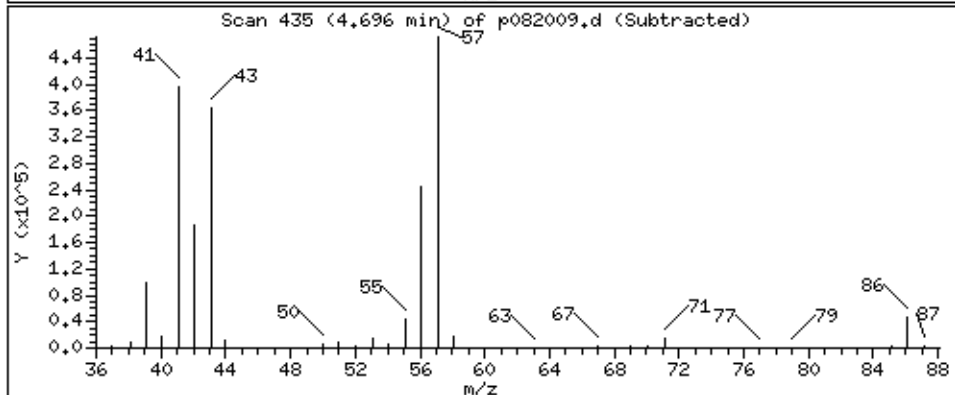
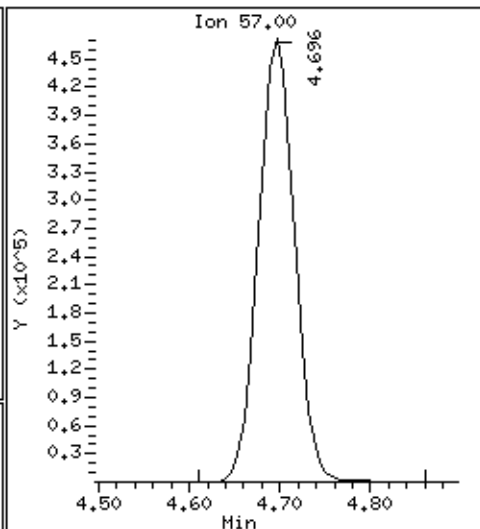
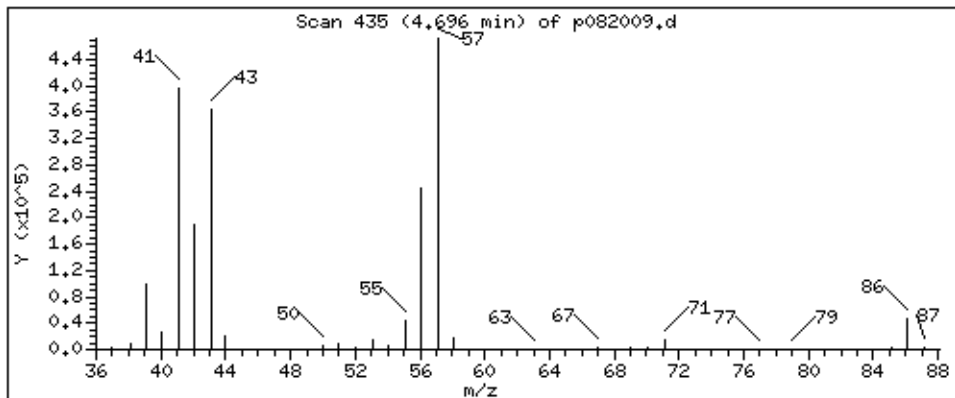
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 253.06 PPBV



Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

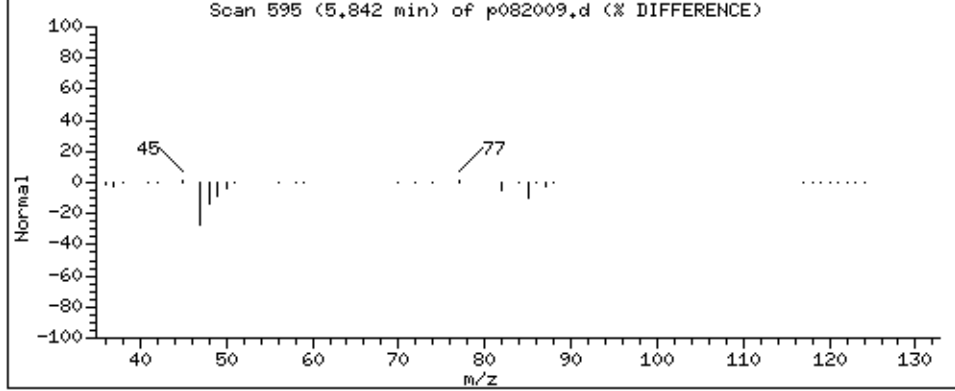
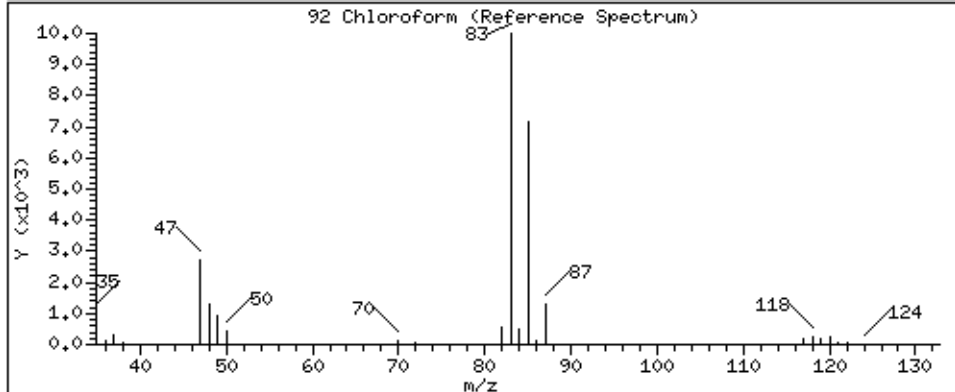
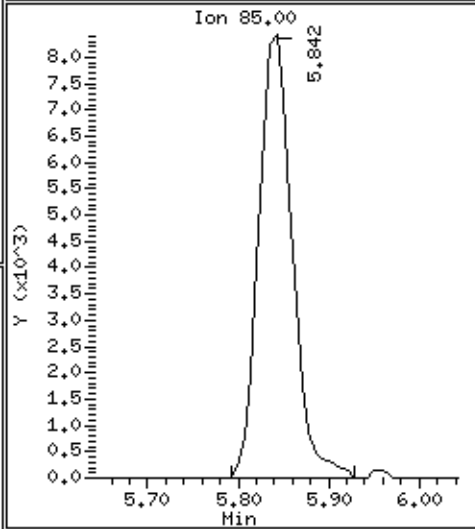
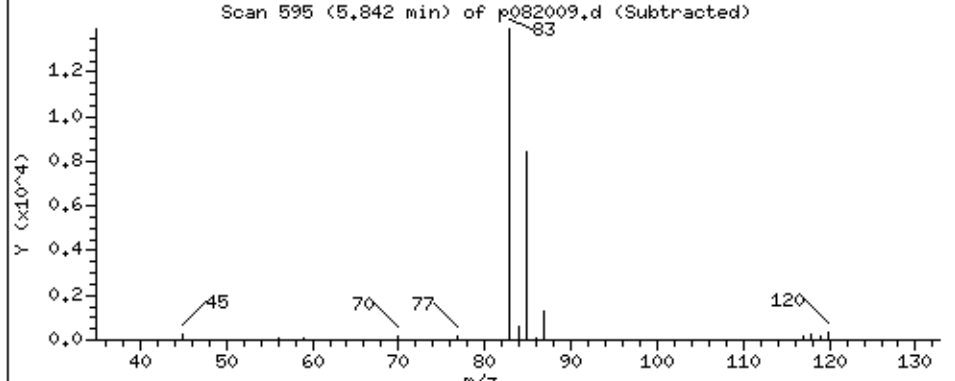
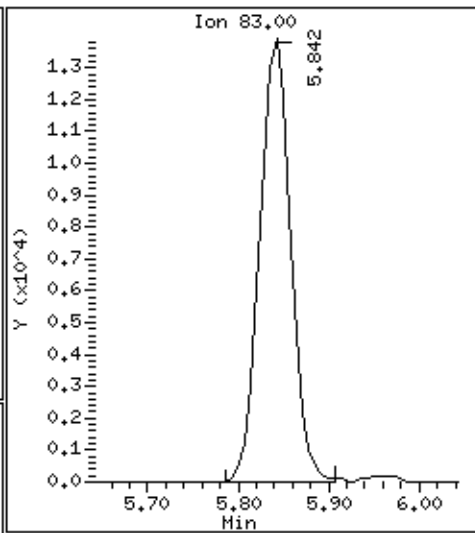
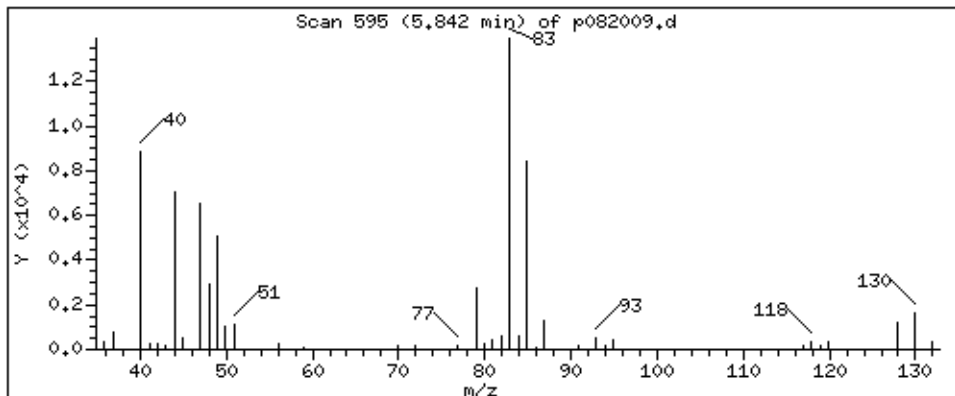
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 7.221 PPBV



Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

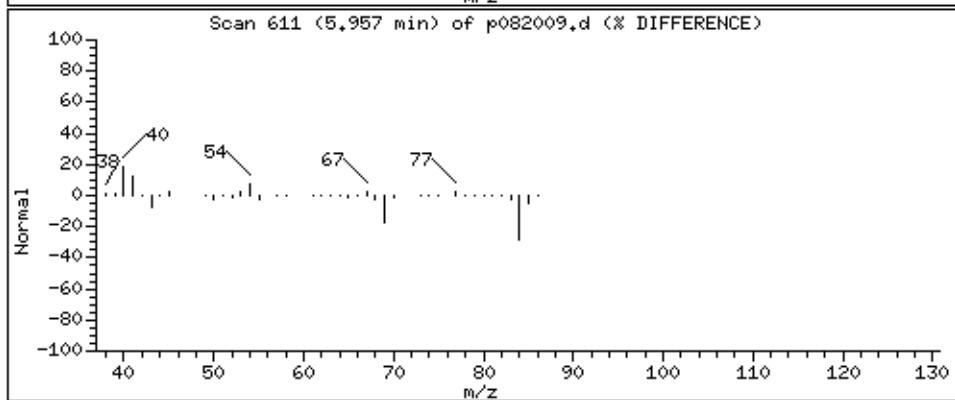
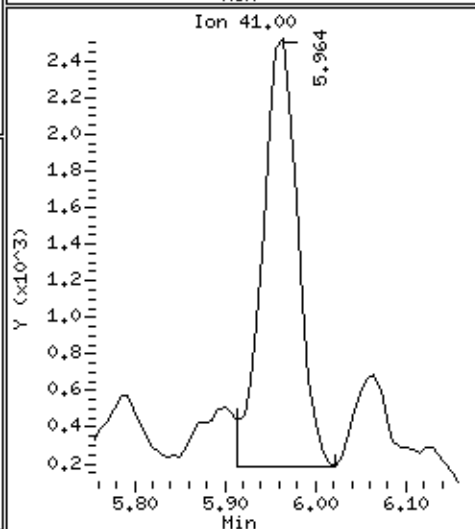
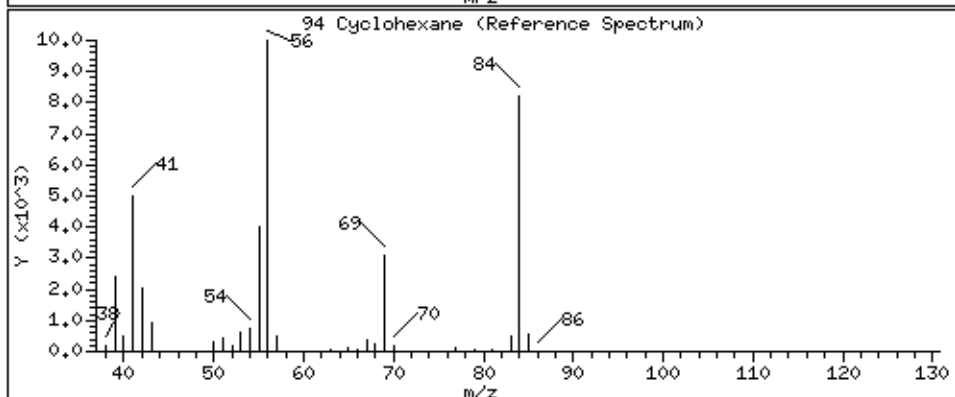
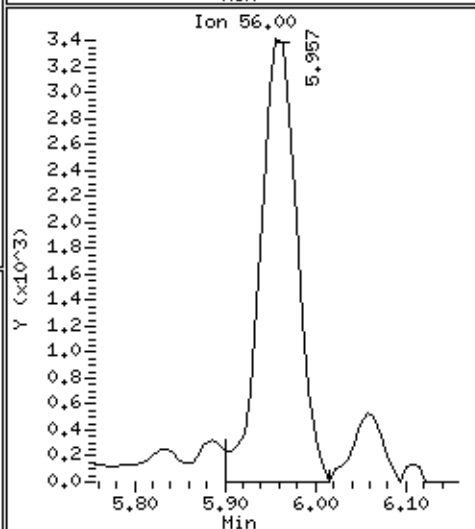
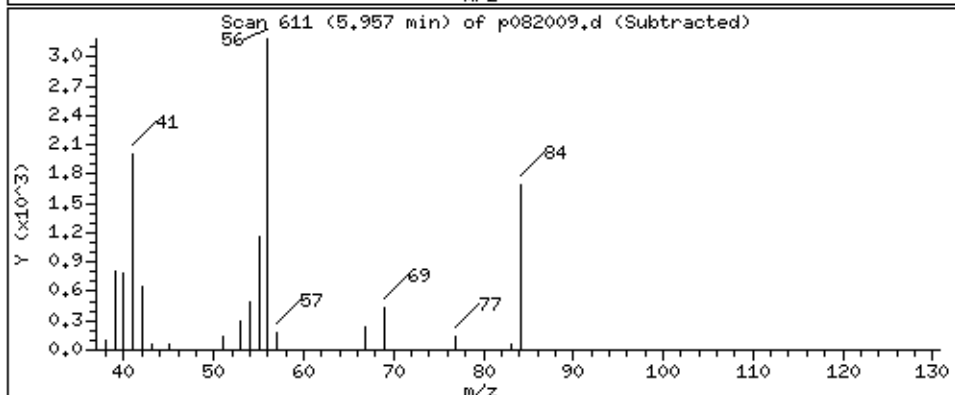
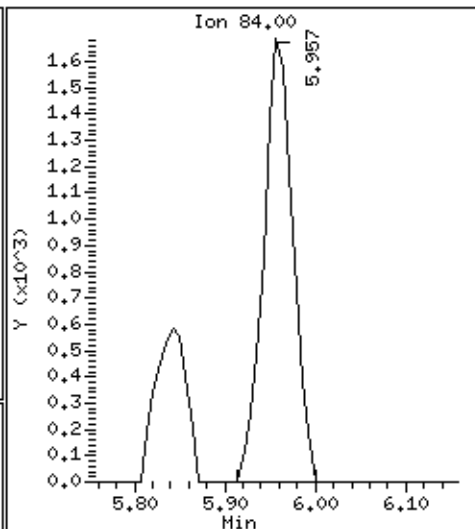
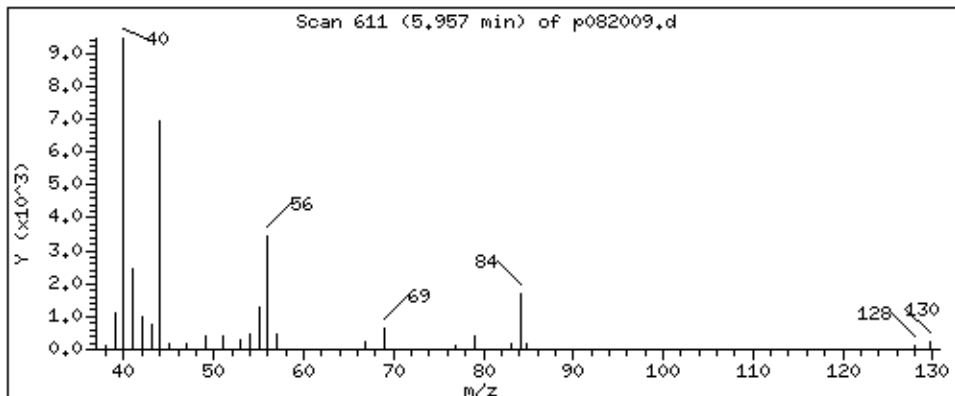
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

94 Cyclohexane

Concentration: 1,145 PPBV



Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

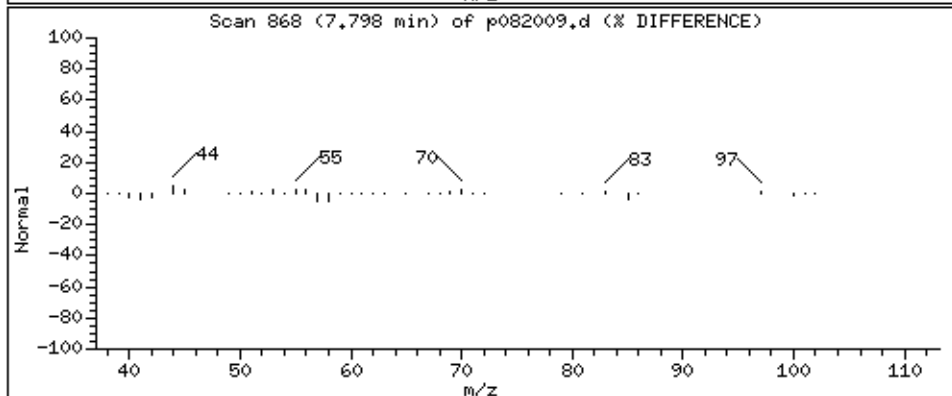
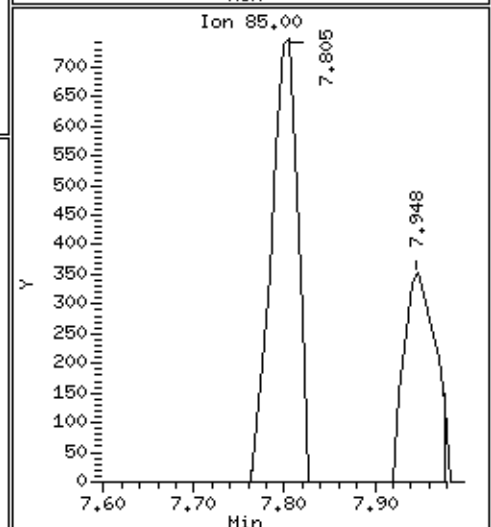
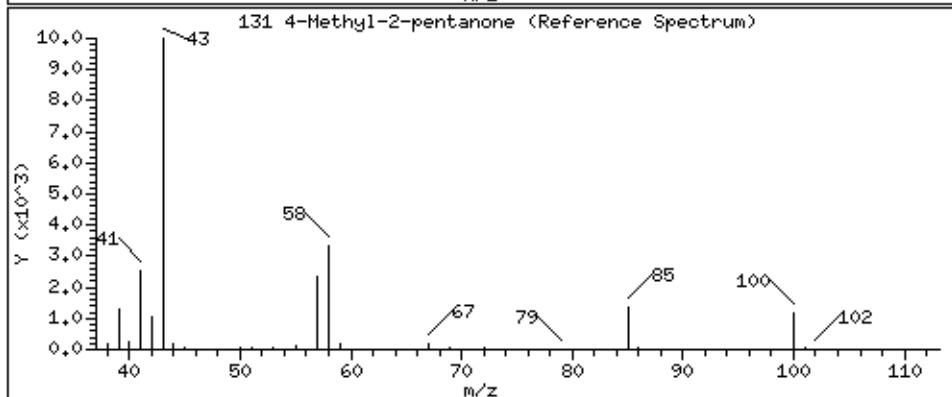
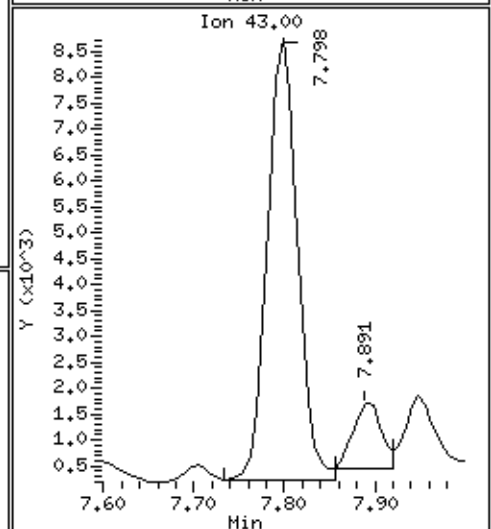
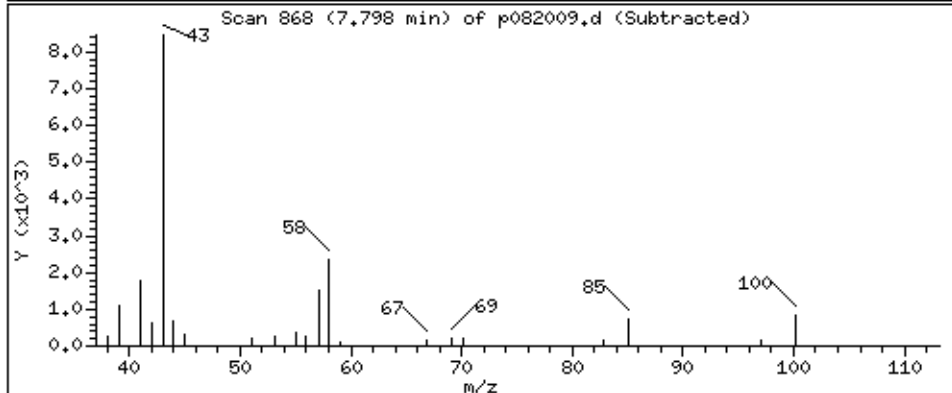
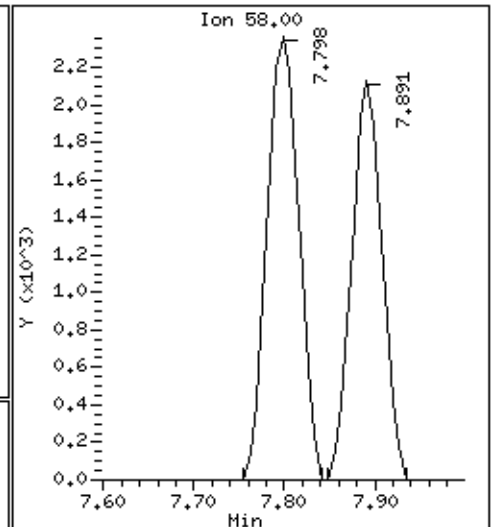
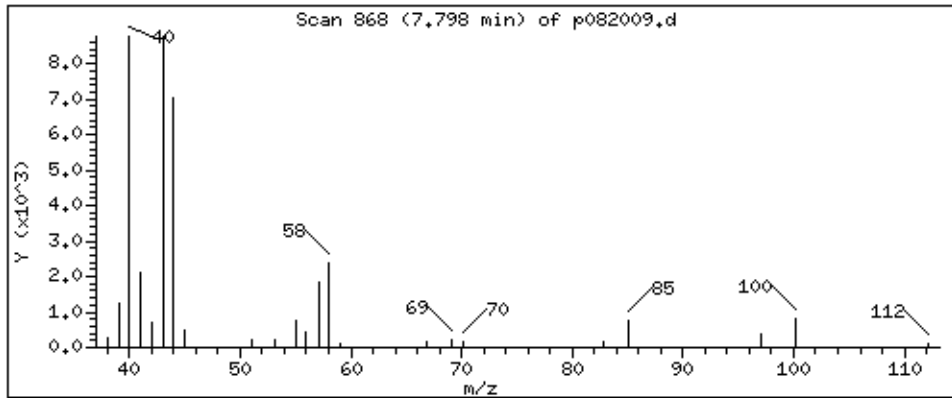
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

131 4-Methyl-2-pentanone

Concentration: 1.752 PPBV



Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

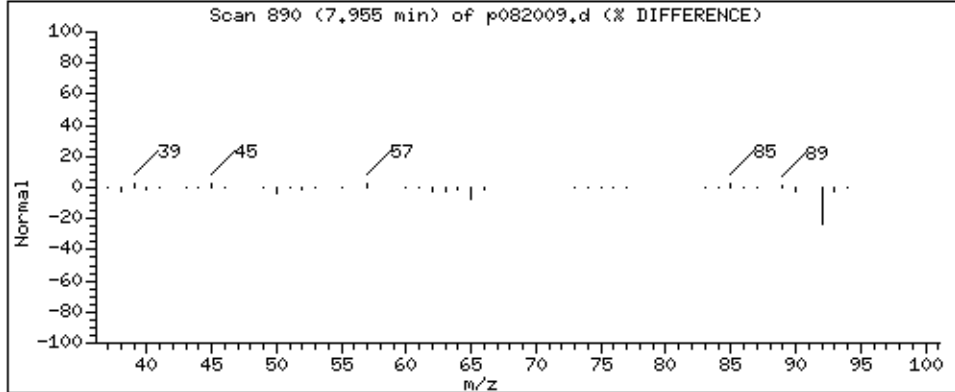
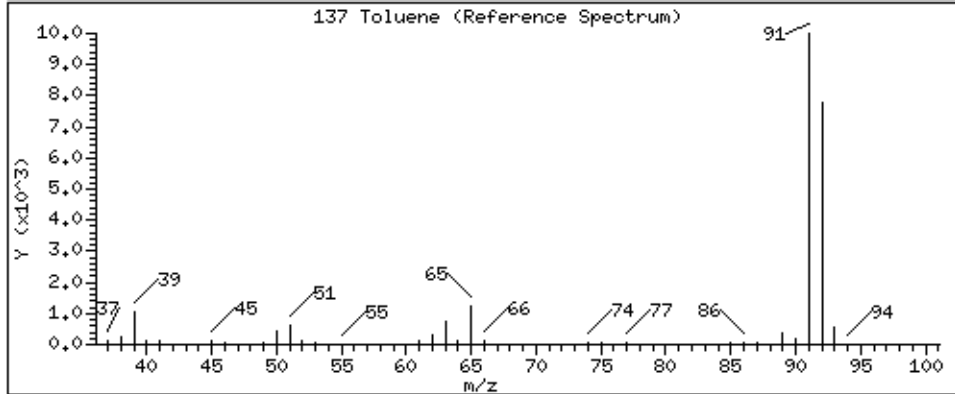
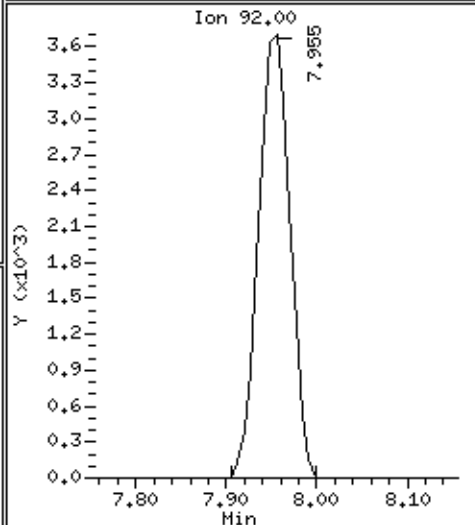
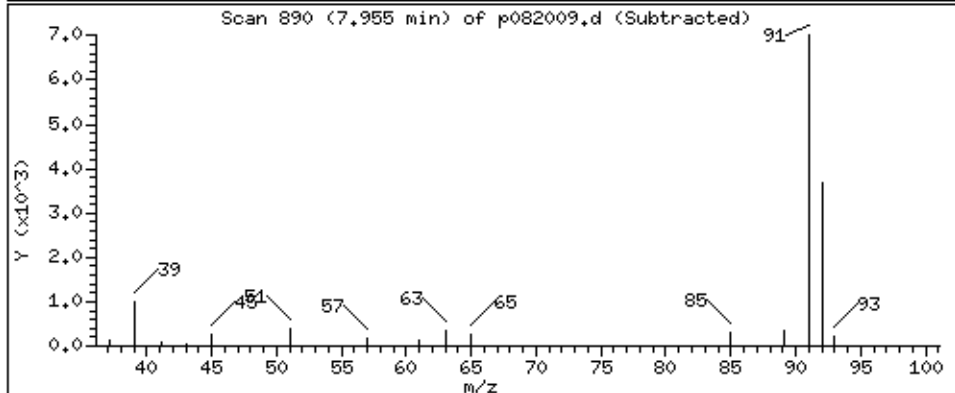
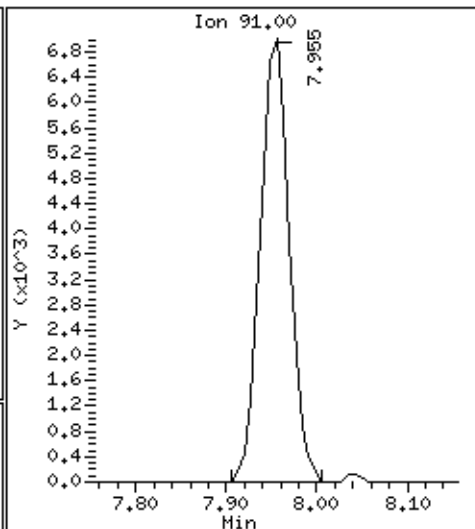
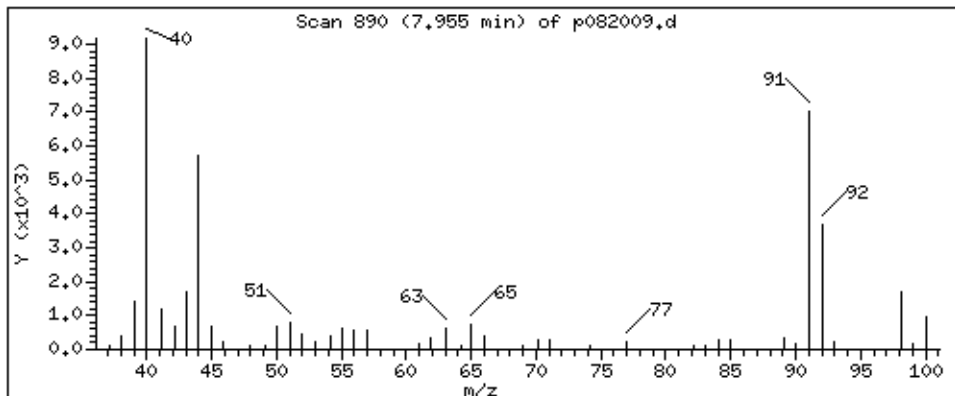
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 1,784 PPBV



Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

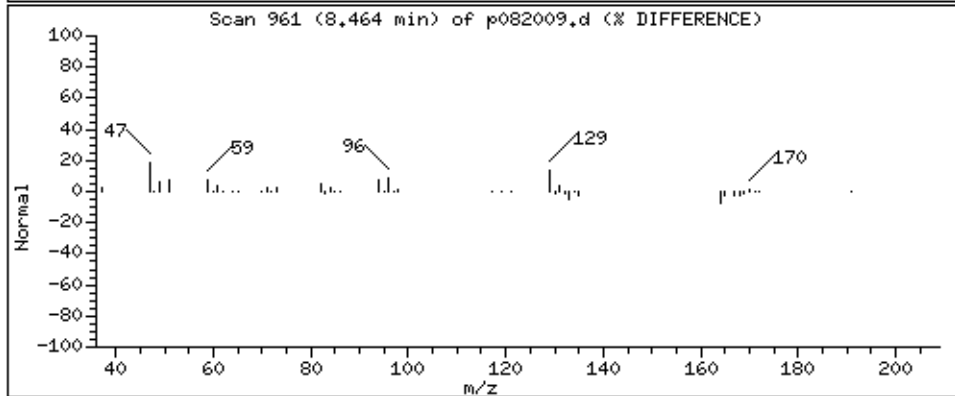
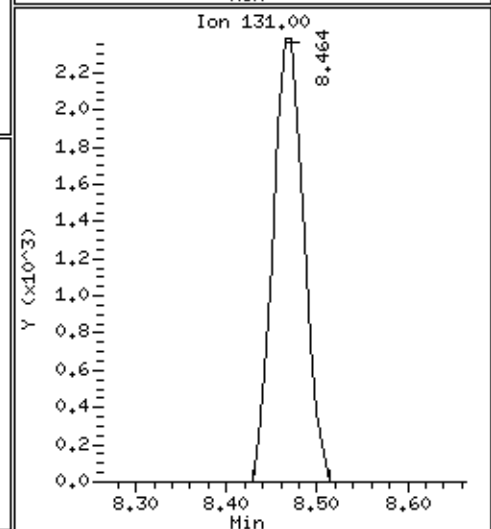
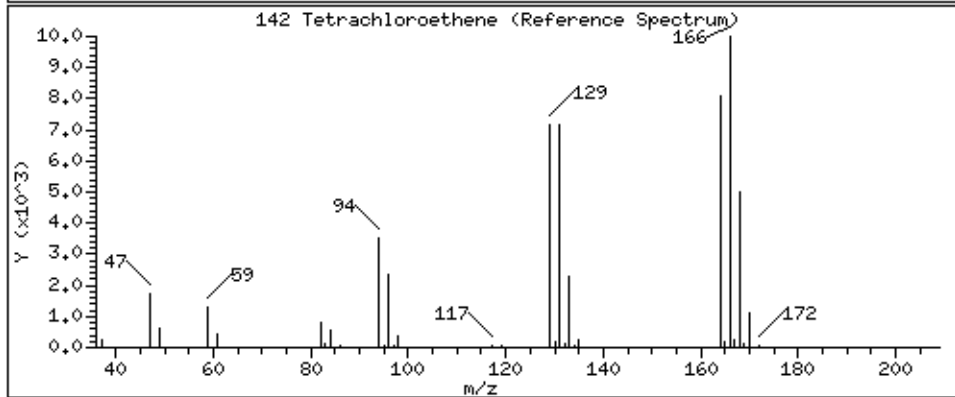
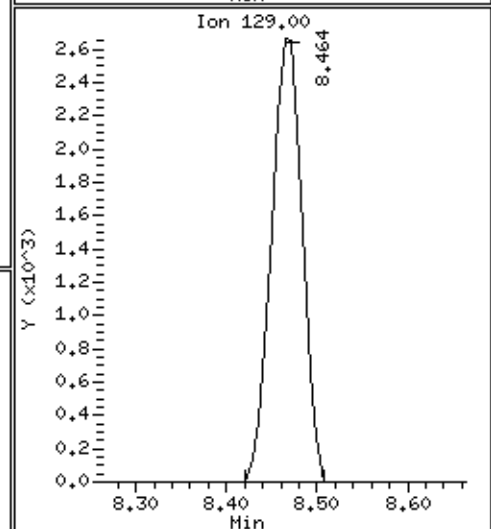
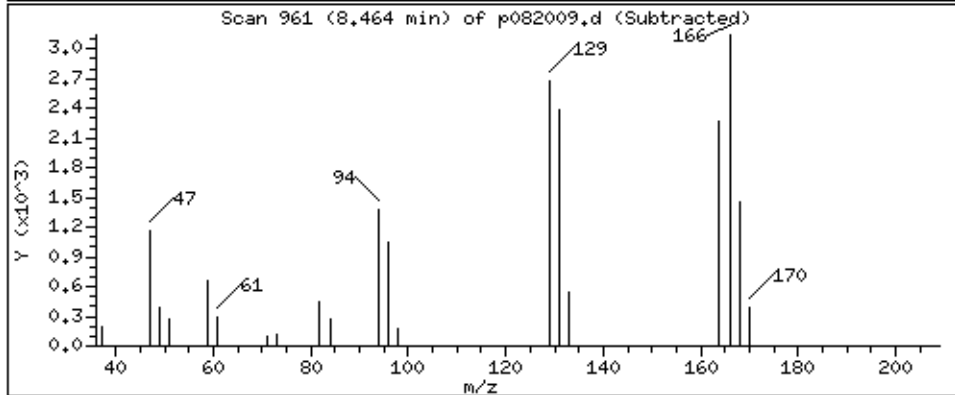
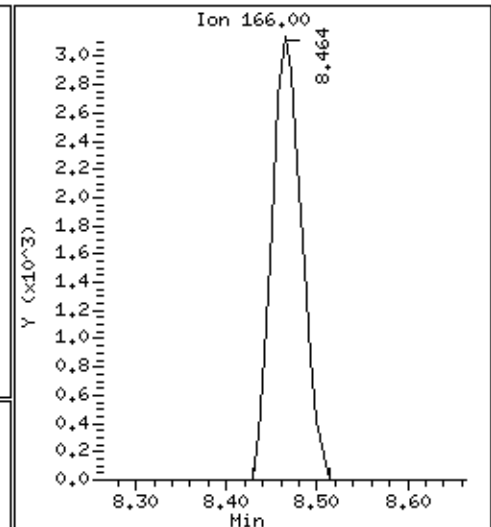
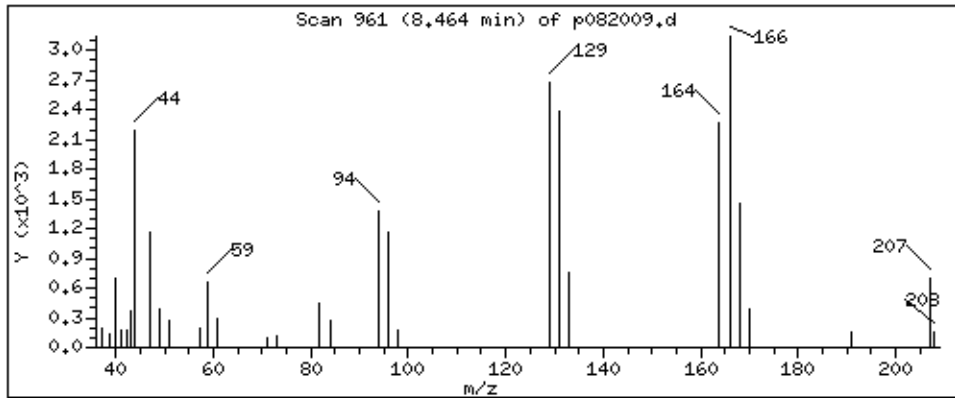
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 1.636 PPBV



Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

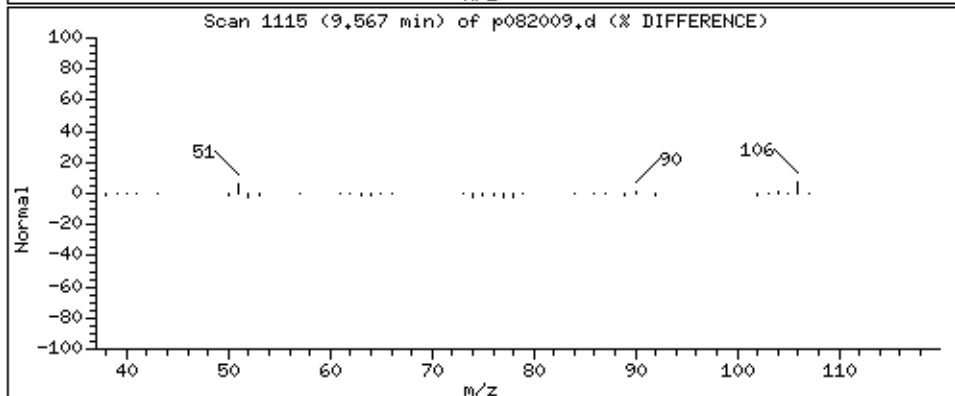
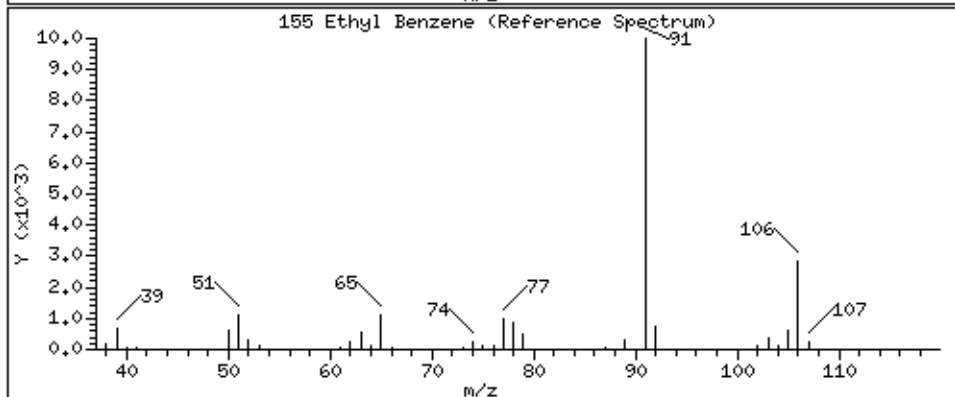
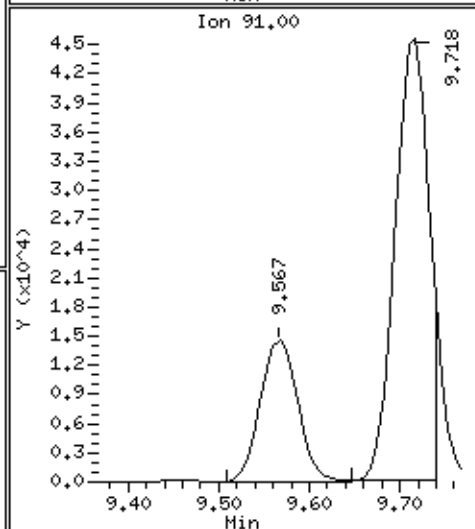
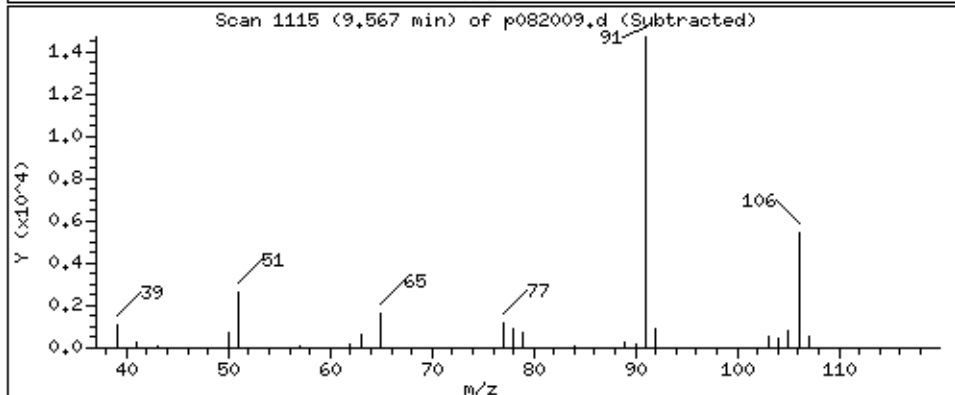
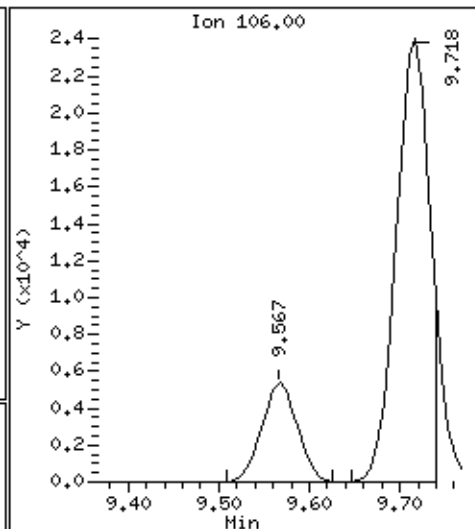
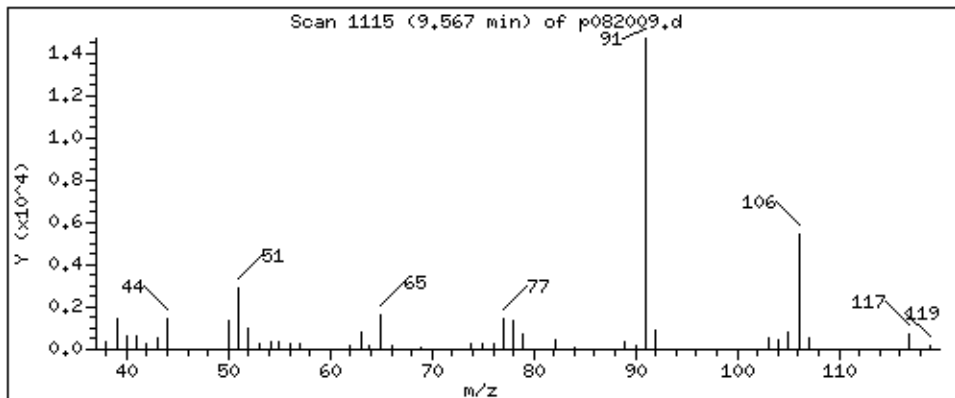
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 3.625 PPBV





Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

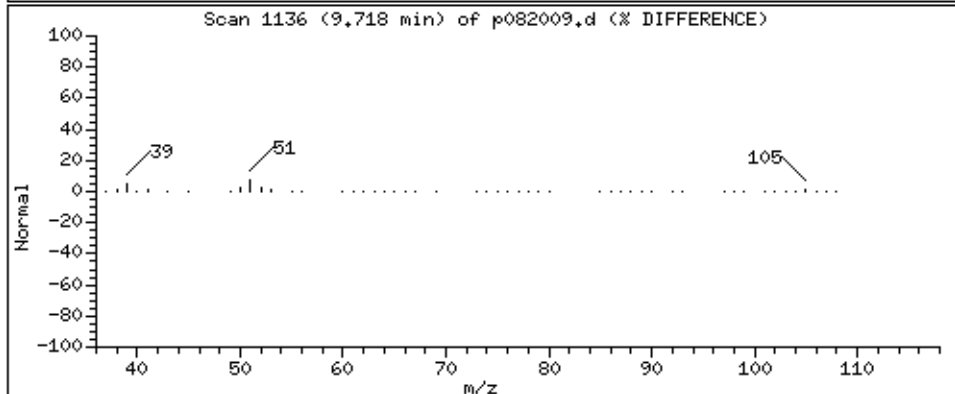
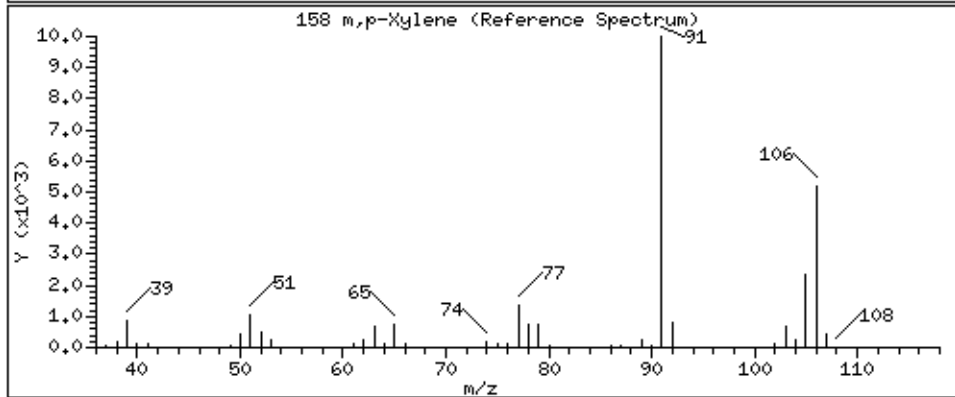
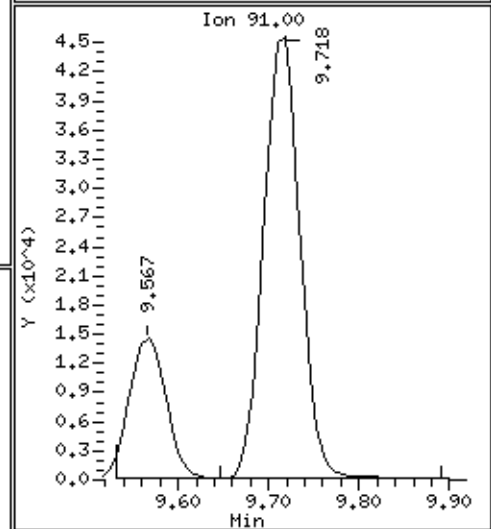
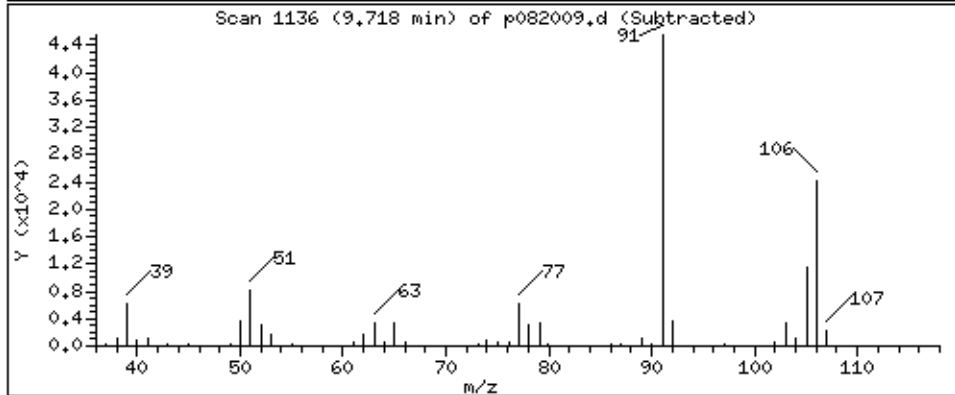
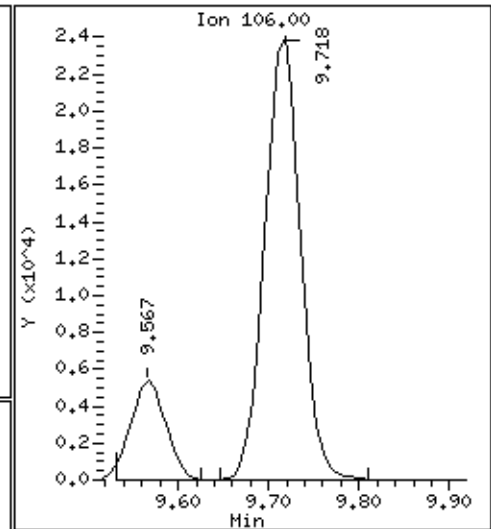
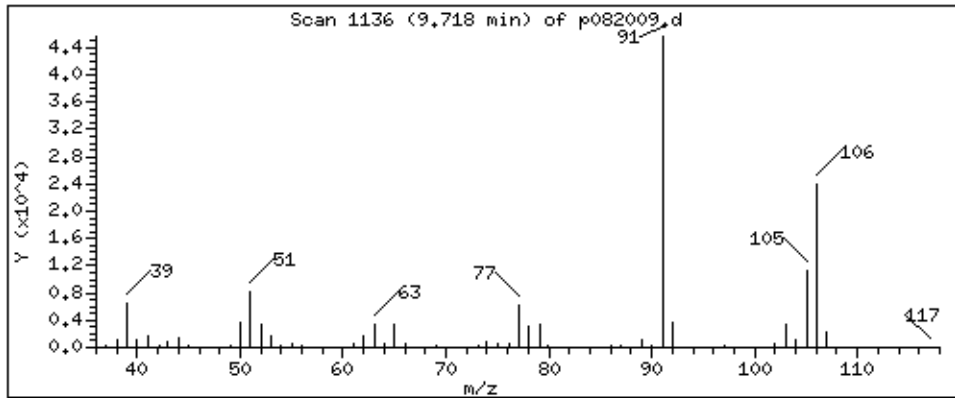
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 12,972 PPBV



Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

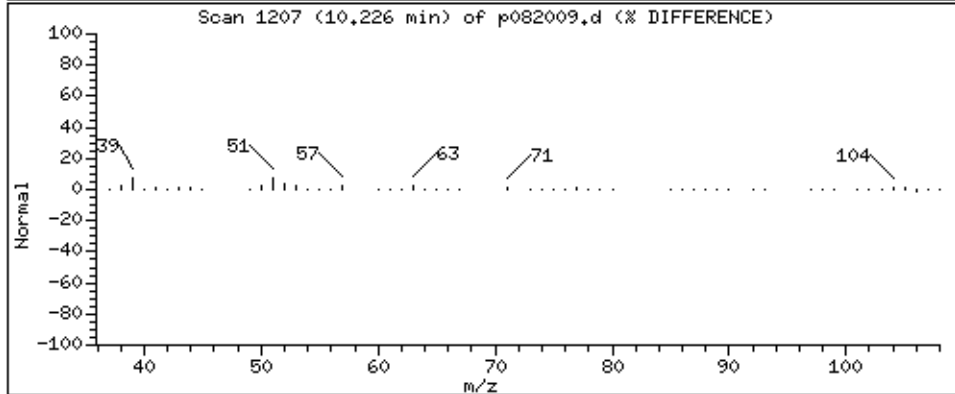
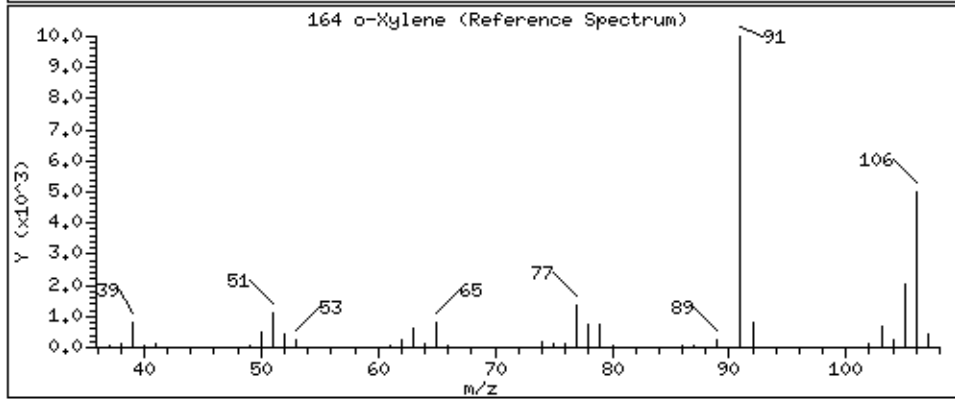
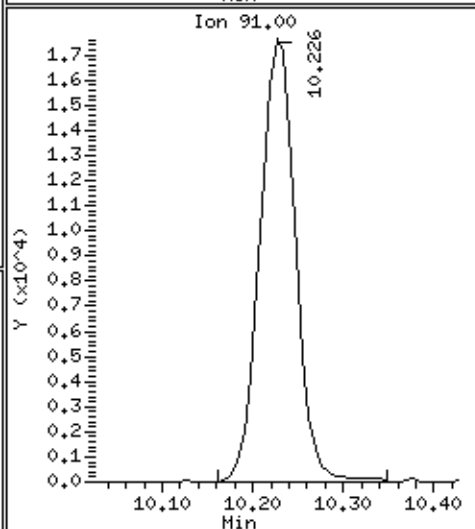
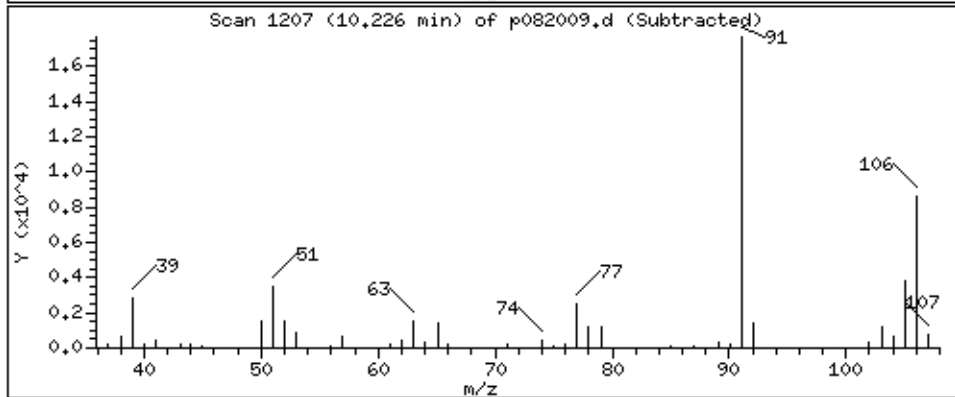
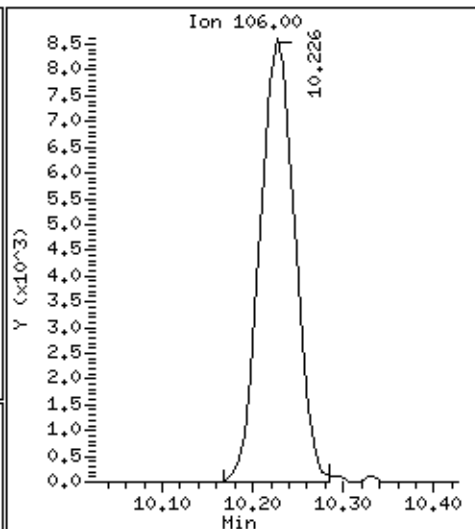
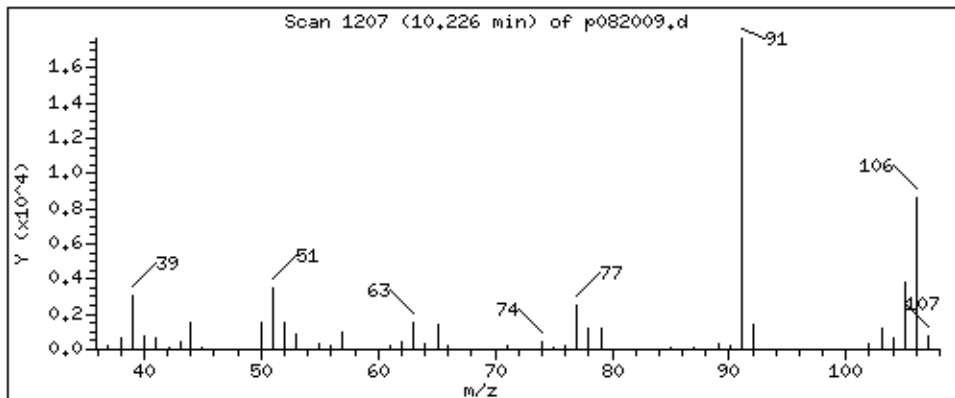
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 4.740 PPBV



Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

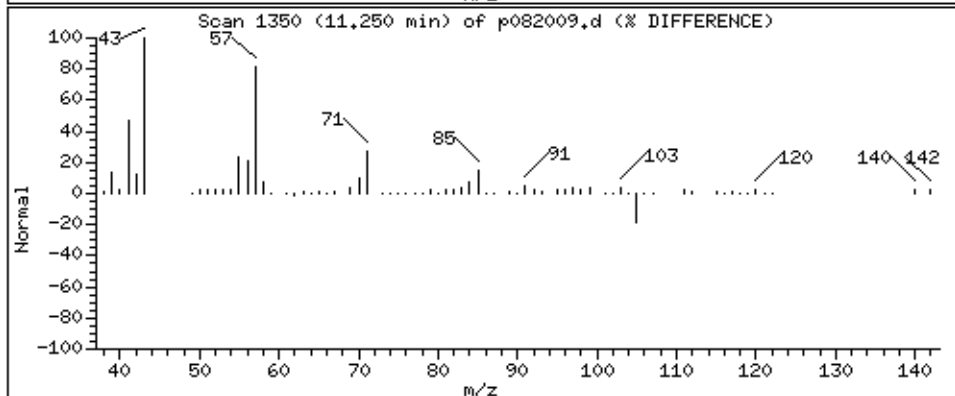
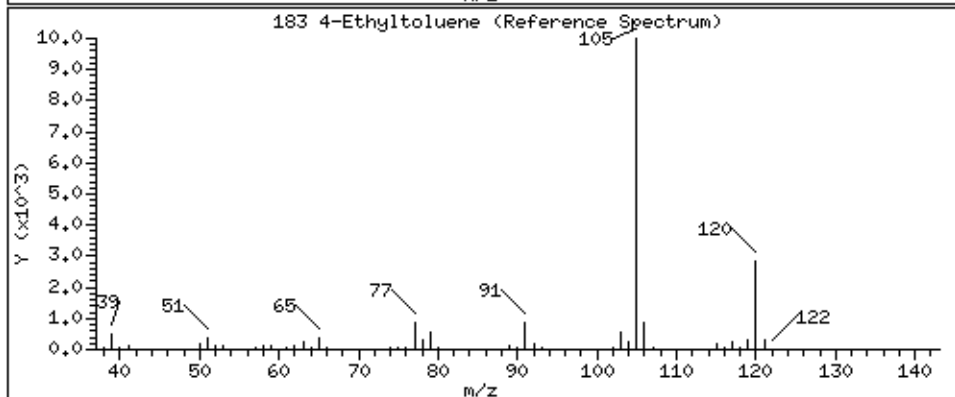
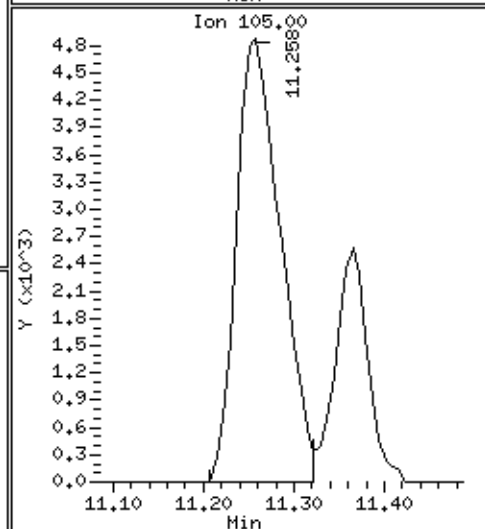
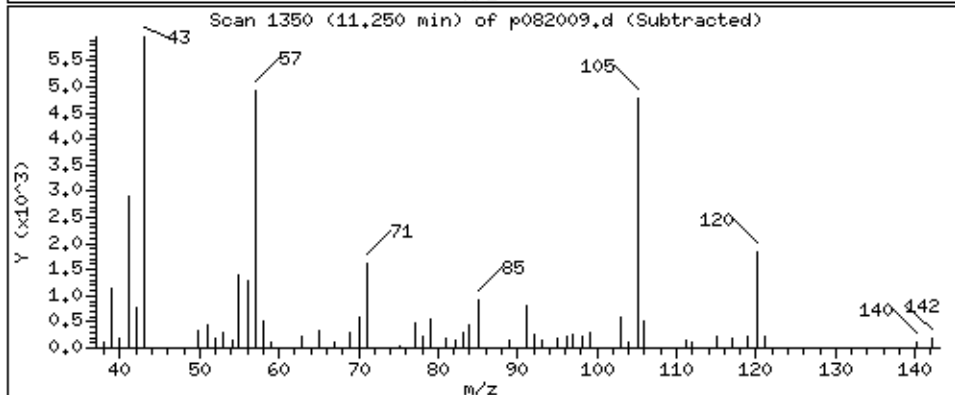
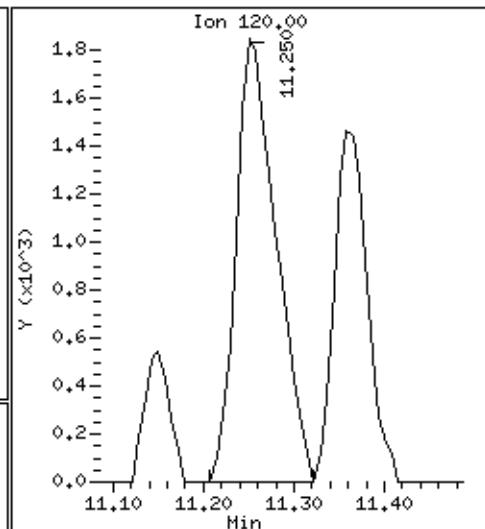
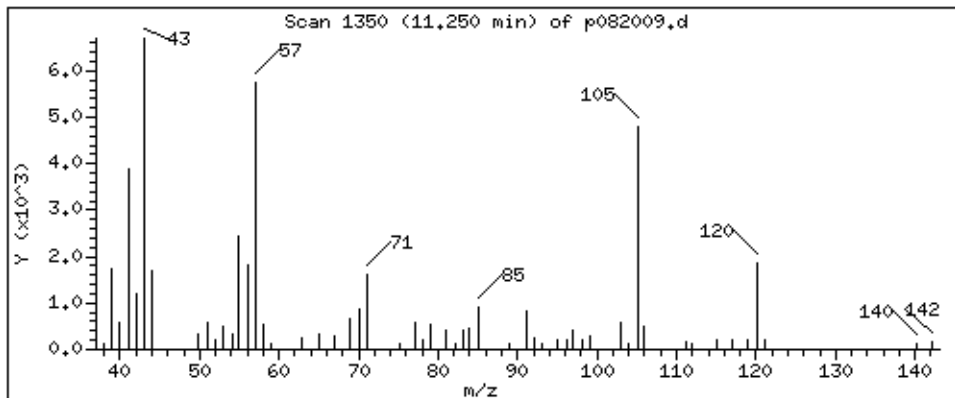
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 1,158 PPBV



Date : 20-AUG-2021 16:27

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1040

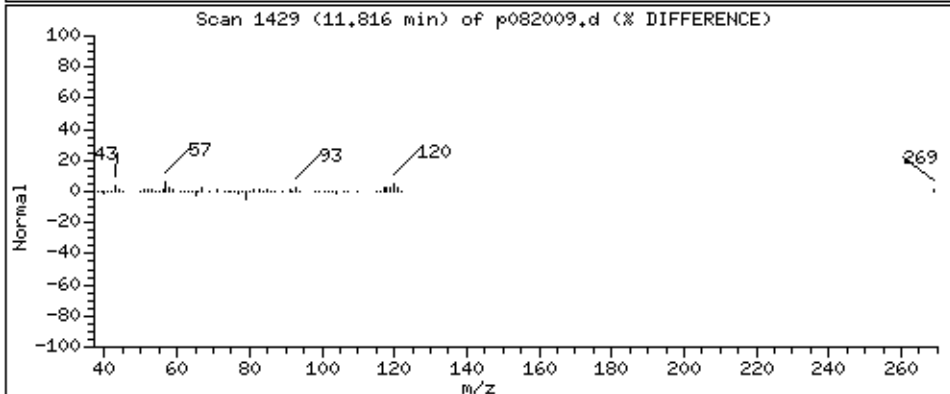
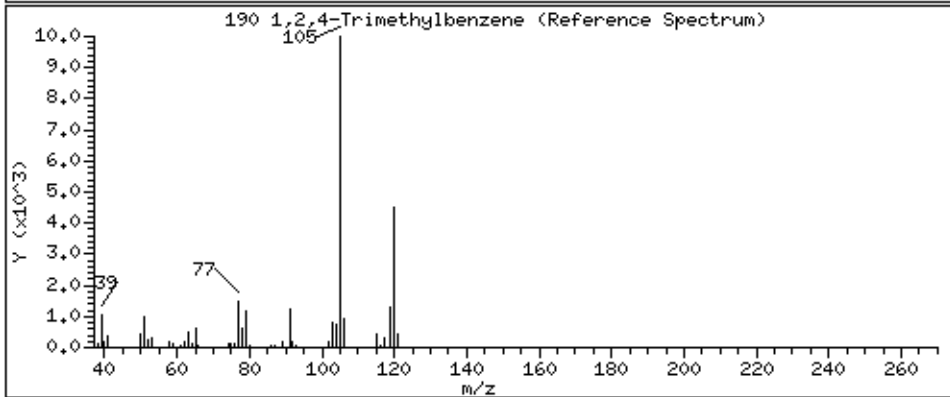
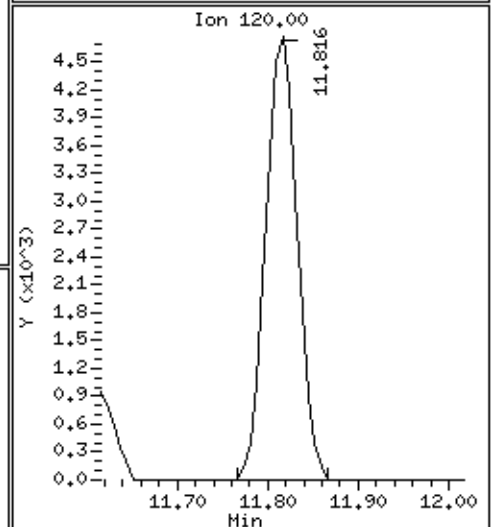
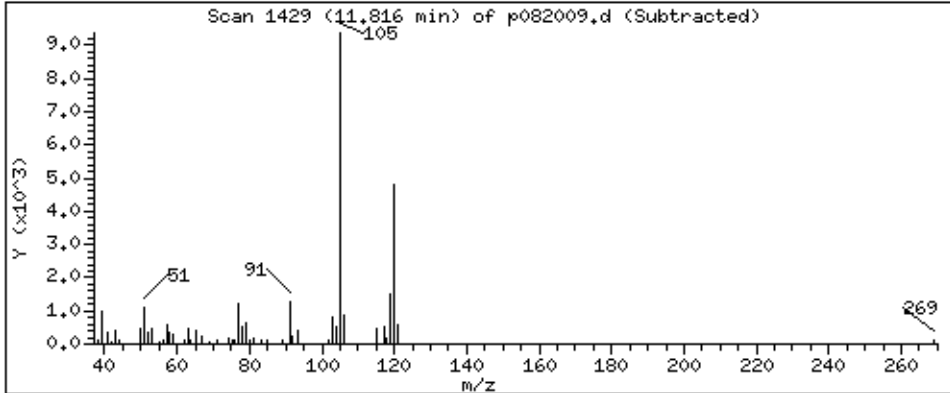
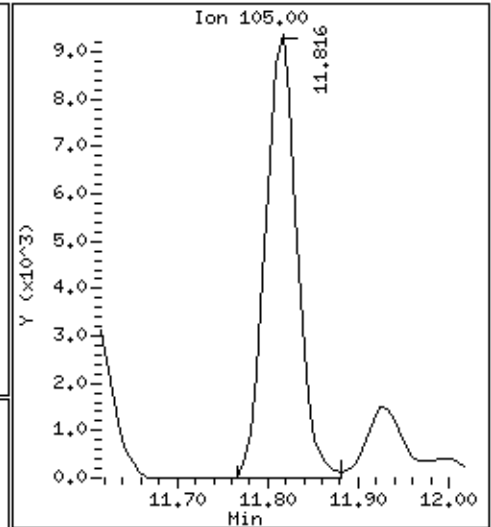
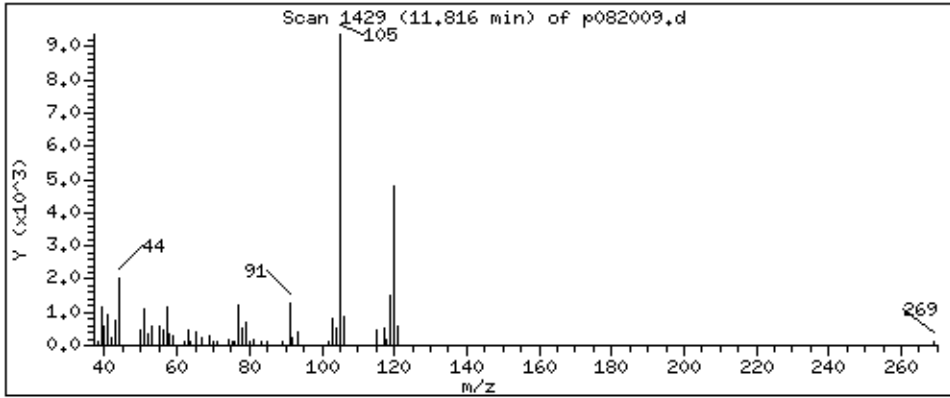
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 1,777 PPBV



Client Sample ID: SG-VW17A-03

Lab ID#: 2108390-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082010	Date of Collection:	8/16/21 10:31:00 AM
Dil. Factor:	2.02	Date of Analysis:	8/20/21 04:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.0	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
1,1-Difluoroethane	4.0	4.0	11	11
1,2,3-Trichloropropane	4.0	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	1.6	5.0	7.7
1,2-Dibromo-3-chloropropane	4.0	Not Detected	39	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
2-Hexanone	4.0	Not Detected	16	Not Detected
2-Propanol	4.0	5.2	9.9	13
3-Chloropropene	4.0	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	1.1	5.0	5.3
4-Methyl-2-pentanone	1.0	1.3	4.1	5.4
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.0	Not Detected	9.3	Not Detected
Acrylonitrile	4.0	Not Detected	8.8	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Chloroethane	4.0	Not Detected	11	Not Detected
Chloroform	1.0	39	4.9	190
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected



Air Toxics

Client Sample ID: SG-VW17A-03

Lab ID#: 2108390-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082010	Date of Collection:	8/16/21 10:31:00 AM
Dil. Factor:	2.02	Date of Analysis:	8/20/21 04:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
Cyclohexane	1.0	2.7	3.5	9.2
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
Dibromomethane	4.0	Not Detected	29	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Ethyl Acetate	4.0	Not Detected	14	Not Detected
Ethyl Benzene	1.0	2.1	4.4	9.1
Ethyl-tert-butyl ether	4.0	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Freon 12	1.0	Not Detected	5.0	Not Detected
Freon 113	1.0	Not Detected	7.7	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Freon 134a	4.0	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected
Hexachloroethane	4.0	Not Detected	39	Not Detected
Hexane	1.0	670 E	3.6	2400 E
Iodomethane	10	Not Detected	59	Not Detected
Isopropyl ether	4.0	Not Detected	17	Not Detected
m,p-Xylene	1.0	8.7	4.4	38
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
o-Xylene	1.0	3.5	4.4	15
Propylbenzene	1.0	Not Detected	5.0	Not Detected
Propylene	4.0	Not Detected	7.0	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
tert-Amyl methyl ether	4.0	Not Detected	17	Not Detected
tert-Butyl alcohol	4.0	Not Detected	12	Not Detected
Tetrachloroethene	1.0	16	6.8	110
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	1.3	3.8	5.0
TPH ref. to Gasoline (MW=100)	100	1000	410	4100
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Trichloroethene	1.0	Not Detected	5.4	Not Detected
Vinyl Acetate	4.0	Not Detected	14	Not Detected
Vinyl Bromide	4.0	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

**Client Sample ID: SG-VW17A-03**
**Lab ID#: 2108390-03A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p082010</b>	<b>Date of Collection: 8/16/21 10:31:00 AM</b>
<b>Dil. Factor:</b>	<b>2.02</b>	<b>Date of Analysis: 8/20/21 04:56 PM</b>

E = Exceeds instrument calibration range.

**Container Type: 1 Liter Summa Canister**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	104	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082010.d  
Lab Smp Id: 2108390-03A  
Inj Date : 20-AUG-2021 16:56  
Operator : mjb  
Smp Info : 200ml 1L1614  
Misc Info : 5.0 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
Meth Date : 20-Aug-2021 12:59 p5fl  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 3  
Dil Factor: 2.02000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.785	5.785	(1.000)	130	109467	25.0000	80.00- 120.00	100.00		
5.785	5.785	(1.000)	128	84446		48.23- 108.23	77.14		
5.785	5.778	(1.000)	49	268448		150.57- 210.57	245.23		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.666	6.659	(1.000)	114	409276	25.0000	80.00- 120.00	100.00		
6.666	6.659	(1.000)	88	60329		0.00- 45.71	14.74		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	409380	25.0000	80.00- 120.00	100.00		
9.460	9.460	(1.000)	82	212358		23.78- 83.78	51.87		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
6.315	6.315	(1.092)	65	165550	27.4035	27.404 80.00- 120.00	100.00		
6.315	6.315	(1.092)	67	76386		27.21- 87.21	46.14		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.891	7.891	(1.184)	98	442789	24.9145	24.914 80.00- 120.00	100.00		
7.891	7.891	(1.184)	70	47748		0.00- 40.44	10.78		



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	286053			34.95- 94.95	64.60
-----								
§ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	273770	26.0425	26.042	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	317305			95.92- 155.92	115.90
10.921	10.921	(1.154)	176	262925			66.89- 126.89	96.04
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.717	1.703	(0.297)	65	4926	1.98527	4.010	80.00- 120.00	100.00(a)
1.772	1.759	(0.306)	51	2367232			597.63- 657.63	48050.88
1.772	1.717	(0.306)	47	49820			33.72- 93.72	1011.27
-----								
52 2-Propanol								
						CAS #: 67-63-0		
3.901	3.894	(0.674)	45	29857	2.58141	5.214	80.00- 120.00	100.00
3.894	3.894	(0.673)	43	6985			0.00- 47.19	23.39
-----								
67 Hexane								
						CAS #: 110-54-3		
4.696	4.697	(0.812)	57	3561474	330.263	667.13	80.00- 120.00	100.00(A)
4.696	4.697	(0.812)	43	2755118			37.52- 97.52	77.36
4.696	4.697	(0.812)	86	353541			0.00- 41.48	9.93
-----								
92 Chloroform								
						CAS #: 67-66-3		
5.843	5.843	(1.010)	83	183108	19.2250	38.834	80.00- 120.00	100.00
5.843	5.843	(1.010)	85	120071			34.70- 94.70	65.57
-----								
94 Cyclohexane								
						CAS #: 110-82-7		
5.964	5.957	(1.031)	84	9119	1.32430	2.675	80.00- 120.00	100.00
5.964	5.957	(1.031)	56	20677			142.57- 202.57	226.75
5.957	5.957	(1.030)	41	12770			62.09- 122.09	140.04
-----								
131 4-Methyl-2-pentanone								
						CAS #: 108-10-1		
7.798	7.798	(1.170)	58	4606	0.65506	1.323	80.00- 120.00	100.00
7.798	7.798	(1.170)	43	15717			242.35- 302.35	341.18
7.798	7.798	(1.170)	85	1408			3.24- 63.24	30.57
-----								
137 Toluene								
						CAS #: 108-88-3		
7.956	7.956	(1.193)	91	12258	0.65784	1.329	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	6484			28.38- 88.38	52.90
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	75197	8.05961	16.280	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	58630			47.84- 107.84	77.97
8.464	8.464	(0.895)	131	56850			45.29- 105.29	75.60
-----								
155 Ethyl Benzene								
						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	8837	1.03962	2.100	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
155 Ethyl Benzene (continued)								
9.567	9.567	(1.011)	91	30397			273.74- 333.74	343.96
-----								
158 m,p-Xylene					CAS #: 108-38-3			
9.711	9.718	(1.026)	106	45657	4.28866	8.663	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	89422			163.73- 223.73	195.85
-----								
164 o-Xylene					CAS #: 95-47-6			
10.226	10.226	(1.081)	106	17595	1.72499	3.484	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	37136			177.45- 237.45	211.06
-----								
183 4-Ethyltoluene					CAS #: 622-96-8			
11.251	11.287	(1.189)	120	5511	0.53339	1.077	80.00- 120.00	100.00
11.251	11.287	(1.189)	105	15781			284.55- 344.55	286.35
-----								
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
11.817	11.817	(1.249)	105	20829	0.77575	1.567	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	9631			19.05- 79.05	46.24
-----								

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p082010.d  
Lab Smp Id: 2108390-03A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: mjb  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 5.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
Calibration Time: 11:13  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	109467	0.08
108 1,4-Difluorobenze	406799	244079	569519	409276	0.61
153 Chlorobenzene-d5	400841	240505	561177	409380	2.13

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-03A  
Level: LOW Operator: mjb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 5.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.404	109.61	70-130
\$ 134 Toluene-d8	25.000	24.914	99.66	70-130
\$ 170 4-Bromofluorobenz	25.000	26.042	104.17	70-130

Date : 20-AUG-2021 16:56

Client ID:

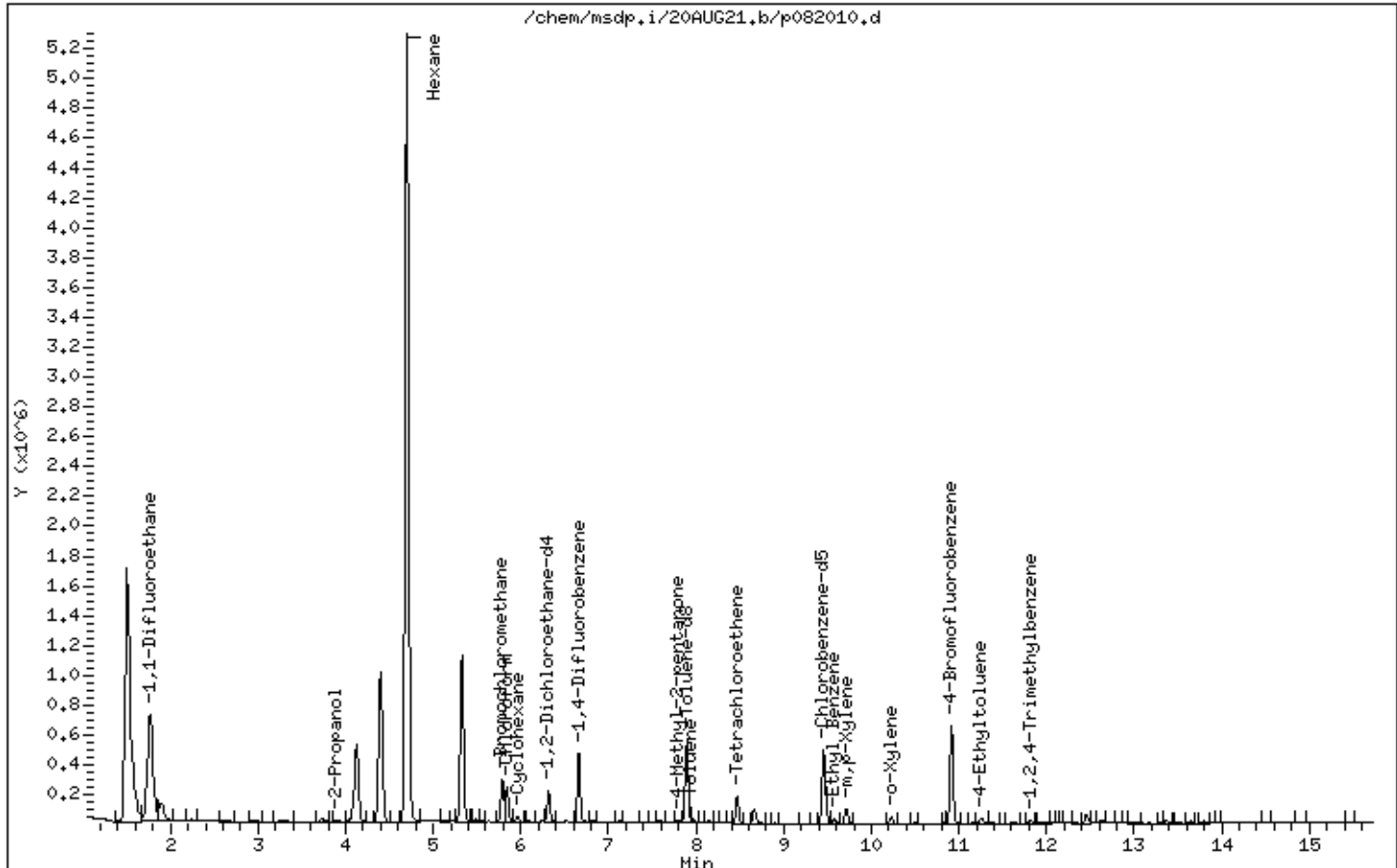
Instrument: msdp.i

Sample Info: 200ml 1L1614

Operator: mjb

Column phase: RTX-624

Column diameter: 0.25



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

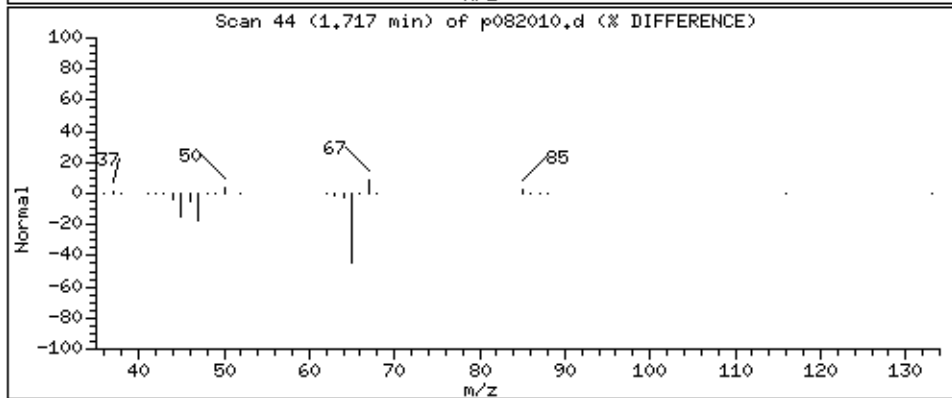
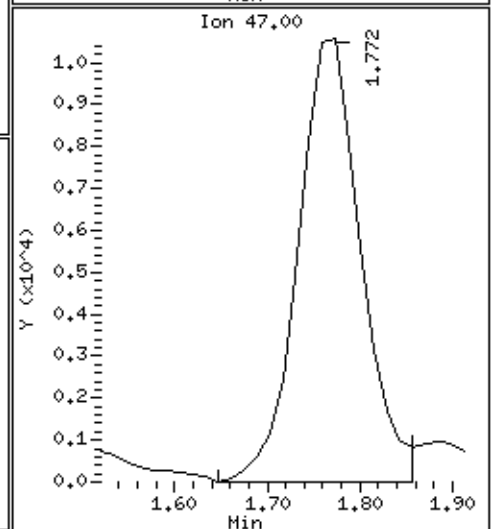
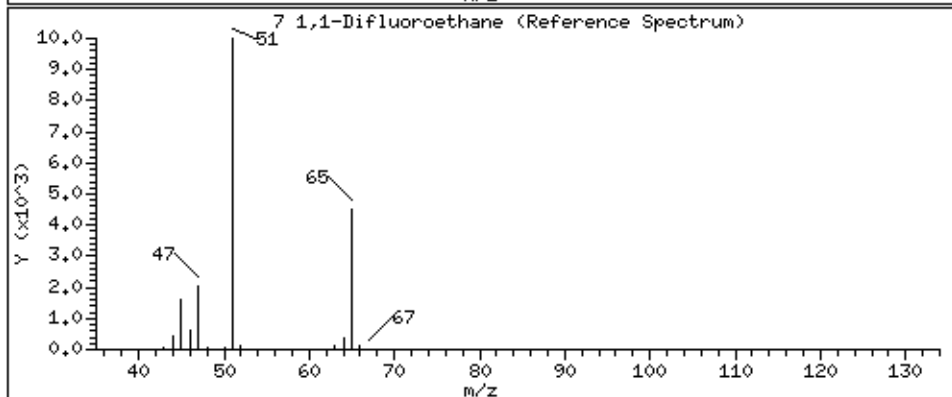
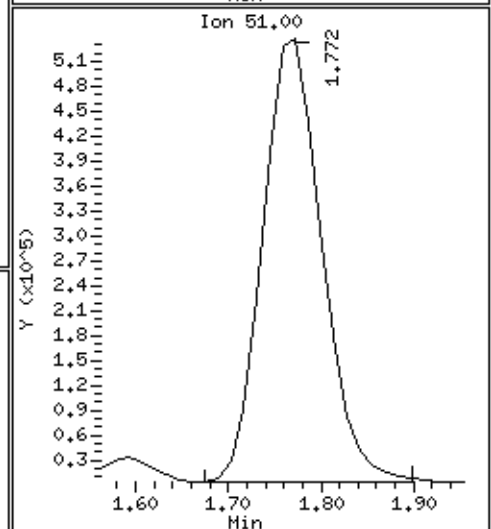
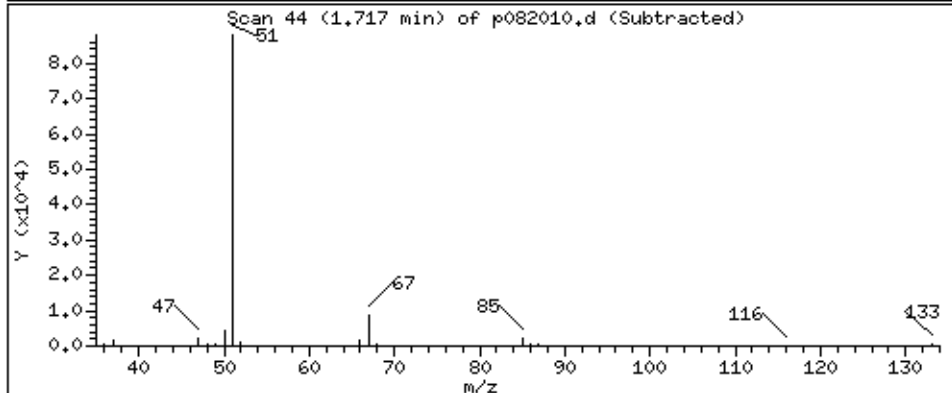
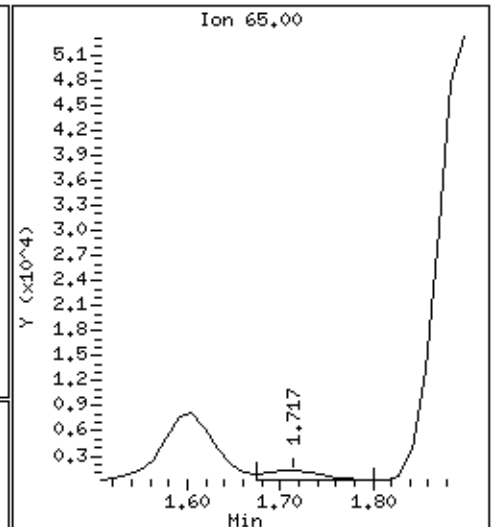
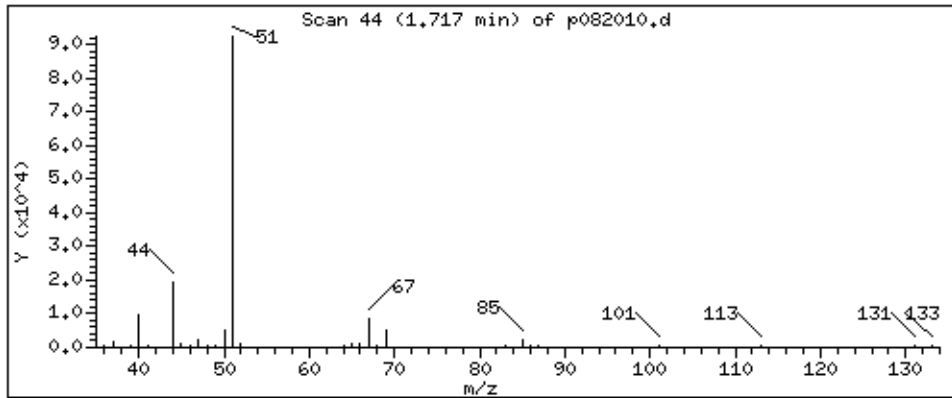
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 4.010 PPBV



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

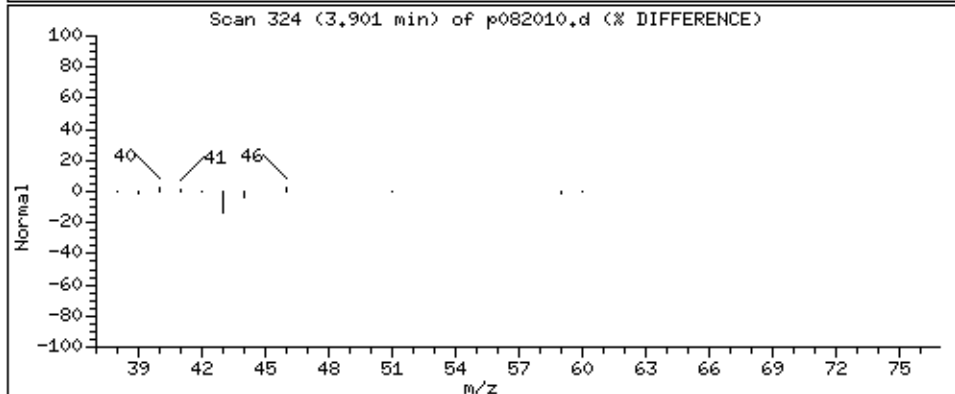
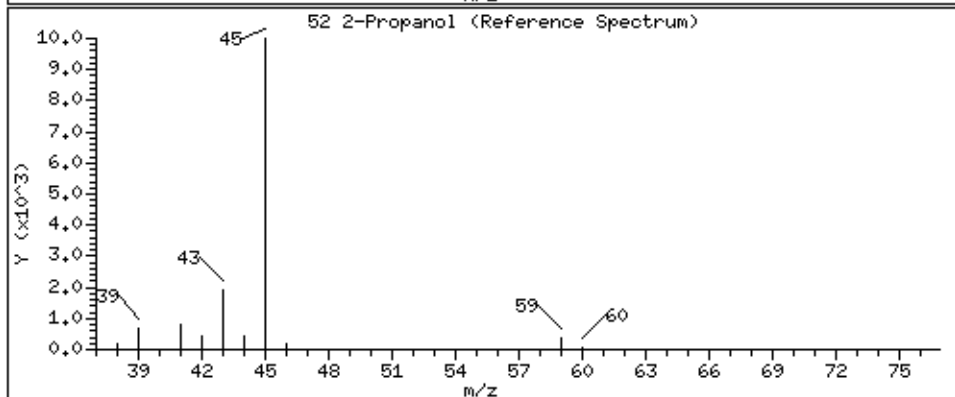
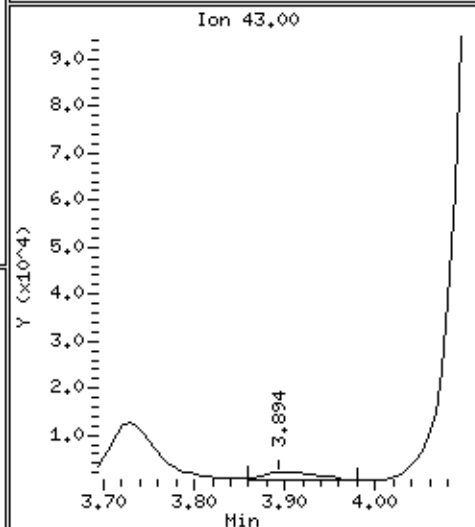
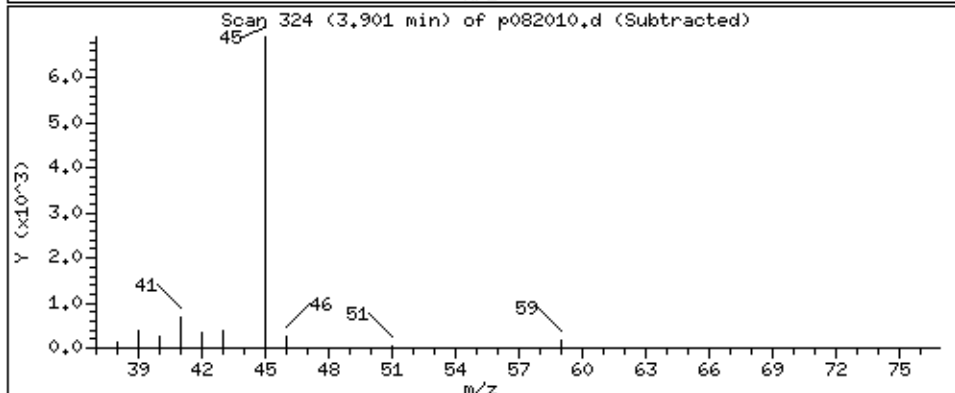
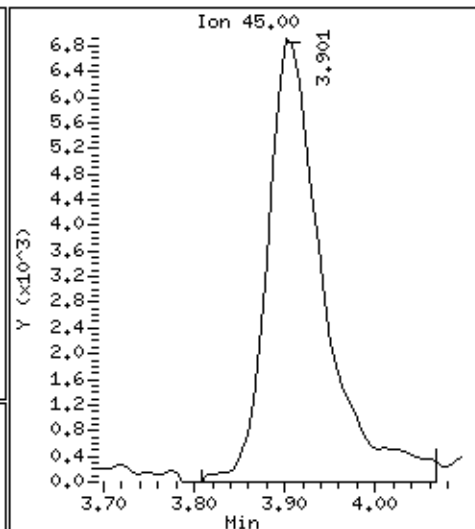
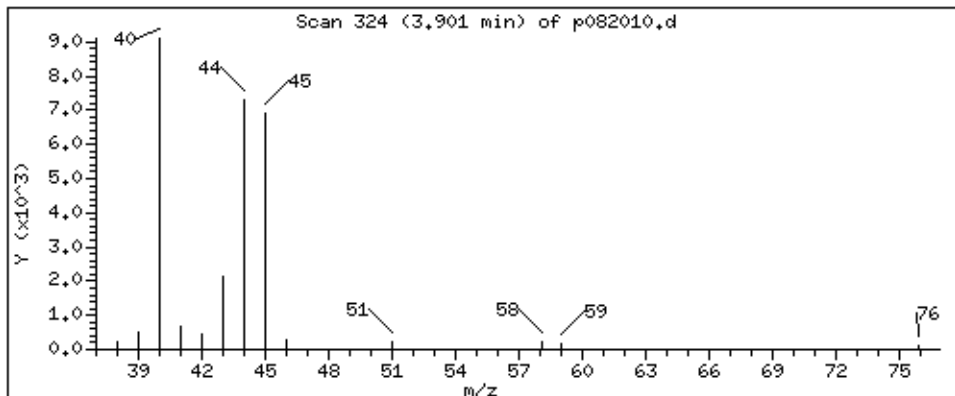
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 5.214 PPBV



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

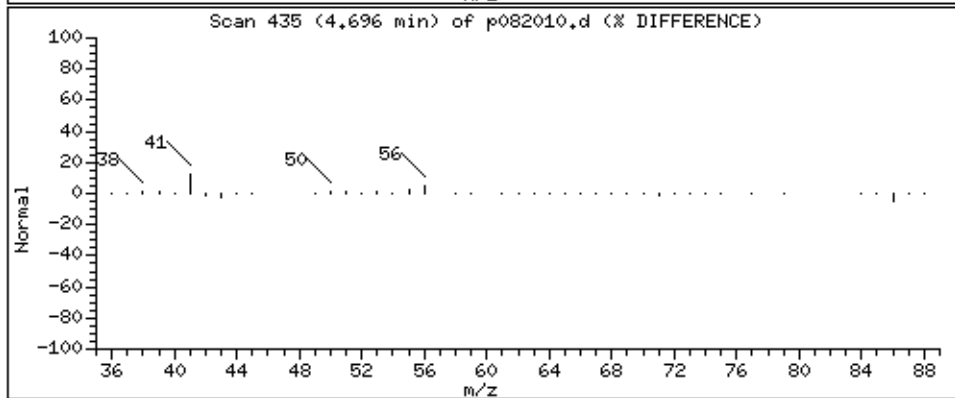
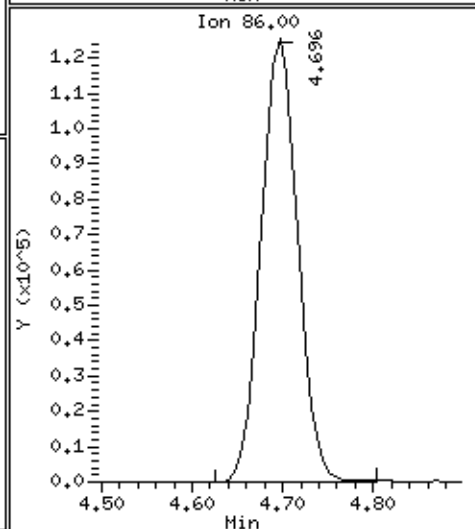
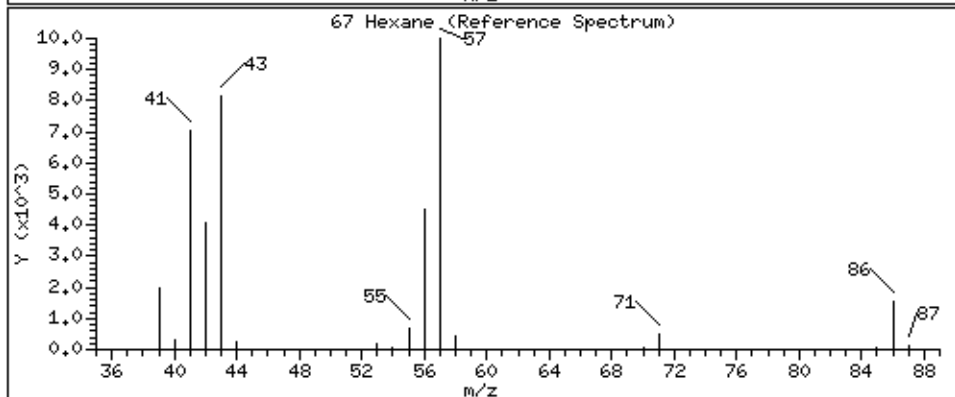
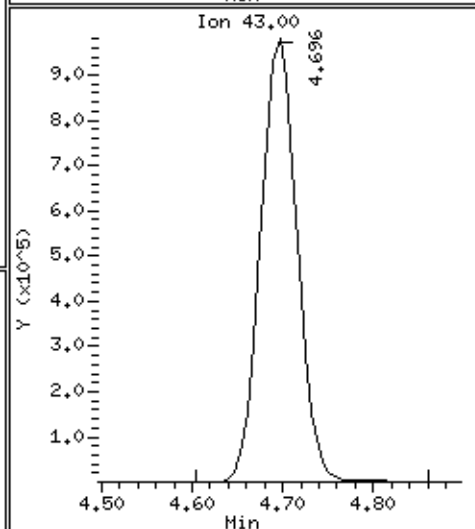
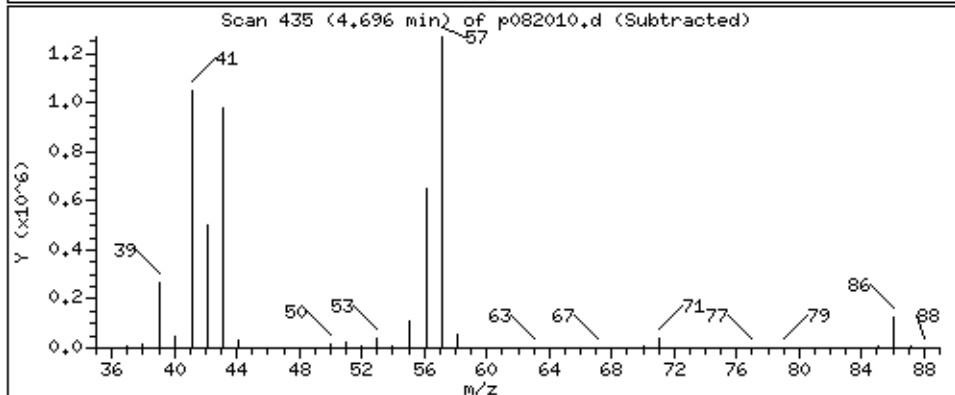
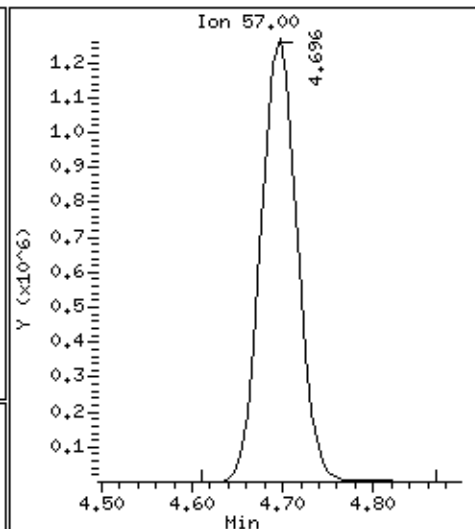
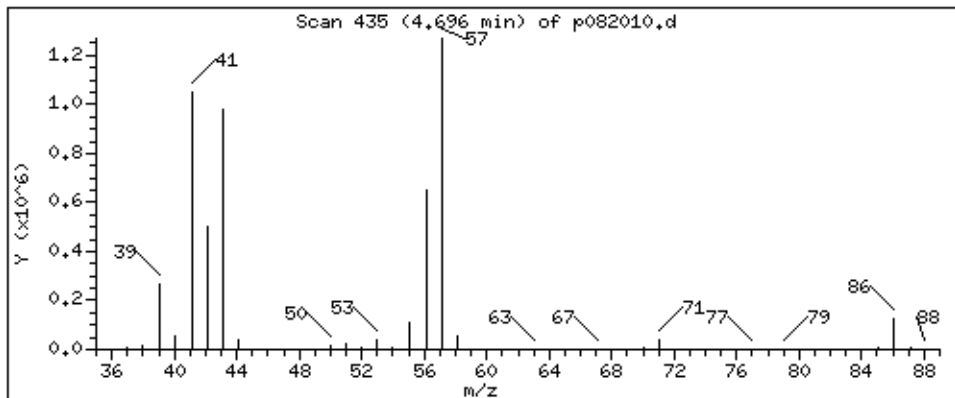
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 667.13 PPBV





Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

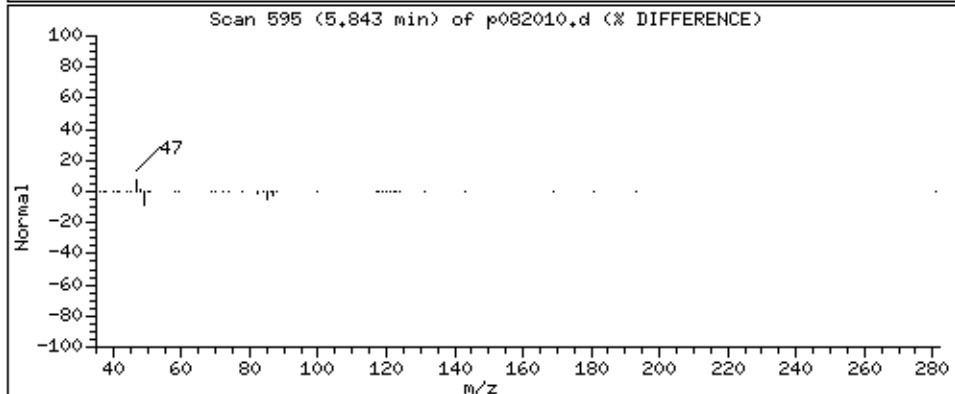
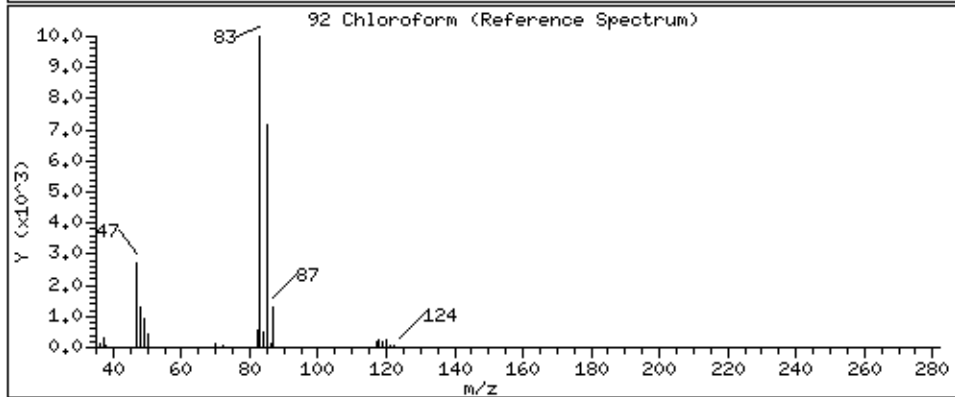
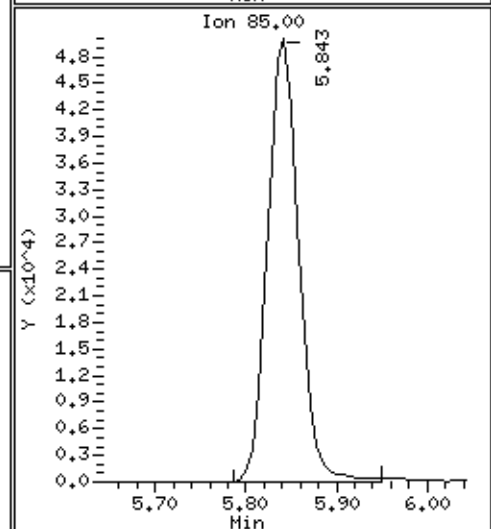
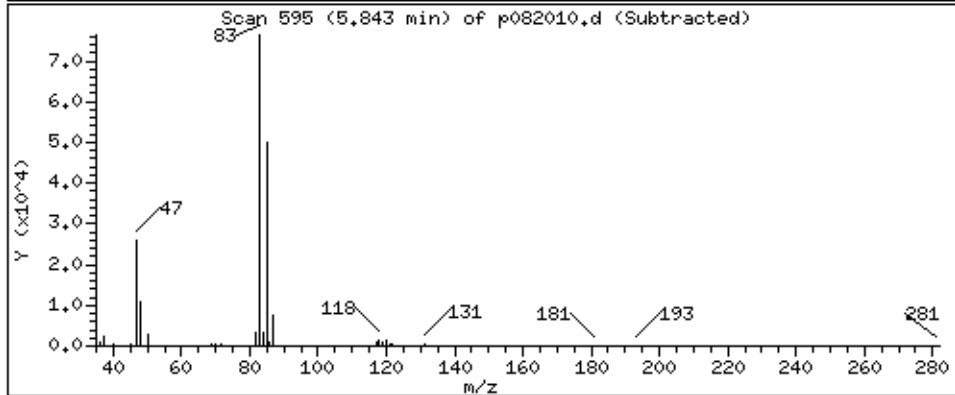
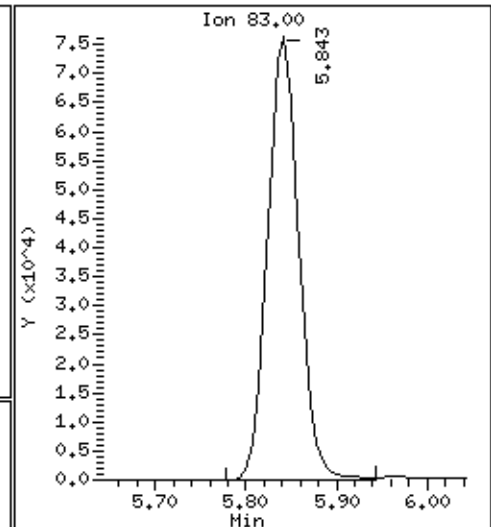
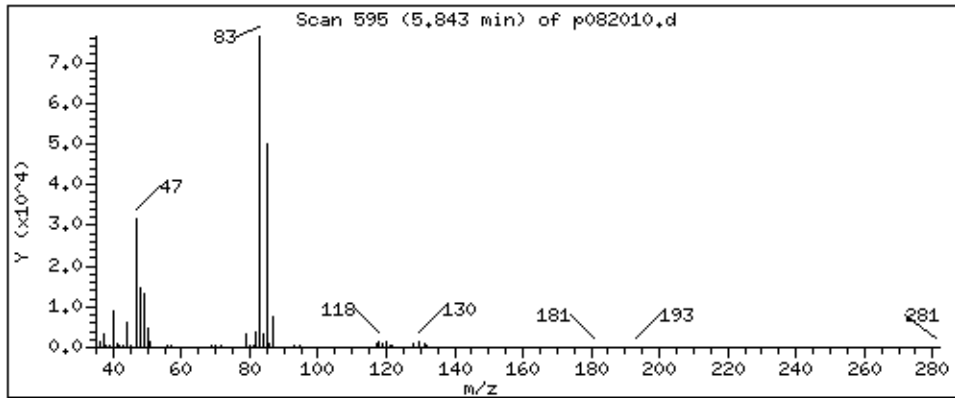
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 38,834 PPBV



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

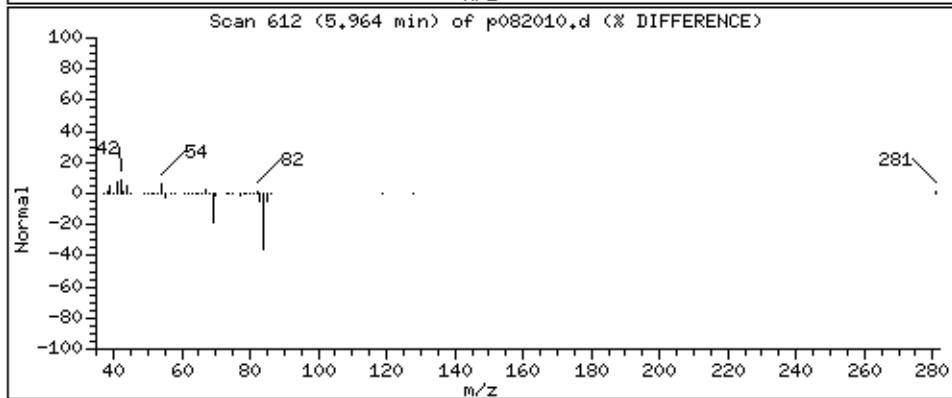
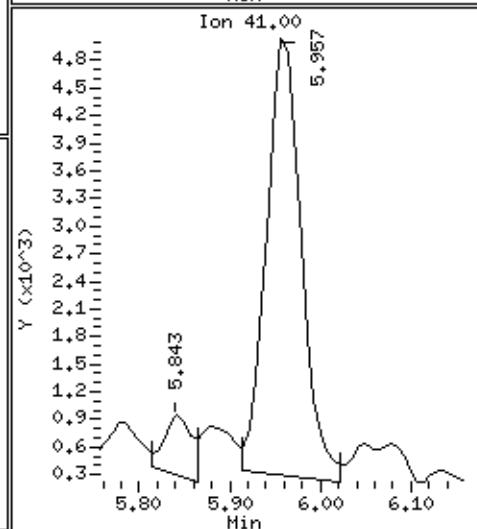
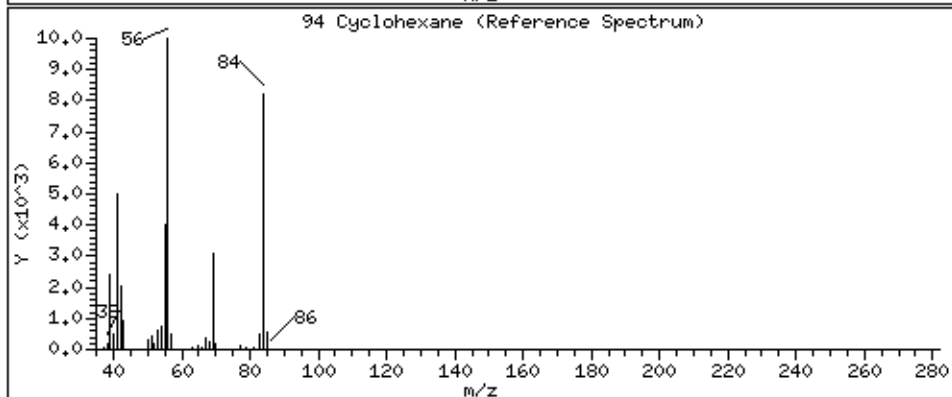
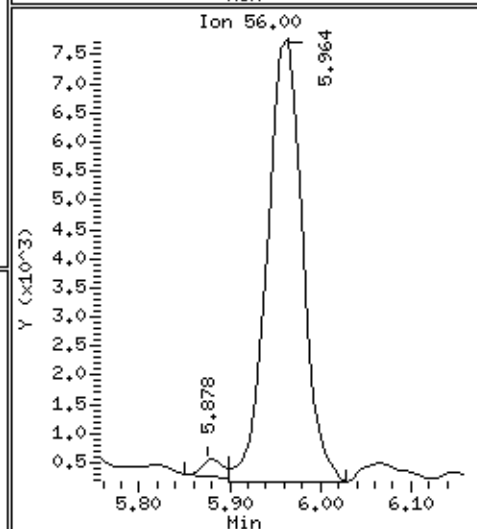
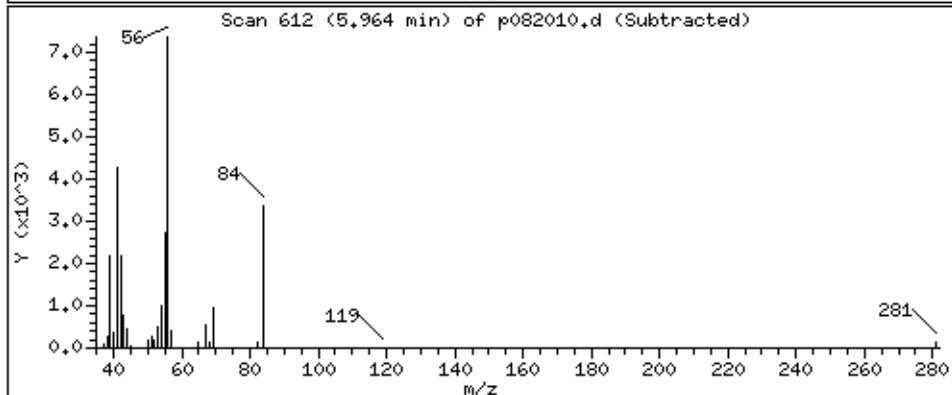
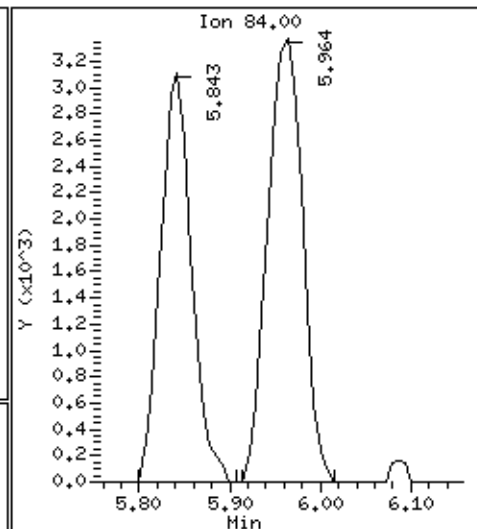
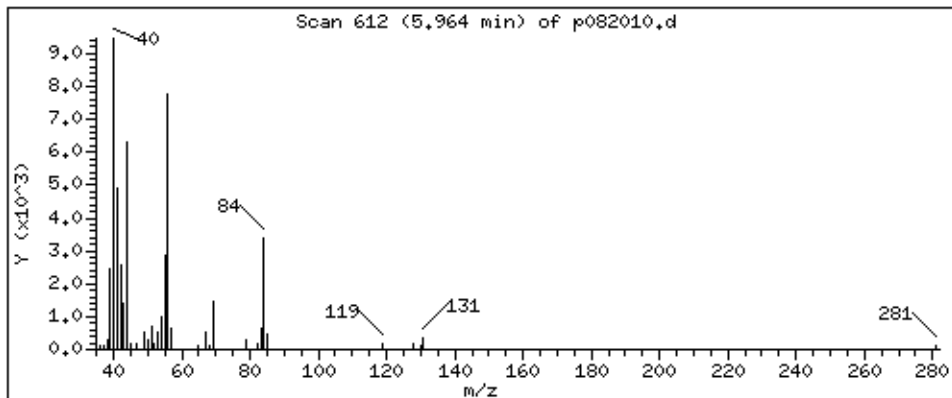
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

94 Cyclohexane

Concentration: 2,675 PPBV



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

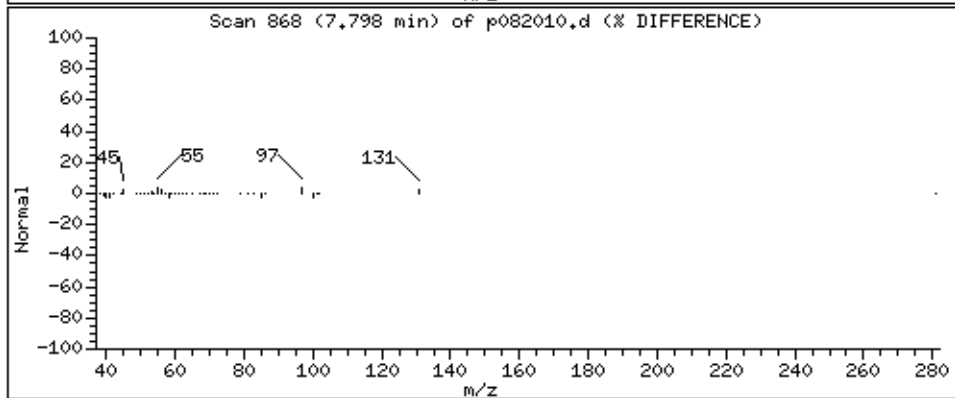
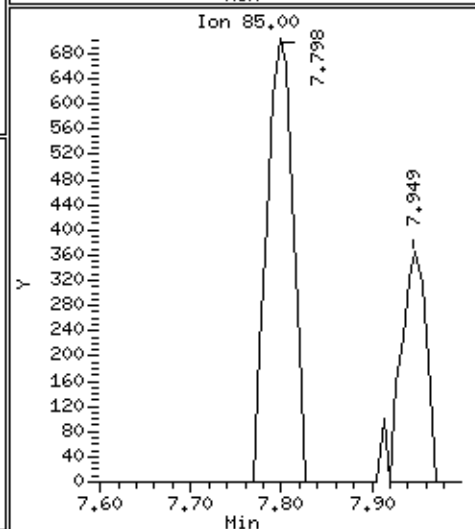
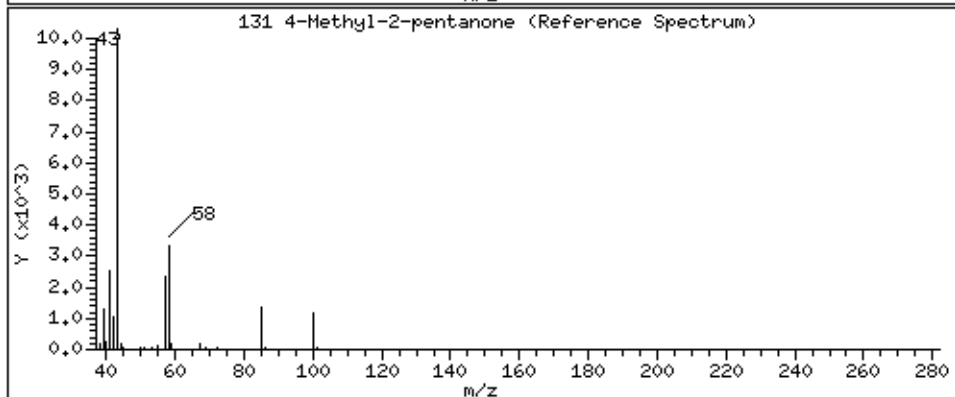
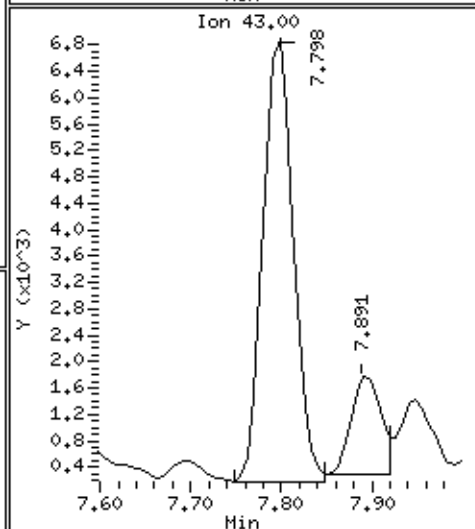
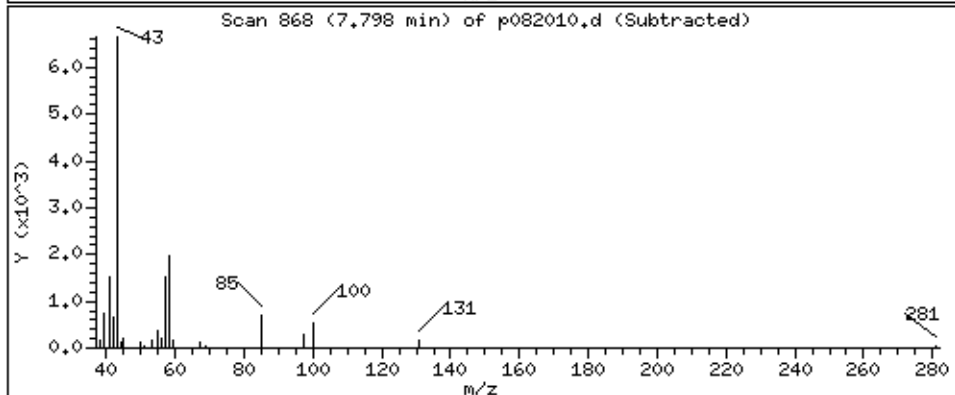
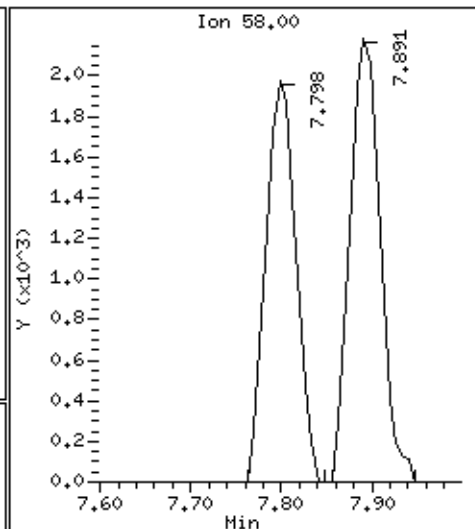
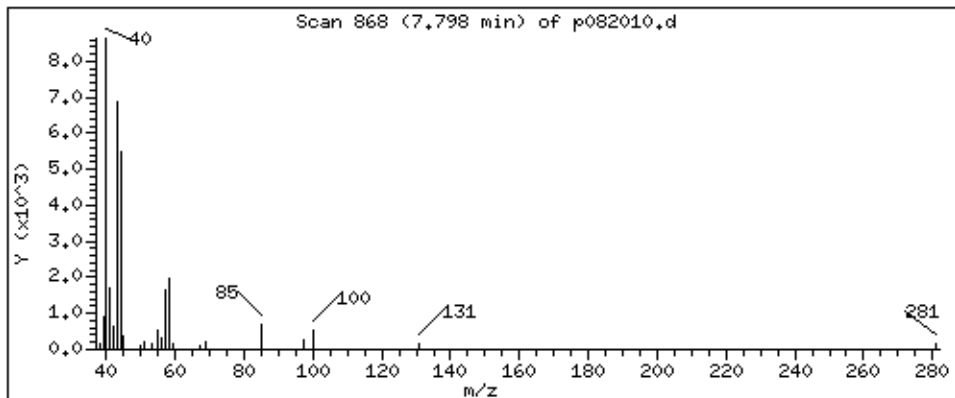
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

131 4-Methyl-2-pentanone

Concentration: 1,323 PPBV



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

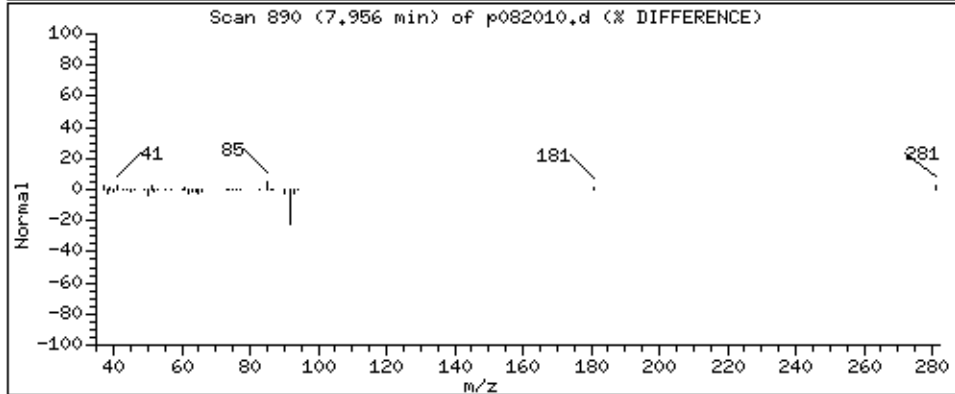
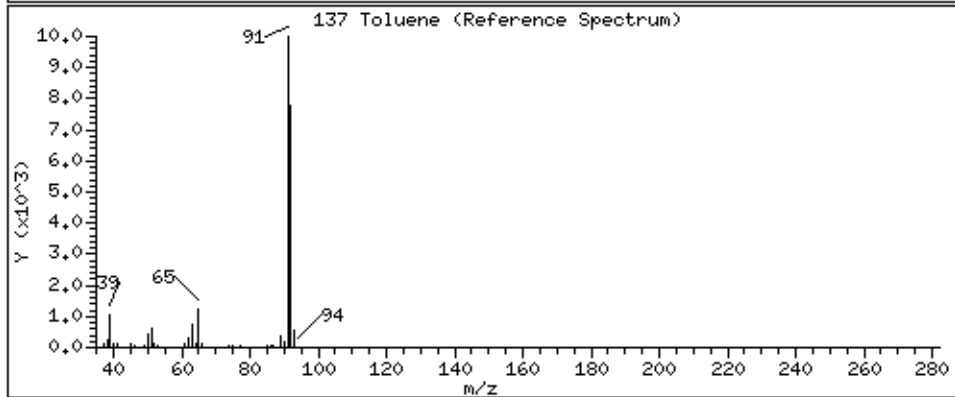
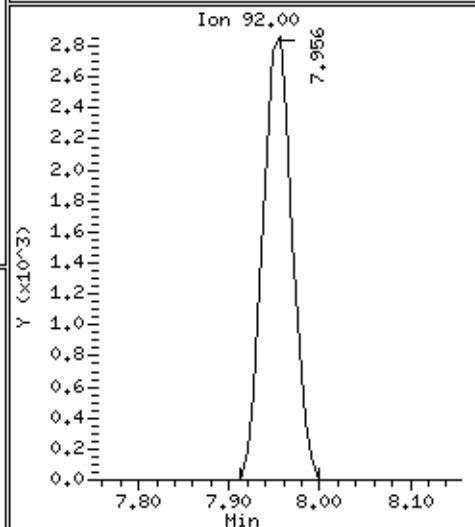
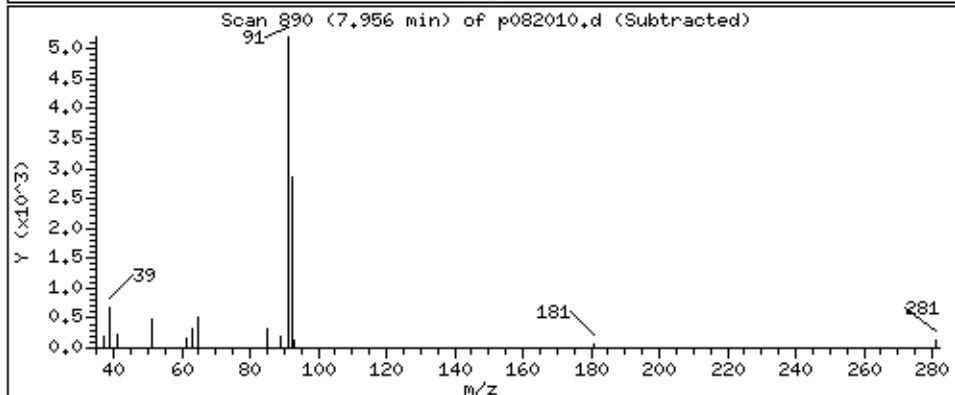
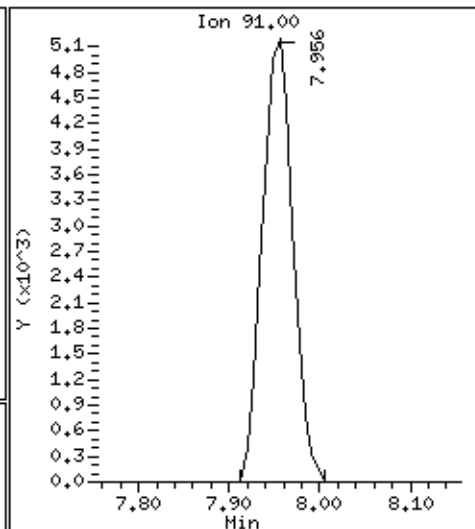
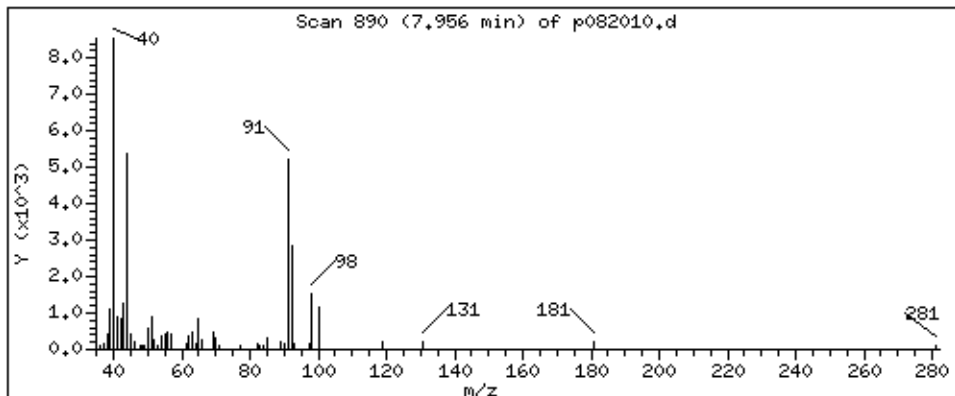
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 1.329 PPBV



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

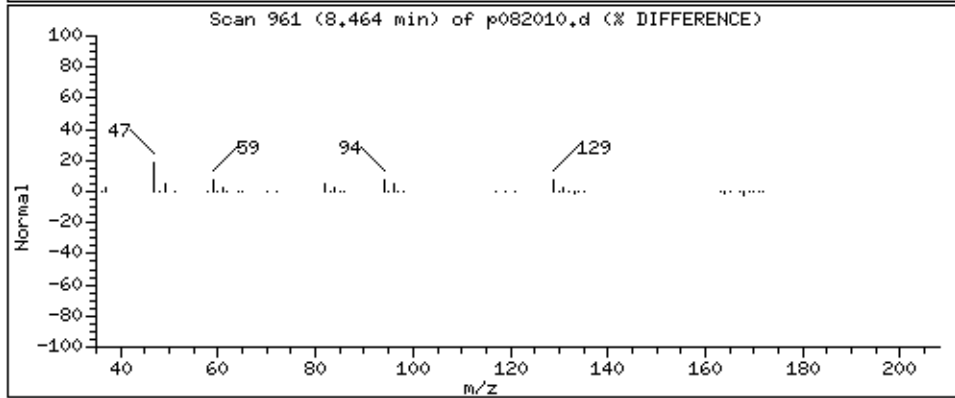
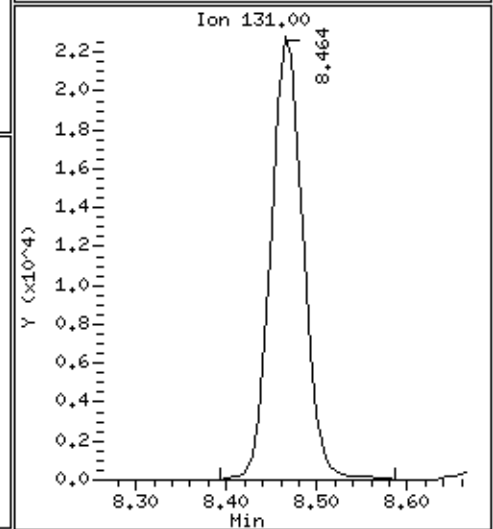
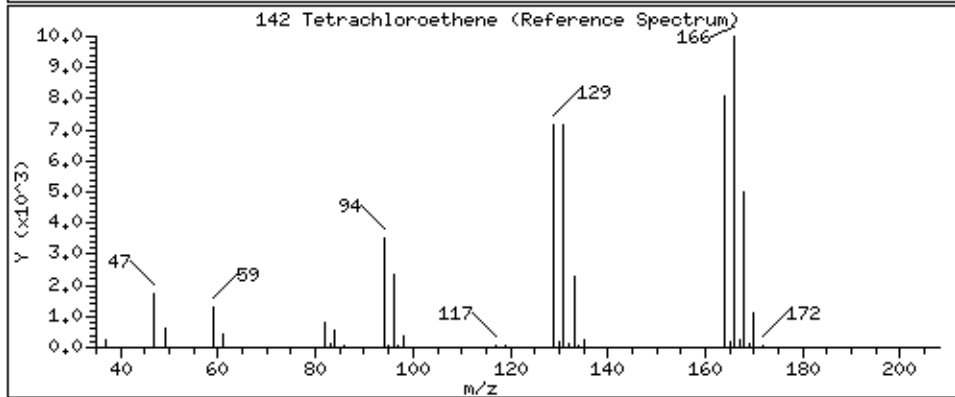
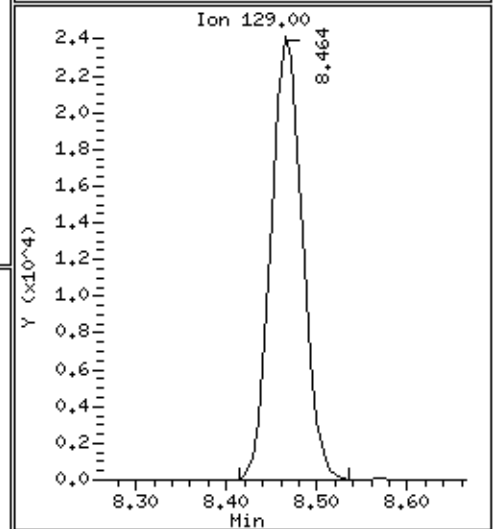
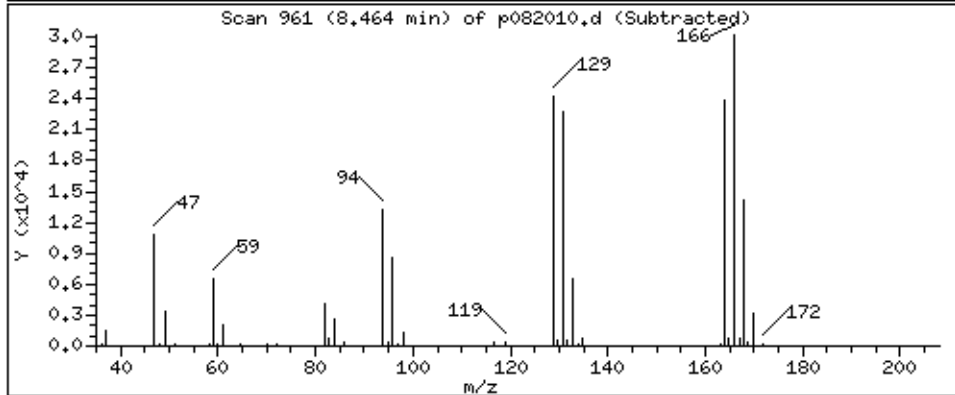
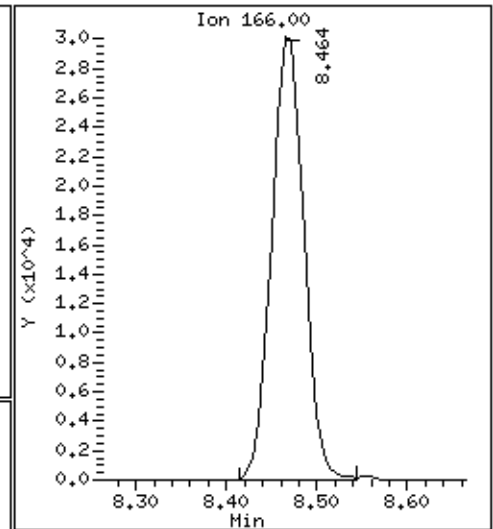
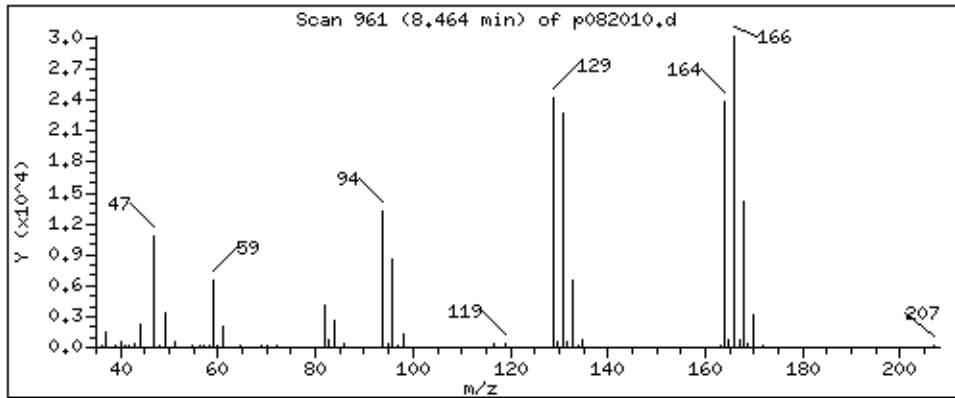
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 16,280 PPBV



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

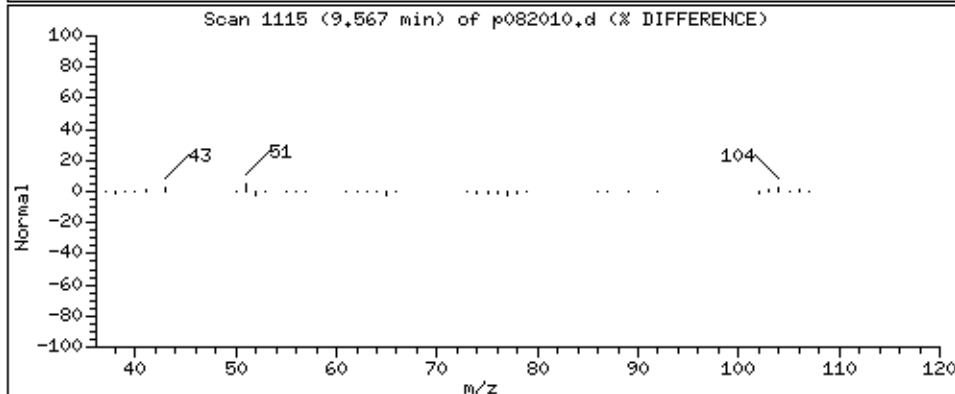
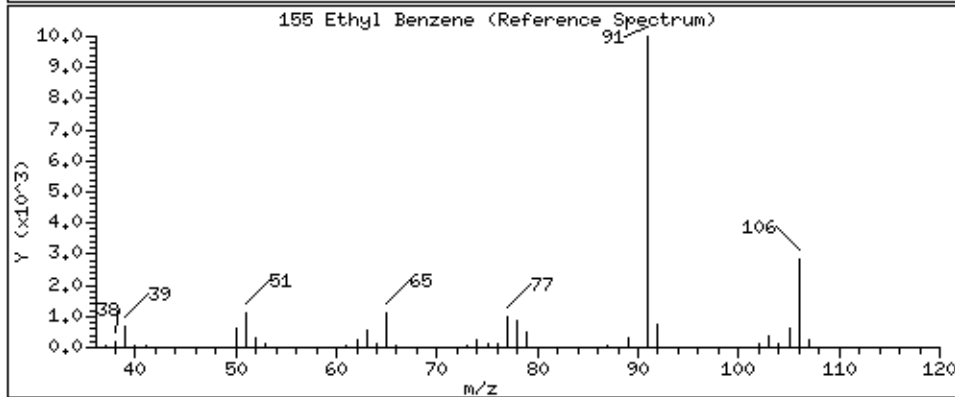
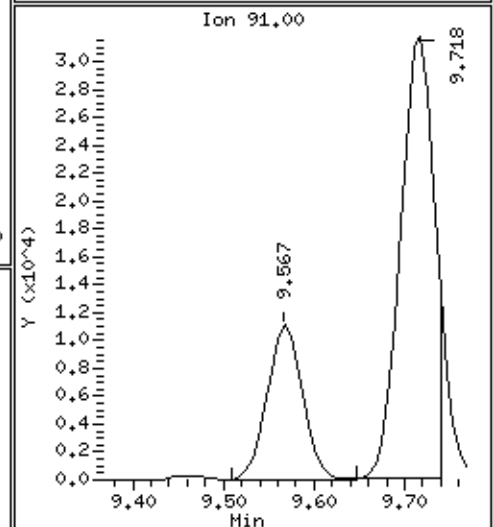
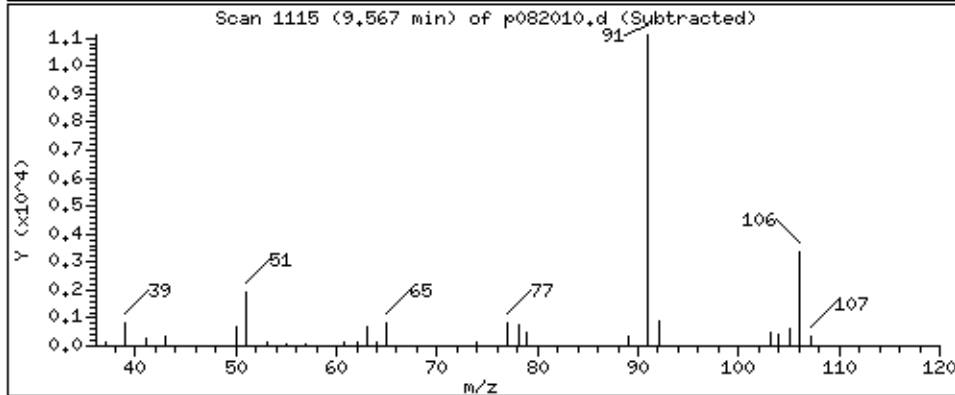
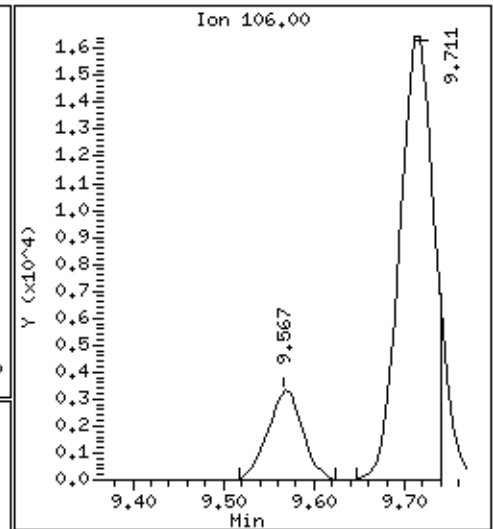
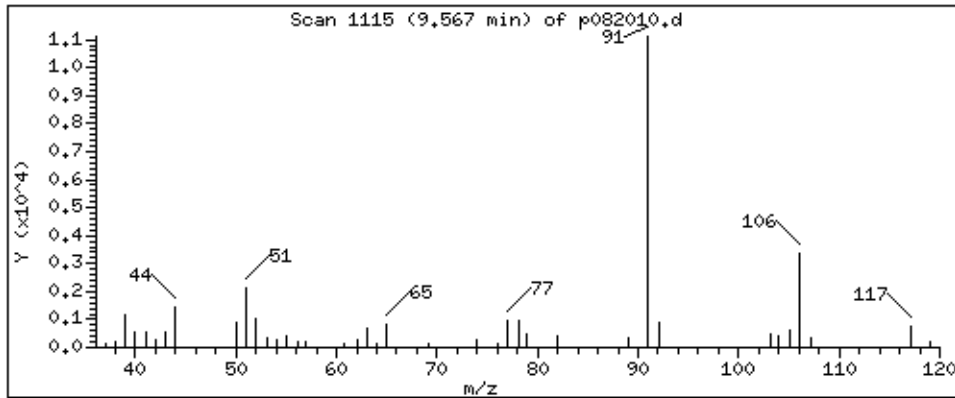
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 2,100 PPBV



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

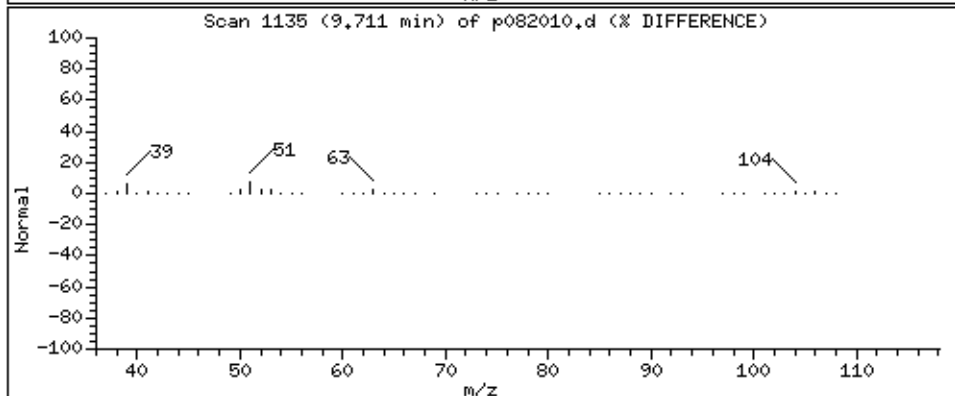
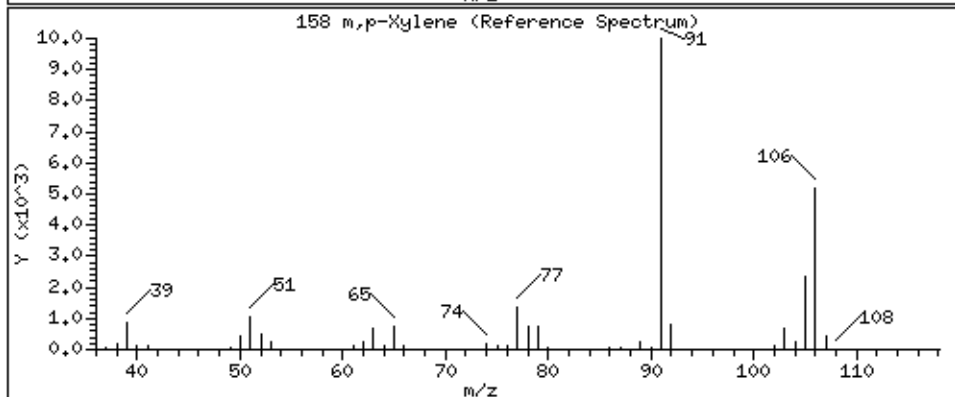
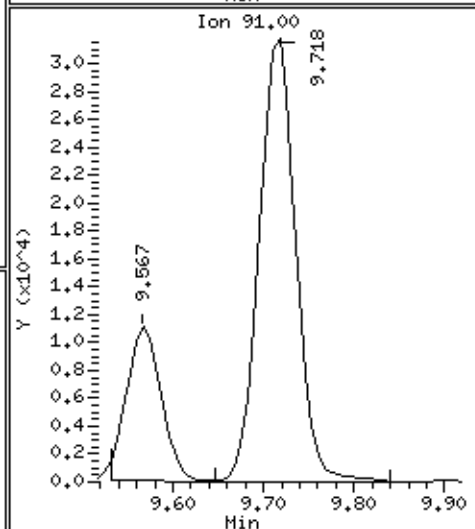
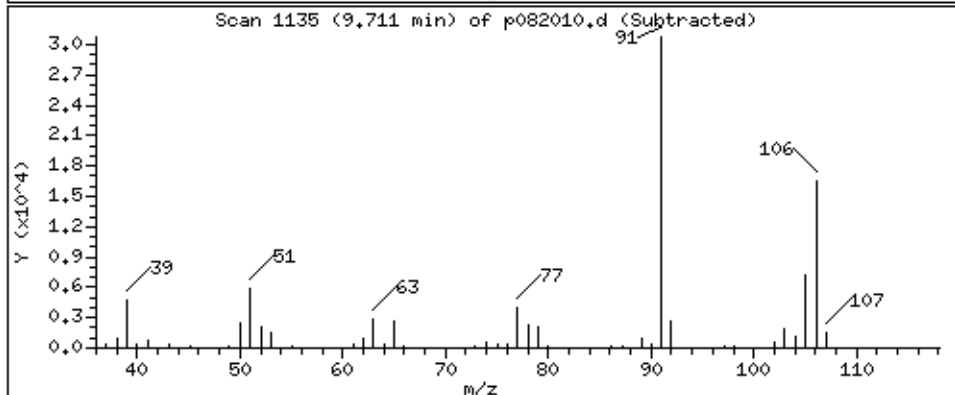
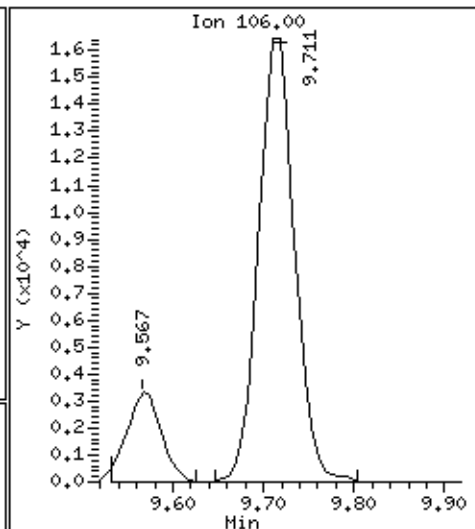
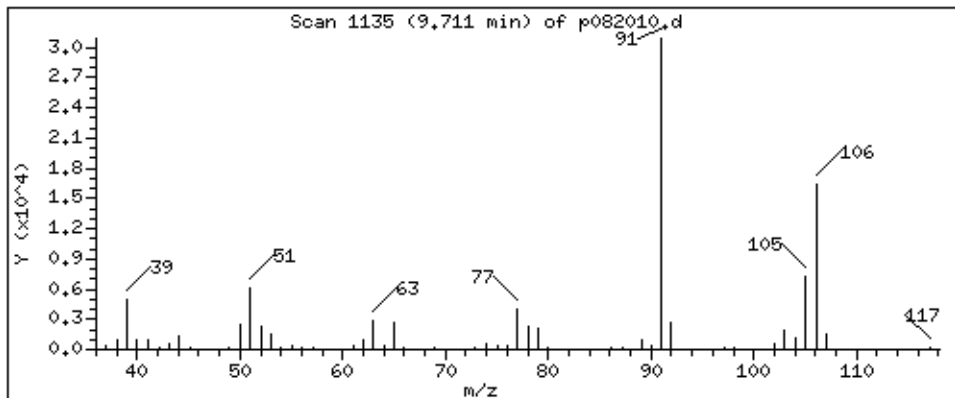
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 8.663 PPBV



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

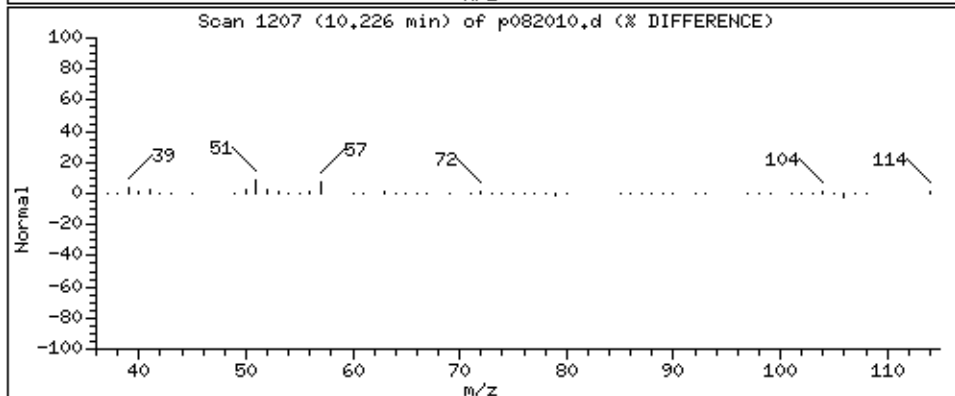
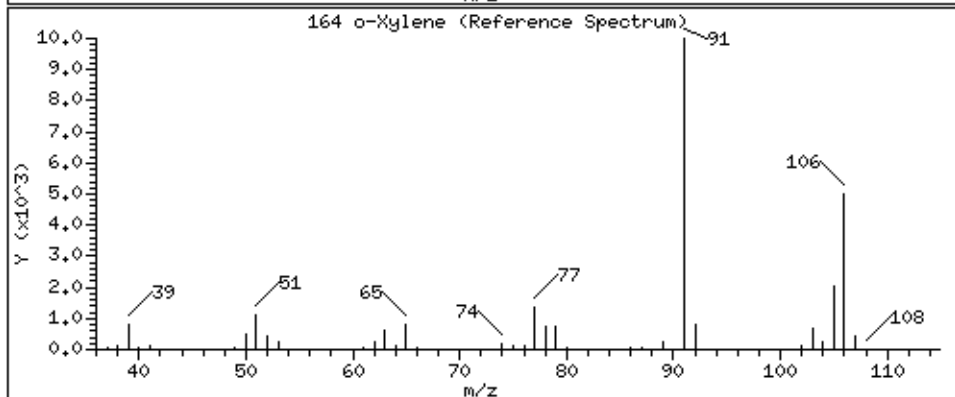
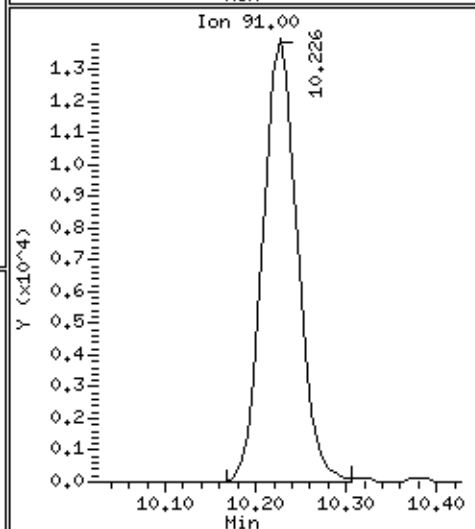
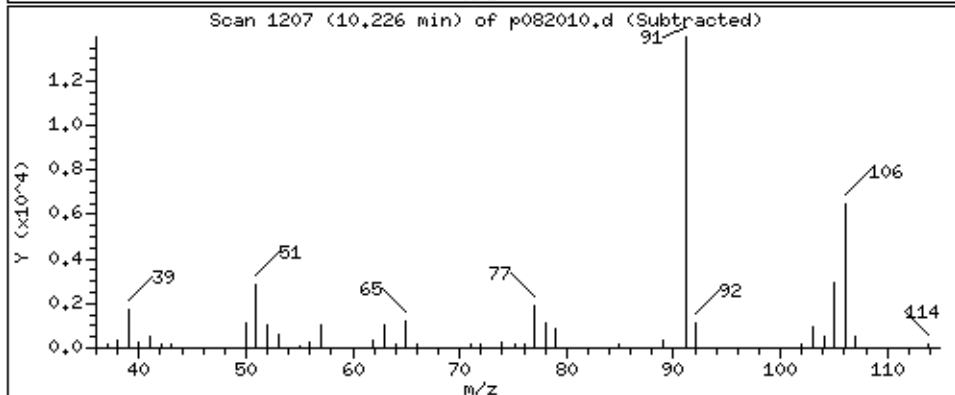
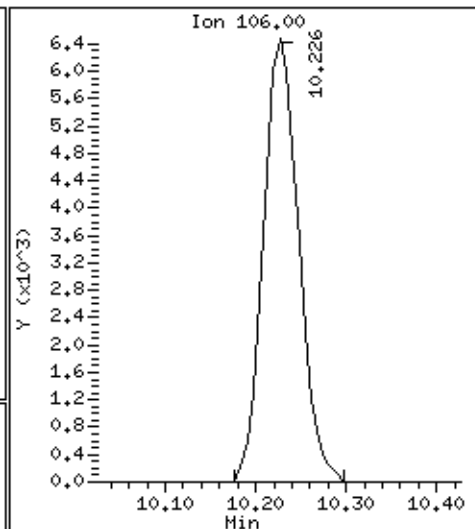
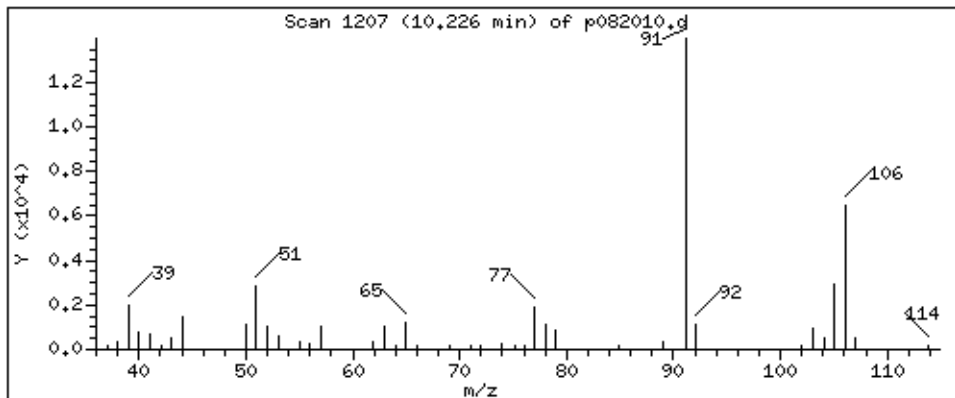
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 3.484 PPBV





Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

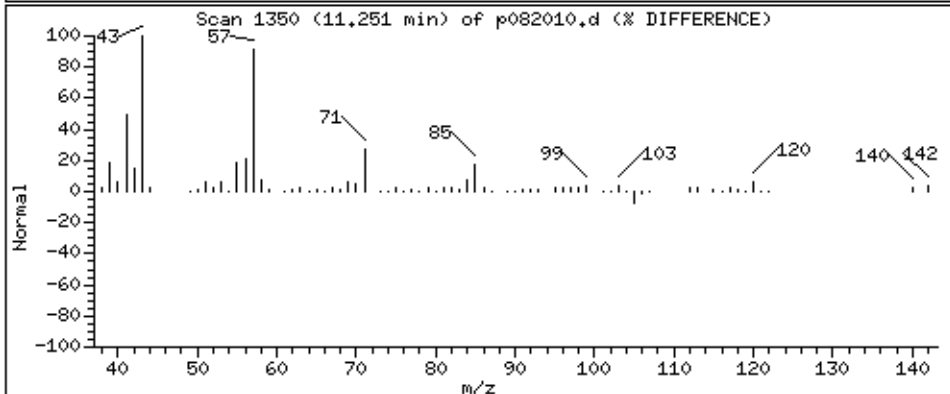
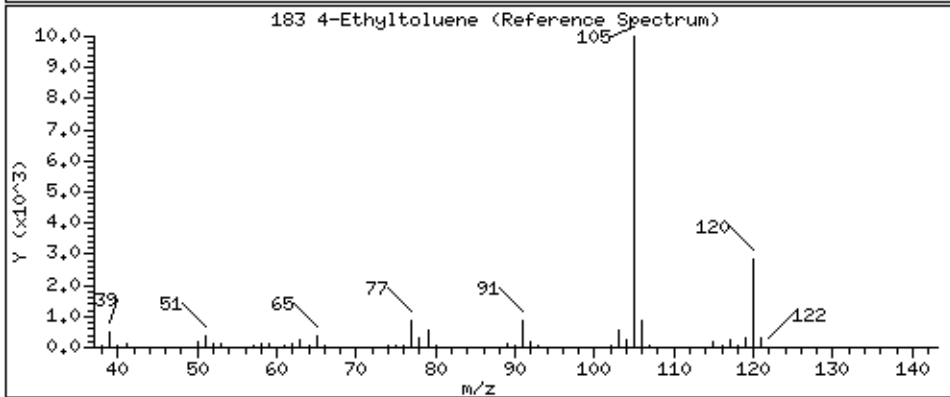
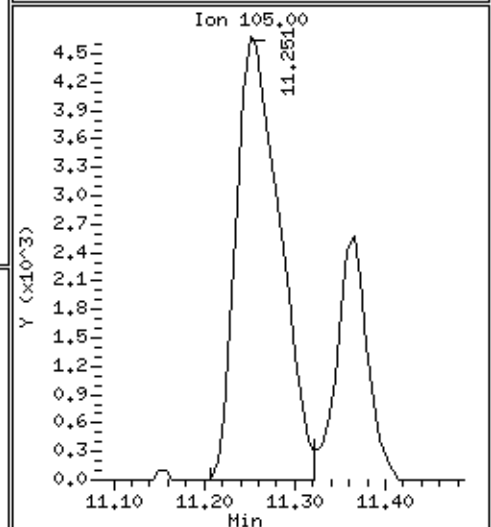
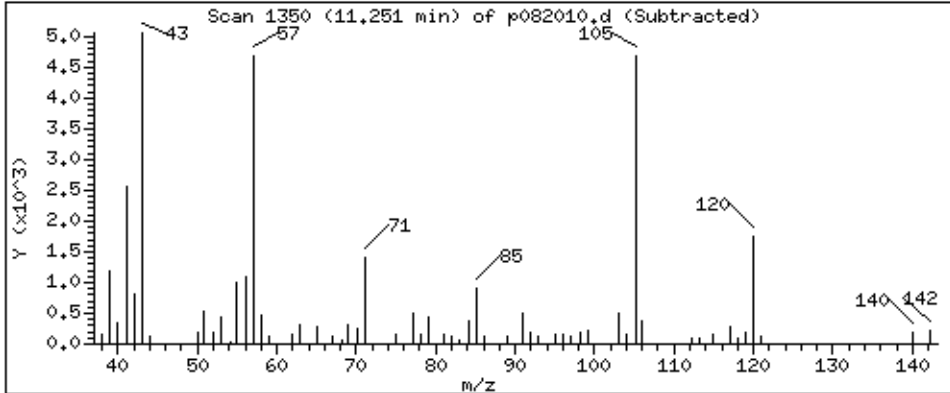
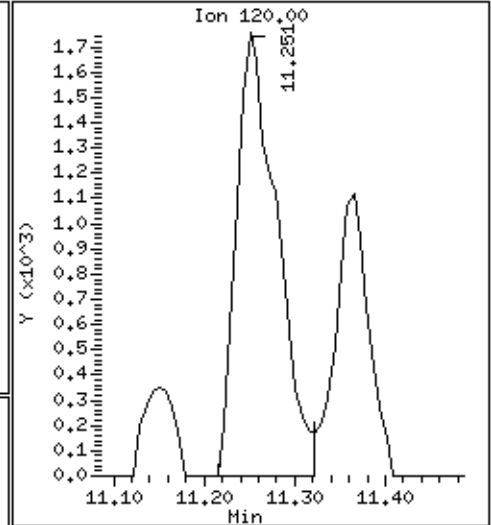
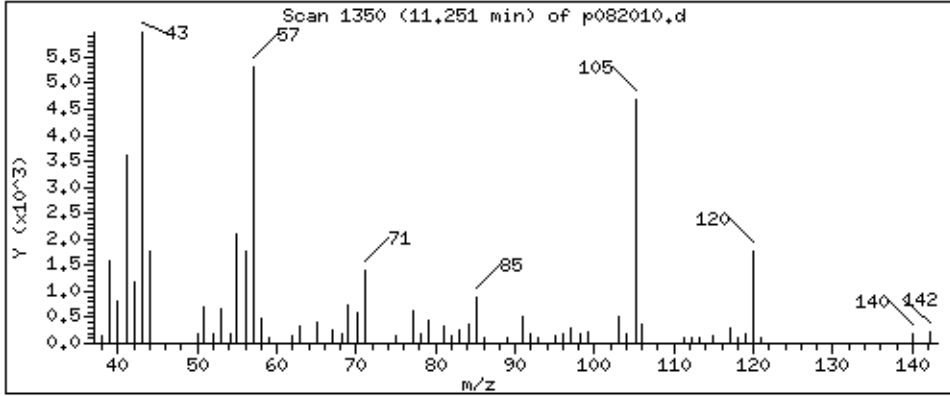
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 1,077 PPBV



Date : 20-AUG-2021 16:56

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1614

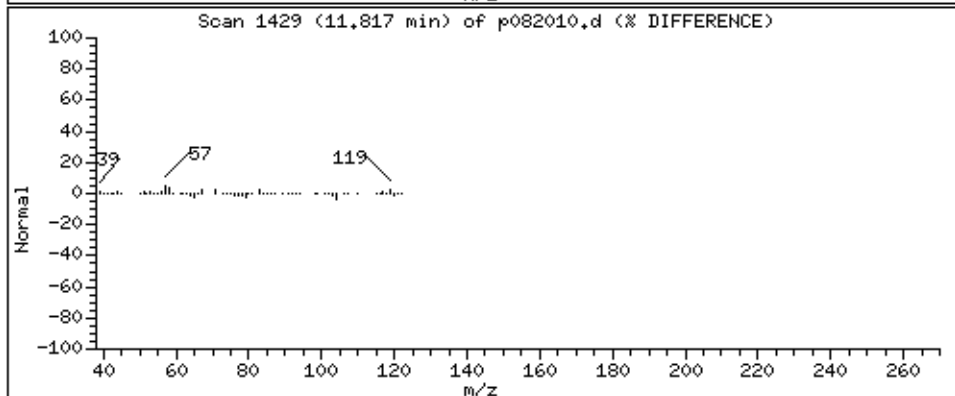
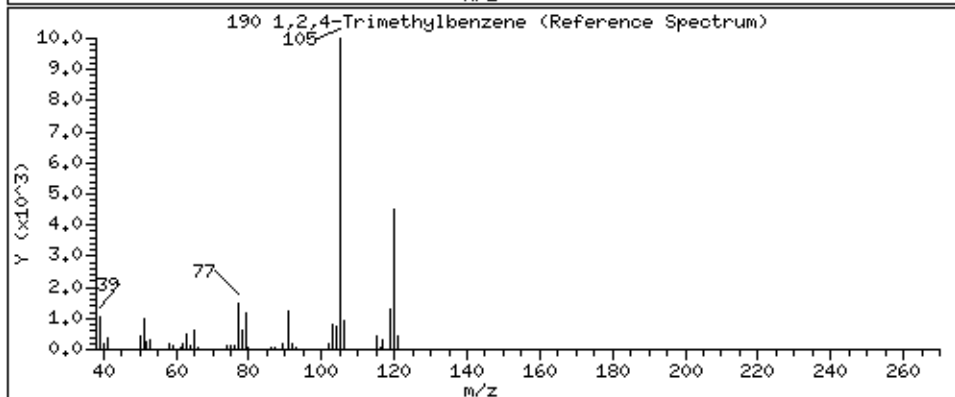
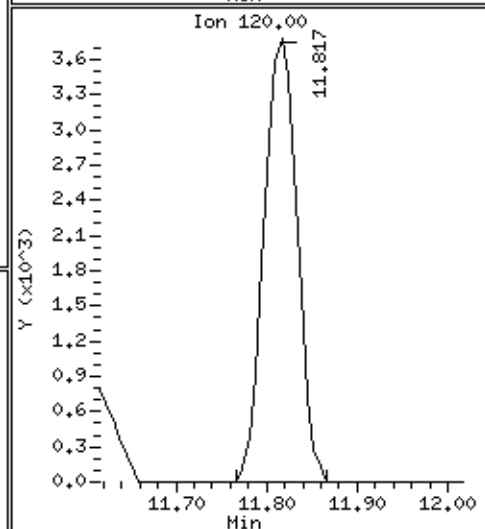
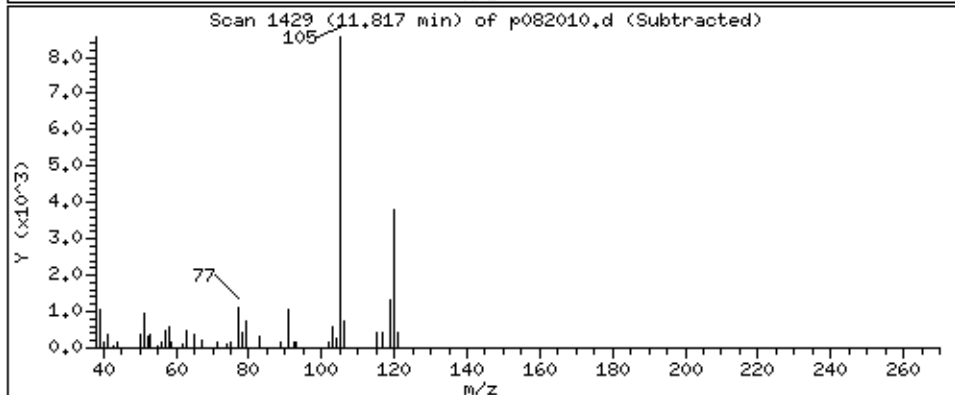
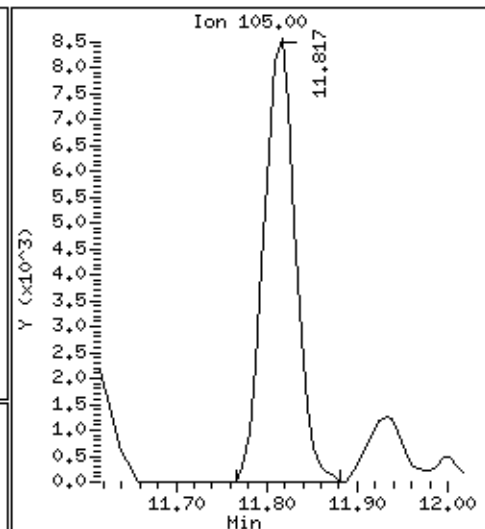
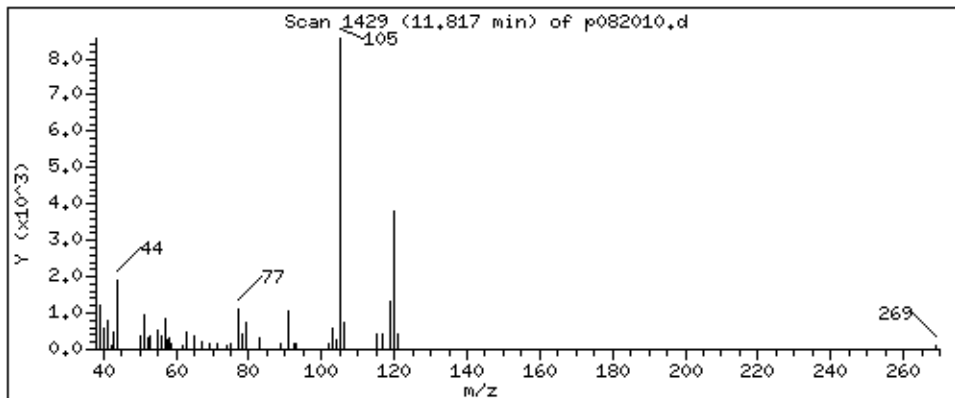
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 1,567 PPBV



Client Sample ID: SG-VW58A-02

Lab ID#: 2108390-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082022	Date of Collection:	8/16/21 11:13:00 AM
Dil. Factor:	2.19	Date of Analysis:	8/21/21 12:44 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.4	Not Detected	30	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.5	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1-Difluoroethane	4.4	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.4	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,2-Dibromo-3-chloropropane	4.4	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.4	Not Detected	13	Not Detected
2-Hexanone	4.4	Not Detected	18	Not Detected
2-Propanol	4.4	Not Detected	11	Not Detected
3-Chloropropene	4.4	Not Detected	14	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.1	1.2	4.5	4.7
Acetone	11	11	26	27
Acrolein	4.4	Not Detected	10	Not Detected
Acrylonitrile	4.4	Not Detected	9.5	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
Benzene	1.1	Not Detected	3.5	Not Detected
Bromodichloromethane	1.1	Not Detected	7.3	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Carbon Disulfide	4.4	Not Detected	14	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.9	Not Detected
Chlorobenzene	1.1	Not Detected	5.0	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
Chloroform	1.1	Not Detected	5.3	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected



Air Toxics

Client Sample ID: SG-VW58A-02

Lab ID#: 2108390-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082022	Date of Collection:	8/16/21 11:13:00 AM
Dil. Factor:	2.19	Date of Analysis:	8/21/21 12:44 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Cumene	1.1	Not Detected	5.4	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Dibromochloromethane	1.1	Not Detected	9.3	Not Detected
Dibromomethane	4.4	Not Detected	31	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Ethyl Acetate	4.4	Not Detected	16	Not Detected
Ethyl Benzene	1.1	1.6	4.8	6.9
Ethyl-tert-butyl ether	4.4	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.2	Not Detected
Freon 12	1.1	1.4	5.4	7.0
Freon 113	1.1	Not Detected	8.4	Not Detected
Freon 114	1.1	Not Detected	7.6	Not Detected
Freon 134a	4.4	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.5	Not Detected
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected
Hexachloroethane	4.4	Not Detected	42	Not Detected
Hexane	1.1	200	3.8	700
Iodomethane	11	Not Detected	64	Not Detected
Isopropyl ether	4.4	Not Detected	18	Not Detected
m,p-Xylene	1.1	5.6	4.8	24
Methyl tert-butyl ether	4.4	Not Detected	16	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
Naphthalene	2.2	Not Detected	11	Not Detected
o-Xylene	1.1	2.4	4.8	10
Propylbenzene	1.1	Not Detected	5.4	Not Detected
Propylene	4.4	Not Detected	7.5	Not Detected
Styrene	1.1	Not Detected	4.7	Not Detected
tert-Amyl methyl ether	4.4	Not Detected	18	Not Detected
tert-Butyl alcohol	4.4	Not Detected	13	Not Detected
Tetrachloroethene	1.1	24	7.4	160
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Toluene	1.1	2.5	4.1	9.4
TPH ref. to Gasoline (MW=100)	110	300	450	1200
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Trichloroethene	1.1	Not Detected	5.9	Not Detected
Vinyl Acetate	4.4	Not Detected	15	Not Detected
Vinyl Bromide	4.4	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW58A-02**
**Lab ID#: 2108390-04A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p082022</b>	<b>Date of Collection: 8/16/21 11:13:00 AM</b>
<b>Dil. Factor:</b>	<b>2.19</b>	<b>Date of Analysis: 8/21/21 12:44 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	103	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082022.d  
Lab Smp Id: 2108390-04A  
Inj Date : 21-AUG-2021 00:44  
Operator : kk  
Smp Info : 200ml 1L3967  
Misc Info : 7.0 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
Meth Date : 20-Aug-2021 12:59 p5fl  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 4  
Dil Factor: 2.19000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE		RATIO	
				ON-COL	FINAL	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 90 Bromochloromethane CAS #: 74-97-5									
5.792	5.785	(1.000)	130	106991	25.0000	80.00-	120.00	100.00	
5.785	5.785	(1.000)	128	82788		48.23-	108.23	77.38	
5.785	5.778	(1.000)	49	242058		150.57-	210.57	226.24	
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.666	6.659	(1.000)	114	379824	25.0000	80.00-	120.00	100.00	
6.666	6.659	(1.000)	88	53582		0.00-	45.71	14.11	
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
9.460	9.460	(1.000)	117	391102	25.0000	80.00-	120.00	100.00	
9.460	9.460	(1.000)	82	199750		23.78-	83.78	51.07	
-----									
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
6.315	6.315	(1.090)	65	163703	27.7249	27.725	80.00-	120.00	100.00
6.315	6.315	(1.090)	67	77300		27.21-	87.21	47.22	
-----									
§ 134 Toluene-d8 CAS #: 2037-26-5									
7.898	7.891	(1.185)	98	413178	25.0510	25.051	80.00-	120.00	100.00
7.891	7.891	(1.184)	70	45352		0.00-	40.44	10.98	

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		RESPONSE	TARGET RANGE	RATIO
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	273074			34.95- 94.95	66.09
-----								
§ 170 4-Bromofluorobenzene CAS #: 460-00-4								
10.921	10.921	(1.154)	174	259490	25.8378	25.838	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	303264			95.92- 155.92	116.87
10.921	10.921	(1.154)	176	248666			66.89- 126.89	95.83
-----								
8 Freon 12 CAS #: 75-71-8								
1.730	1.717	(0.299)	85	6245	0.65080	1.425	80.00- 120.00	100.00
1.730	1.717	(0.299)	87	1932			2.37- 62.37	30.94
-----								
47 Acetone CAS #: 67-64-1								
3.729	3.722	(0.644)	58	14551	5.18773	11.361	80.00- 120.00	100.00
3.729	3.722	(0.644)	43	59951			302.95- 362.95	412.00
-----								
67 Hexane CAS #: 110-54-3								
4.704	4.697	(0.812)	57	950061	90.1399	197.41	80.00- 120.00	100.00
4.696	4.697	(0.811)	43	749240			37.52- 97.52	78.86
4.696	4.697	(0.811)	86	95484			0.00- 41.48	10.05
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.798	7.798	(1.170)	58	3428	0.52533	1.150	80.00- 120.00	100.00
7.798	7.798	(1.170)	43	11283			242.35- 302.35	329.05
7.798	7.798	(1.170)	85	1003			3.24- 63.24	29.28
-----								
137 Toluene CAS #: 108-88-3								
7.956	7.956	(1.193)	91	19815	1.14586	2.509	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	11644			28.38- 88.38	58.77
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.471	8.464	(0.895)	166	98701	11.0732	24.250	80.00- 120.00	100.00
8.471	8.464	(0.895)	129	76061			47.84- 107.84	77.06
8.464	8.464	(0.895)	131	75016			45.29- 105.29	76.00
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.567	9.567	(1.011)	106	5882	0.72432	1.586	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	18708			273.74- 333.74	318.06
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.718	9.718	(1.027)	106	26139	2.57004	5.628	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	50104			163.73- 223.73	191.68
-----								
164 o-Xylene CAS #: 95-47-6								
10.226	10.226	(1.081)	106	10808	1.10912	2.429	80.00- 120.00	100.00
10.233	10.226	(1.082)	91	21737			177.45- 237.45	201.11
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082022.d  
 Lab Smp Id: 2108390-04A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: kk  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 7.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	106991	-2.18
108 1,4-Difluorobenze	406799	244079	569519	379824	-6.63
153 Chlorobenzene-d5	400841	240505	561177	391102	-2.43

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	0.12
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.



Report Date: 24-Aug-2021 10:43

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-04A  
Level: LOW Operator: kk  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 7.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.725	110.90	70-130
\$ 134 Toluene-d8	25.000	25.051	100.20	70-130
\$ 170 4-Bromofluorobenz	25.000	25.838	103.35	70-130

Date : 21-AUG-2021 00:44

Client ID:

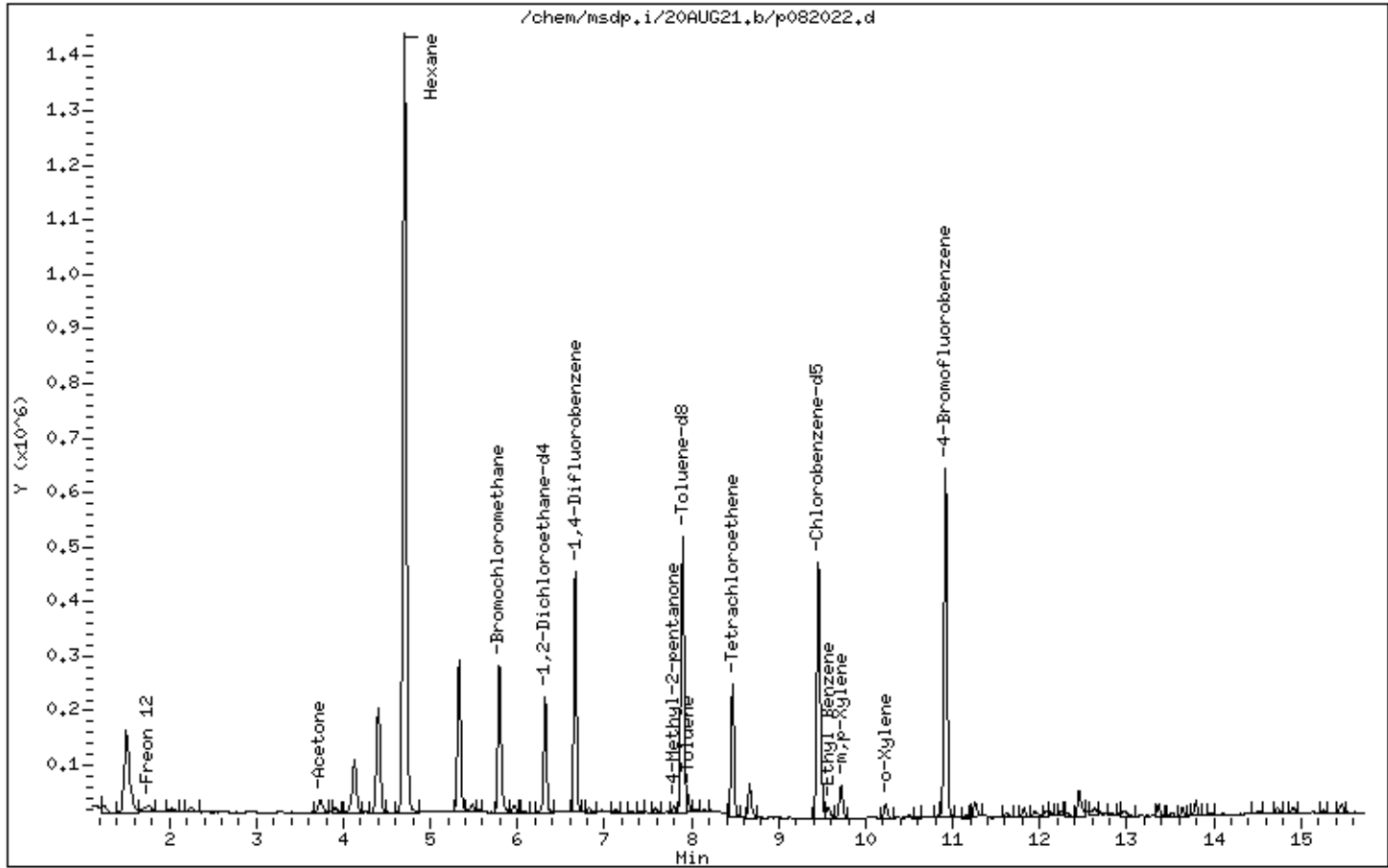
Instrument: msdp.i

Sample Info: 200ml 1L3967

Operator: kk

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 00:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3967

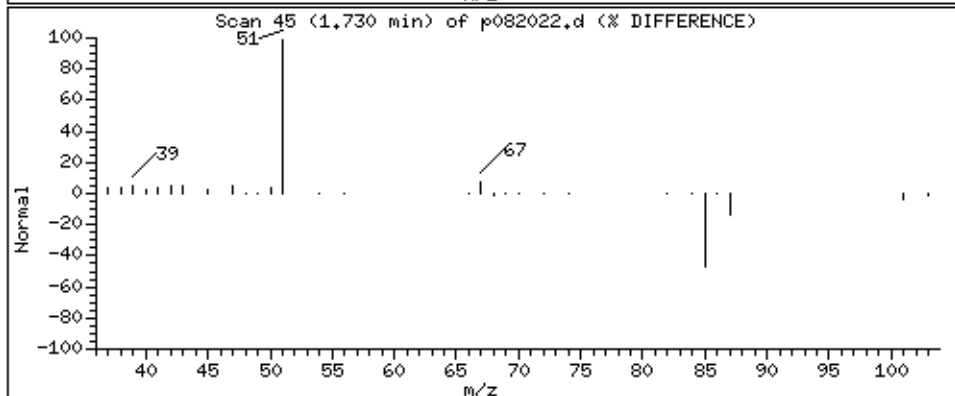
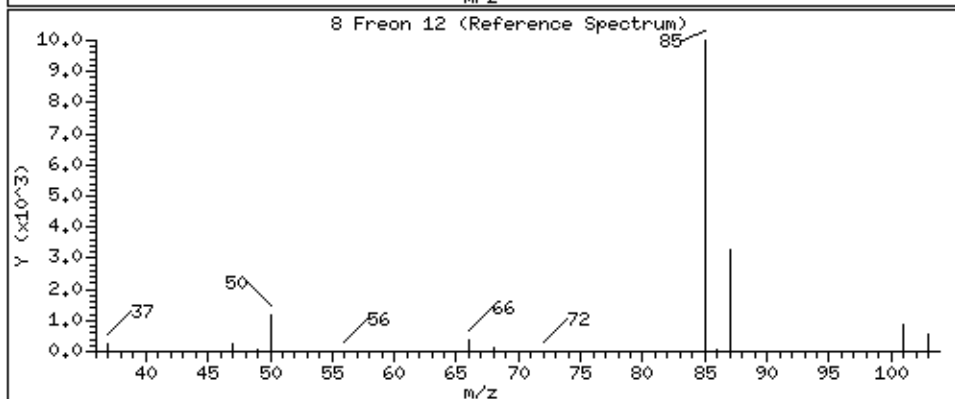
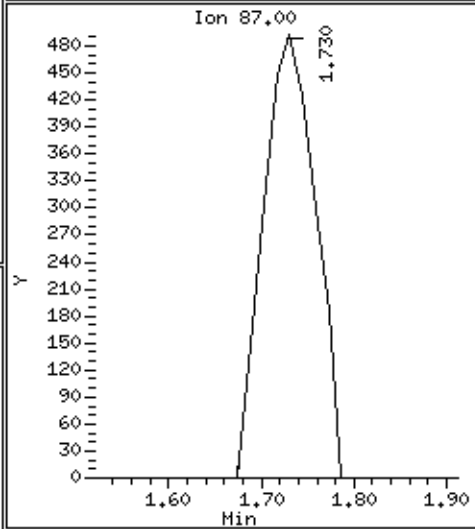
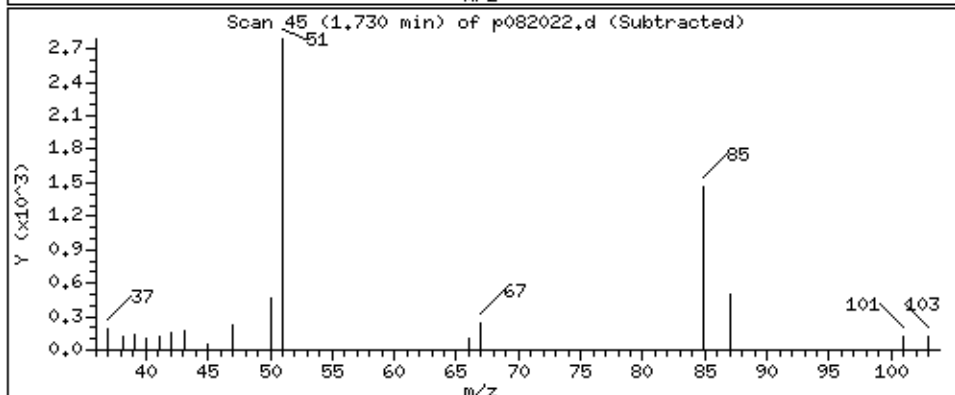
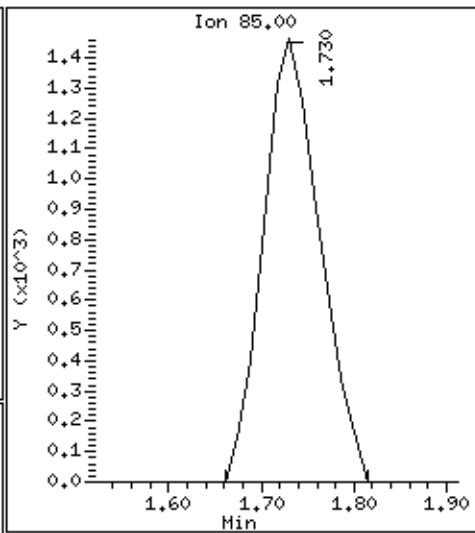
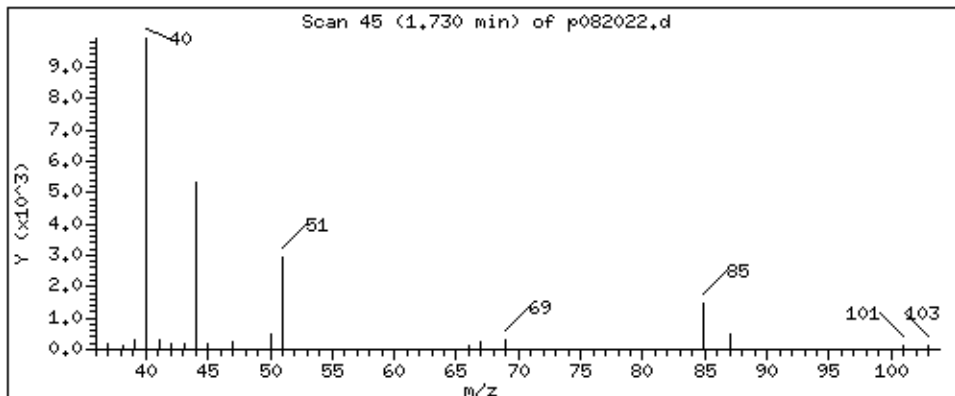
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 1.425 PPBV



Date : 21-AUG-2021 00:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3967

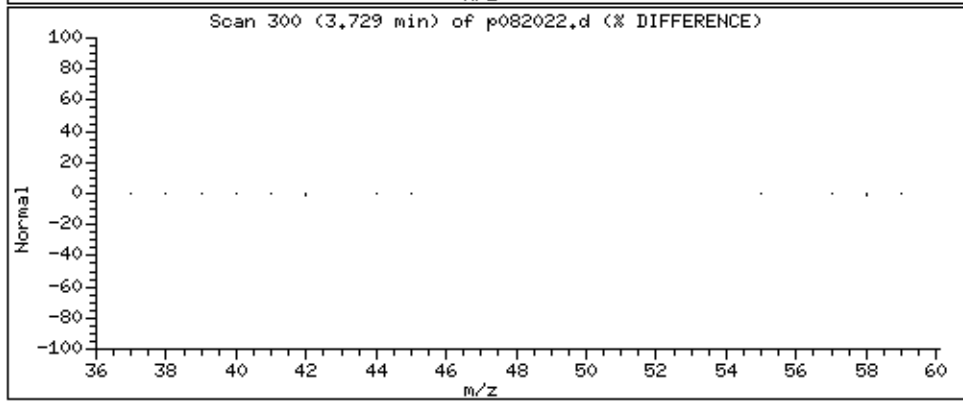
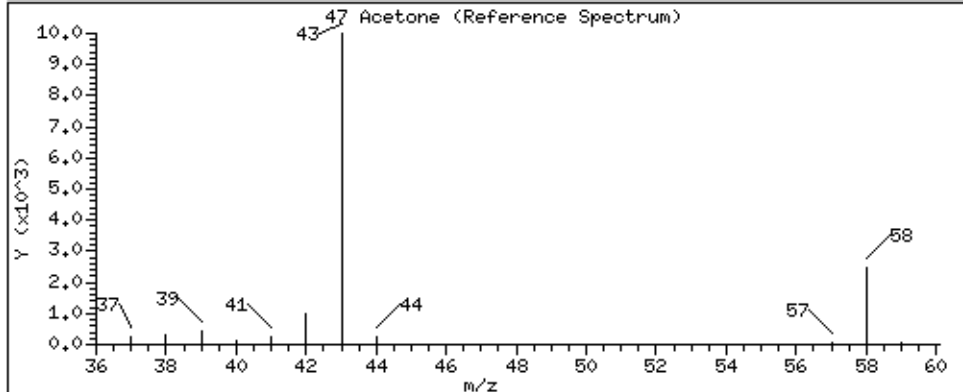
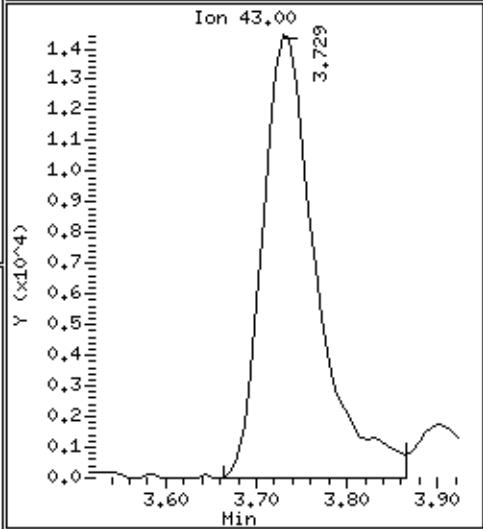
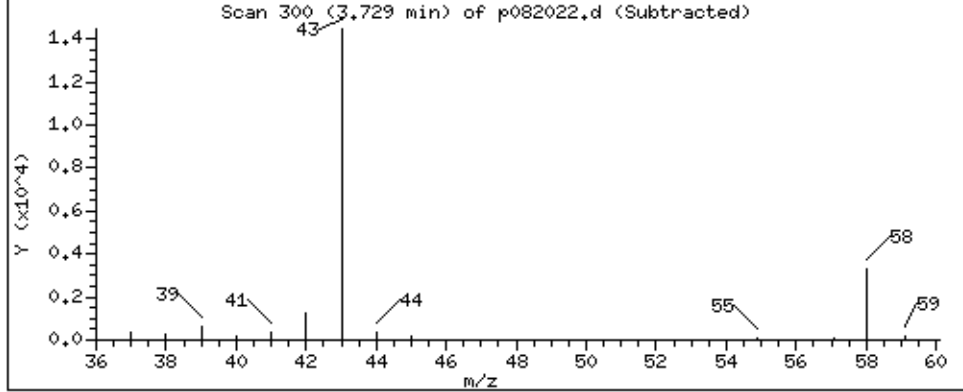
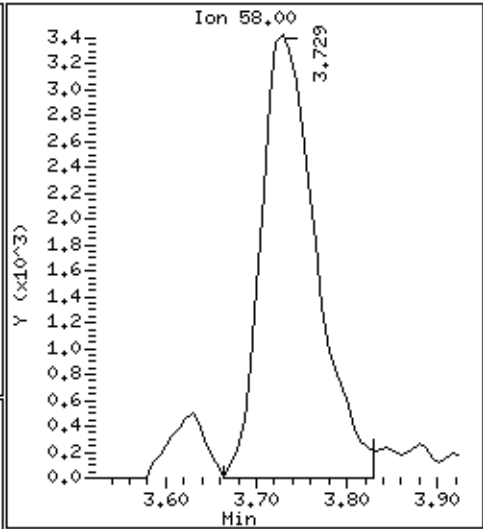
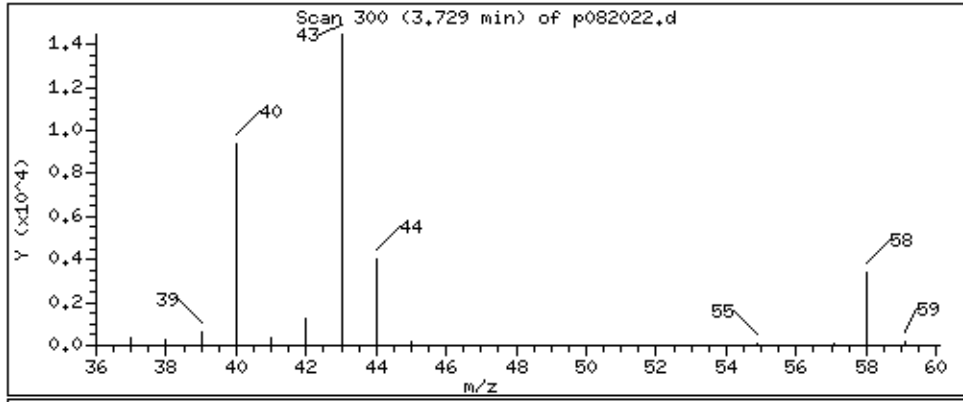
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 11,361 PPBV



Date : 21-AUG-2021 00:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3967

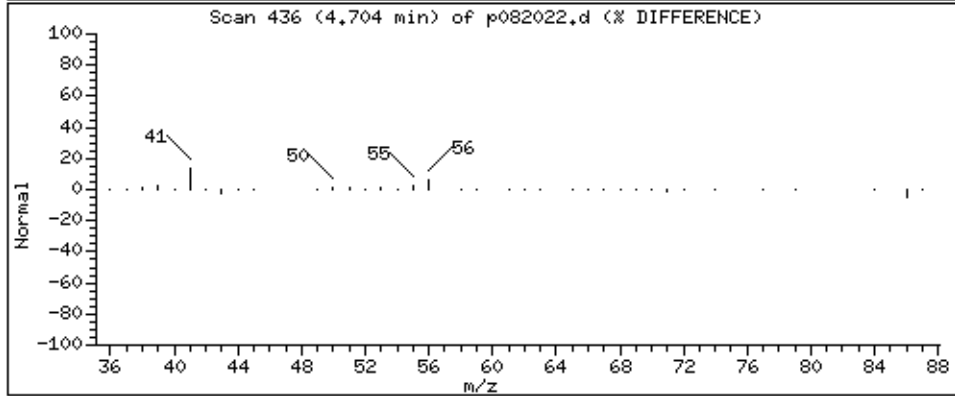
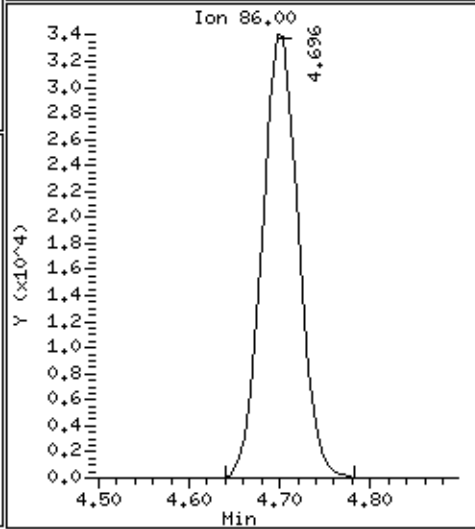
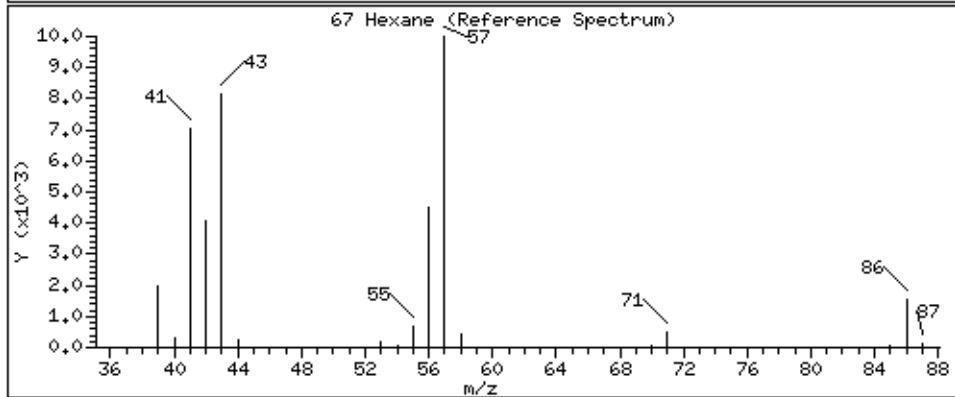
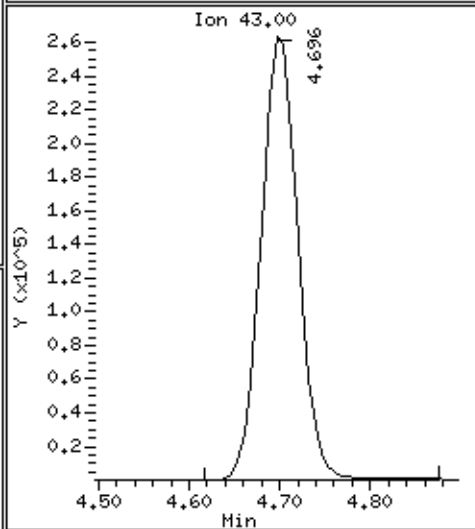
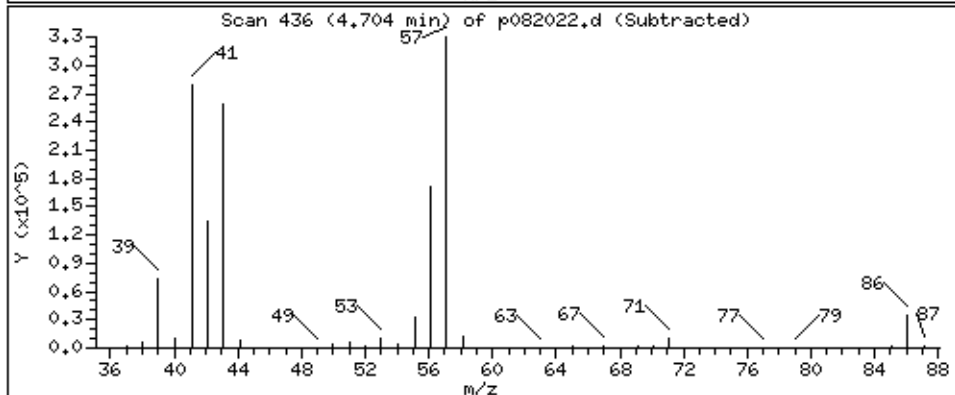
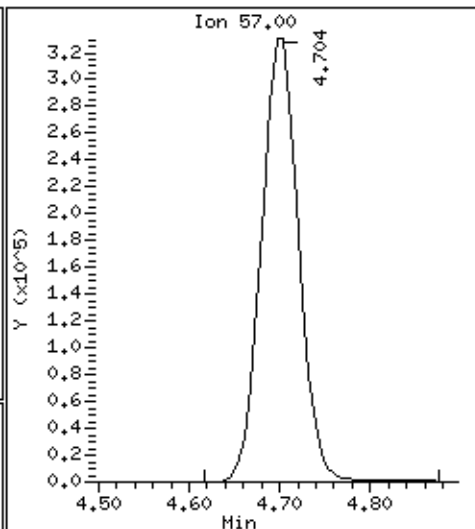
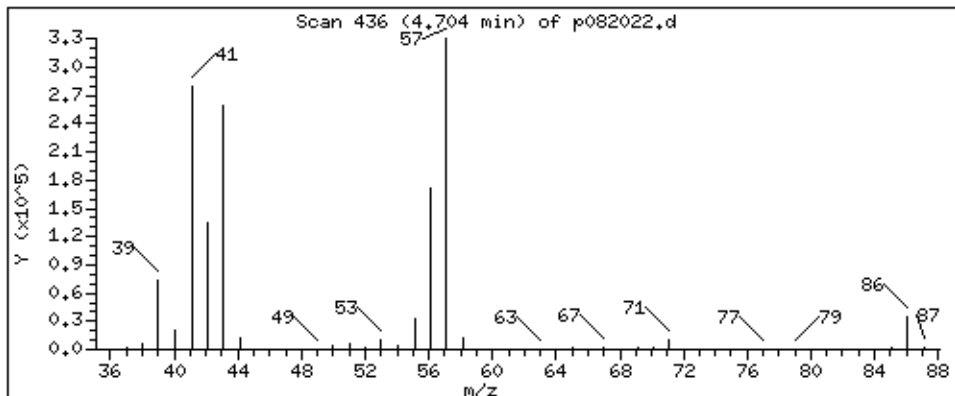
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 197.41 PPBV



Date : 21-AUG-2021 00:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3967

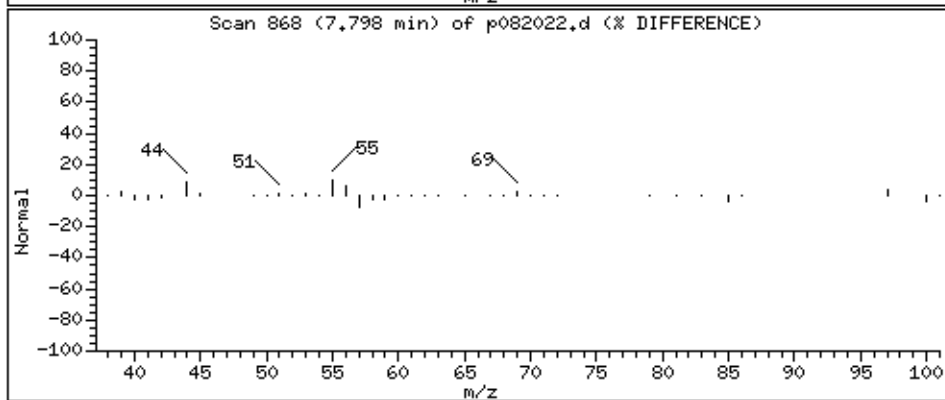
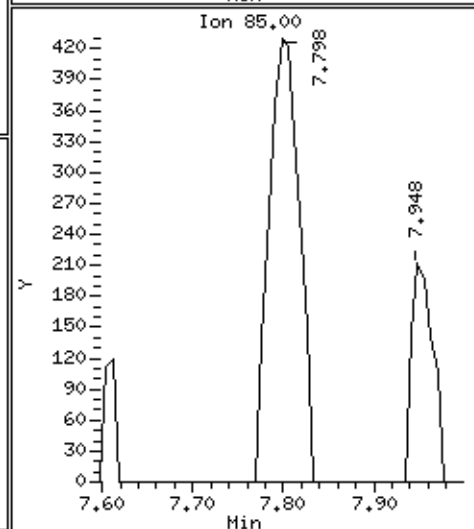
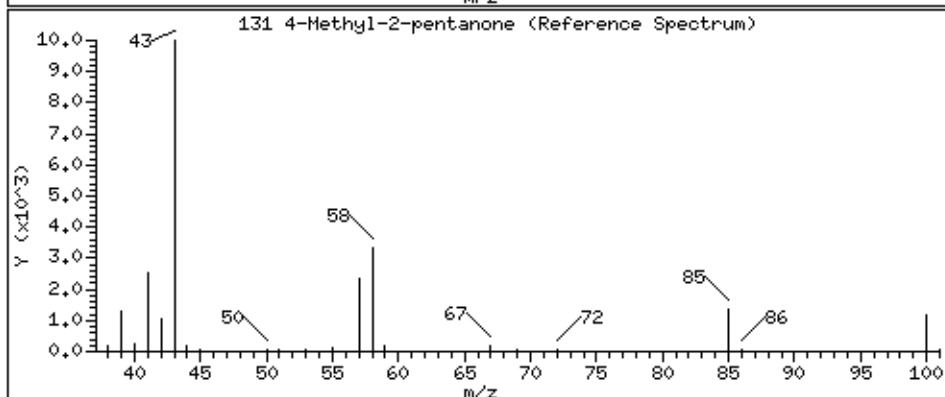
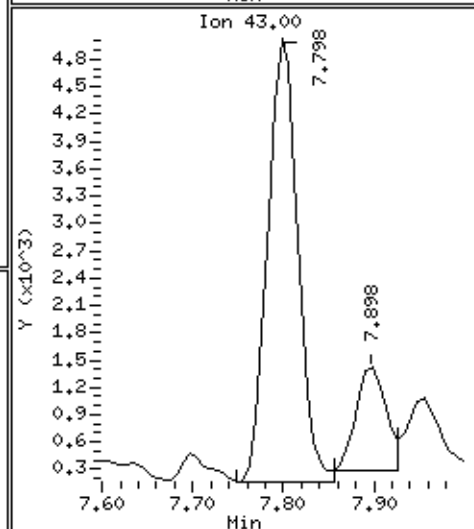
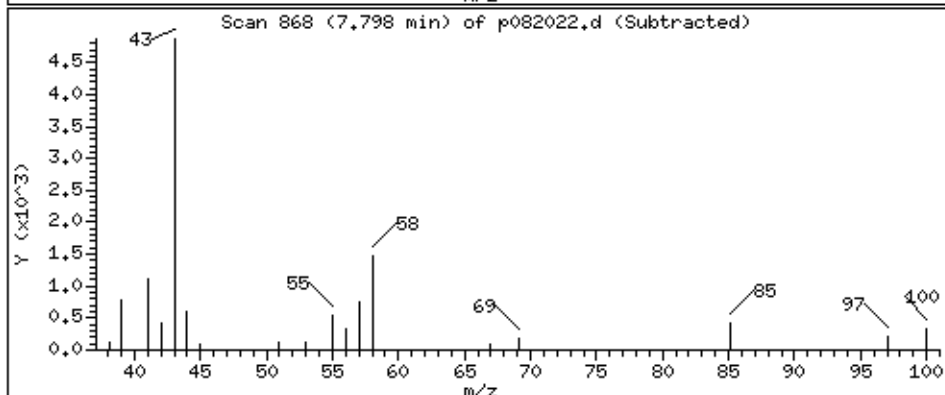
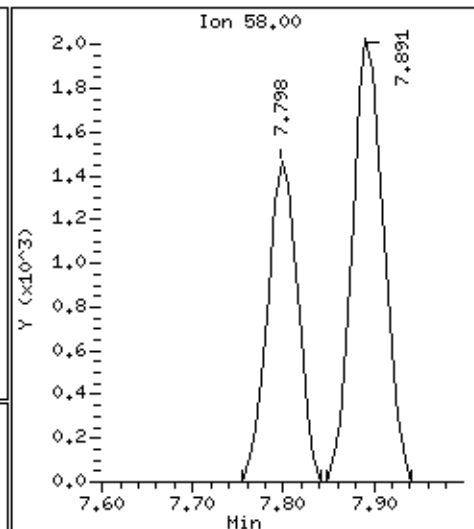
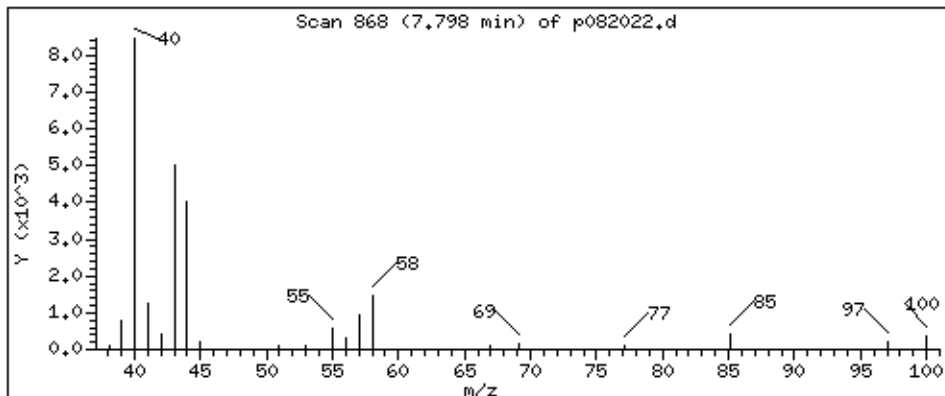
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

131 4-Methyl-2-pentanone

Concentration: 1,150 PPBV



Date : 21-AUG-2021 00:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3967

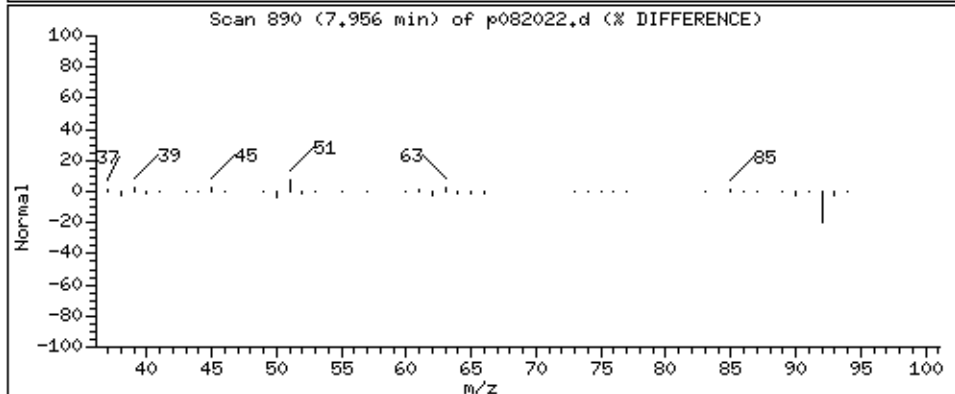
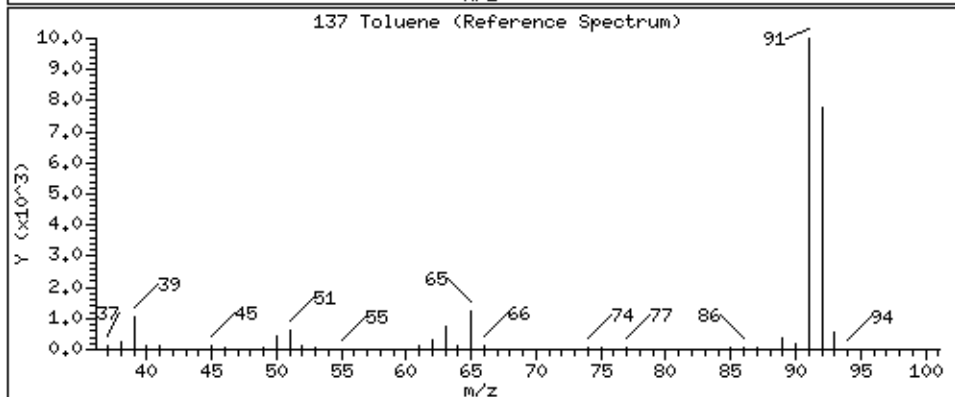
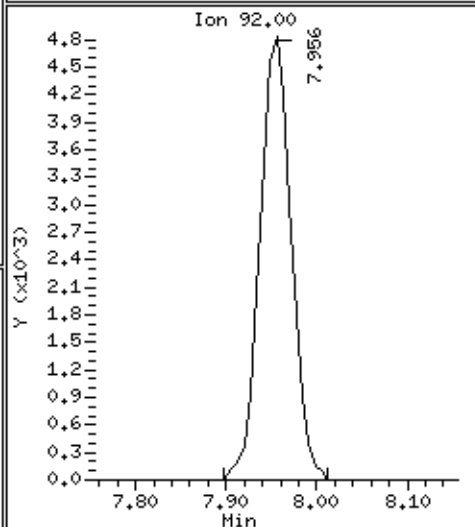
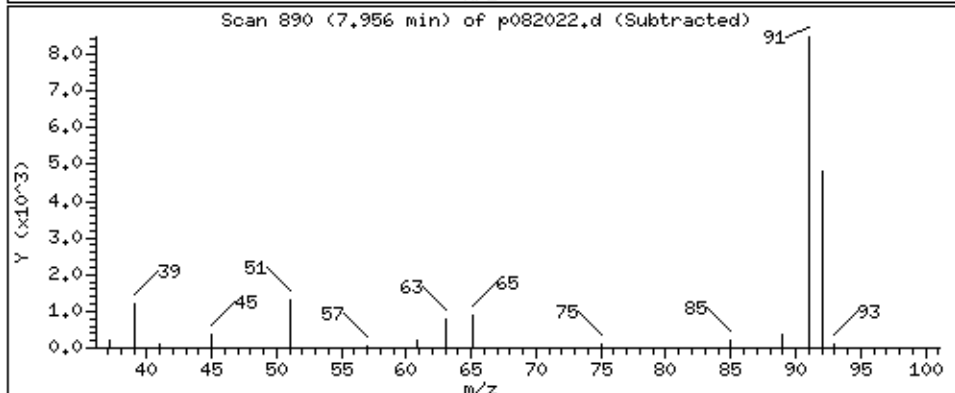
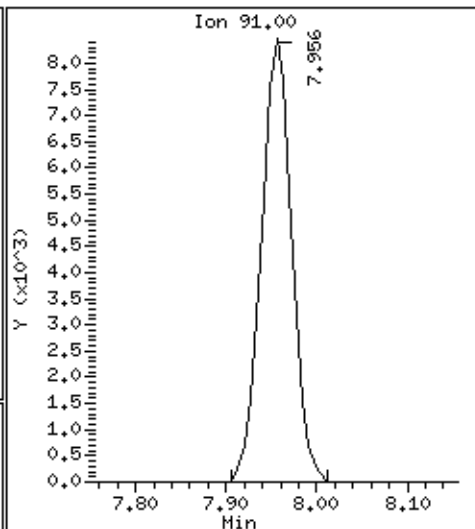
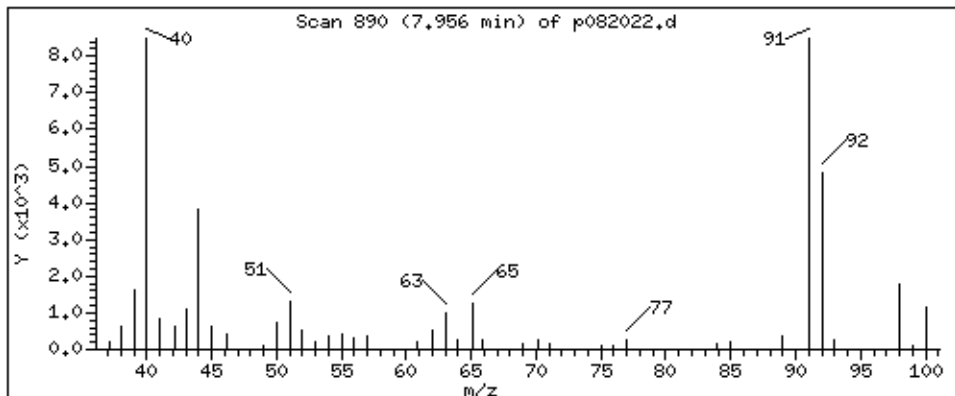
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 2,509 PPBV



Date : 21-AUG-2021 00:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3967

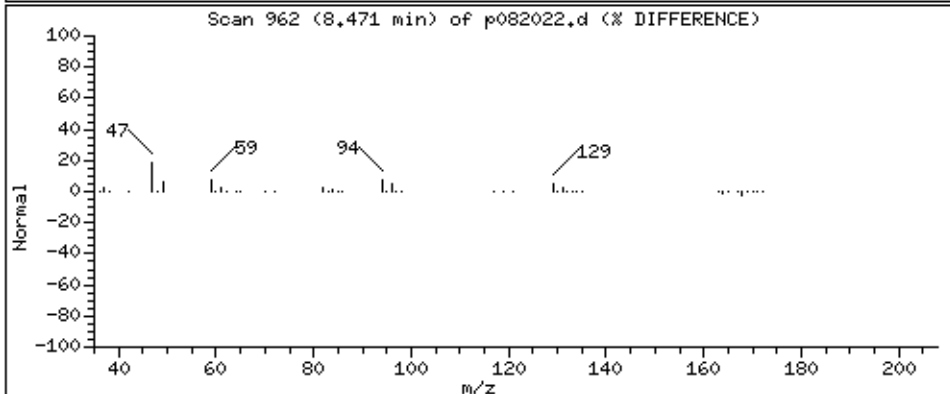
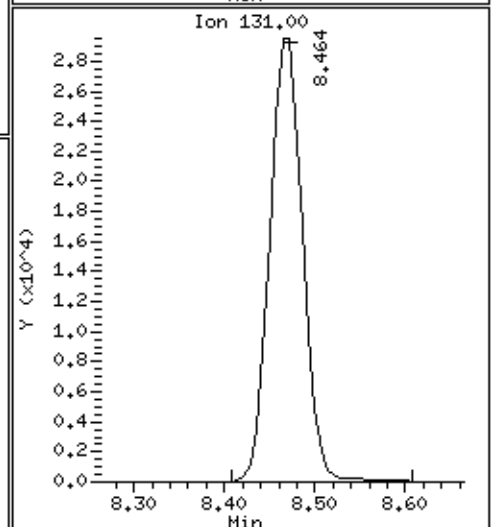
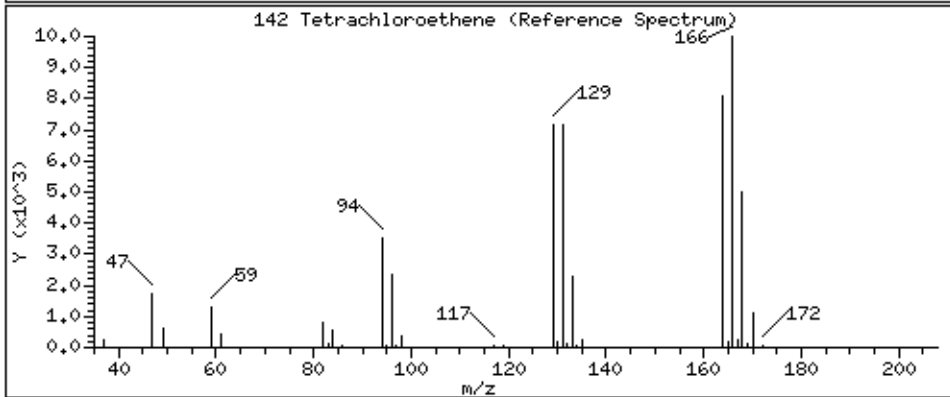
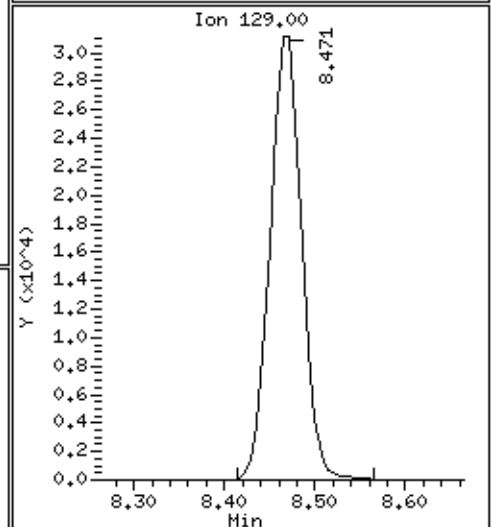
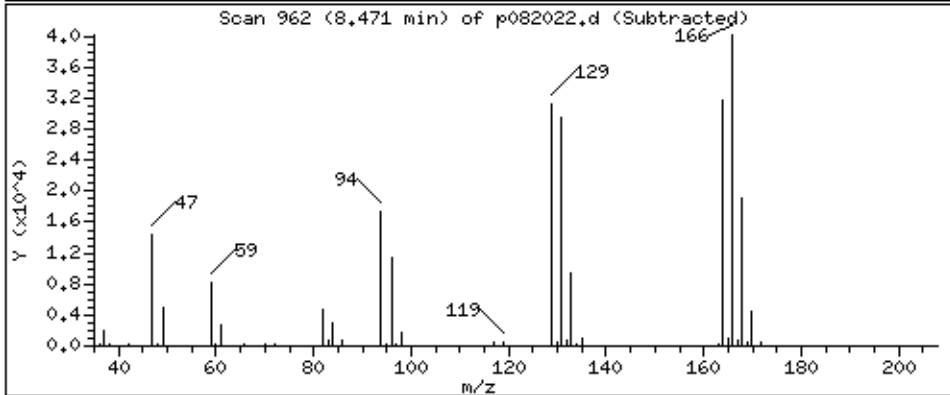
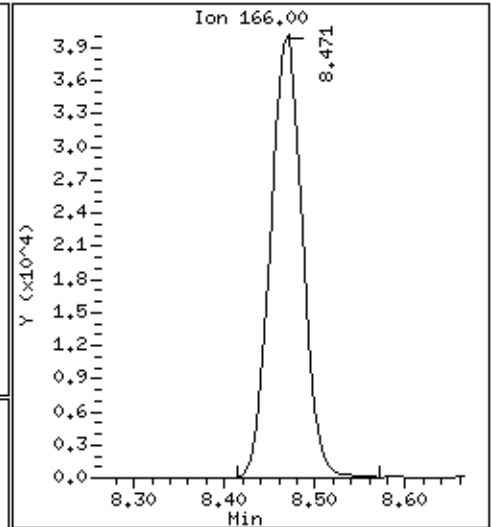
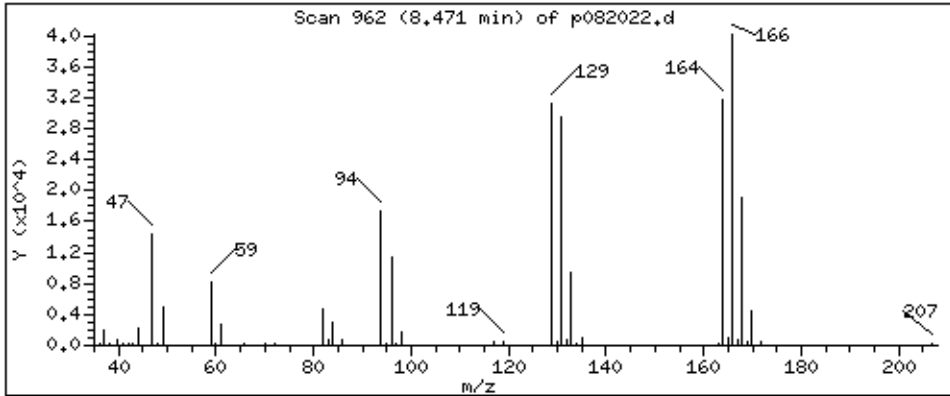
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 24,250 PPBV





Date : 21-AUG-2021 00:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3967

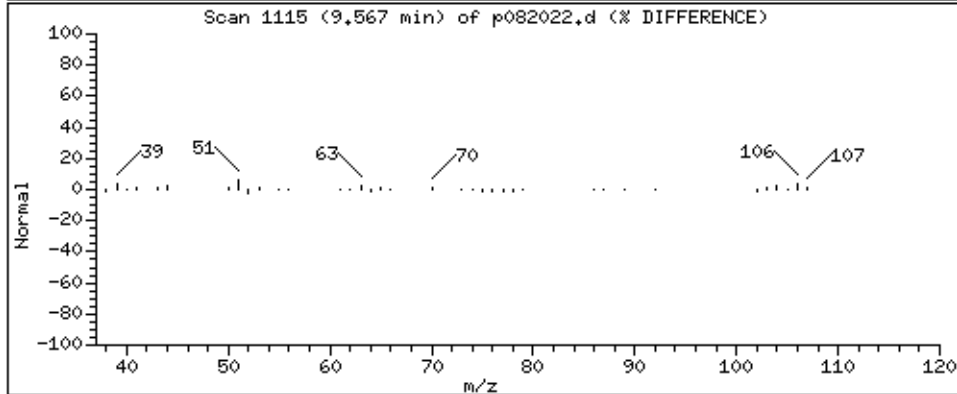
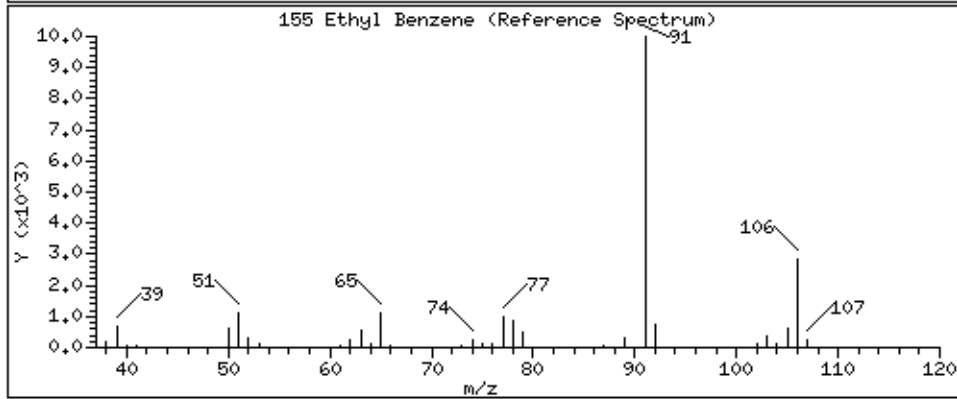
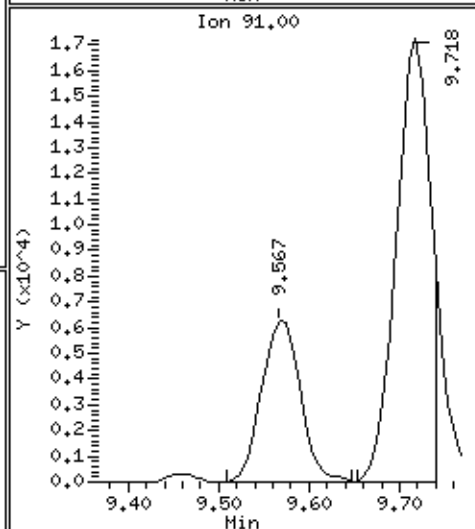
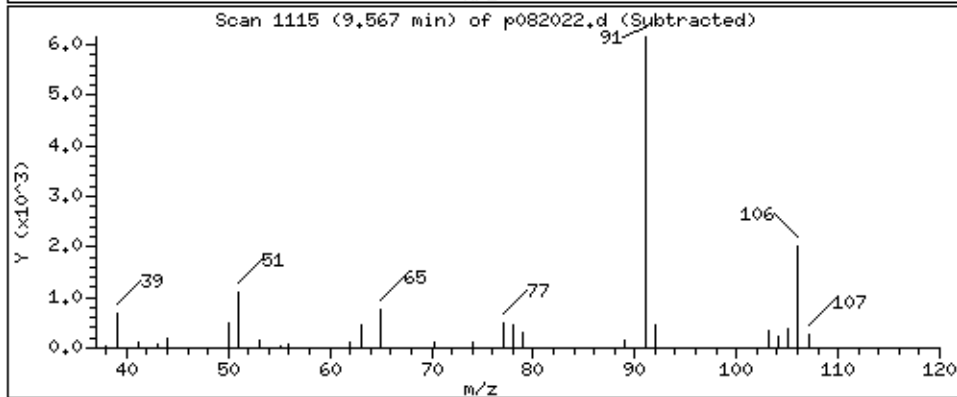
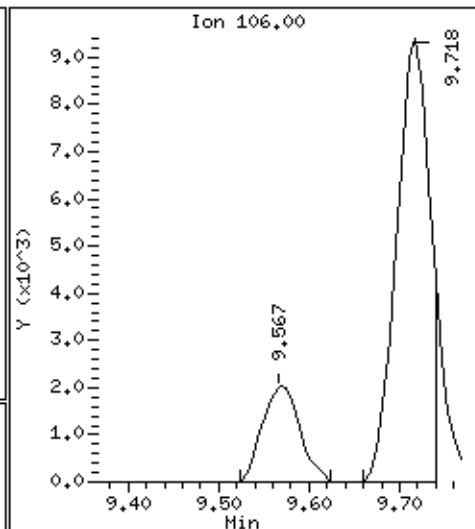
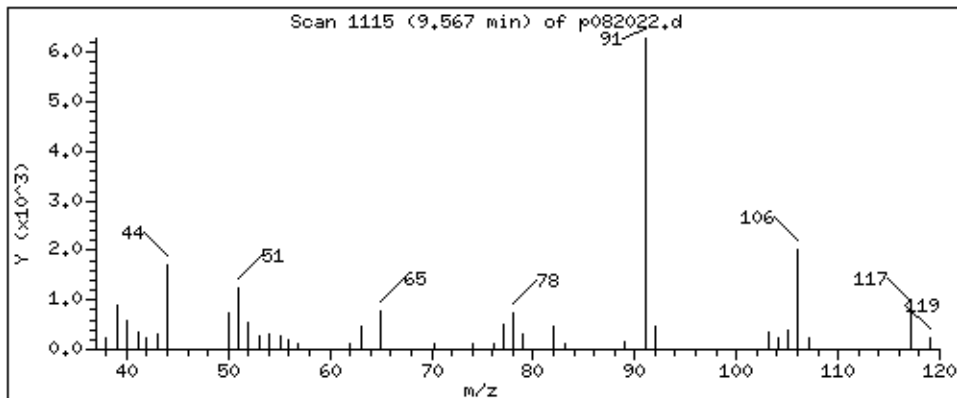
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 1,586 PPBV



Date : 21-AUG-2021 00:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3967

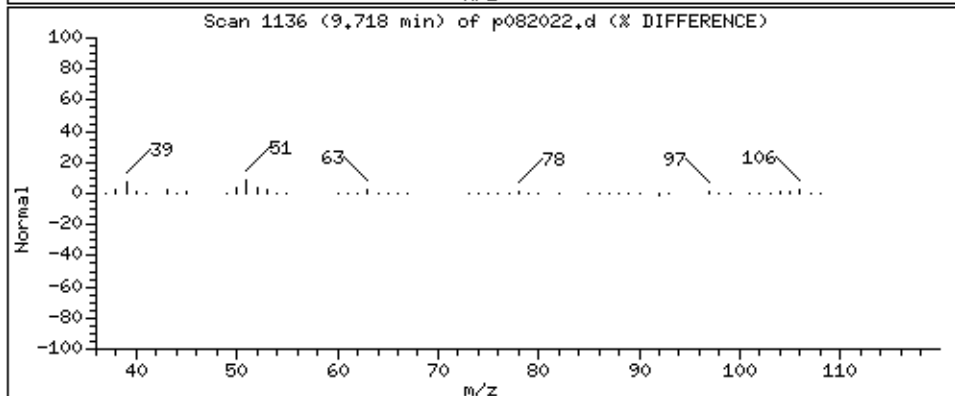
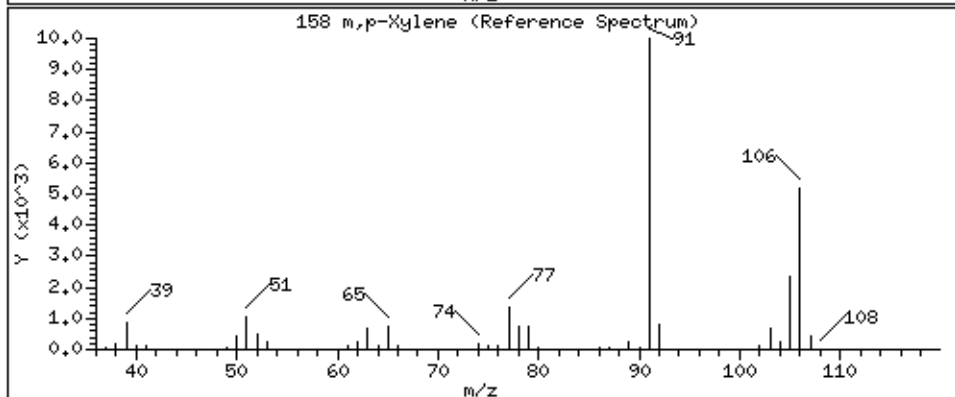
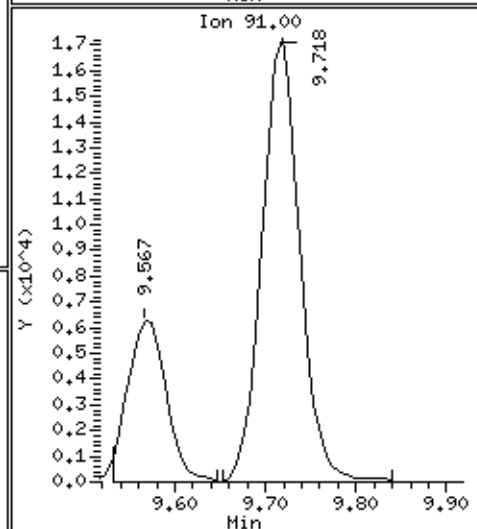
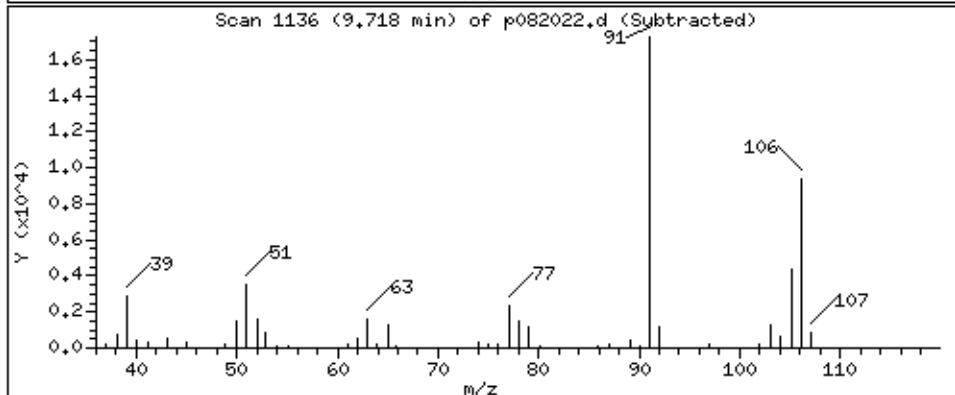
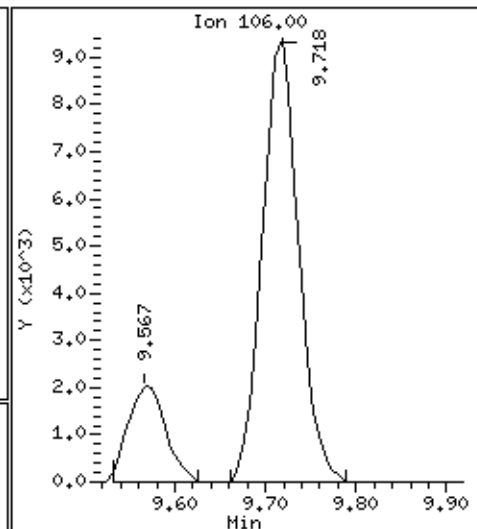
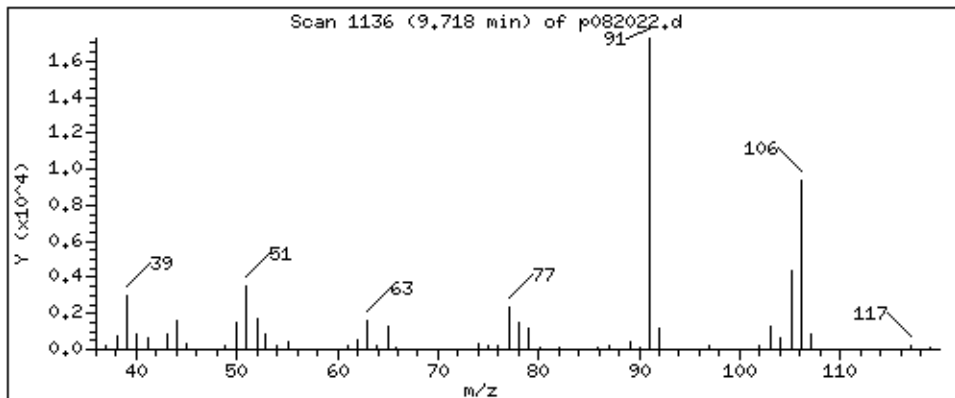
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 5.628 PPBV



Date : 21-AUG-2021 00:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3967

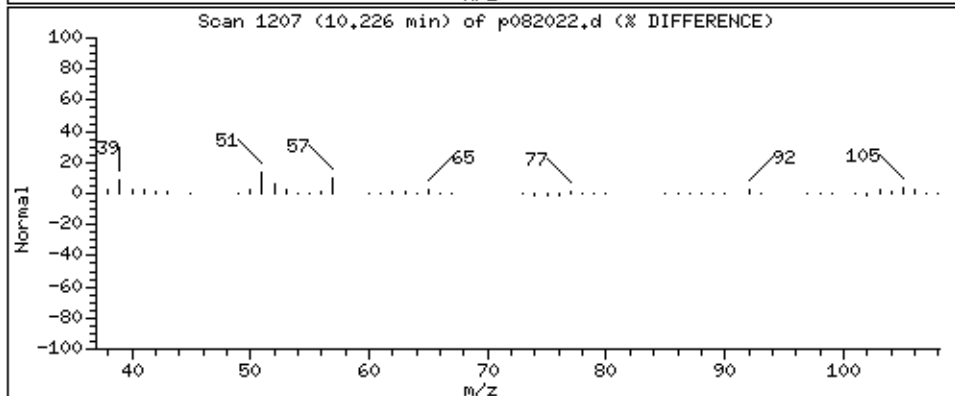
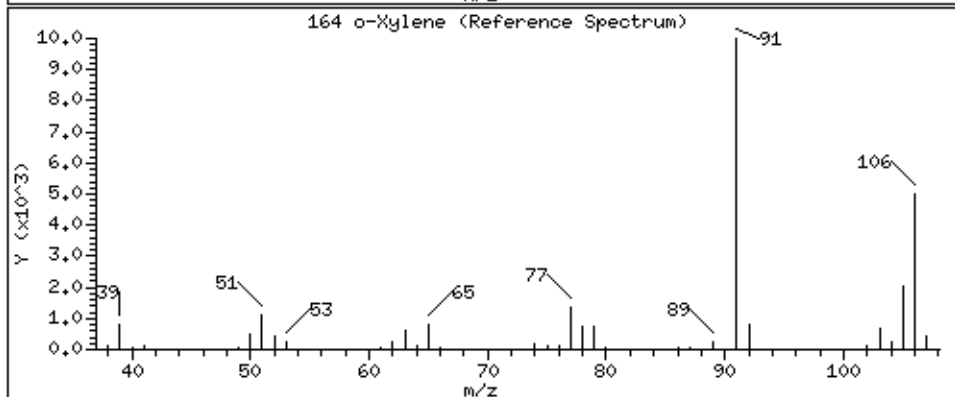
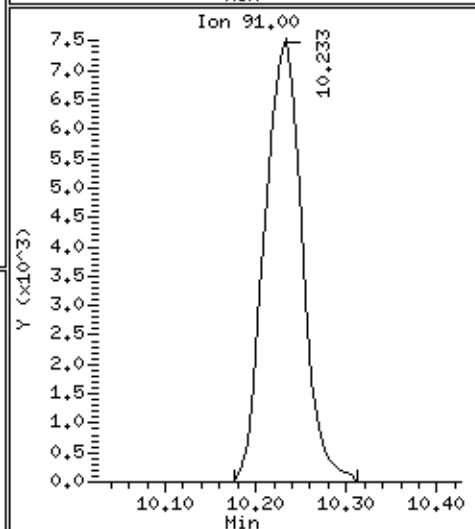
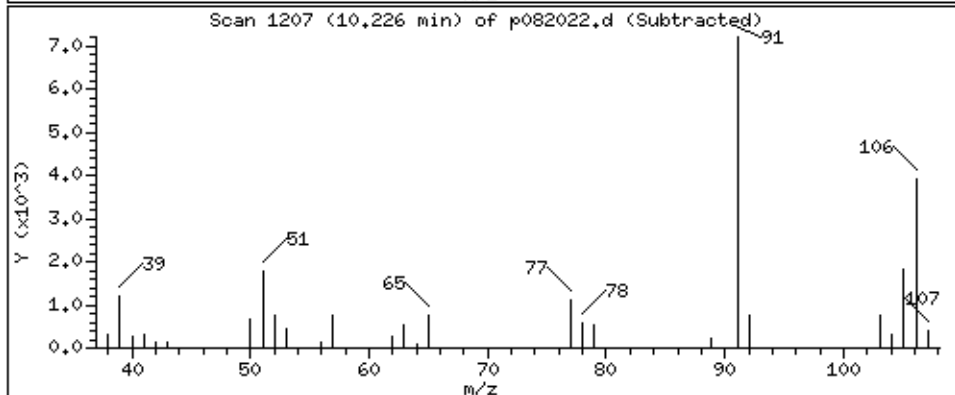
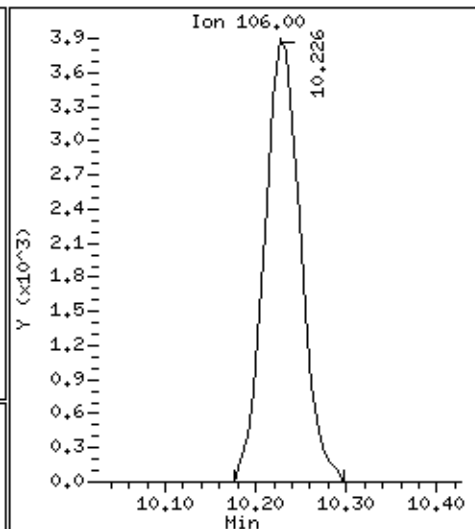
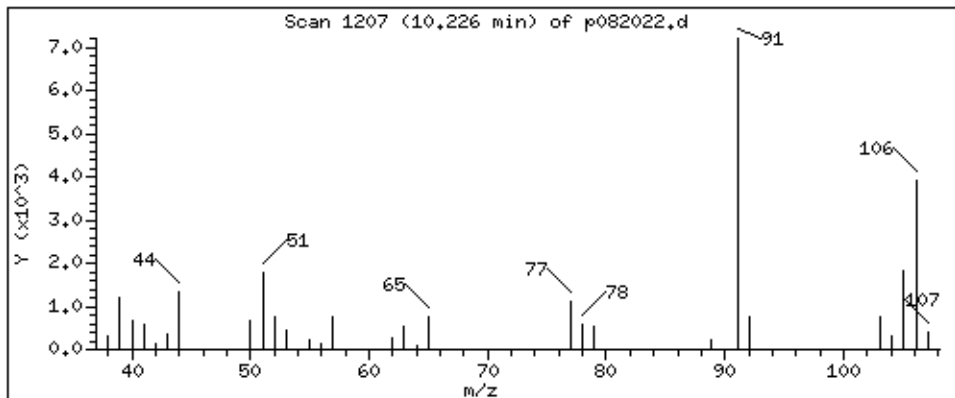
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 2.429 PPBV





Air Toxics

Client Sample ID: SG-VW58B-02

Lab ID#: 2108390-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082012	Date of Collection:	8/16/21 11:38:00 AM
Dil. Factor:	2.06	Date of Analysis:	8/20/21 05:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
1,1-Difluoroethane	4.1	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.1	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2-Dibromo-3-chloropropane	4.1	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected
2-Propanol	4.1	8.4	10	21
3-Chloropropene	4.1	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.1	Not Detected	9.4	Not Detected
Acrylonitrile	4.1	Not Detected	8.9	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Chloroform	1.0	1.2	5.0	5.6
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected

Client Sample ID: SG-VW58B-02

Lab ID#: 2108390-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082012	Date of Collection:	8/16/21 11:38:00 AM
Dil. Factor:	2.06	Date of Analysis:	8/20/21 05:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
Dibromomethane	4.1	Not Detected	29	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Ethyl Acetate	4.1	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Ethyl-tert-butyl ether	4.1	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Freon 12	1.0	3.7	5.1	18
Freon 113	1.0	Not Detected	7.9	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Hexachloroethane	4.1	Not Detected	40	Not Detected
Hexane	1.0	110	3.6	390
Iodomethane	10	Not Detected	60	Not Detected
Isopropyl ether	4.1	Not Detected	17	Not Detected
m,p-Xylene	1.0	3.3	4.5	14
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	1.2	4.5	5.0
Propylbenzene	1.0	Not Detected	5.1	Not Detected
Propylene	4.1	Not Detected	7.1	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
tert-Amyl methyl ether	4.1	Not Detected	17	Not Detected
tert-Butyl alcohol	4.1	Not Detected	12	Not Detected
Tetrachloroethene	1.0	55	7.0	380
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
TPH ref. to Gasoline (MW=100)	100	190	420	780
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
Vinyl Acetate	4.1	Not Detected	14	Not Detected
Vinyl Bromide	4.1	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW58B-02**
**Lab ID#: 2108390-05A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p082012</b>	<b>Date of Collection: 8/16/21 11:38:00 AM</b>
<b>Dil. Factor:</b>	<b>2.06</b>	<b>Date of Analysis: 8/20/21 05:54 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	104	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082012.d  
 Lab Smp Id: 2108390-05A  
 Inj Date : 20-AUG-2021 17:54  
 Operator : mjb  
 Smp Info : 200ml 1L1582  
 Misc Info : 5.5 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5fl  
 Cal Date : 19-MAY-2021 19:45  
 Als bottle: 5  
 Dil Factor: 2.06000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msdp.i  
 Quant Type: ISTD  
 Cal File: p051915.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	107098	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	85971			48.23- 108.23	80.27
5.785	5.778	(1.000)	49	243910			150.57- 210.57	227.74
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	386891	25.0000		80.00- 120.00	100.00
6.666	6.659	(1.000)	88	57289			0.00- 45.71	14.81
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	405299	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	206866			23.78- 83.78	51.04
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	162143	27.4333	27.433	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	77372			27.21- 87.21	47.72
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	428422	25.5008	25.501	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	46137			0.00- 40.44	10.77

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)									
7.891	7.891	(1.184)	100	277434				34.95- 94.95	64.76
-----									
§ 170 4-Bromofluorobenzene									
								CAS #: 460-00-4	
10.921	10.921	(1.154)	174	270126	25.9546	25.955		80.00- 120.00	100.00
10.921	10.914	(1.154)	95	310675				95.92- 155.92	115.01
10.921	10.921	(1.154)	176	262465				66.89- 126.89	97.16
-----									
8 Freon 12									
								CAS #: 75-71-8	
1.730	1.717	(0.299)	85	17389	1.81031	3.729		80.00- 120.00	100.00
1.730	1.717	(0.299)	87	5615				2.37- 62.37	32.29
-----									
52 2-Propanol									
								CAS #: 67-63-0	
3.908	3.894	(0.676)	45	46323	4.09363	8.433		80.00- 120.00	100.00
3.901	3.894	(0.674)	43	10135				0.00- 47.19	21.88
-----									
67 Hexane									
								CAS #: 110-54-3	
4.696	4.697	(0.812)	57	572442	54.2579	111.77		80.00- 120.00	100.00
4.696	4.697	(0.812)	43	451246				37.52- 97.52	78.83
4.696	4.697	(0.812)	86	55537				0.00- 41.48	9.70
-----									
92 Chloroform									
								CAS #: 67-66-3	
5.842	5.843	(1.010)	83	5237	0.56201	1.158		80.00- 120.00	100.00
5.842	5.843	(1.010)	85	3331				34.70- 94.70	63.61
-----									
142 Tetrachloroethene									
								CAS #: 127-18-4	
8.471	8.464	(0.895)	166	248372	26.8885	55.390		80.00- 120.00	100.00
8.464	8.464	(0.895)	129	191056				47.84- 107.84	76.92
8.464	8.464	(0.895)	131	185826				45.29- 105.29	74.82
-----									
158 m,p-Xylene									
								CAS #: 108-38-3	
9.718	9.718	(1.027)	106	17080	1.62051	3.338		80.00- 120.00	100.00
9.718	9.718	(1.027)	91	30472				163.73- 223.73	178.40
-----									
164 o-Xylene									
								CAS #: 95-47-6	
10.226	10.226	(1.081)	106	5665	0.56098	1.156		80.00- 120.00	100.00
10.226	10.226	(1.081)	91	12756				177.45- 237.45	225.16
-----									



US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p082012.d  
Lab Smp Id: 2108390-05A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: mjb  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 5.5 Hg->10 psi

Calibration Date: 20-AUG-2021  
Calibration Time: 11:13  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	107098	-2.08
108 1,4-Difluorobenze	406799	244079	569519	386891	-4.89
153 Chlorobenzene-d5	400841	240505	561177	405299	1.11

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Report Date: 24-Aug-2021 10:48

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-05A  
Level: LOW Operator: mjb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 5.5 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.433	109.73	70-130
\$ 134 Toluene-d8	25.000	25.501	102.00	70-130
\$ 170 4-Bromofluorobenz	25.000	25.955	103.82	70-130

Date : 20-AUG-2021 17:54

Client ID:

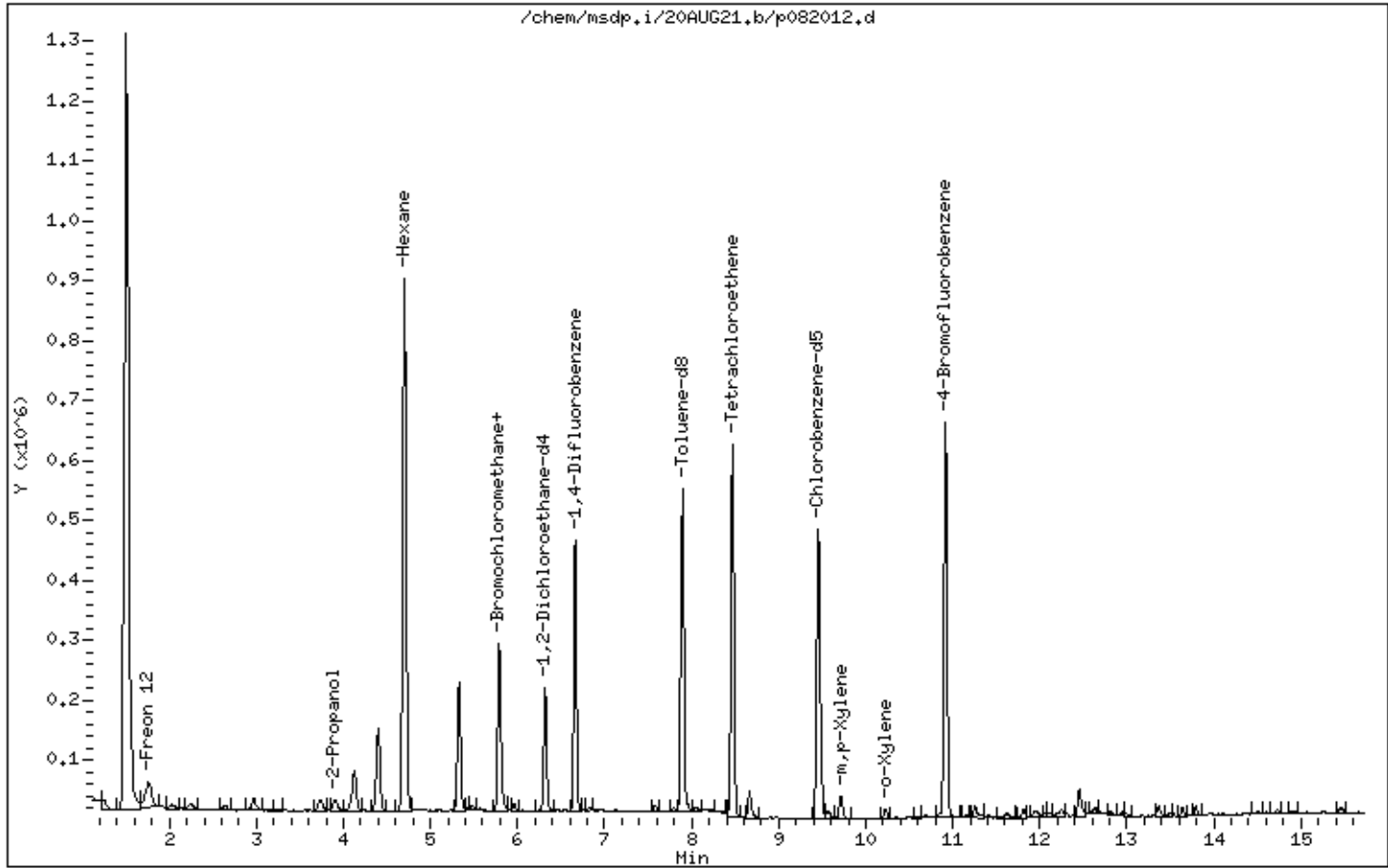
Instrument: msdp.i

Sample Info: 200ml 1L1582

Operator: mjb

Column phase: RTX-624

Column diameter: 0.25



Date : 20-AUG-2021 17:54

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1582

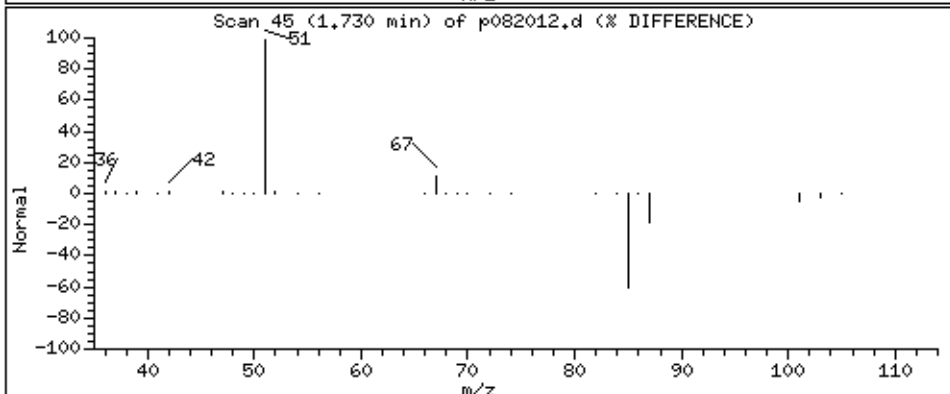
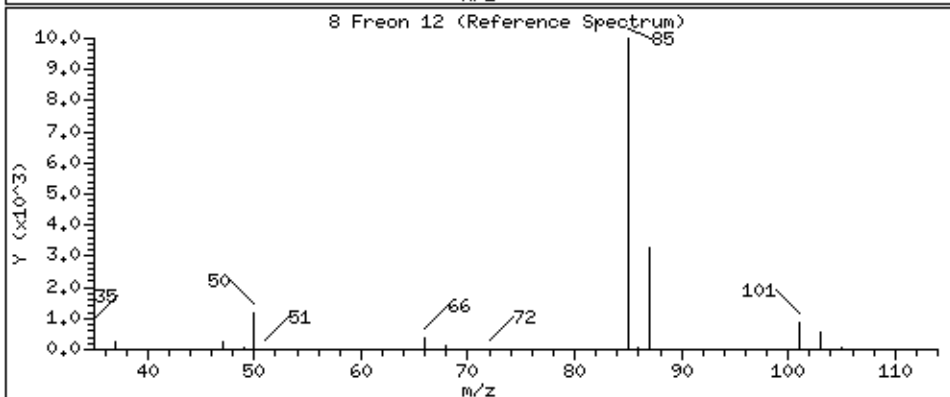
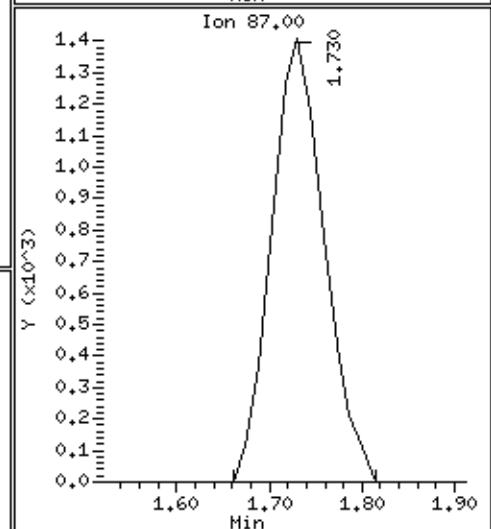
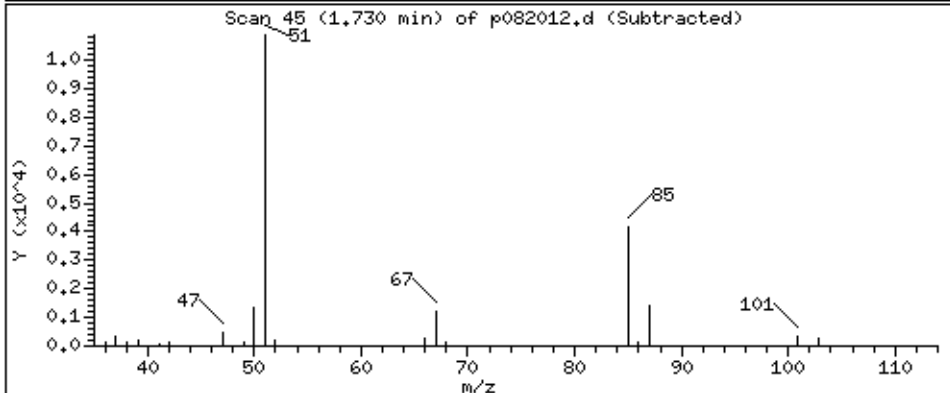
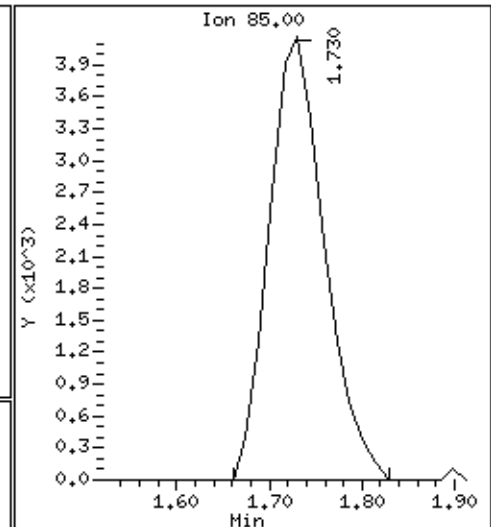
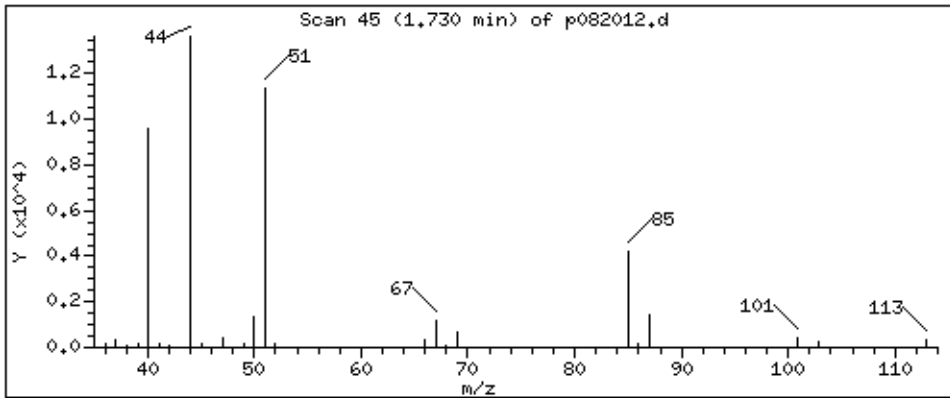
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 3.729 PPBV



Date : 20-AUG-2021 17:54

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1582

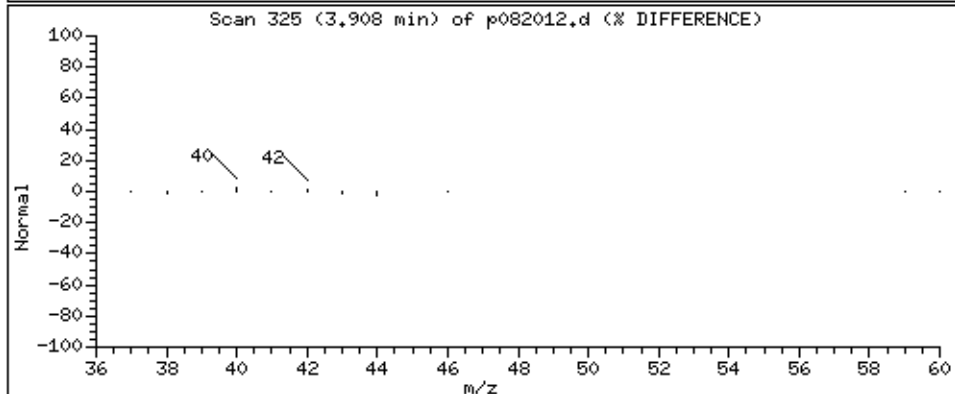
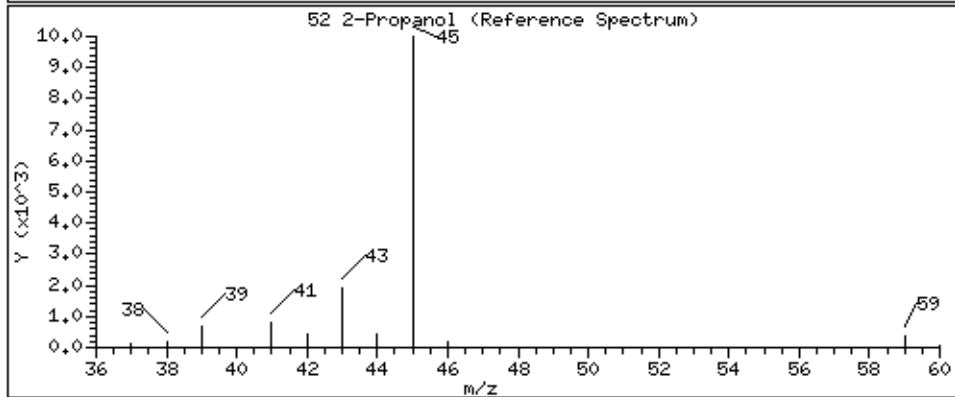
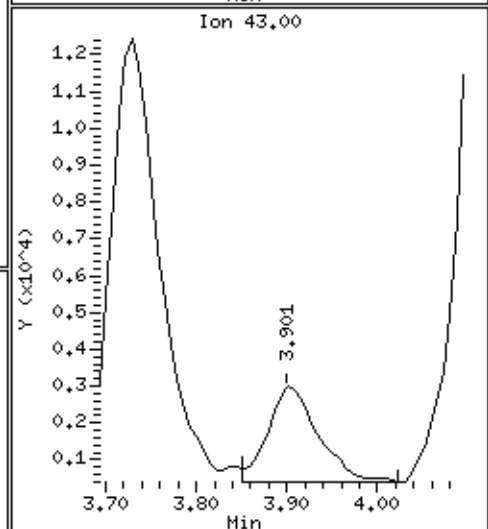
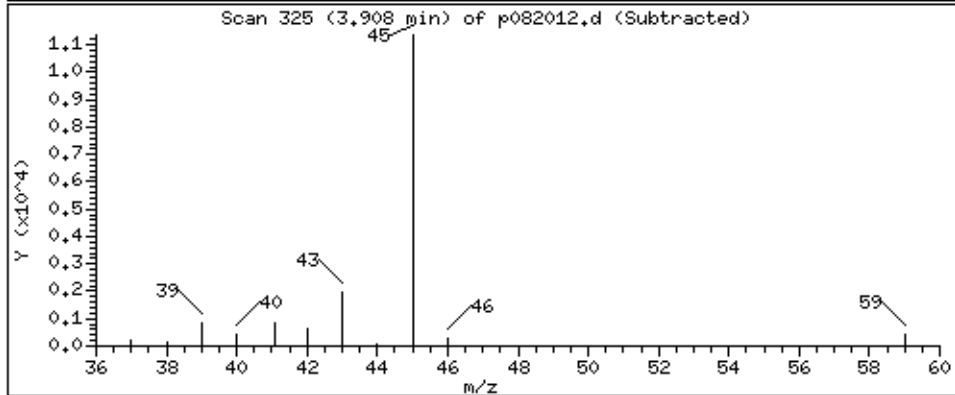
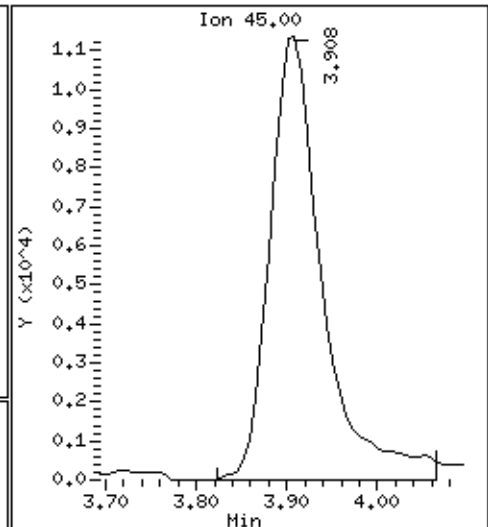
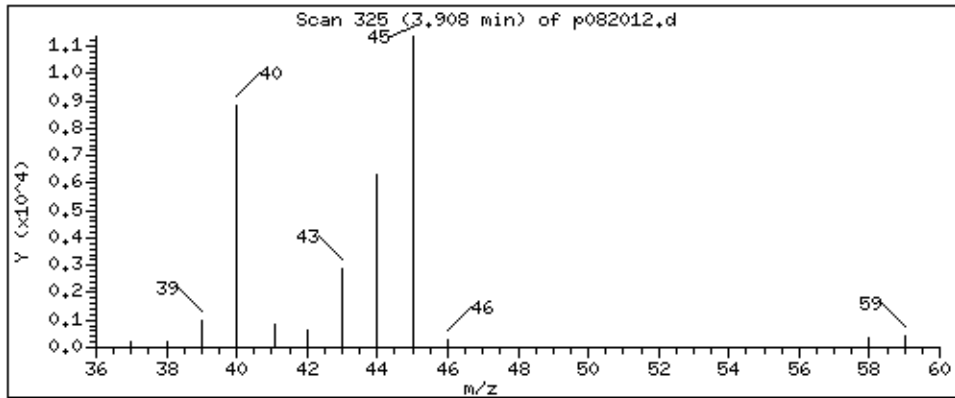
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 8.433 PPBV



Date : 20-AUG-2021 17:54

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1582

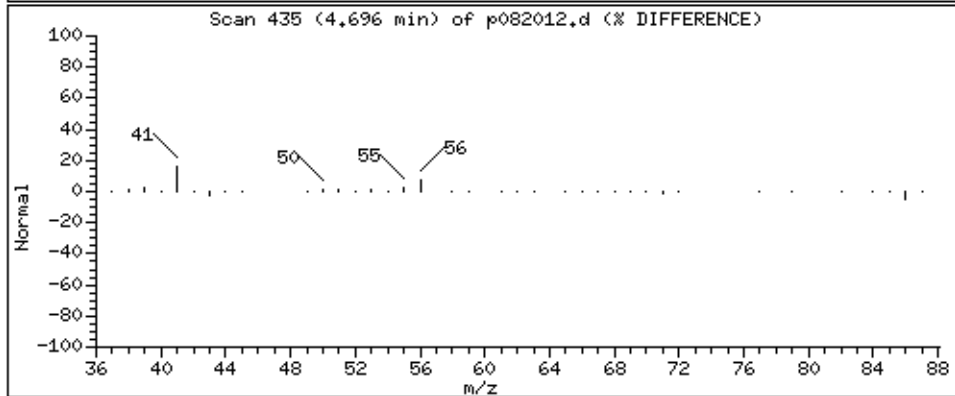
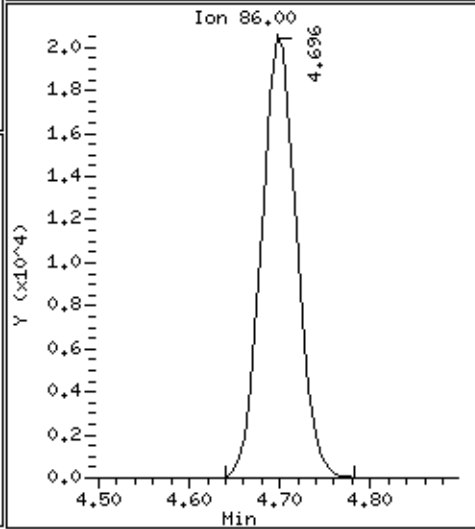
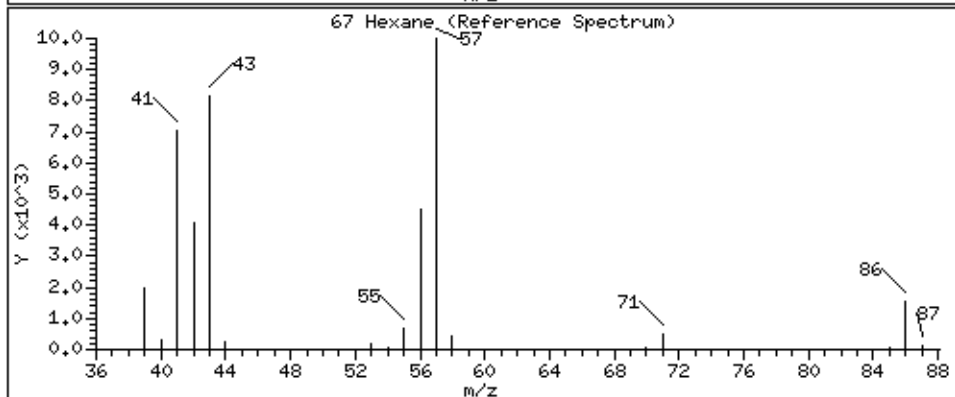
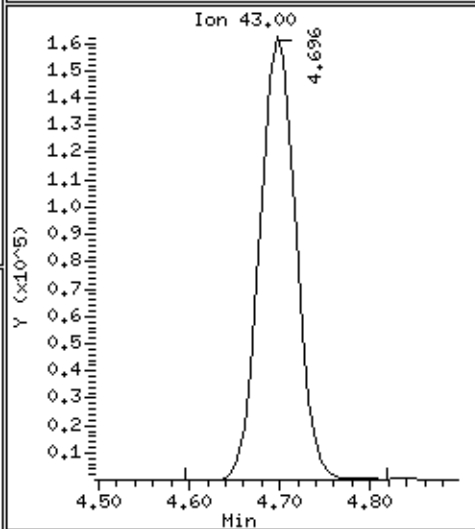
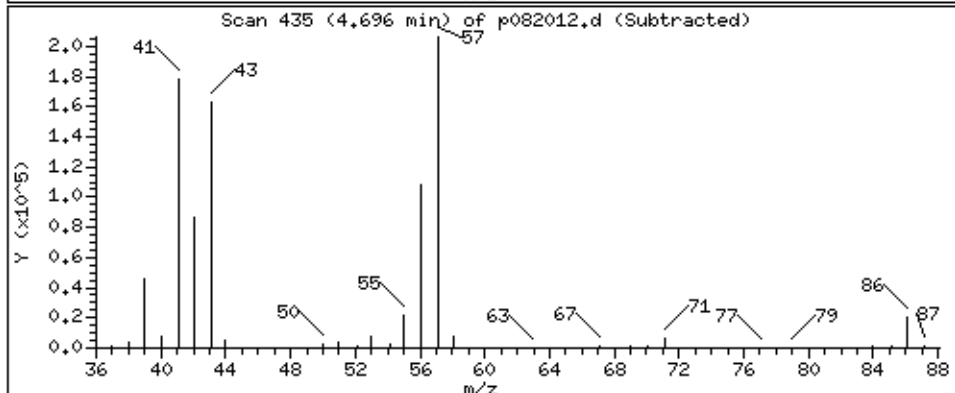
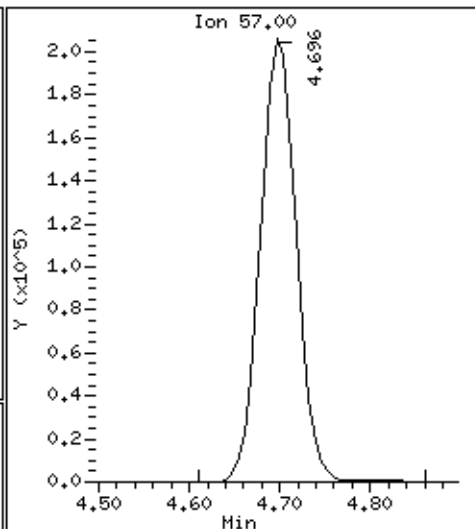
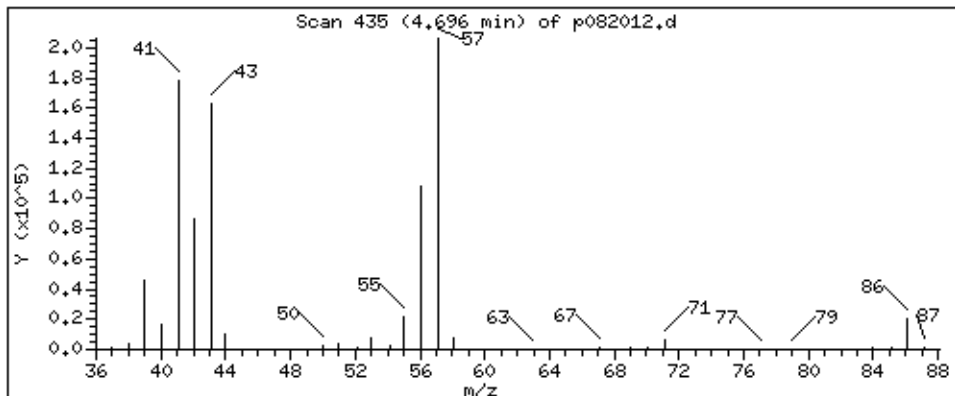
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 111.77 PPBV



Date : 20-AUG-2021 17:54

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1582

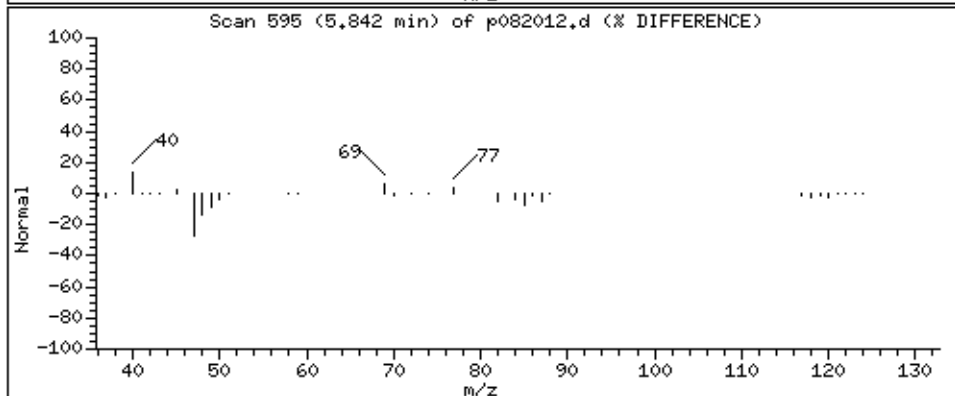
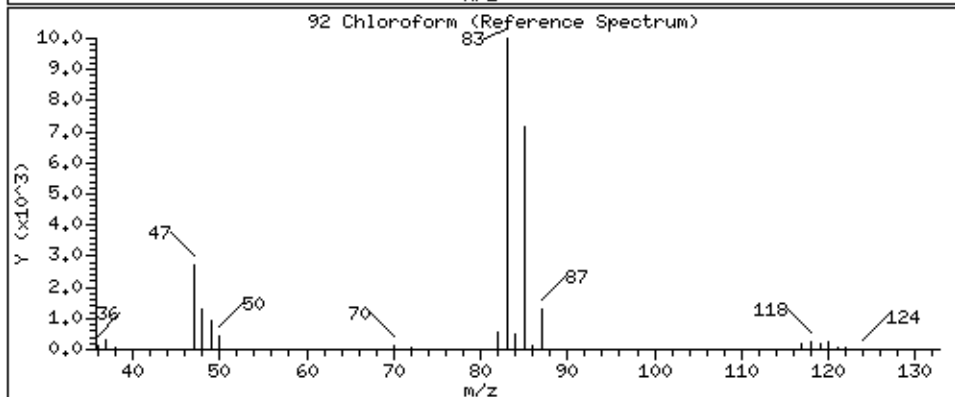
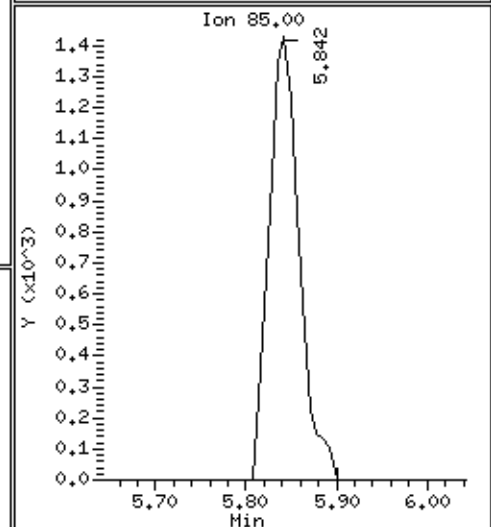
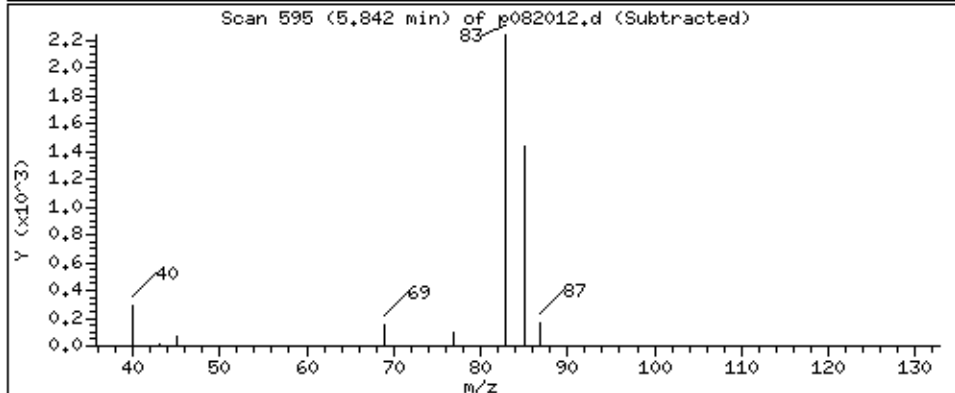
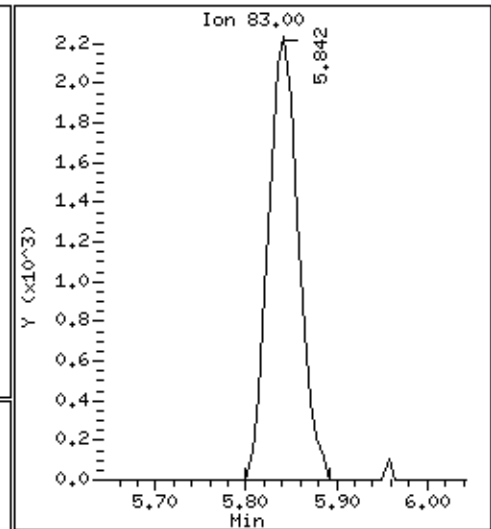
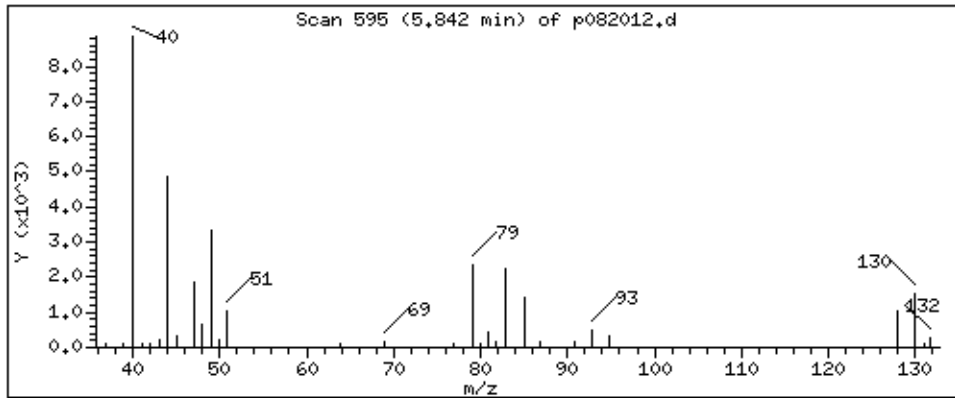
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 1,158 PPBV



Date : 20-AUG-2021 17:54

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1582

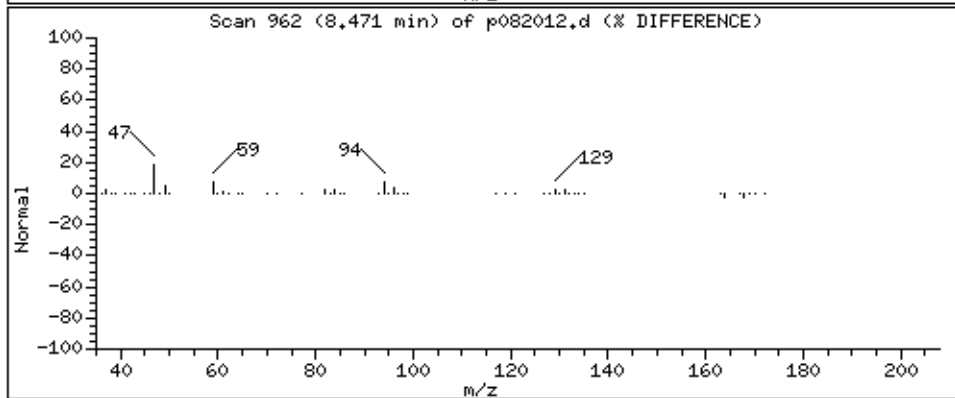
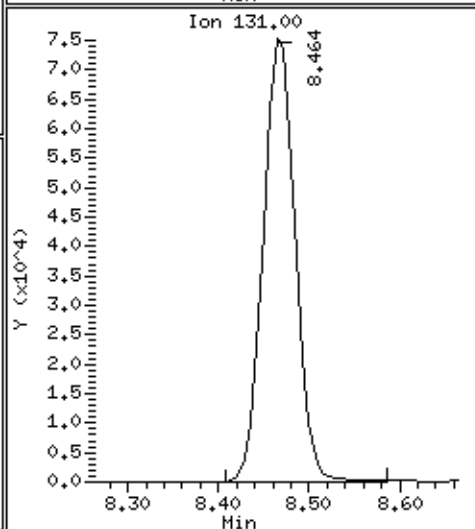
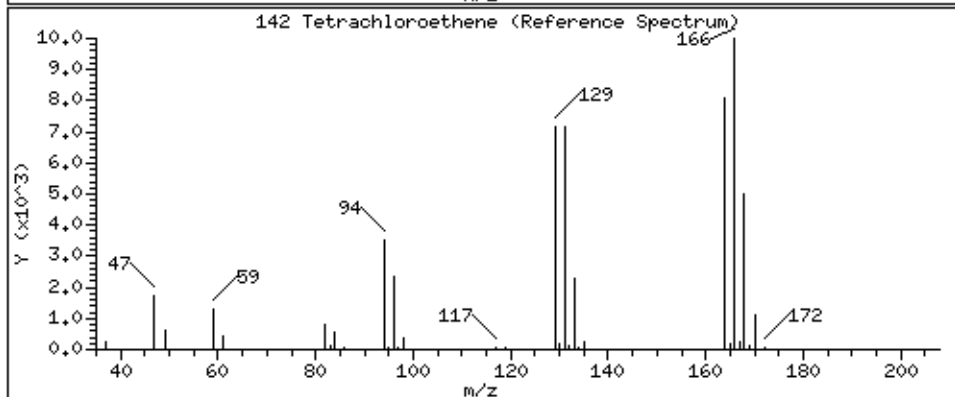
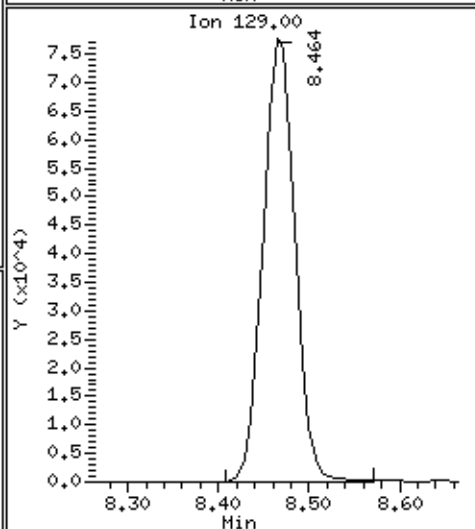
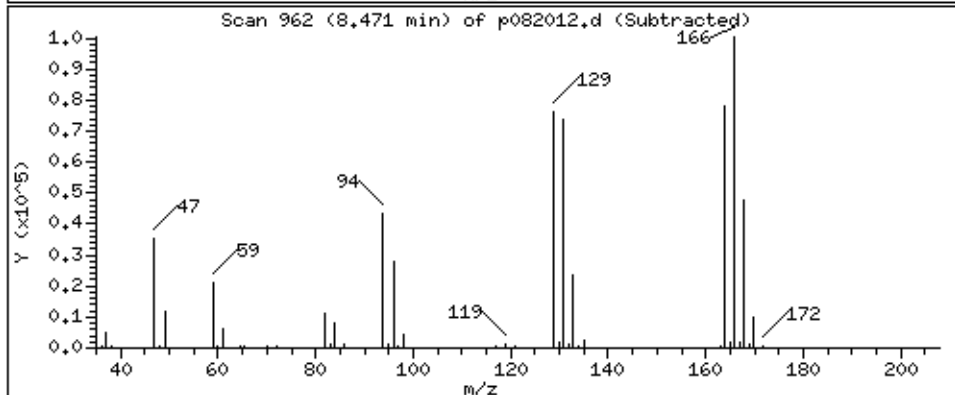
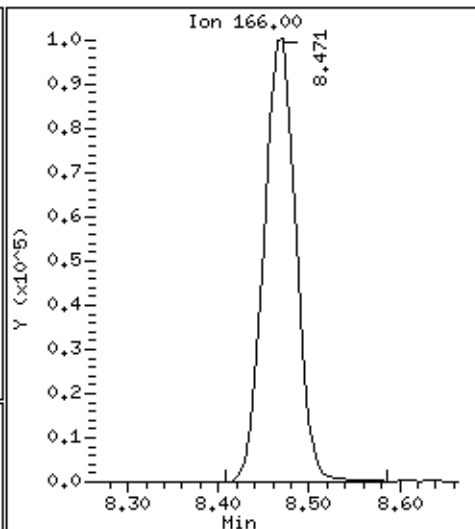
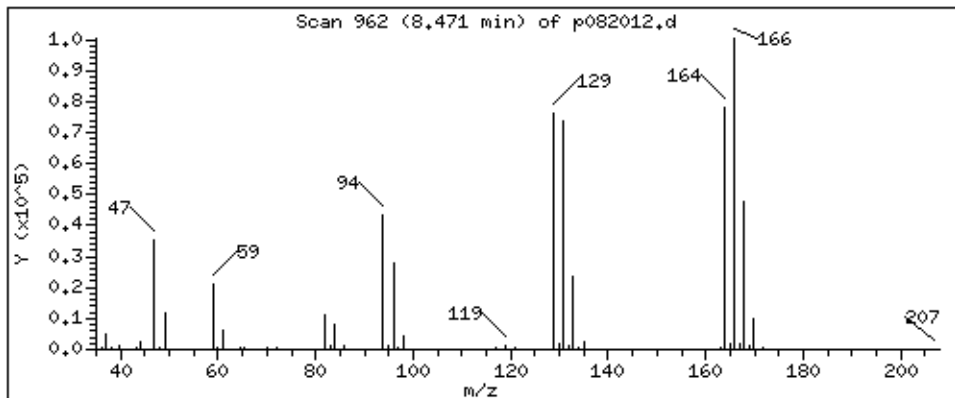
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 55,390 PPBV





Date : 20-AUG-2021 17:54

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1582

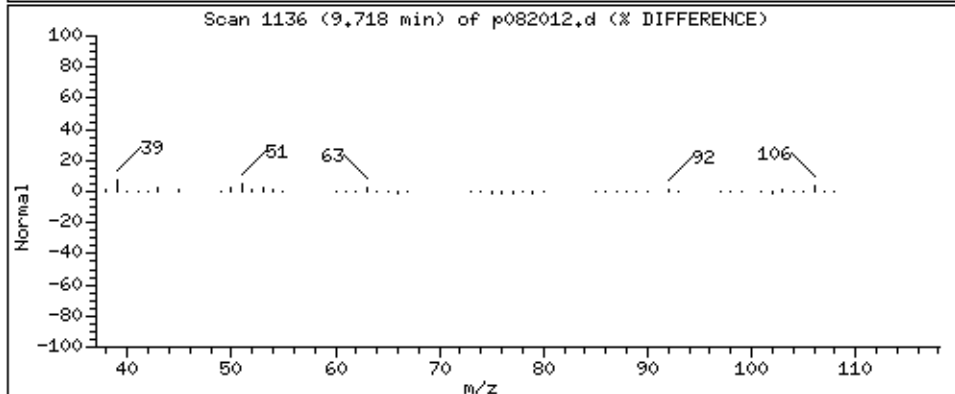
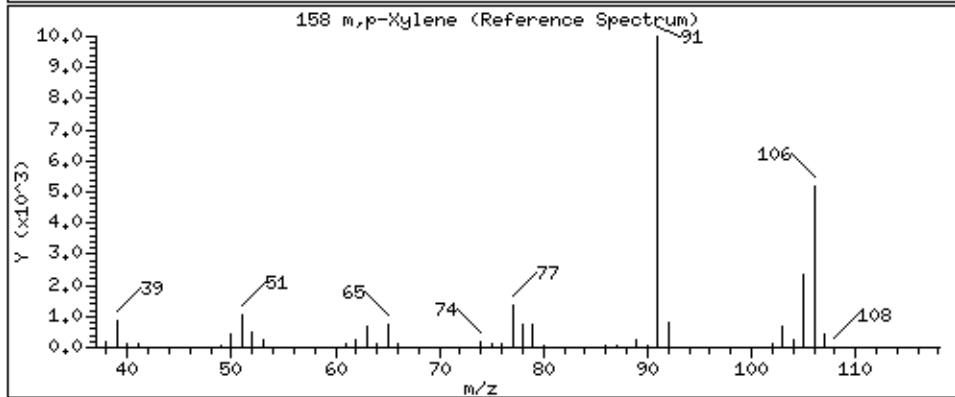
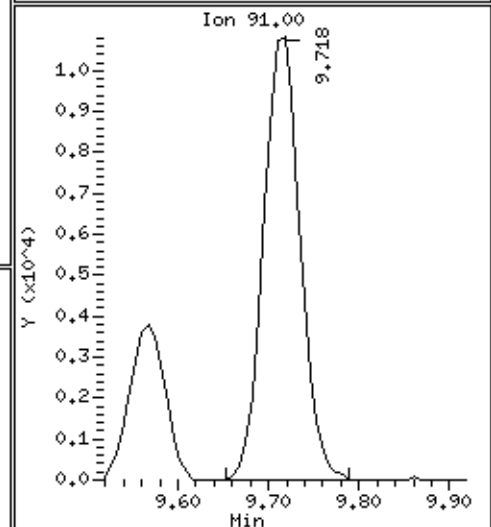
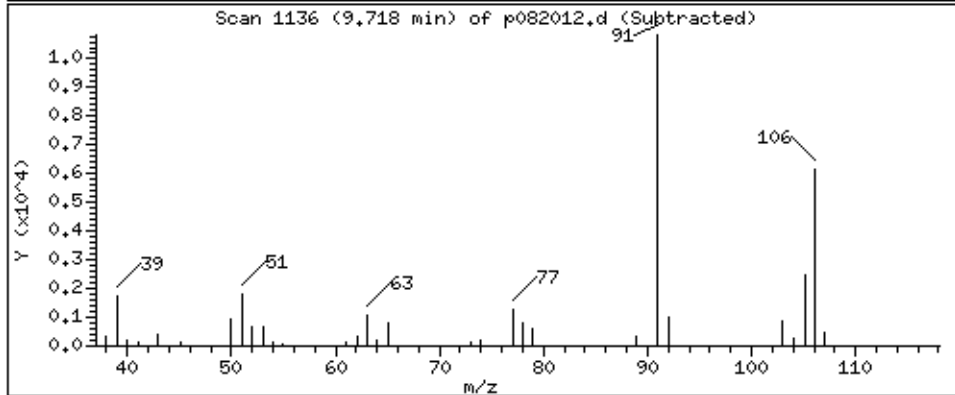
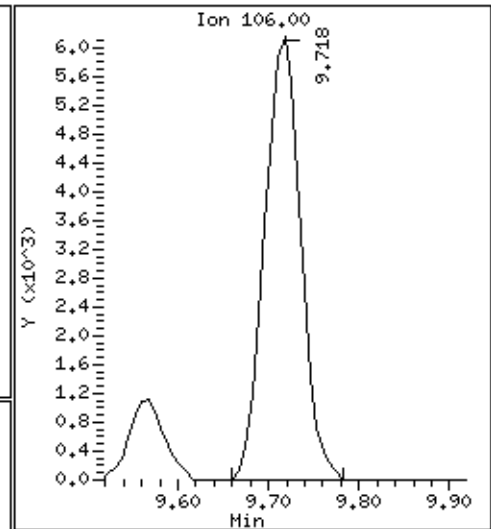
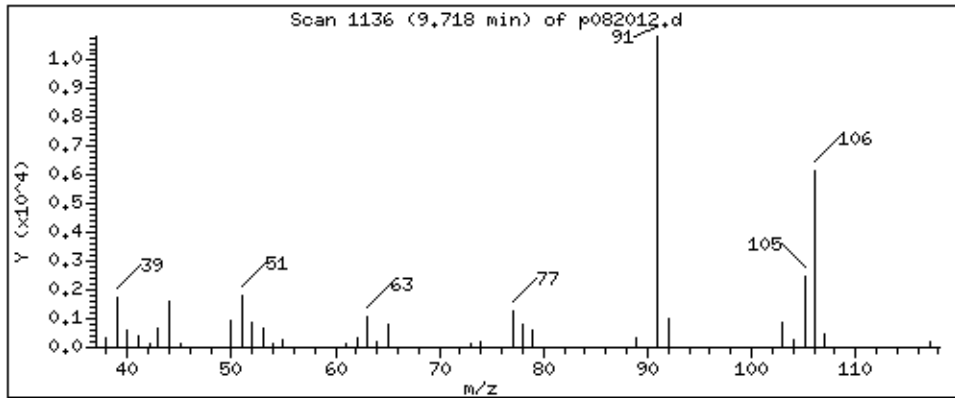
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 3.338 PPBV



Date : 20-AUG-2021 17:54

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1582

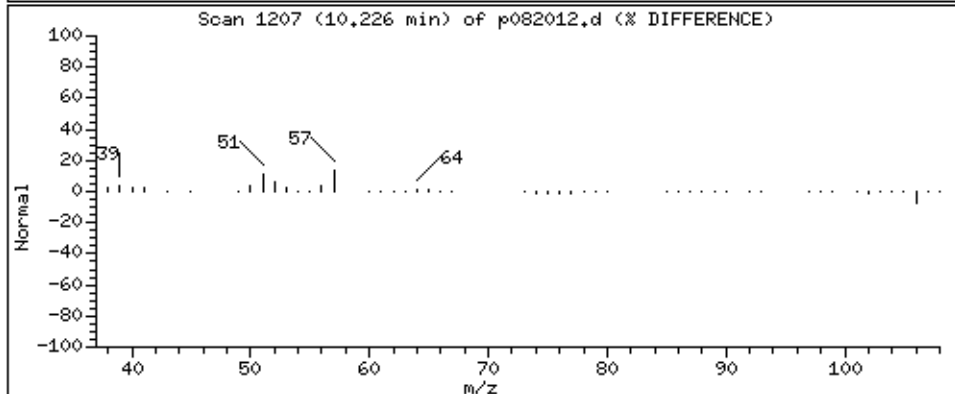
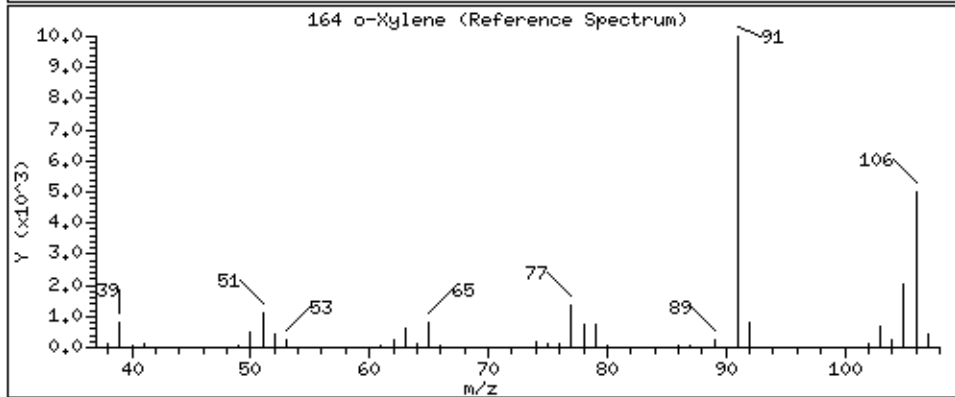
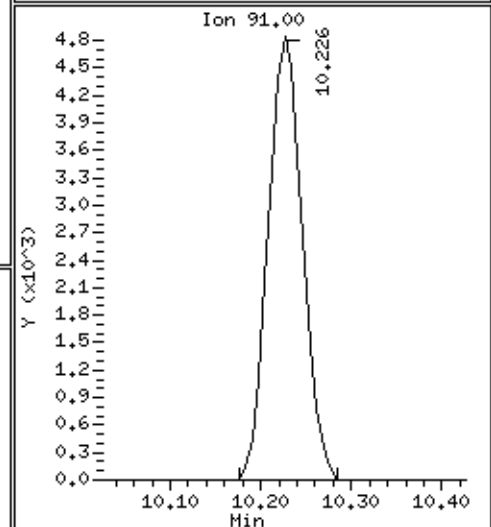
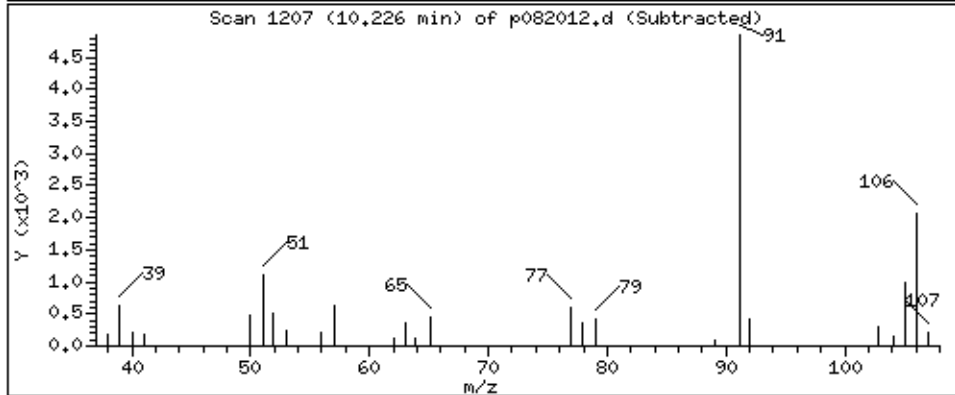
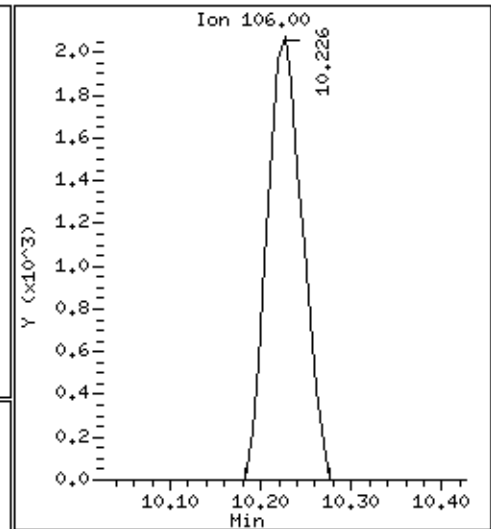
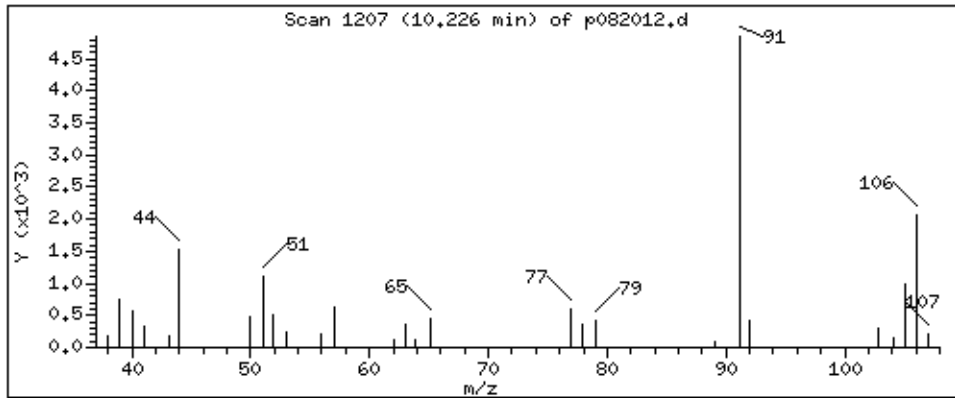
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 1,156 PPBV





Air Toxics

Client Sample ID: SG-VW60B-02

Lab ID#: 2108390-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082013	Date of Collection:	8/16/21 12:08:00 PM
Dil. Factor:	2.10	Date of Analysis:	8/20/21 06:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.2	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,2-Dibromo-3-chloropropane	4.2	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected
2-Propanol	4.2	Not Detected	10	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Acetone	10	Not Detected	25	Not Detected
Acrolein	4.2	Not Detected	9.6	Not Detected
Acrylonitrile	4.2	Not Detected	9.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Chloroform	1.0	1.1	5.1	5.4
Chloromethane	10	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected



Air Toxics

Client Sample ID: SG-VW60B-02

Lab ID#: 2108390-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082013	Date of Collection:	8/16/21 12:08:00 PM
Dil. Factor:	2.10	Date of Analysis:	8/20/21 06:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
Dibromomethane	4.2	Not Detected	30	Not Detected
Ethanol	10	Not Detected	20	Not Detected
Ethyl Acetate	4.2	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.2	Not Detected	18	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 12	1.0	3.4	5.2	17
Freon 113	1.0	Not Detected	8.0	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Freon 134a	4.2	Not Detected	18	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected
Hexachloroethane	4.2	Not Detected	41	Not Detected
Hexane	1.0	86	3.7	300
Iodomethane	10	Not Detected	61	Not Detected
Isopropyl ether	4.2	Not Detected	18	Not Detected
m,p-Xylene	1.0	2.2	4.6	9.4
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.6	Not Detected
Propylbenzene	1.0	Not Detected	5.2	Not Detected
Propylene	4.2	Not Detected	7.2	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
tert-Amyl methyl ether	4.2	Not Detected	18	Not Detected
tert-Butyl alcohol	4.2	Not Detected	13	Not Detected
Tetrachloroethene	1.0	30	7.1	200
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Toluene	1.0	2.7	4.0	10
TPH ref. to Gasoline (MW=100)	100	160	430	650
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Vinyl Acetate	4.2	Not Detected	15	Not Detected
Vinyl Bromide	4.2	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW60B-02**
**Lab ID#: 2108390-06A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p082013</b>	<b>Date of Collection: 8/16/21 12:08:00 PM</b>
<b>Dil. Factor:</b>	<b>2.10</b>	<b>Date of Analysis: 8/20/21 06:24 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	106	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082013.d  
 Lab Smp Id: 2108390-06A  
 Inj Date : 20-AUG-2021 18:24  
 Operator : mjb  
 Smp Info : 200ml O0255  
 Misc Info : 6.0 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5fl  
 Cal Date : 19-MAY-2021 19:45  
 Als bottle: 6  
 Dil Factor: 2.10000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msdp.i  
 Quant Type: ISTD  
 Cal File: p051915.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	108335	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	83124			48.23- 108.23	76.73
5.785	5.778	(1.000)	49	242338			150.57- 210.57	223.69
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	385237	25.0000		80.00- 120.00	100.00
6.666	6.659	(1.000)	88	55254			0.00- 45.71	14.34
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	403350	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	208364			23.78- 83.78	51.66
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	162683	27.2104	27.210	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	78881			27.21- 87.21	48.49
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	421896	25.2202	25.220	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	45323			0.00- 40.44	10.74

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		CONCENTRATIONS		TARGET RANGE	RATIO
				( PPBV)	( PPBV)	ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)									
7.891	7.891	(1.184)	100	272975				34.95- 94.95	64.70
-----									
§ 170 4-Bromofluorobenzene									
								CAS #: 460-00-4	
10.921	10.921	(1.154)	174	274131	26.4667	26.467		80.00- 120.00	100.00
10.914	10.914	(1.154)	95	319404				95.92- 155.92	116.51
10.921	10.921	(1.154)	176	257247				66.89- 126.89	93.84
-----									
8 Freon 12									
								CAS #: 75-71-8	
1.730	1.717	(0.299)	85	15885	1.63485	3.433		80.00- 120.00	100.00
1.730	1.717	(0.299)	87	5239				2.37- 62.37	32.98
-----									
67 Hexane									
								CAS #: 110-54-3	
4.696	4.697	(0.812)	57	437767	41.0192	86.140		80.00- 120.00	100.00
4.696	4.697	(0.812)	43	344905				37.52- 97.52	78.79
4.696	4.697	(0.812)	86	44912				0.00- 41.48	10.26
-----									
92 Chloroform									
								CAS #: 67-66-3	
5.843	5.843	(1.010)	83	5003	0.53077	1.115		80.00- 120.00	100.00
5.843	5.843	(1.010)	85	3098				34.70- 94.70	61.93
-----									
137 Toluene									
								CAS #: 108-88-3	
7.956	7.956	(1.193)	91	22828	1.30154	2.733		80.00- 120.00	100.00
7.956	7.956	(1.193)	92	12609				28.38- 88.38	55.24
-----									
142 Tetrachloroethene									
								CAS #: 127-18-4	
8.464	8.464	(0.895)	166	129689	14.1079	29.626		80.00- 120.00	100.00
8.464	8.464	(0.895)	129	96528				47.84- 107.84	74.43
8.464	8.464	(0.895)	131	94393				45.29- 105.29	72.78
-----									
158 m,p-Xylene									
								CAS #: 108-38-3	
9.711	9.718	(1.026)	106	10854	1.03478	2.173		80.00- 120.00	100.00
9.711	9.718	(1.026)	91	22250				163.73- 223.73	205.00
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082013.d  
 Lab Smp Id: 2108390-06A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: mjb  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 6.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	108335	-0.95
108 1,4-Difluorobenze	406799	244079	569519	385237	-5.30
153 Chlorobenzene-d5	400841	240505	561177	403350	0.63

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.



US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-06A  
Level: LOW Operator: mjb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.210	108.84	70-130
\$ 134 Toluene-d8	25.000	25.220	100.88	70-130
\$ 170 4-Bromofluorobenz	25.000	26.467	105.87	70-130

Date : 20-AUG-2021 18:24

Client ID:

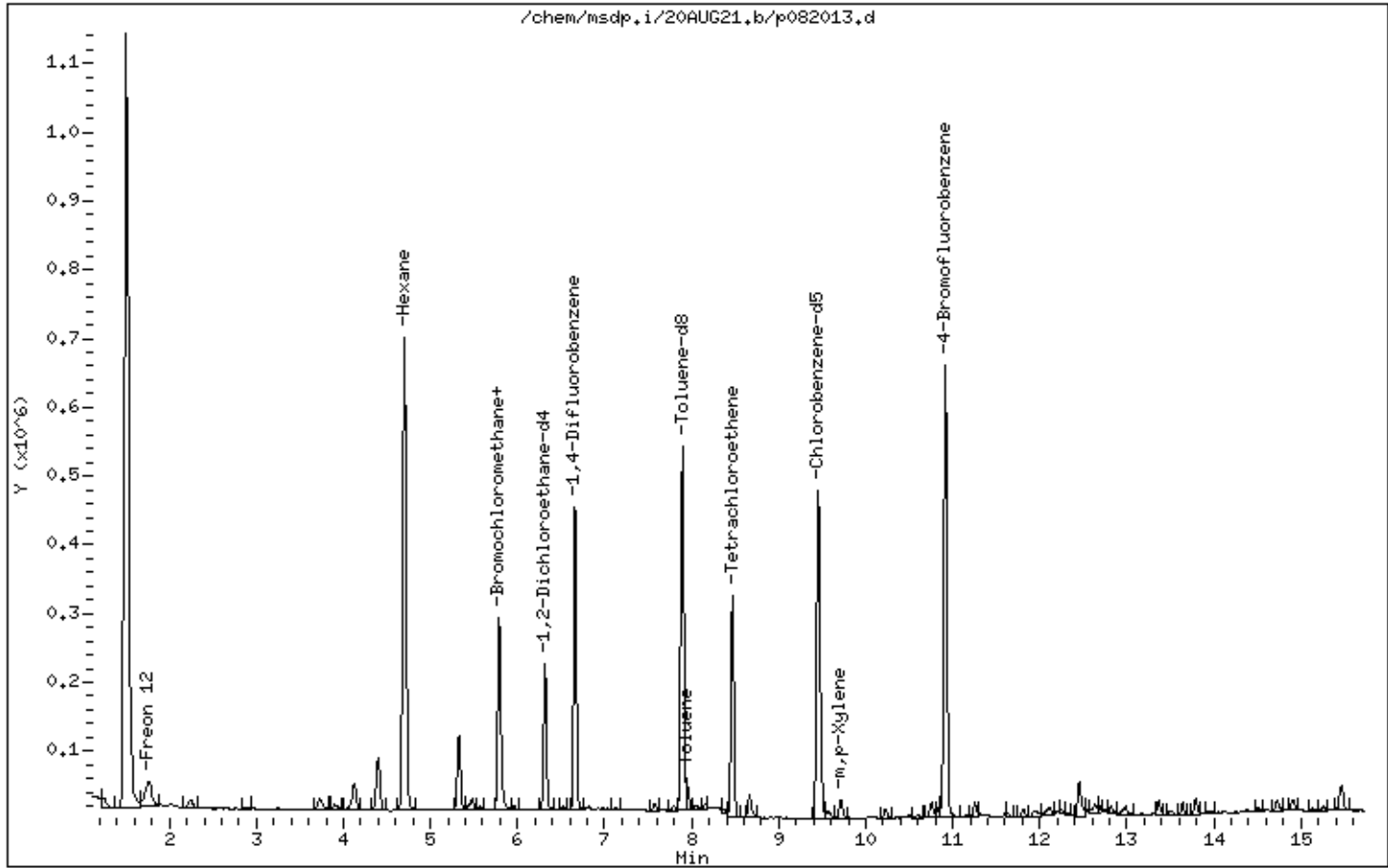
Instrument: msdp.i

Sample Info: 200ml 00255

Operator: mjb

Column phase: RTX-624

Column diameter: 0.25



Date : 20-AUG-2021 18:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00255

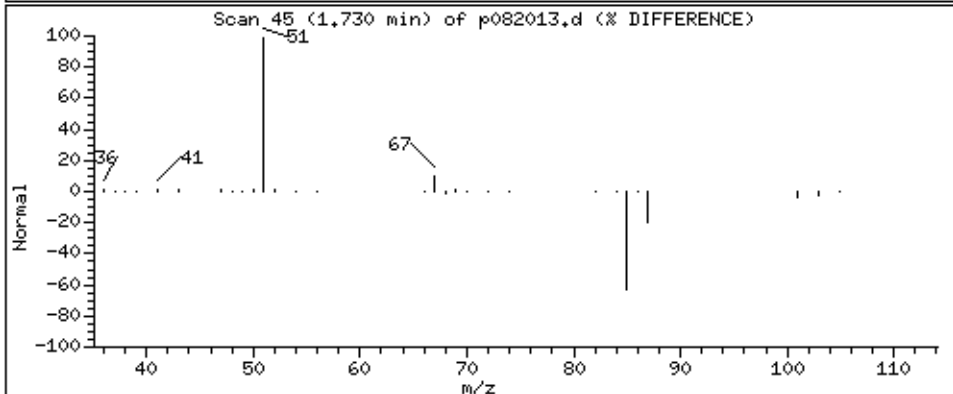
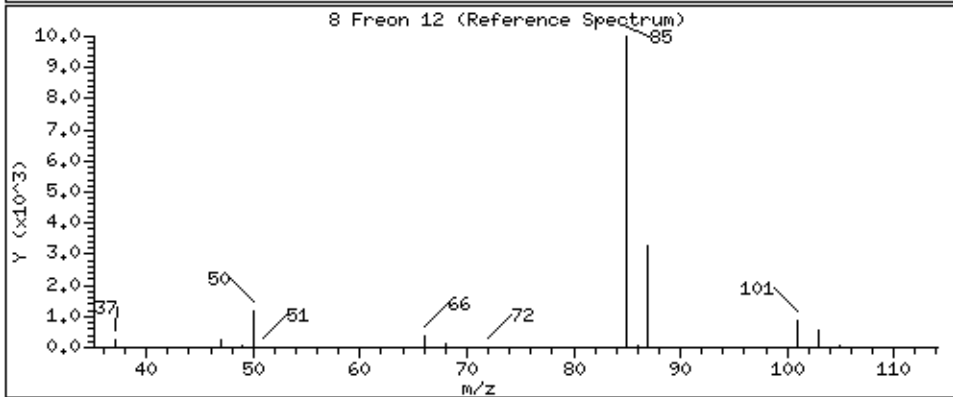
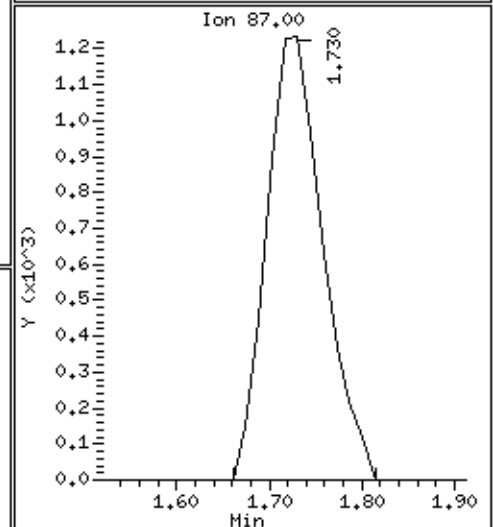
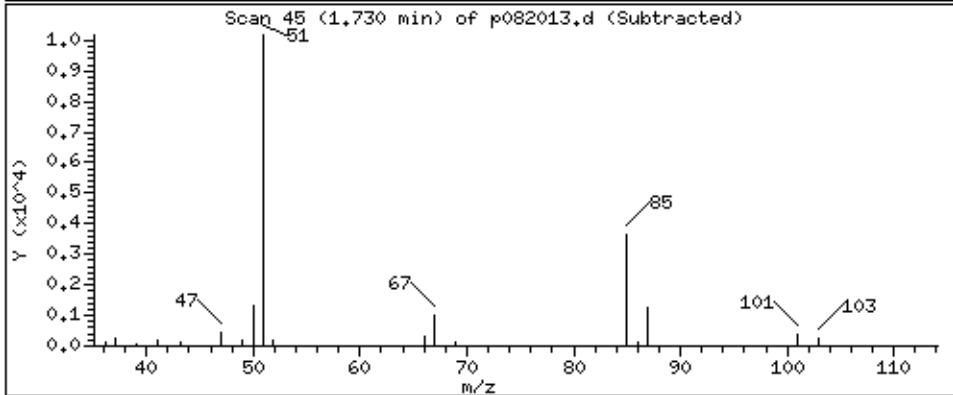
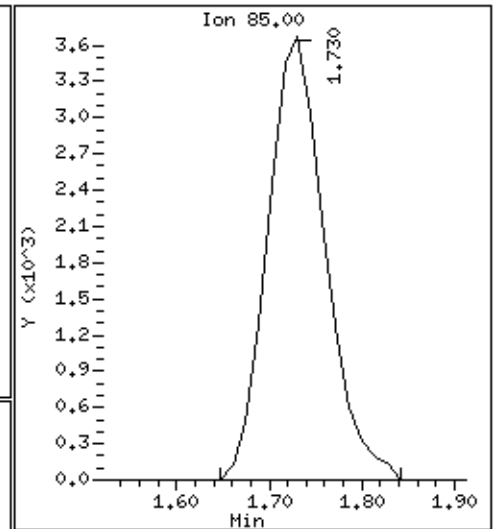
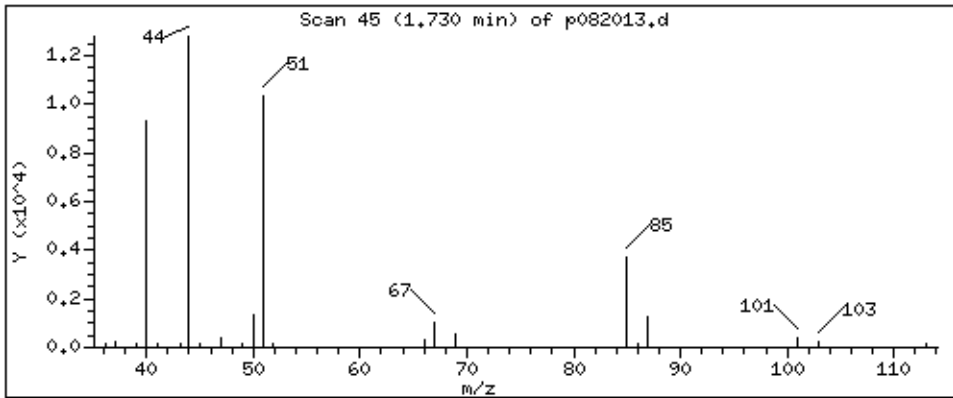
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 3.433 PPBV



Date : 20-AUG-2021 18:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00255

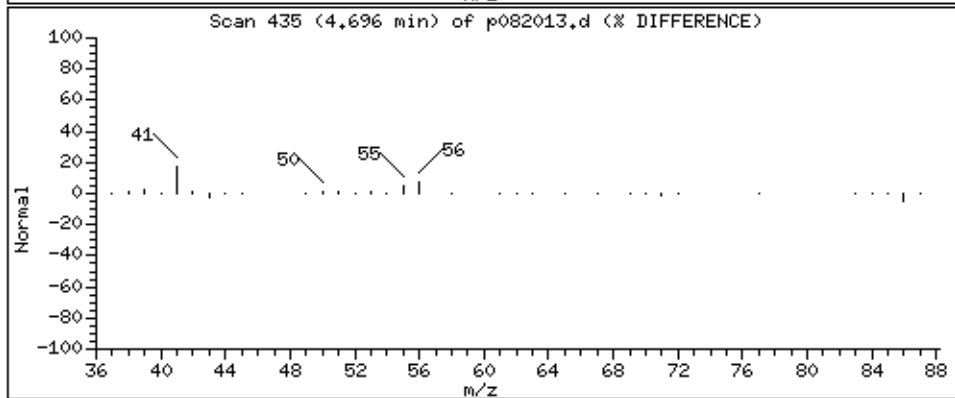
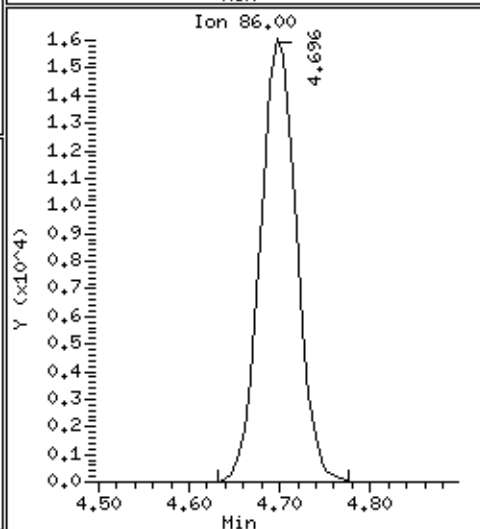
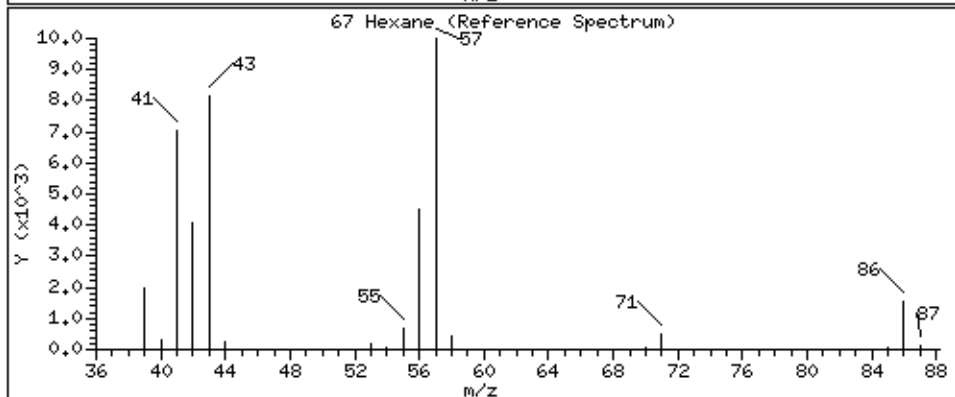
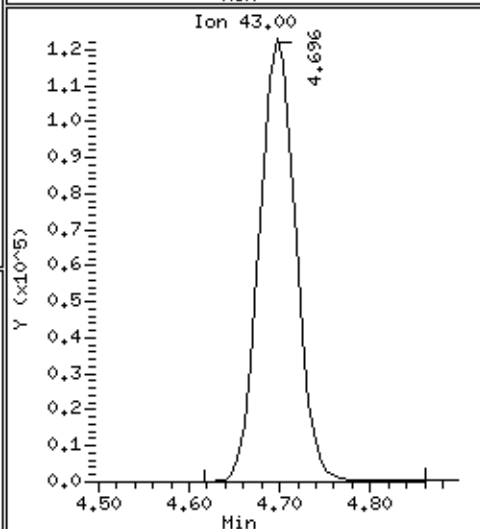
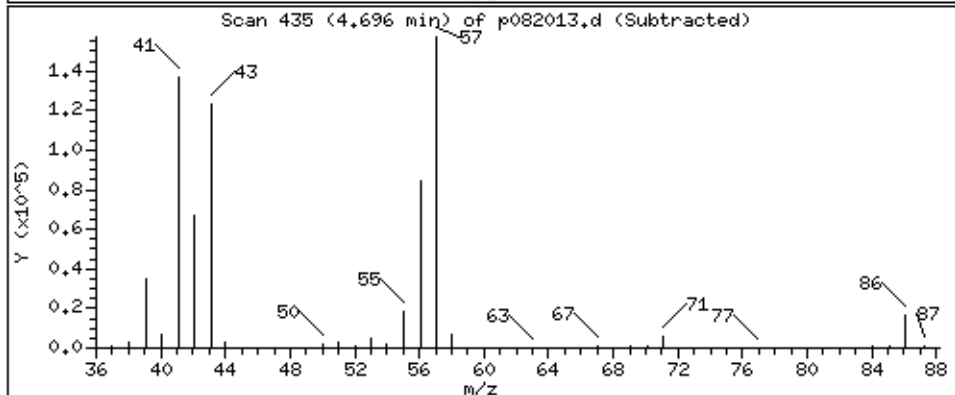
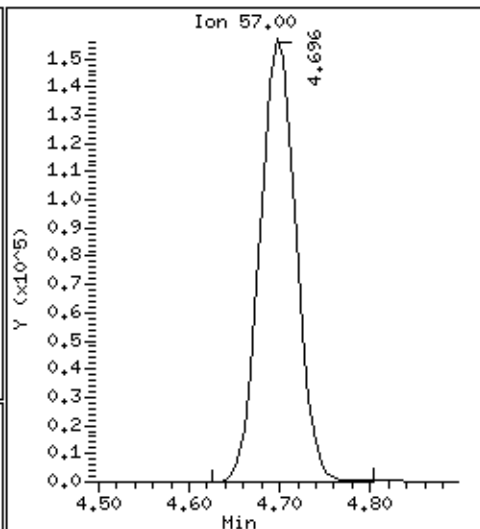
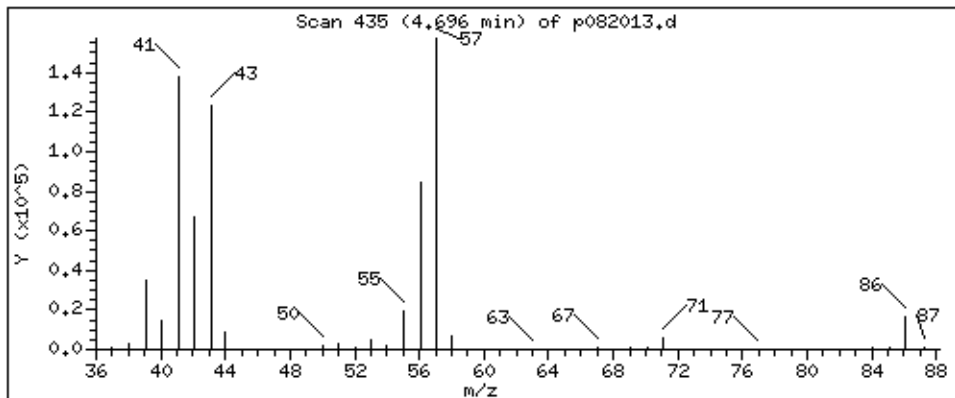
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 86,140 PPBV



Date : 20-AUG-2021 18:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00255

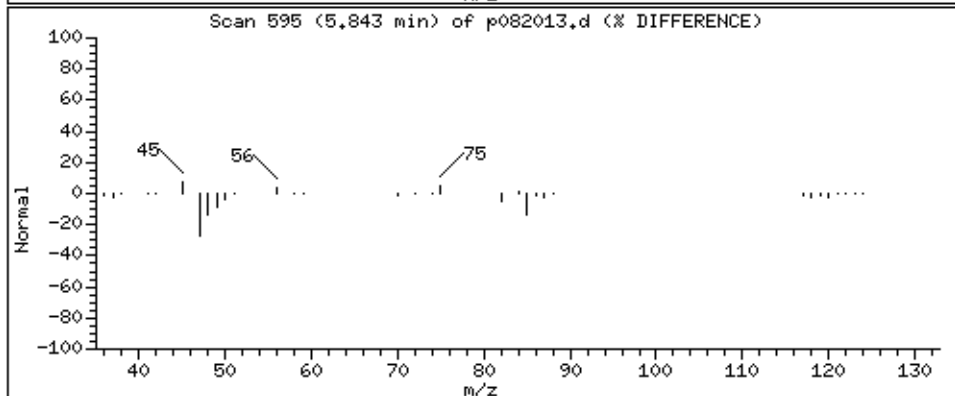
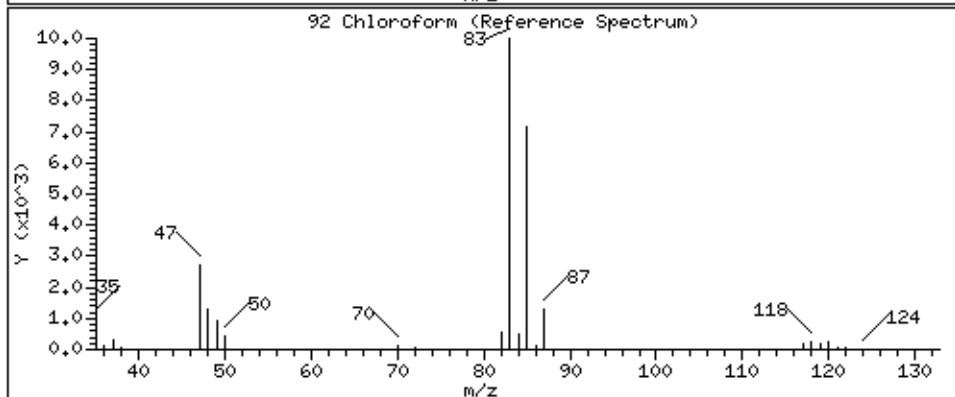
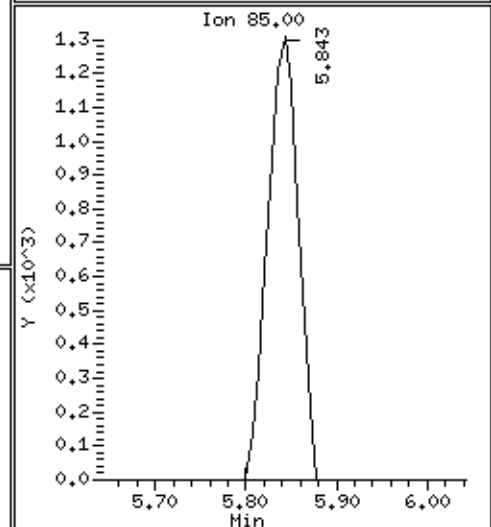
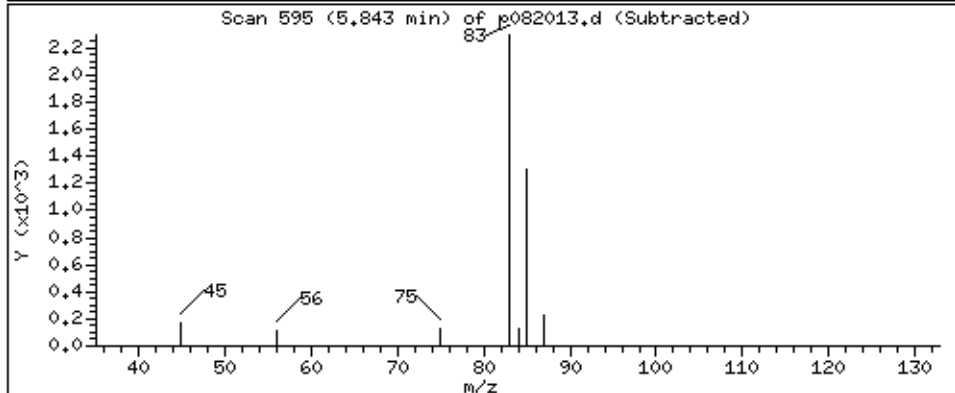
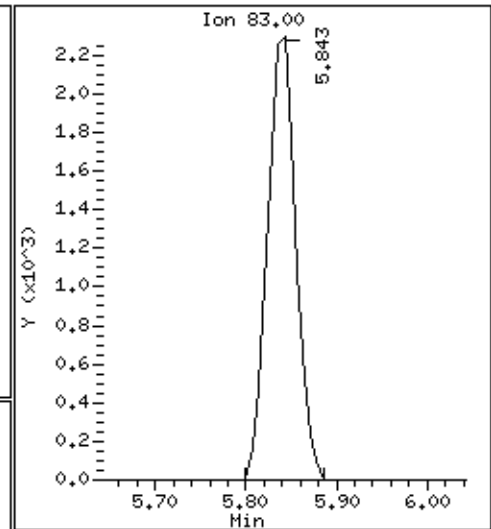
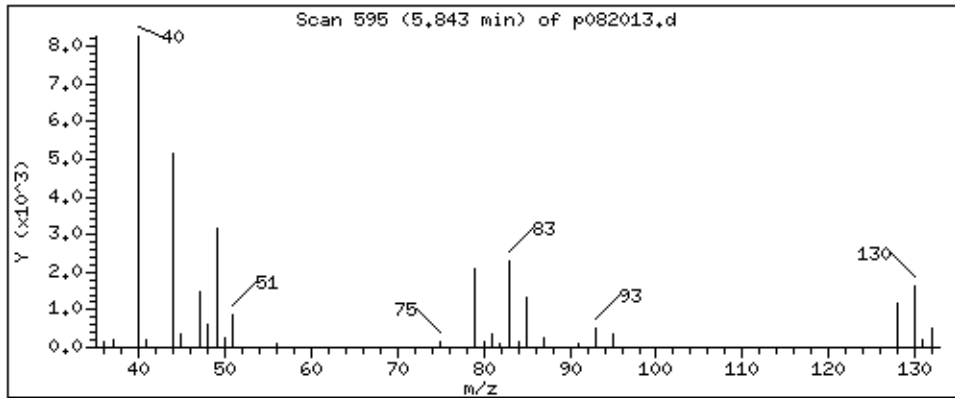
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 1,115 PPBV



Date : 20-AUG-2021 18:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00255

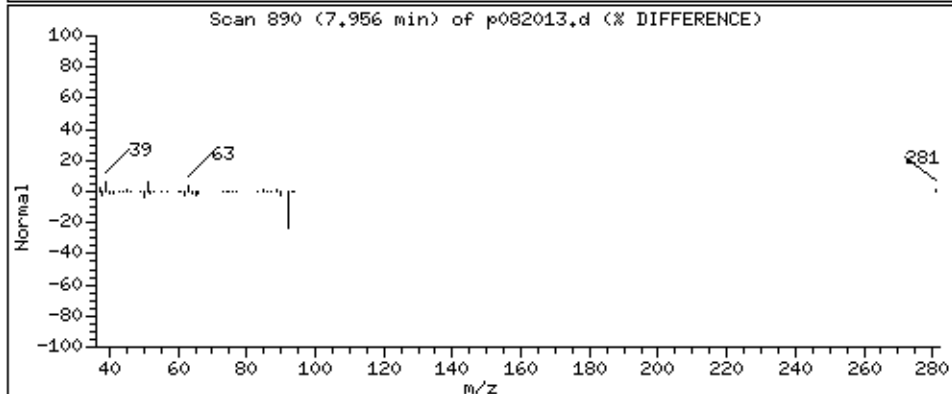
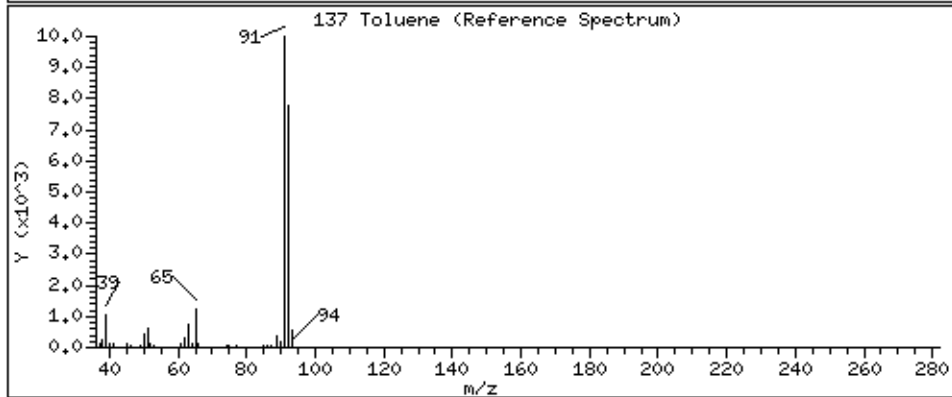
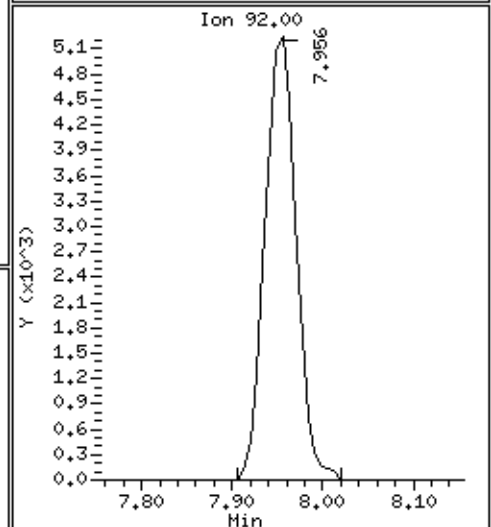
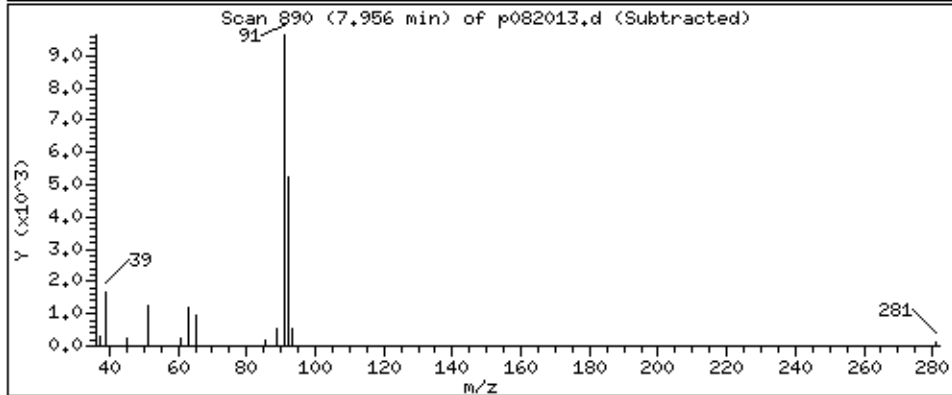
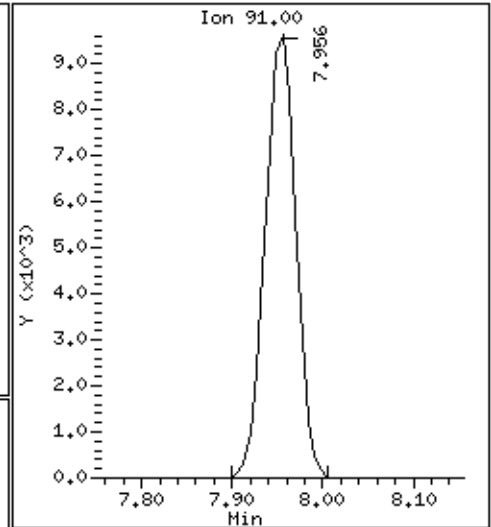
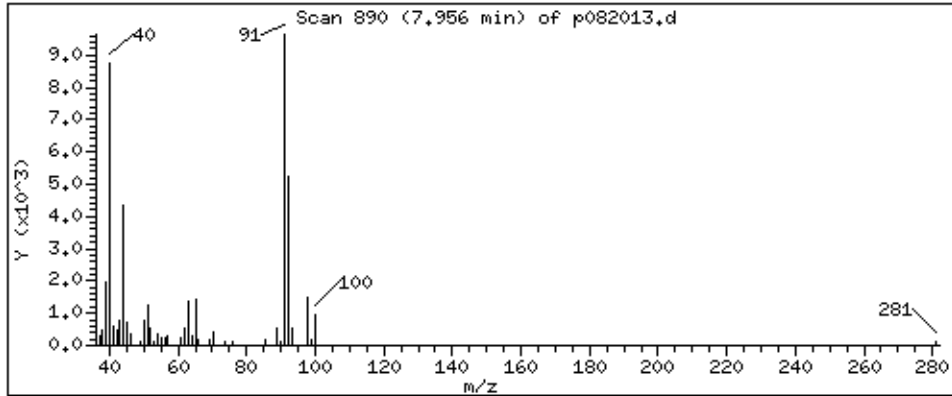
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 2.733 PPBV



Date : 20-AUG-2021 18:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00255

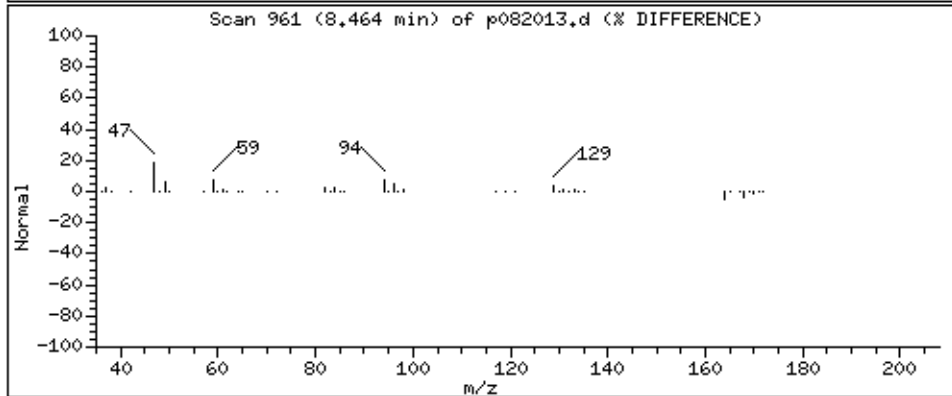
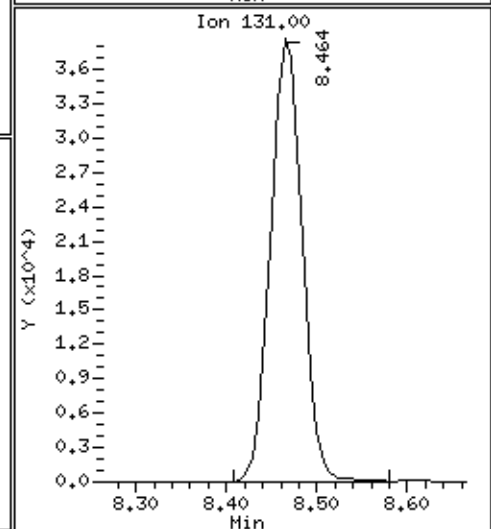
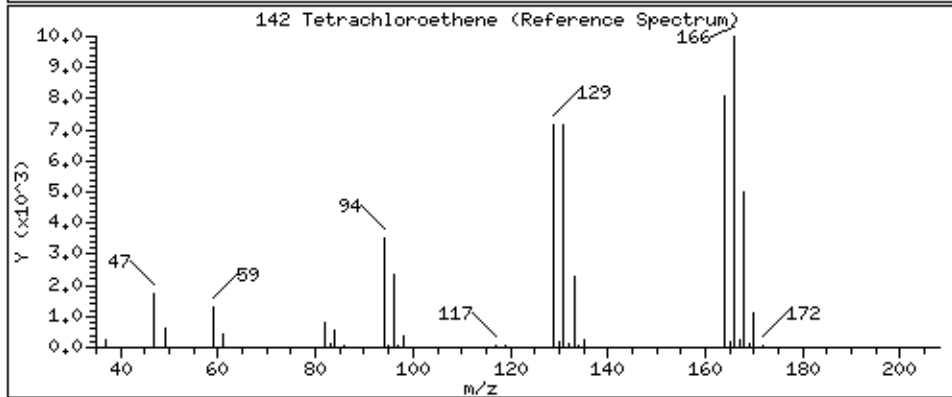
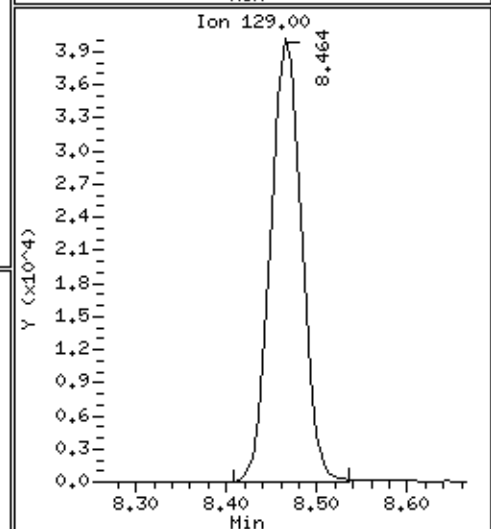
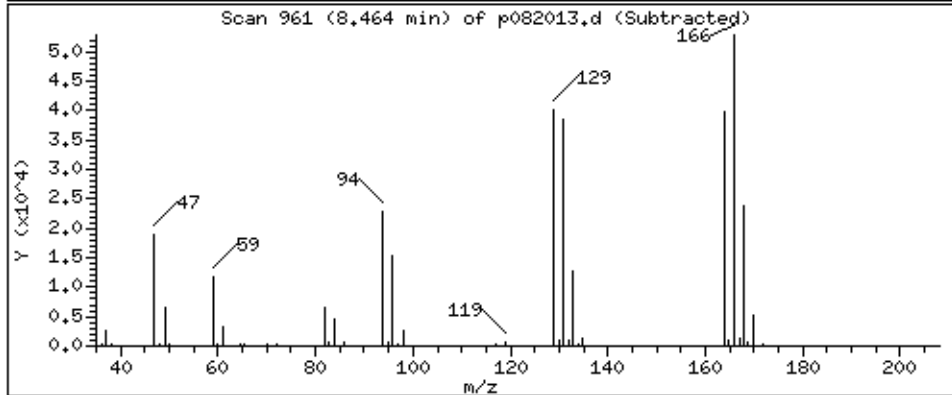
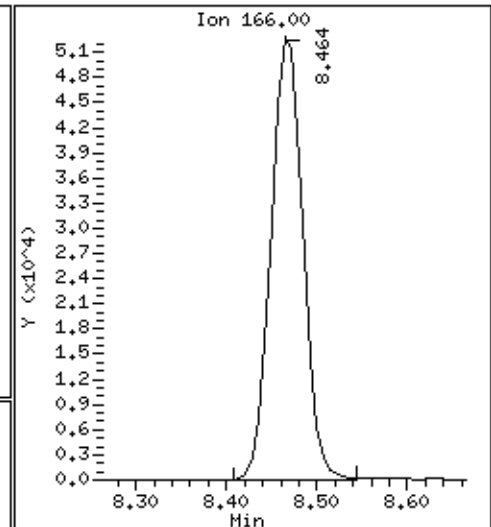
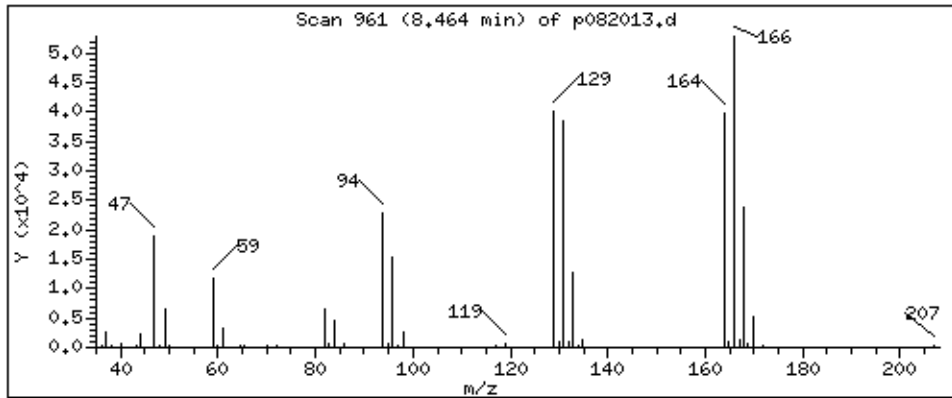
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 29,626 PPBV



Date : 20-AUG-2021 18:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00255

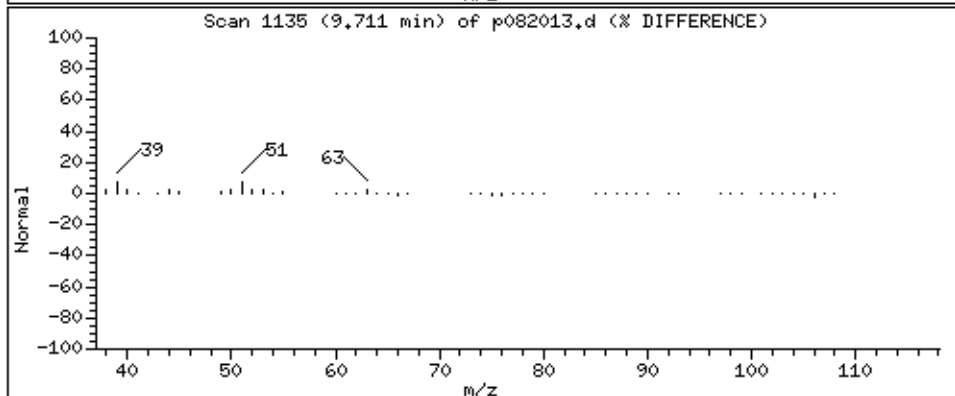
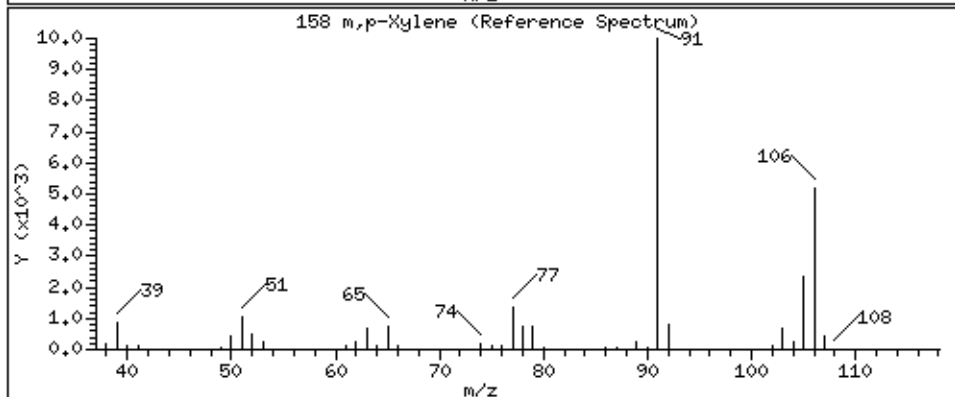
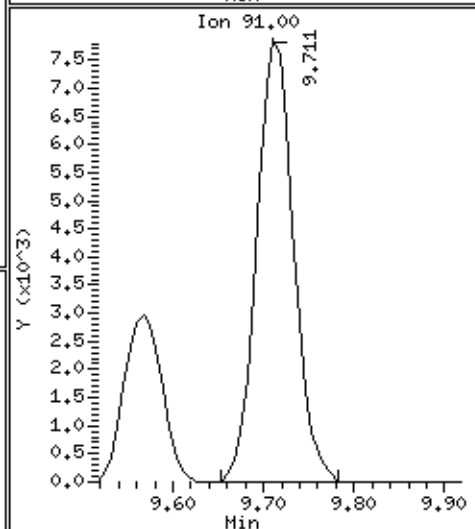
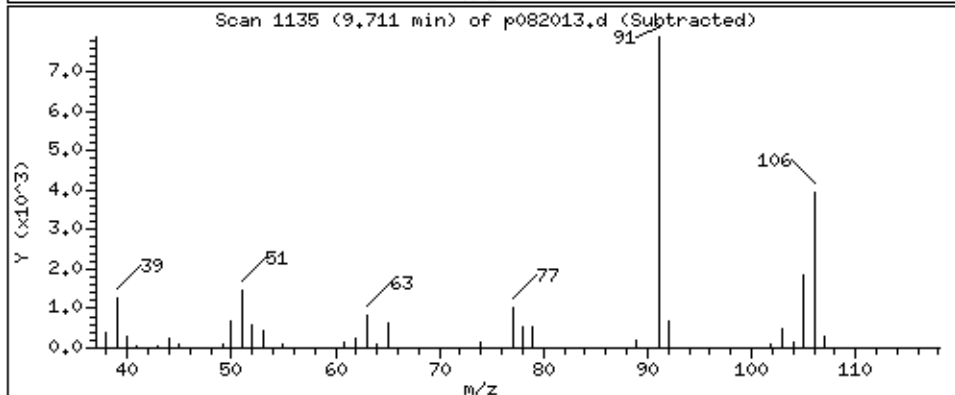
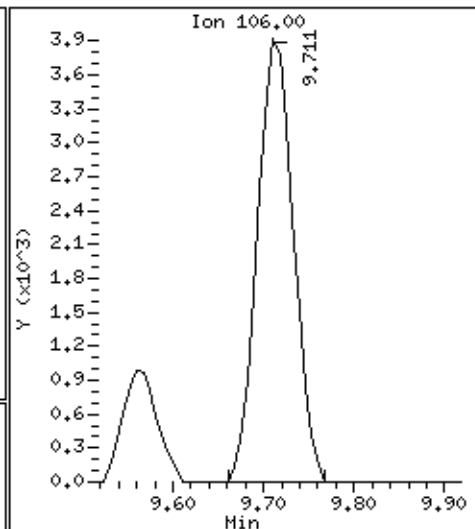
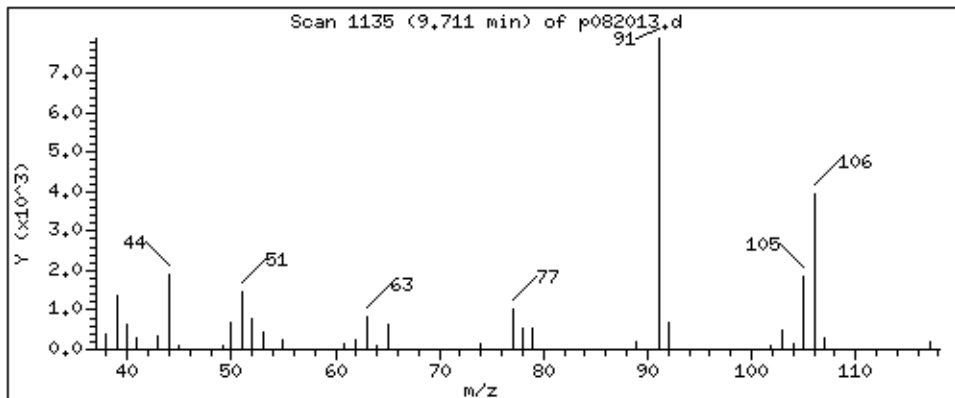
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 2.173 PPBV





Client Sample ID: SG-VW60A-02

Lab ID#: 2108390-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082014	Date of Collection:	8/16/21 12:53:00 PM
Dil. Factor:	2.02	Date of Analysis:	8/20/21 06:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.0	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
1,1-Difluoroethane	4.0	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.0	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2-Dibromo-3-chloropropane	4.0	Not Detected	39	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
2-Hexanone	4.0	Not Detected	16	Not Detected
2-Propanol	4.0	Not Detected	9.9	Not Detected
3-Chloropropene	4.0	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.0	Not Detected	9.3	Not Detected
Acrylonitrile	4.0	Not Detected	8.8	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
Benzene	1.0	1.5	3.2	4.7
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Chloroethane	4.0	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	4.9	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected



Air Toxics

Client Sample ID: SG-VW60A-02

Lab ID#: 2108390-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082014	Date of Collection:	8/16/21 12:53:00 PM
Dil. Factor:	2.02	Date of Analysis:	8/20/21 06:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
Dibromomethane	4.0	Not Detected	29	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Ethyl Acetate	4.0	Not Detected	14	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
Ethyl-tert-butyl ether	4.0	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Freon 12	1.0	1.6	5.0	7.7
Freon 113	1.0	Not Detected	7.7	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Freon 134a	4.0	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected
Hexachloroethane	4.0	Not Detected	39	Not Detected
Hexane	1.0	120	3.6	420
Iodomethane	10	Not Detected	59	Not Detected
Isopropyl ether	4.0	Not Detected	17	Not Detected
m,p-Xylene	1.0	2.2	4.4	9.8
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
o-Xylene	1.0	1.1	4.4	4.6
Propylbenzene	1.0	Not Detected	5.0	Not Detected
Propylene	4.0	Not Detected	7.0	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
tert-Amyl methyl ether	4.0	Not Detected	17	Not Detected
tert-Butyl alcohol	4.0	Not Detected	12	Not Detected
Tetrachloroethene	1.0	14	6.8	96
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	1.9	3.8	7.0
TPH ref. to Gasoline (MW=100)	100	230	410	940
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Trichloroethene	1.0	Not Detected	5.4	Not Detected
Vinyl Acetate	4.0	Not Detected	14	Not Detected
Vinyl Bromide	4.0	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW60A-02

Lab ID#: 2108390-07A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082014	Date of Collection: 8/16/21 12:53:00 PM
Dil. Factor:	2.02	Date of Analysis: 8/20/21 06:53 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	107	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082014.d  
Lab Smp Id: 2108390-07A  
Inj Date : 20-AUG-2021 18:53  
Operator : mjb  
Smp Info : 200ml 1L1569  
Misc Info : 5.0 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
Meth Date : 20-Aug-2021 12:59 p5fl  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 7  
Dil Factor: 2.02000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE		RATIO	
				ON-COL	FINAL	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 90 Bromochloromethane CAS #: 74-97-5									
5.785	5.785	(1.000)	130	108206	25.0000	80.00-	120.00	100.00	
5.785	5.785	(1.000)	128	82556		48.23-	108.23	76.30	
5.785	5.778	(1.000)	49	243753		150.57-	210.57	225.27	
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.666	6.659	(1.000)	114	388212	25.0000	80.00-	120.00	100.00	
6.666	6.659	(1.000)	88	55694		0.00-	45.71	14.35	
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
9.460	9.460	(1.000)	117	397526	25.0000	80.00-	120.00	100.00	
9.460	9.460	(1.000)	82	205488		23.78-	83.78	51.69	
-----									
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
6.315	6.315	(1.092)	65	161809	27.0964	27.096	80.00-	120.00	100.00
6.315	6.315	(1.092)	67	75720		27.21-	87.21	46.80	
-----									
\$ 134 Toluene-d8 CAS #: 2037-26-5									
7.891	7.891	(1.184)	98	423568	25.1261	25.126	80.00-	120.00	100.00
7.891	7.891	(1.184)	70	44836		0.00-	40.44	10.59	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	275512			34.95- 94.95	65.05
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	274031	26.8447	26.845	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	315819			95.92- 155.92	115.25
10.921	10.921	(1.154)	176	255979			66.89- 126.89	93.41
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.730	1.717	(0.299)	85	7458	0.76848	1.552	80.00- 120.00	100.00
1.730	1.717	(0.299)	87	2280			2.37- 62.37	30.58
-----								
67 Hexane								
						CAS #: 110-54-3		
4.696	4.697	(0.812)	57	631781	59.2691	119.72	80.00- 120.00	100.00
4.696	4.697	(0.812)	43	497373			37.52- 97.52	78.73
4.696	4.697	(0.812)	86	63375			0.00- 41.48	10.03
-----								
102 Benzene								
						CAS #: 71-43-2		
6.301	6.301	(0.945)	78	9288	0.72501	1.464	80.00- 120.00	100.00
6.301	6.301	(0.945)	77	2269			0.00- 52.90	24.43
-----								
137 Toluene								
						CAS #: 108-88-3		
7.956	7.956	(1.193)	91	16352	0.92517	1.869	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	9515			28.38- 88.38	58.19
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	63803	7.04232	14.225	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	49715			47.84- 107.84	77.92
8.464	8.464	(0.895)	131	47054			45.29- 105.29	73.75
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
9.711	9.718	(1.026)	106	11506	1.11301	2.248	80.00- 120.00	100.00
9.711	9.718	(1.026)	91	21417			163.73- 223.73	186.14
-----								
164 o-Xylene								
						CAS #: 95-47-6		
10.233	10.226	(1.082)	106	5224	0.52743	1.065	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	10873			177.45- 237.45	208.13
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p082014.d  
Lab Smp Id: 2108390-07A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: mjb  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 5.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
Calibration Time: 11:13  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	108206	-1.07
108 1,4-Difluorobenze	406799	244079	569519	388212	-4.57
153 Chlorobenzene-d5	400841	240505	561177	397526	-0.83

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-07A  
Level: LOW Operator: mjb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 5.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.096	108.39	70-130
\$ 134 Toluene-d8	25.000	25.126	100.50	70-130
\$ 170 4-Bromofluorobenz	25.000	26.845	107.38	70-130

Date : 20-AUG-2021 18:53

Client ID:

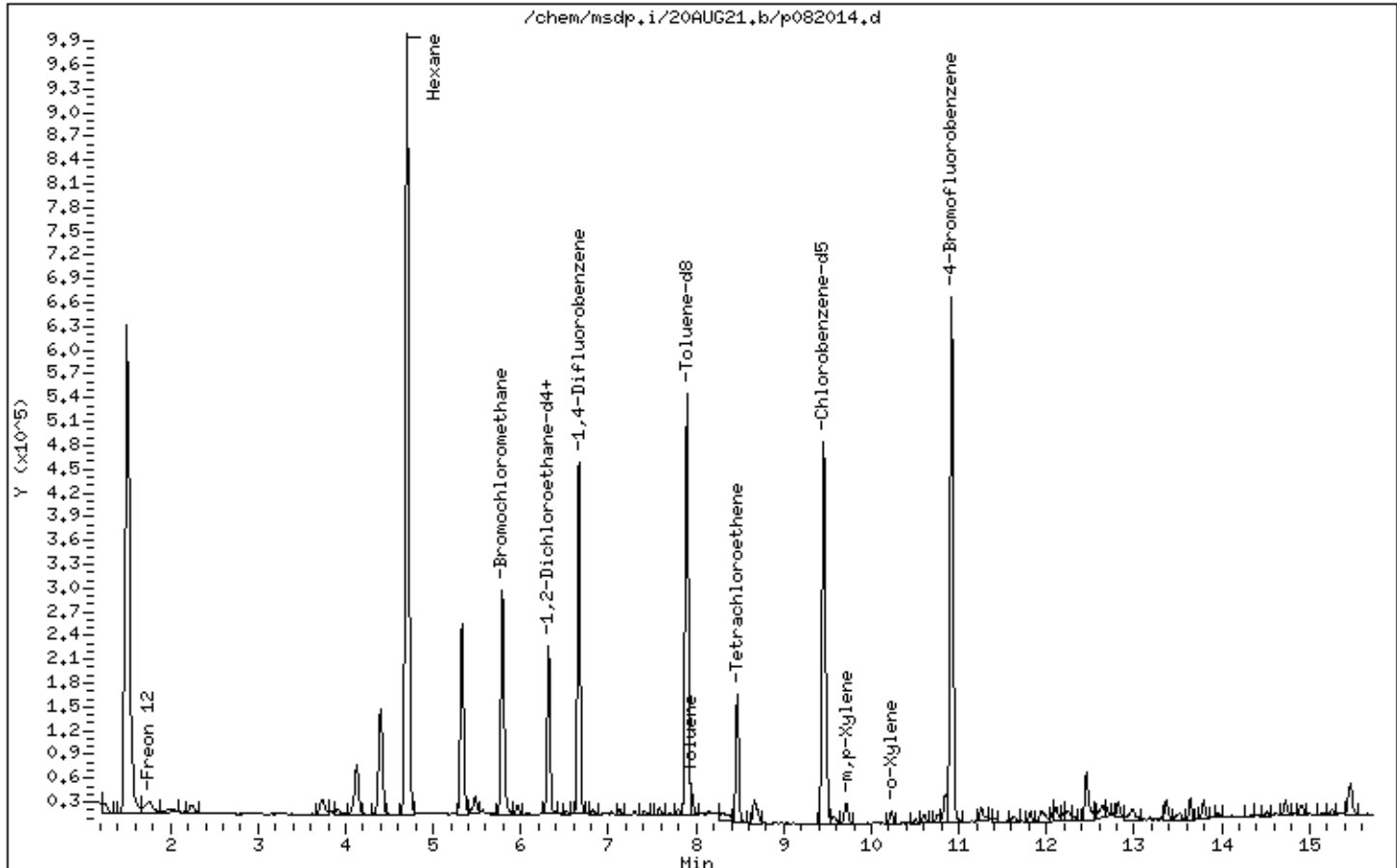
Instrument: msdp.i

Sample Info: 200ml 1L1569

Operator: mjb

Column phase: RTX-624

Column diameter: 0.25





Date : 20-AUG-2021 18:53

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1569

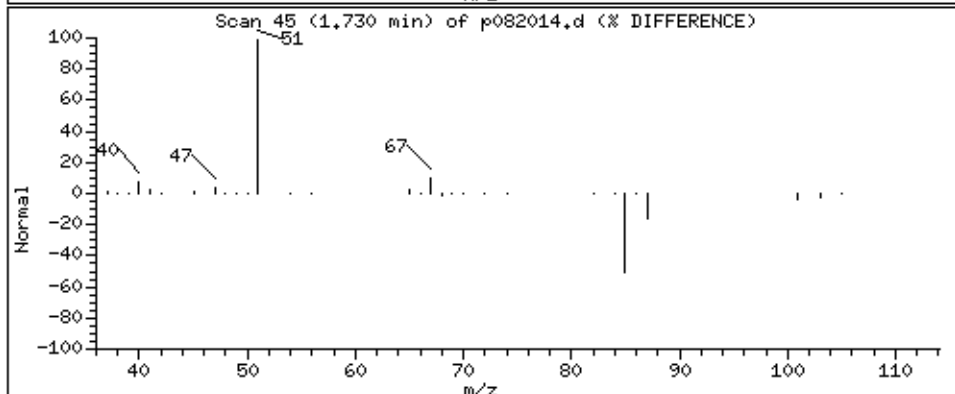
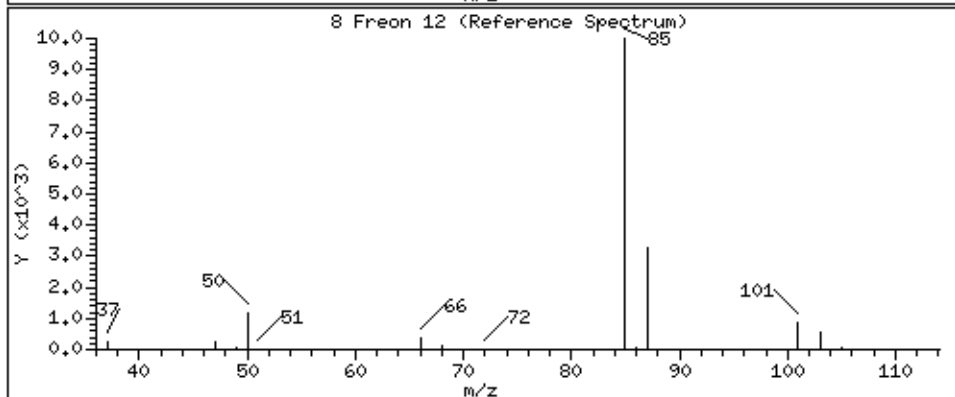
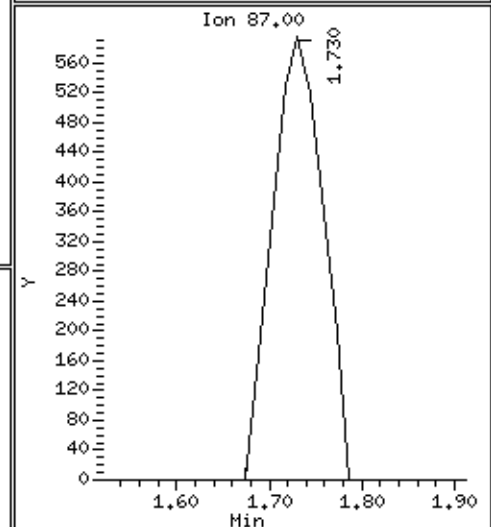
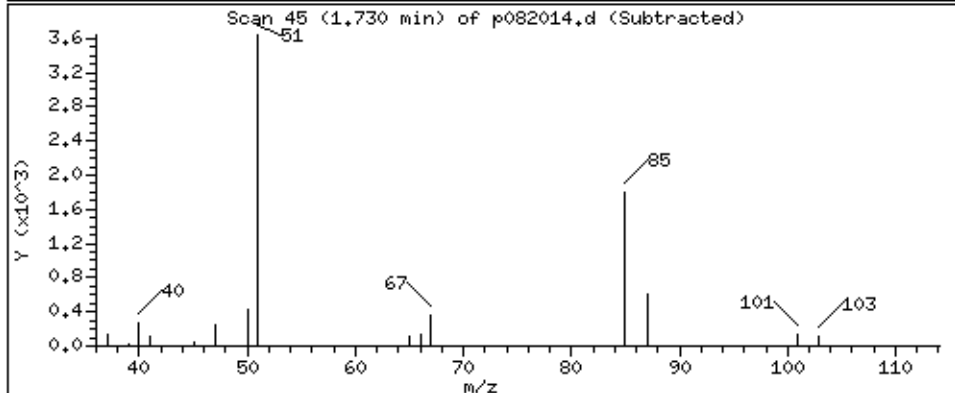
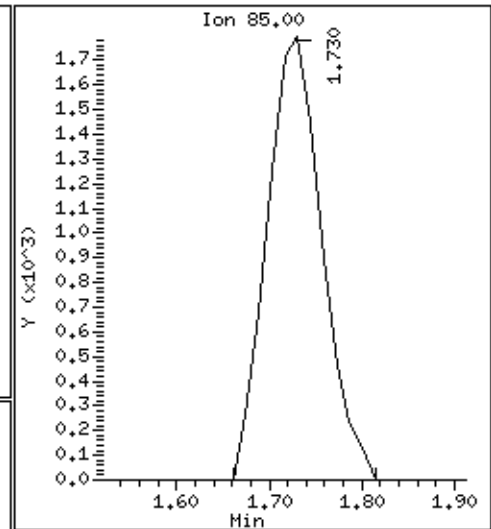
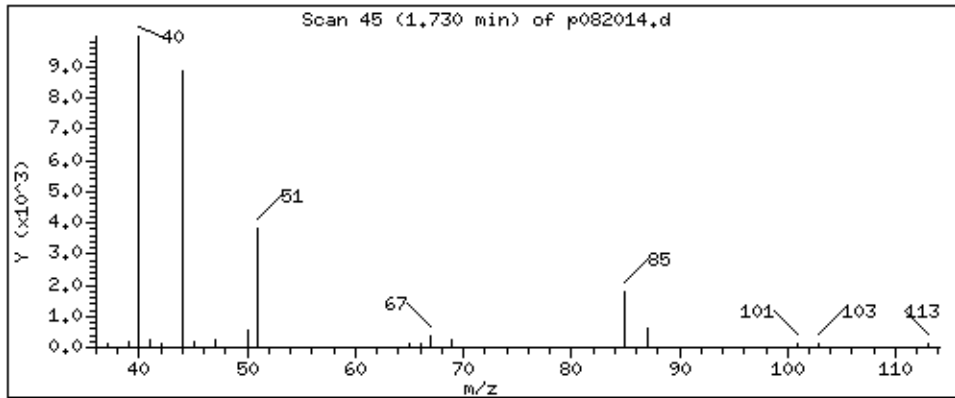
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 1,552 PPBV



Date : 20-AUG-2021 18:53

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1569

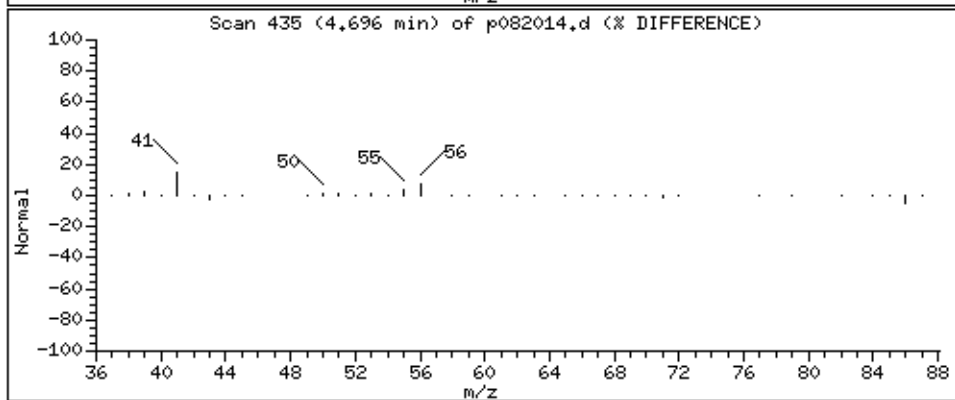
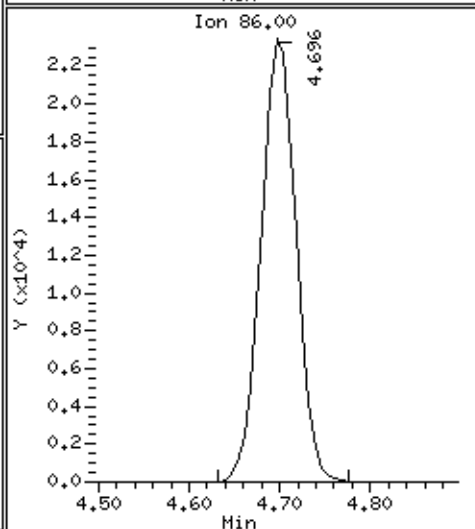
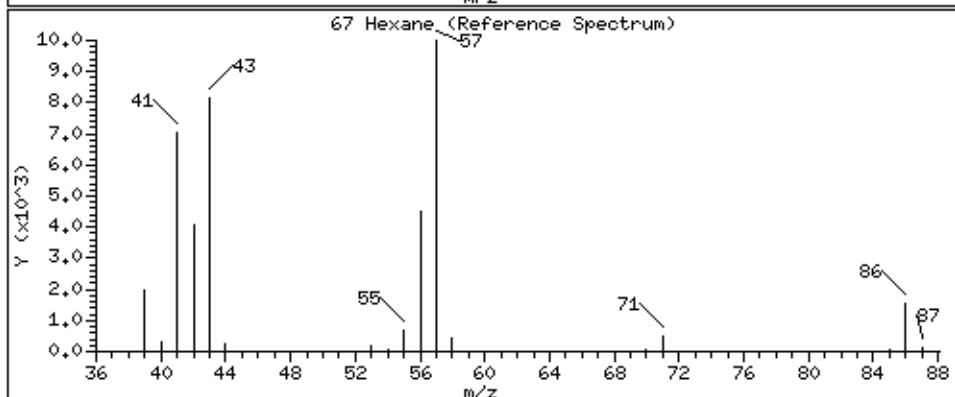
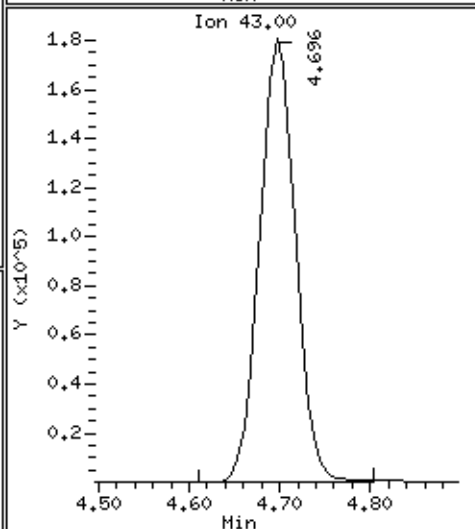
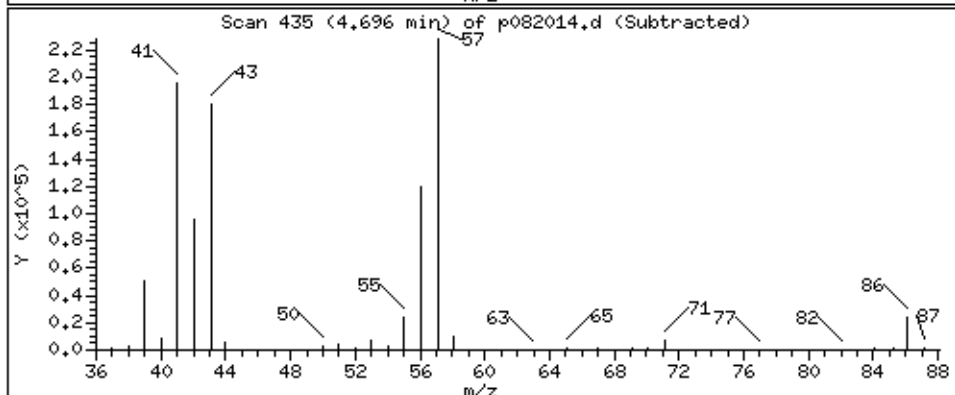
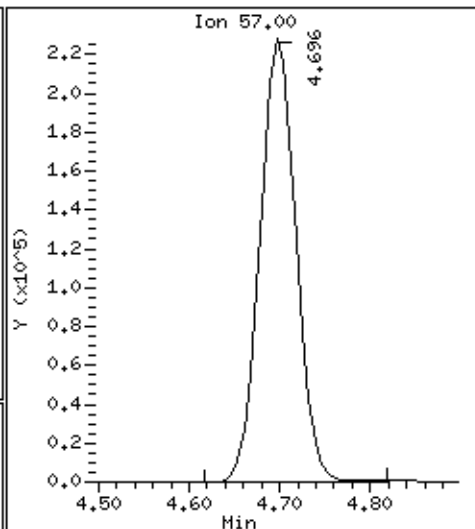
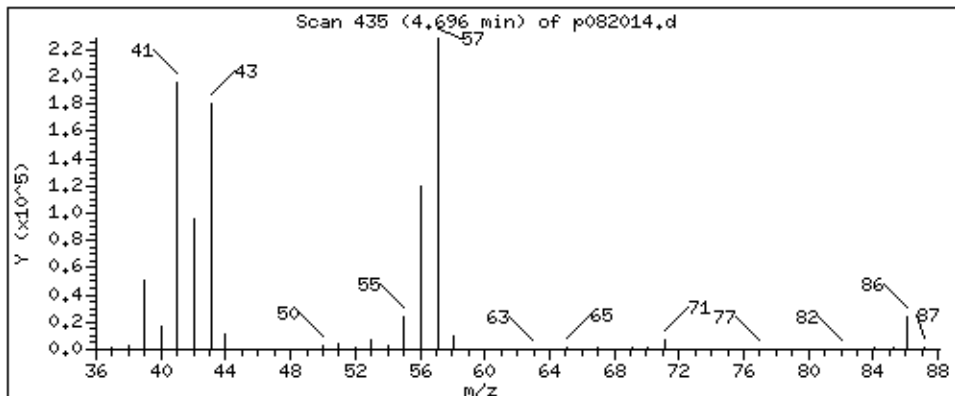
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 119.72 PPBV



Date : 20-AUG-2021 18:53

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1569

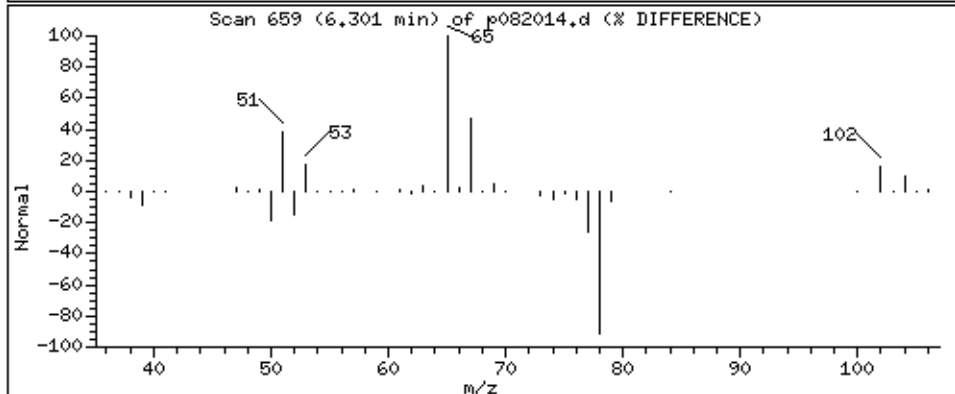
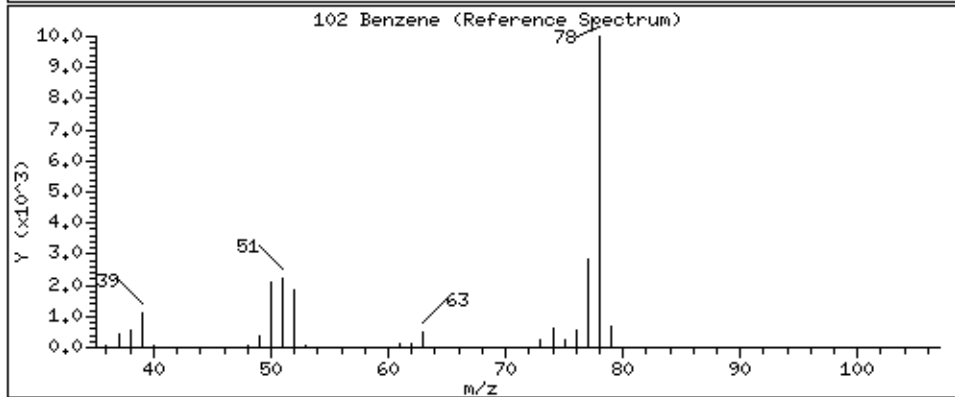
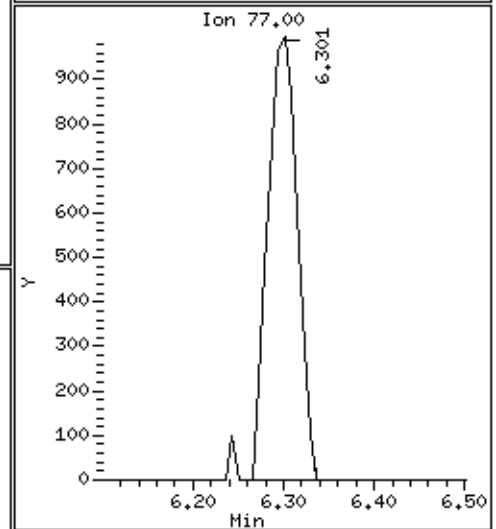
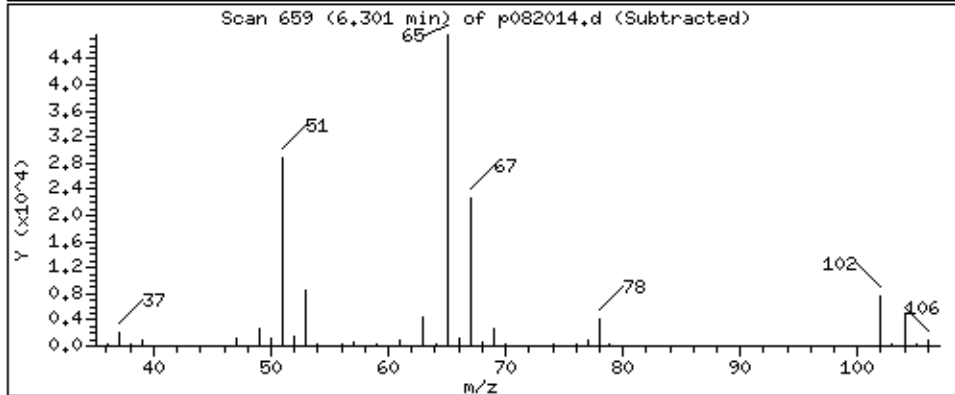
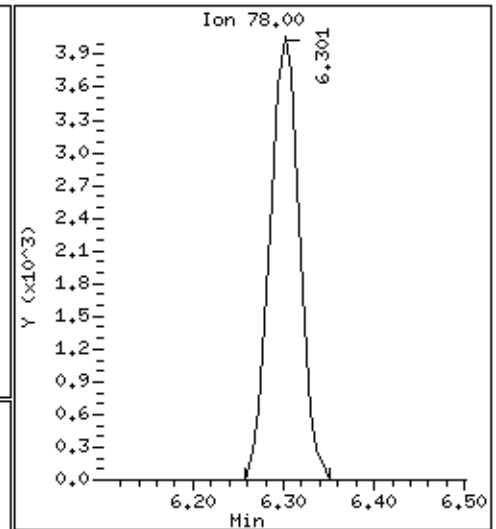
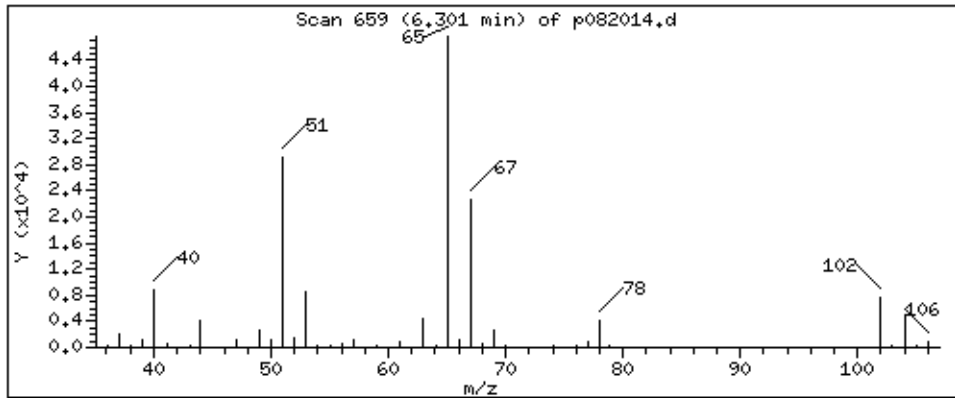
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

102 Benzene

Concentration: 1.464 PPBV



Date : 20-AUG-2021 18:53

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1569

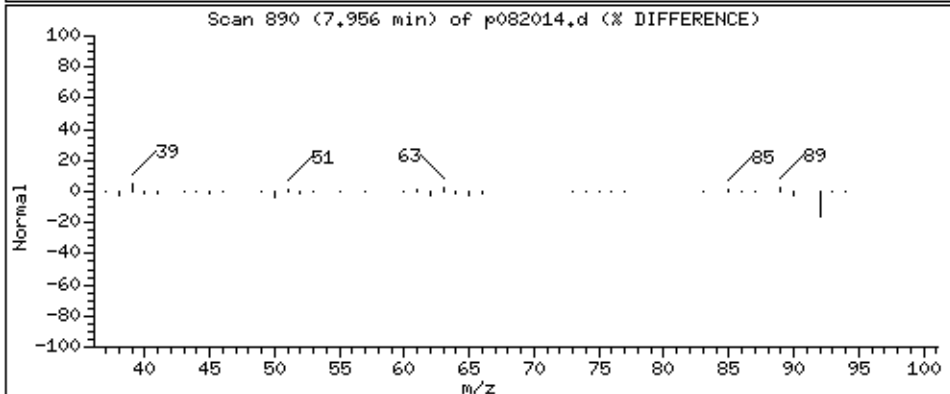
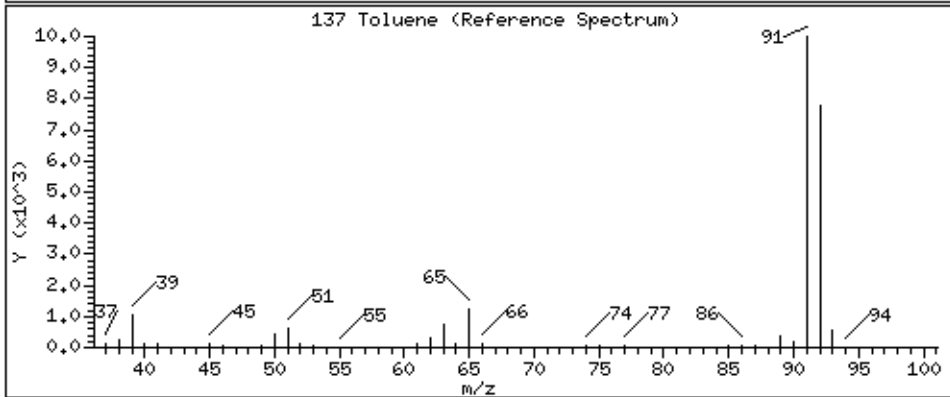
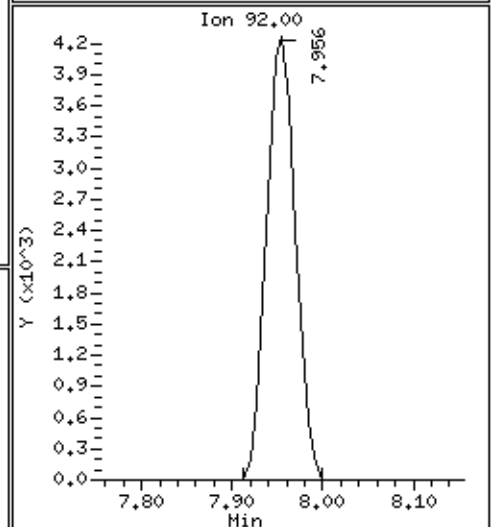
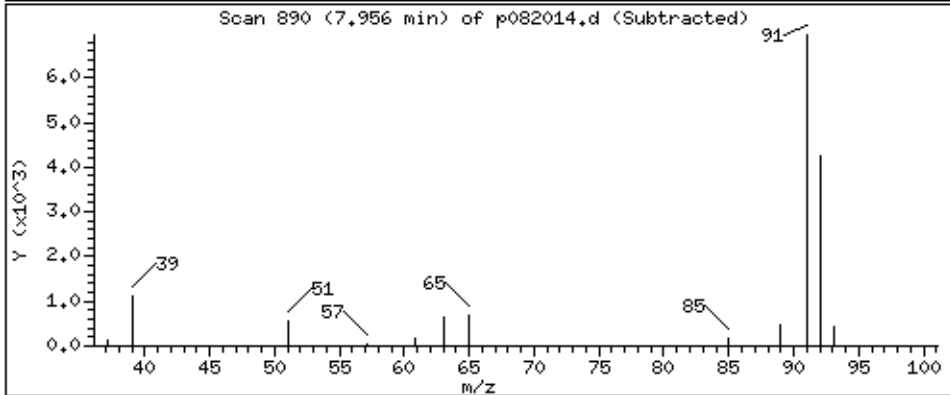
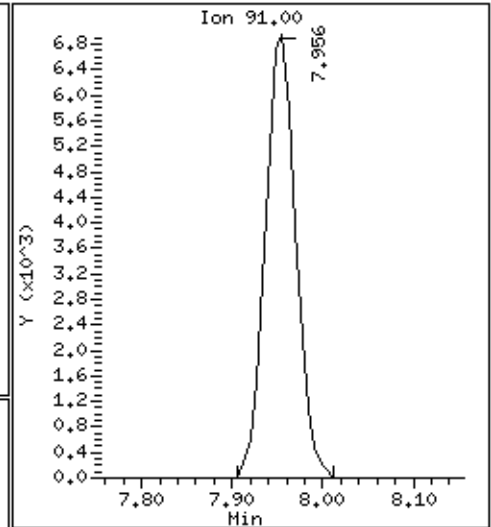
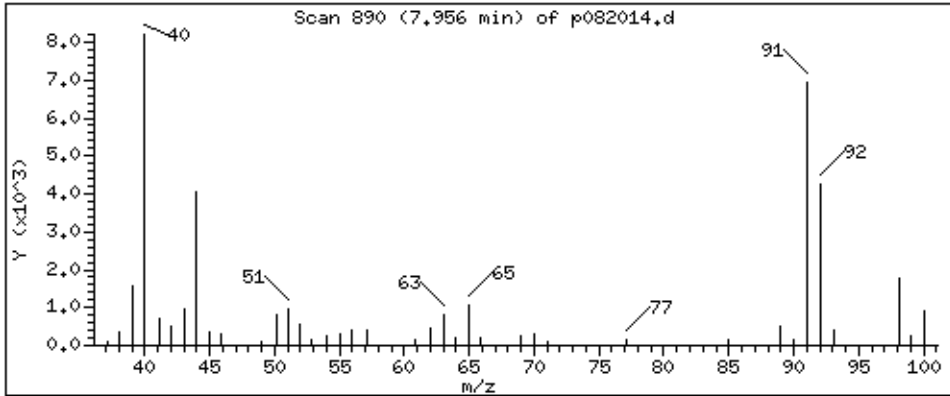
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 1.869 PPBV



Date : 20-AUG-2021 18:53

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1569

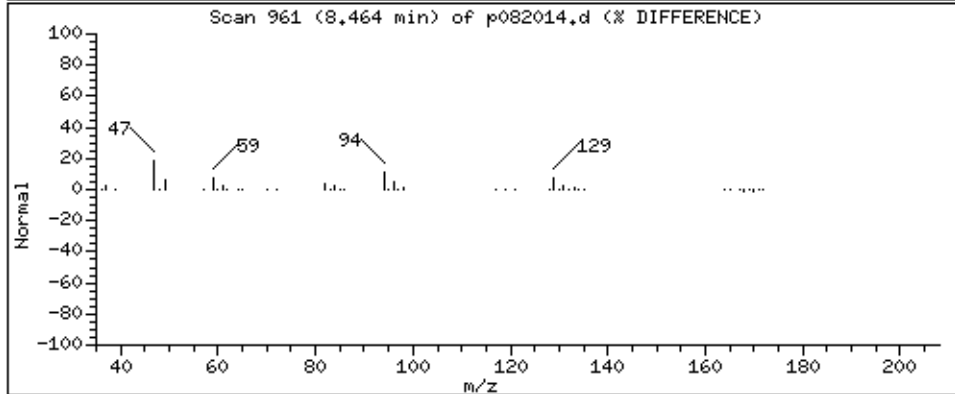
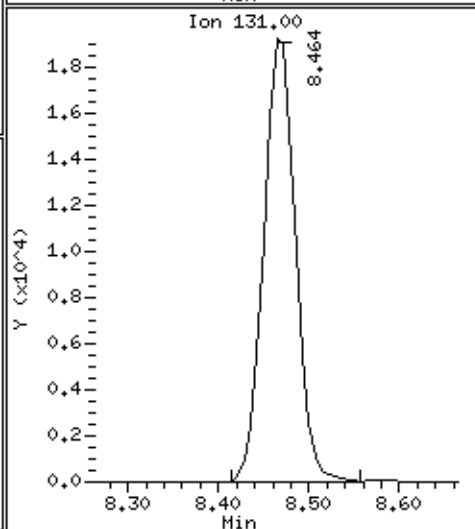
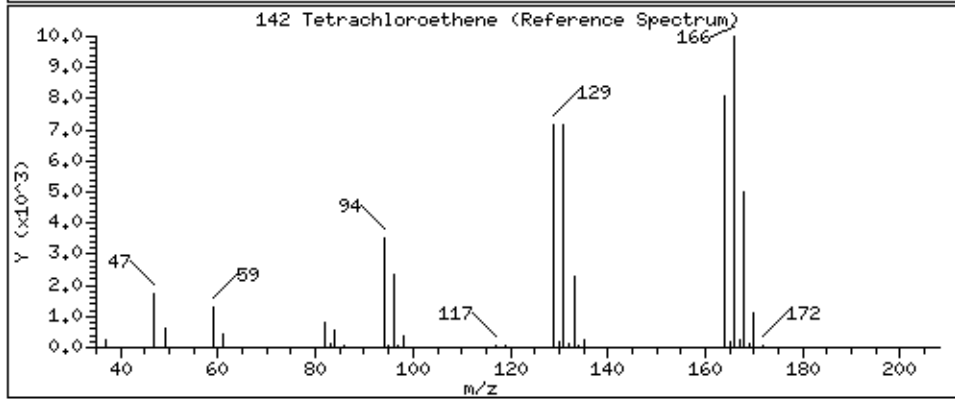
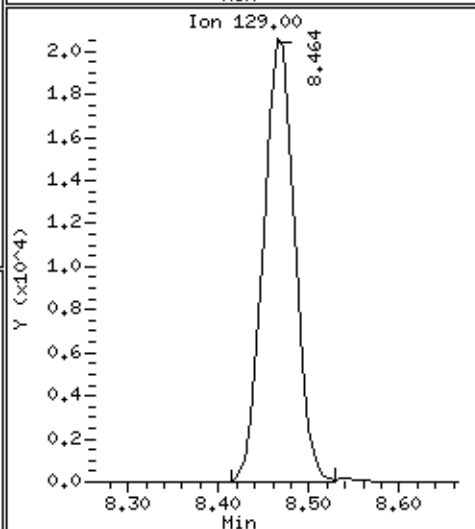
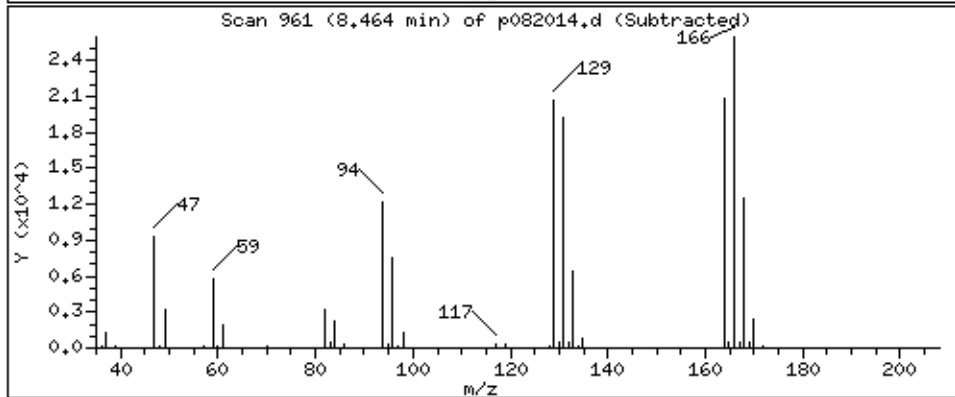
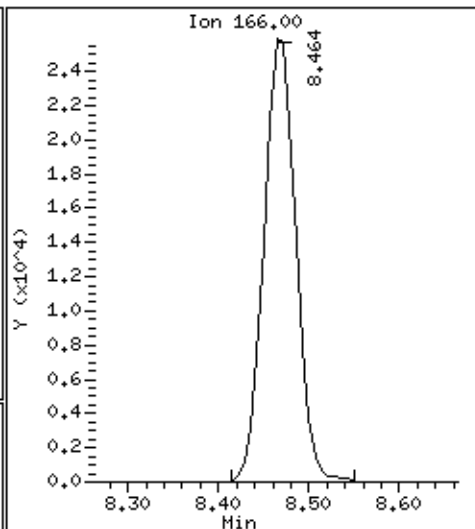
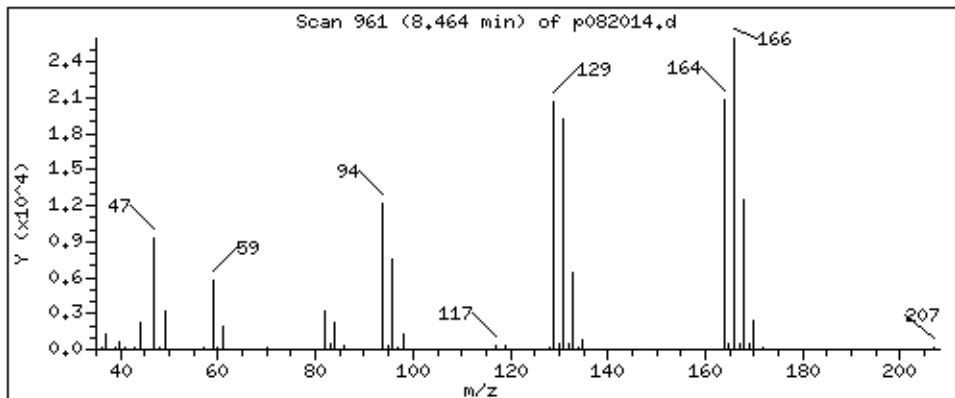
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 14,225 PPBV



Date : 20-AUG-2021 18:53

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1569

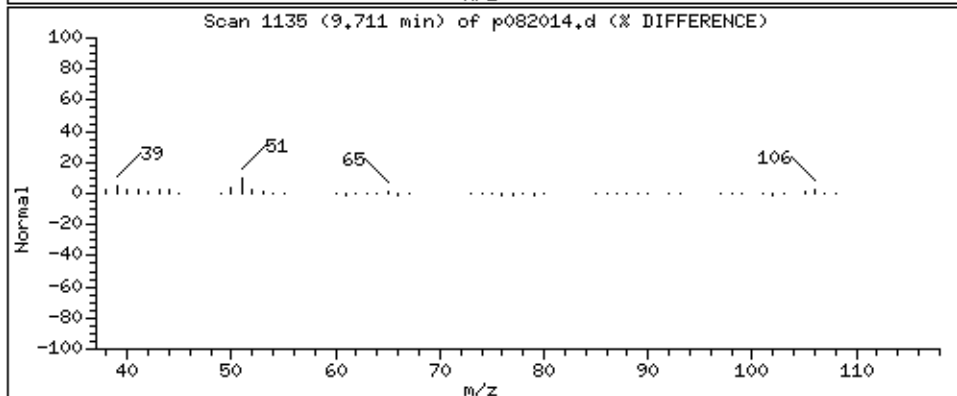
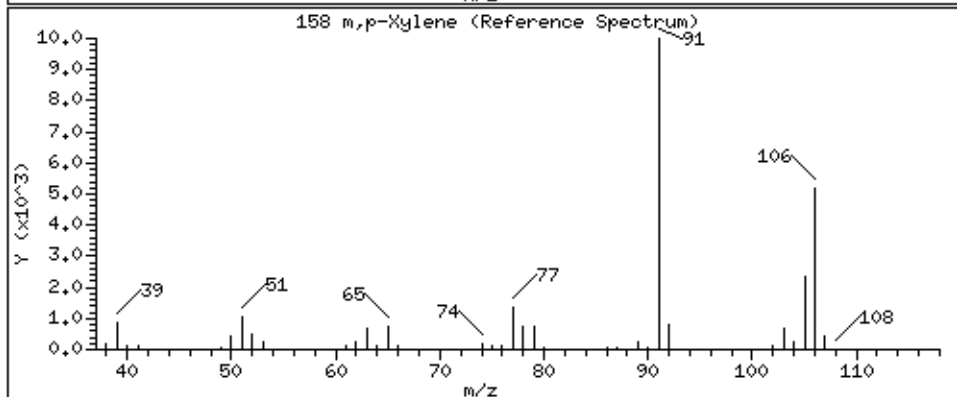
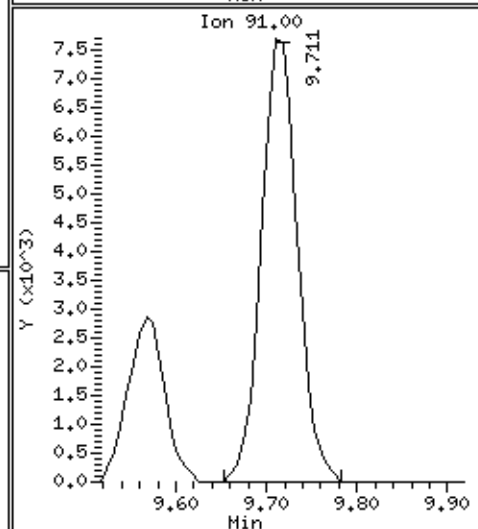
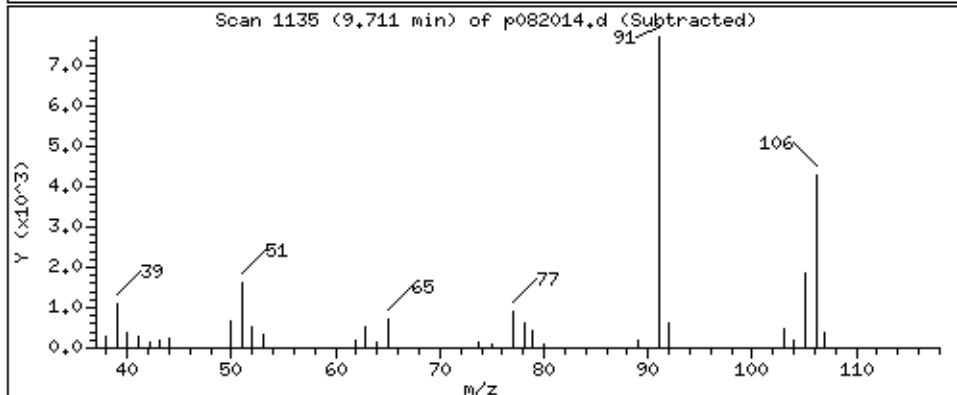
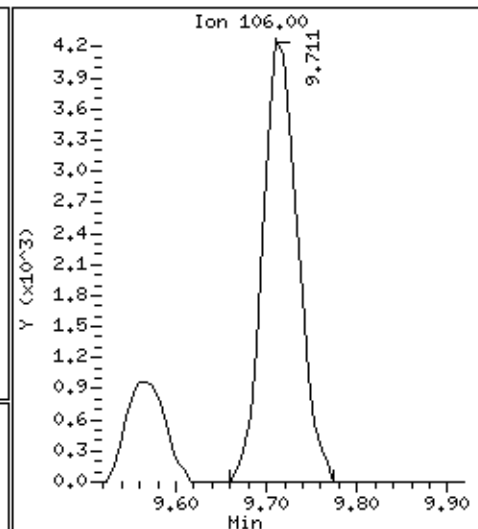
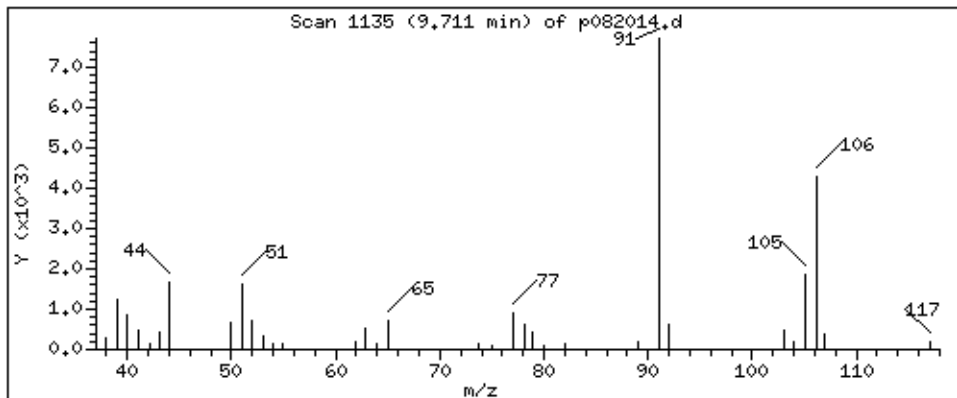
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 2.248 PPBV



Date : 20-AUG-2021 18:53

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1569

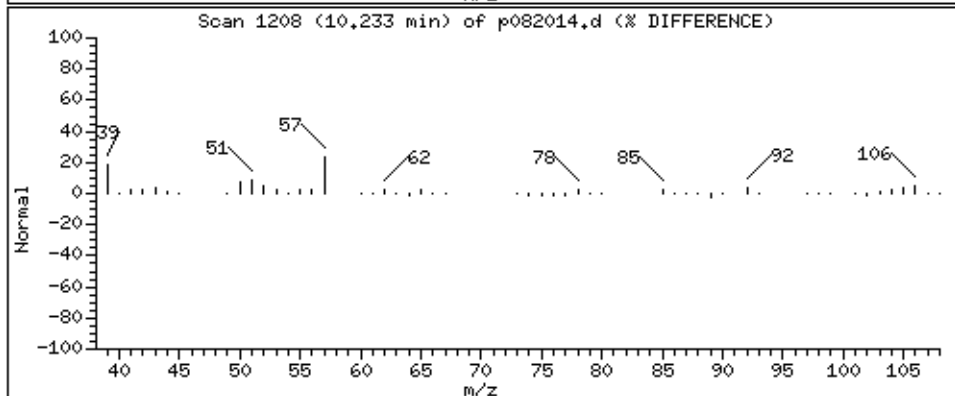
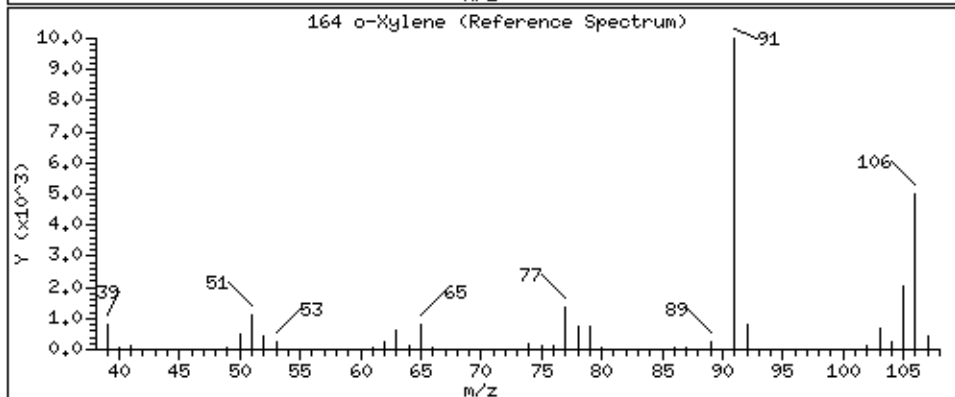
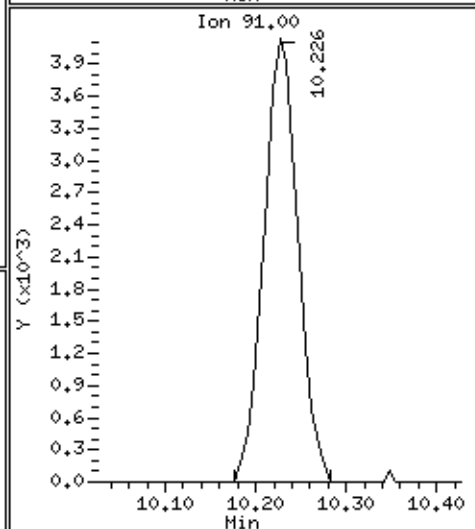
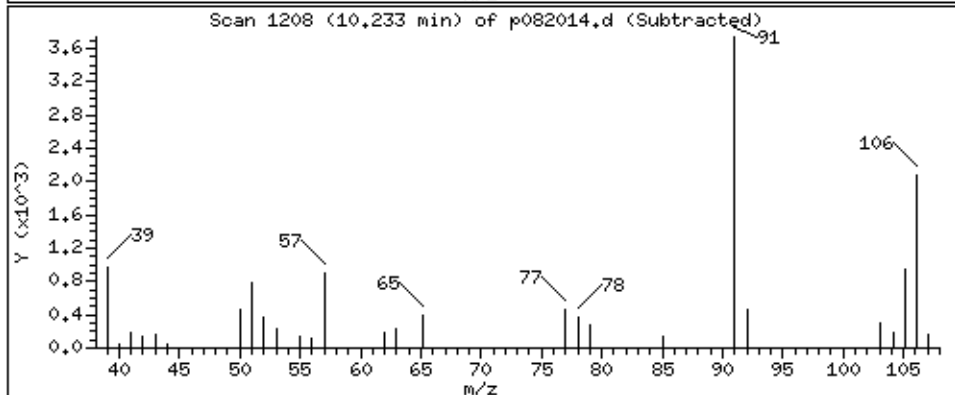
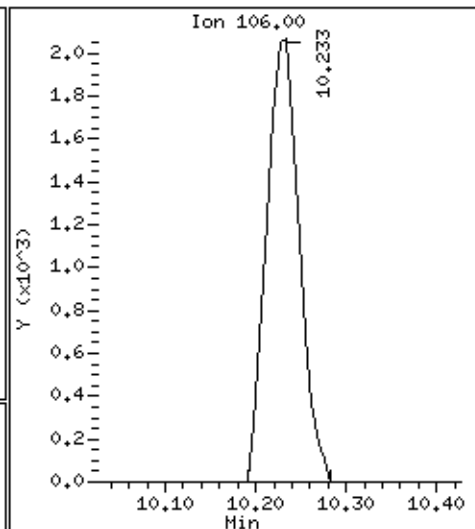
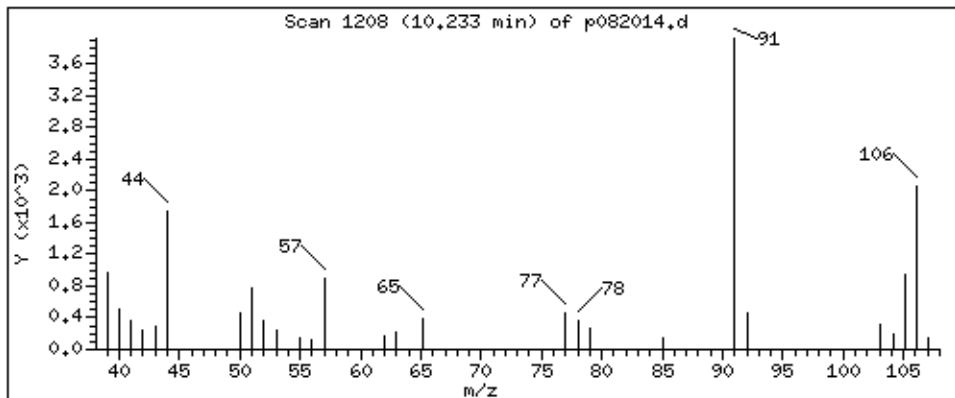
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 1.065 PPBV



Client Sample ID: SG-VW61A-02

Lab ID#: 2108390-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082026	Date of Collection:	8/16/21 1:26:00 PM
Dil. Factor:	2.19	Date of Analysis:	8/21/21 02:43 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.4	Not Detected	30	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.5	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1-Difluoroethane	4.4	5.2	12	14
1,2,3-Trichloropropane	4.4	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,2-Dibromo-3-chloropropane	4.4	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.4	Not Detected	13	Not Detected
2-Hexanone	4.4	Not Detected	18	Not Detected
2-Propanol	4.4	Not Detected	11	Not Detected
3-Chloropropene	4.4	Not Detected	14	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
Acetone	11	17	26	40
Acrolein	4.4	Not Detected	10	Not Detected
Acrylonitrile	4.4	Not Detected	9.5	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
Benzene	1.1	Not Detected	3.5	Not Detected
Bromodichloromethane	1.1	2.2	7.3	15
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Carbon Disulfide	4.4	Not Detected	14	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.9	Not Detected
Chlorobenzene	1.1	Not Detected	5.0	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
Chloroform	1.1	49	5.3	240
Chloromethane	11	Not Detected	23	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected



Client Sample ID: SG-VW61A-02

Lab ID#: 2108390-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082026	Date of Collection:	8/16/21 1:26:00 PM
Dil. Factor:	2.19	Date of Analysis:	8/21/21 02:43 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Cumene	1.1	Not Detected	5.4	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Dibromochloromethane	1.1	Not Detected	9.3	Not Detected
Dibromomethane	4.4	Not Detected	31	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Ethyl Acetate	4.4	Not Detected	16	Not Detected
Ethyl Benzene	1.1	1.8	4.8	7.7
Ethyl-tert-butyl ether	4.4	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.2	Not Detected
Freon 12	1.1	1.3	5.4	6.3
Freon 113	1.1	Not Detected	8.4	Not Detected
Freon 114	1.1	Not Detected	7.6	Not Detected
Freon 134a	4.4	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.5	Not Detected
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected
Hexachloroethane	4.4	Not Detected	42	Not Detected
Hexane	1.1	86	3.8	300
Iodomethane	11	Not Detected	64	Not Detected
Isopropyl ether	4.4	Not Detected	18	Not Detected
m,p-Xylene	1.1	4.5	4.8	19
Methyl tert-butyl ether	4.4	Not Detected	16	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
Naphthalene	2.2	Not Detected	11	Not Detected
o-Xylene	1.1	2.2	4.8	9.4
Propylbenzene	1.1	Not Detected	5.4	Not Detected
Propylene	4.4	Not Detected	7.5	Not Detected
Styrene	1.1	Not Detected	4.7	Not Detected
tert-Amyl methyl ether	4.4	Not Detected	18	Not Detected
tert-Butyl alcohol	4.4	Not Detected	13	Not Detected
Tetrachloroethene	1.1	17	7.4	120
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Toluene	1.1	2.9	4.1	11
TPH ref. to Gasoline (MW=100)	110	210	450	860
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Trichloroethene	1.1	Not Detected	5.9	Not Detected
Vinyl Acetate	4.4	Not Detected	15	Not Detected
Vinyl Bromide	4.4	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW61A-02

Lab ID#: 2108390-08A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082026	Date of Collection: 8/16/21 1:26:00 PM
Dil. Factor:	2.19	Date of Analysis: 8/21/21 02:43 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	104	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082026.d  
Lab Smp Id: 2108390-08A  
Inj Date : 21-AUG-2021 02:43  
Operator : kk  
Smp Info : 200ml O0818  
Misc Info : 7.0 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
Meth Date : 20-Aug-2021 12:59 p5f1  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 8  
Dil Factor: 2.19000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL ( PPBV)	FINAL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5		
5.785	5.785	(1.000)	130	106226	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	81714			48.23- 108.23	76.93
5.785	5.778	(1.000)	49	269857			150.57- 210.57	254.04
-----								
* 108	1,4-Difluorobenzene					CAS #: 540-36-3		
6.666	6.659	(1.000)	114	378182	25.0000		80.00- 120.00	100.00
6.666	6.659	(1.000)	88	54759			0.00- 45.71	14.48
-----								
* 153	Chlorobenzene-d5					CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	387252	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	201078			23.78- 83.78	51.92
-----								
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0		
6.315	6.315	(1.092)	65	154995	26.4392	26.439	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	77339			27.21- 87.21	49.90
-----								
\$ 134	Toluene-d8					CAS #: 2037-26-5		
7.891	7.891	(1.184)	98	411838	25.0782	25.078	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	42867			0.00- 40.44	10.41

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	262971			34.95- 94.95	63.85
-----								
§ 170 4-Bromofluorobenzene CAS #: 460-00-4								
10.921	10.921	(1.154)	174	259931	26.1390	26.139	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	306287			95.92- 155.92	117.83
10.921	10.921	(1.154)	176	251762			66.89- 126.89	96.86
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.717	1.703	(0.297)	65	5694	2.36480	5.179	80.00- 120.00	100.00
1.758	1.759	(0.304)	51	43561			597.63- 657.63	765.00
1.717	1.717	(0.297)	47	4519			33.72- 93.72	79.36
-----								
8 Freon 12 CAS #: 75-71-8								
1.731	1.717	(0.299)	85	5581	0.58579	1.283	80.00- 120.00	100.00
1.731	1.717	(0.299)	87	1627			2.37- 62.37	29.17
-----								
47 Acetone CAS #: 67-64-1								
3.729	3.722	(0.645)	58	21367	7.67264	16.803	80.00- 120.00	100.00
3.729	3.722	(0.645)	43	83231			302.95- 362.95	389.53
-----								
67 Hexane CAS #: 110-54-3								
4.697	4.697	(0.812)	57	410613	39.2387	85.933	80.00- 120.00	100.00
4.697	4.697	(0.812)	43	324220			37.52- 97.52	78.96
4.697	4.697	(0.812)	86	41643			0.00- 41.48	10.14
-----								
92 Chloroform CAS #: 67-66-3								
5.843	5.843	(1.010)	83	208271	22.5341	49.350	80.00- 120.00	100.00
5.843	5.843	(1.010)	85	136909			34.70- 94.70	65.74
-----								
122 Bromodichloromethane CAS #: 75-27-4								
7.318	7.318	(1.098)	83	9417	1.00293	2.196	80.00- 120.00	100.00
7.318	7.318	(1.098)	85	5922			35.24- 95.24	62.88
-----								
137 Toluene CAS #: 108-88-3								
7.956	7.956	(1.193)	91	23009	1.33633	2.926	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	13254			28.38- 88.38	57.61
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.471	8.464	(0.895)	166	68529	7.76463	17.004	80.00- 120.00	100.00
8.471	8.464	(0.895)	129	52157			47.84- 107.84	76.11
8.464	8.464	(0.895)	131	50757			45.29- 105.29	74.07
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.567	9.567	(1.011)	106	6544	0.81386	1.782	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	19587			273.74- 333.74	299.32
-----								

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE		RATIO
				ON-COL	FINAL	( PPBV)	( PPBV)	
==	=====	=====	=====	=====	=====	=====	=====	=====
158 m,p-Xylene				CAS #: 108-38-3				
9.718	9.718	(1.027)	106	20585	2.04408	4.476	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	41598			163.73- 223.73	202.08
-----								
164 o-Xylene				CAS #: 95-47-6				
10.234	10.226	(1.082)	106	9492	0.98376	2.154	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	19592			177.45- 237.45	206.41
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p082026.d  
Lab Smp Id: 2108390-08A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: kk  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 7.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
Calibration Time: 11:13  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	106226	-2.88
108 1,4-Difluorobenze	406799	244079	569519	378182	-7.03
153 Chlorobenzene-d5	400841	240505	561177	387252	-3.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Report Date: 24-Aug-2021 11:07

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-08A  
Level: LOW Operator: kk  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 7.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	26.439	105.76	70-130
\$ 134 Toluene-d8	25.000	25.078	100.31	70-130
\$ 170 4-Bromofluorobenz	25.000	26.139	104.56	70-130

Date : 21-AUG-2021 02:43

Client ID:

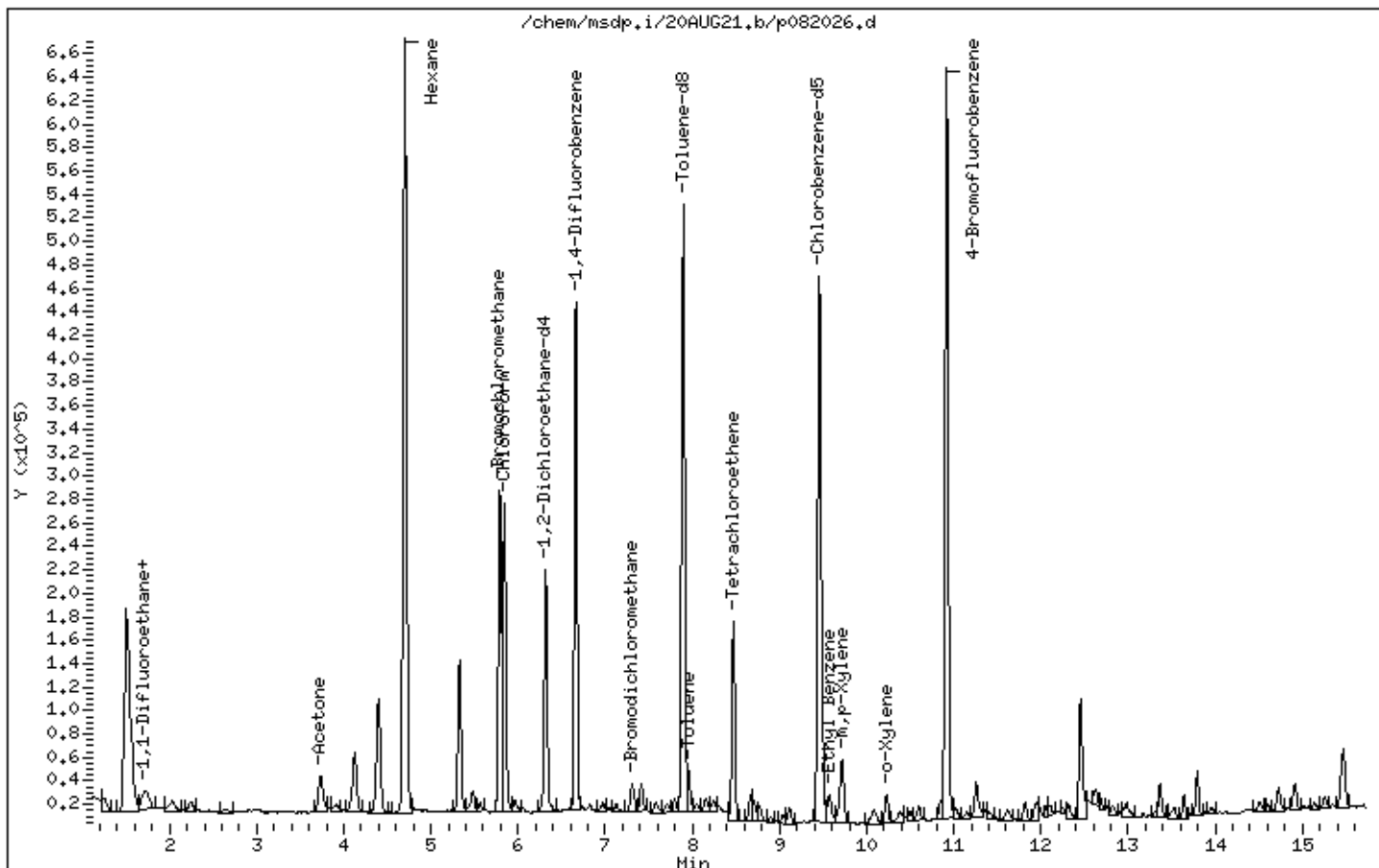
Instrument: msdp.i

Sample Info: 200ml 00818

Operator: kk

Column phase: RTX-624

Column diameter: 0.25





Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

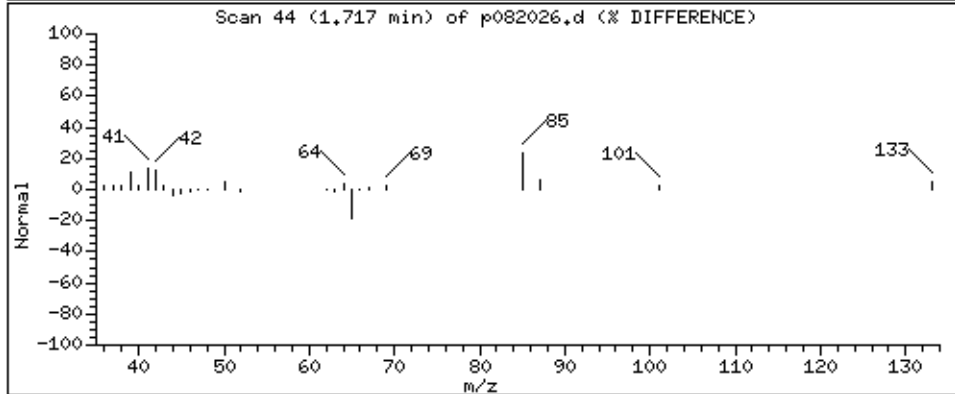
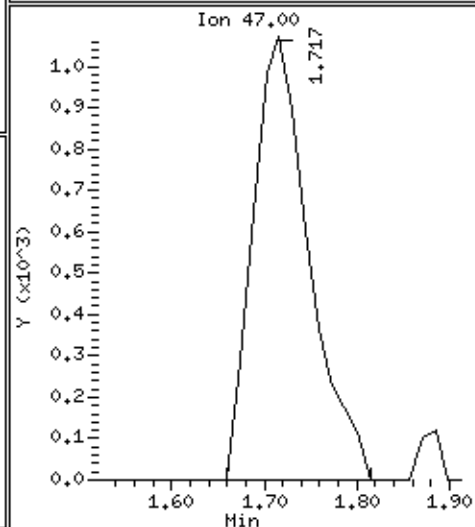
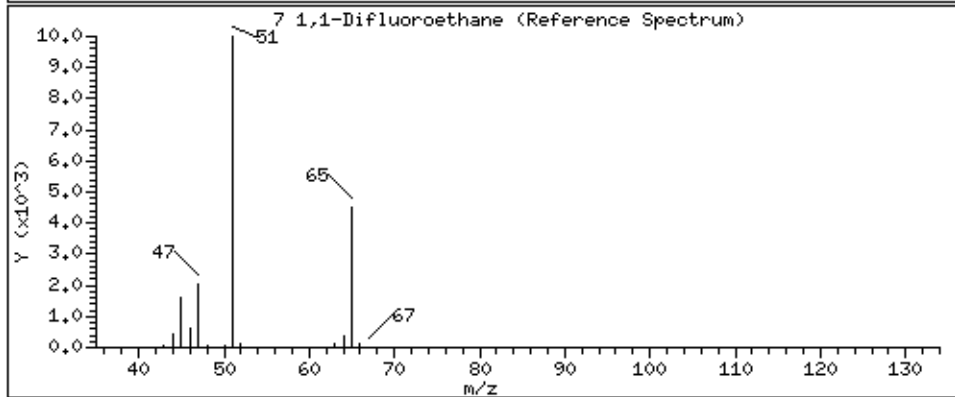
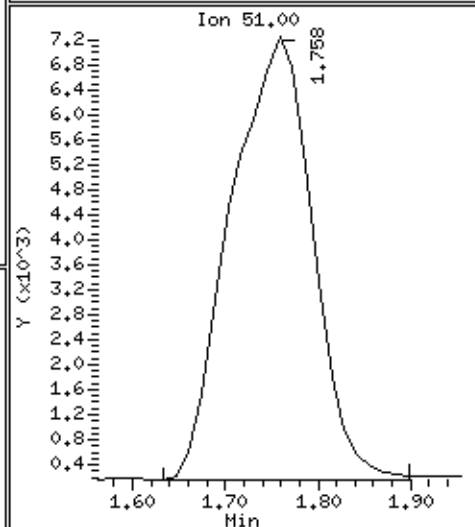
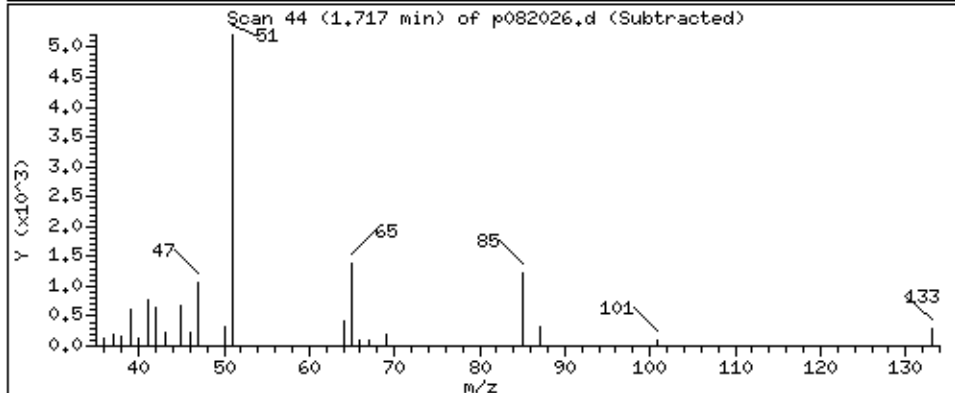
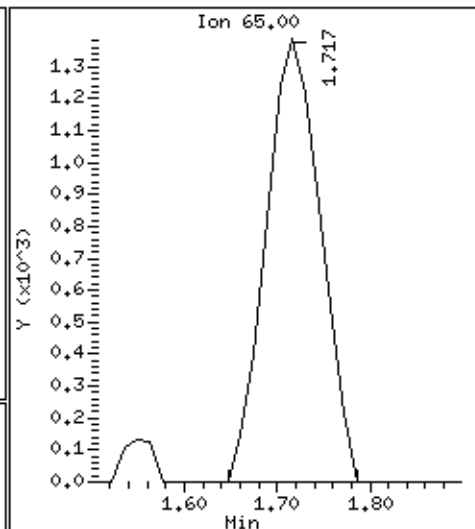
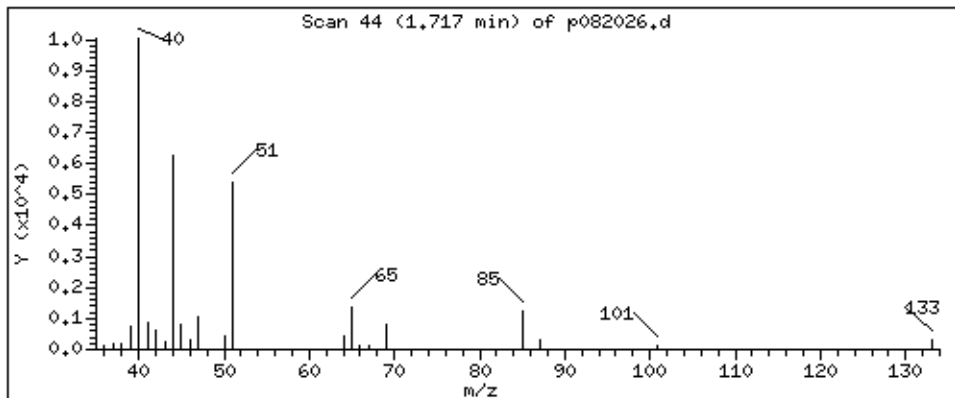
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 5.179 PPBV



Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

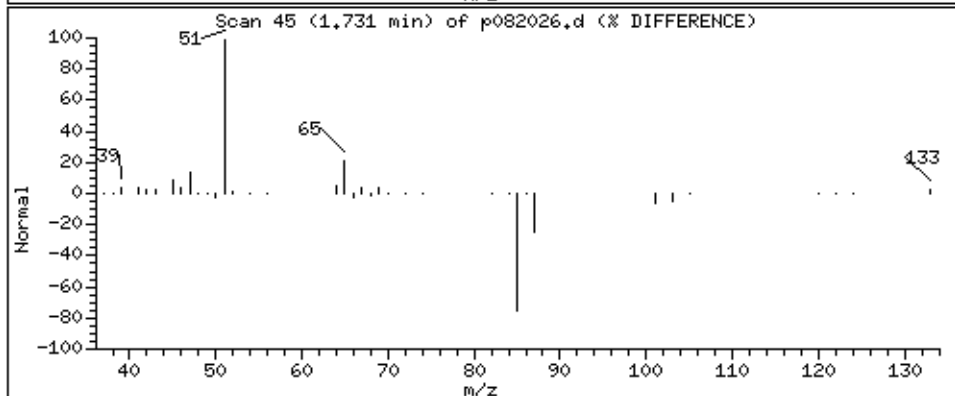
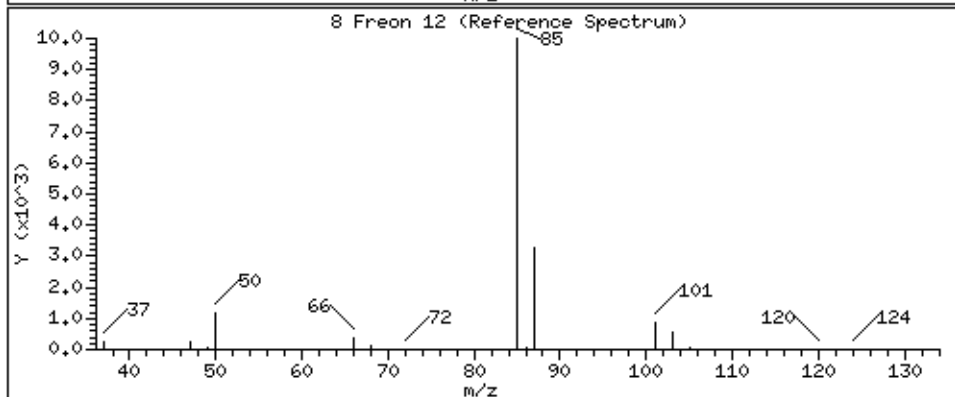
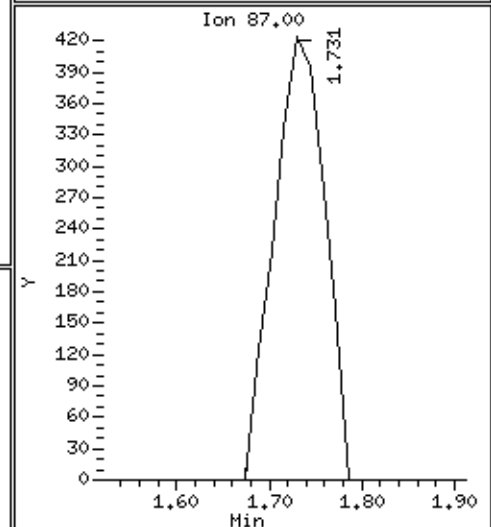
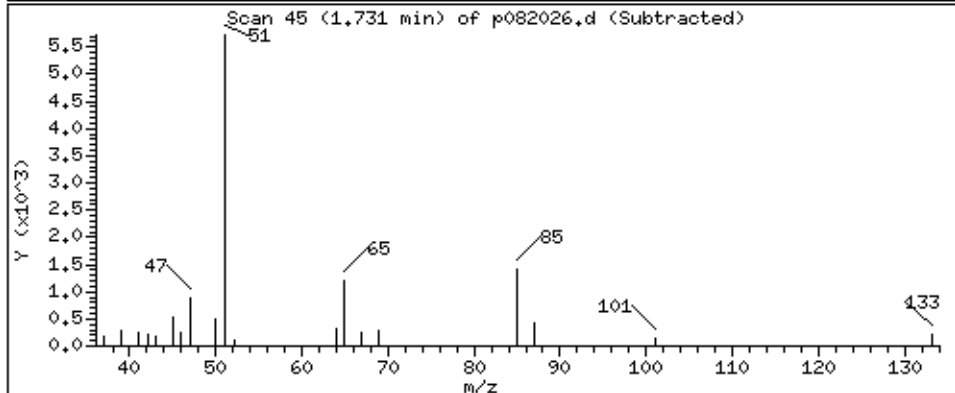
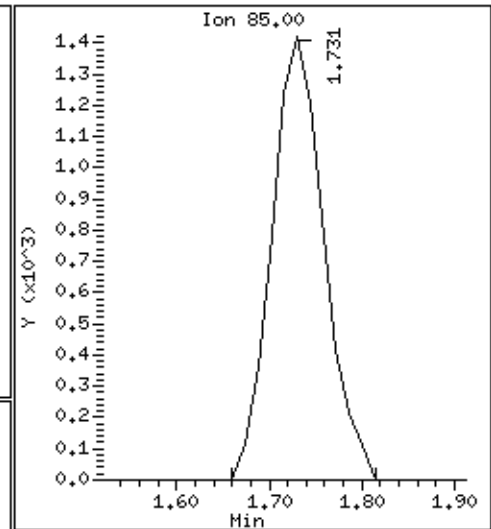
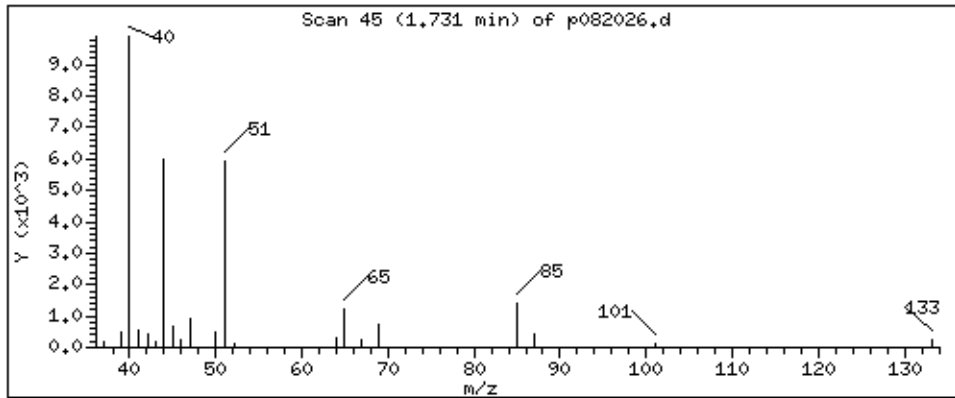
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 1.283 PPBV



Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

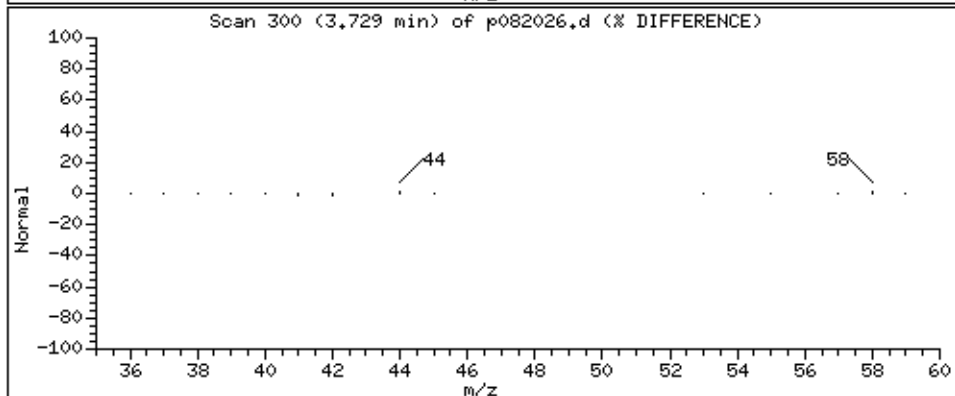
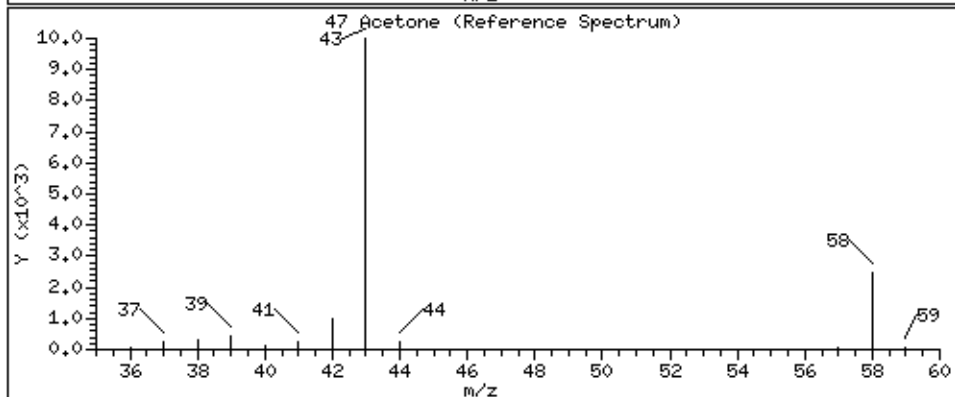
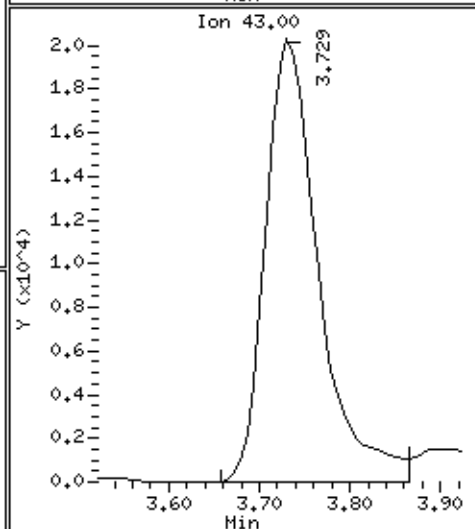
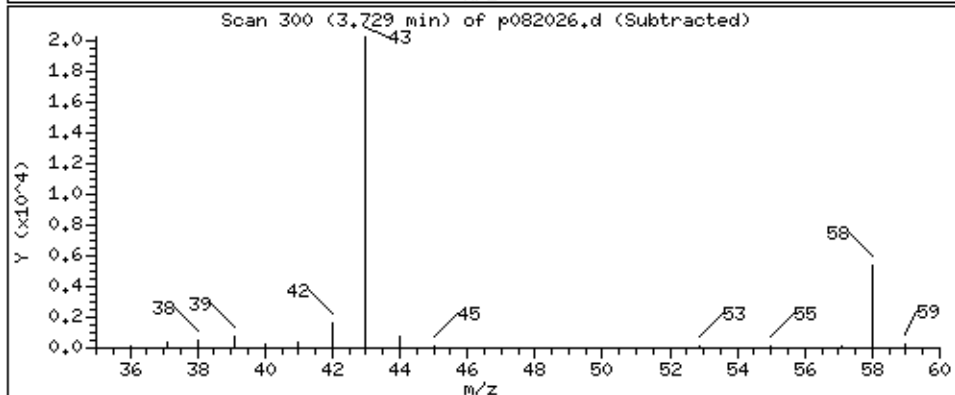
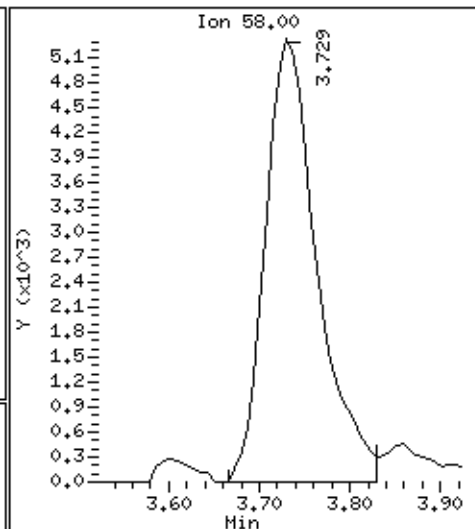
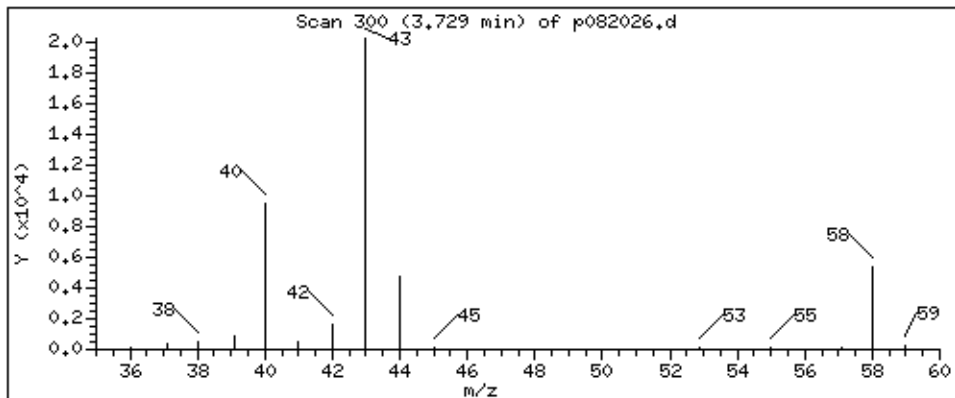
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 16,803 PPBV



Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

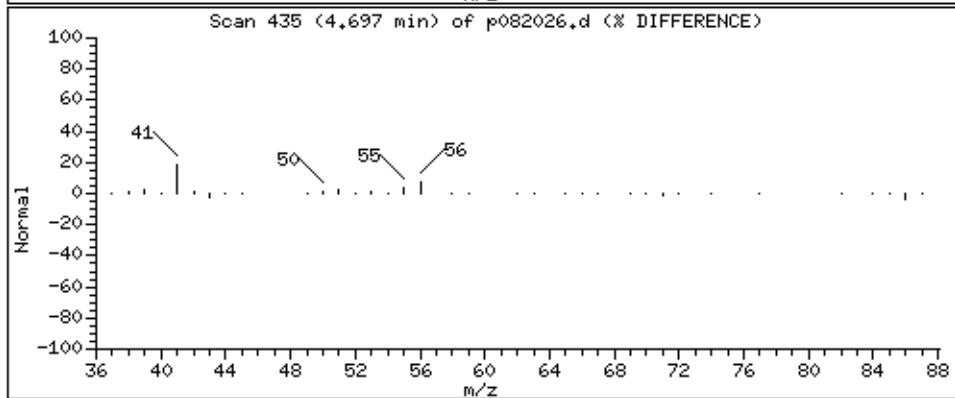
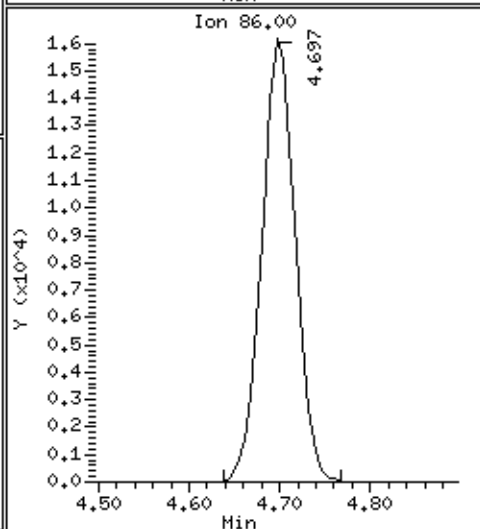
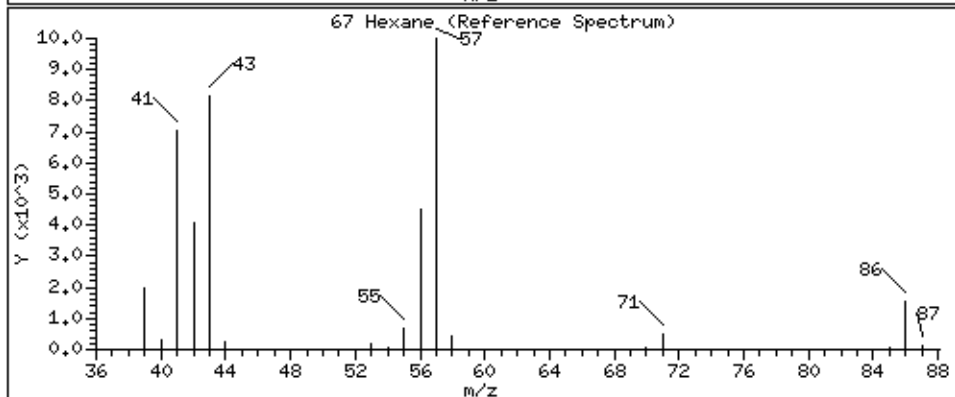
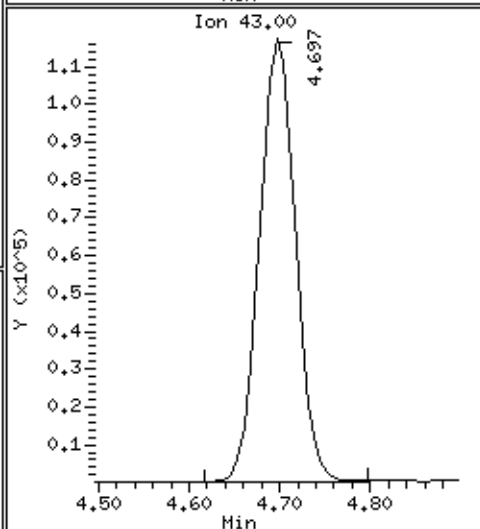
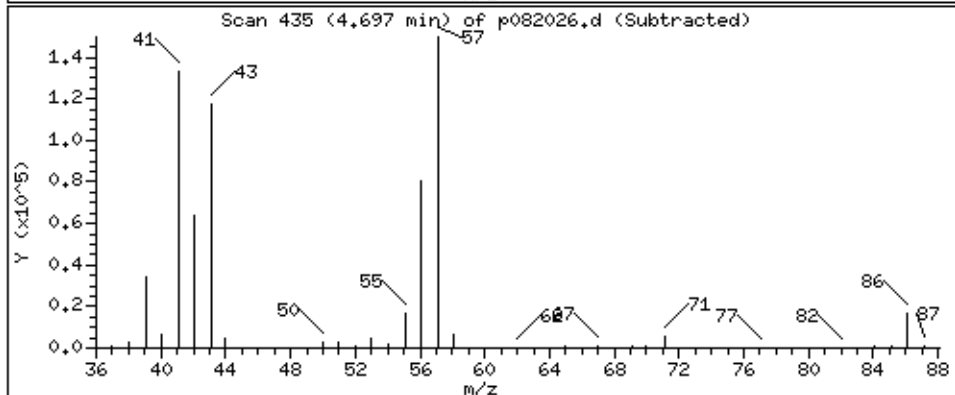
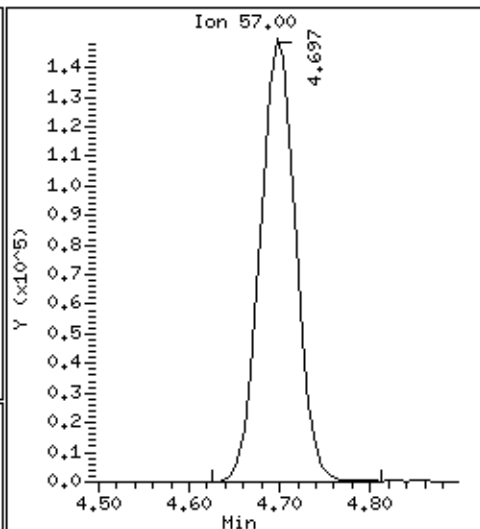
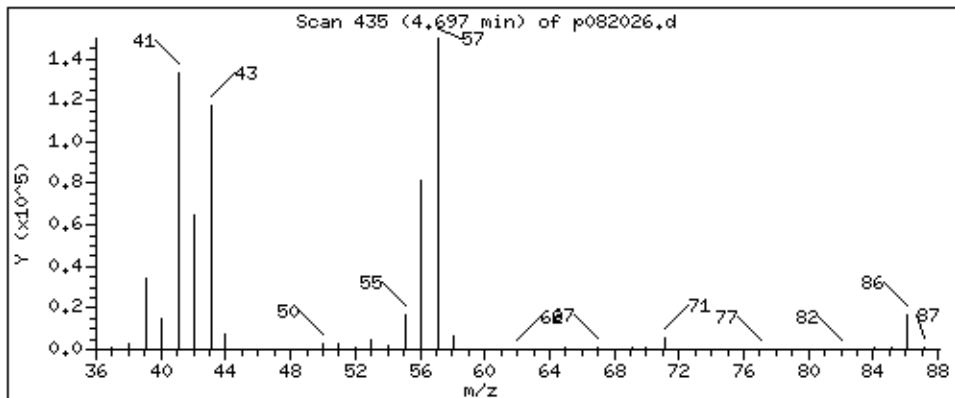
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 85,933 PPBV



Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

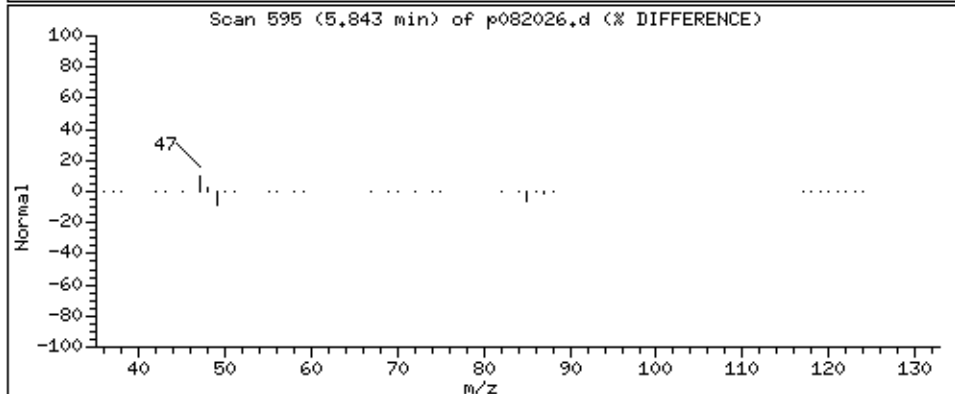
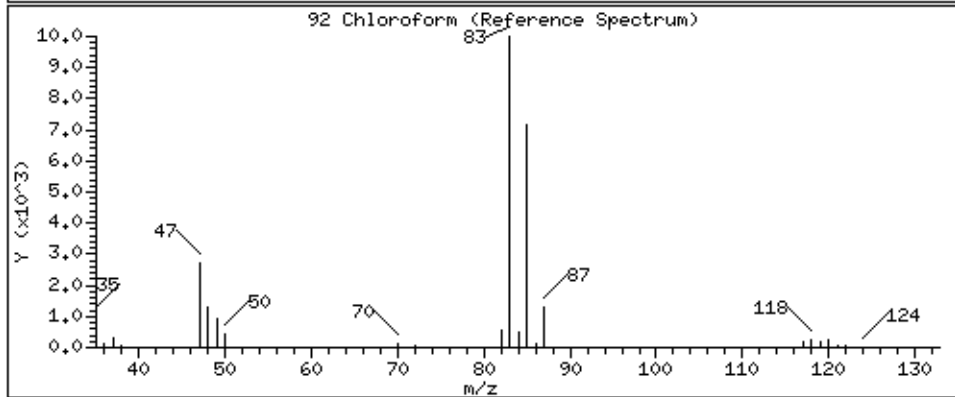
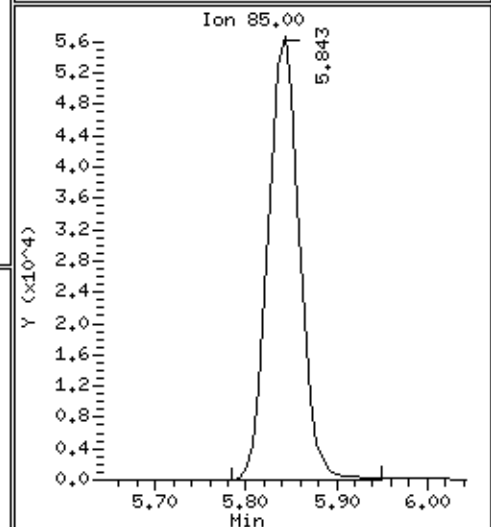
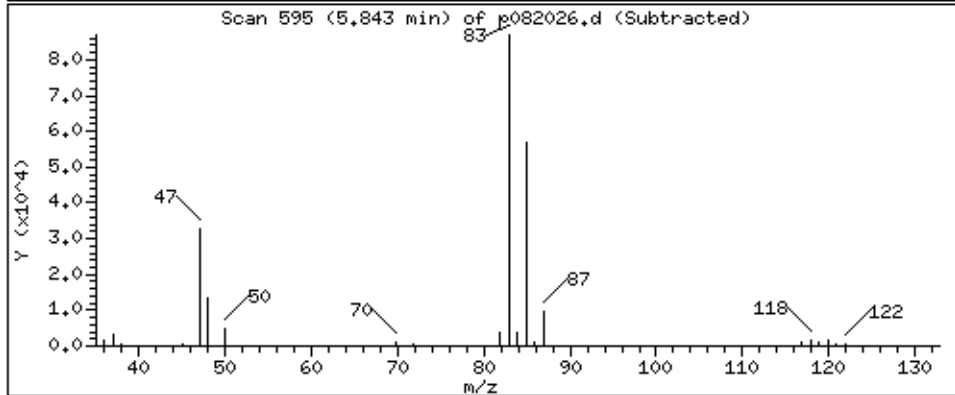
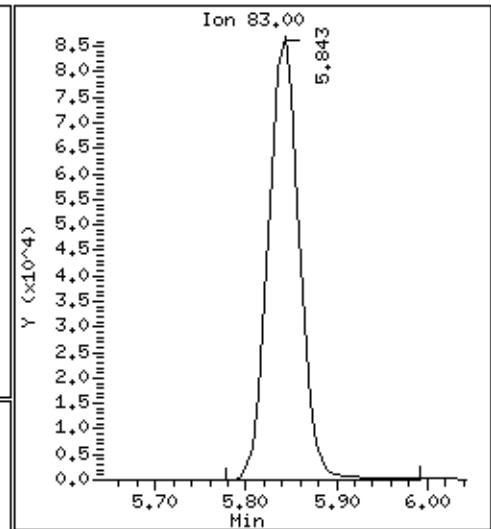
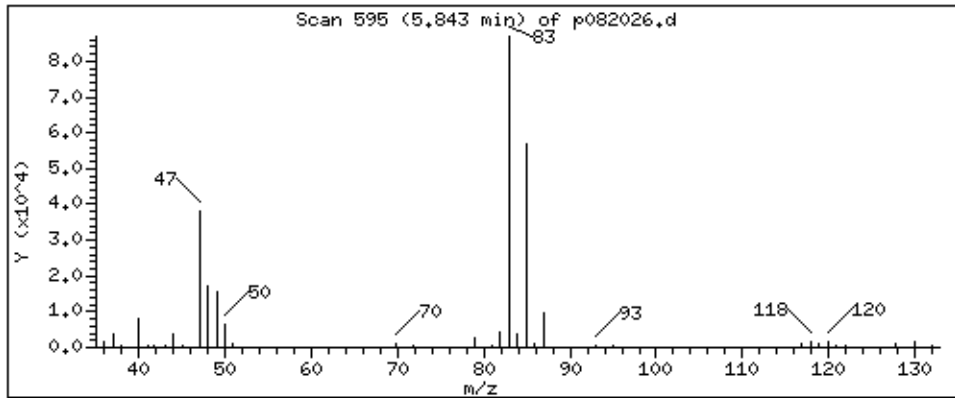
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 49,350 PPBV



Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

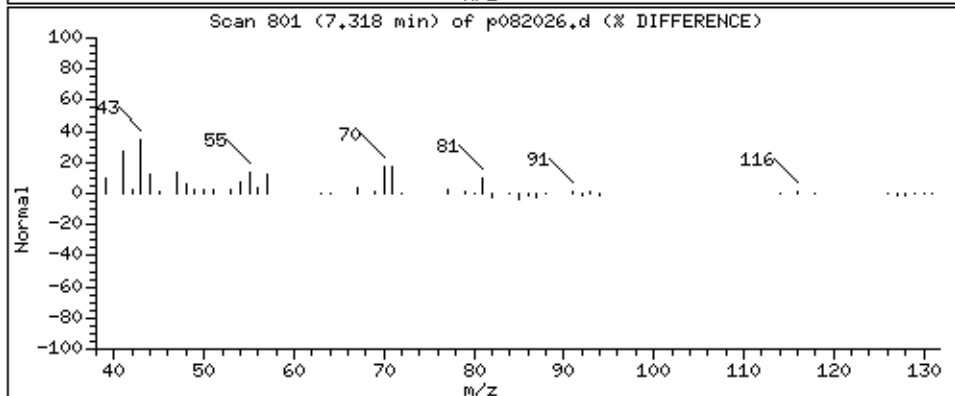
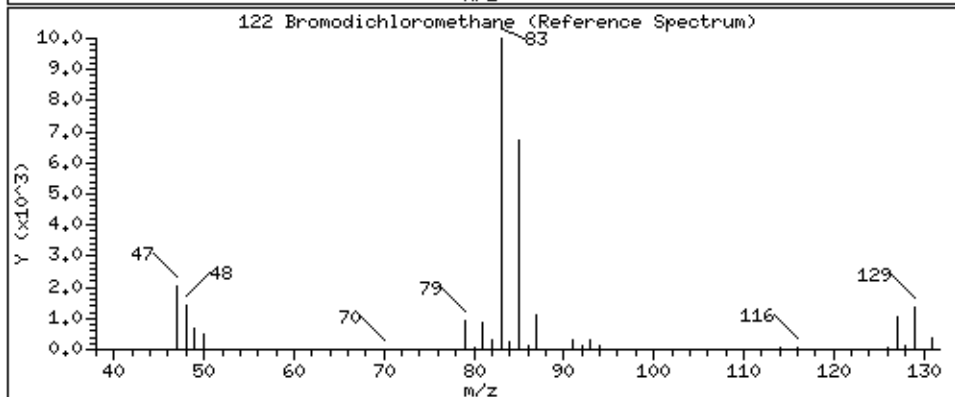
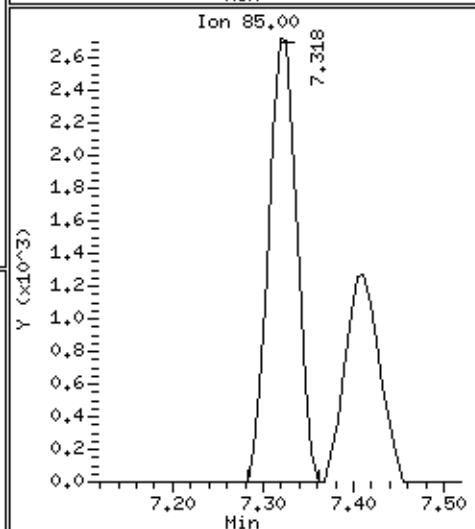
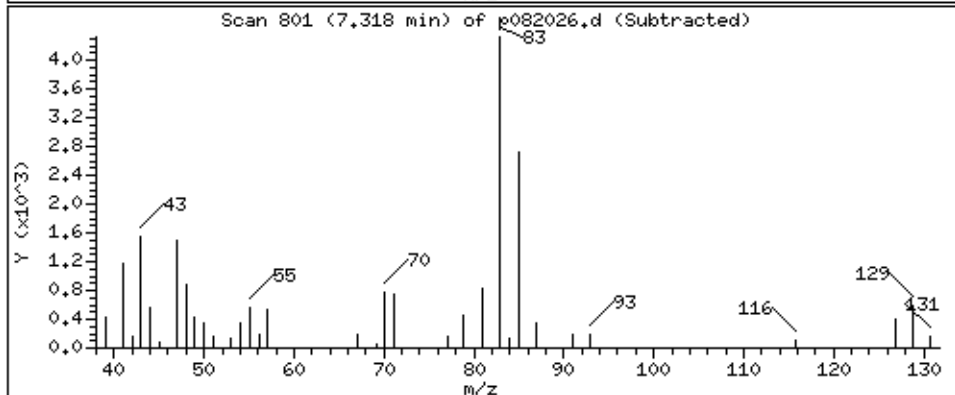
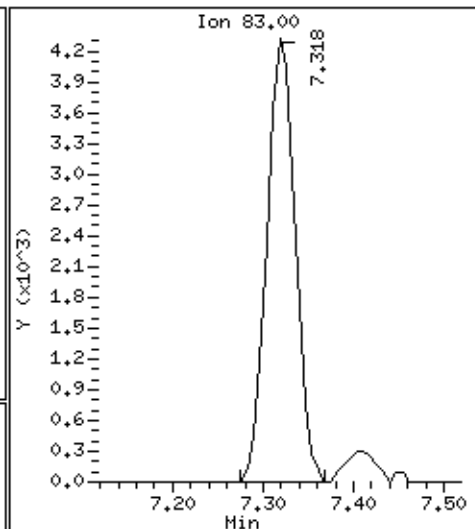
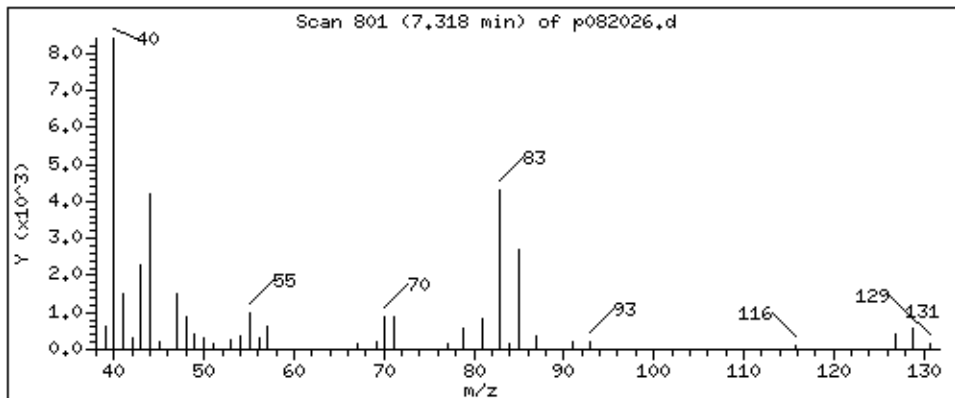
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

122 Bromodichloromethane

Concentration: 2,196 PPBV



Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

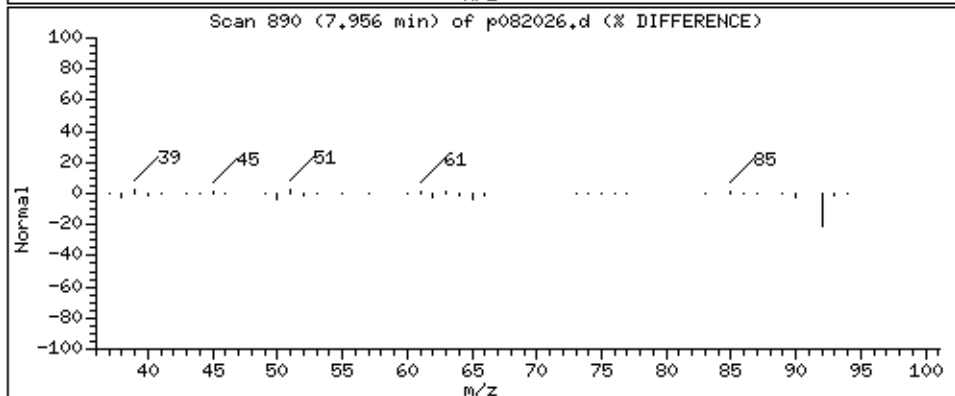
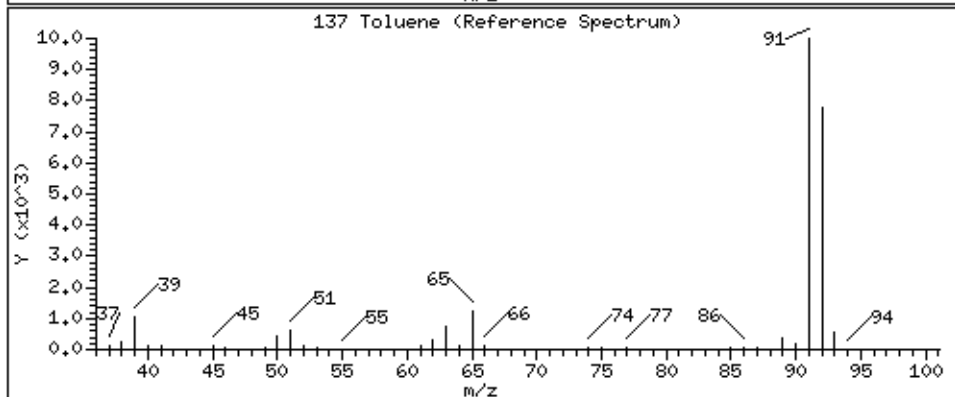
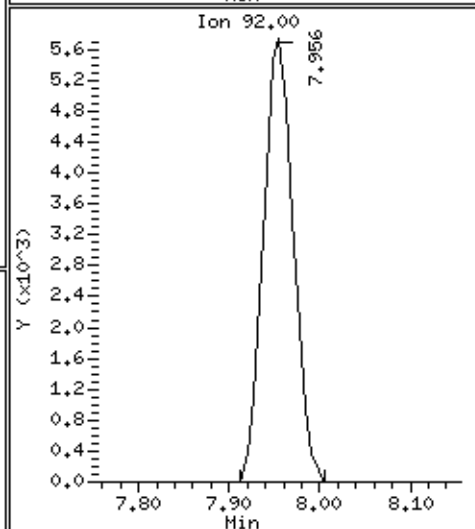
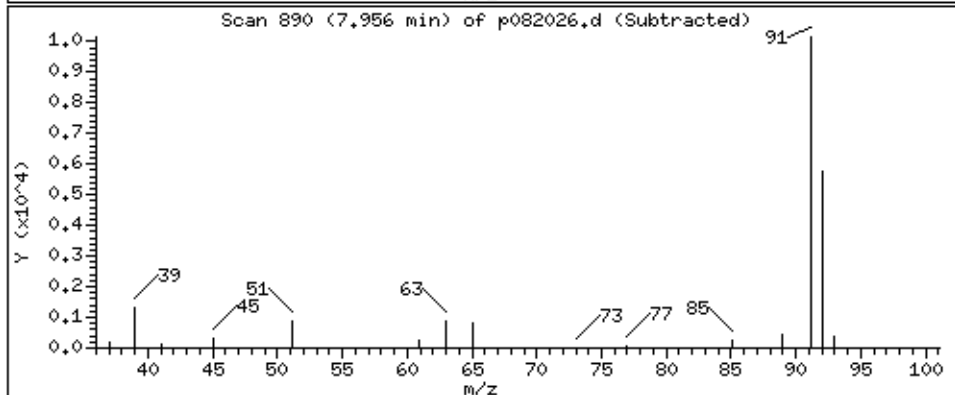
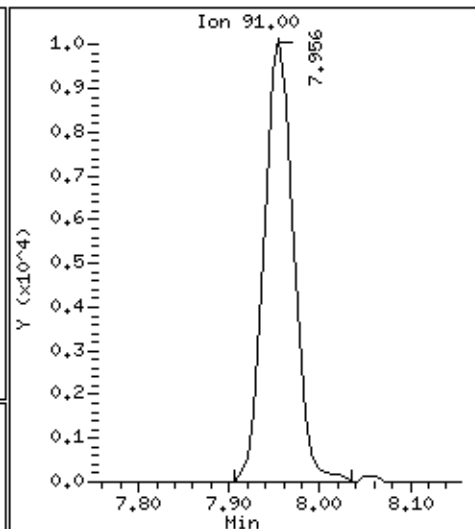
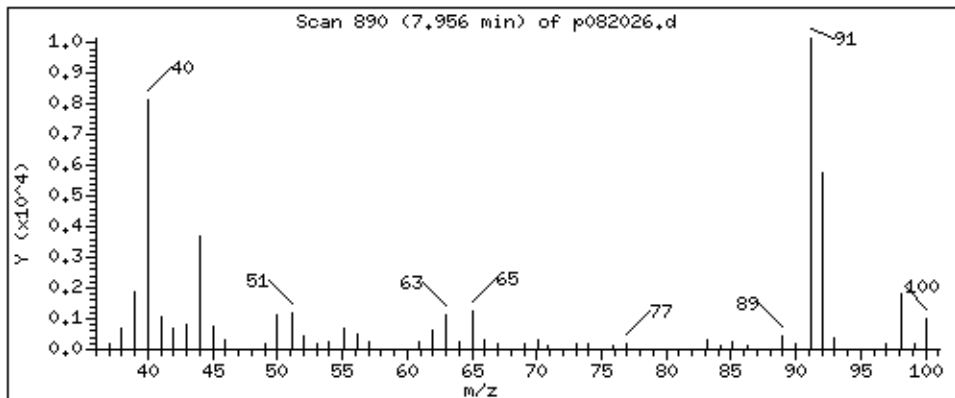
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 2.926 PPBV



Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

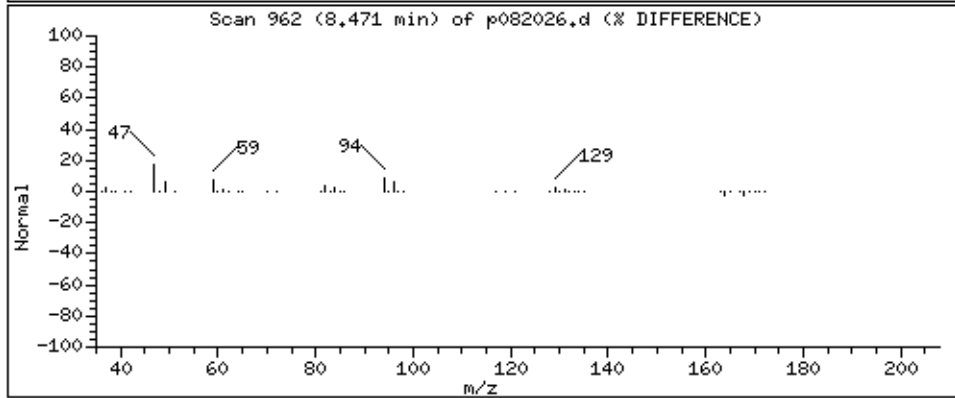
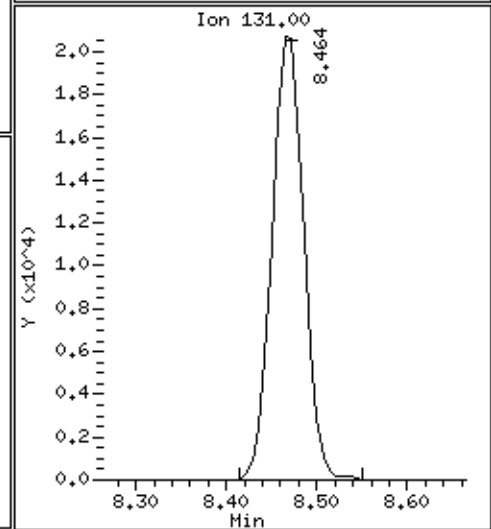
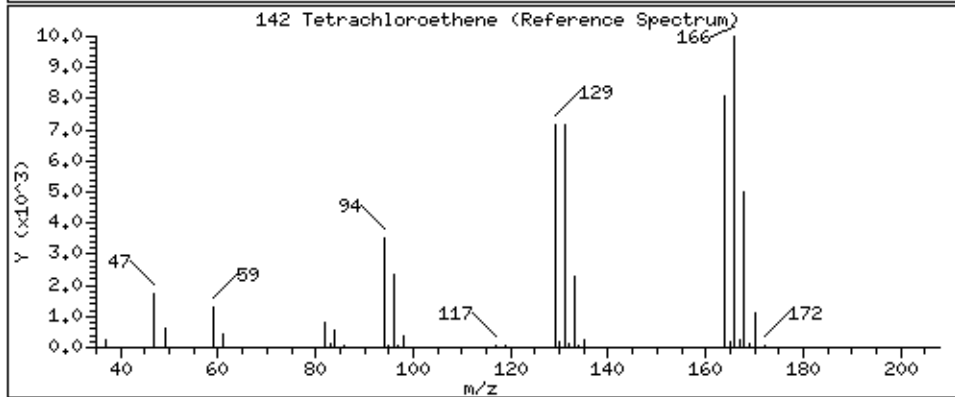
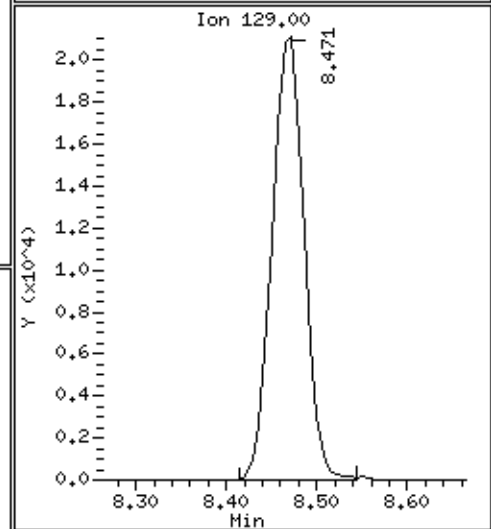
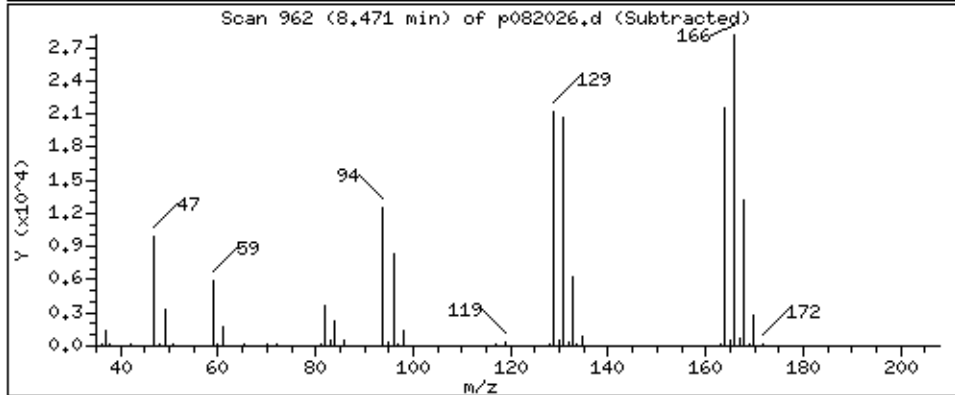
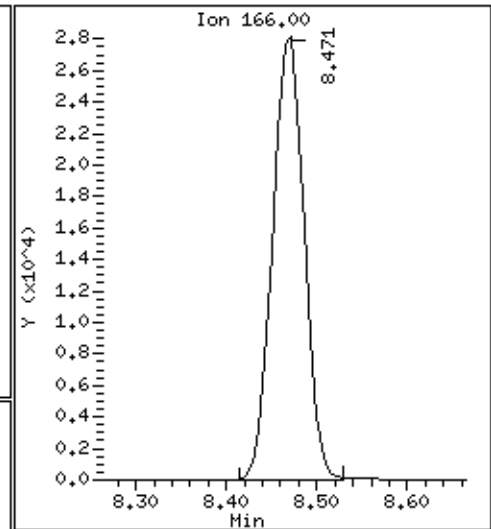
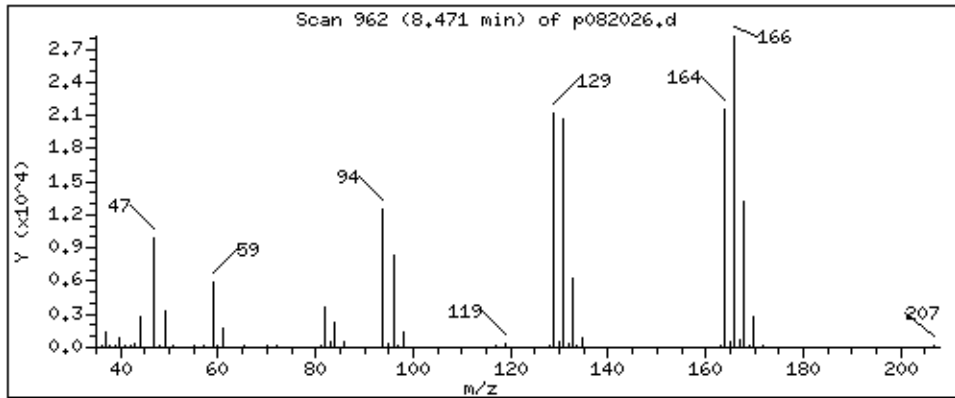
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 17,004 PPBV





Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

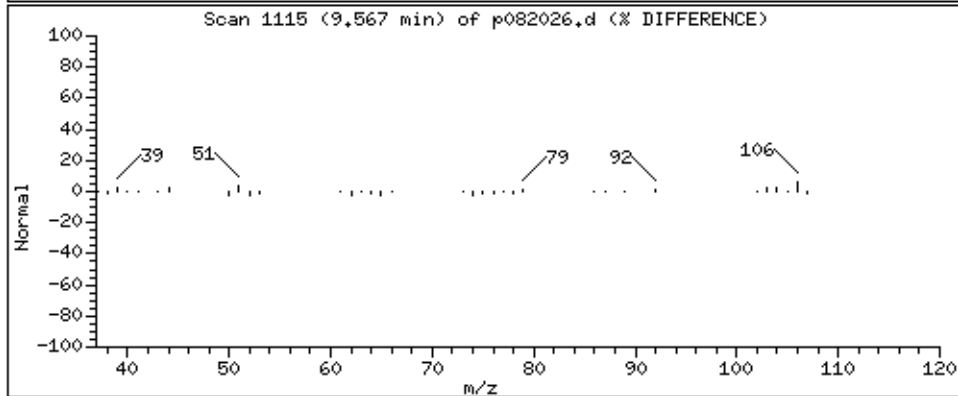
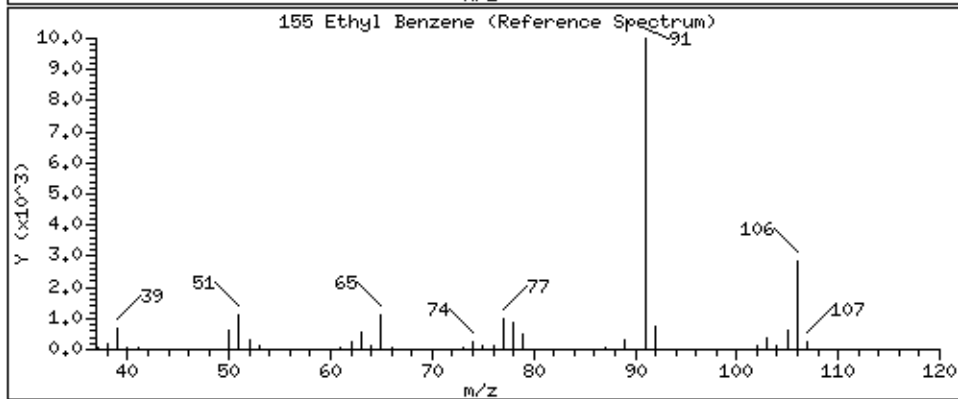
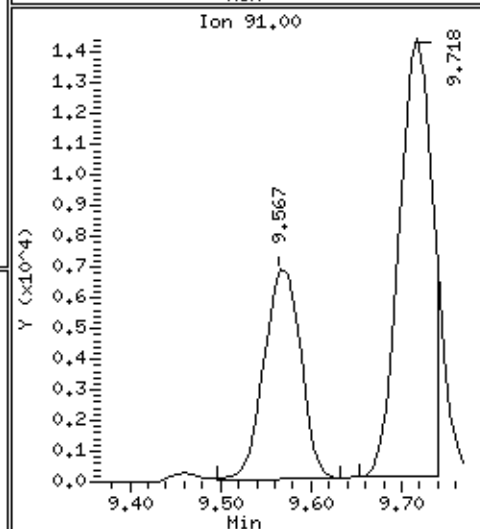
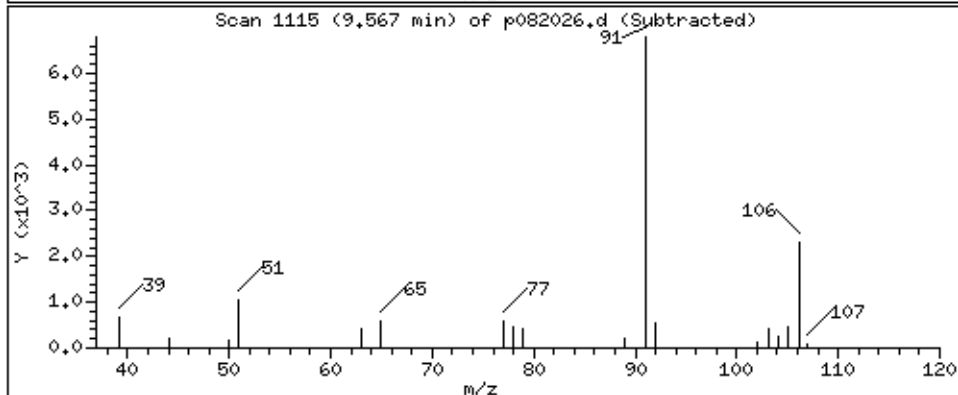
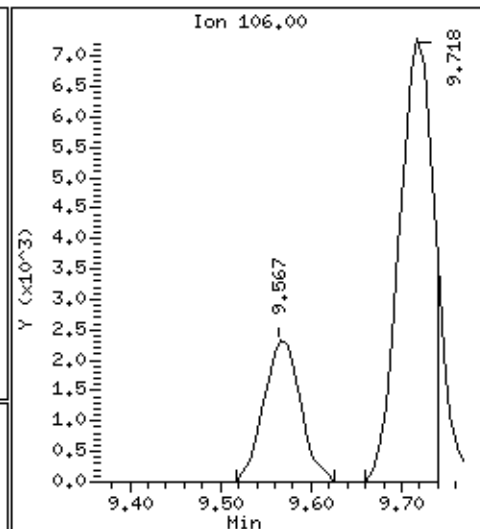
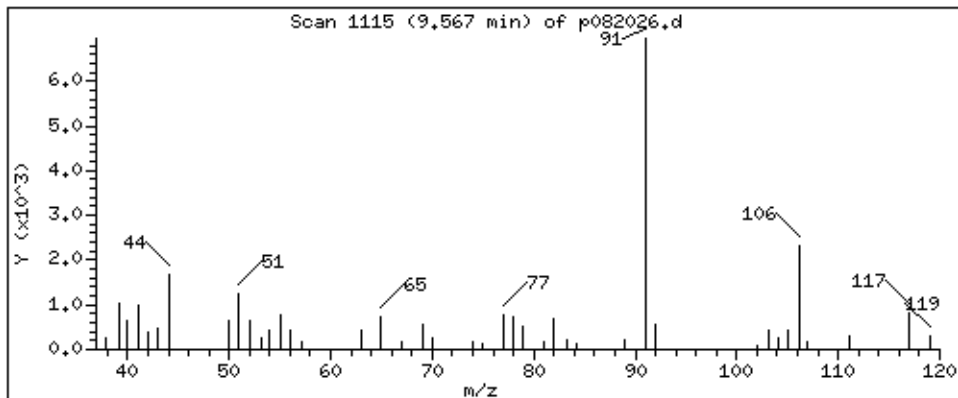
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 1,782 PPBV



Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

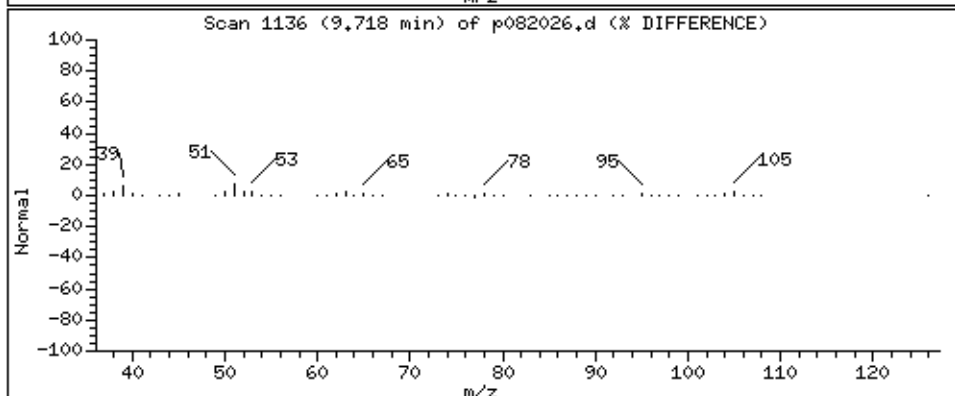
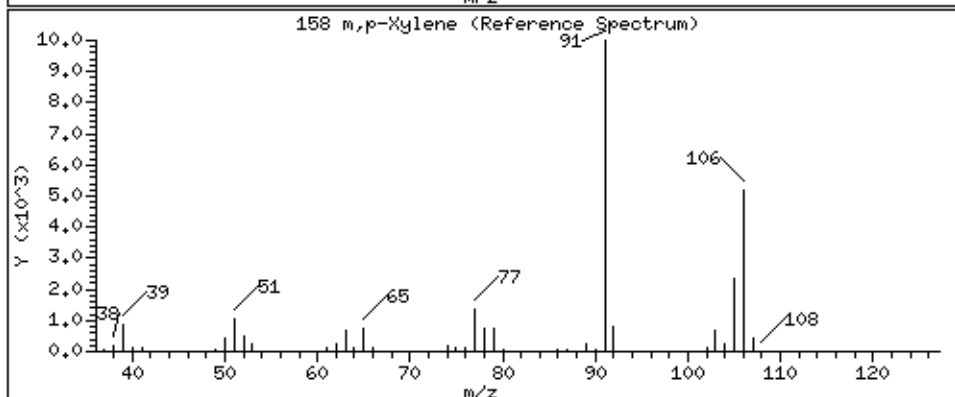
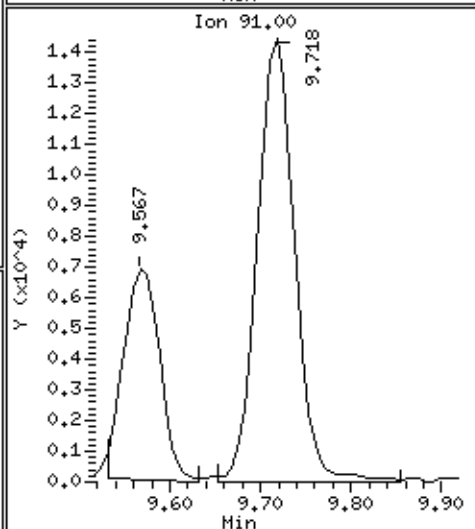
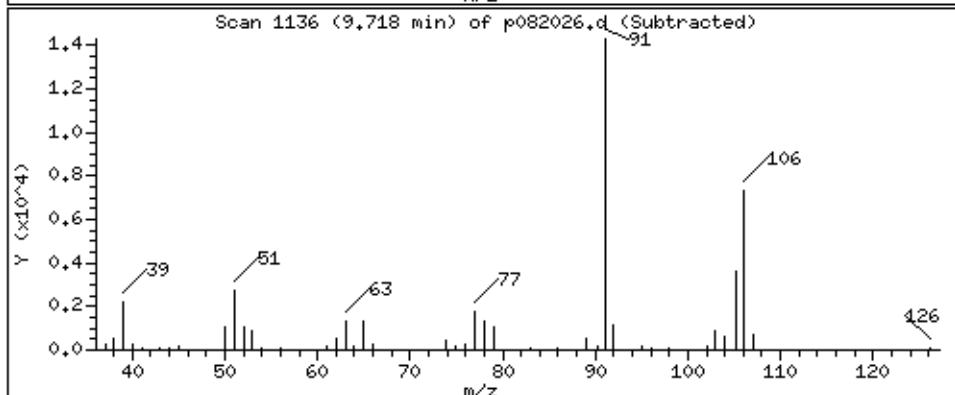
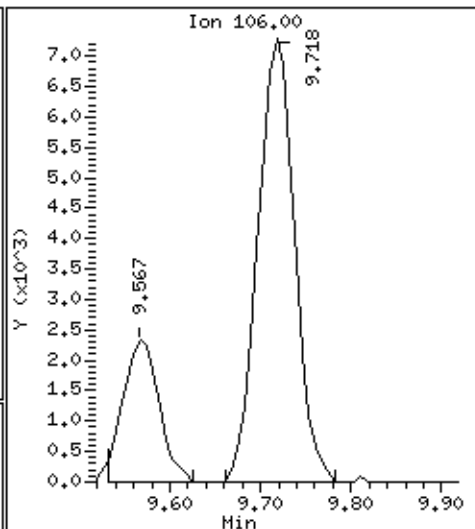
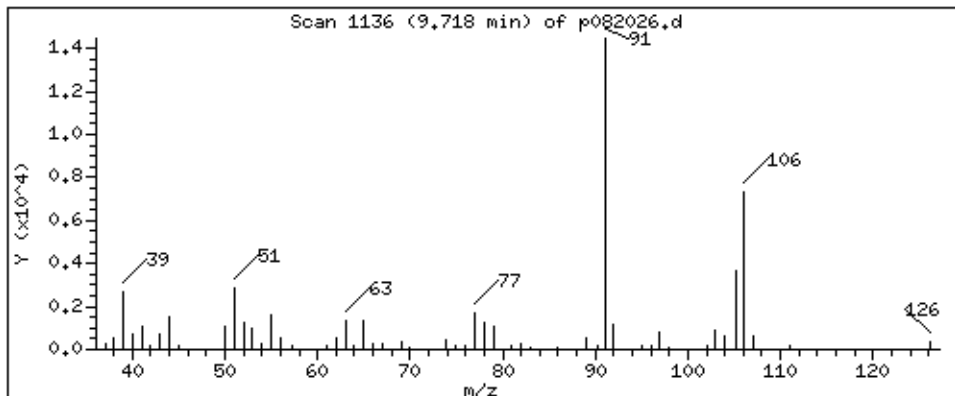
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 4.476 PPBV



Date : 21-AUG-2021 02:43

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00818

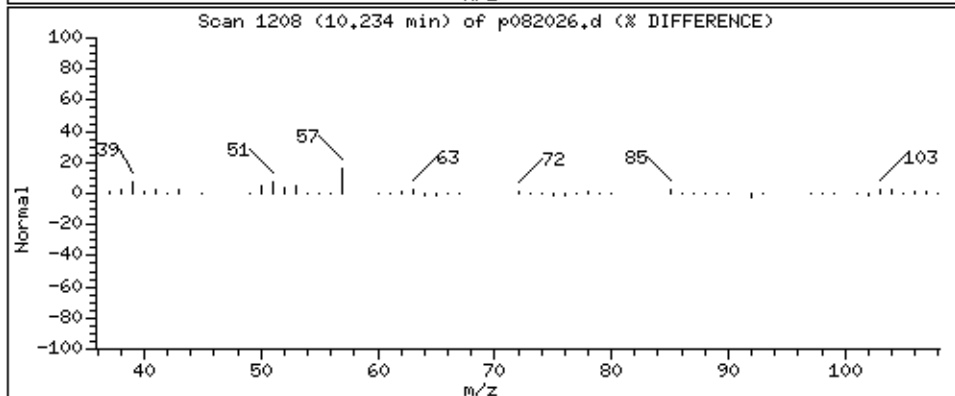
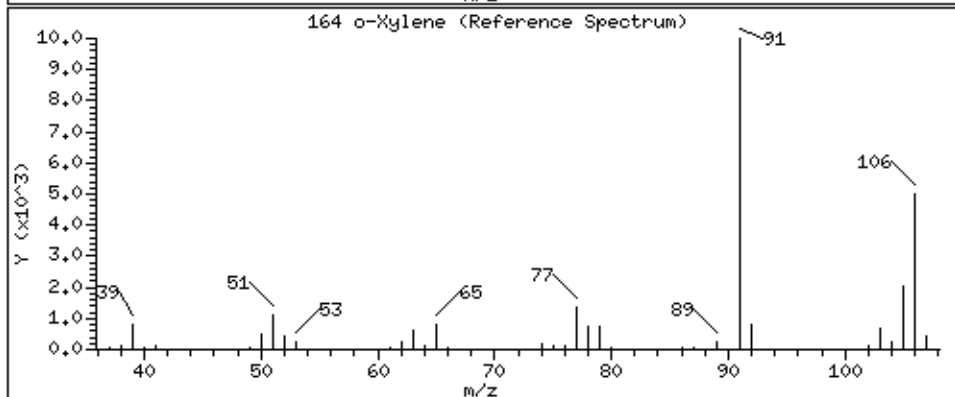
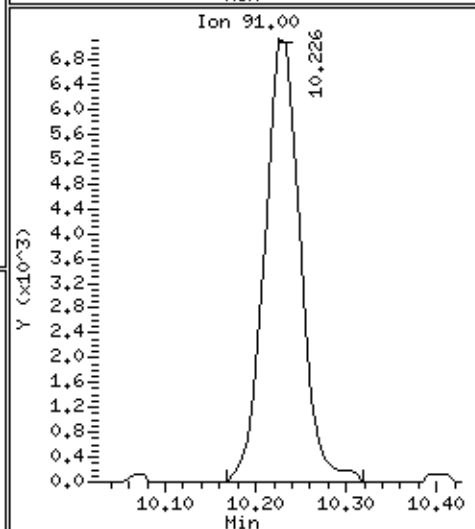
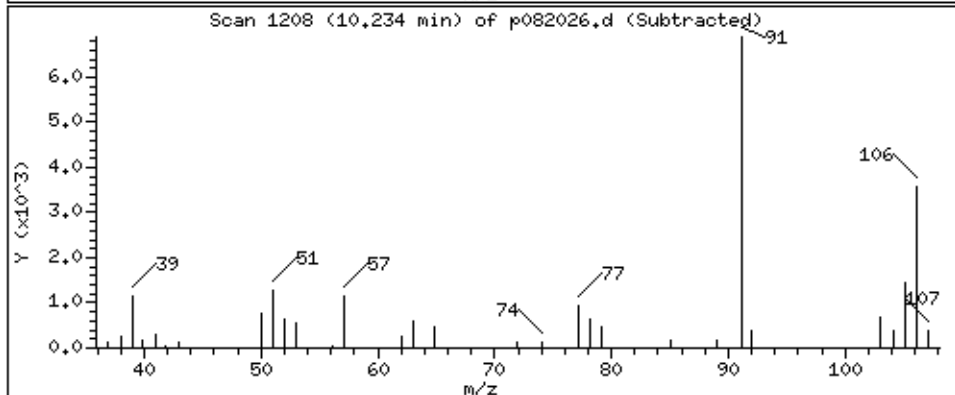
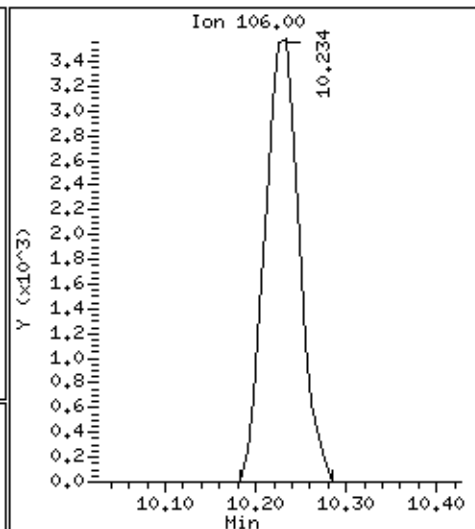
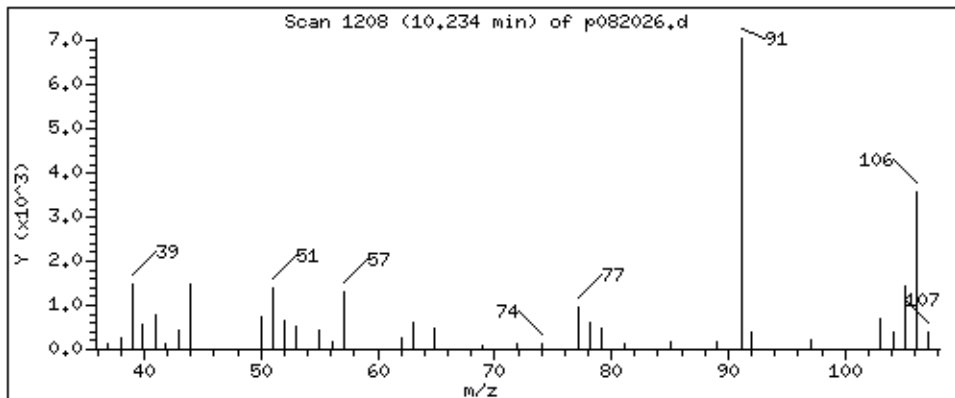
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 2,154 PPBV



Client Sample ID: SG-VW63A-02

Lab ID#: 2108390-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082016	Date of Collection:	8/16/21 2:42:00 PM
Dil. Factor:	2.10	Date of Analysis:	8/20/21 07:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.2	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,2-Dibromo-3-chloropropane	4.2	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected
2-Propanol	4.2	8.9	10	22
3-Chloropropene	4.2	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Acetone	10	14	25	34
Acrolein	4.2	Not Detected	9.6	Not Detected
Acrylonitrile	4.2	Not Detected	9.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Chloroform	1.0	2.6	5.1	13
Chloromethane	10	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected

Client Sample ID: SG-VW63A-02

Lab ID#: 2108390-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082016	Date of Collection:	8/16/21 2:42:00 PM
Dil. Factor:	2.10	Date of Analysis:	8/20/21 07:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
Dibromomethane	4.2	Not Detected	30	Not Detected
Ethanol	10	Not Detected	20	Not Detected
Ethyl Acetate	4.2	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.2	Not Detected	18	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 12	1.0	2.3	5.2	11
Freon 113	1.0	Not Detected	8.0	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Freon 134a	4.2	Not Detected	18	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected
Hexachloroethane	4.2	Not Detected	41	Not Detected
Hexane	1.0	53	3.7	190
Iodomethane	10	Not Detected	61	Not Detected
Isopropyl ether	4.2	Not Detected	18	Not Detected
m,p-Xylene	1.0	1.2	4.6	5.5
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.6	Not Detected
Propylbenzene	1.0	Not Detected	5.2	Not Detected
Propylene	4.2	Not Detected	7.2	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
tert-Amyl methyl ether	4.2	Not Detected	18	Not Detected
tert-Butyl alcohol	4.2	Not Detected	13	Not Detected
Tetrachloroethene	1.0	2.1	7.1	14
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Toluene	1.0	Not Detected	4.0	Not Detected
TPH ref. to Gasoline (MW=100)	100	140	430	570
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Vinyl Acetate	4.2	Not Detected	15	Not Detected
Vinyl Bromide	4.2	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW63A-02

Lab ID#: 2108390-09A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082016	Date of Collection: 8/16/21 2:42:00 PM
Dil. Factor:	2.10	Date of Analysis: 8/20/21 07:51 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	106	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082016.d  
 Lab Smp Id: 2108390-09A  
 Inj Date : 20-AUG-2021 19:51  
 Operator : mjb  
 Smp Info : 200ml 1L2710  
 Misc Info : 6.0 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5fl  
 Cal Date : 19-MAY-2021 19:45  
 Als bottle: 9  
 Dil Factor: 2.10000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msdp.i  
 Quant Type: ISTD  
 Cal File: p051915.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	105799	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	81552			48.23- 108.23	77.08
5.785	5.778	(1.000)	49	243747			150.57- 210.57	230.39
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	377980	25.0000		80.00- 120.00	100.00
6.666	6.659	(1.000)	88	54321			0.00- 45.71	14.37
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	388347	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	201212			23.78- 83.78	51.81
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	162152	27.7716	27.772	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	75274			27.21- 87.21	46.42
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	423368	25.7941	25.794	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	44718			0.00- 40.44	10.56

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		CONCENTRATIONS		TARGET RANGE	RATIO
				( PPBV)	( PPBV)	ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)									
7.891	7.891	(1.184)	100	272708				34.95- 94.95	64.41
-----									
§ 170 4-Bromofluorobenzene									
								CAS #: 460-00-4	
10.921	10.921	(1.154)	174	263256	26.3987	26.399		80.00- 120.00	100.00
10.914	10.914	(1.154)	95	305759				95.92- 155.92	116.15
10.921	10.921	(1.154)	176	250821				66.89- 126.89	95.28
-----									
8 Freon 12									
								CAS #: 75-71-8	
1.731	1.717	(0.299)	85	10213	1.07630	2.260		80.00- 120.00	100.00
1.717	1.717	(0.297)	87	2786				2.37- 62.37	27.28
-----									
47 Acetone									
								CAS #: 67-64-1	
3.730	3.722	(0.645)	58	18828	6.78820	14.255		80.00- 120.00	100.00
3.730	3.722	(0.645)	43	74276				302.95- 362.95	394.49
-----									
52 2-Propanol									
								CAS #: 67-63-0	
3.909	3.894	(0.676)	45	47378	4.23827	8.900		80.00- 120.00	100.00
3.901	3.894	(0.674)	43	10656				0.00- 47.19	22.49
-----									
67 Hexane									
								CAS #: 110-54-3	
4.697	4.697	(0.812)	57	265211	25.4462	53.437		80.00- 120.00	100.00
4.697	4.697	(0.812)	43	210149				37.52- 97.52	79.24
4.697	4.697	(0.812)	86	26733				0.00- 41.48	10.08
-----									
92 Chloroform									
								CAS #: 67-66-3	
5.843	5.843	(1.010)	83	11315	1.22918	2.581		80.00- 120.00	100.00
5.843	5.843	(1.010)	85	6855				34.70- 94.70	60.58
-----									
142 Tetrachloroethene									
								CAS #: 127-18-4	
8.464	8.464	(0.895)	166	8855	1.00048	2.101		80.00- 120.00	100.00
8.464	8.464	(0.895)	129	7435				47.84- 107.84	83.96
8.464	8.464	(0.895)	131	7592				45.29- 105.29	85.74
-----									
158 m,p-Xylene									
								CAS #: 108-38-3	
9.711	9.718	(1.026)	106	6054	0.59946	1.259		80.00- 120.00	100.00
9.711	9.718	(1.026)	91	12935				163.73- 223.73	213.66
-----									



US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p082016.d  
Lab Smp Id: 2108390-09A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: mjb  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
Calibration Time: 11:13  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	105799	-3.27
108 1,4-Difluorobenze	406799	244079	569519	377980	-7.08
153 Chlorobenzene-d5	400841	240505	561177	388347	-3.12

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Report Date: 24-Aug-2021 11:11

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-09A  
Level: LOW Operator: mjb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.772	111.09	70-130
\$ 134 Toluene-d8	25.000	25.794	103.18	70-130
\$ 170 4-Bromofluorobenz	25.000	26.399	105.59	70-130

Date : 20-AUG-2021 19:51

Client ID:

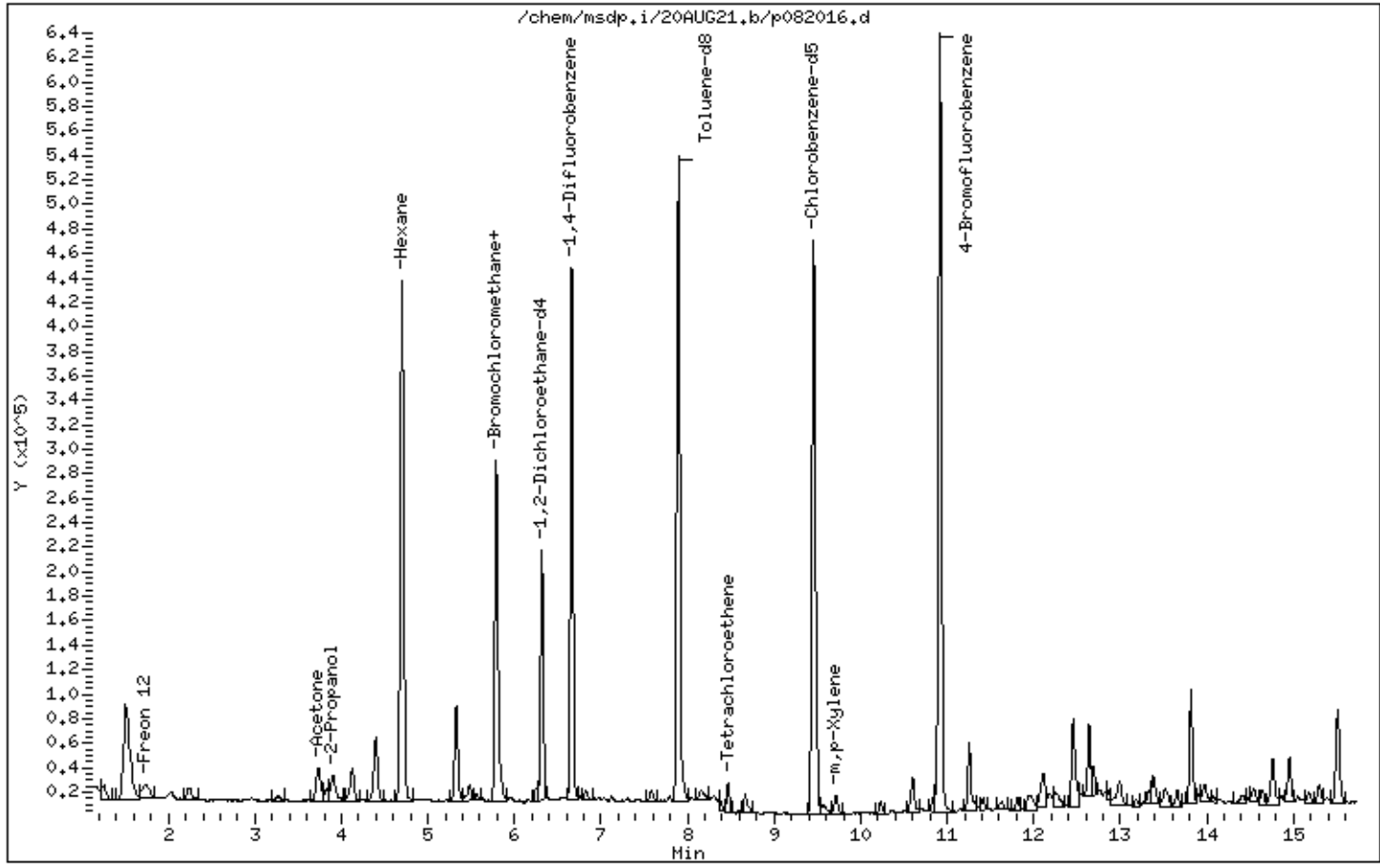
Instrument: msdp.i

Sample Info: 200ml 1L2710

Operator: mjb

Column phase: RTX-624

Column diameter: 0.25



Date : 20-AUG-2021 19:51

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2710

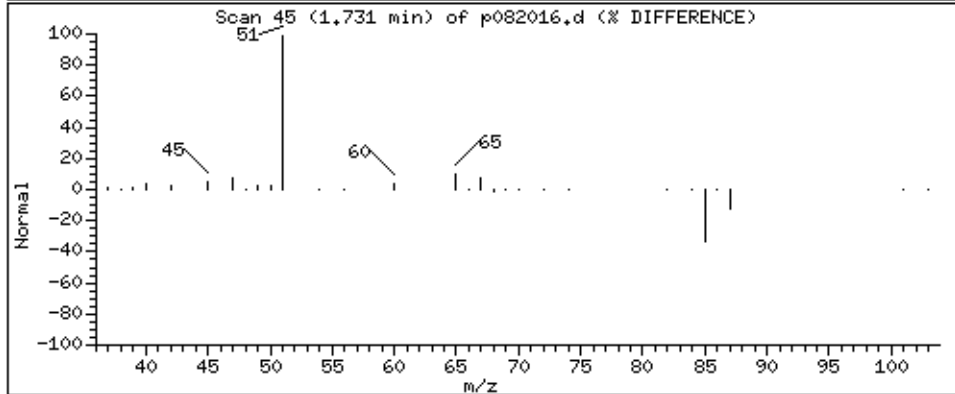
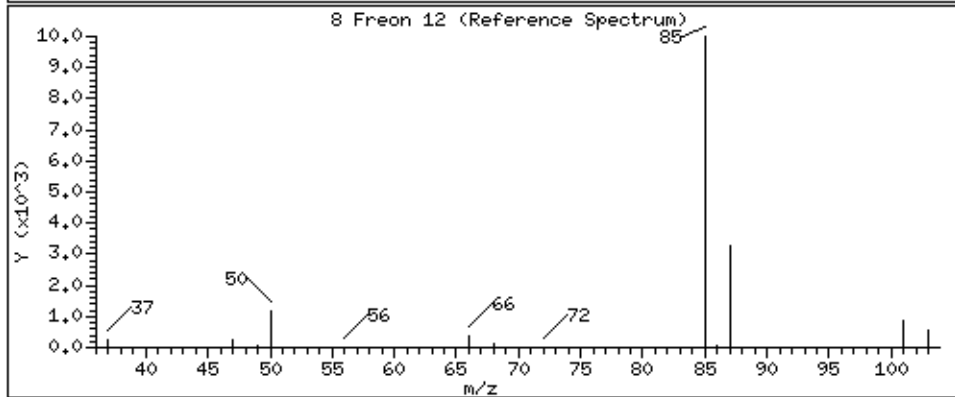
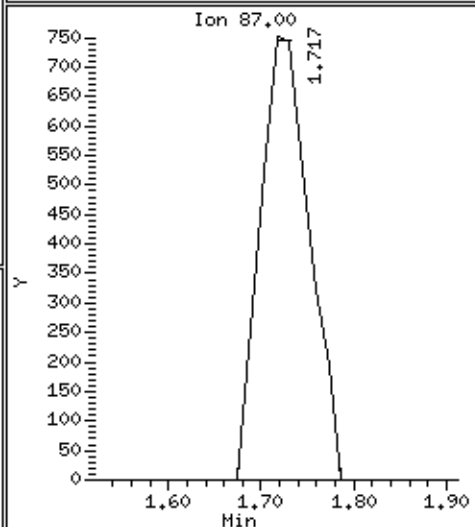
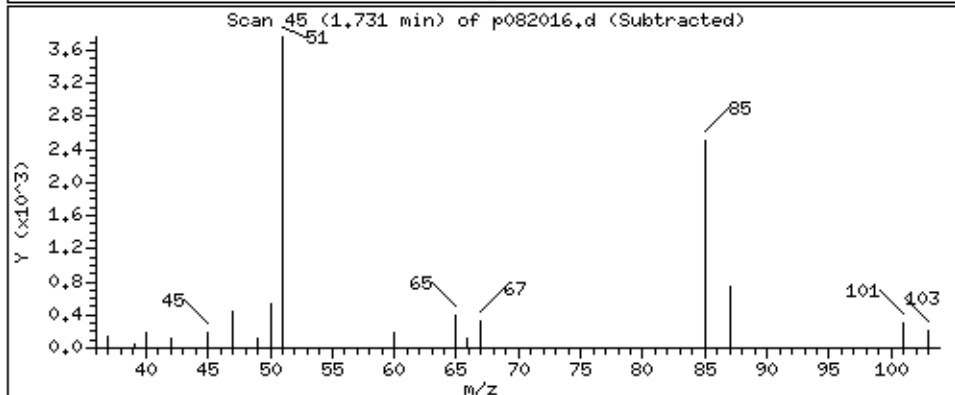
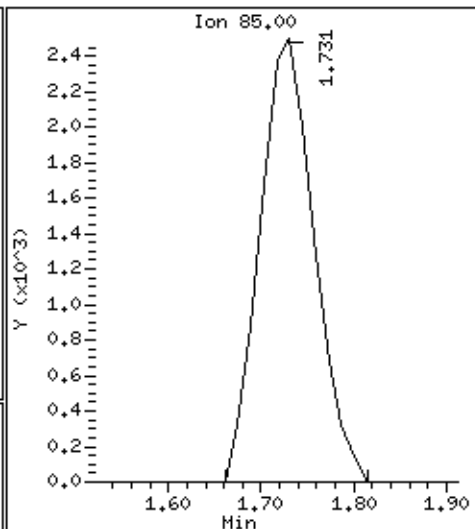
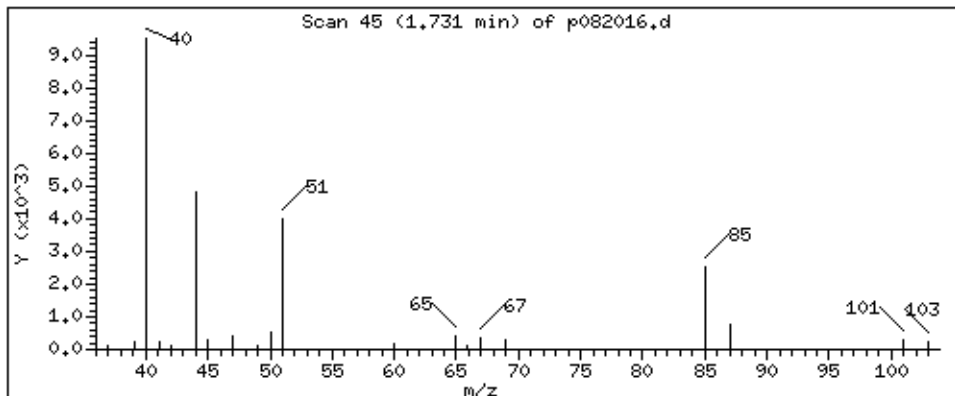
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 2.260 PPBV



Date : 20-AUG-2021 19:51

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2710

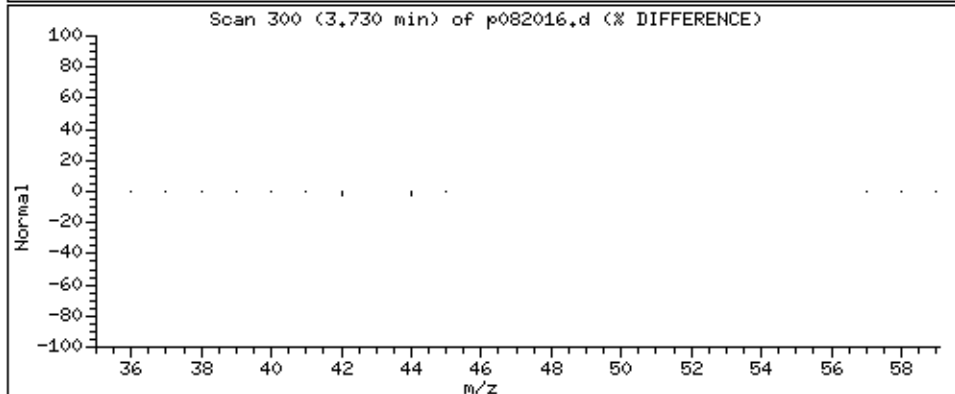
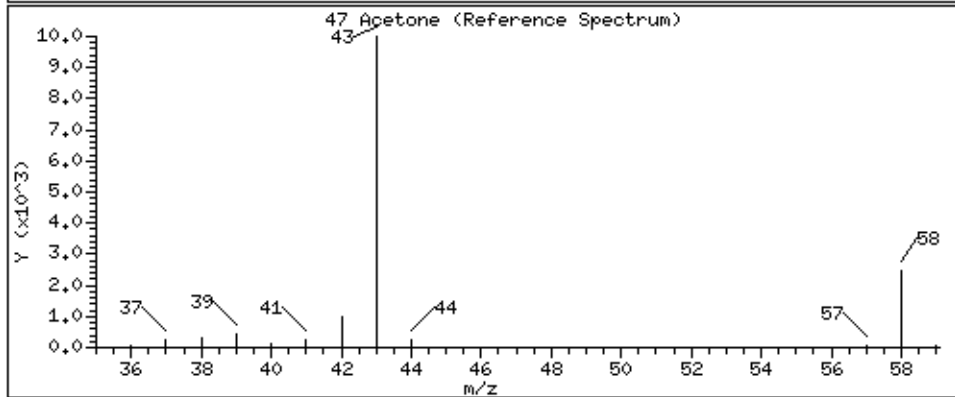
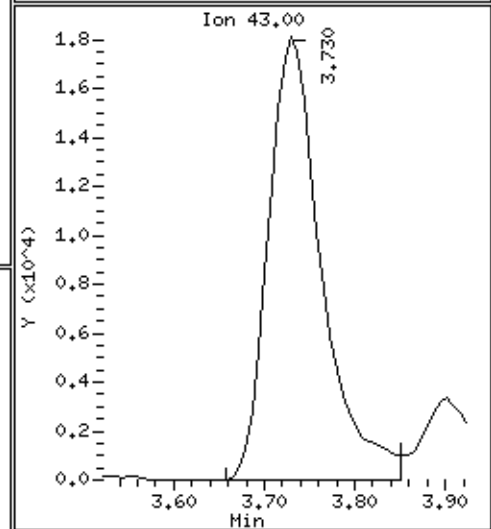
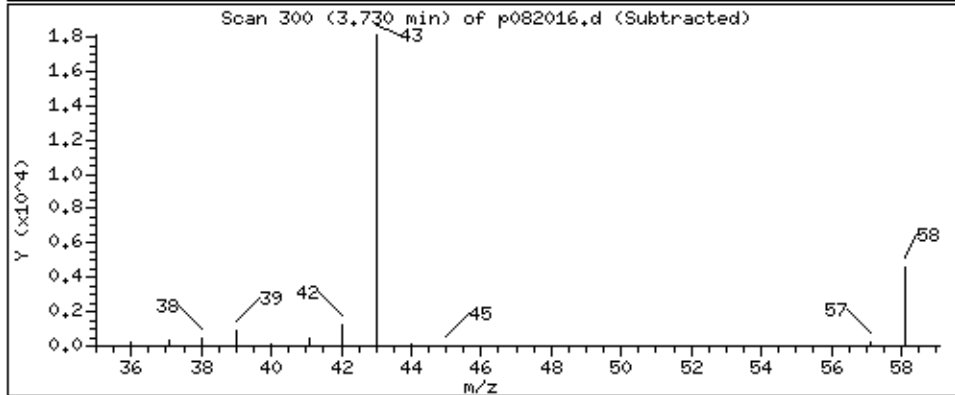
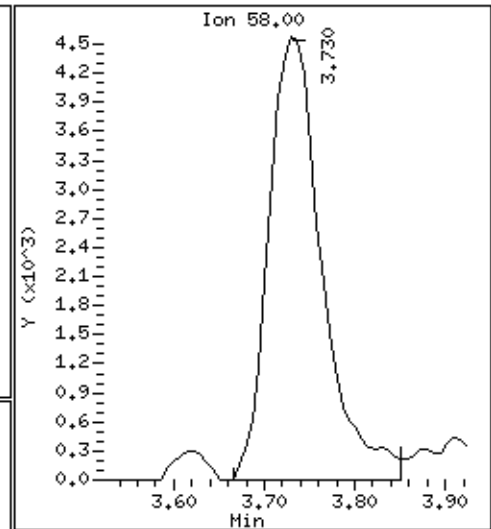
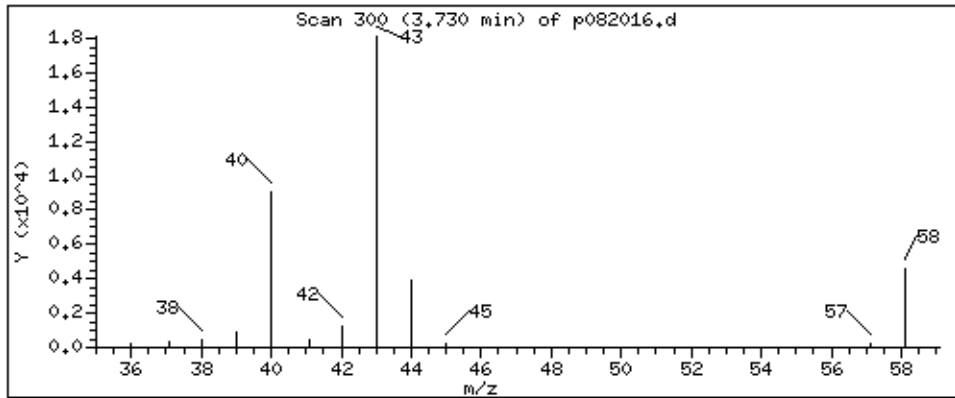
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 14,255 PPBV



Date : 20-AUG-2021 19:51

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2710

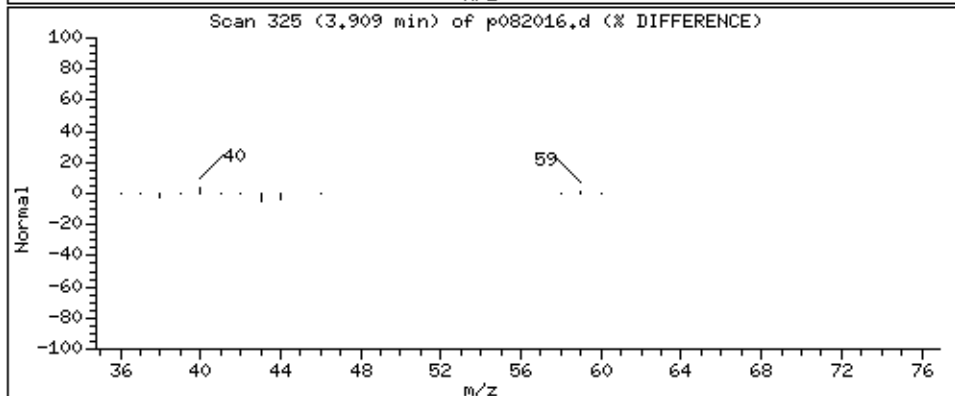
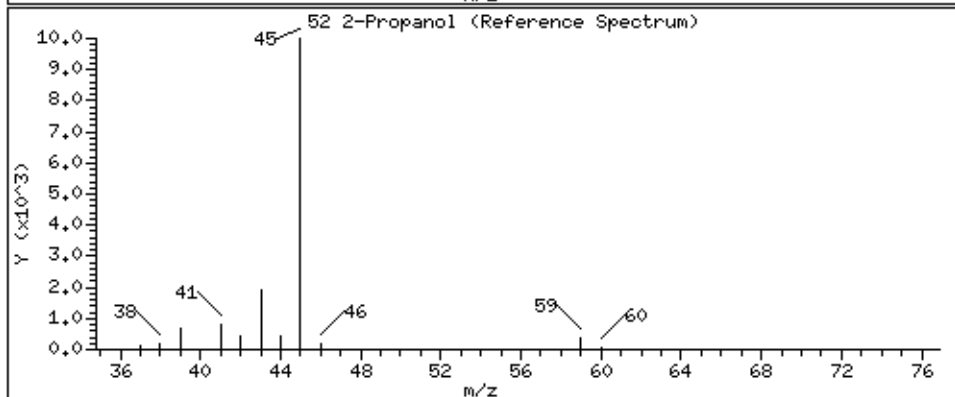
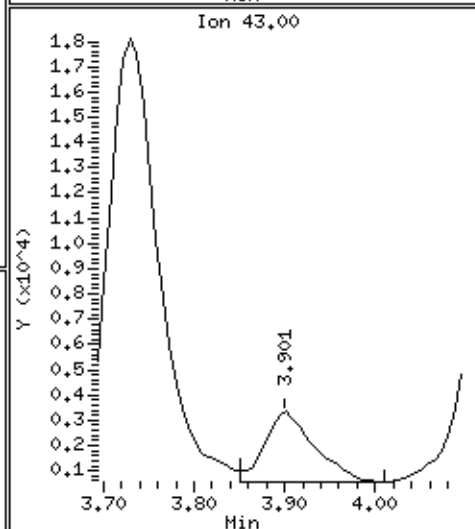
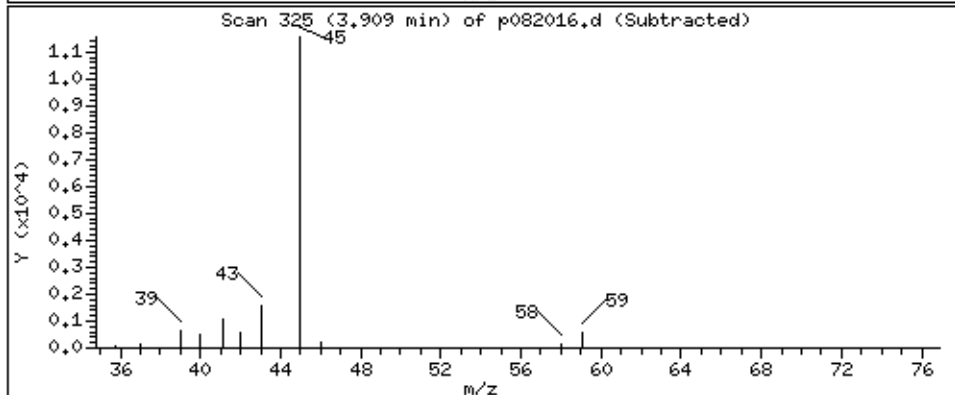
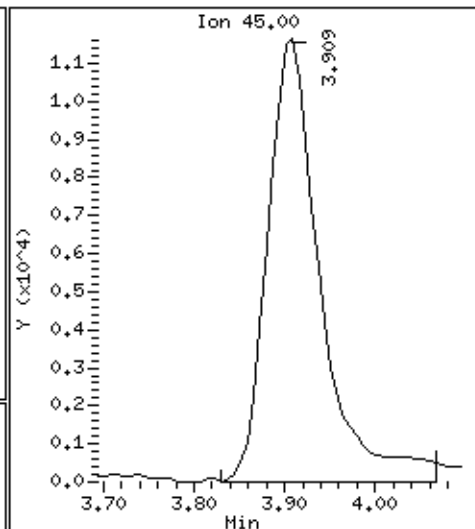
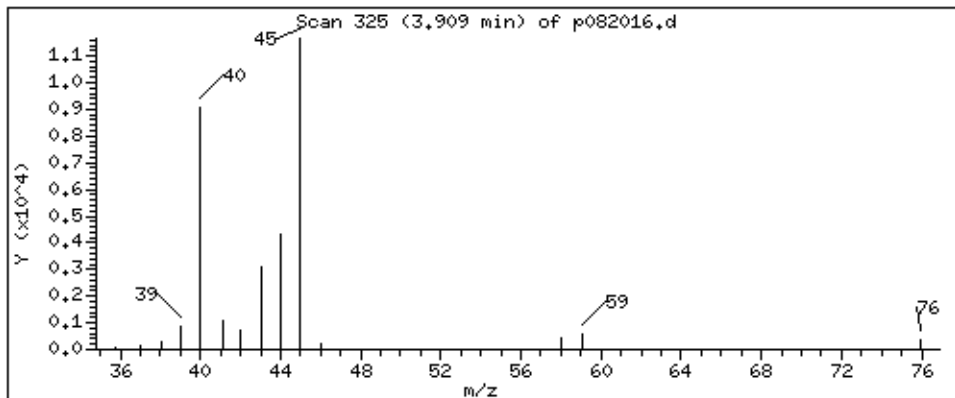
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 8,900 PPBV



Date : 20-AUG-2021 19:51

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2710

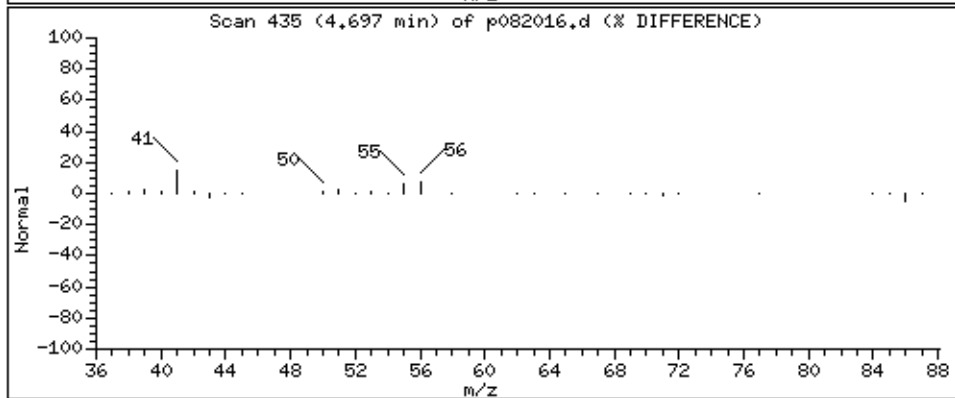
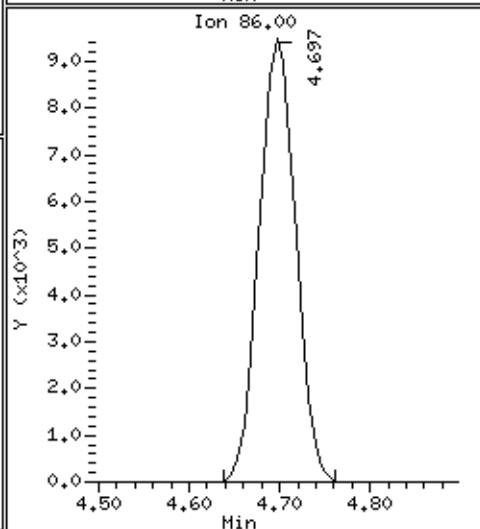
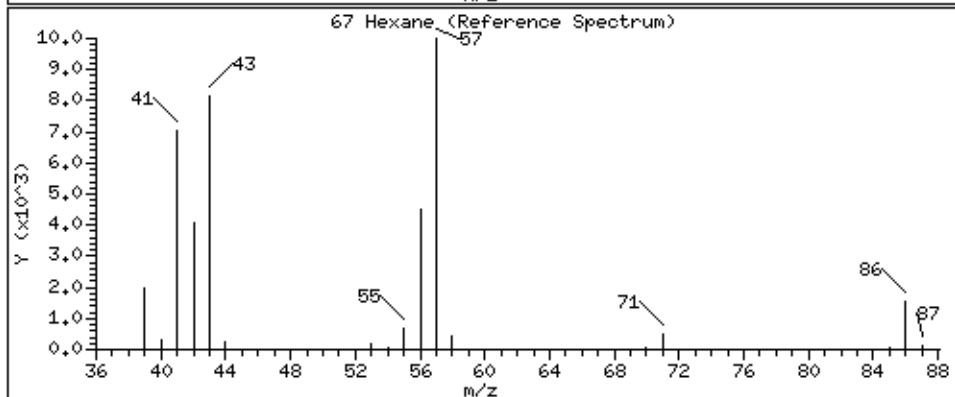
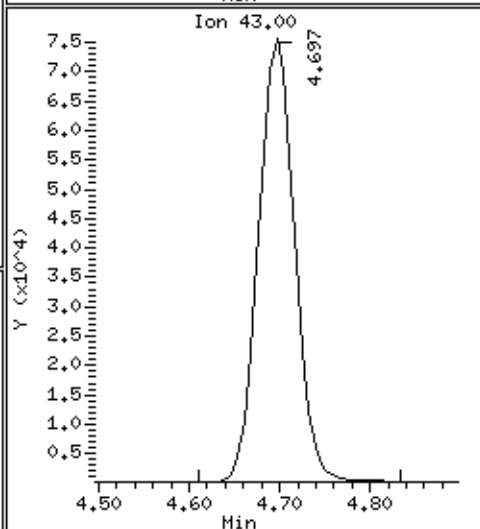
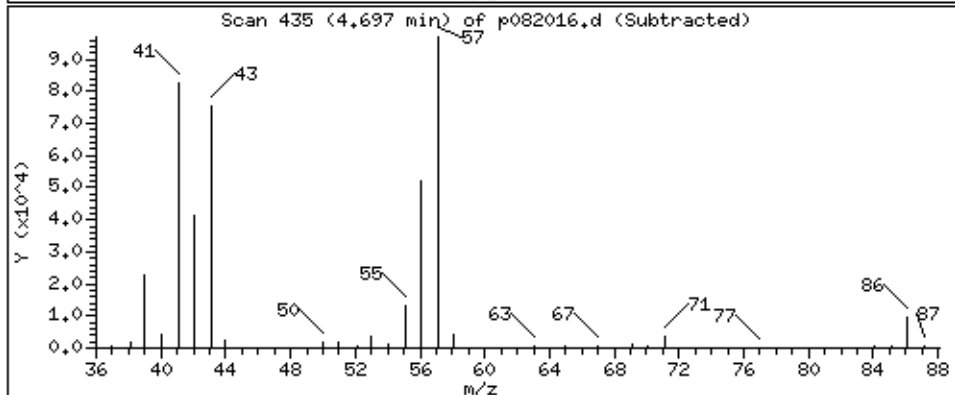
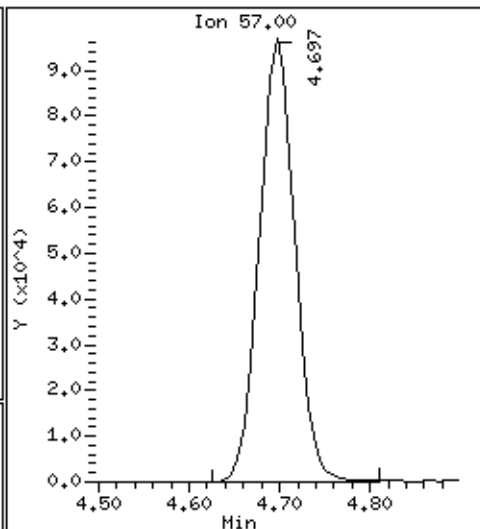
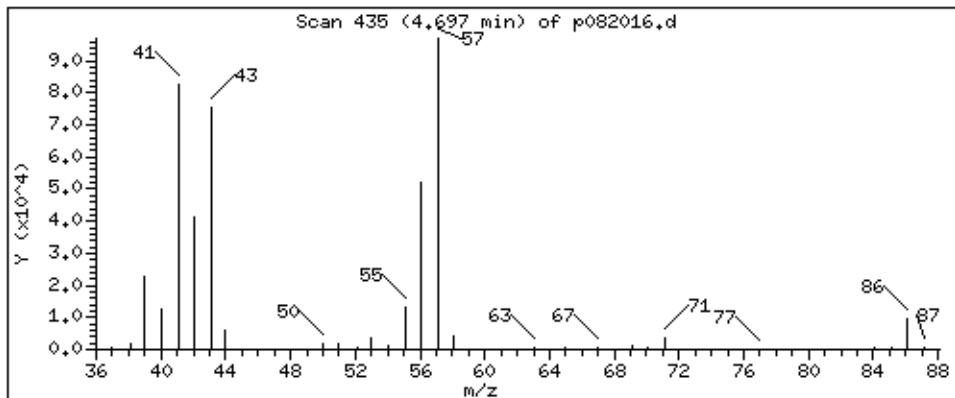
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 53.437 PPBV



Date : 20-AUG-2021 19:51

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2710

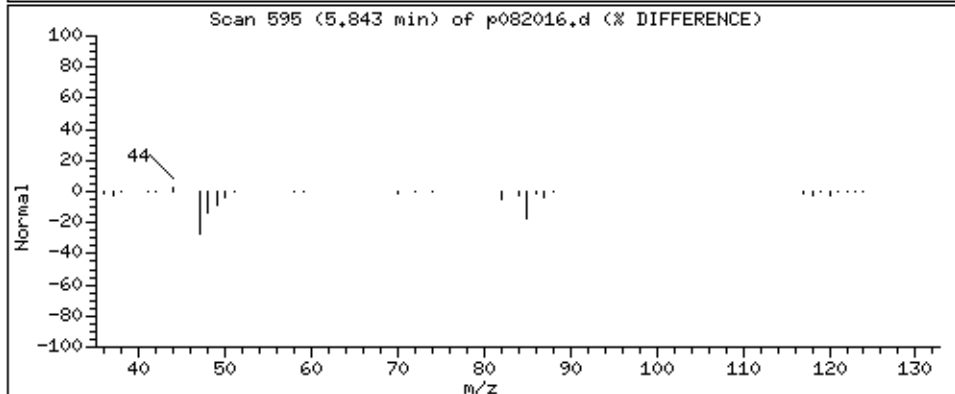
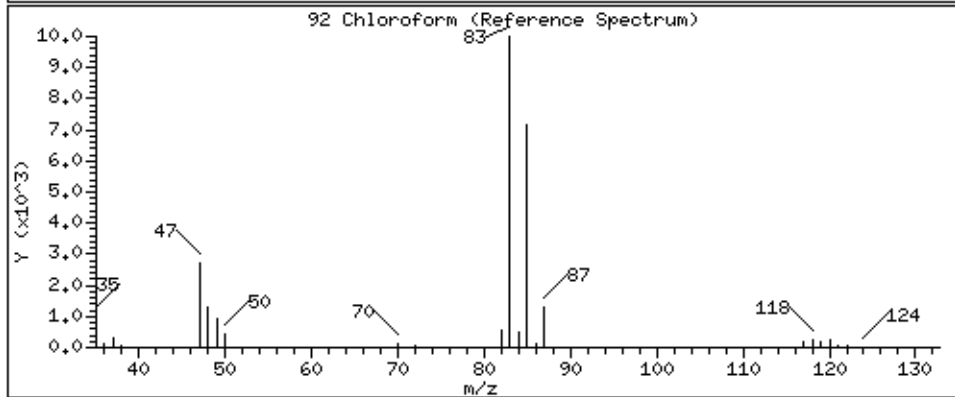
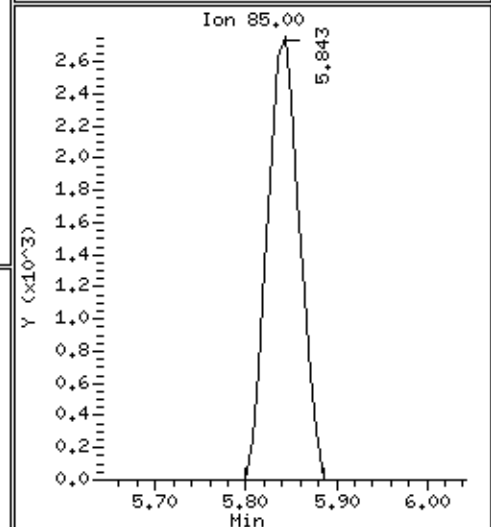
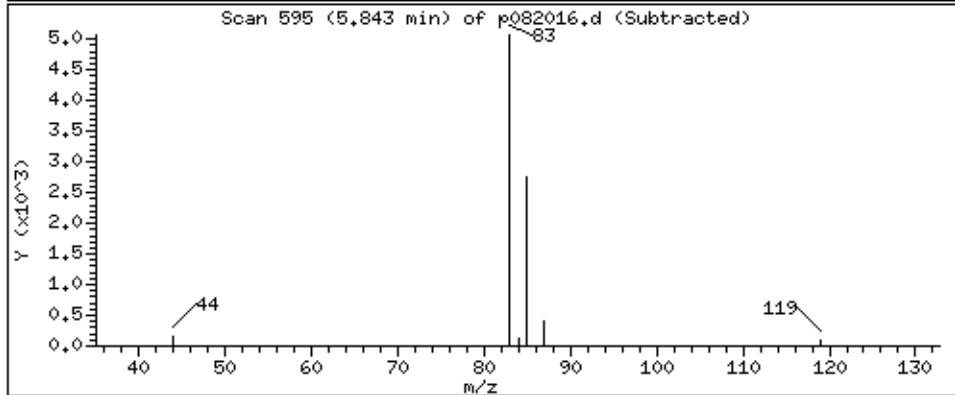
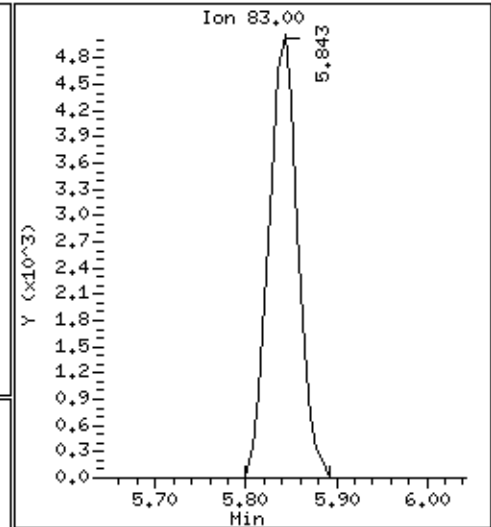
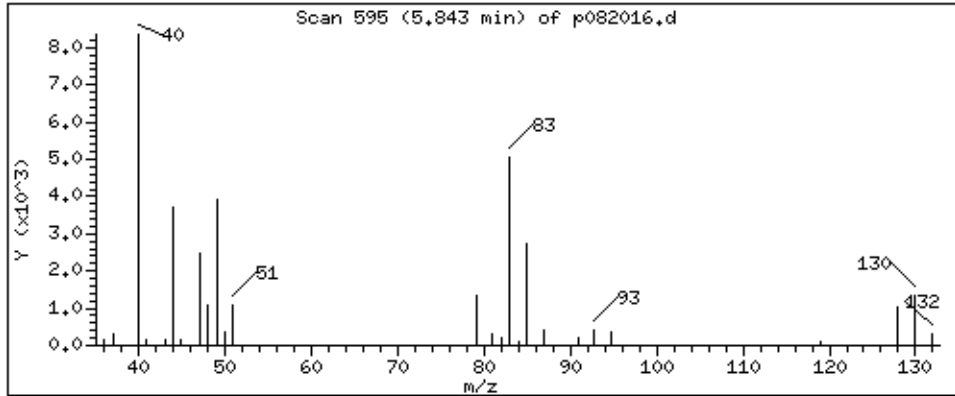
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 2,581 PPBV





Date : 20-AUG-2021 19:51

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2710

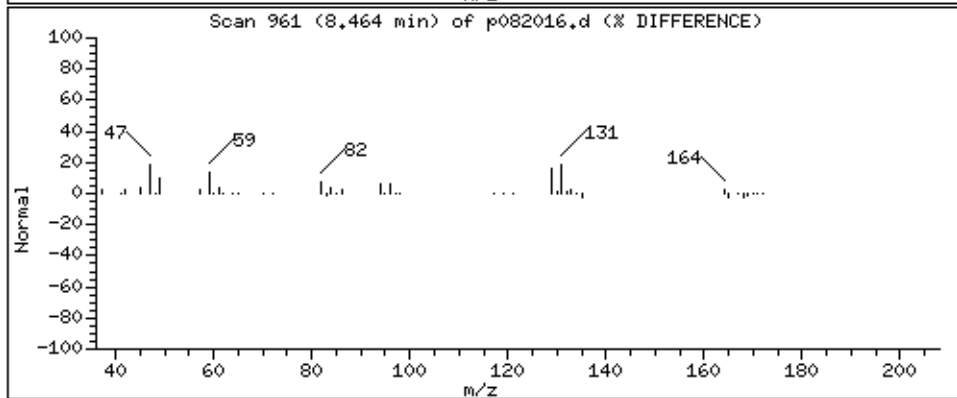
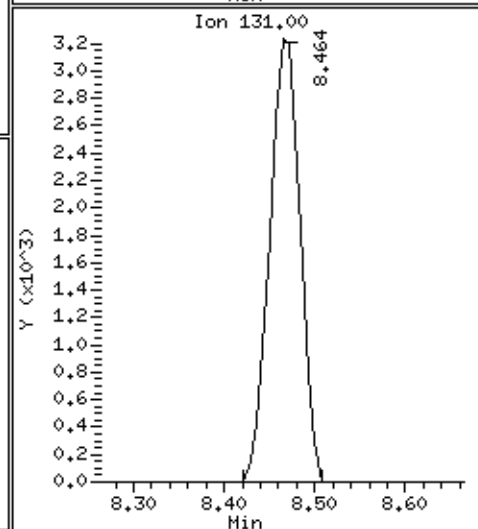
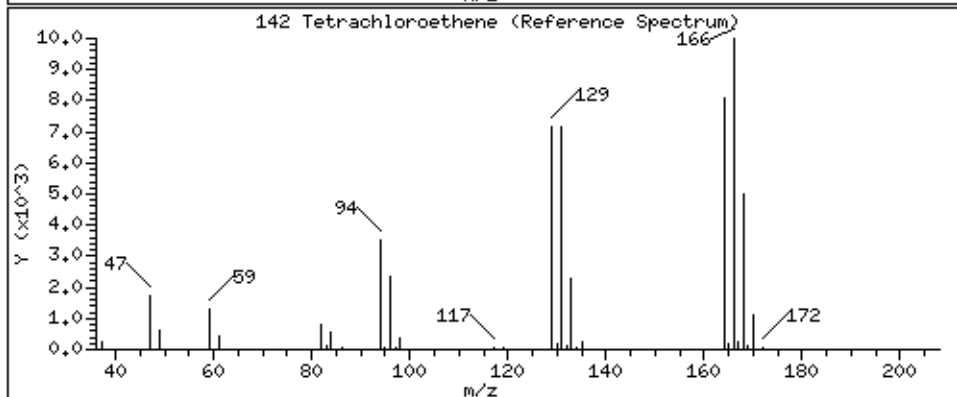
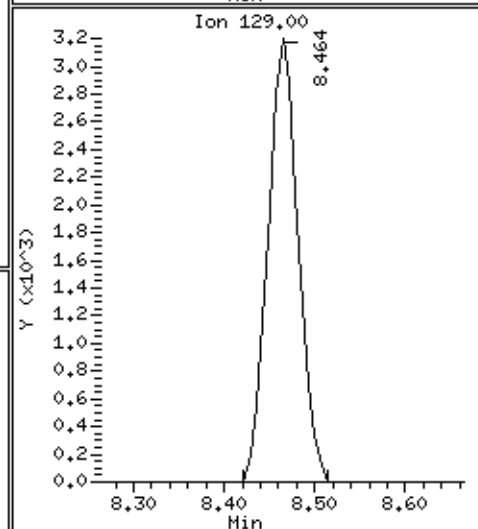
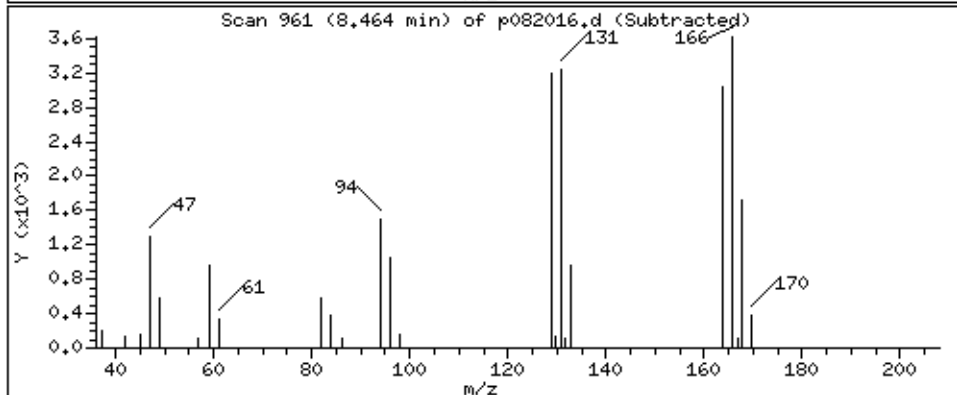
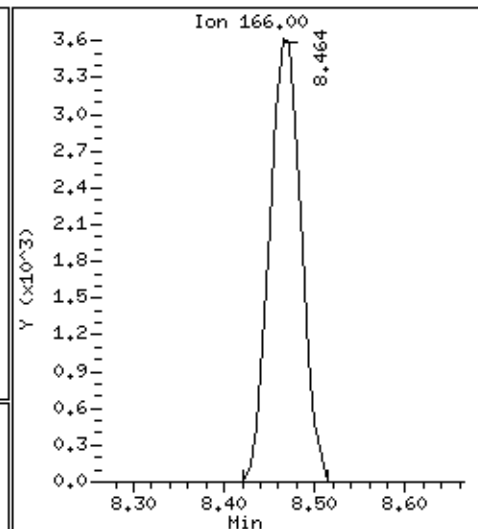
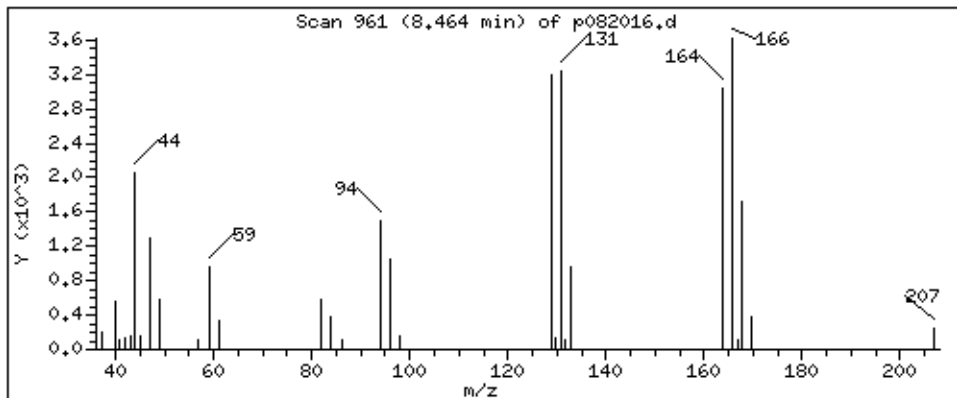
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 2,101 PPBV



Date : 20-AUG-2021 19:51

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2710

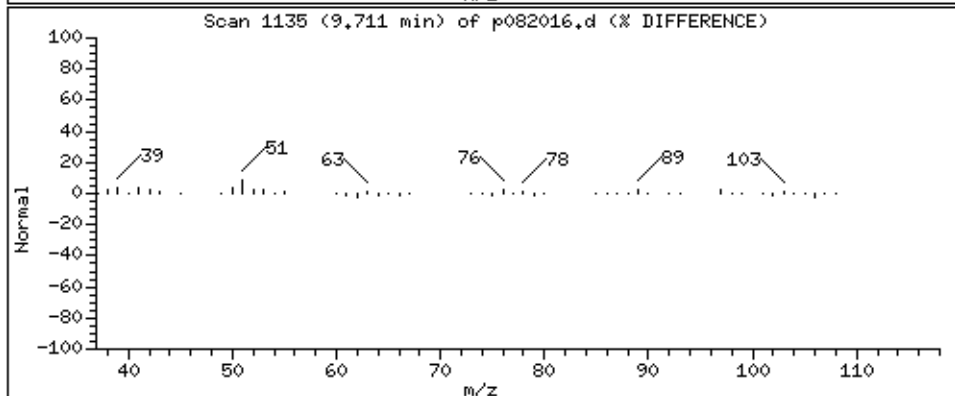
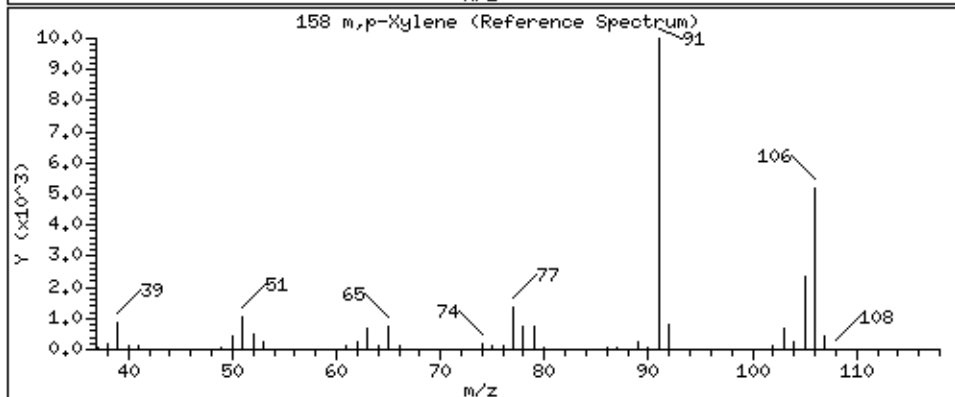
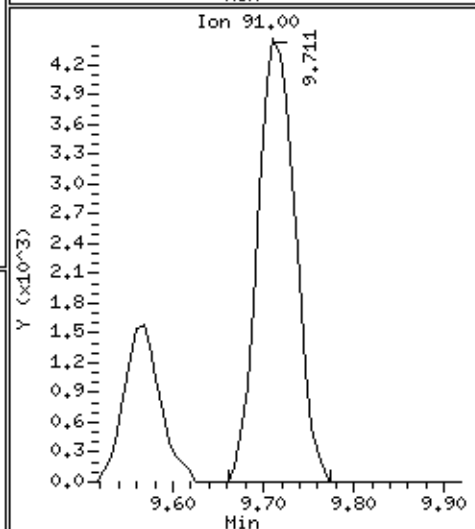
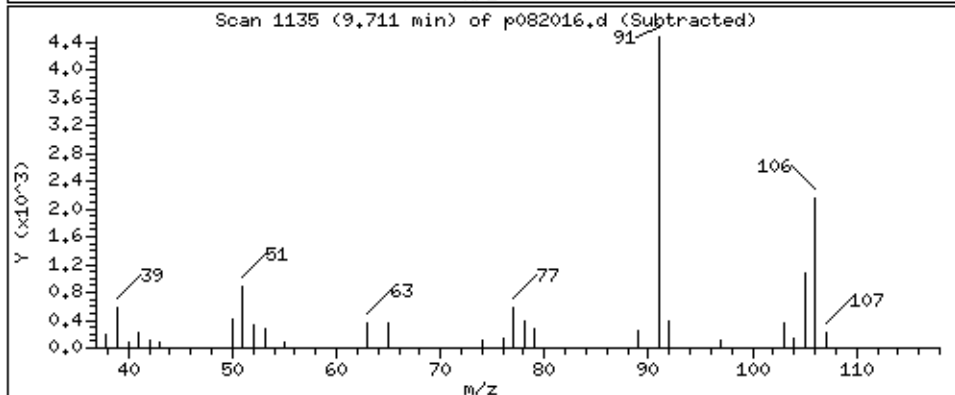
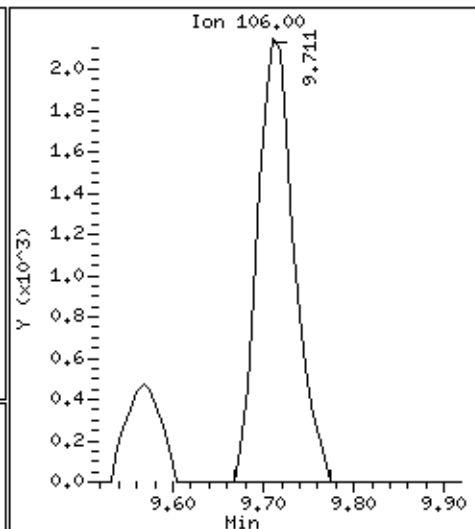
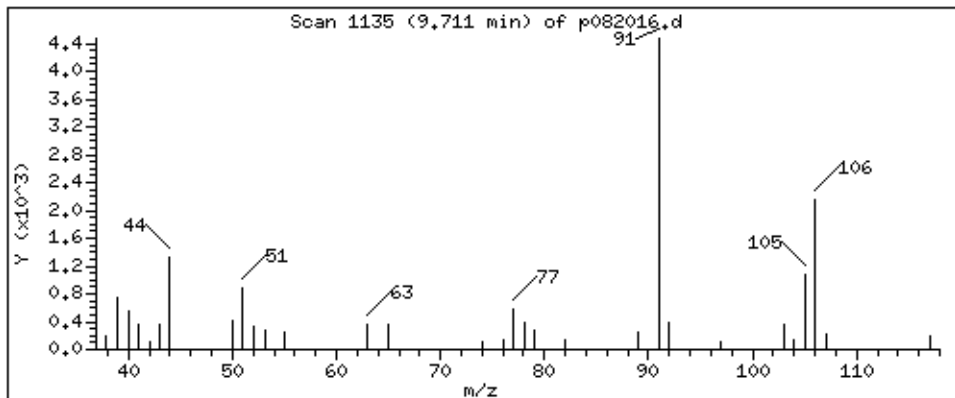
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 1.259 PPBV



Client Sample ID: SG-VW63B-02

Lab ID#: 2108390-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082017	Date of Collection:	8/16/21 3:18:00 PM
Dil. Factor:	2.10	Date of Analysis:	8/20/21 08:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.2	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,2-Dibromo-3-chloropropane	4.2	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected
2-Propanol	4.2	Not Detected	10	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Acetone	10	Not Detected	25	Not Detected
Acrolein	4.2	Not Detected	9.6	Not Detected
Acrylonitrile	4.2	Not Detected	9.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
Bromodichloromethane	1.0	1.7	7.0	11
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Chloroform	1.0	32	5.1	150
Chloromethane	10	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected



Air Toxics

Client Sample ID: SG-VW63B-02

Lab ID#: 2108390-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082017	Date of Collection:	8/16/21 3:18:00 PM
Dil. Factor:	2.10	Date of Analysis:	8/20/21 08:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
Dibromomethane	4.2	Not Detected	30	Not Detected
Ethanol	10	Not Detected	20	Not Detected
Ethyl Acetate	4.2	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.2	Not Detected	18	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 12	1.0	4.6	5.2	22
Freon 113	1.0	Not Detected	8.0	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Freon 134a	4.2	Not Detected	18	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected
Hexachloroethane	4.2	Not Detected	41	Not Detected
Hexane	1.0	150	3.7	530
Iodomethane	10	Not Detected	61	Not Detected
Isopropyl ether	4.2	Not Detected	18	Not Detected
m,p-Xylene	1.0	Not Detected	4.6	Not Detected
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.6	Not Detected
Propylbenzene	1.0	Not Detected	5.2	Not Detected
Propylene	4.2	Not Detected	7.2	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
tert-Amyl methyl ether	4.2	Not Detected	18	Not Detected
tert-Butyl alcohol	4.2	Not Detected	13	Not Detected
Tetrachloroethene	1.0	18	7.1	120
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Toluene	1.0	Not Detected	4.0	Not Detected
TPH ref. to Gasoline (MW=100)	100	240	430	980
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Vinyl Acetate	4.2	Not Detected	15	Not Detected
Vinyl Bromide	4.2	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW63B-02

Lab ID#: 2108390-10A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082017	Date of Collection: 8/16/21 3:18:00 PM
Dil. Factor:	2.10	Date of Analysis: 8/20/21 08:24 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	106	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082017.d  
Lab Smp Id: 2108390-10A  
Inj Date : 20-AUG-2021 20:24  
Operator : mjb  
Smp Info : 200ml 1L1646  
Misc Info : 6.0 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
Meth Date : 20-Aug-2021 12:59 p5fl  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 10  
Dil Factor: 2.10000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.785	5.785	(1.000)	130	107394	25.0000	80.00- 120.00	100.00		
5.785	5.785	(1.000)	128	82665		48.23- 108.23	76.97		
5.785	5.778	(1.000)	49	261289		150.57- 210.57	243.30		
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.666	6.659	(1.000)	114	384059	25.0000	80.00- 120.00	100.00		
6.666	6.659	(1.000)	88	54916		0.00- 45.71	14.30		
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	393947	25.0000	80.00- 120.00	100.00		
9.460	9.460	(1.000)	82	198846		23.78- 83.78	50.48		
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
6.315	6.315	(1.092)	65	161779	27.2962	27.296 80.00- 120.00	100.00		
6.315	6.315	(1.092)	67	74159		27.21- 87.21	45.84		
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.891	7.891	(1.184)	98	418325	25.0834	25.083 80.00- 120.00	100.00		
7.891	7.891	(1.184)	70	45818		0.00- 40.44	10.95		

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	270104			34.95- 94.95	64.57
-----								
§ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	267040	26.3975	26.397	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	307433			95.92- 155.92	115.13
10.921	10.921	(1.154)	176	252648			66.89- 126.89	94.61
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.731	1.717	(0.299)	85	20936	2.17357	4.564	80.00- 120.00	100.00
1.731	1.717	(0.299)	87	6891			2.37- 62.37	32.92
-----								
67 Hexane								
						CAS #: 110-54-3		
4.697	4.697	(0.812)	57	754841	71.3491	149.83	80.00- 120.00	100.00
4.697	4.697	(0.812)	43	609720			37.52- 97.52	80.77
4.697	4.697	(0.812)	86	74923			0.00- 41.48	9.93
-----								
92 Chloroform								
						CAS #: 67-66-3		
5.843	5.843	(1.010)	83	141202	15.1113	31.734	80.00- 120.00	100.00
5.843	5.843	(1.010)	85	91192			34.70- 94.70	64.58
-----								
122 Bromodichloromethane								
						CAS #: 75-27-4		
7.318	7.318	(1.098)	83	7637	0.80091	1.682	80.00- 120.00	100.00
7.318	7.318	(1.098)	85	6032			35.24- 95.24	78.98
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
8.471	8.464	(0.895)	166	79141	8.81463	18.511	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	61915			47.84- 107.84	78.23
8.464	8.464	(0.895)	131	58933			45.29- 105.29	74.47
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082017.d  
 Lab Smp Id: 2108390-10A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: mjb  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 6.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	107394	-1.81
108 1,4-Difluorobenze	406799	244079	569519	384059	-5.59
153 Chlorobenzene-d5	400841	240505	561177	393947	-1.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.



US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-10A  
Level: LOW Operator: mjb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.296	109.18	70-130
\$ 134 Toluene-d8	25.000	25.083	100.33	70-130
\$ 170 4-Bromofluorobenz	25.000	26.397	105.59	70-130

Date : 20-AUG-2021 20:24

Client ID:

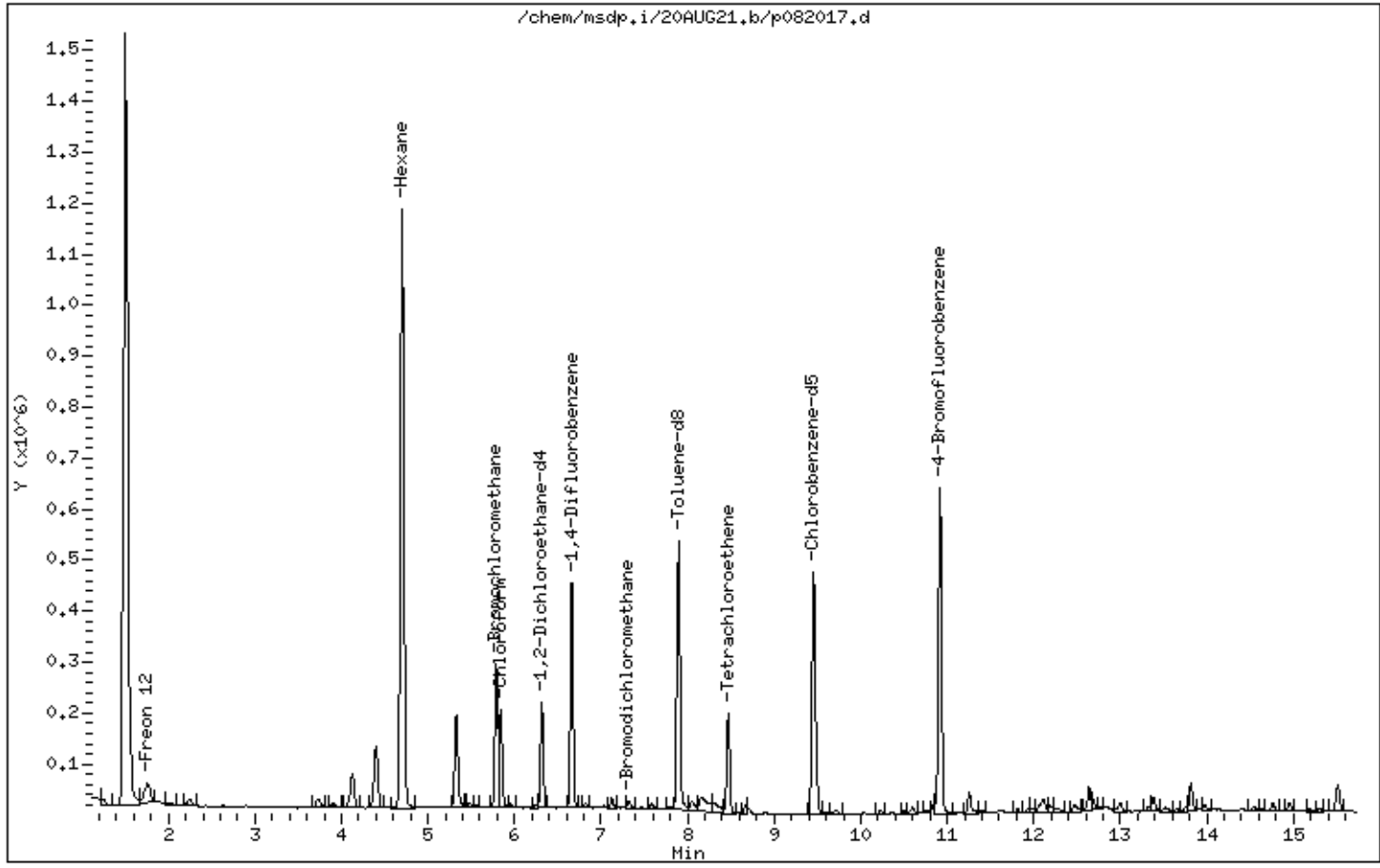
Instrument: msdp.i

Sample Info: 200ml 1L1646

Operator: mjb

Column phase: RTX-624

Column diameter: 0.25



Date : 20-AUG-2021 20:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1646

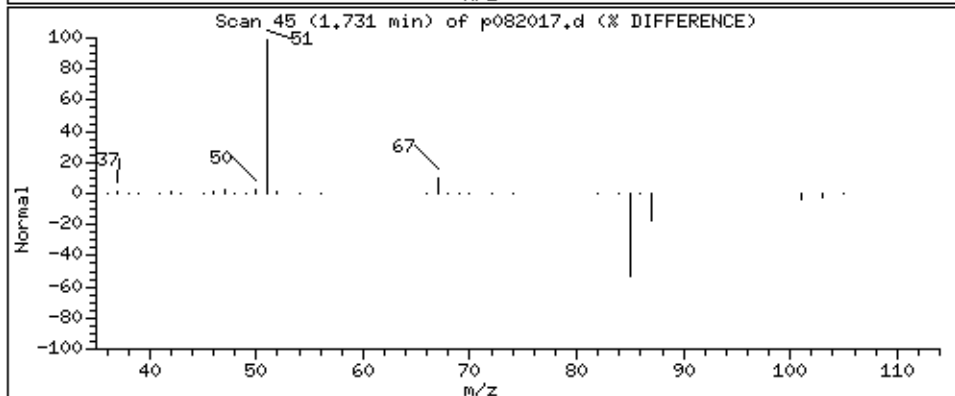
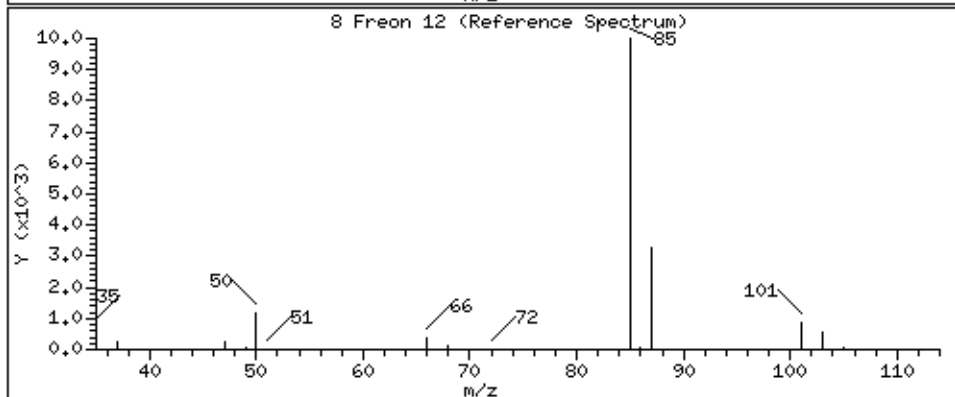
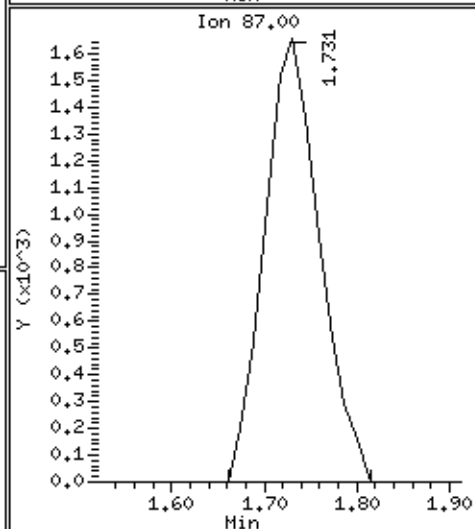
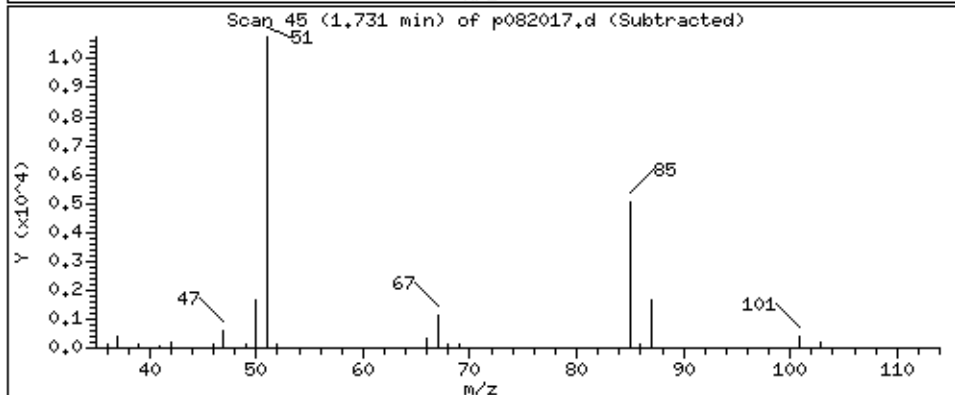
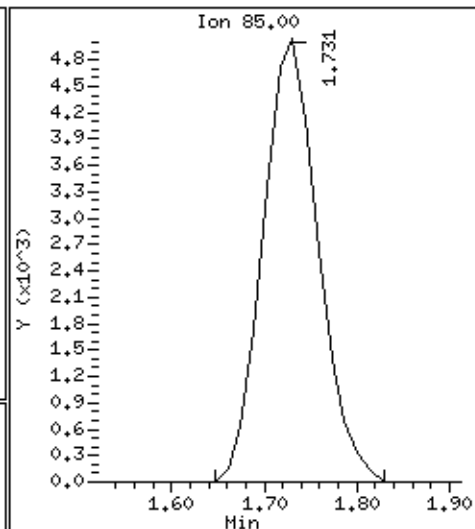
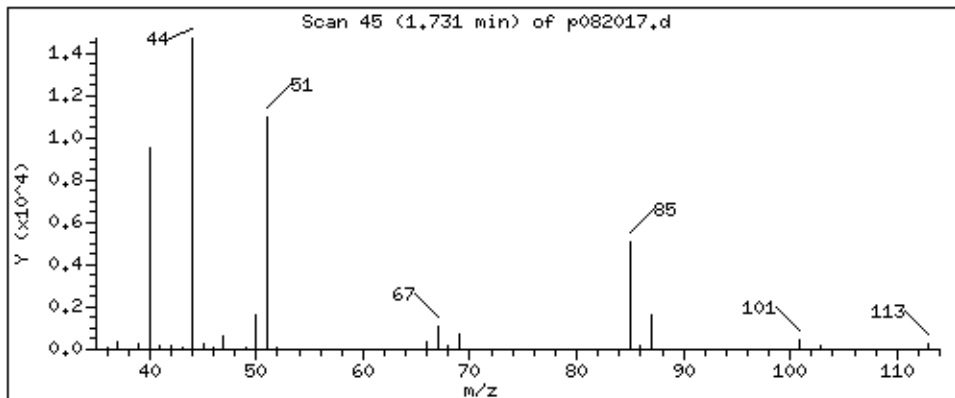
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 4.564 PPBV



Date : 20-AUG-2021 20:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1646

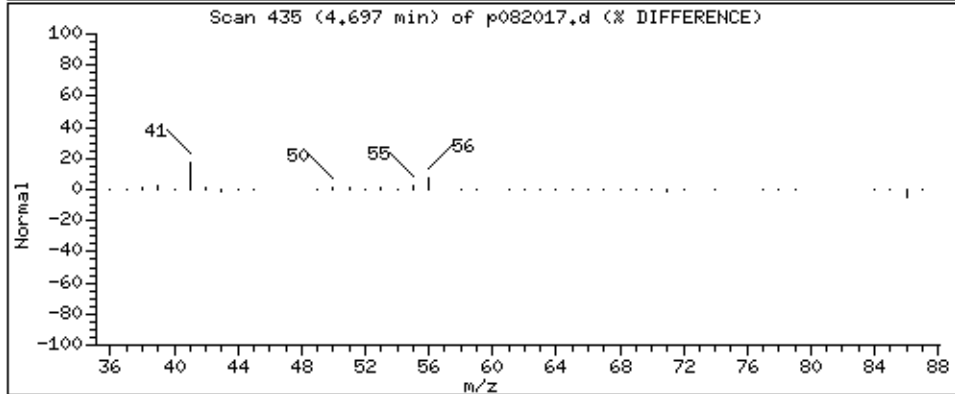
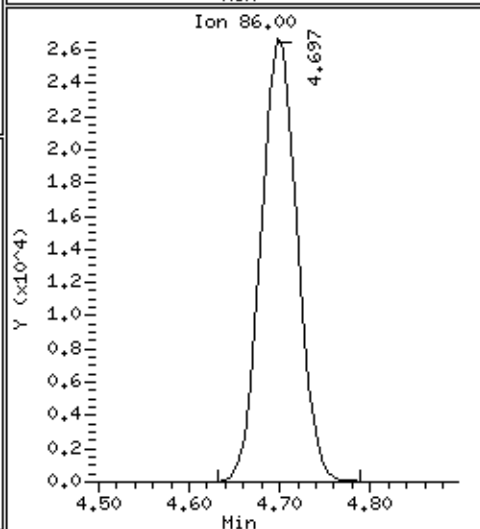
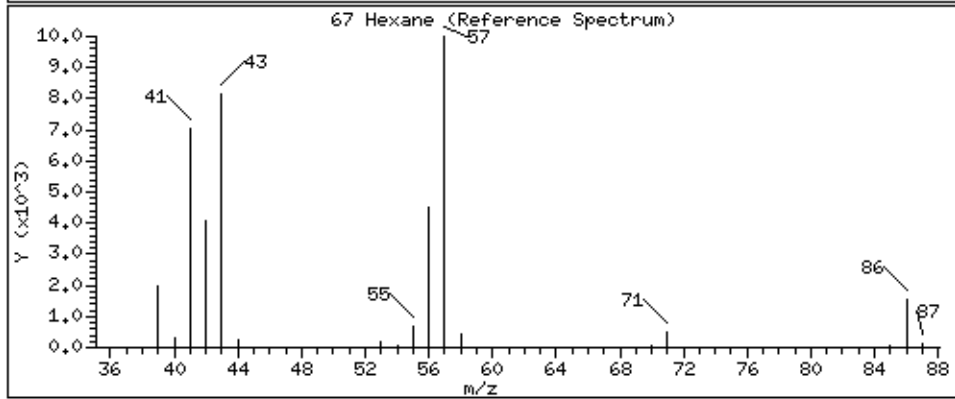
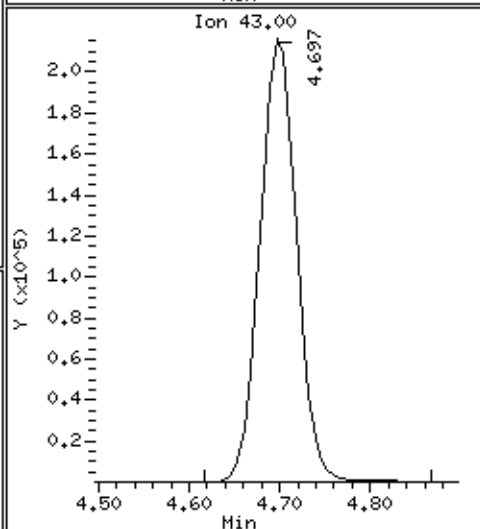
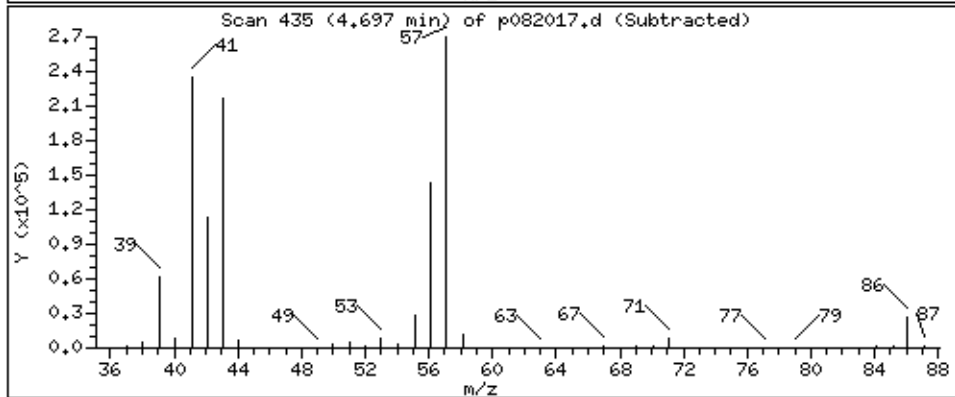
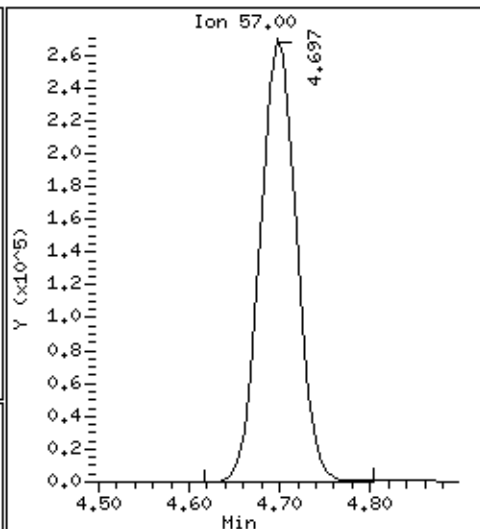
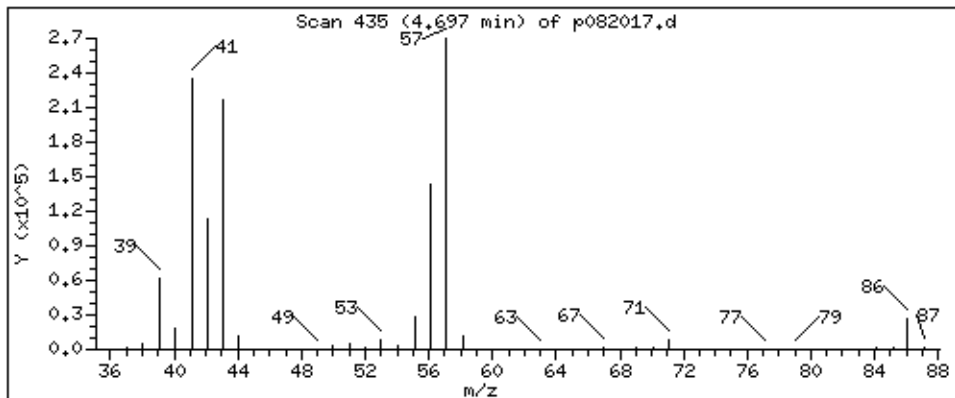
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 149.83 PPBV



Date : 20-AUG-2021 20:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1646

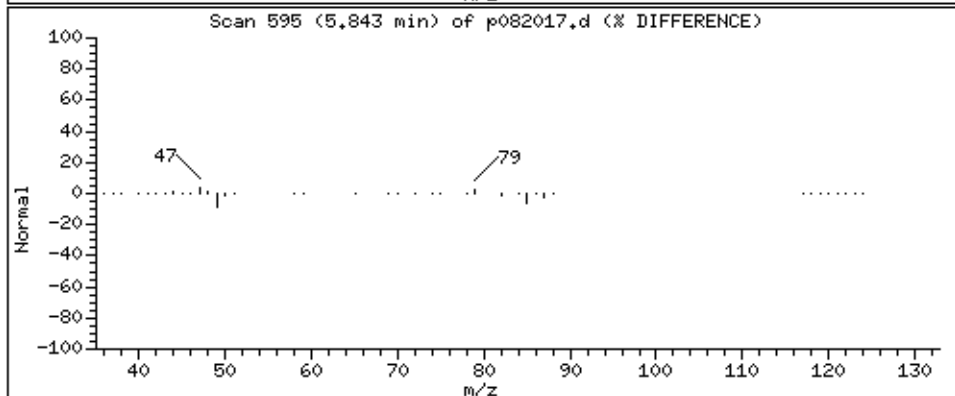
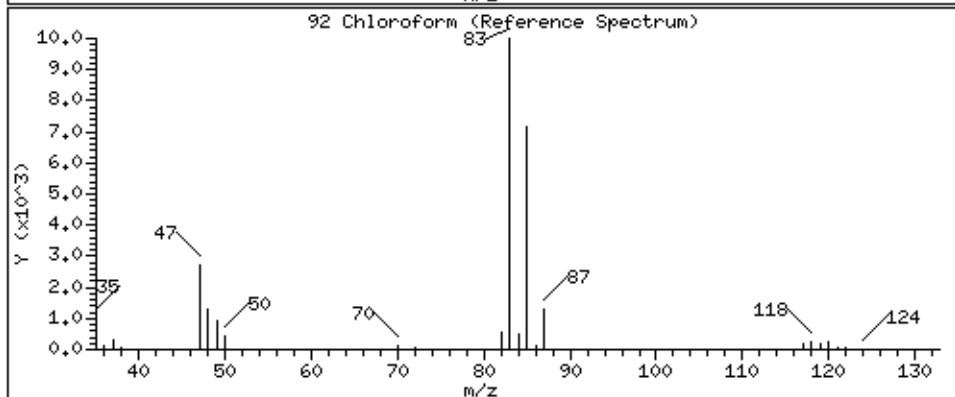
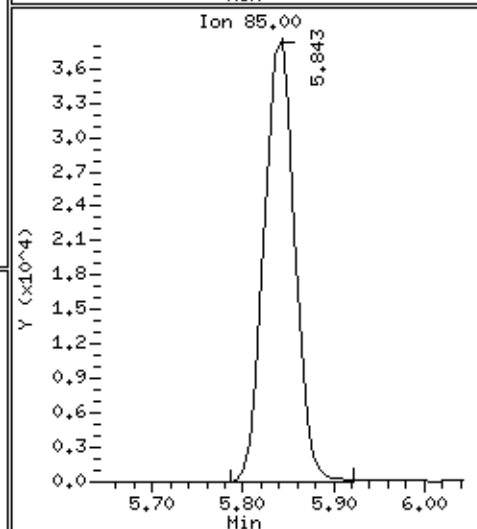
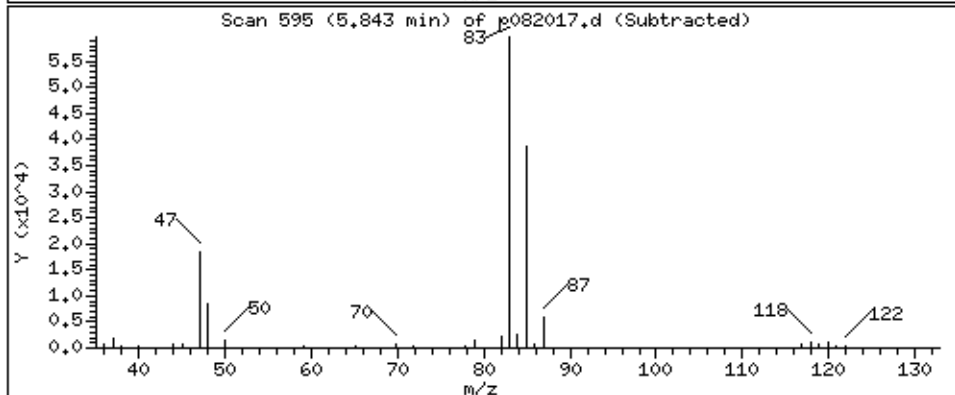
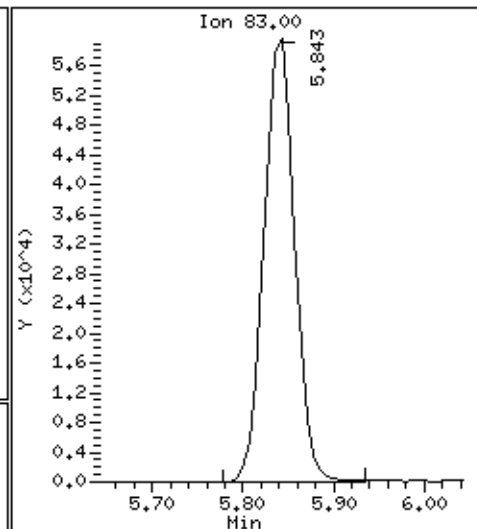
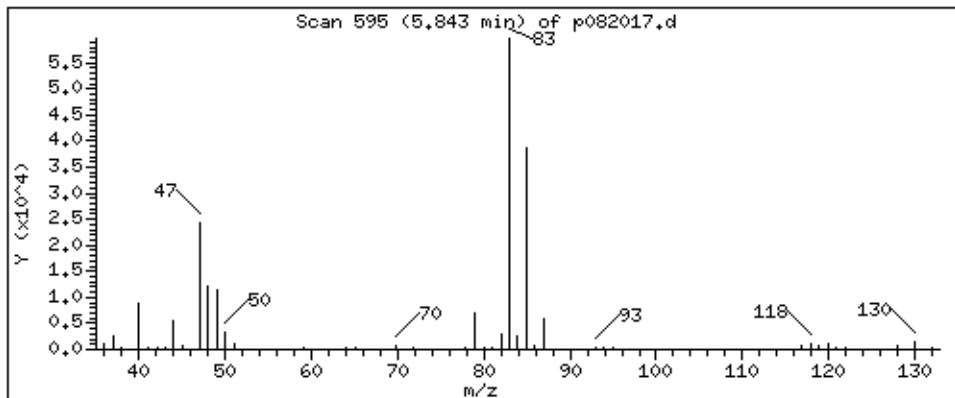
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 31.734 PPBV



Date : 20-AUG-2021 20:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1646

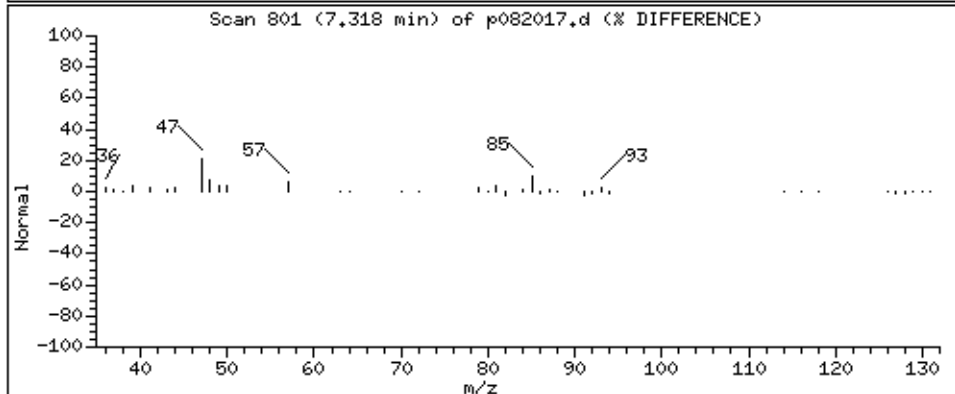
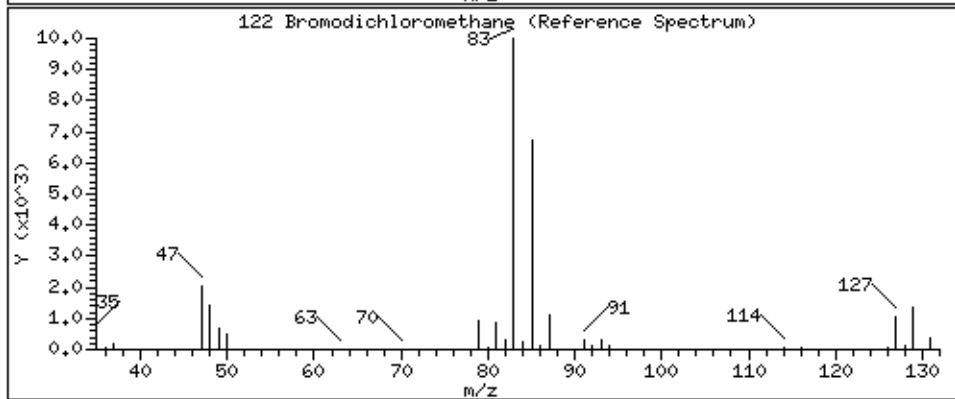
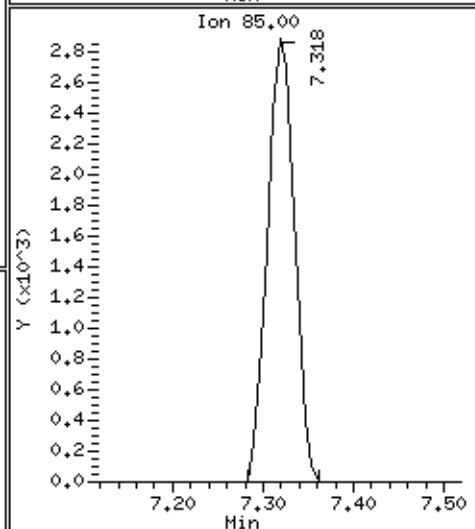
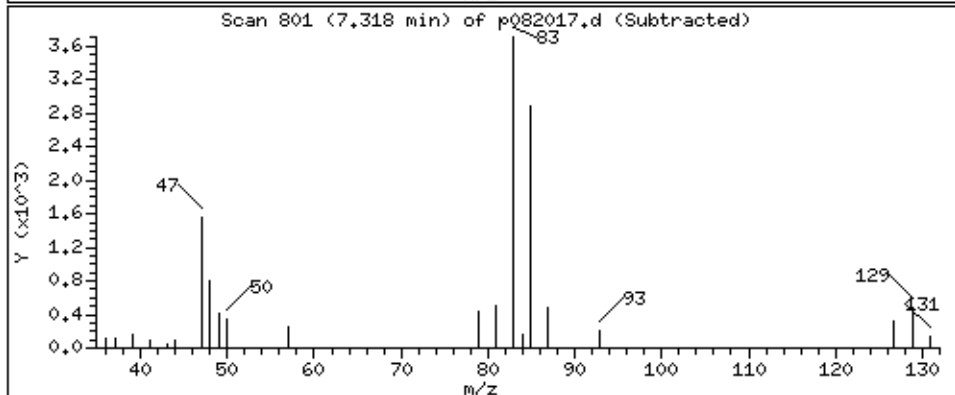
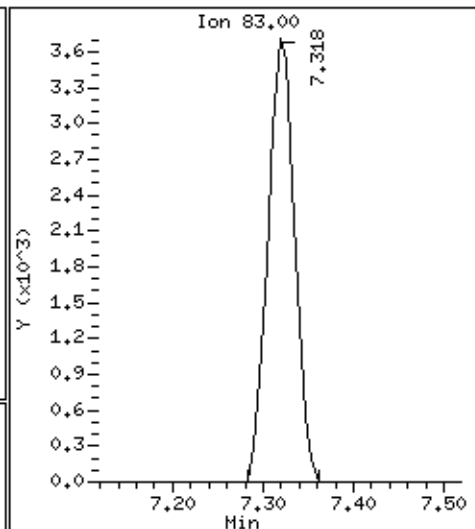
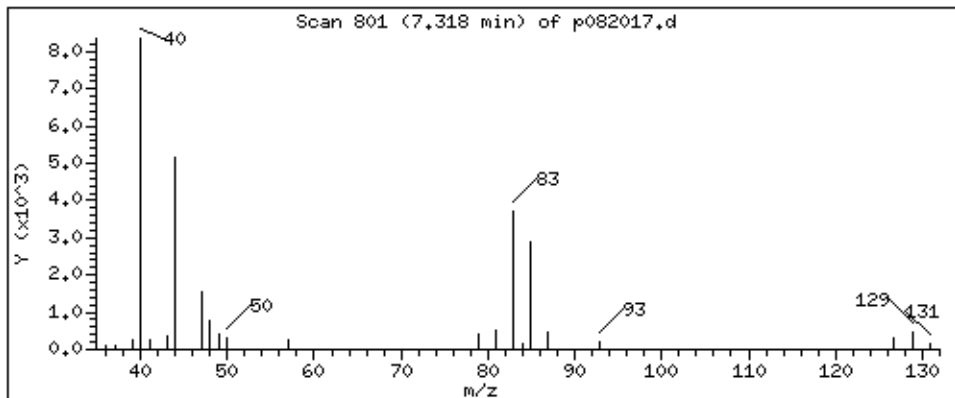
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

122 Bromodichloromethane

Concentration: 1,682 PPBV



Date : 20-AUG-2021 20:24

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1646

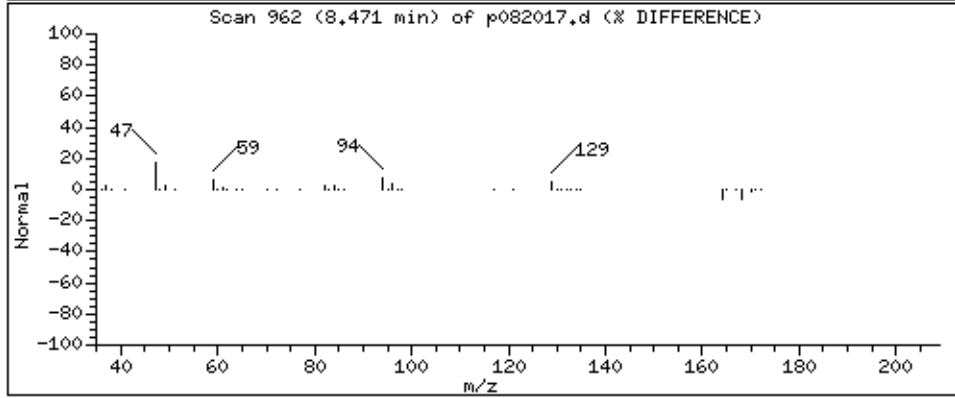
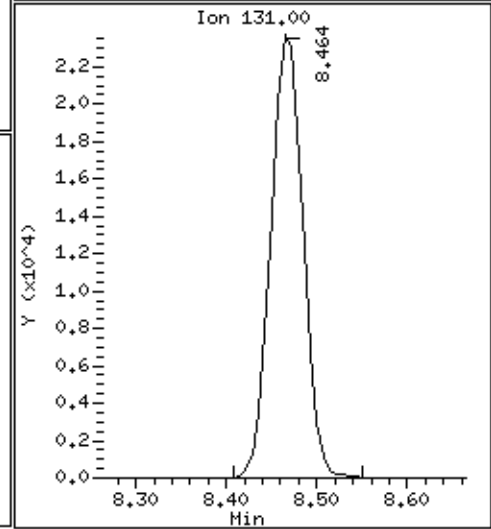
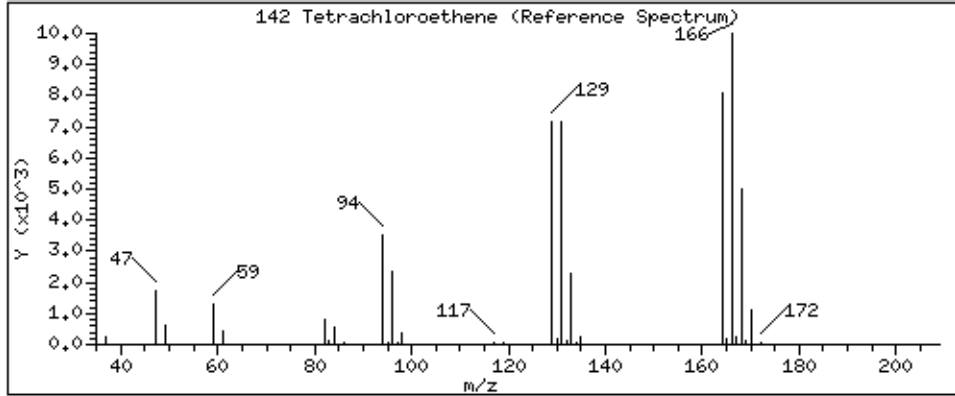
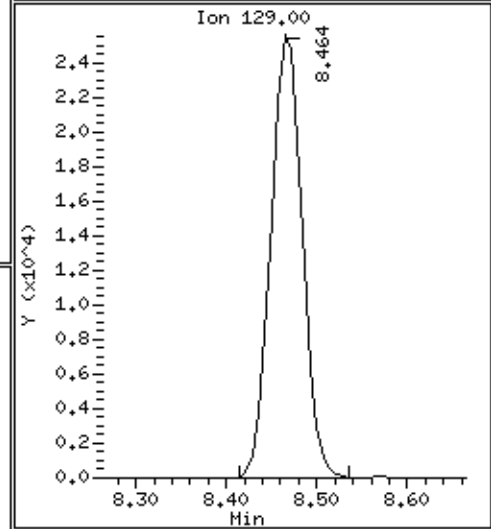
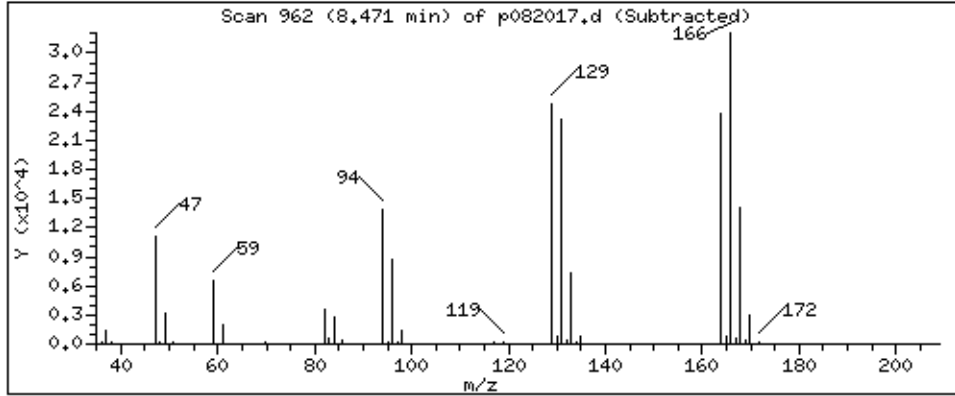
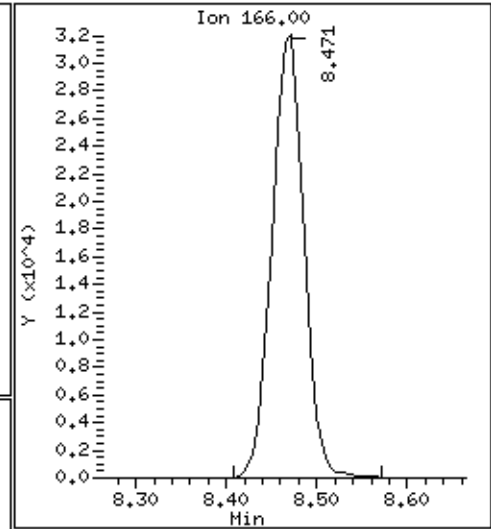
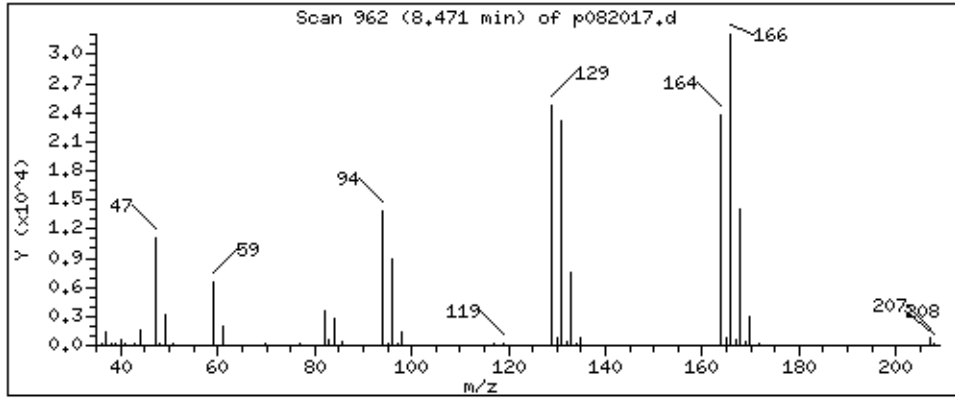
Operator: mjb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 18,511 PPBV



Client Sample ID: SG-VW63B-03

Lab ID#: 2108390-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082020	Date of Collection:	8/16/21 3:18:00 PM
Dil. Factor:	2.10	Date of Analysis:	8/20/21 11:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.2	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,2-Dibromo-3-chloropropane	4.2	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected
2-Propanol	4.2	Not Detected	10	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Acetone	10	Not Detected	25	Not Detected
Acrolein	4.2	Not Detected	9.6	Not Detected
Acrylonitrile	4.2	Not Detected	9.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
Bromodichloromethane	1.0	1.8	7.0	12
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Chloroform	1.0	31	5.1	150
Chloromethane	10	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected





Air Toxics

Client Sample ID: SG-VW63B-03

Lab ID#: 2108390-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082020	Date of Collection:	8/16/21 3:18:00 PM
Dil. Factor:	2.10	Date of Analysis:	8/20/21 11:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
Dibromomethane	4.2	Not Detected	30	Not Detected
Ethanol	10	Not Detected	20	Not Detected
Ethyl Acetate	4.2	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.2	Not Detected	18	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 12	1.0	4.3	5.2	21
Freon 113	1.0	Not Detected	8.0	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Freon 134a	4.2	Not Detected	18	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected
Hexachloroethane	4.2	Not Detected	41	Not Detected
Hexane	1.0	56	3.7	200
Iodomethane	10	Not Detected	61	Not Detected
Isopropyl ether	4.2	Not Detected	18	Not Detected
m,p-Xylene	1.0	Not Detected	4.6	Not Detected
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.6	Not Detected
Propylbenzene	1.0	Not Detected	5.2	Not Detected
Propylene	4.2	Not Detected	7.2	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
tert-Amyl methyl ether	4.2	Not Detected	18	Not Detected
tert-Butyl alcohol	4.2	Not Detected	13	Not Detected
Tetrachloroethene	1.0	18	7.1	120
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Toluene	1.0	Not Detected	4.0	Not Detected
TPH ref. to Gasoline (MW=100)	100	110	430	450
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Vinyl Acetate	4.2	Not Detected	15	Not Detected
Vinyl Bromide	4.2	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW63B-03**
**Lab ID#: 2108390-11A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p082020</b>	<b>Date of Collection: 8/16/21 3:18:00 PM</b>
<b>Dil. Factor:</b>	<b>2.10</b>	<b>Date of Analysis: 8/20/21 11:45 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	103	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082020.d  
Lab Smp Id: 2108390-11A  
Inj Date : 20-AUG-2021 23:45  
Operator : kk Inst ID: msdp.i  
Smp Info : 200ml 1L1754  
Misc Info : 6.0 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
Meth Date : 20-Aug-2021 12:59 p5f1 Quant Type: ISTD  
Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
Als bottle: 2  
Dil Factor: 2.10000  
Integrator: HP RTE Compound Sublist: AEC25677.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.785	5.785	(1.000)	130	106163	25.0000	80.00- 120.00	100.00		
5.785	5.785	(1.000)	128	81223		48.23- 108.23	76.51		
5.785	5.778	(1.000)	49	255680		150.57- 210.57	240.84		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.659	6.659	(1.000)	114	380167	25.0000	80.00- 120.00	100.00		
6.659	6.659	(1.000)	88	55630		0.00- 45.71	14.63		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	392144	25.0000	80.00- 120.00	100.00		
9.460	9.460	(1.000)	82	201824		23.78- 83.78	51.47		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
6.315	6.315	(1.092)	65	160460	27.3876	27.388 80.00- 120.00	100.00		
6.315	6.315	(1.092)	67	74958		27.21- 87.21	46.71		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.891	7.891	(1.185)	98	419695	25.4232	25.423 80.00- 120.00	100.00		
7.891	7.891	(1.185)	70	45662		0.00- 40.44	10.88		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	267501			34.95- 94.95	63.74
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	259676	25.7876	25.788	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	302891			95.92- 155.92	116.64
10.921	10.921	(1.154)	176	246629			66.89- 126.89	94.98
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.730	1.717	(0.299)	85	19494	2.04733	4.299	80.00- 120.00	100.00
1.730	1.717	(0.299)	87	6261			2.37- 62.37	32.12
-----								
67 Hexane								
						CAS #: 110-54-3		
4.696	4.697	(0.812)	57	276926	26.4791	55.606	80.00- 120.00	100.00
4.696	4.697	(0.812)	43	223487			37.52- 97.52	80.70
4.696	4.697	(0.812)	86	26831			0.00- 41.48	9.69
-----								
92 Chloroform								
						CAS #: 67-66-3		
5.842	5.843	(1.010)	83	135525	14.6720	30.811	80.00- 120.00	100.00
5.842	5.843	(1.010)	85	89045			34.70- 94.70	65.70
-----								
122 Bromodichloromethane								
						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	8220	0.87088	1.829	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	5363			35.24- 95.24	65.24
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	75379	8.43422	17.712	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	58704			47.84- 107.84	77.88
8.464	8.464	(0.895)	131	57883			45.29- 105.29	76.79
-----								

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INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p082020.d  
Lab Smp Id: 2108390-11A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: kk  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
Calibration Time: 11:13  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	106163	-2.94
108 1,4-Difluorobenze	406799	244079	569519	380167	-6.55
153 Chlorobenzene-d5	400841	240505	561177	392144	-2.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Report Date: 24-Aug-2021 11:22

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: 2108390-11A  
 Level: LOW Operator: kk  
 Data Type: MS DATA SampleType: SAMPLE  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AEC25677.sub  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 6.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.388	109.55	70-130
\$ 134 Toluene-d8	25.000	25.423	101.69	70-130
\$ 170 4-Bromofluorobenz	25.000	25.788	103.15	70-130

Date : 20-AUG-2021 23:45

Client ID:

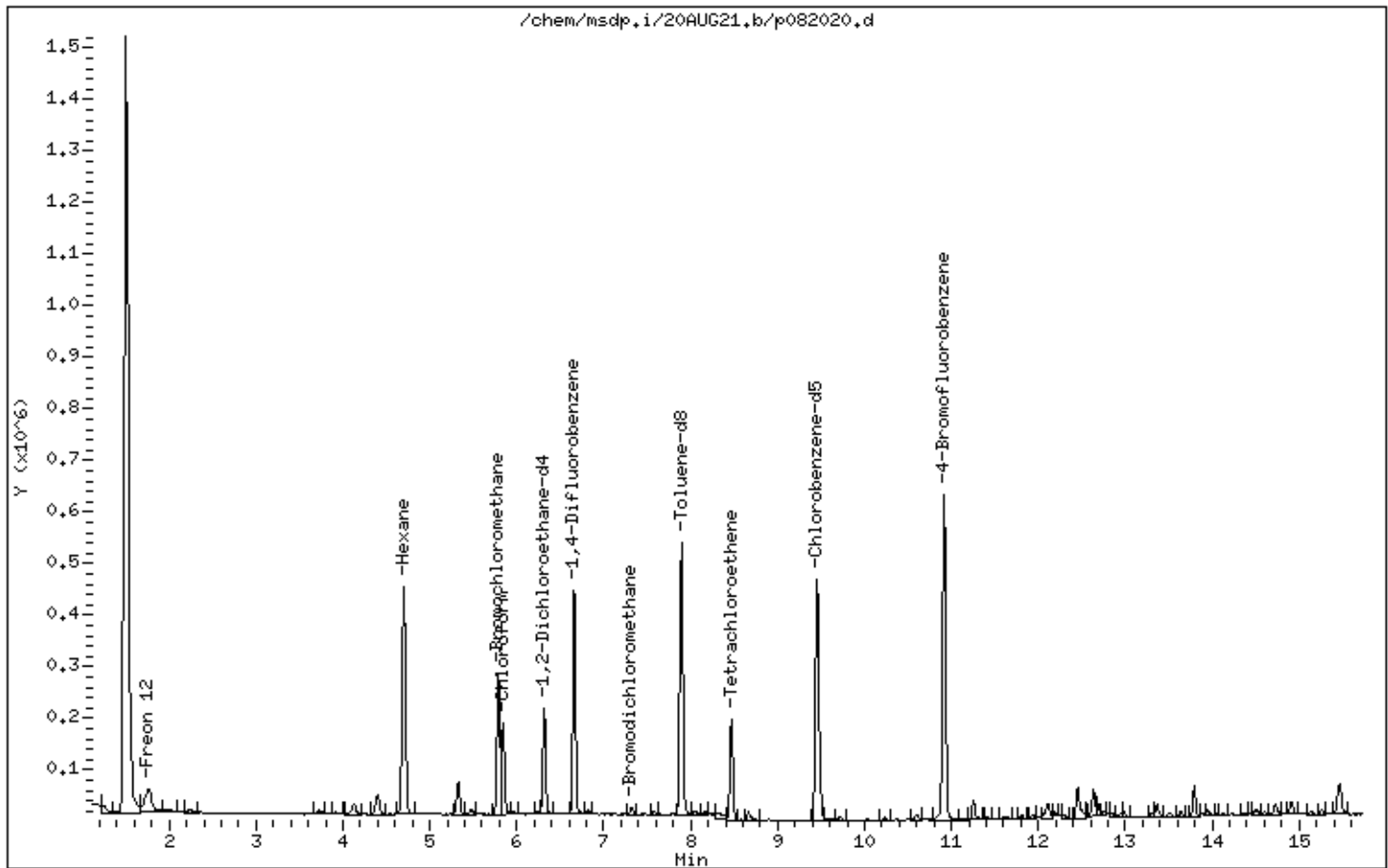
Instrument: msdp.i

Sample Info: 200ml 1L1754

Operator: kk

Column phase: RTX-624

Column diameter: 0.25



Date : 20-AUG-2021 23:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1754

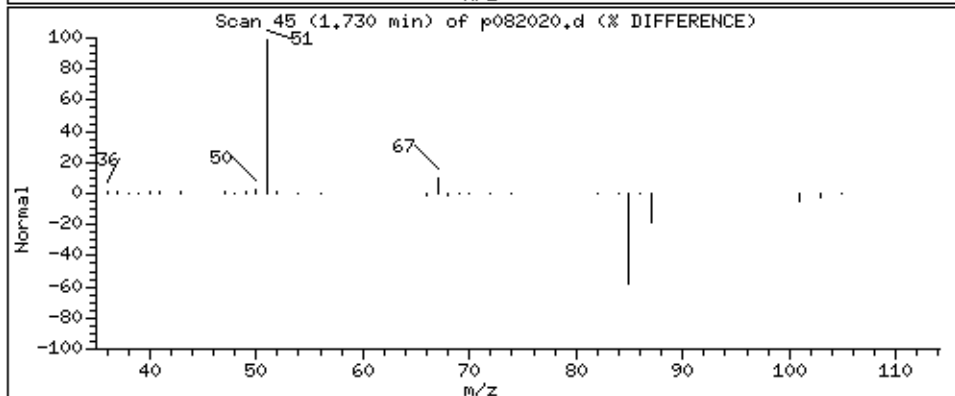
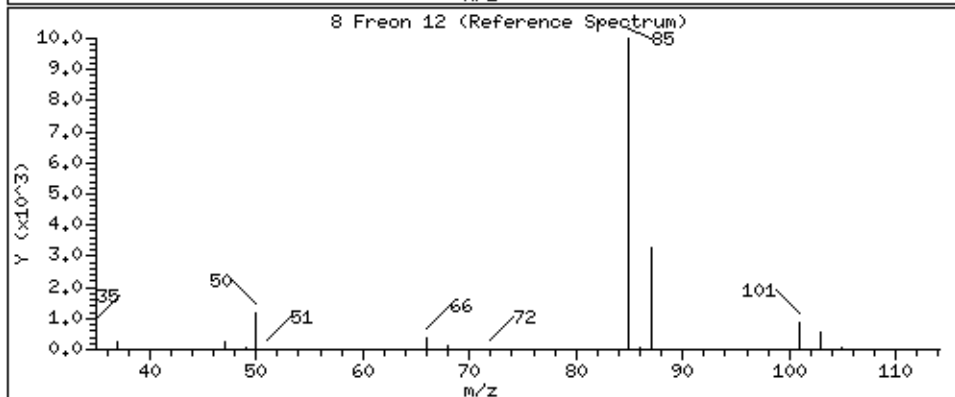
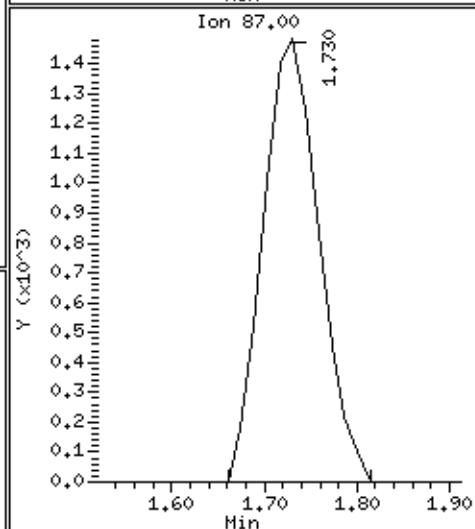
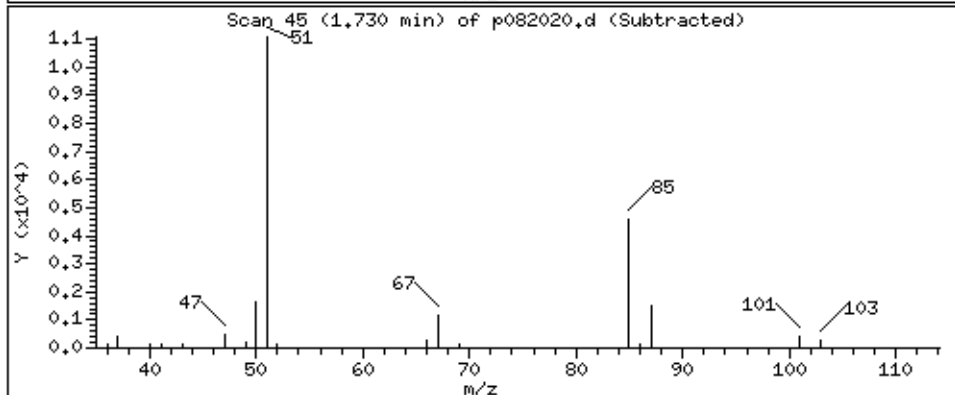
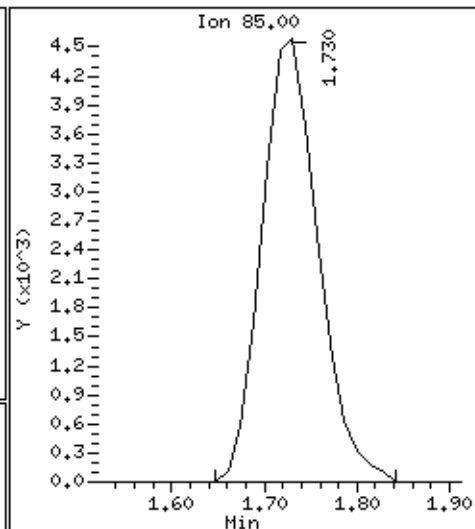
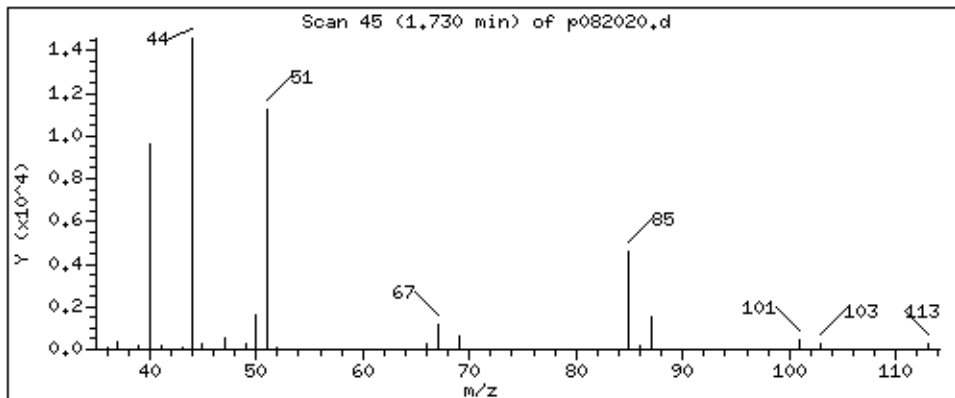
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 4.299 PPBV





Date : 20-AUG-2021 23:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1754

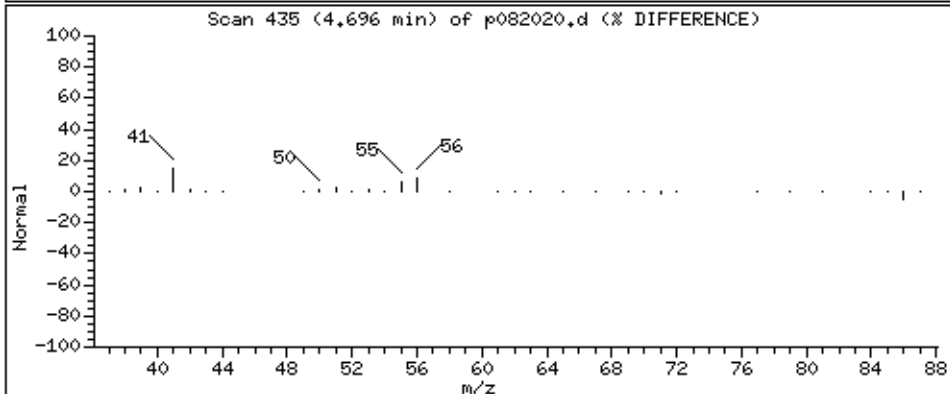
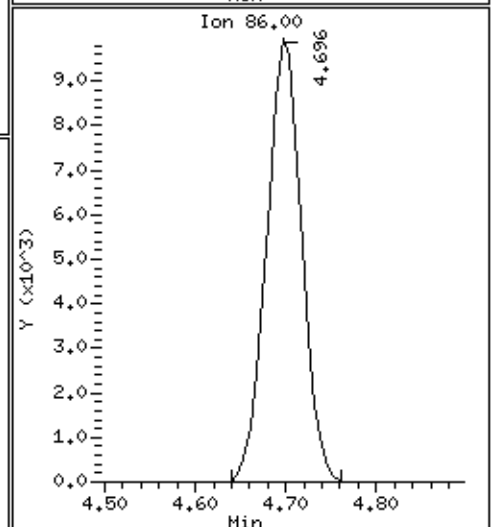
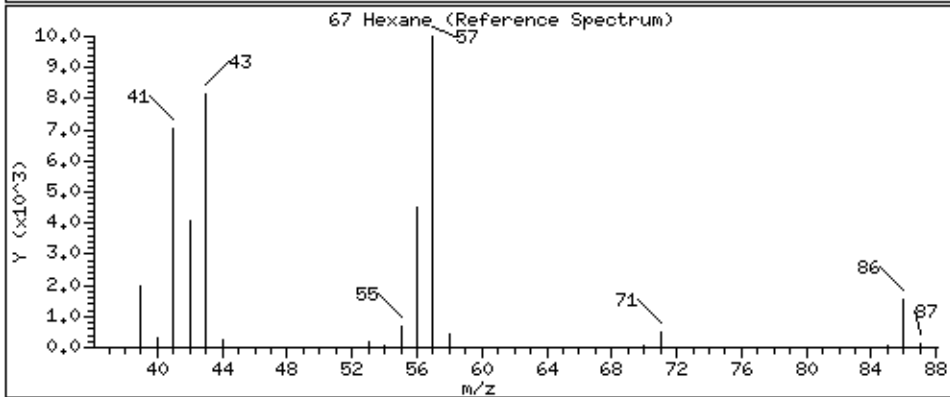
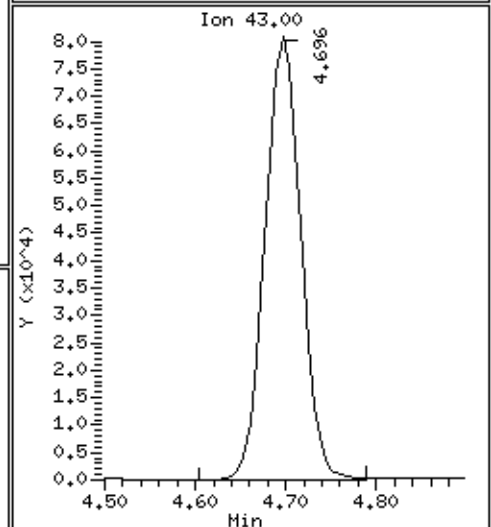
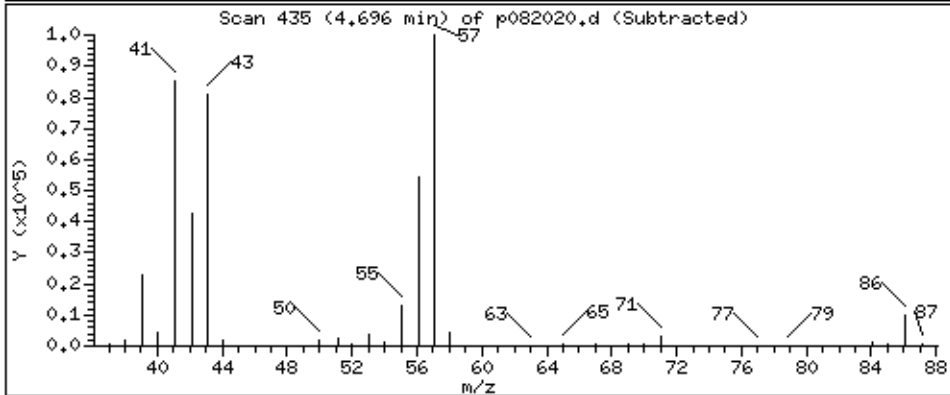
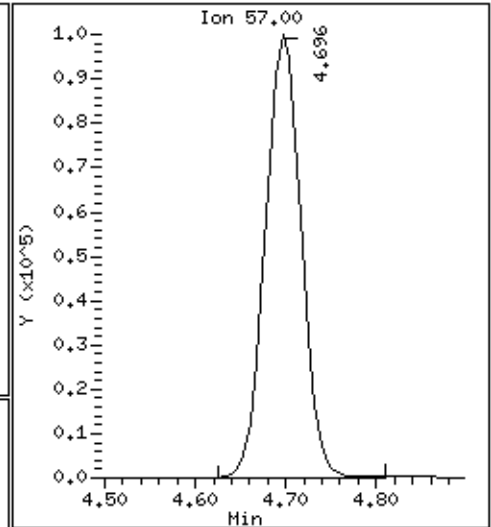
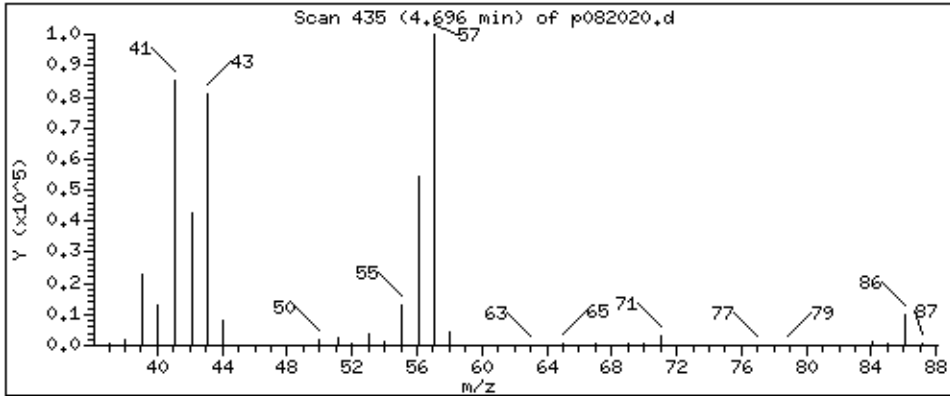
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 55,606 PPBV



Date : 20-AUG-2021 23:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1754

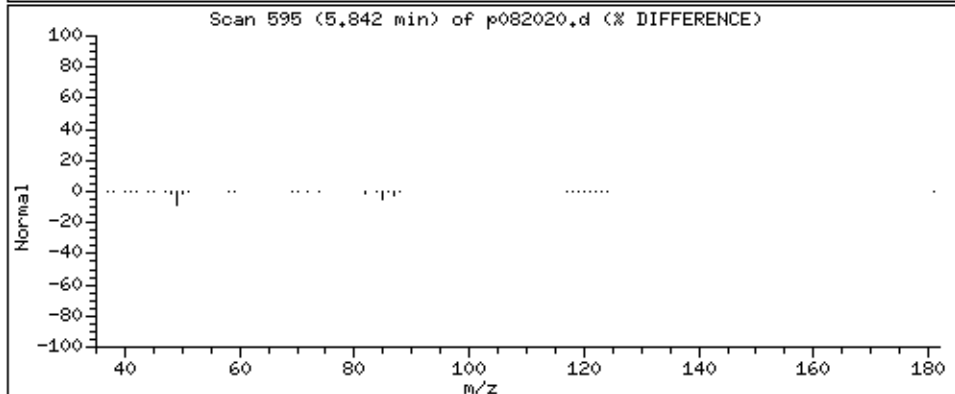
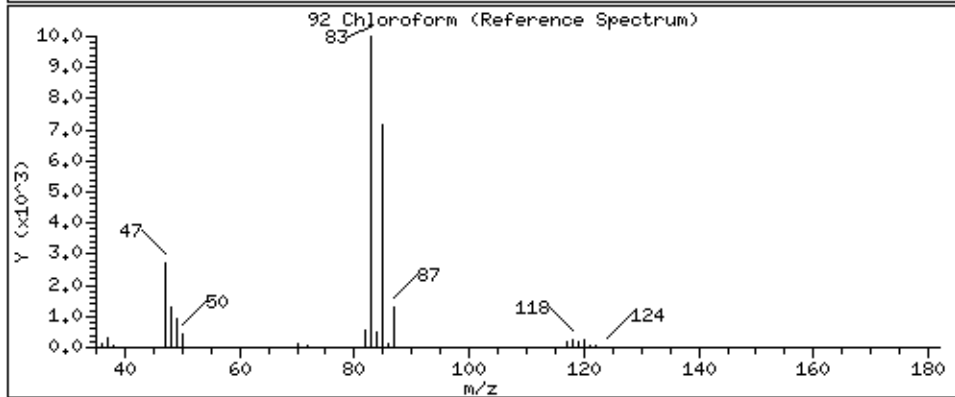
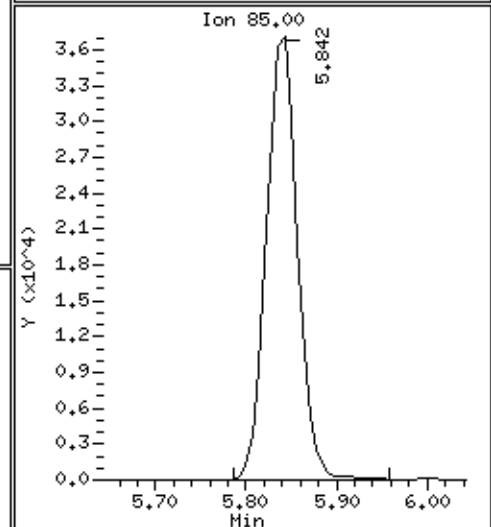
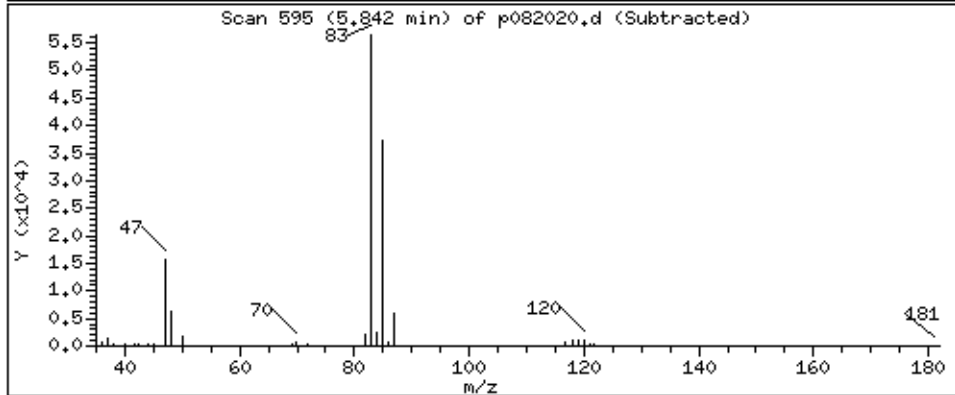
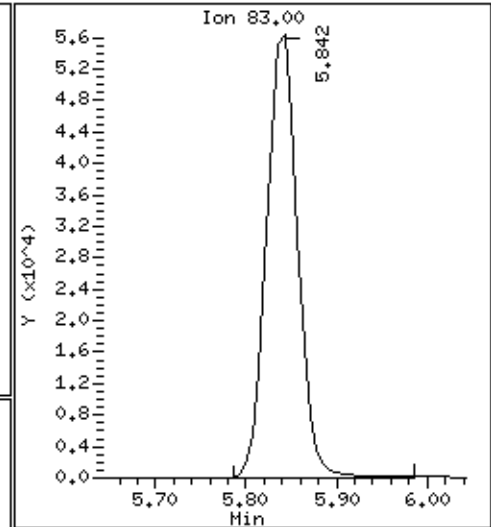
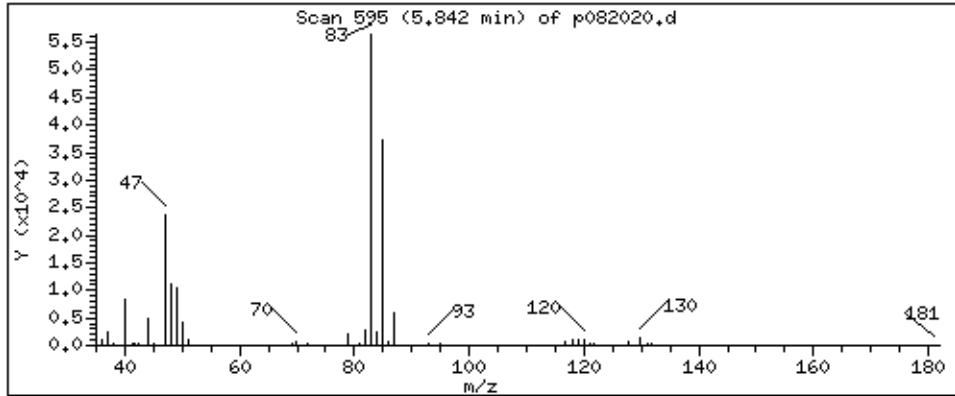
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 30,811 PPBV



Date : 20-AUG-2021 23:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1754

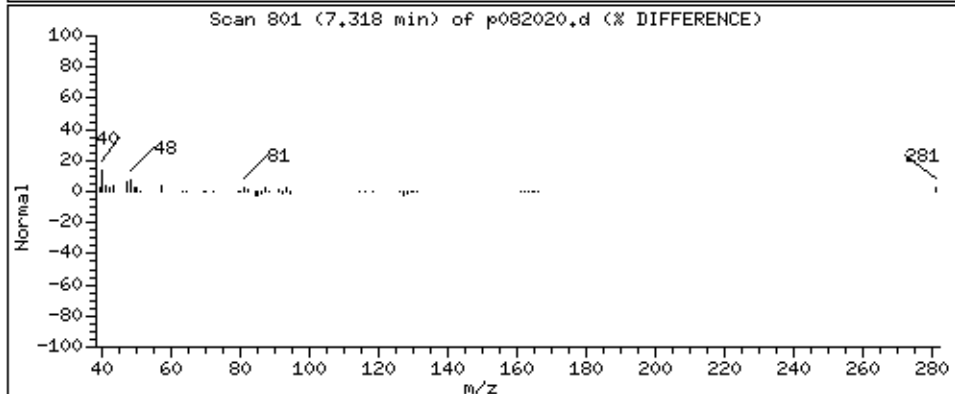
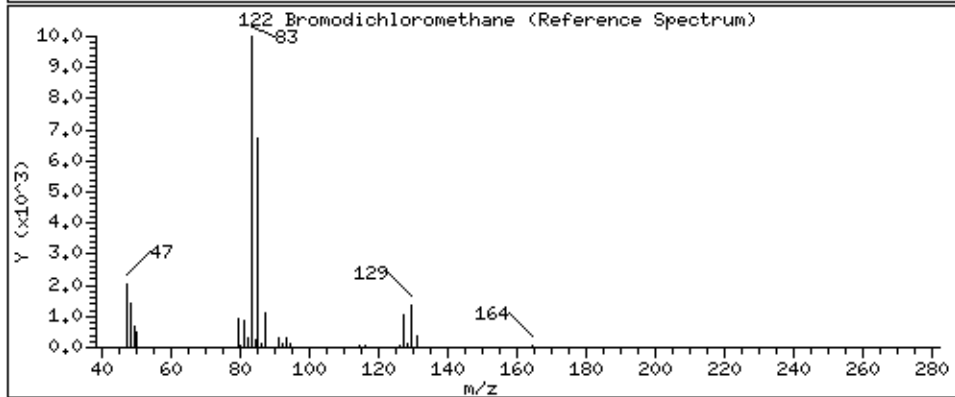
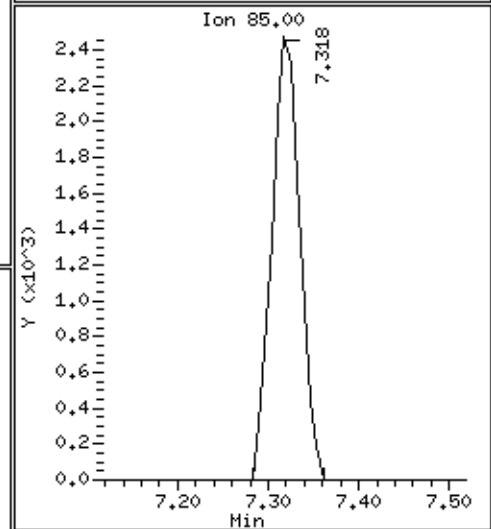
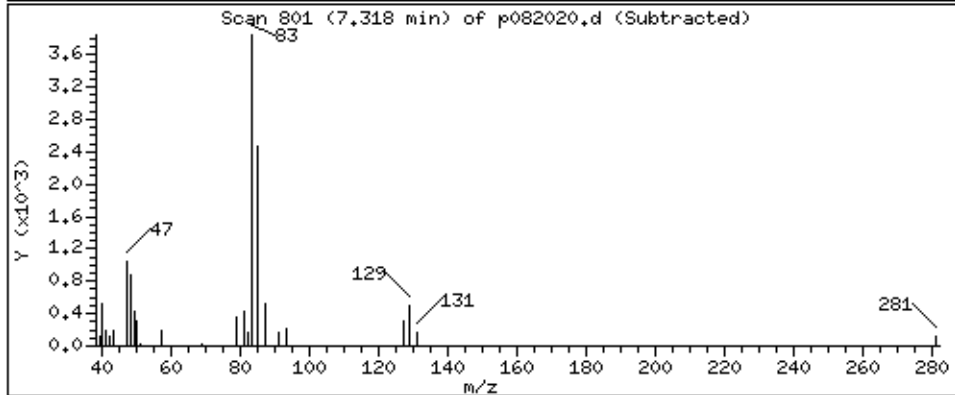
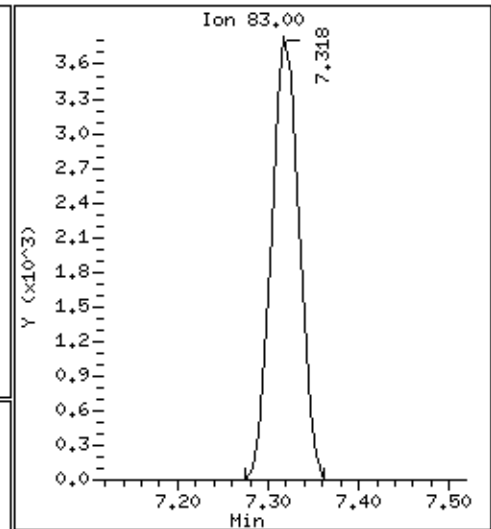
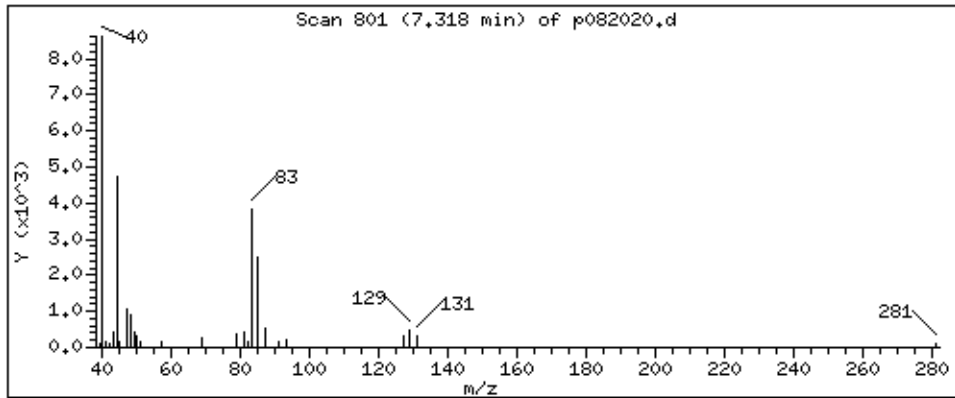
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

122 Bromodichloromethane

Concentration: 1.829 PPBV



Date : 20-AUG-2021 23:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1754

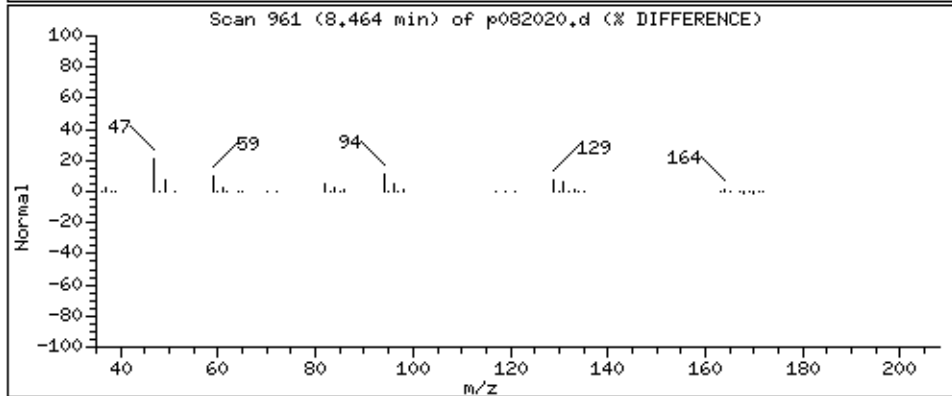
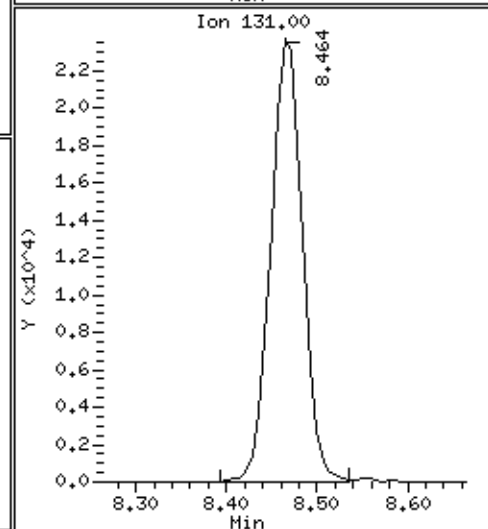
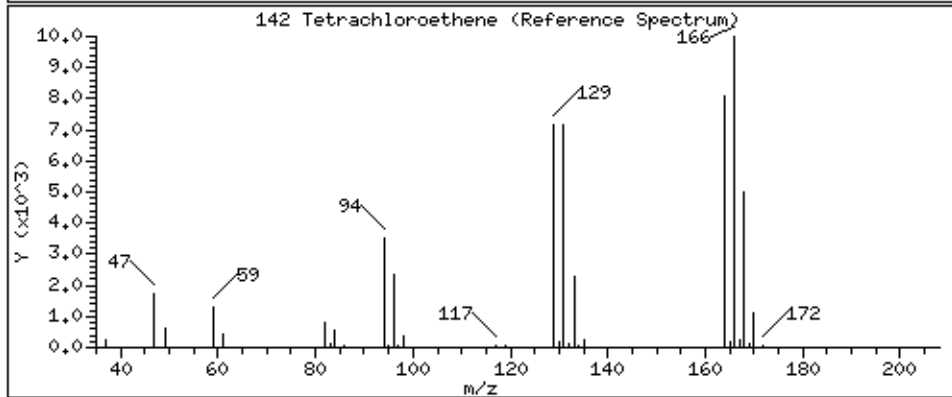
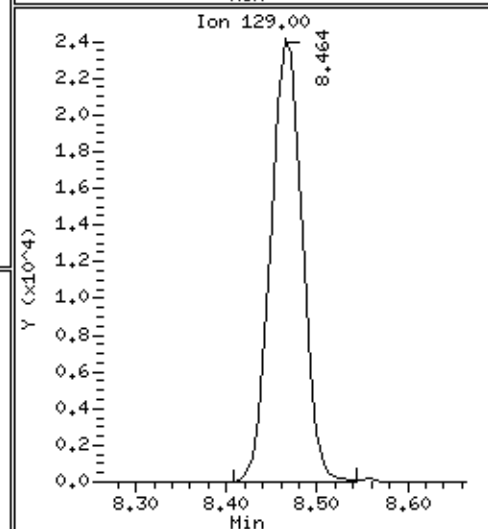
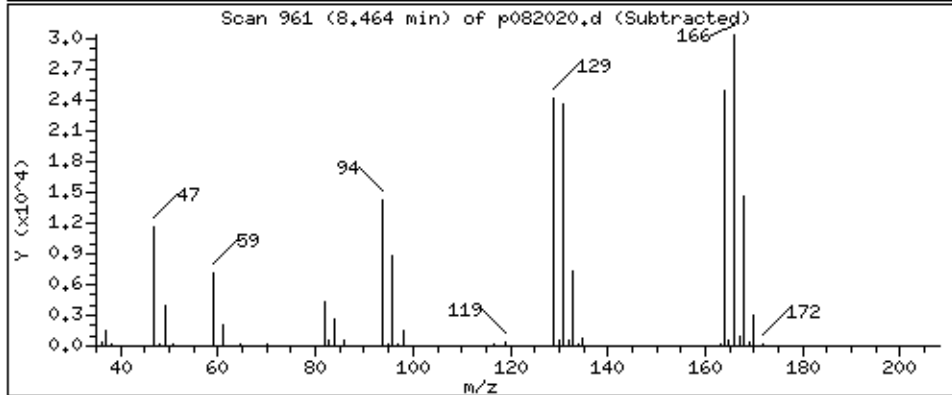
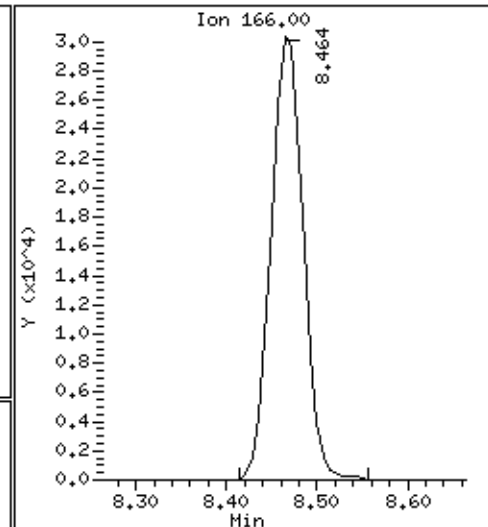
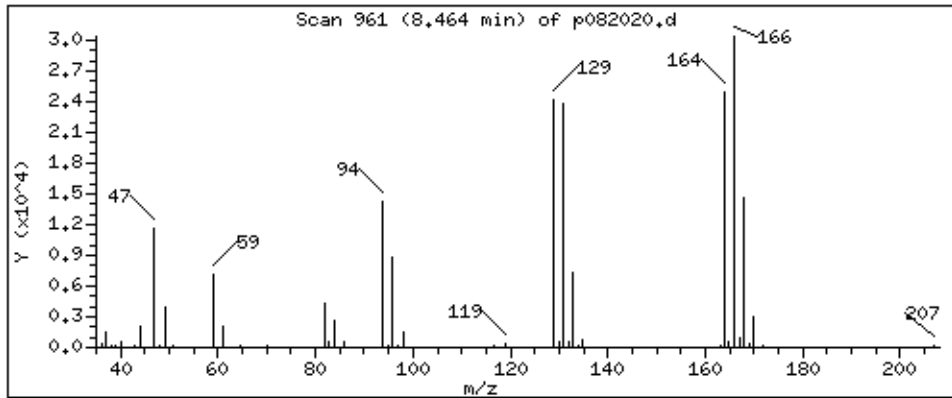
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 17,712 PPBV



Client Sample ID: SG-VW55A-03

Lab ID#: 2108390-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082021	Date of Collection:	8/17/21 6:34:00 AM
Dil. Factor:	2.02	Date of Analysis:	8/21/21 12:15 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.0	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
1,1-Difluoroethane	4.0	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.0	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	2.1	5.0	10
1,2-Dibromo-3-chloropropane	4.0	Not Detected	39	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
2-Hexanone	4.0	Not Detected	16	Not Detected
2-Propanol	4.0	Not Detected	9.9	Not Detected
3-Chloropropene	4.0	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	2.2	5.0	10
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.0	Not Detected	9.3	Not Detected
Acrylonitrile	4.0	Not Detected	8.8	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
Benzene	1.0	1.0	3.2	3.2
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Chloroethane	4.0	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	4.9	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected

Client Sample ID: SG-VW55A-03

Lab ID#: 2108390-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082021	Date of Collection:	8/17/21 6:34:00 AM
Dil. Factor:	2.02	Date of Analysis:	8/21/21 12:15 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
Cyclohexane	1.0	1.6	3.5	5.4
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
Dibromomethane	4.0	Not Detected	29	Not Detected
Ethanol	10	19	19	36
Ethyl Acetate	4.0	Not Detected	14	Not Detected
Ethyl Benzene	1.0	2.4	4.4	10
Ethyl-tert-butyl ether	4.0	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Freon 12	1.0	Not Detected	5.0	Not Detected
Freon 113	1.0	Not Detected	7.7	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Freon 134a	4.0	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected
Hexachloroethane	4.0	Not Detected	39	Not Detected
Hexane	1.0	190	3.6	670
Iodomethane	10	Not Detected	59	Not Detected
Isopropyl ether	4.0	Not Detected	17	Not Detected
m,p-Xylene	1.0	9.3	4.4	40
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
o-Xylene	1.0	3.2	4.4	14
Propylbenzene	1.0	Not Detected	5.0	Not Detected
Propylene	4.0	Not Detected	7.0	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
tert-Amyl methyl ether	4.0	Not Detected	17	Not Detected
tert-Butyl alcohol	4.0	Not Detected	12	Not Detected
Tetrachloroethene	1.0	Not Detected	6.8	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	8.6	3.8	32
TPH ref. to Gasoline (MW=100)	100	320	410	1300
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Trichloroethene	1.0	Not Detected	5.4	Not Detected
Vinyl Acetate	4.0	Not Detected	14	Not Detected
Vinyl Bromide	4.0	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW55A-03**
**Lab ID#: 2108390-12A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p082021</b>	<b>Date of Collection: 8/17/21 6:34:00 AM</b>
<b>Dil. Factor:</b>	<b>2.02</b>	<b>Date of Analysis: 8/21/21 12:15 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	104	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082021.d  
Lab Smp Id: 2108390-12A  
Inj Date : 21-AUG-2021 00:15  
Operator : kk  
Smp Info : 200ml 1L1913  
Misc Info : 5.0 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
Meth Date : 20-Aug-2021 12:59 p5f1  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 3  
Dil Factor: 2.02000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.785	5.785	(1.000)	130	104070	25.0000	80.00- 120.00	100.00		
5.785	5.785	(1.000)	128	82236		48.23- 108.23	79.02		
5.785	5.778	(1.000)	49	241953		150.57- 210.57	232.49		
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.666	6.659	(1.000)	114	381466	25.0000	80.00- 120.00	100.00		
6.666	6.659	(1.000)	88	53401		0.00- 45.71	14.00		
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	390633	25.0000	80.00- 120.00	100.00		
9.460	9.460	(1.000)	82	203498		23.78- 83.78	52.09		
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
6.315	6.315	(1.092)	65	163108	28.3995	28.399 80.00- 120.00	100.00		
6.315	6.315	(1.092)	67	74451		27.21- 87.21	45.65		
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.891	7.891	(1.184)	98	417991	25.2338	25.234 80.00- 120.00	100.00		
7.891	7.891	(1.184)	70	47115		0.00- 40.44	11.27		



CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	270042			34.95- 94.95	64.60
-----								
§ 170 4-Bromofluorobenzene CAS #: 460-00-4								
10.921	10.921	(1.154)	174	262303	26.1492	26.149	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	305477			95.92- 155.92	116.46
10.921	10.921	(1.154)	176	249848			66.89- 126.89	95.25
-----								
39 Ethanol CAS #: 64-17-5								
3.257	3.242	(0.563)	46	9768	9.46460	19.118	80.00- 120.00	100.00
3.257	3.285	(0.563)	45	25288			511.19- 571.19	258.88
-----								
67 Hexane CAS #: 110-54-3								
4.696	4.697	(0.812)	57	967402	94.3614	190.61	80.00- 120.00	100.00
4.696	4.697	(0.812)	43	767483			37.52- 97.52	79.33
4.696	4.697	(0.812)	86	97943			0.00- 41.48	10.12
-----								
94 Cyclohexane CAS #: 110-82-7								
5.964	5.957	(1.031)	84	5138	0.78486	1.585	80.00- 120.00	100.00
5.964	5.957	(1.031)	56	16708			142.57- 202.57	325.18
5.964	5.957	(1.031)	41	11442			62.09- 122.09	222.70
-----								
102 Benzene CAS #: 71-43-2								
6.301	6.301	(0.945)	78	6339	0.50357	1.017	80.00- 120.00	100.00
6.301	6.301	(0.945)	77	1808			0.00- 52.90	28.53
-----								
137 Toluene CAS #: 108-88-3								
7.956	7.956	(1.193)	91	73897	4.25490	8.595	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	41837			28.38- 88.38	56.62
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.567	9.567	(1.011)	106	9545	1.17681	2.377	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	29731			273.74- 333.74	311.46
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.718	9.718	(1.027)	106	46940	4.62077	9.334	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	91973			163.73- 223.73	195.94
-----								
164 o-Xylene CAS #: 95-47-6								
10.226	10.226	(1.081)	106	15586	1.60136	3.235	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	30407			177.45- 237.45	195.09
-----								
183 4-Ethyltoluene CAS #: 622-96-8								
11.251	11.287	(1.189)	120	10518	1.06685	2.155	80.00- 120.00	100.00
11.258	11.287	(1.190)	105	28714			284.55- 344.55	273.00
-----								

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO	
					ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
190	1,2,4-Trimethylbenzene					CAS #:	95-63-6		
11.817	11.817	(1.249)	105	26483	1.03366	2.088	80.00- 120.00	100.00	
11.817	11.817	(1.249)	120	12293			19.05- 79.05	46.42	

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082021.d  
 Lab Smp Id: 2108390-12A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: kk  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 5.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	104070	-4.85
108 1,4-Difluorobenze	406799	244079	569519	381466	-6.23
153 Chlorobenzene-d5	400841	240505	561177	390633	-2.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-12A  
Level: LOW Operator: kk  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 5.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	28.399	113.60	70-130
\$ 134 Toluene-d8	25.000	25.234	100.94	70-130
\$ 170 4-Bromofluorobenz	25.000	26.149	104.60	70-130

Date : 21-AUG-2021 00:15

Client ID:

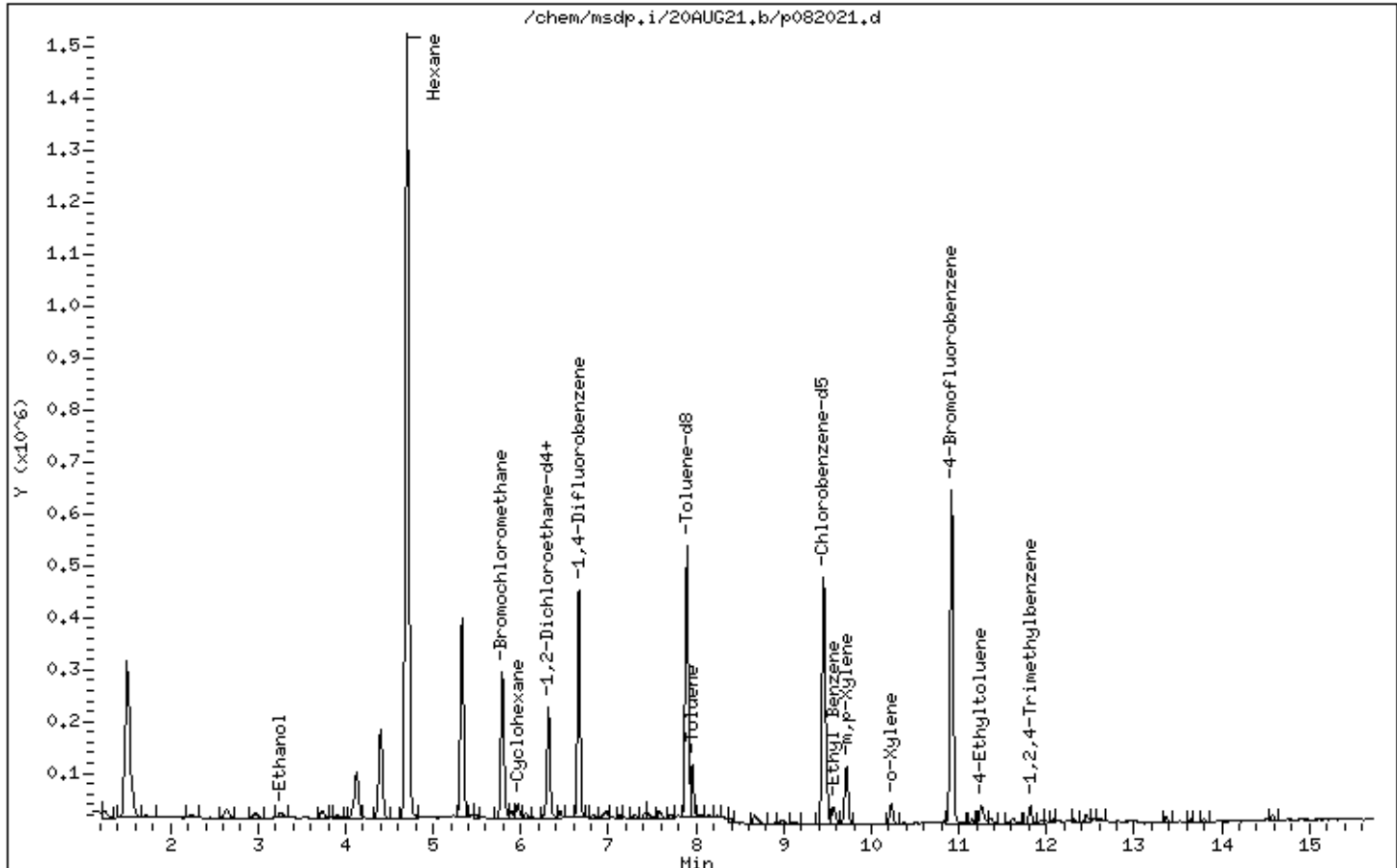
Instrument: msdp.i

Sample Info: 200ml 1L1913

Operator: kk

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 00:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1913

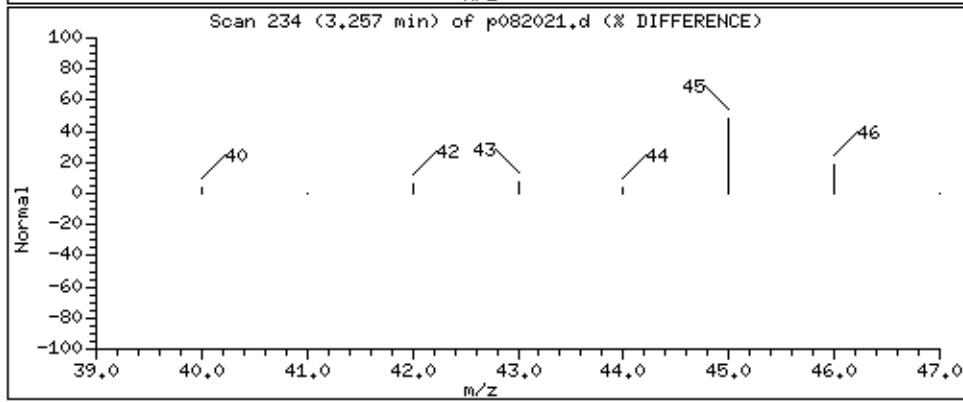
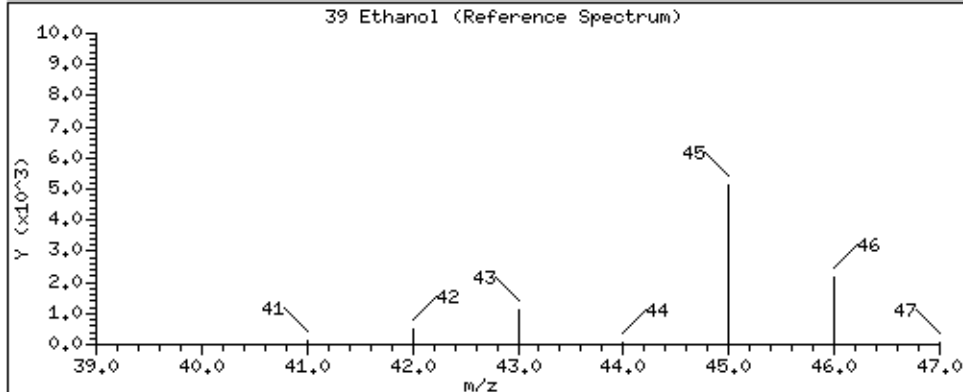
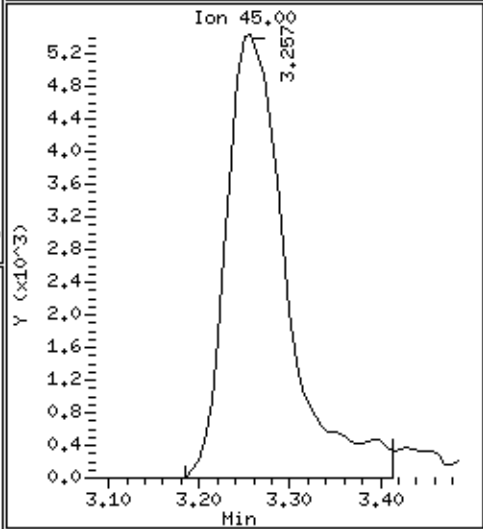
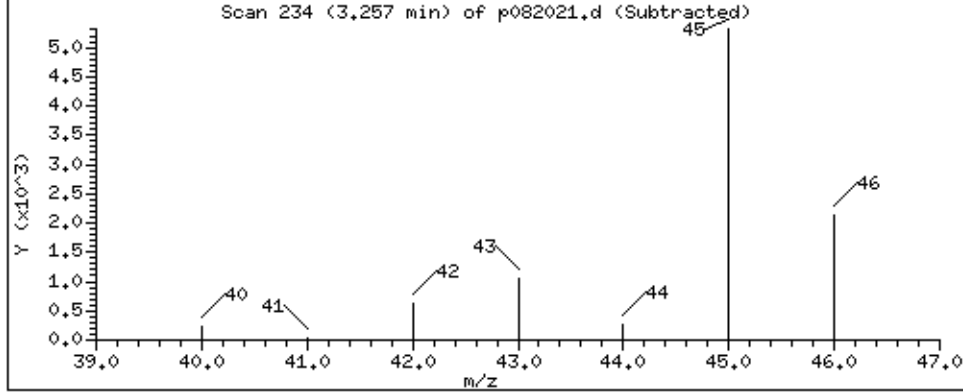
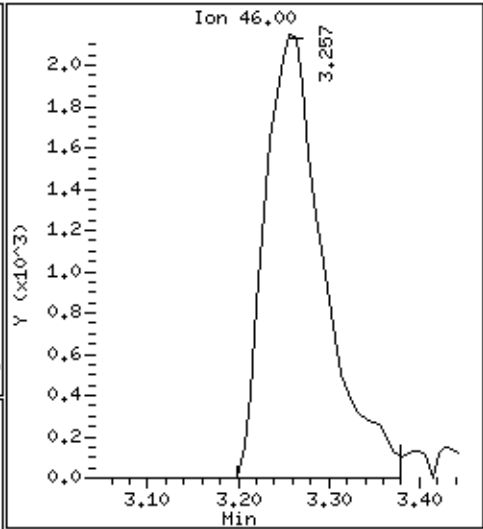
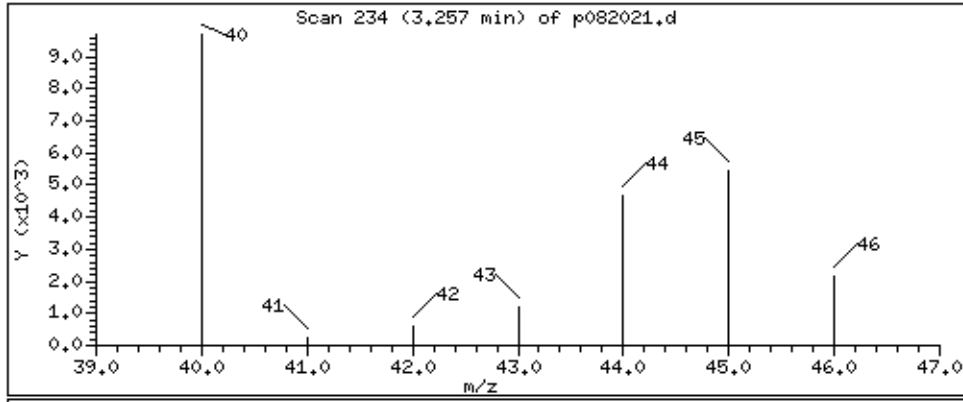
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 19,118 PPBV



Date : 21-AUG-2021 00:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1913

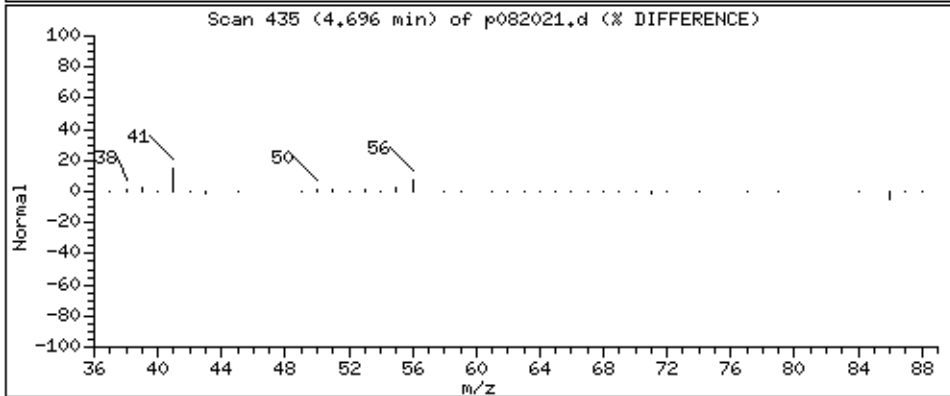
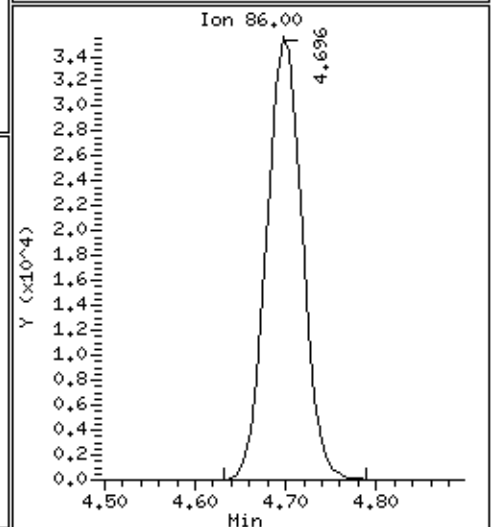
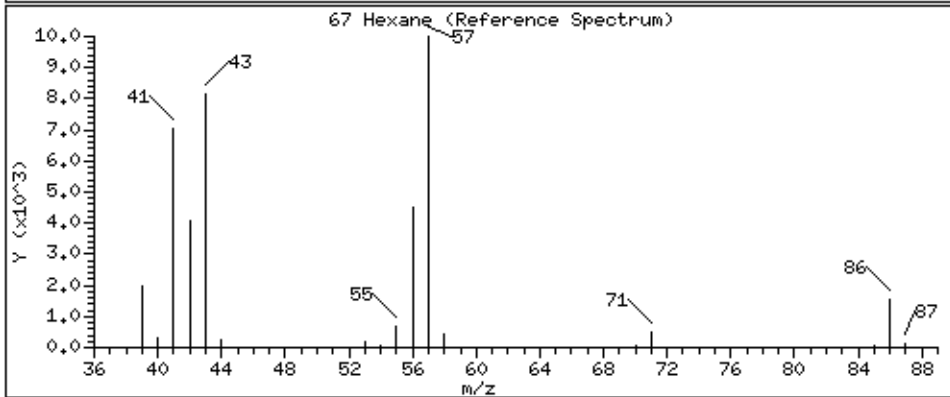
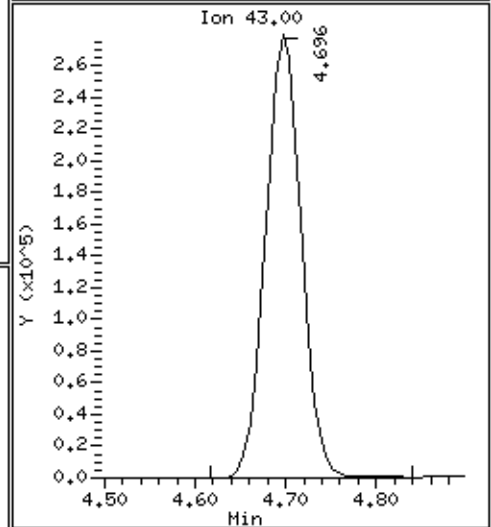
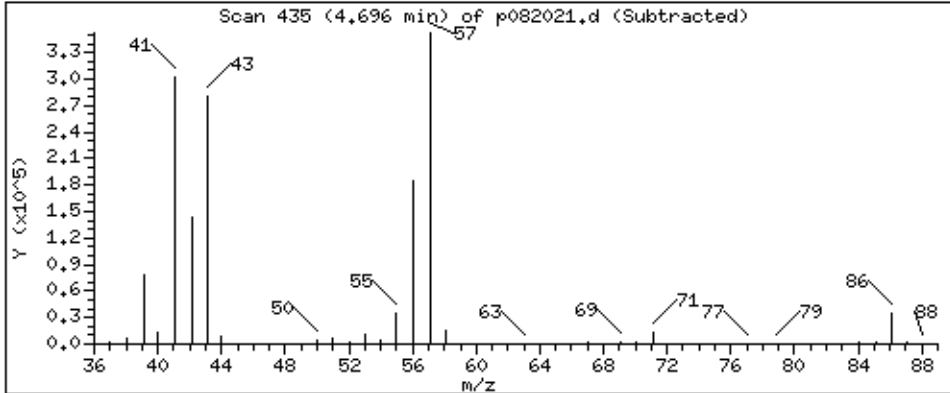
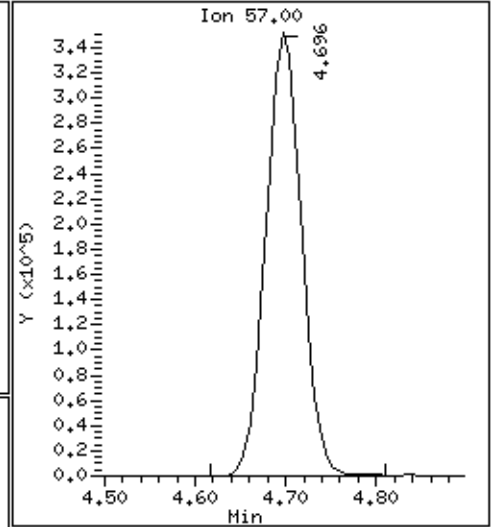
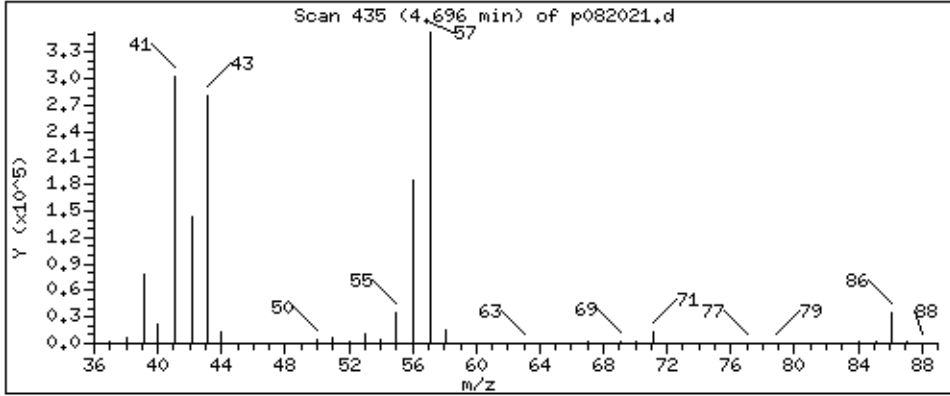
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 190.61 PPBV



Date : 21-AUG-2021 00:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1913

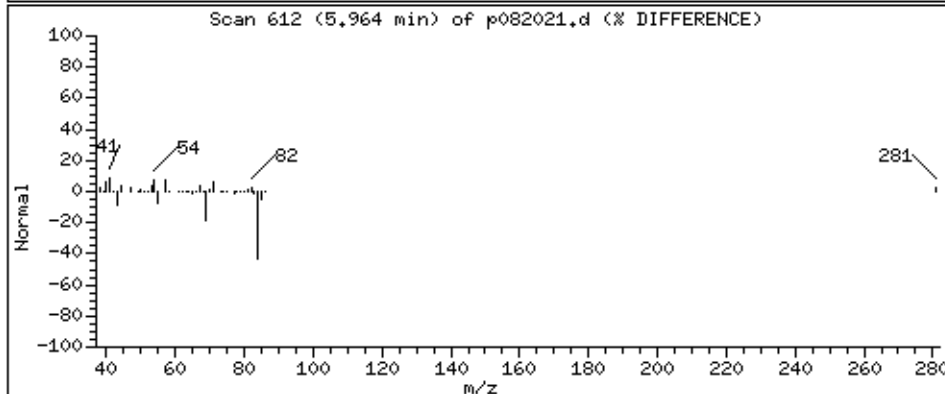
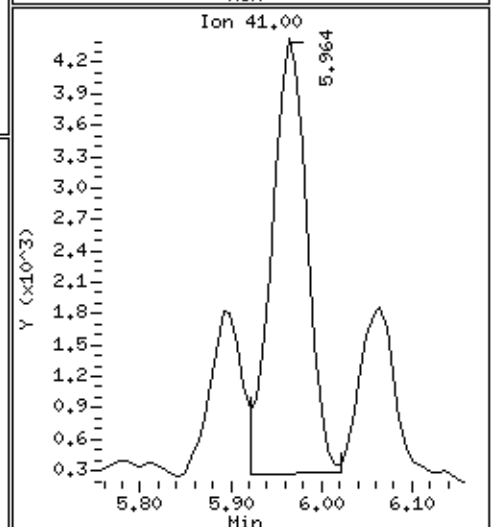
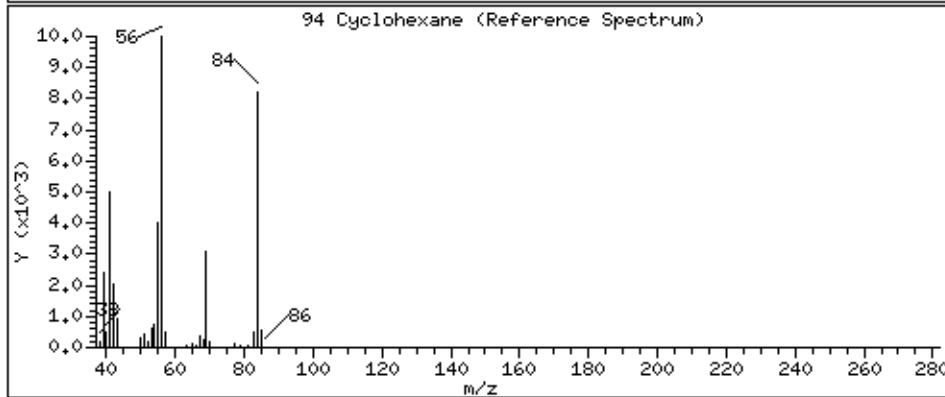
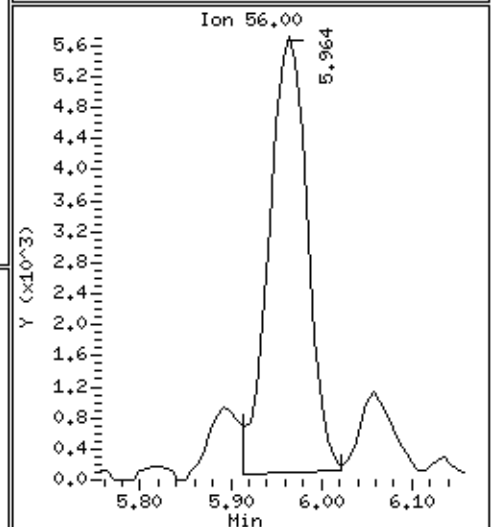
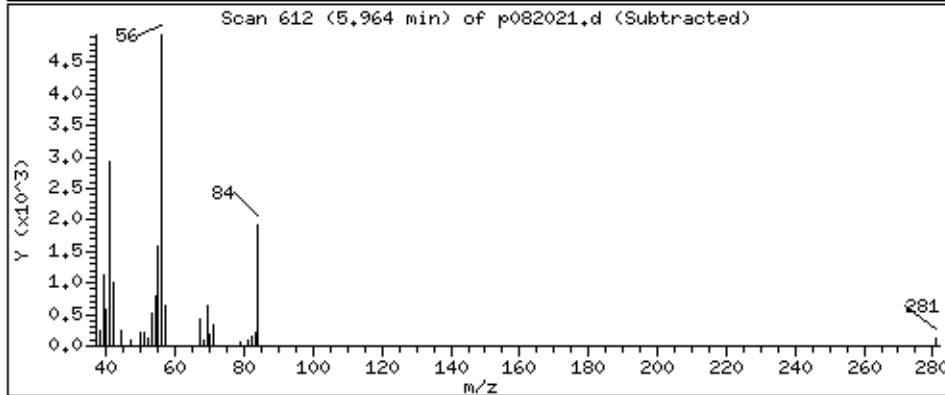
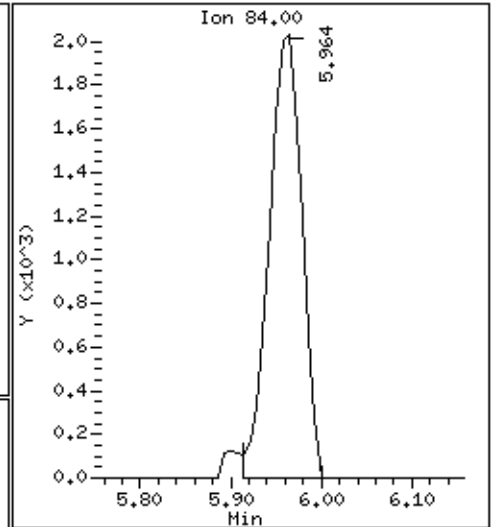
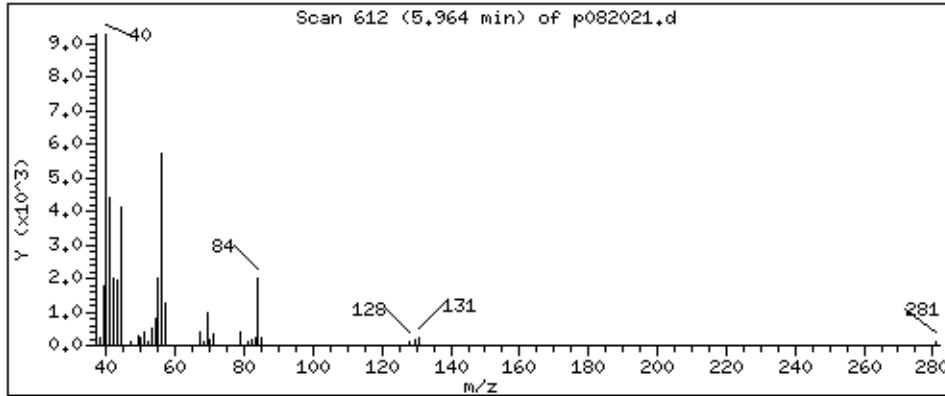
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

94 Cyclohexane

Concentration: 1,585 PPBV





Date : 21-AUG-2021 00:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1913

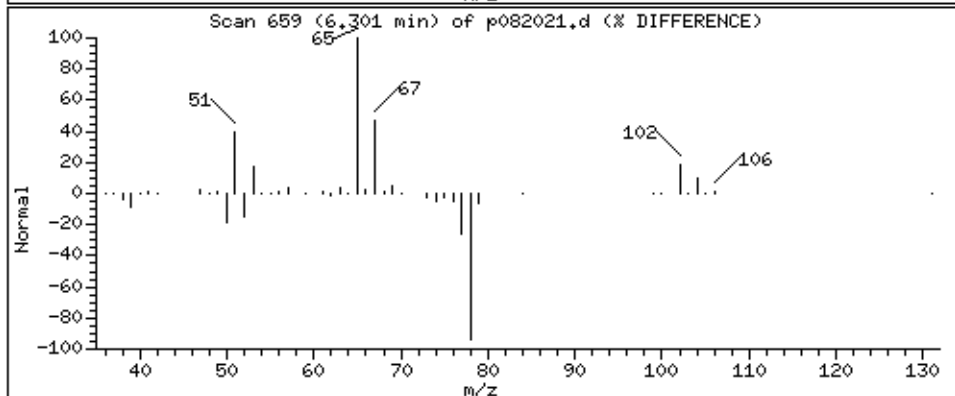
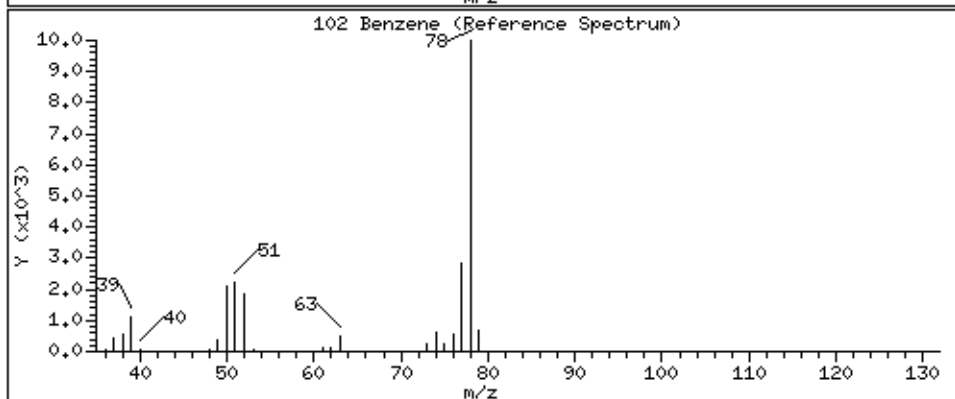
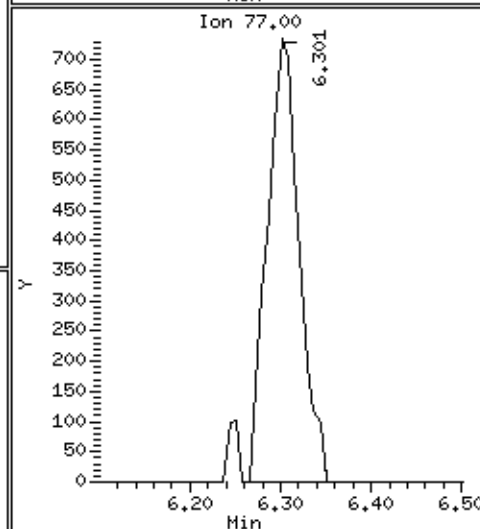
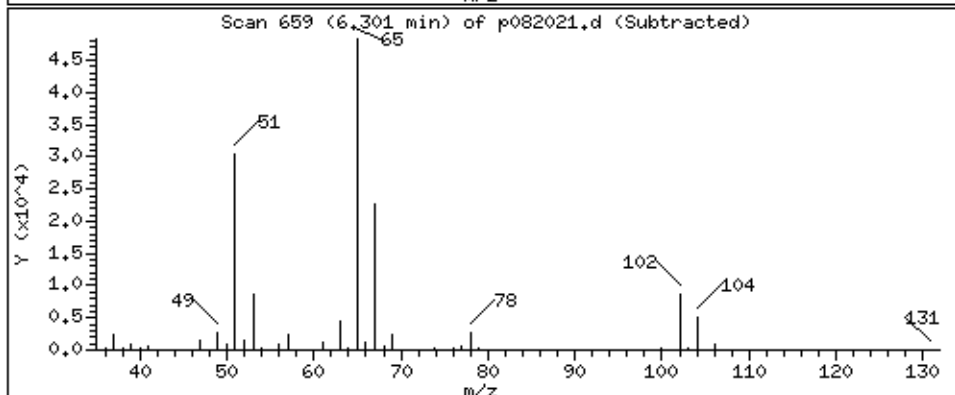
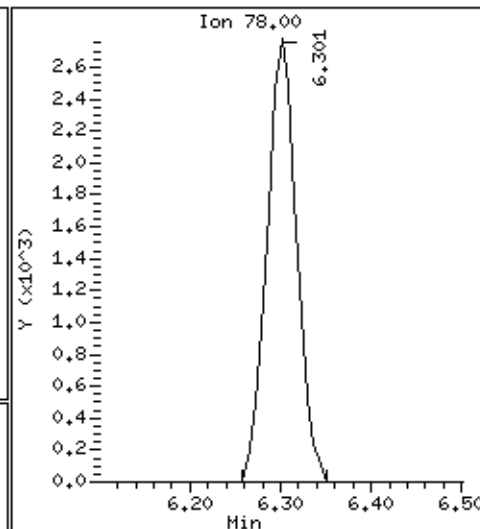
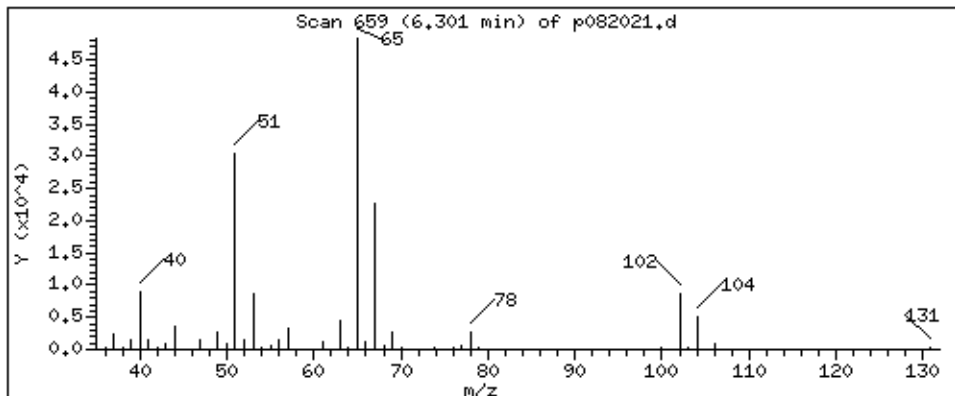
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

102 Benzene

Concentration: 1.017 PPBV



Date : 21-AUG-2021 00:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1913

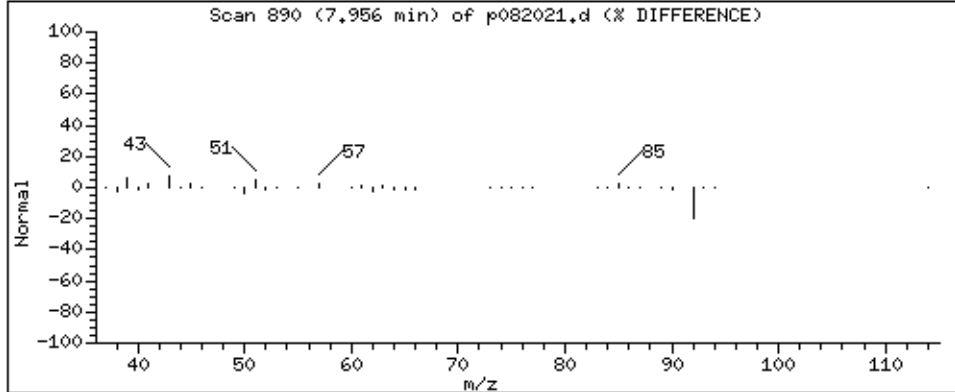
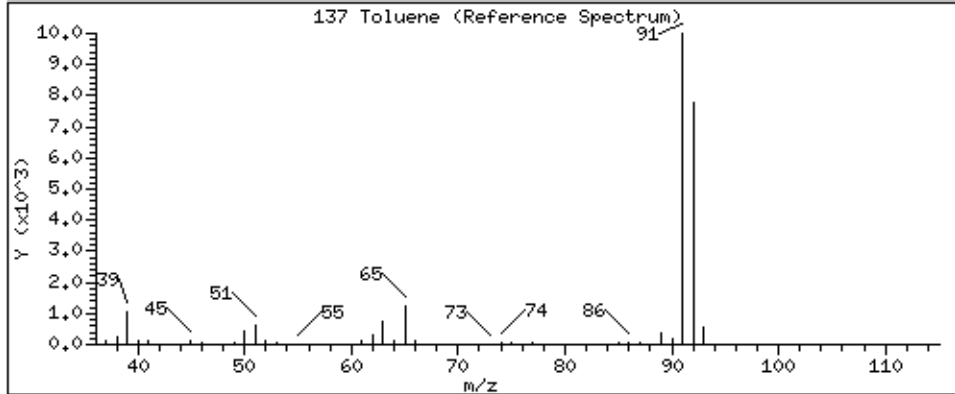
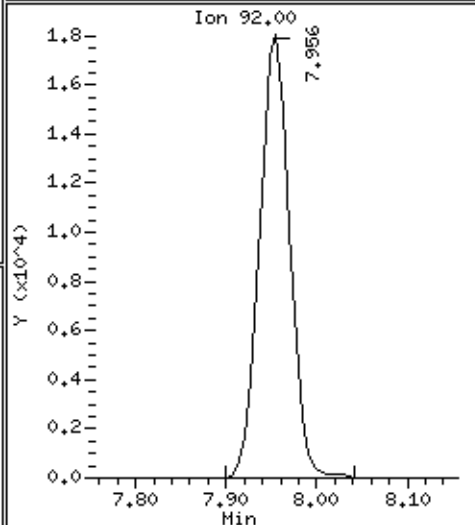
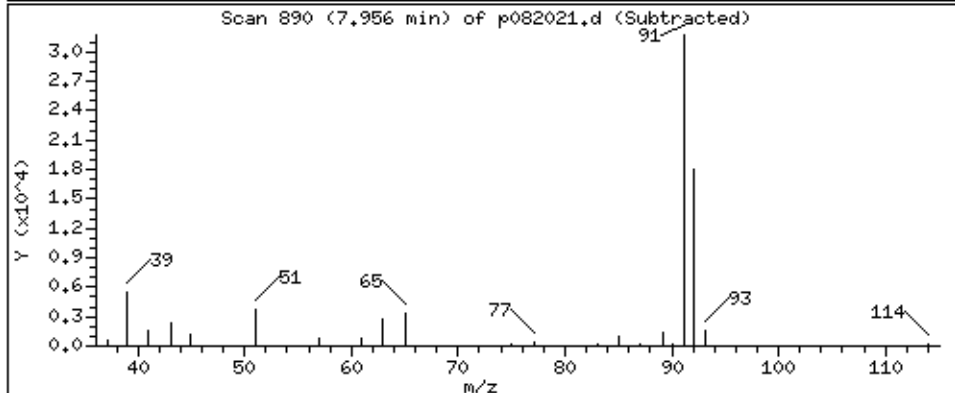
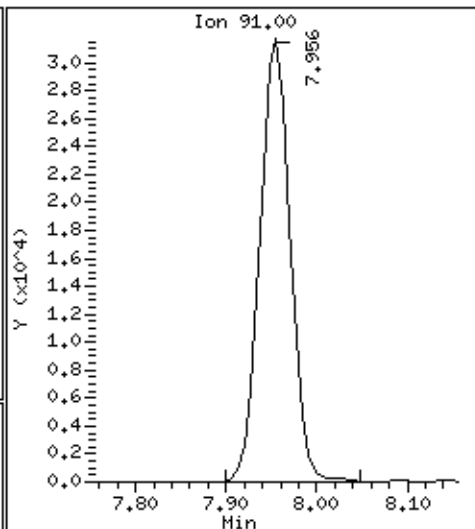
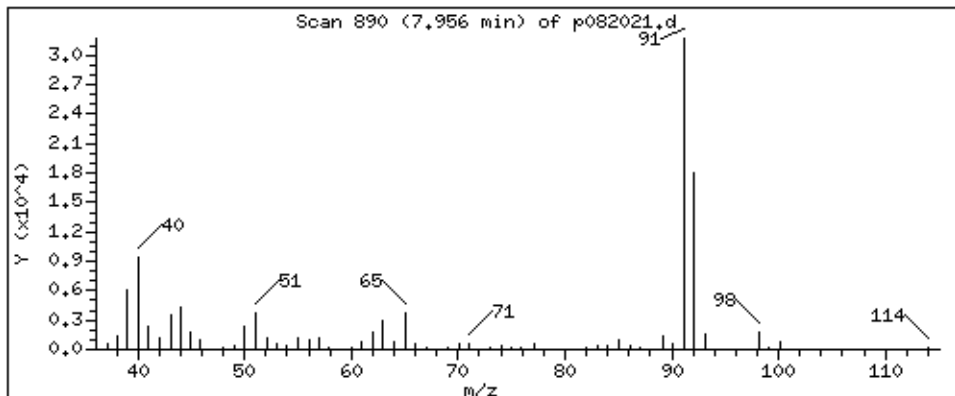
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 8.595 PPBV



Date : 21-AUG-2021 00:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1913

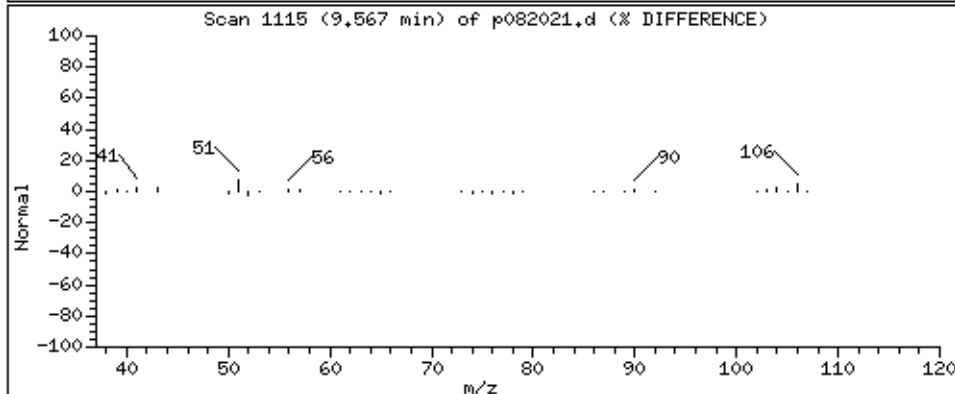
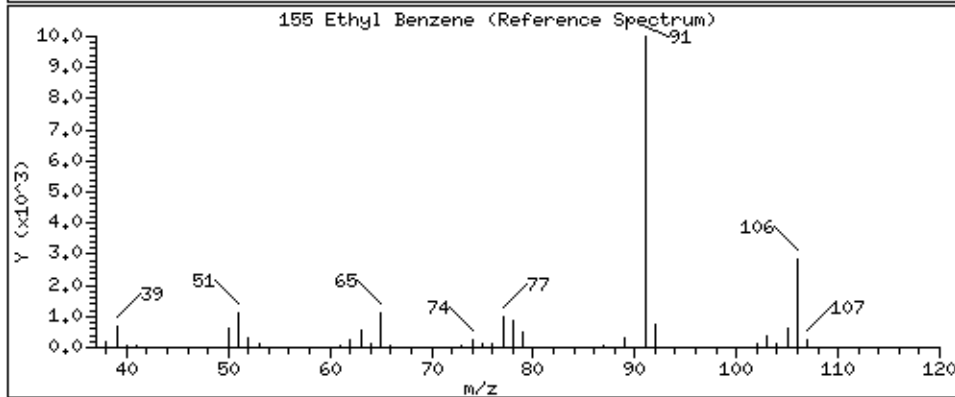
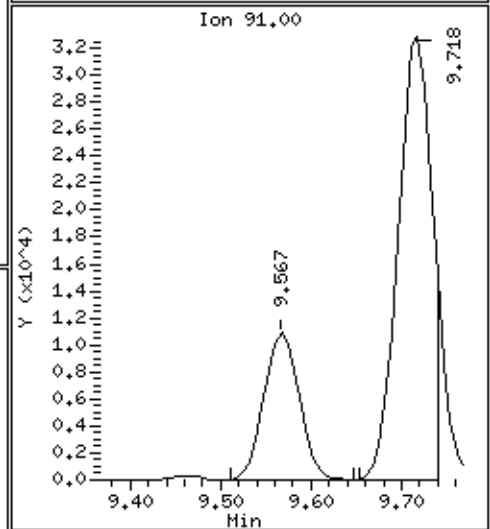
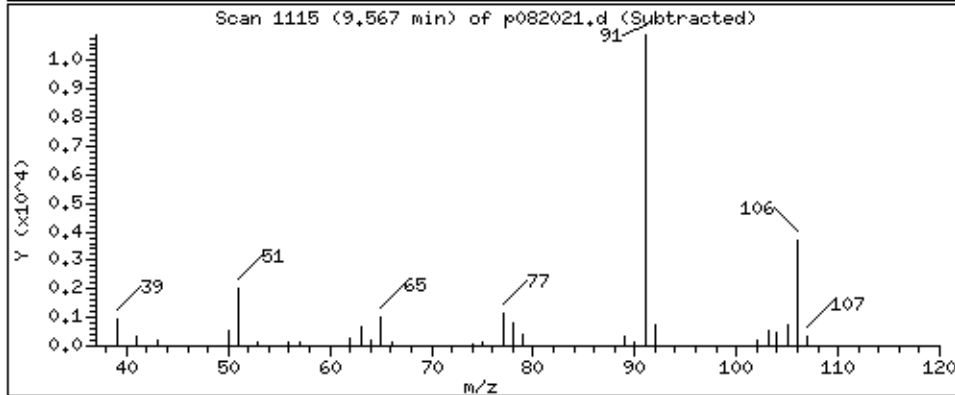
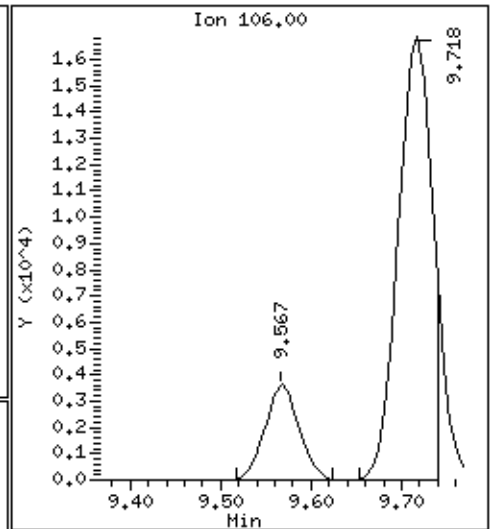
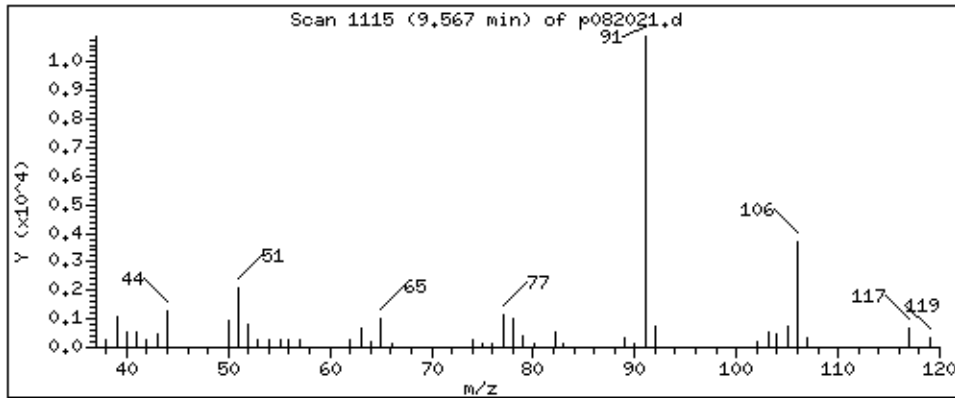
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 2,377 PPBV



Date : 21-AUG-2021 00:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1913

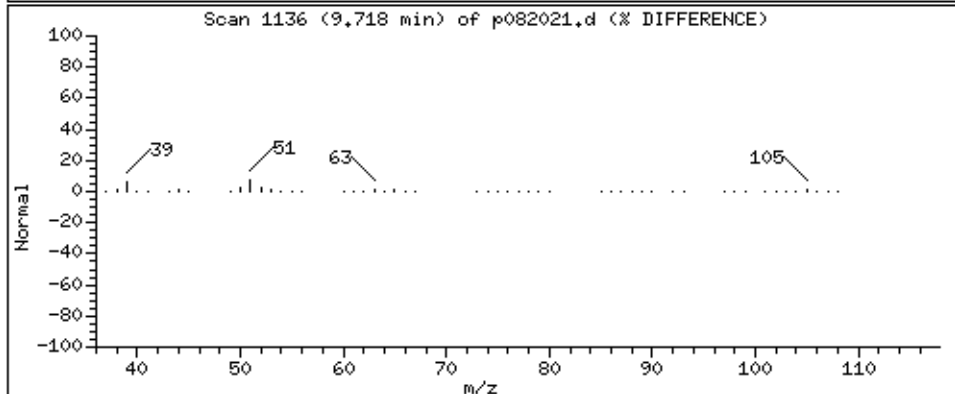
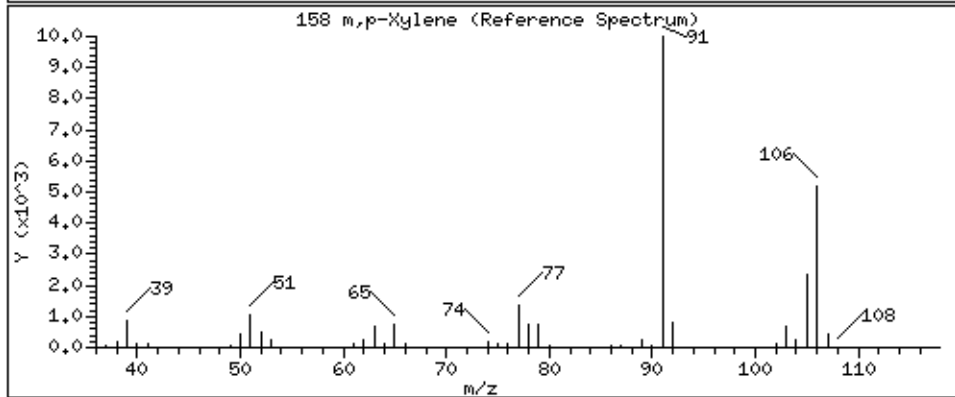
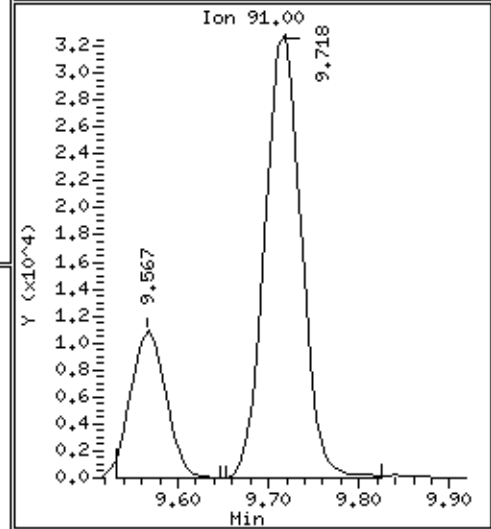
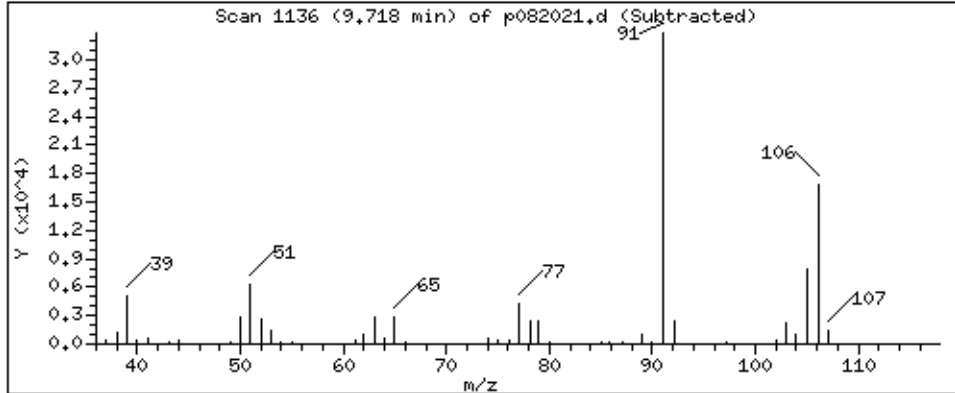
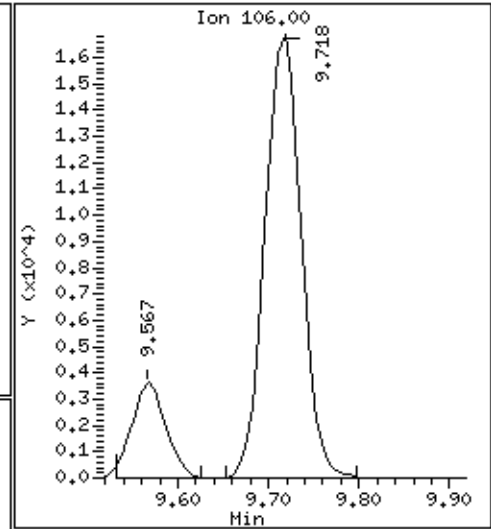
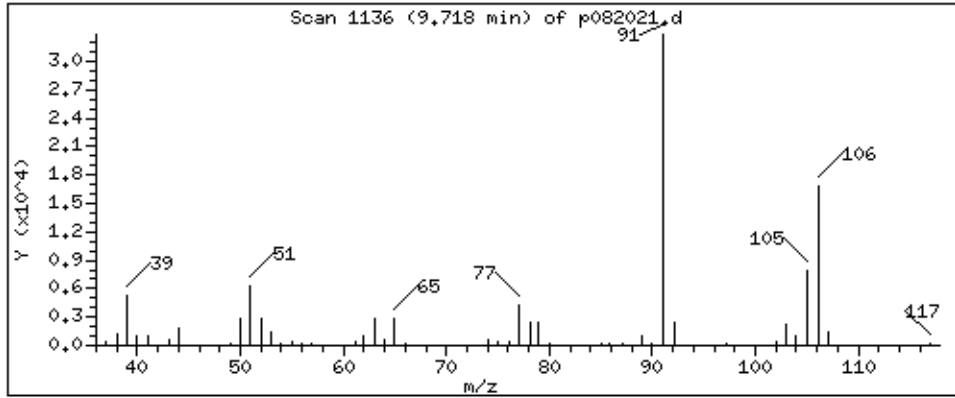
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 9.334 PPBV



Date : 21-AUG-2021 00:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1913

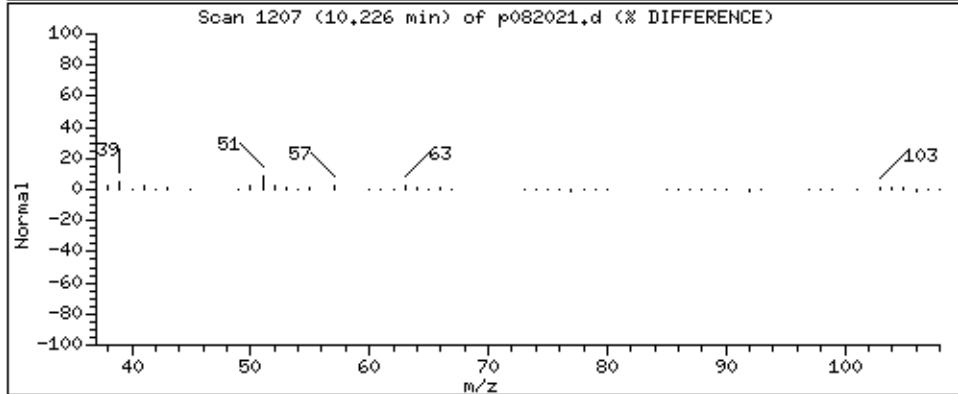
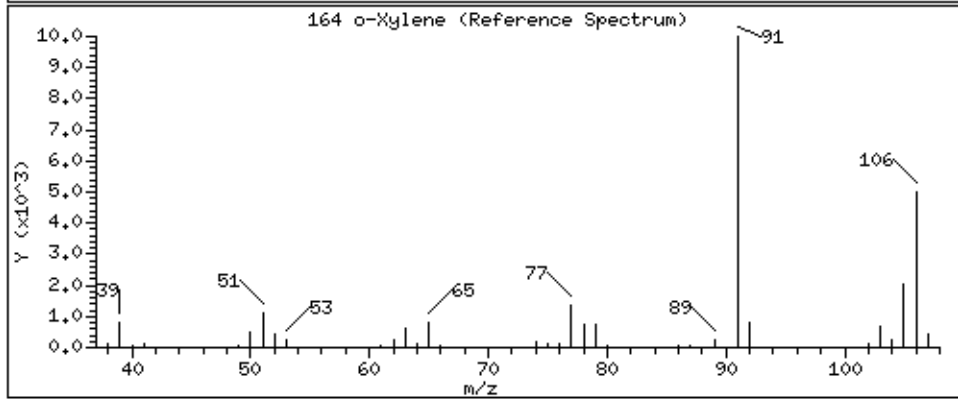
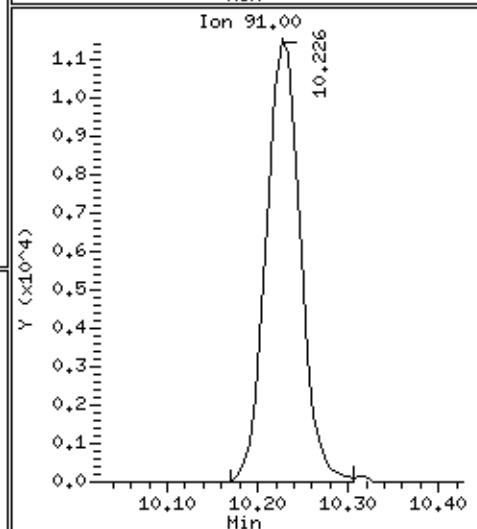
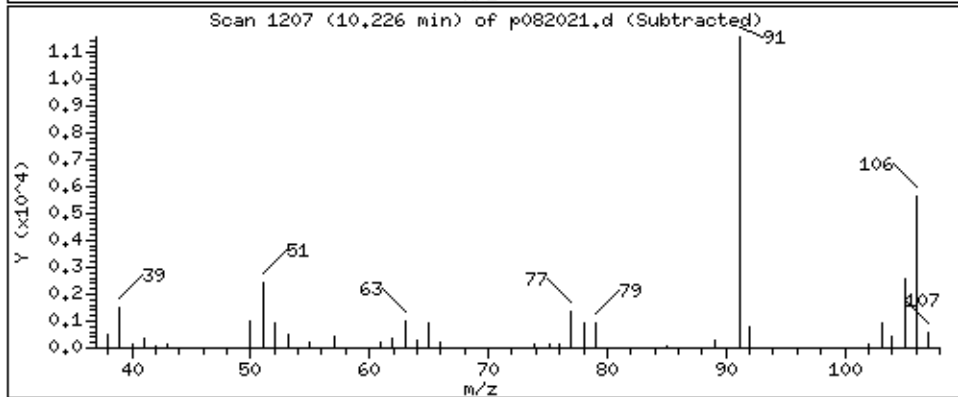
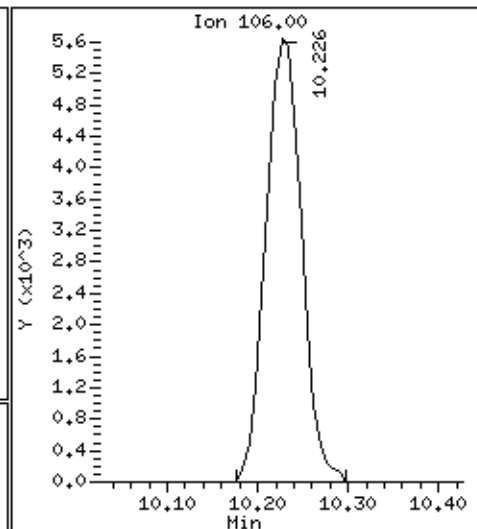
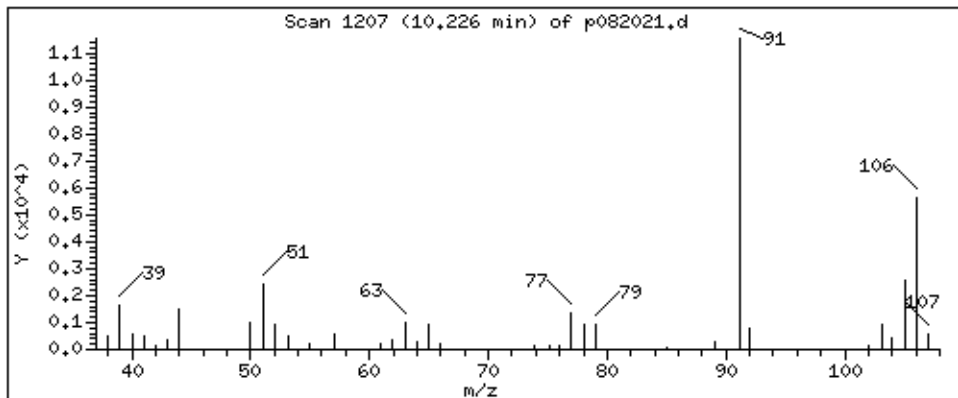
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 3.235 PPBV



Date : 21-AUG-2021 00:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1913

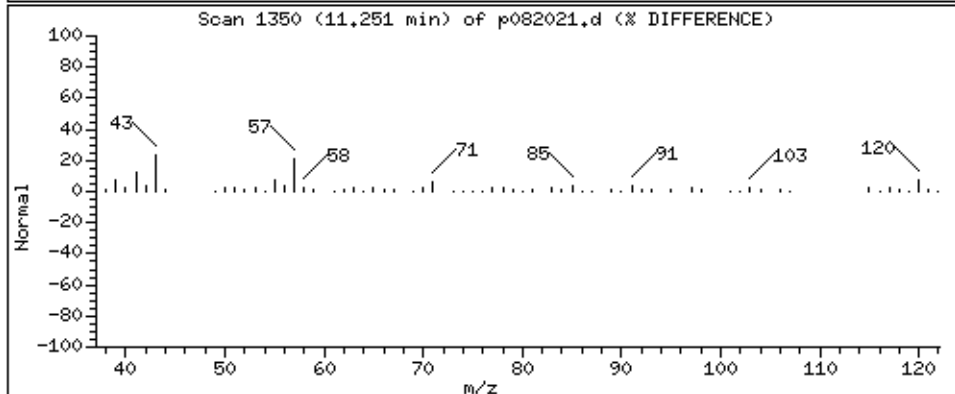
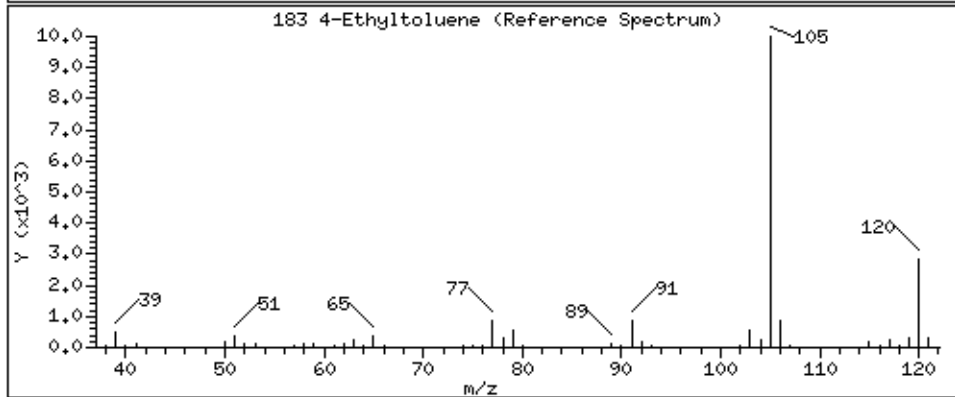
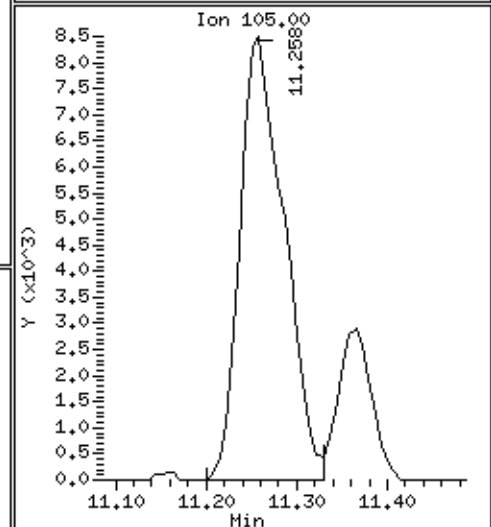
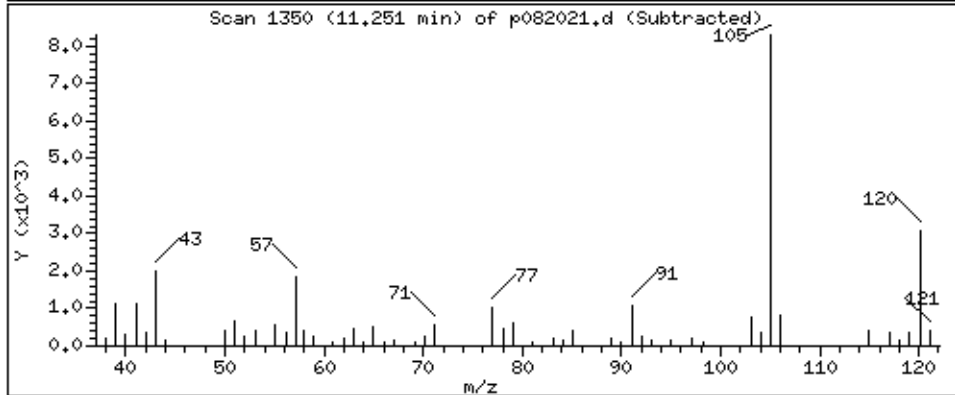
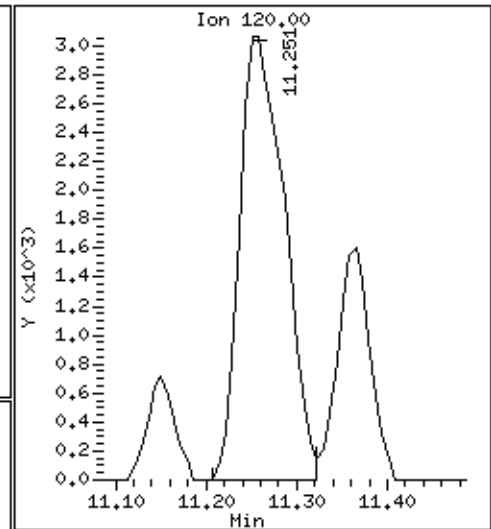
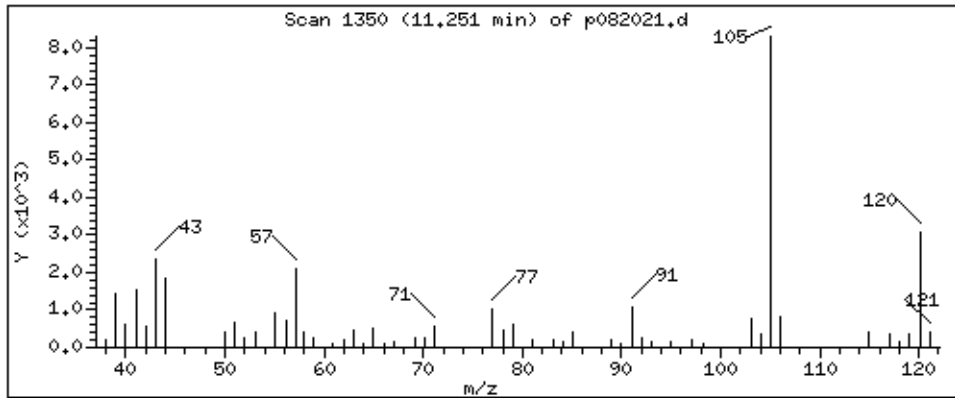
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 2.155 PPBV



Date : 21-AUG-2021 00:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1913

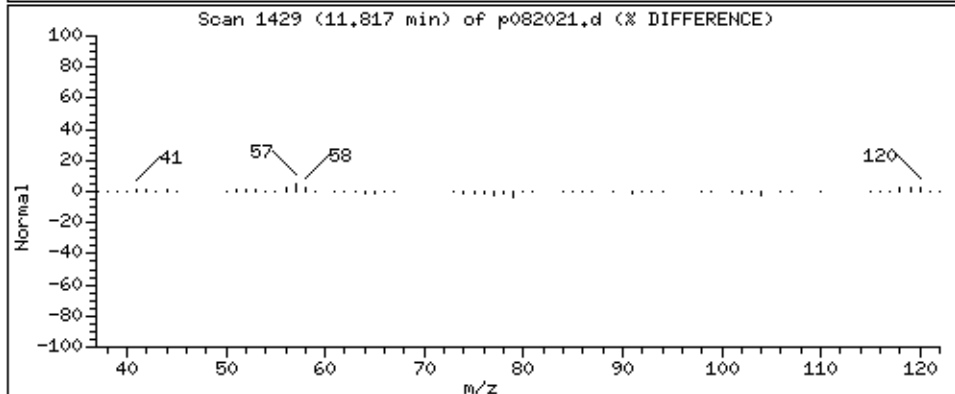
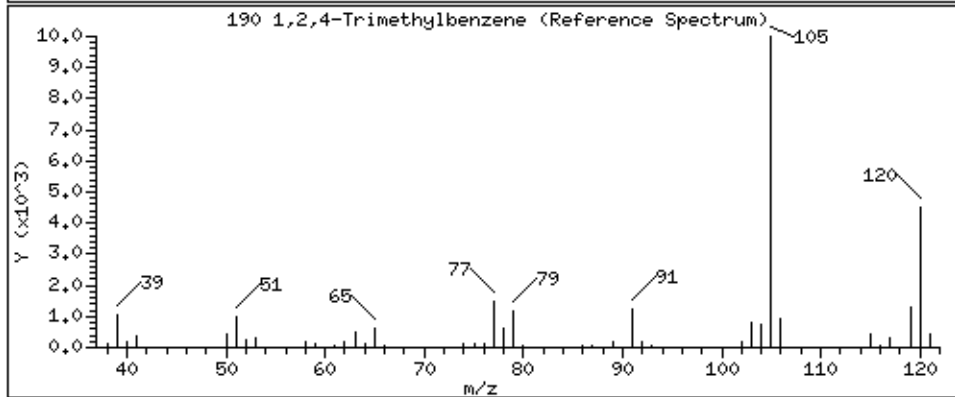
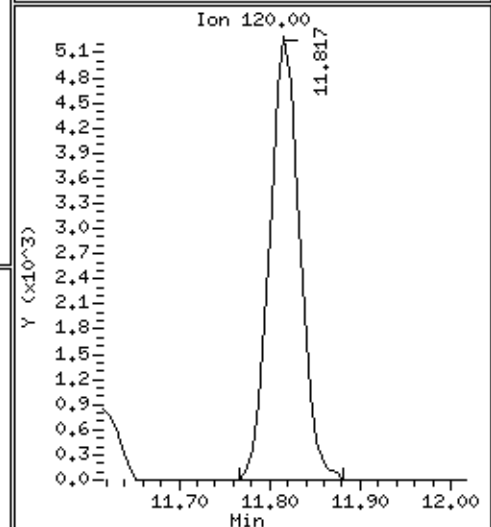
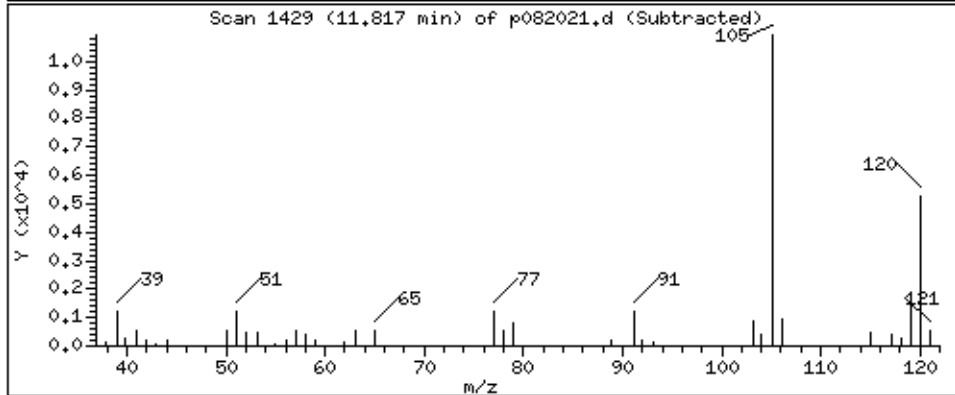
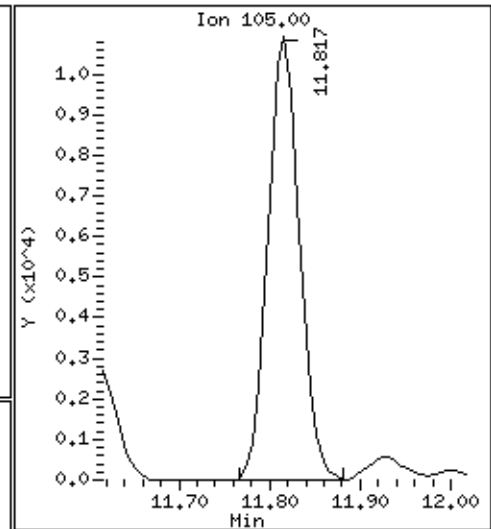
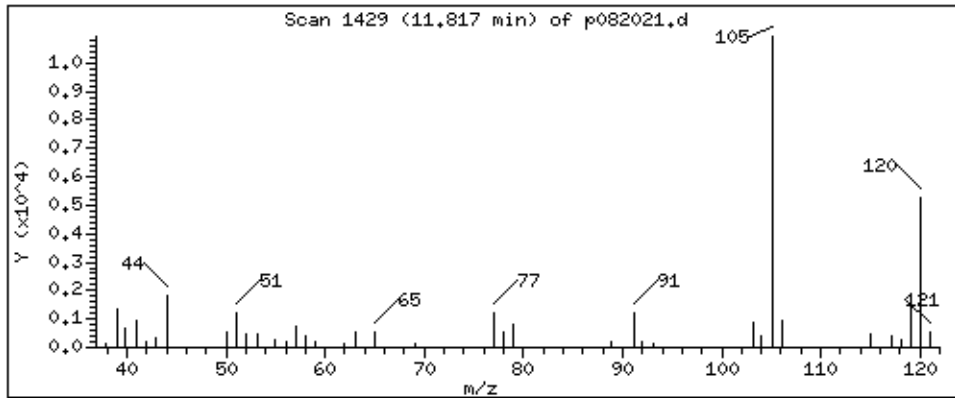
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 2,088 PPBV



Client Sample ID: SG-VW20A-03

Lab ID#: 2108390-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082023	Date of Collection:	8/17/21 7:07:00 AM
Dil. Factor:	1.98	Date of Analysis:	8/21/21 01:14 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.0	Not Detected	27	Not Detected
1,1,1-Trichloroethane	0.99	Not Detected	5.4	Not Detected
1,1,2,2-Tetrachloroethane	0.99	Not Detected	6.8	Not Detected
1,1,2-Trichloroethane	0.99	Not Detected	5.4	Not Detected
1,1-Dichloroethane	0.99	Not Detected	4.0	Not Detected
1,1-Dichloroethene	0.99	Not Detected	3.9	Not Detected
1,1-Difluoroethane	4.0	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.0	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	29	Not Detected
1,2,4-Trimethylbenzene	0.99	1.6	4.9	7.7
1,2-Dibromo-3-chloropropane	4.0	Not Detected	38	Not Detected
1,2-Dibromoethane (EDB)	0.99	Not Detected	7.6	Not Detected
1,2-Dichlorobenzene	0.99	Not Detected	6.0	Not Detected
1,2-Dichloroethane	0.99	Not Detected	4.0	Not Detected
1,2-Dichloropropane	0.99	Not Detected	4.6	Not Detected
1,3,5-Trimethylbenzene	0.99	Not Detected	4.9	Not Detected
1,3-Butadiene	0.99	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	0.99	Not Detected	6.0	Not Detected
1,4-Dichlorobenzene	0.99	Not Detected	6.0	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	0.99	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
2-Hexanone	4.0	Not Detected	16	Not Detected
2-Propanol	4.0	Not Detected	9.7	Not Detected
3-Chloropropene	4.0	Not Detected	12	Not Detected
4-Ethyltoluene	0.99	1.5	4.9	7.3
4-Methyl-2-pentanone	0.99	Not Detected	4.0	Not Detected
Acetone	9.9	Not Detected	24	Not Detected
Acrolein	4.0	Not Detected	9.1	Not Detected
Acrylonitrile	4.0	Not Detected	8.6	Not Detected
alpha-Chlorotoluene	0.99	Not Detected	5.1	Not Detected
Benzene	0.99	Not Detected	3.2	Not Detected
Bromodichloromethane	0.99	Not Detected	6.6	Not Detected
Bromoform	0.99	Not Detected	10	Not Detected
Bromomethane	9.9	Not Detected	38	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Carbon Tetrachloride	0.99	Not Detected	6.2	Not Detected
Chlorobenzene	0.99	Not Detected	4.6	Not Detected
Chloroethane	4.0	Not Detected	10	Not Detected
Chloroform	0.99	Not Detected	4.8	Not Detected
Chloromethane	9.9	Not Detected	20	Not Detected
cis-1,2-Dichloroethene	0.99	Not Detected	3.9	Not Detected





Air Toxics

Client Sample ID: SG-VW20A-03

Lab ID#: 2108390-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082023	Date of Collection:	8/17/21 7:07:00 AM
Dil. Factor:	1.98	Date of Analysis:	8/21/21 01:14 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	0.99	Not Detected	4.5	Not Detected
Cumene	0.99	Not Detected	4.9	Not Detected
Cyclohexane	0.99	1.0	3.4	3.4
Dibromochloromethane	0.99	Not Detected	8.4	Not Detected
Dibromomethane	4.0	Not Detected	28	Not Detected
Ethanol	9.9	11	19	22
Ethyl Acetate	4.0	Not Detected	14	Not Detected
Ethyl Benzene	0.99	1.6	4.3	7.0
Ethyl-tert-butyl ether	4.0	Not Detected	16	Not Detected
Freon 11	0.99	Not Detected	5.6	Not Detected
Freon 12	0.99	Not Detected	4.9	Not Detected
Freon 113	0.99	Not Detected	7.6	Not Detected
Freon 114	0.99	Not Detected	6.9	Not Detected
Freon 134a	4.0	Not Detected	16	Not Detected
Heptane	0.99	Not Detected	4.0	Not Detected
Hexachlorobutadiene	4.0	Not Detected	42	Not Detected
Hexachloroethane	4.0	Not Detected	38	Not Detected
Hexane	0.99	98	3.5	350
Iodomethane	9.9	Not Detected	57	Not Detected
Isopropyl ether	4.0	Not Detected	16	Not Detected
m,p-Xylene	0.99	6.5	4.3	28
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
Methylene Chloride	9.9	Not Detected	34	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
o-Xylene	0.99	2.2	4.3	9.7
Propylbenzene	0.99	Not Detected	4.9	Not Detected
Propylene	4.0	Not Detected	6.8	Not Detected
Styrene	0.99	Not Detected	4.2	Not Detected
tert-Amyl methyl ether	4.0	Not Detected	16	Not Detected
tert-Butyl alcohol	4.0	Not Detected	12	Not Detected
Tetrachloroethene	0.99	4.9	6.7	33
Tetrahydrofuran	0.99	Not Detected	2.9	Not Detected
Toluene	0.99	5.4	3.7	20
TPH ref. to Gasoline (MW=100)	99	180	400	740
trans-1,2-Dichloroethene	0.99	Not Detected	3.9	Not Detected
trans-1,3-Dichloropropene	0.99	Not Detected	4.5	Not Detected
Trichloroethene	0.99	Not Detected	5.3	Not Detected
Vinyl Acetate	4.0	Not Detected	14	Not Detected
Vinyl Bromide	4.0	Not Detected	17	Not Detected
Vinyl Chloride	0.99	Not Detected	2.5	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW20A-03

Lab ID#: 2108390-13A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082023	Date of Collection: 8/17/21 7:07:00 AM
Dil. Factor:	1.98	Date of Analysis: 8/21/21 01:14 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	105	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082023.d  
 Lab Smp Id: 2108390-13A  
 Inj Date : 21-AUG-2021 01:14  
 Operator : kk  
 Smp Info : 200ml 3033  
 Misc Info : 4.5 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5fl  
 Cal Date : 19-MAY-2021 19:45  
 Als bottle: 5  
 Dil Factor: 1.98000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msdp.i  
 Quant Type: ISTD  
 Cal File: p051915.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	108090	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	81659			48.23- 108.23	75.55
5.785	5.778	(1.000)	49	236558			150.57- 210.57	218.85
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	377300	25.0000		80.00- 120.00	100.00
6.666	6.659	(1.000)	88	53123			0.00- 45.71	14.08
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	386050	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	198290			23.78- 83.78	51.36
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	161238	27.0298	27.030	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	75974			27.21- 87.21	47.12
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	414879	25.3224	25.322	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	44750			0.00- 40.44	10.79

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		RESPONSE	TARGET	RANGE	RATIO
				ON-COL	FINAL				
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)									
7.891	7.891	(1.184)	100			266542	34.95-	94.95	64.25
-----									
§ 170 4-Bromofluorobenzene									
									CAS #: 460-00-4
10.921	10.921	(1.154)	174	260429	26.2706	26.271	80.00-	120.00	100.00
10.921	10.914	(1.154)	95	297930			95.92-	155.92	114.40
10.921	10.921	(1.154)	176	245220			66.89-	126.89	94.16
-----									
39 Ethanol									
									CAS #: 64-17-5
3.257	3.242	(0.563)	46	6209	5.79240	11.469	80.00-	120.00	100.00
3.257	3.285	(0.563)	45	17301			511.19-	571.19	278.64
-----									
67 Hexane									
									CAS #: 110-54-3
4.696	4.697	(0.812)	57	529748	49.7504	98.506	80.00-	120.00	100.00
4.696	4.697	(0.812)	43	421386			37.52-	97.52	79.54
4.696	4.697	(0.812)	86	52916			0.00-	41.48	9.99
-----									
94 Cyclohexane									
									CAS #: 110-82-7
5.957	5.957	(1.030)	84	3449	0.50726	1.004	80.00-	120.00	100.00
5.964	5.957	(1.031)	56	10385			142.57-	202.57	301.11
5.964	5.957	(1.031)	41	7339			62.09-	122.09	212.78
-----									
137 Toluene									
									CAS #: 108-88-3
7.956	7.956	(1.193)	91	46411	2.70179	5.350	80.00-	120.00	100.00
7.956	7.956	(1.193)	92	26861			28.38-	88.38	57.88
-----									
142 Tetrachloroethene									
									CAS #: 127-18-4
8.471	8.464	(0.895)	166	21712	2.46772	4.886	80.00-	120.00	100.00
8.464	8.464	(0.895)	129	17617			47.84-	107.84	81.14
8.464	8.464	(0.895)	131	17215			45.29-	105.29	79.29
-----									
155 Ethyl Benzene									
									CAS #: 100-41-4
9.567	9.567	(1.011)	106	6505	0.81152	1.607	80.00-	120.00	100.00
9.567	9.567	(1.011)	91	22045			273.74-	333.74	338.89
-----									
158 m,p-Xylene									
									CAS #: 108-38-3
9.718	9.718	(1.027)	106	33102	3.29724	6.528	80.00-	120.00	100.00
9.718	9.718	(1.027)	91	63664			163.73-	223.73	192.33
-----									
164 o-Xylene									
									CAS #: 95-47-6
10.226	10.226	(1.081)	106	10895	1.13268	2.243	80.00-	120.00	100.00
10.226	10.226	(1.081)	91	22786			177.45-	237.45	209.15
-----									
183 4-Ethyltoluene									
									CAS #: 622-96-8
11.258	11.287	(1.190)	120	7349	0.75426	1.493	80.00-	120.00	100.00
11.258	11.287	(1.190)	105	21437			284.55-	344.55	291.68
-----									

CONCENTRATIONS										
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE		RATIO		
				( PPBV)	( PPBV)				ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
190	1,2,4-Trimethylbenzene					CAS #:	95-63-6			
11.816	11.817	(1.249)	105	19943	0.78764	1.560	80.00-	120.00	100.00	
11.816	11.817	(1.249)	120	9393			19.05-	79.05	47.10	

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US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082023.d  
 Lab Smp Id: 2108390-13A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: kk  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 4.5 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	108090	-1.17
108 1,4-Difluorobenze	406799	244079	569519	377300	-7.25
153 Chlorobenzene-d5	400841	240505	561177	386050	-3.69

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-13A  
Level: LOW Operator: kk  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 4.5 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.030	108.12	70-130
\$ 134 Toluene-d8	25.000	25.322	101.29	70-130
\$ 170 4-Bromofluorobenz	25.000	26.271	105.08	70-130

Date : 21-AUG-2021 01:14

Client ID:

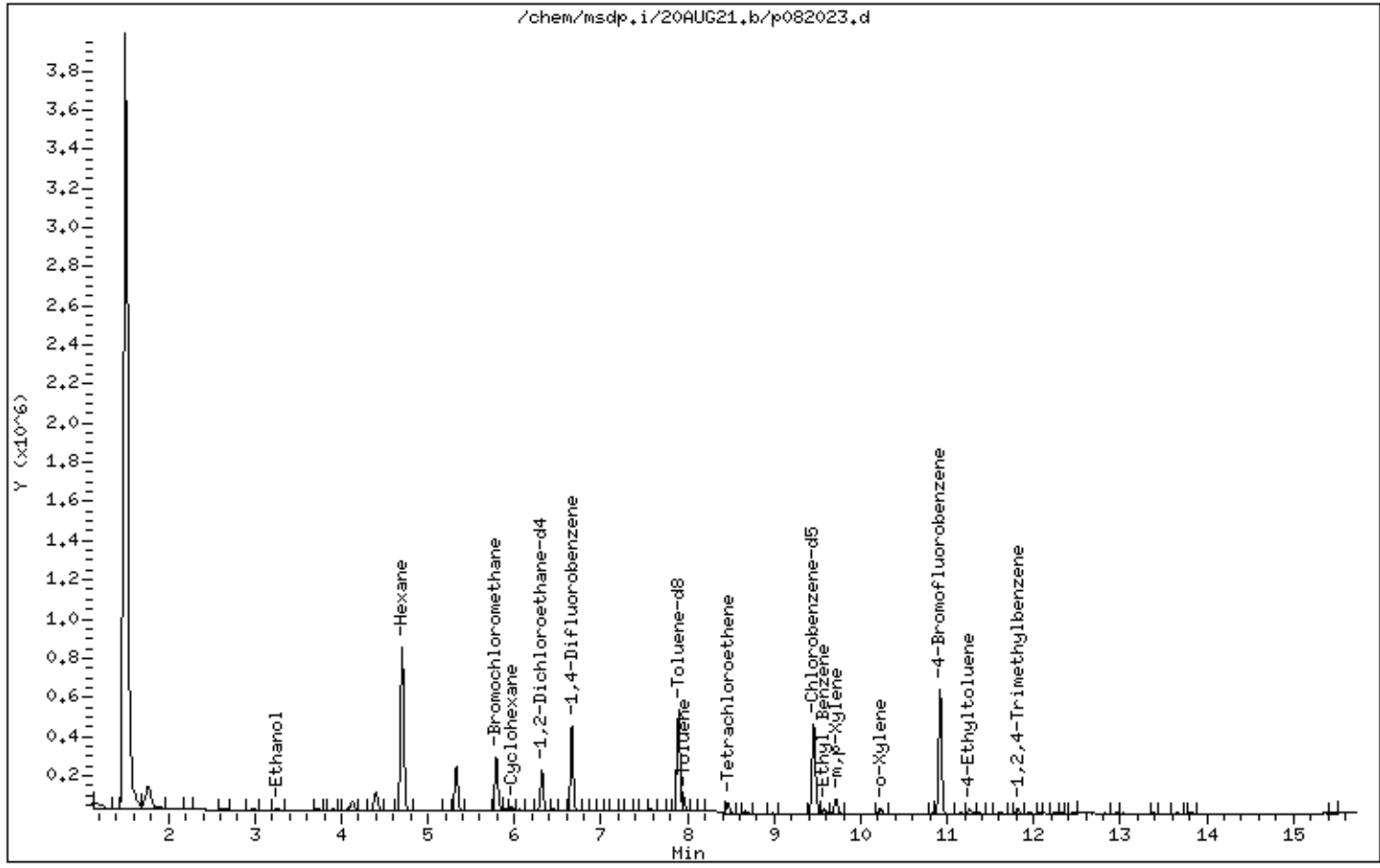
Instrument: msdp.i

Sample Info: 200ml 3033

Operator: kk

Column phase: RTX-624

Column diameter: 0.25





Date : 21-AUG-2021 01:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml 3033

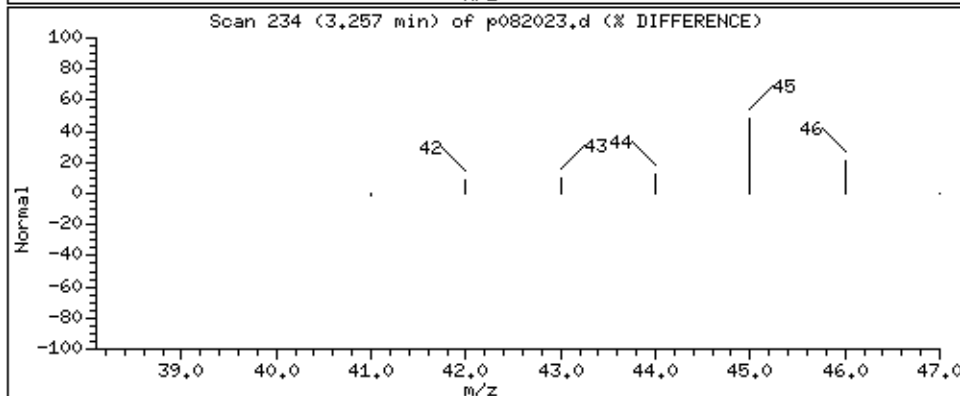
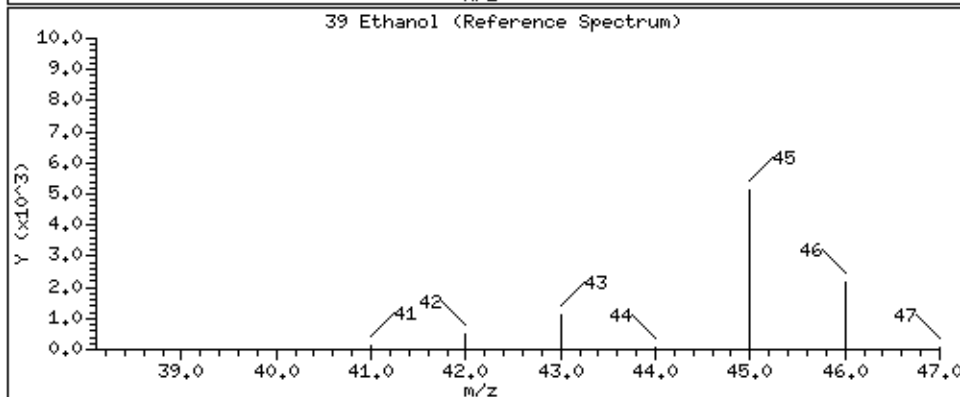
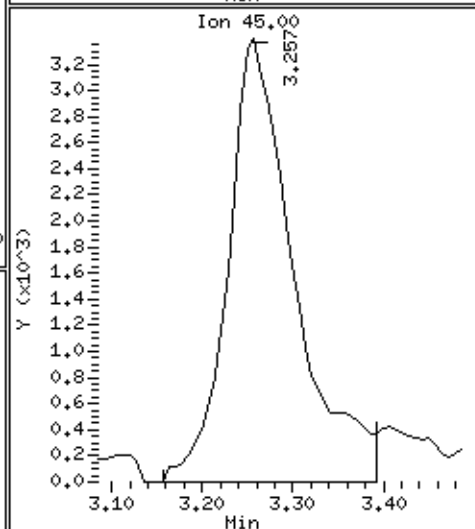
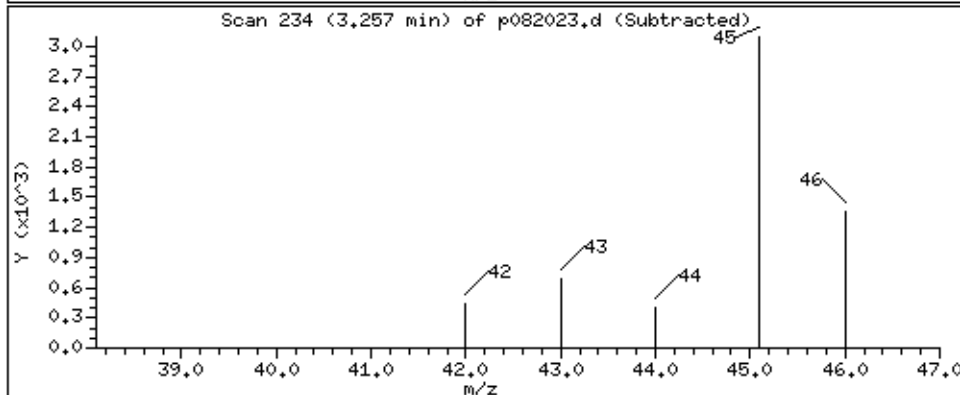
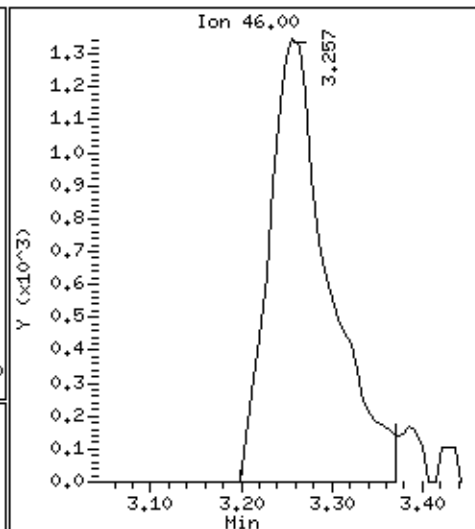
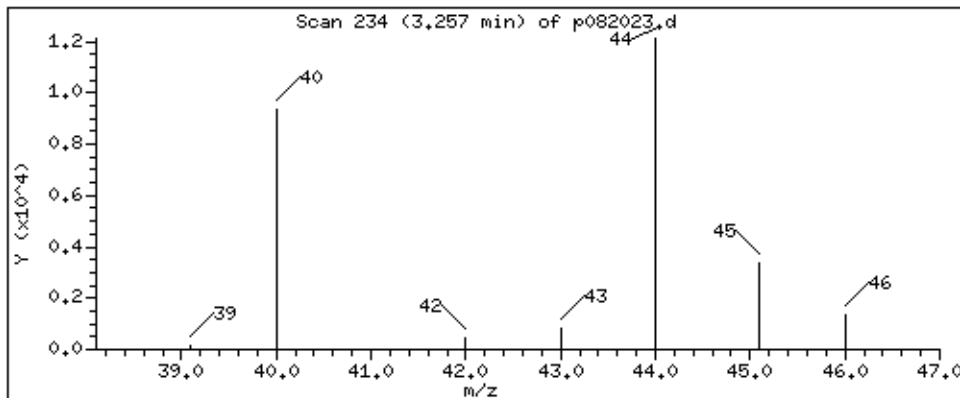
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 11.469 PPBV



Date : 21-AUG-2021 01:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml 3033

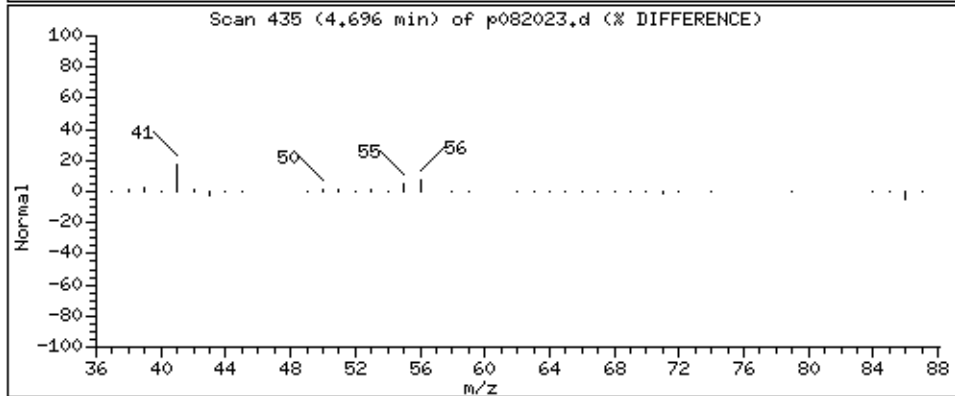
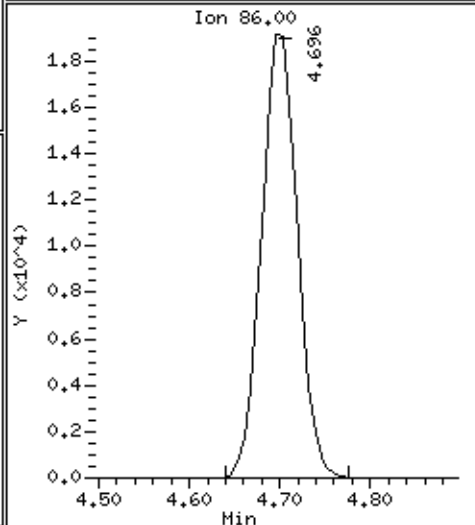
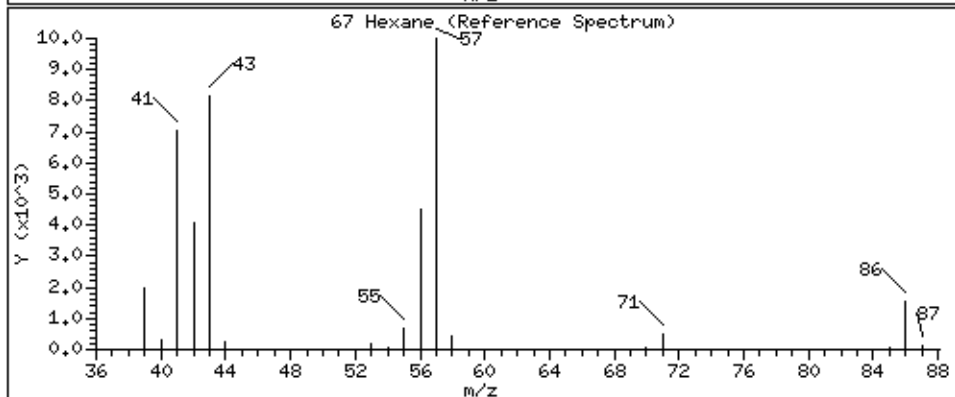
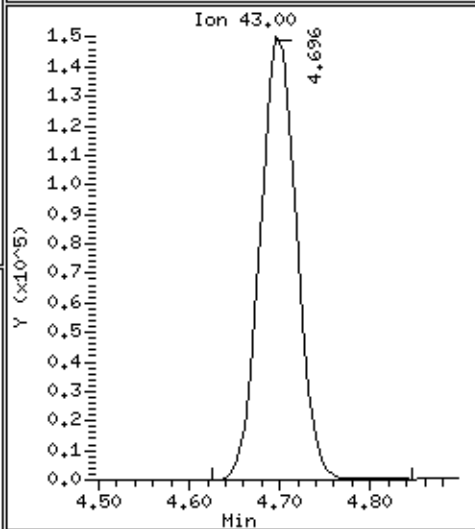
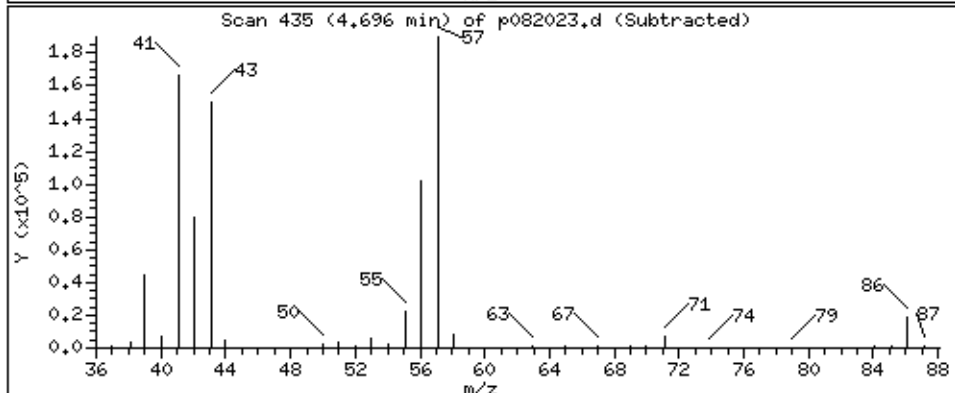
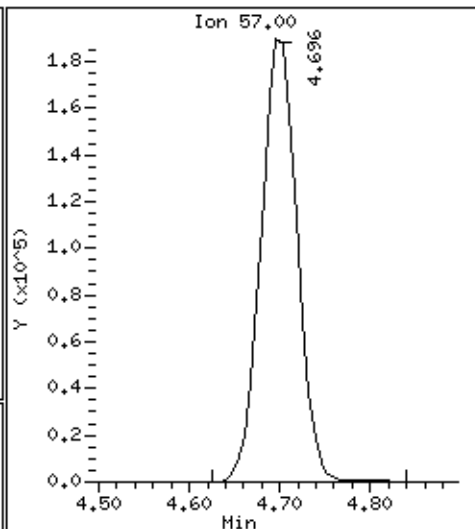
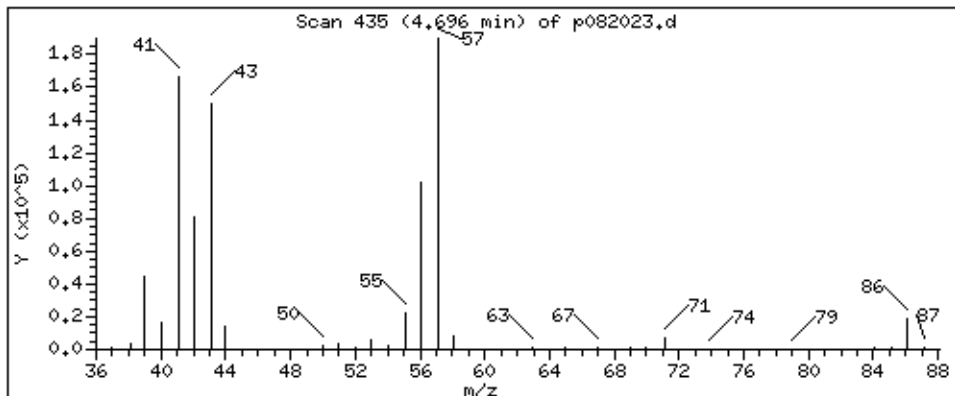
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 98,506 PPBV



Date : 21-AUG-2021 01:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml 3033

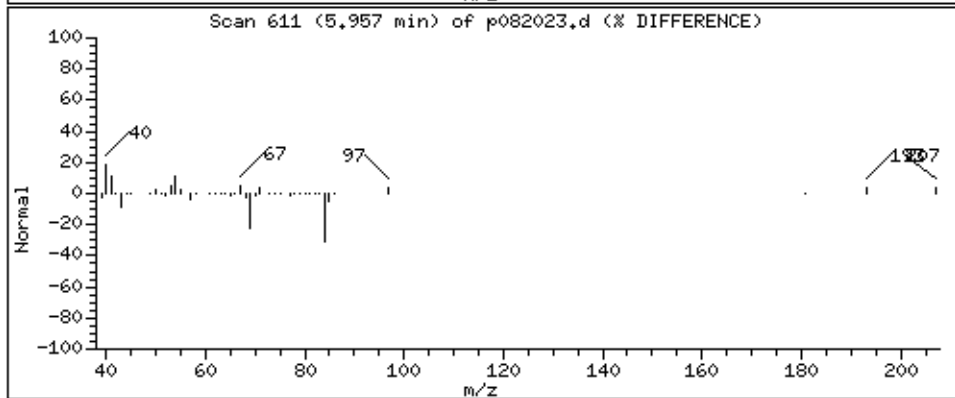
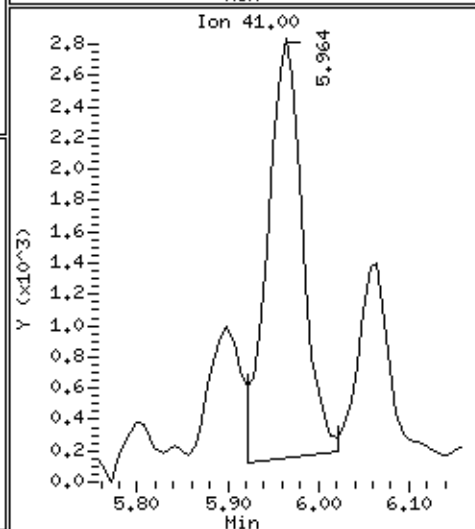
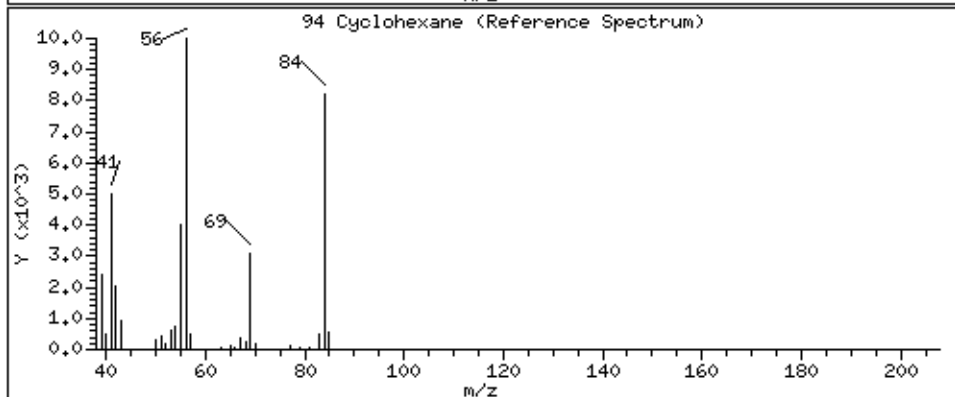
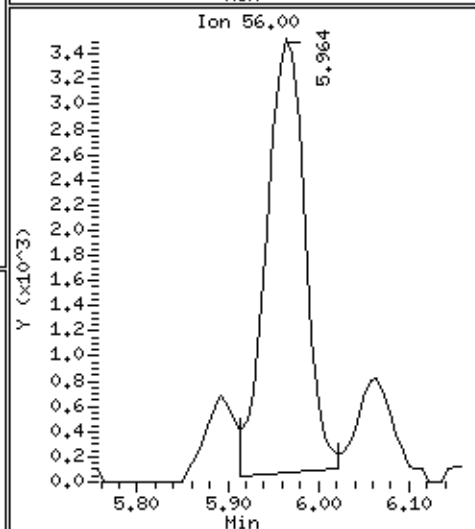
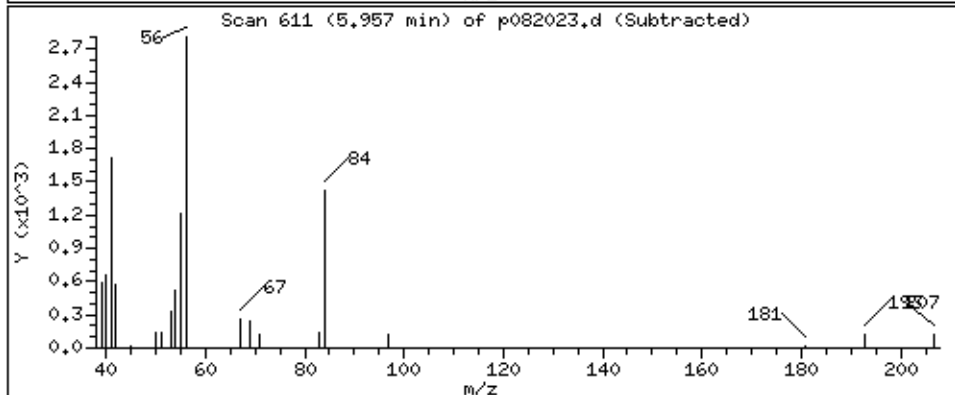
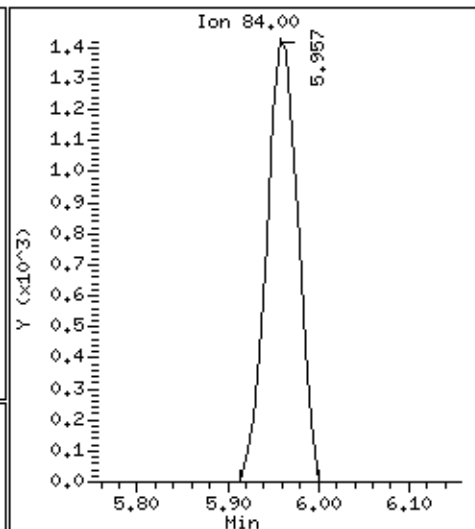
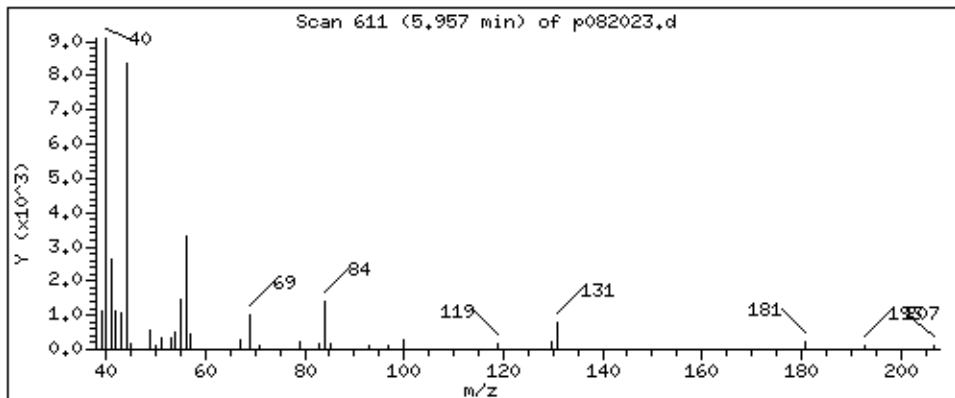
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

94 Cyclohexane

Concentration: 1,004 PPBV



Date : 21-AUG-2021 01:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml 3033

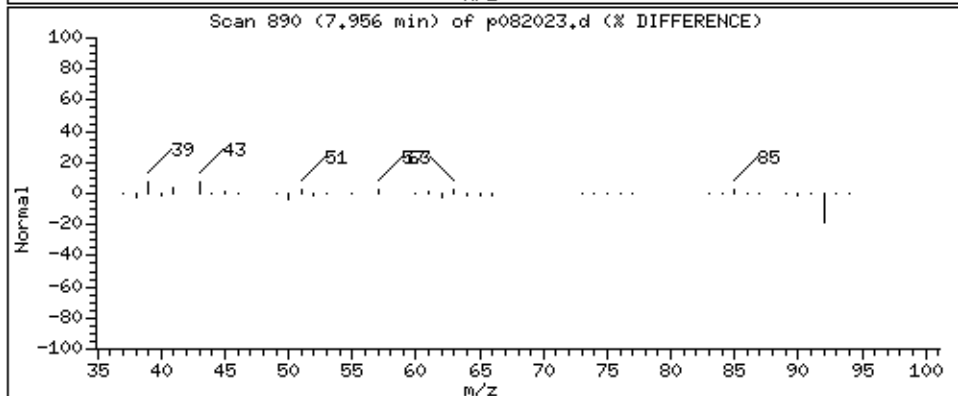
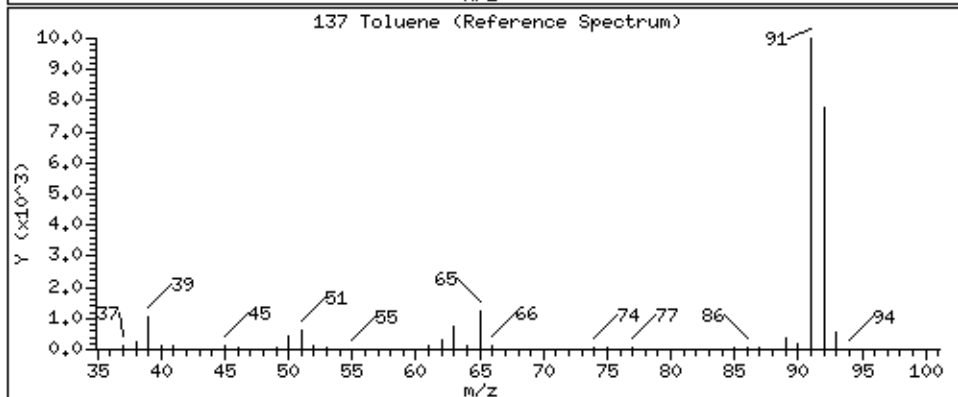
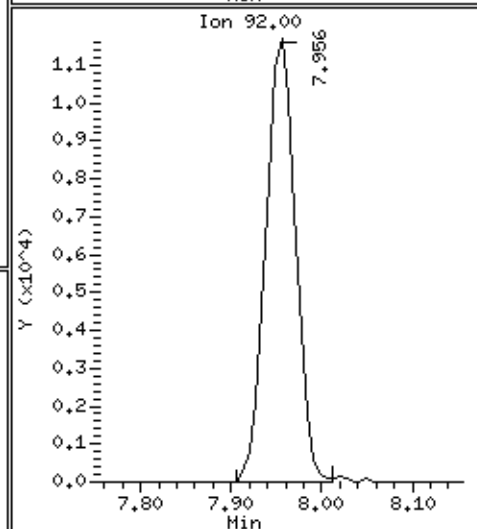
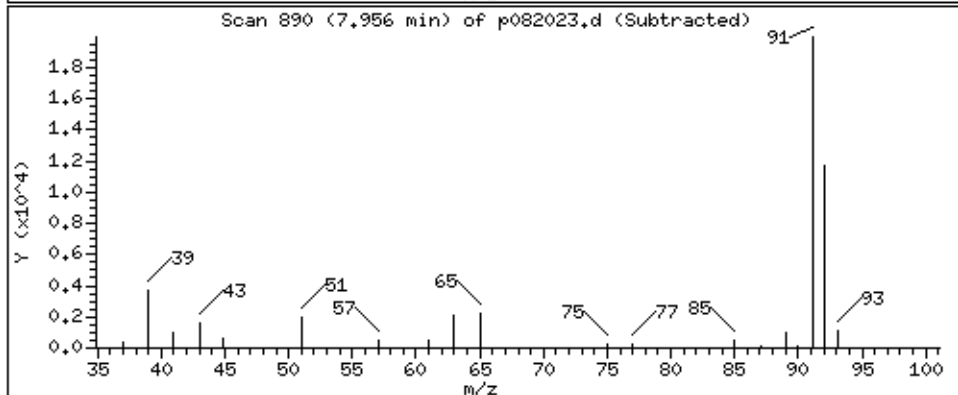
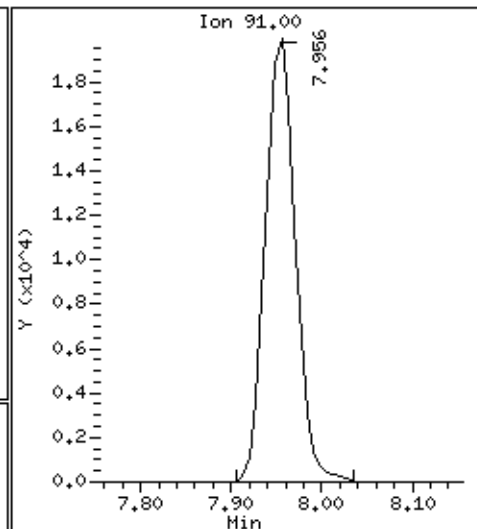
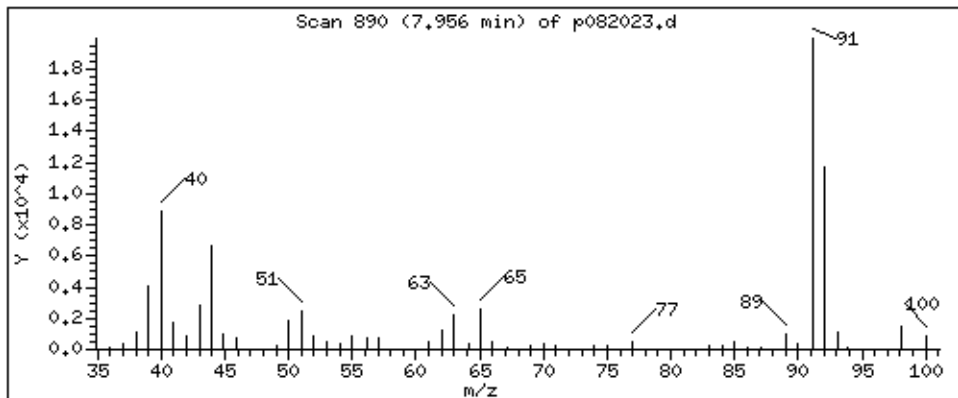
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 5.350 PPBV



Date : 21-AUG-2021 01:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml 3033

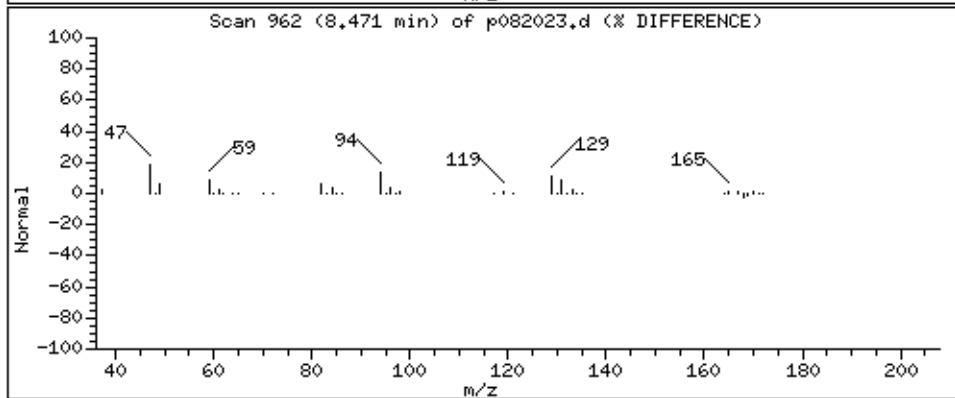
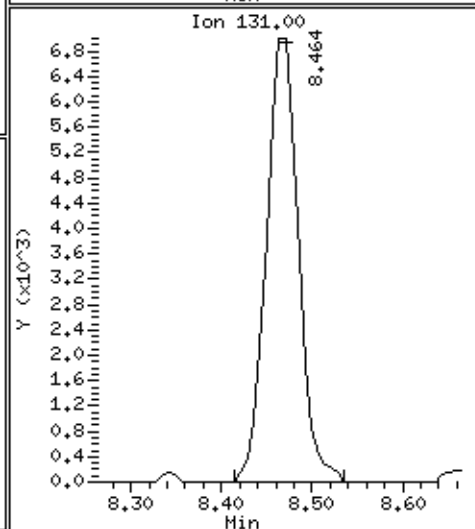
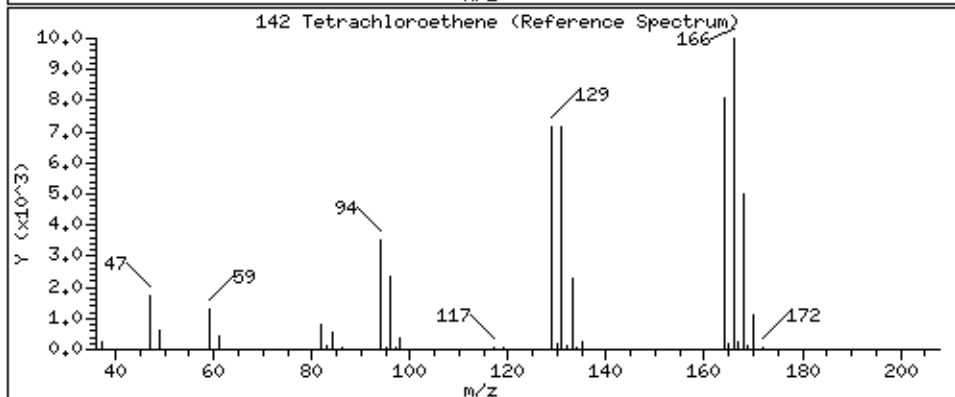
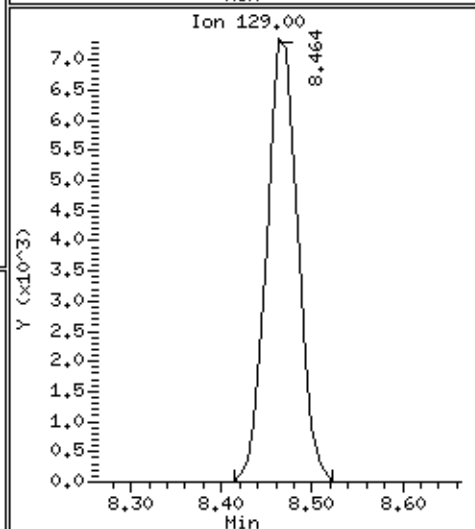
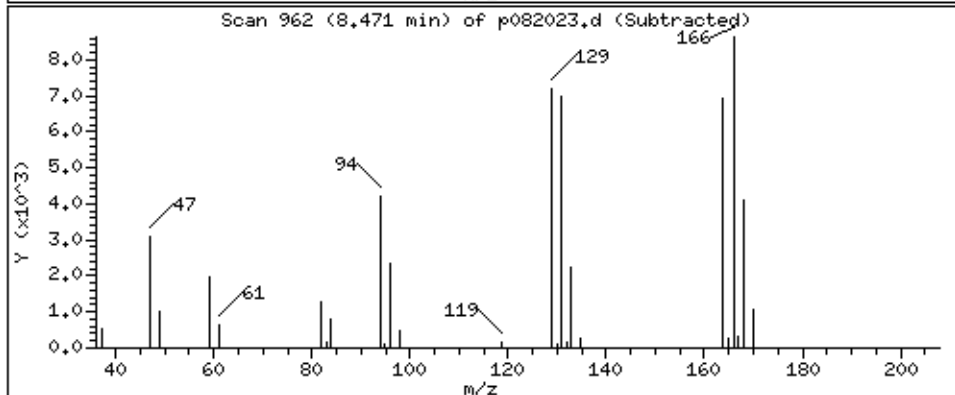
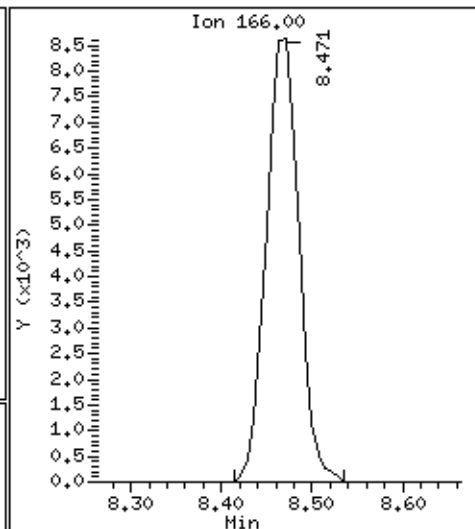
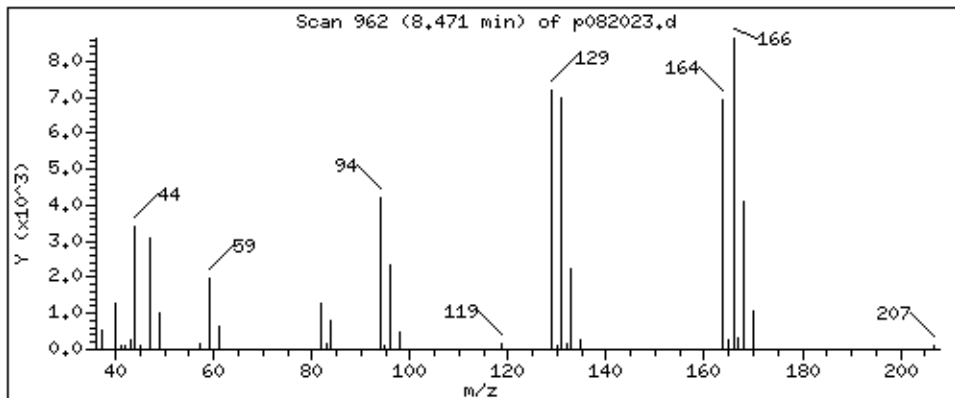
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 4.886 PPBV



Date : 21-AUG-2021 01:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml 3033

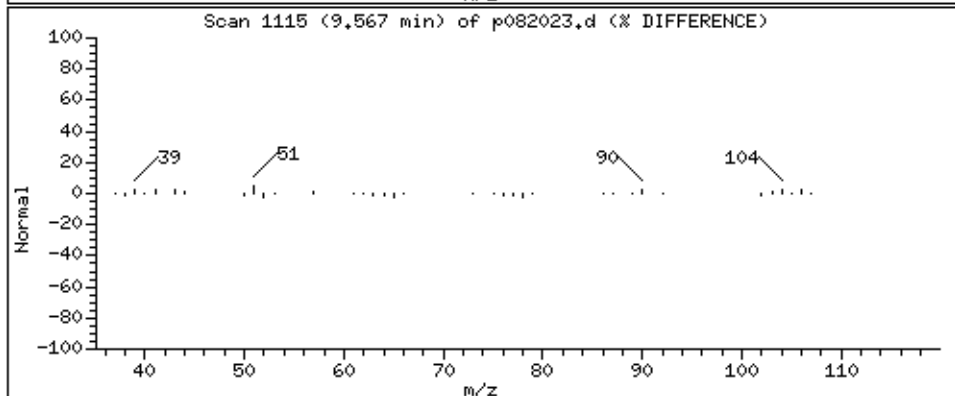
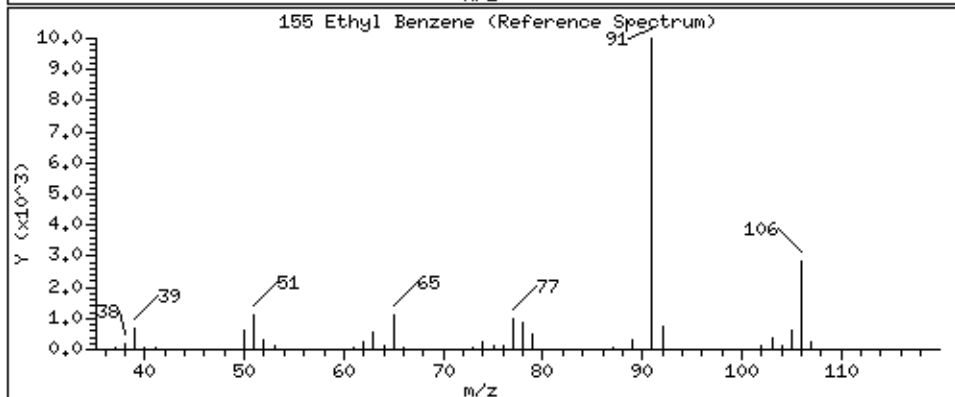
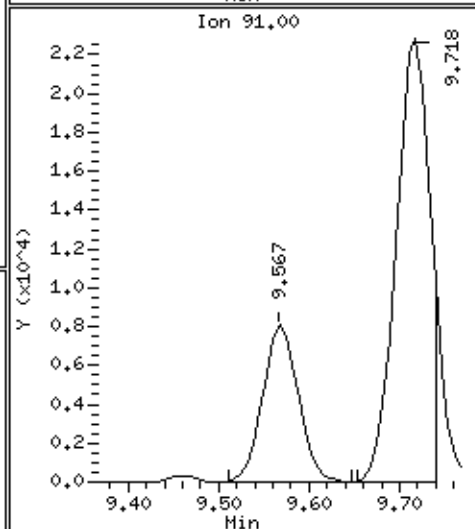
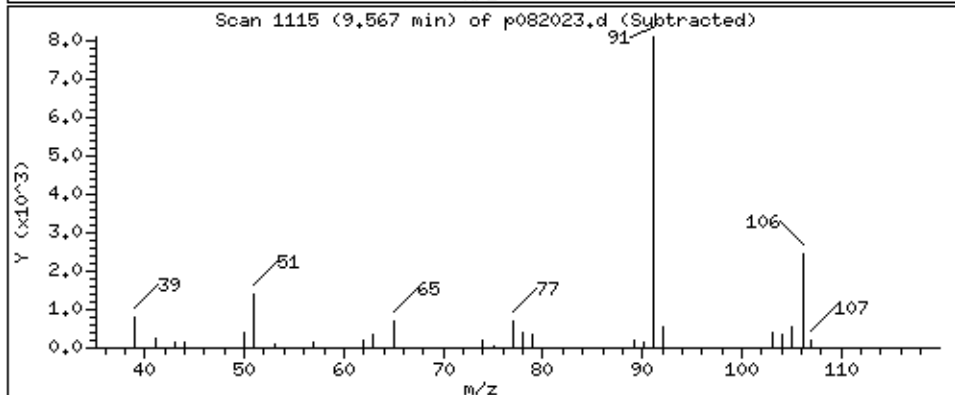
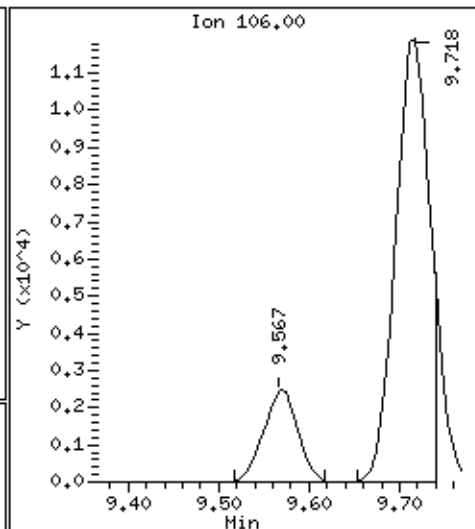
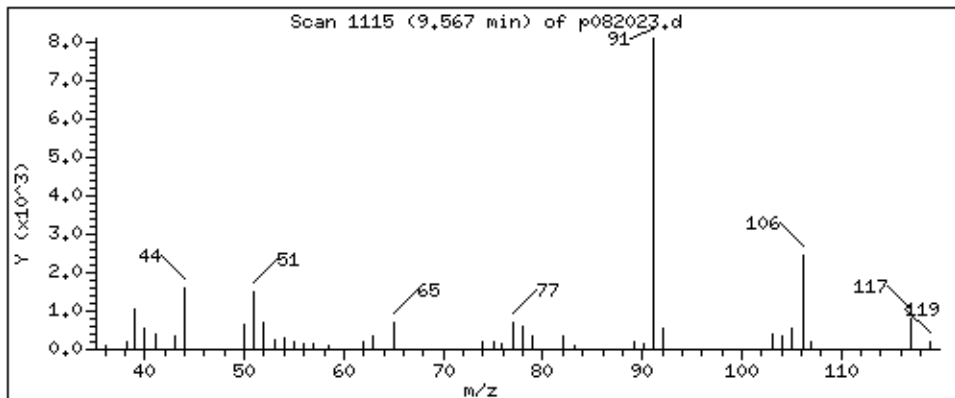
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 1,607 PPBV



Date : 21-AUG-2021 01:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml 3033

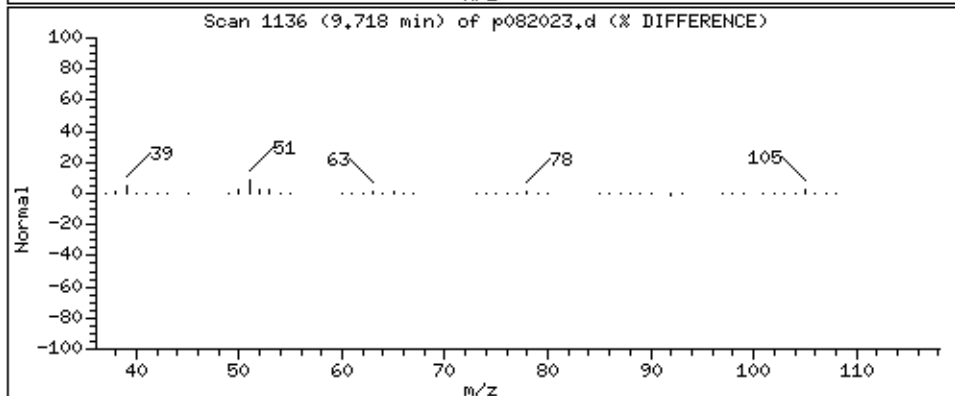
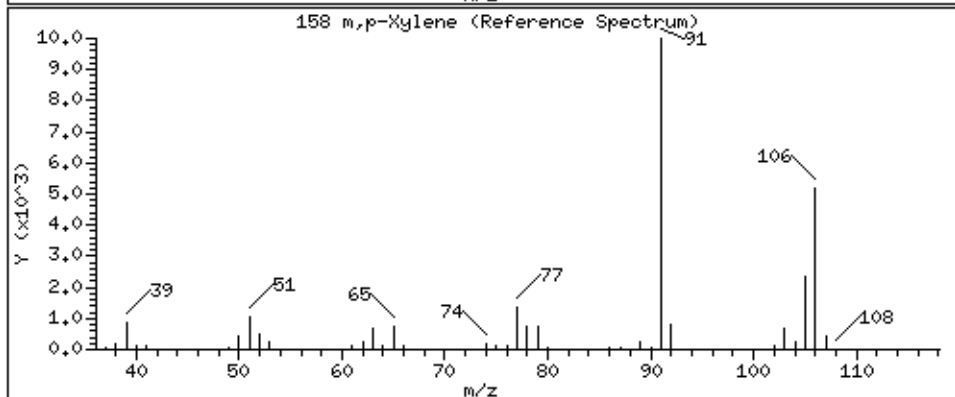
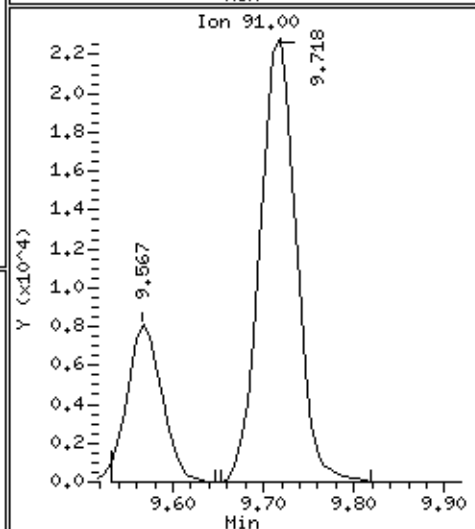
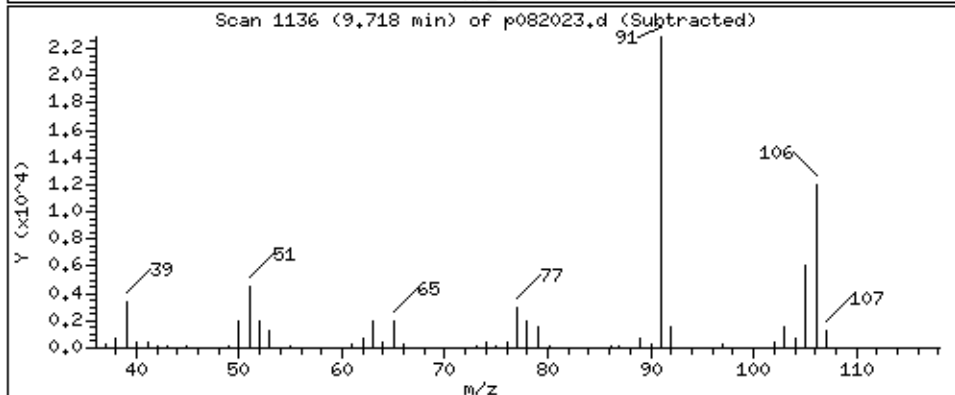
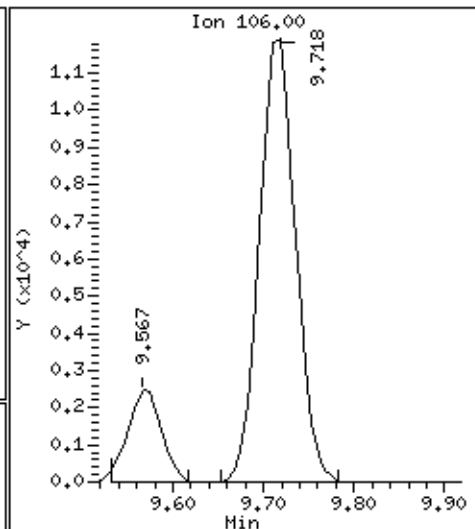
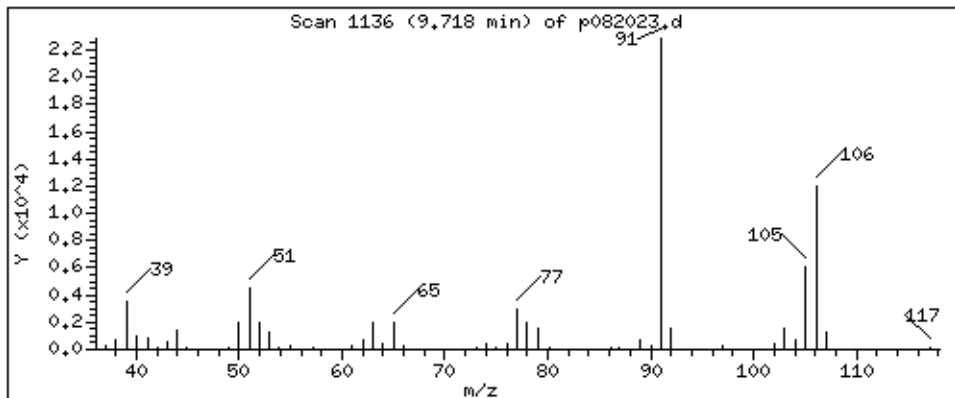
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 6.528 PPBV



Date : 21-AUG-2021 01:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml 3033

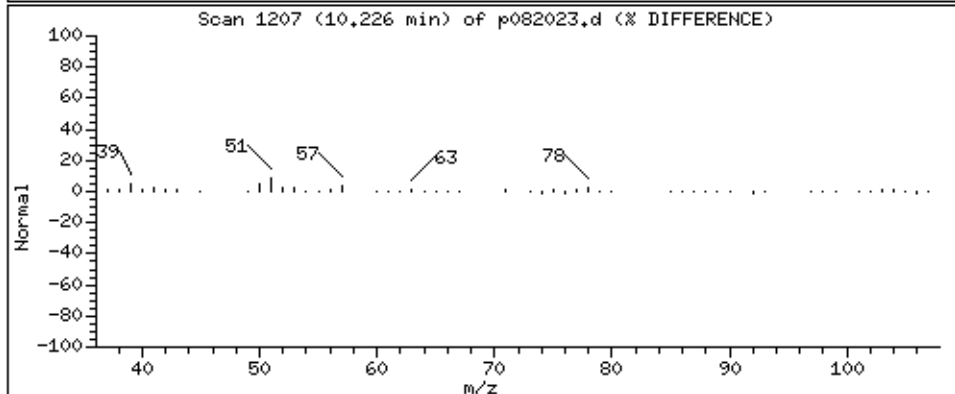
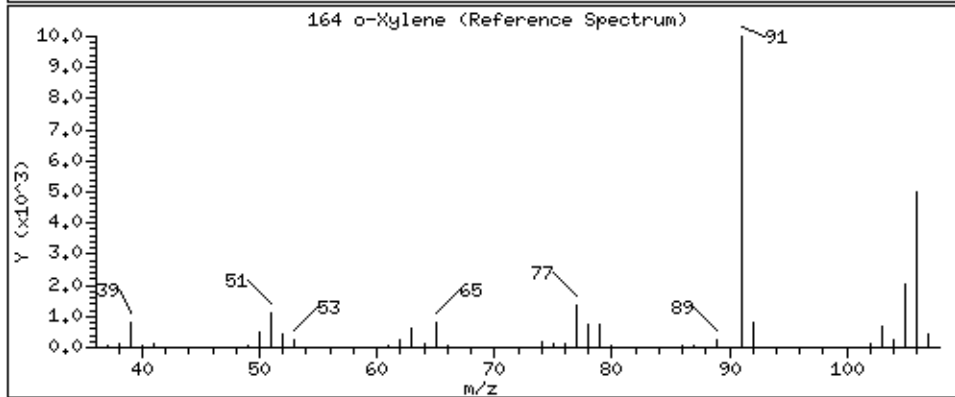
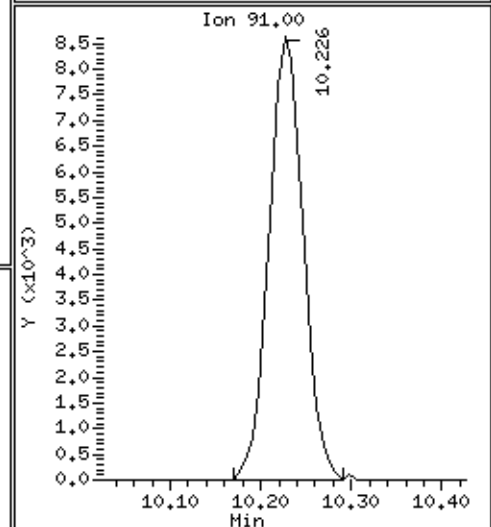
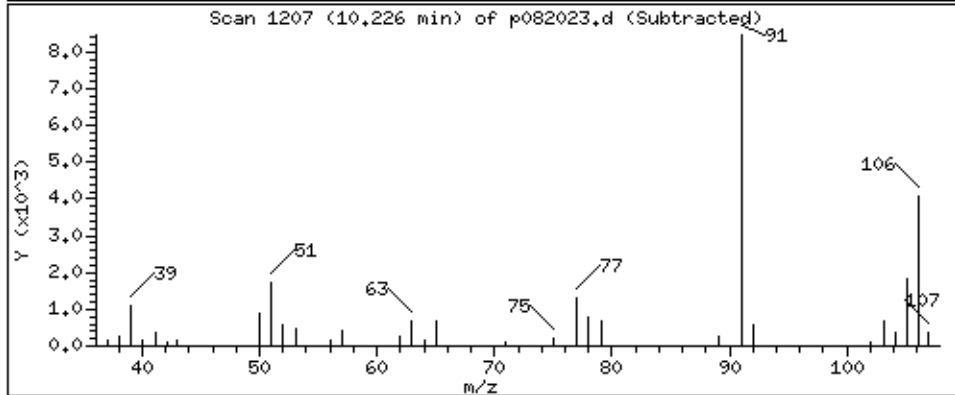
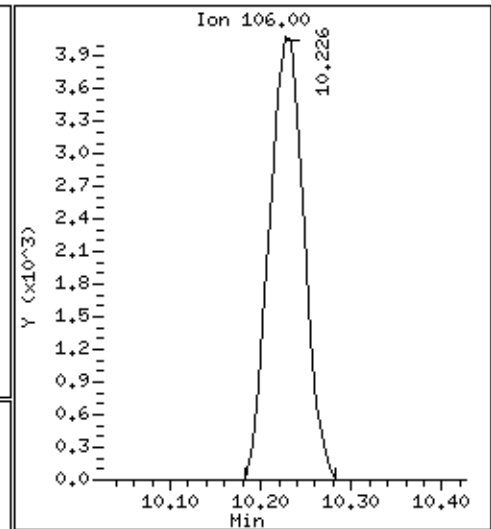
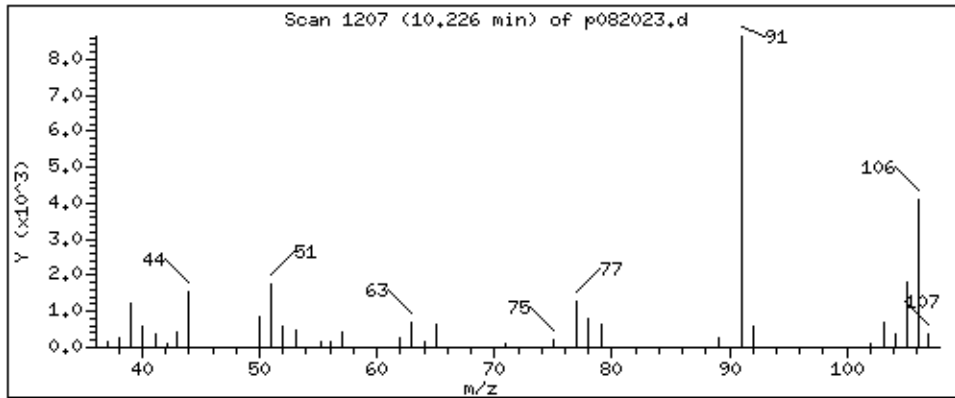
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 2,243 PPBV





Date : 21-AUG-2021 01:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml 3033

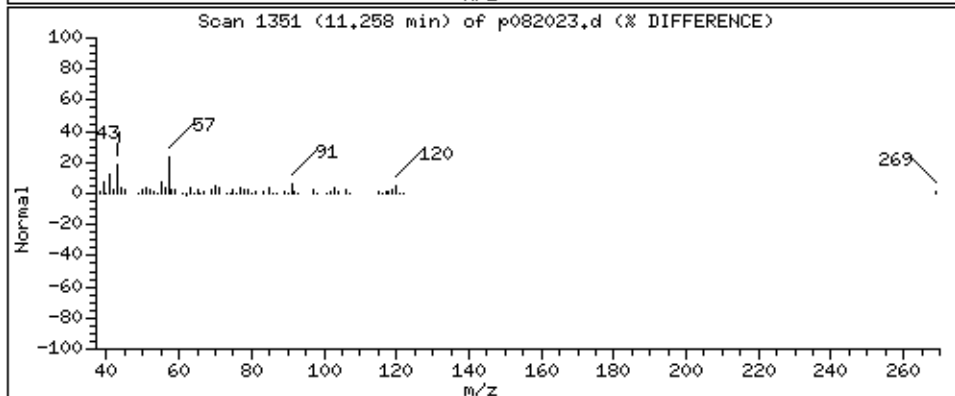
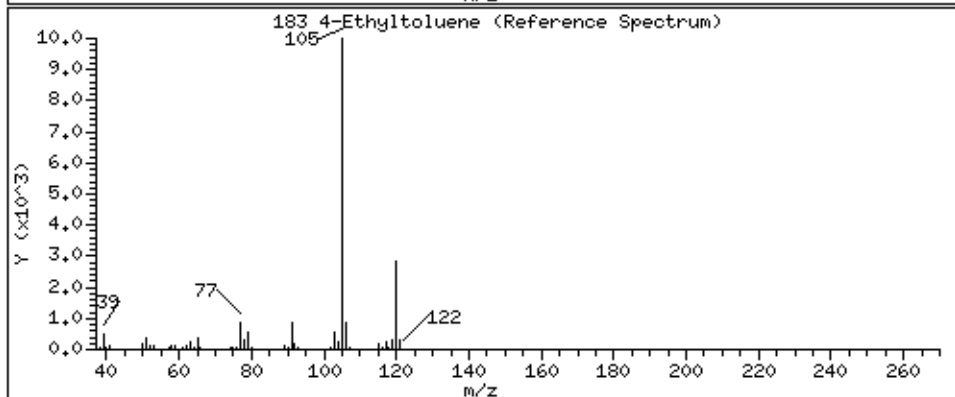
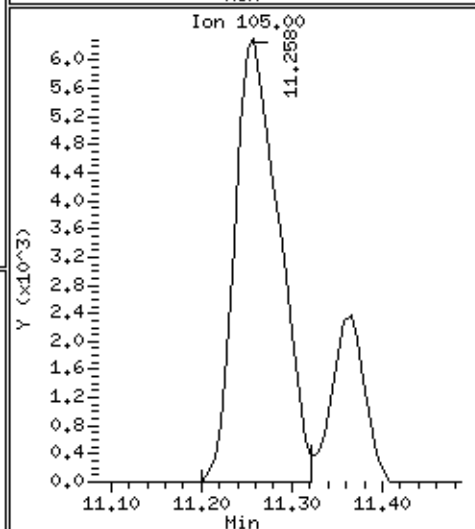
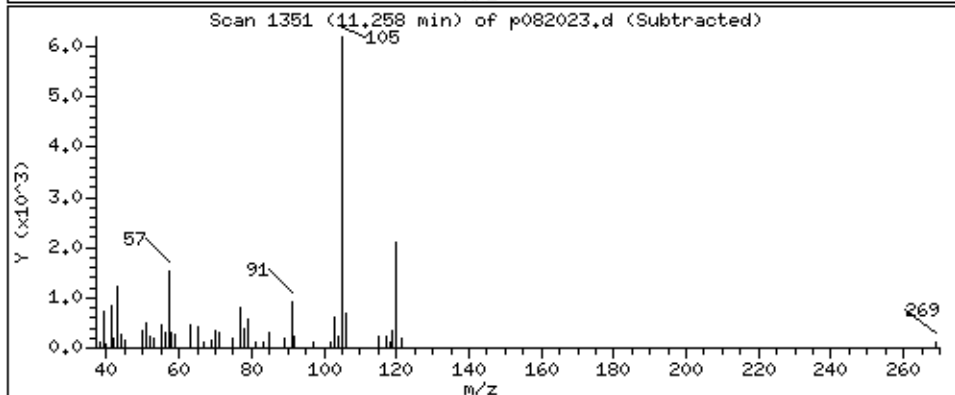
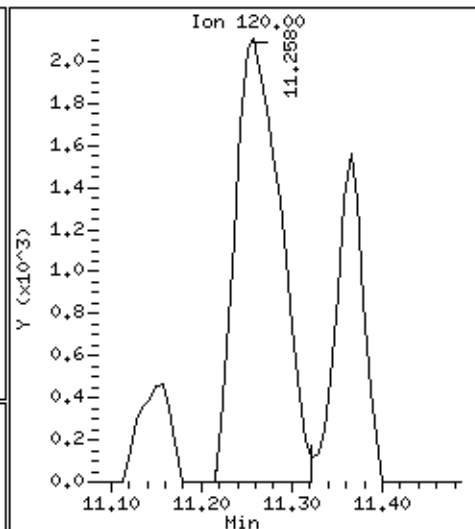
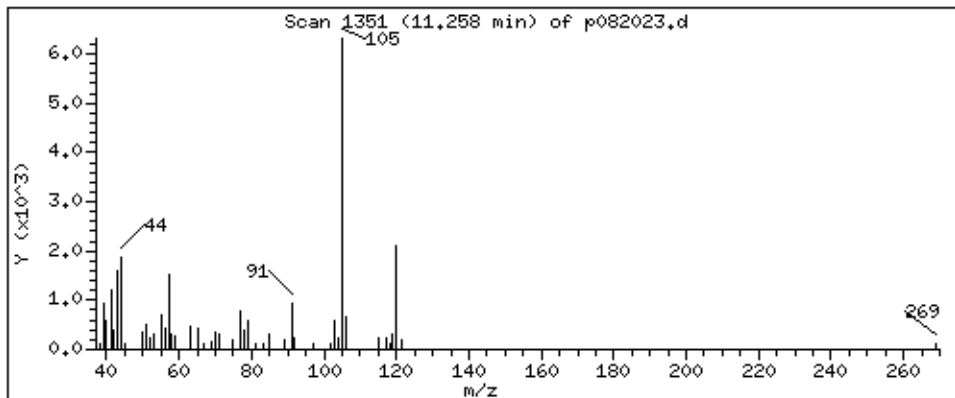
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 1.493 PPBV



Date : 21-AUG-2021 01:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml 3033

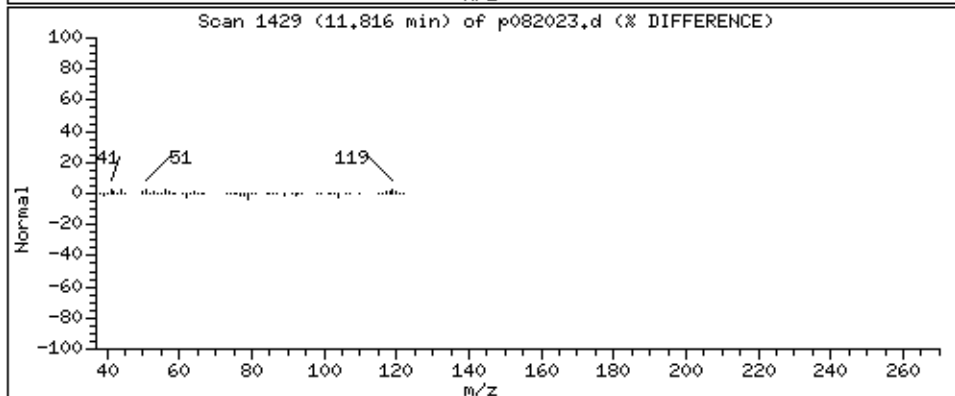
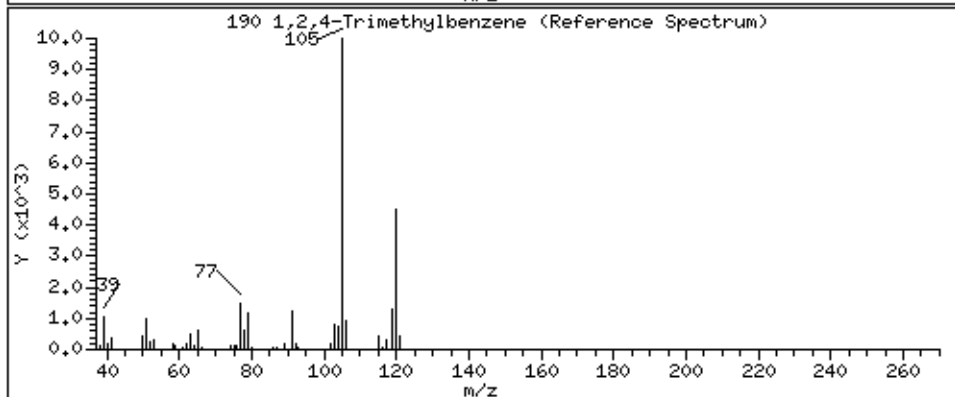
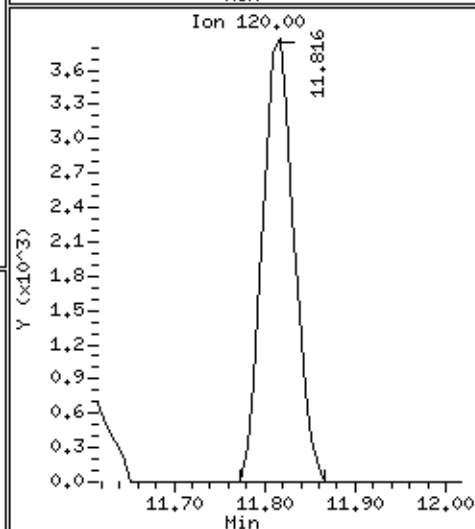
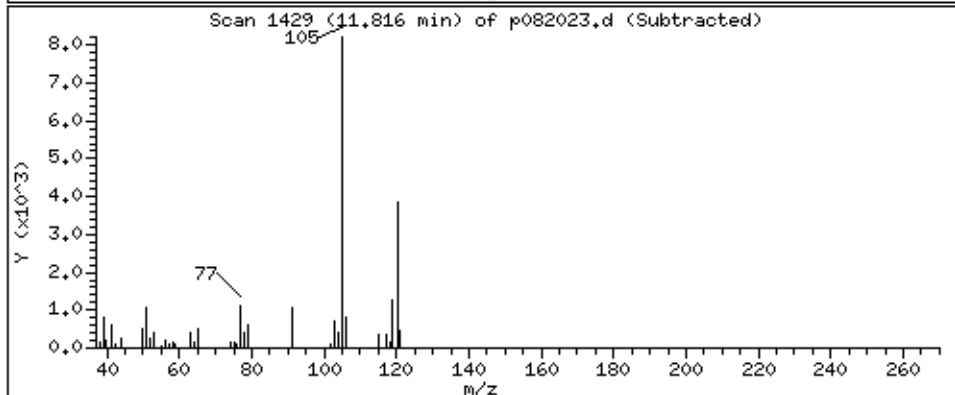
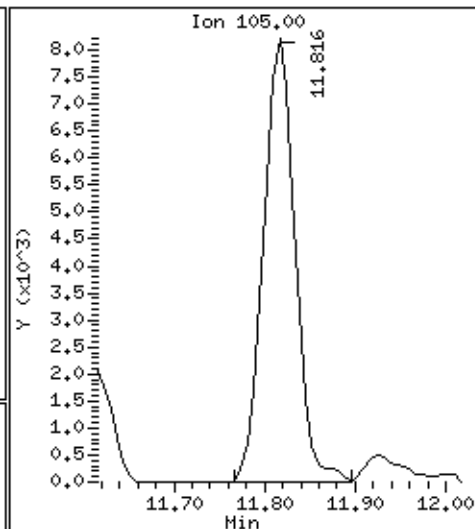
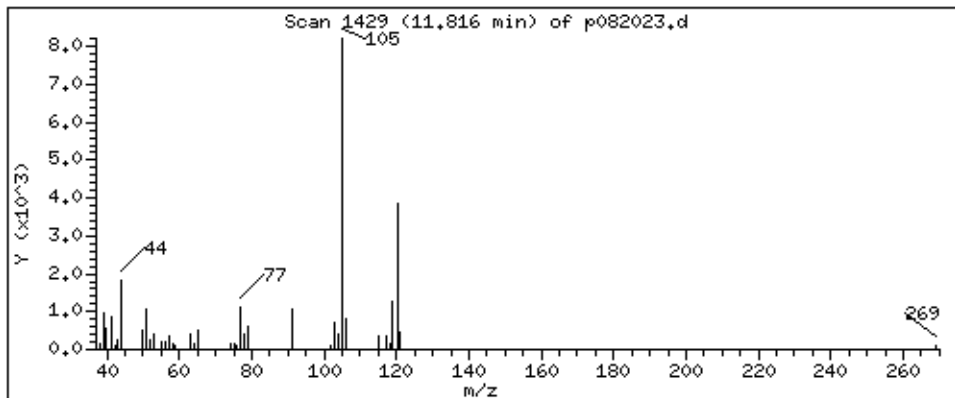
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 1,560 PPBV



Client Sample ID: SG-VW21A-04

Lab ID#: 2108390-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082019	Date of Collection:	8/17/21 7:49:00 AM
Dil. Factor:	1.94	Date of Analysis:	8/20/21 11:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	3.9	Not Detected	27	Not Detected
1,1,1-Trichloroethane	0.97	1.0	5.3	5.8
1,1,2,2-Tetrachloroethane	0.97	Not Detected	6.6	Not Detected
1,1,2-Trichloroethane	0.97	Not Detected	5.3	Not Detected
1,1-Dichloroethane	0.97	Not Detected	3.9	Not Detected
1,1-Dichloroethene	0.97	Not Detected	3.8	Not Detected
1,1-Difluoroethane	3.9	84	10	230
1,2,3-Trichloropropane	3.9	Not Detected	23	Not Detected
1,2,4-Trichlorobenzene	3.9	Not Detected	29	Not Detected
1,2,4-Trimethylbenzene	0.97	3.4	4.8	16
1,2-Dibromo-3-chloropropane	3.9	Not Detected	38	Not Detected
1,2-Dibromoethane (EDB)	0.97	Not Detected	7.4	Not Detected
1,2-Dichlorobenzene	0.97	Not Detected	5.8	Not Detected
1,2-Dichloroethane	0.97	Not Detected	3.9	Not Detected
1,2-Dichloropropane	0.97	Not Detected	4.5	Not Detected
1,3,5-Trimethylbenzene	0.97	1.1	4.8	5.6
1,3-Butadiene	0.97	Not Detected	2.1	Not Detected
1,3-Dichlorobenzene	0.97	Not Detected	5.8	Not Detected
1,4-Dichlorobenzene	0.97	Not Detected	5.8	Not Detected
1,4-Dioxane	3.9	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	0.97	1.2	4.5	5.8
2-Butanone (Methyl Ethyl Ketone)	3.9	Not Detected	11	Not Detected
2-Hexanone	3.9	Not Detected	16	Not Detected
2-Propanol	3.9	6.1	9.5	15
3-Chloropropene	3.9	Not Detected	12	Not Detected
4-Ethyltoluene	0.97	3.6	4.8	18
4-Methyl-2-pentanone	0.97	Not Detected	4.0	Not Detected
Acetone	9.7	22	23	52
Acrolein	3.9	Not Detected	8.9	Not Detected
Acrylonitrile	3.9	Not Detected	8.4	Not Detected
alpha-Chlorotoluene	0.97	Not Detected	5.0	Not Detected
Benzene	0.97	1.8	3.1	5.7
Bromodichloromethane	0.97	Not Detected	6.5	Not Detected
Bromoform	0.97	Not Detected	10	Not Detected
Bromomethane	9.7	Not Detected	38	Not Detected
Carbon Disulfide	3.9	Not Detected	12	Not Detected
Carbon Tetrachloride	0.97	Not Detected	6.1	Not Detected
Chlorobenzene	0.97	Not Detected	4.5	Not Detected
Chloroethane	3.9	Not Detected	10	Not Detected
Chloroform	0.97	1.8	4.7	9.0
Chloromethane	9.7	Not Detected	20	Not Detected
cis-1,2-Dichloroethene	0.97	Not Detected	3.8	Not Detected

Client Sample ID: SG-VW21A-04

Lab ID#: 2108390-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082019	Date of Collection:	8/17/21 7:49:00 AM
Dil. Factor:	1.94	Date of Analysis:	8/20/21 11:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	0.97	Not Detected	4.4	Not Detected
Cumene	0.97	Not Detected	4.8	Not Detected
Cyclohexane	0.97	2.7	3.3	9.2
Dibromochloromethane	0.97	Not Detected	8.3	Not Detected
Dibromomethane	3.9	Not Detected	28	Not Detected
Ethanol	9.7	32	18	61
Ethyl Acetate	3.9	Not Detected	14	Not Detected
Ethyl Benzene	0.97	4.2	4.2	18
Ethyl-tert-butyl ether	3.9	Not Detected	16	Not Detected
Freon 11	0.97	Not Detected	5.4	Not Detected
Freon 12	0.97	Not Detected	4.8	Not Detected
Freon 113	0.97	Not Detected	7.4	Not Detected
Freon 114	0.97	Not Detected	6.8	Not Detected
Freon 134a	3.9	Not Detected	16	Not Detected
Heptane	0.97	1.2	4.0	4.8
Hexachlorobutadiene	3.9	Not Detected	41	Not Detected
Hexachloroethane	3.9	Not Detected	38	Not Detected
Hexane	0.97	220	3.4	760
Iodomethane	9.7	Not Detected	56	Not Detected
Isopropyl ether	3.9	Not Detected	16	Not Detected
m,p-Xylene	0.97	16	4.2	70
Methyl tert-butyl ether	3.9	Not Detected	14	Not Detected
Methylene Chloride	9.7	Not Detected	34	Not Detected
Naphthalene	1.9	Not Detected	10	Not Detected
o-Xylene	0.97	5.4	4.2	24
Propylbenzene	0.97	Not Detected	4.8	Not Detected
Propylene	3.9	5.0	6.7	8.7
Styrene	0.97	Not Detected	4.1	Not Detected
tert-Amyl methyl ether	3.9	Not Detected	16	Not Detected
tert-Butyl alcohol	3.9	Not Detected	12	Not Detected
Tetrachloroethene	0.97	14	6.6	99
Tetrahydrofuran	0.97	Not Detected	2.9	Not Detected
Toluene	0.97	13	3.6	50
TPH ref. to Gasoline (MW=100)	97	470	400	1900
trans-1,2-Dichloroethene	0.97	Not Detected	3.8	Not Detected
trans-1,3-Dichloropropene	0.97	Not Detected	4.4	Not Detected
Trichloroethene	0.97	3.4	5.2	18
Vinyl Acetate	3.9	Not Detected	14	Not Detected
Vinyl Bromide	3.9	Not Detected	17	Not Detected
Vinyl Chloride	0.97	Not Detected	2.5	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW21A-04

Lab ID#: 2108390-14A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082019	Date of Collection: 8/17/21 7:49:00 AM
Dil. Factor:	1.94	Date of Analysis: 8/20/21 11:16 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	104	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082019.d  
 Lab Smp Id: 2108390-14A  
 Inj Date : 20-AUG-2021 23:16  
 Operator : kk Inst ID: msdp.i  
 Smp Info : 200ml O1022  
 Misc Info : 4.0 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5f1 Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 1  
 Dil Factor: 1.94000  
 Integrator: HP RTE Compound Sublist: AEC25677.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
-----								
* 90	Bromochloromethane				CAS #: 74-97-5			
5.785	5.785	(1.000)	130	108221	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	84245			48.23- 108.23	77.85
5.785	5.778	(1.000)	49	242843			150.57- 210.57	224.39
-----								
* 108	1,4-Difluorobenzene				CAS #: 540-36-3			
6.659	6.659	(1.000)	114	394335	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	56611			0.00- 45.71	14.36
-----								
* 153	Chlorobenzene-d5				CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	398950	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	204934			23.78- 83.78	51.37
-----								
\$ 104	1,2-Dichloroethane-d4				CAS #: 17060-07-0			
6.308	6.315	(1.090)	65	163546	27.3835	27.384	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	76867			27.21- 87.21	47.00
-----								
\$ 134	Toluene-d8				CAS #: 2037-26-5			
7.891	7.891	(1.185)	98	435022	25.4049	25.405	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	48262			0.00- 40.44	11.09

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	282110			34.95- 94.95	64.85
-----								
§ 170 4-Bromofluorobenzene CAS #: 460-00-4								
10.921	10.921	(1.154)	174	266967	26.0593	26.059	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	312707			95.92- 155.92	117.13
10.921	10.921	(1.154)	176	253476			66.89- 126.89	94.95
-----								
5 Propylene CAS #: 115-07-1								
1.689	1.689	(0.292)	41	12888	2.60244	5.049	80.00- 120.00	100.00
1.689	1.689	(0.292)	42	7262			35.28- 95.28	56.35
1.689	1.689	(0.292)	39	10338			38.35- 98.35	80.21
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.717	1.703	(0.297)	65	106800	43.5380	84.464	80.00- 120.00	100.00
1.759	1.759	(0.304)	51	1713076			597.63- 657.63	1604.00
1.717	1.717	(0.297)	47	92933			33.72- 93.72	87.02
-----								
39 Ethanol CAS #: 64-17-5								
3.250	3.242	(0.562)	46	17928	16.7048	32.407	80.00- 120.00	100.00
3.250	3.285	(0.562)	45	45728			511.19- 571.19	255.06
-----								
47 Acetone CAS #: 67-64-1								
3.722	3.722	(0.643)	58	31770	11.1979	21.724	80.00- 120.00	100.00
3.722	3.722	(0.643)	43	121987			302.95- 362.95	383.96
-----								
52 2-Propanol CAS #: 67-63-0								
3.901	3.894	(0.674)	45	36217	3.16734	6.145	80.00- 120.00	100.00
3.901	3.894	(0.674)	43	10815			0.00- 47.19	29.86
-----								
67 Hexane CAS #: 110-54-3								
4.697	4.697	(0.812)	57	1186299	111.274	215.87	80.00- 120.00	100.00
4.697	4.697	(0.812)	43	918495			37.52- 97.52	77.43
4.697	4.697	(0.812)	86	117328			0.00- 41.48	9.89
-----								
92 Chloroform CAS #: 67-66-3								
5.835	5.843	(1.009)	83	8915	0.94679	1.837	80.00- 120.00	100.00
5.835	5.843	(1.009)	85	6270			34.70- 94.70	70.33
-----								
94 Cyclohexane CAS #: 110-82-7								
5.957	5.957	(1.030)	84	9433	1.38567	2.688	80.00- 120.00	100.00
5.964	5.957	(1.031)	56	26071			142.57- 202.57	276.38
5.957	5.957	(1.030)	41	17500			62.09- 122.09	185.52
-----								
96 1,1,1-Trichloroethane CAS #: 71-55-6								
5.964	5.972	(1.031)	97	5780	0.54337	1.054	80.00- 120.00	100.00

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	====	=====	=====	=====	=====	=====
96 1,1,1-Trichloroethane (continued)								
5.964	5.972	(1.031)	99	3383			34.02- 94.02	58.54
-----								
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
6.280	6.280	(1.085)	57	23759	0.64118	1.244	80.00- 120.00	100.00
6.280	6.280	(1.085)	56	13681			2.24- 62.24	57.58
6.280	6.280	(1.085)	41	13185			0.00- 54.39	55.49
-----								
102 Benzene					CAS #: 71-43-2			
6.301	6.301	(0.946)	78	12023	0.92393	1.792	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	3071			0.00- 52.90	25.55
-----								
107 Heptane					CAS #: 142-82-5			
6.451	6.444	(0.969)	71	3136	0.60832	1.180	80.00- 120.00	100.00
6.451	6.444	(0.969)	43	10394			226.53- 286.53	331.37
6.451	6.444	(0.969)	57	5266			100.85- 160.85	167.90
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.867	6.867	(1.031)	95	11189	1.77198	3.438	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	12463			76.29- 136.29	111.39
6.867	6.867	(1.031)	97	7249			33.63- 93.63	64.78
-----								
137 Toluene					CAS #: 108-88-3			
7.956	7.956	(1.195)	91	123041	6.85335	13.295	80.00- 120.00	100.00
7.956	7.956	(1.195)	92	69967			28.38- 88.38	56.87
-----								
142 Tetrachloroethene					CAS #: 127-18-4			
8.464	8.464	(0.895)	166	68272	7.50869	14.567	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	51435			47.84- 107.84	75.34
8.464	8.464	(0.895)	131	49191			45.29- 105.29	72.05
-----								
155 Ethyl Benzene					CAS #: 100-41-4			
9.567	9.567	(1.011)	106	17777	2.14604	4.163	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	51892			273.74- 333.74	291.91
-----								
158 m,p-Xylene					CAS #: 108-38-3			
9.718	9.718	(1.027)	106	85995	8.28887	16.080	80.00- 120.00	100.00
9.711	9.718	(1.026)	91	159304			163.73- 223.73	185.25
-----								
164 o-Xylene					CAS #: 95-47-6			
10.226	10.226	(1.081)	106	27793	2.79602	5.424	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	56302			177.45- 237.45	202.58
-----								
183 4-Ethyltoluene					CAS #: 622-96-8			
11.251	11.287	(1.189)	120	18665	1.85373	3.596	80.00- 120.00	100.00
11.258	11.287	(1.190)	105	52120			284.55- 344.55	279.24
-----								



CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE		RATIO
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
185 1,3,5-Trimethylbenzene				CAS #: 108-67-8				
11.365	11.365	(1.201)	120	8141	0.58725	1.139	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	15846			164.93- 224.93	194.64
-----								
190 1,2,4-Trimethylbenzene				CAS #: 95-63-6				
11.817	11.817	(1.249)	105	45181	1.72670	3.350	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	24067			19.05- 79.05	53.27
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082019.d  
 Lab Smp Id: 2108390-14A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: kk  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 4.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	108221	-1.06
108 1,4-Difluorobenze	406799	244079	569519	394335	-3.06
153 Chlorobenzene-d5	400841	240505	561177	398950	-0.47

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-14A  
Level: LOW Operator: kk  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 4.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.384	109.53	70-130
\$ 134 Toluene-d8	25.000	25.405	101.62	70-130
\$ 170 4-Bromofluorobenz	25.000	26.059	104.24	70-130

Date : 20-AUG-2021 23:16

Client ID:

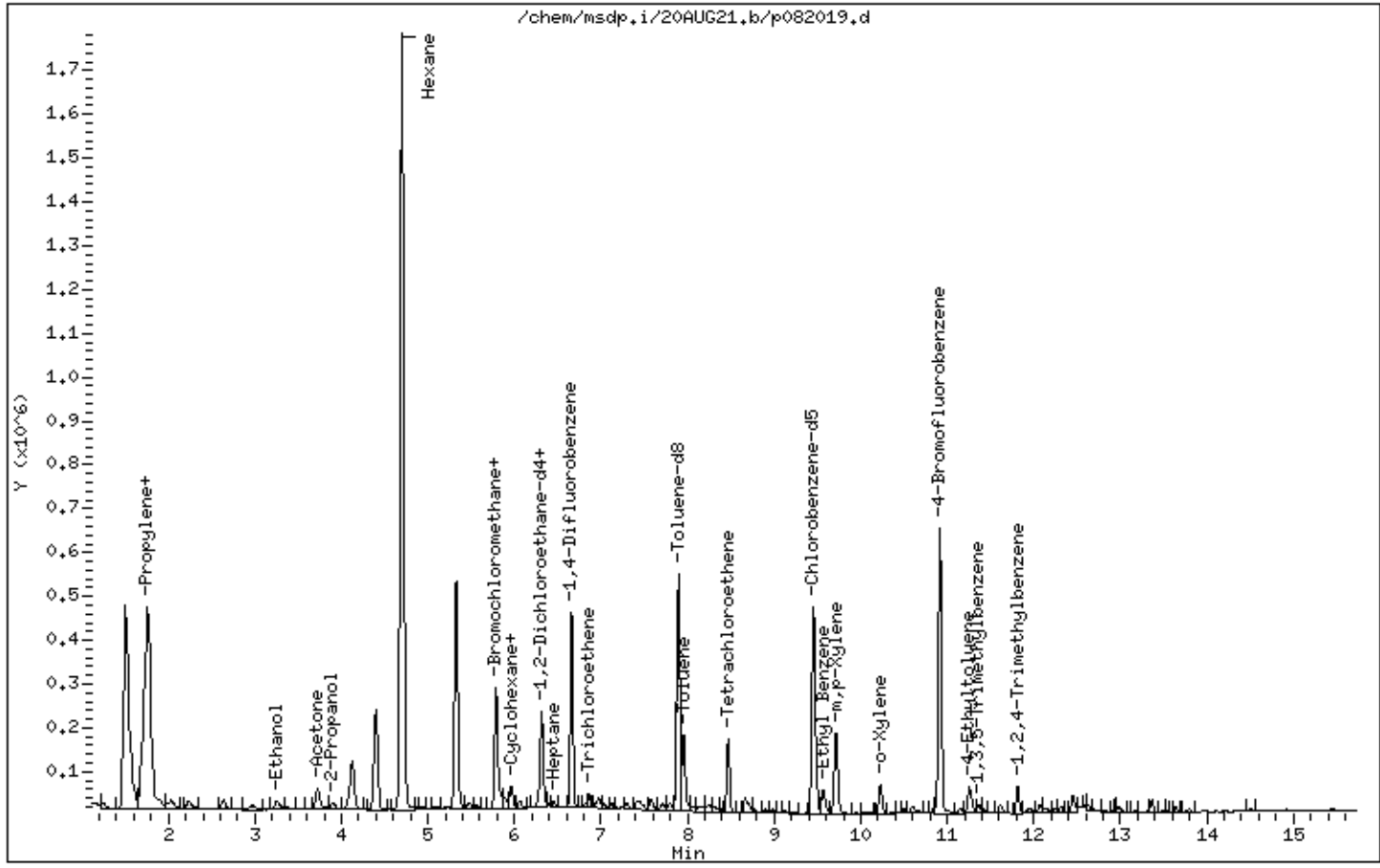
Instrument: msdp.i

Sample Info: 200ml 01022

Operator: kk

Column phase: RTX-624

Column diameter: 0.25



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

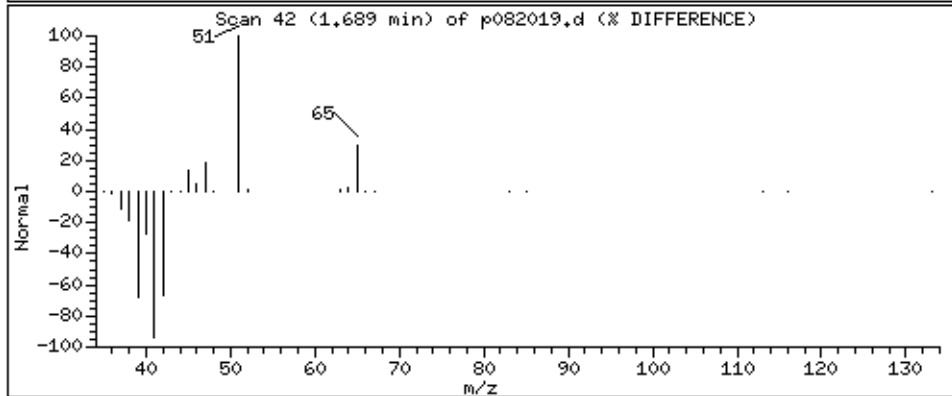
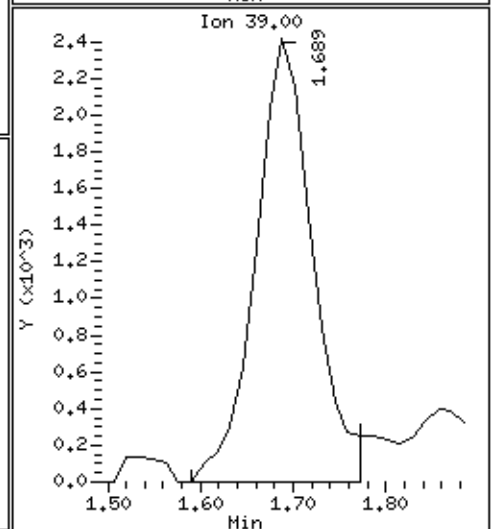
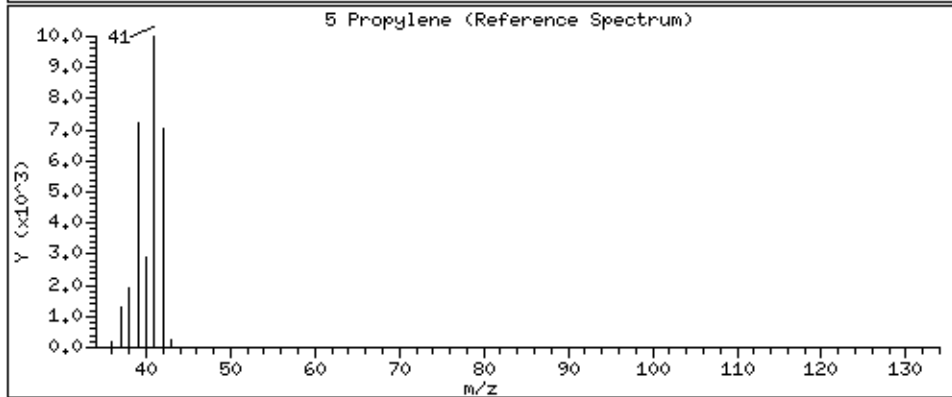
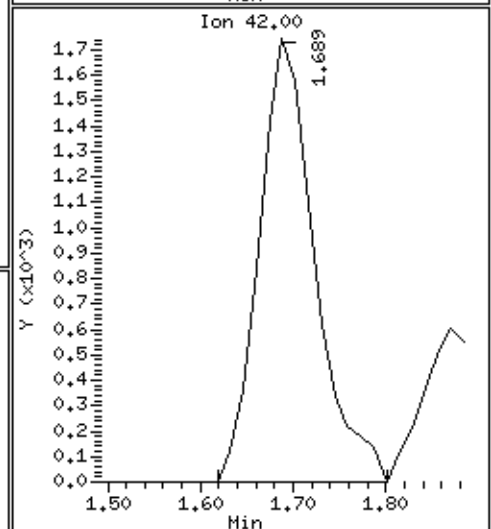
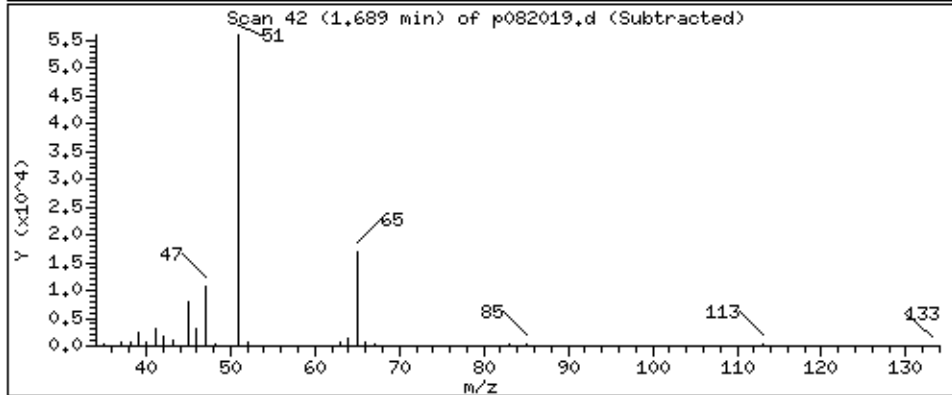
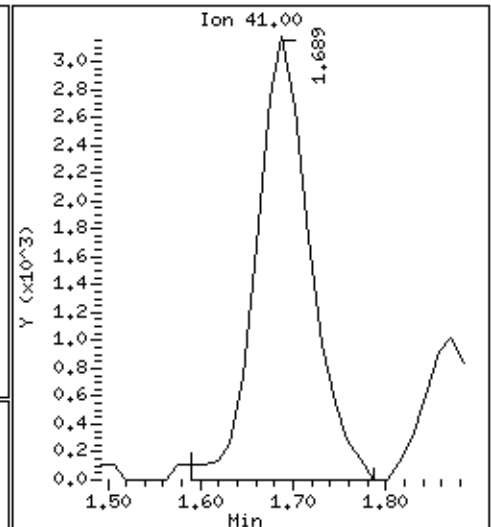
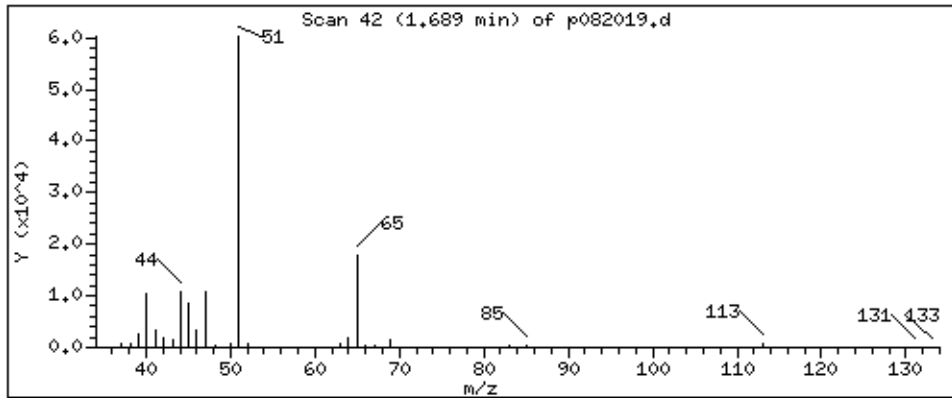
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

5 Propylene

Concentration: 5.049 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

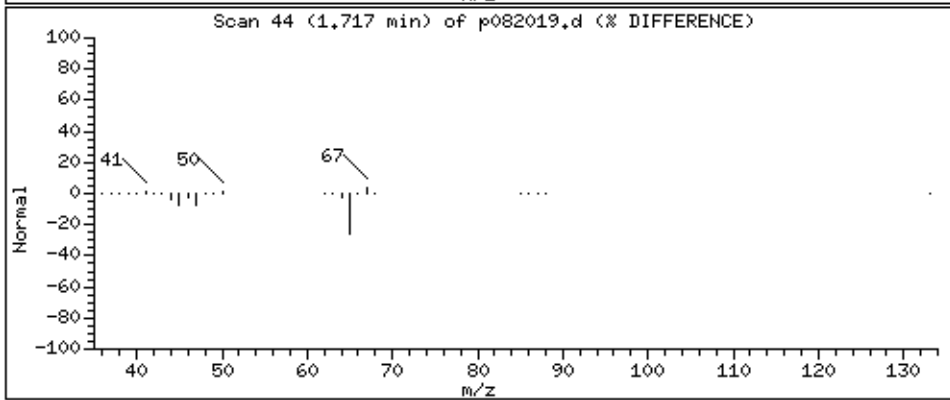
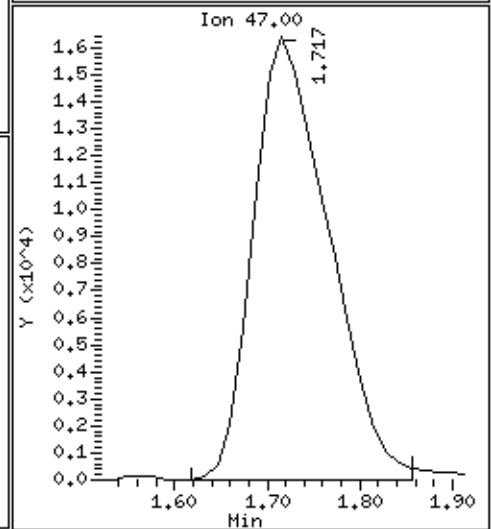
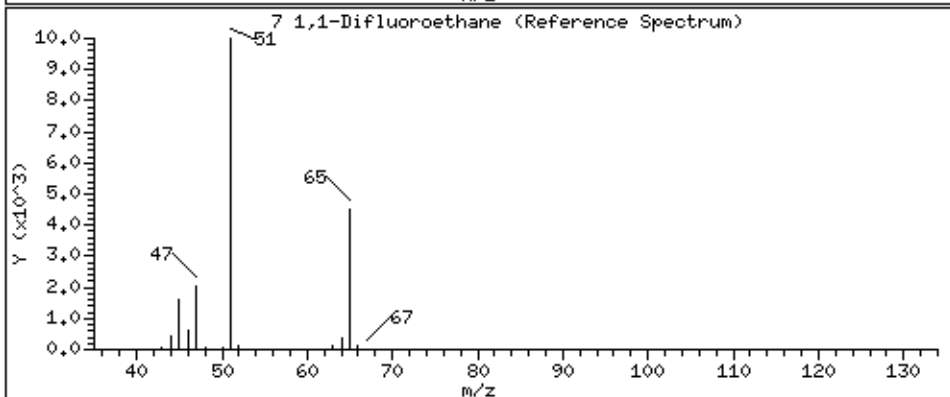
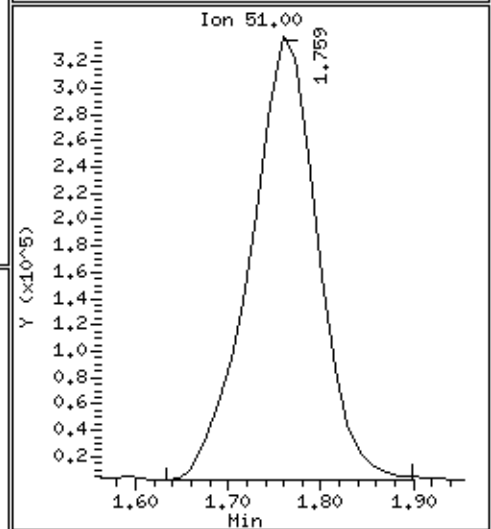
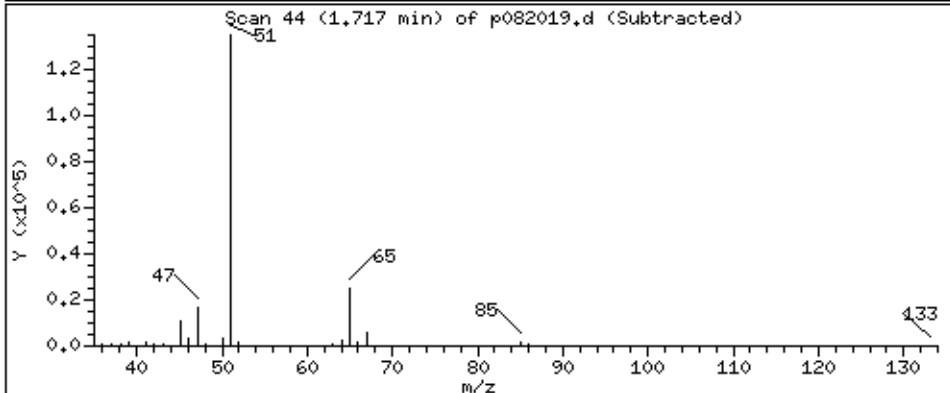
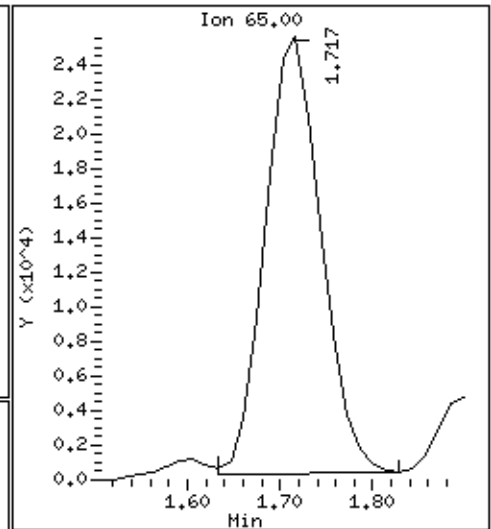
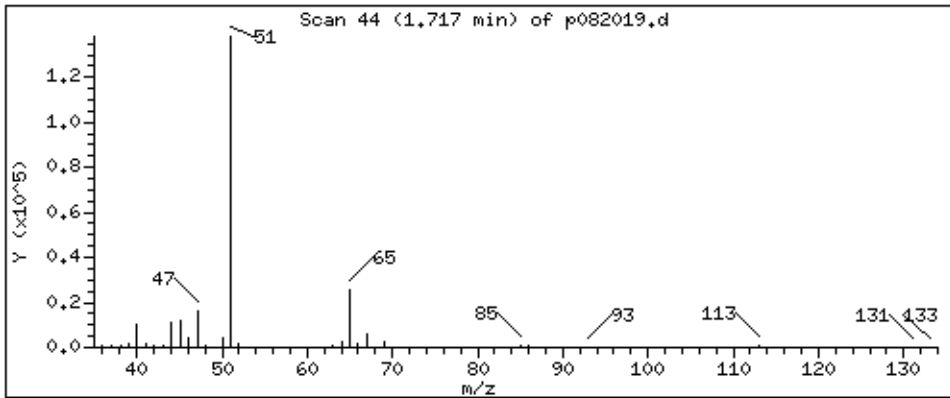
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 84.464 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

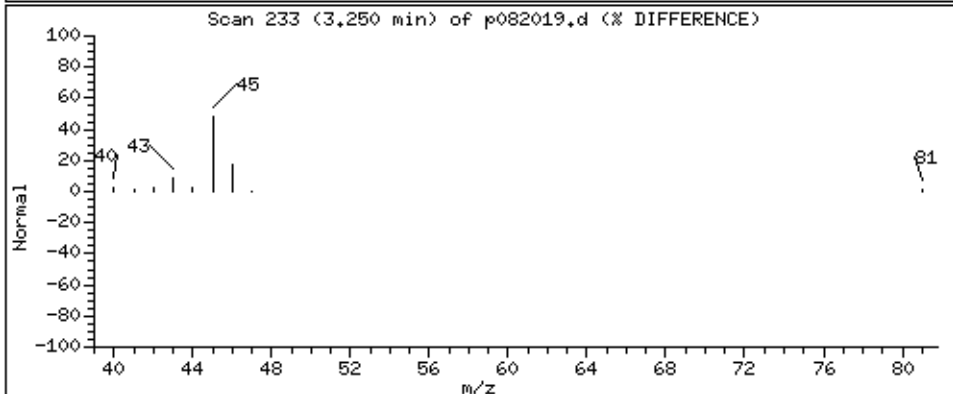
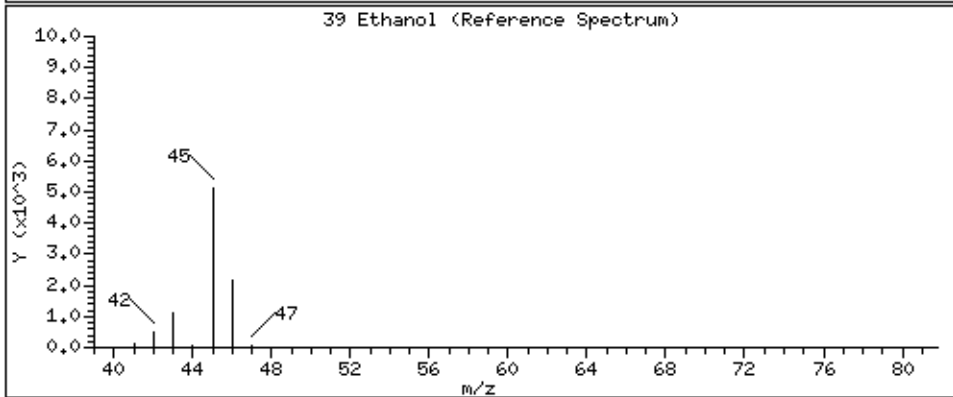
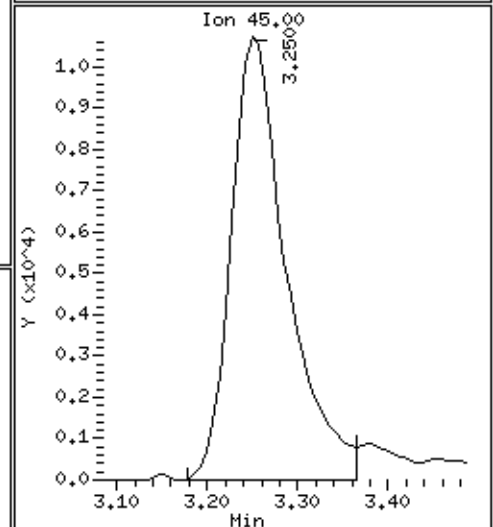
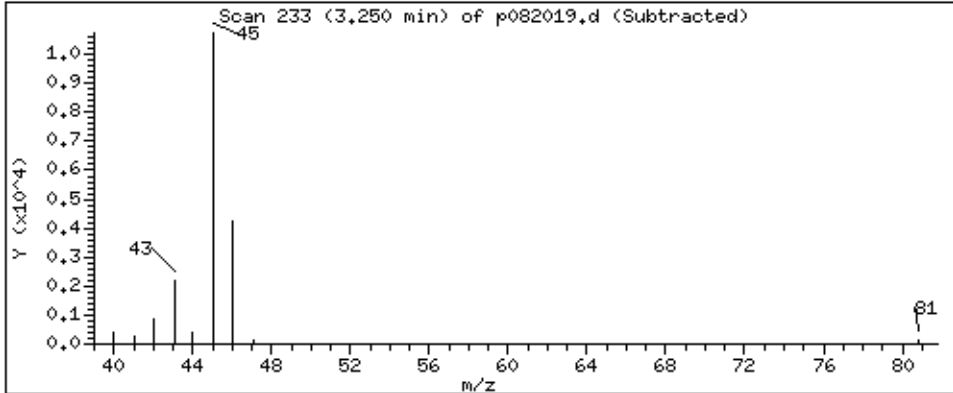
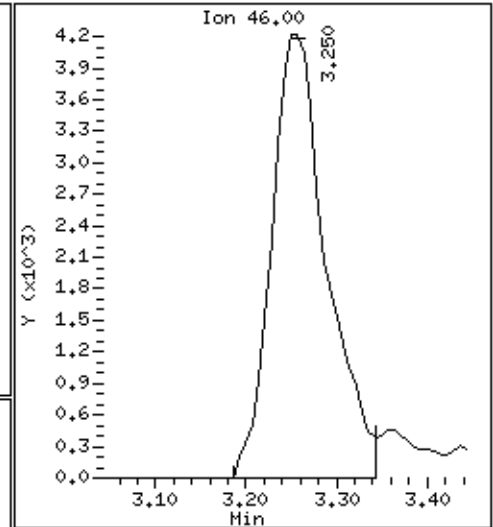
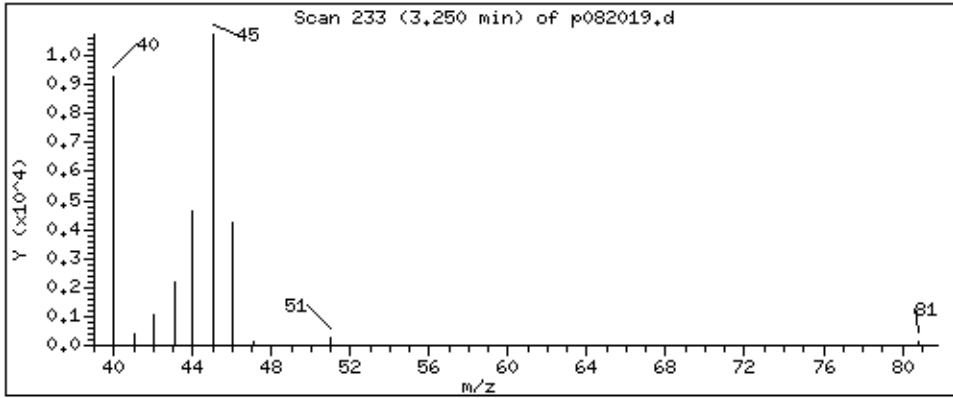
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 32,407 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

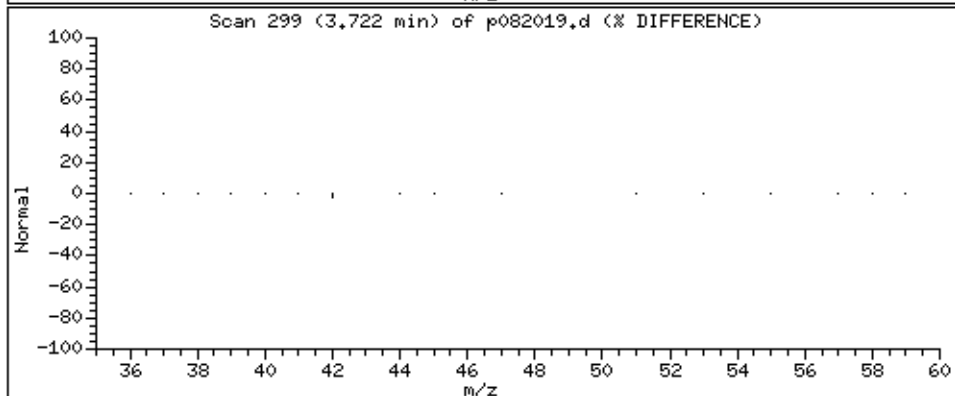
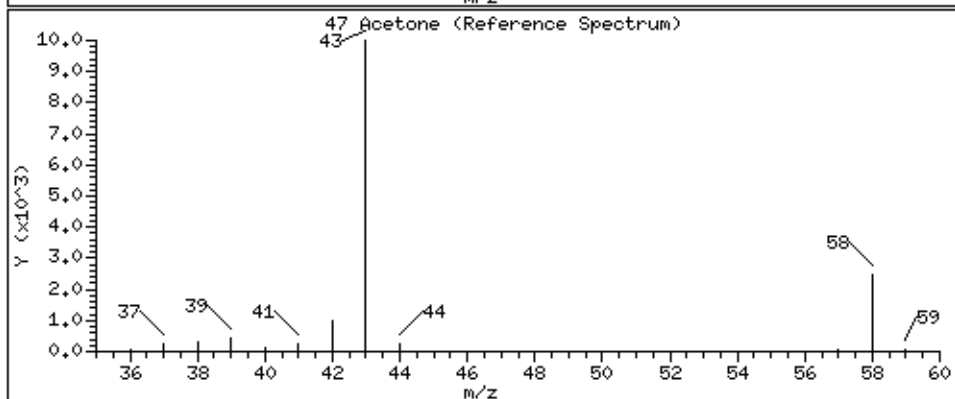
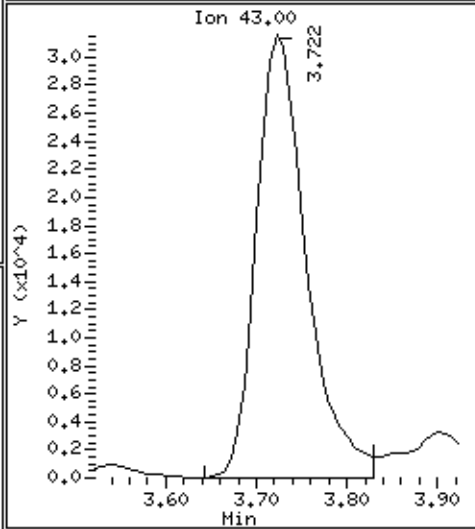
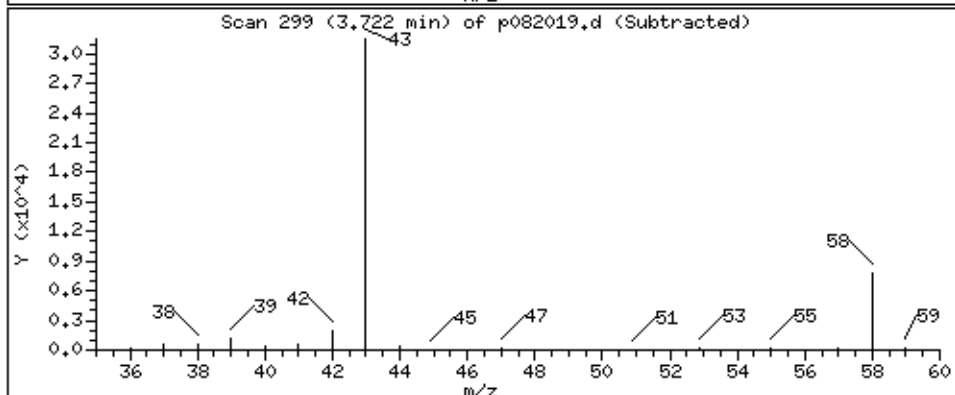
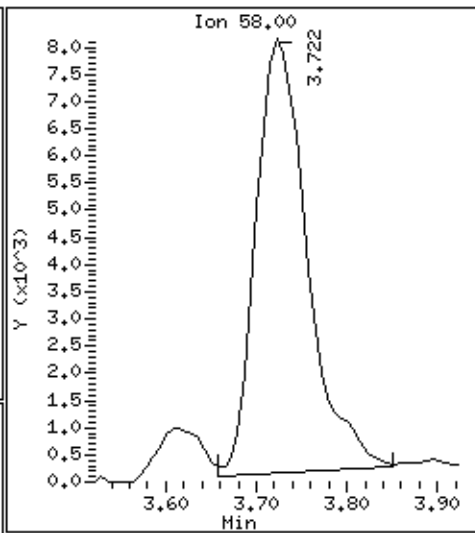
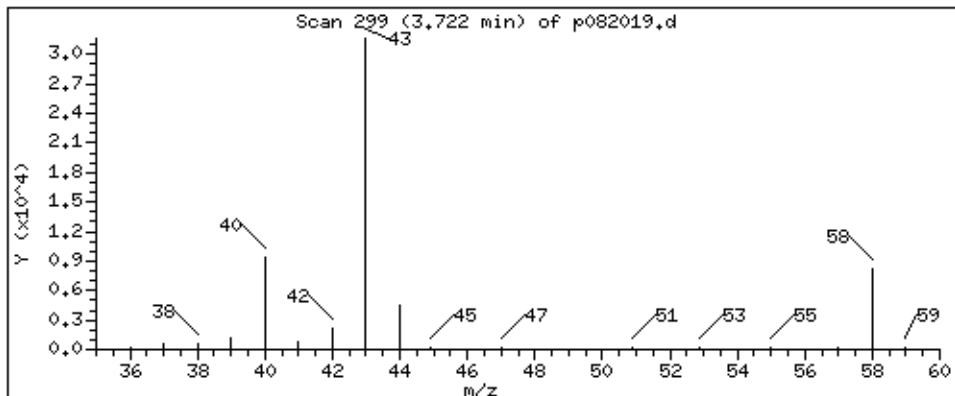
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 21,724 PPBV





Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

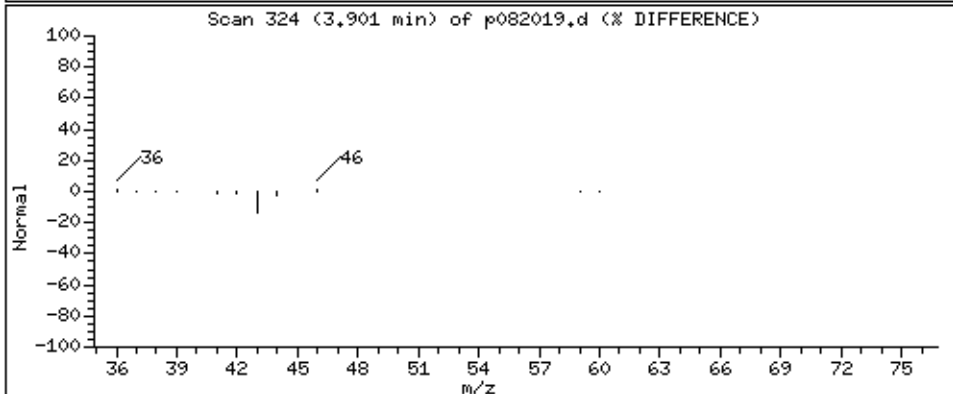
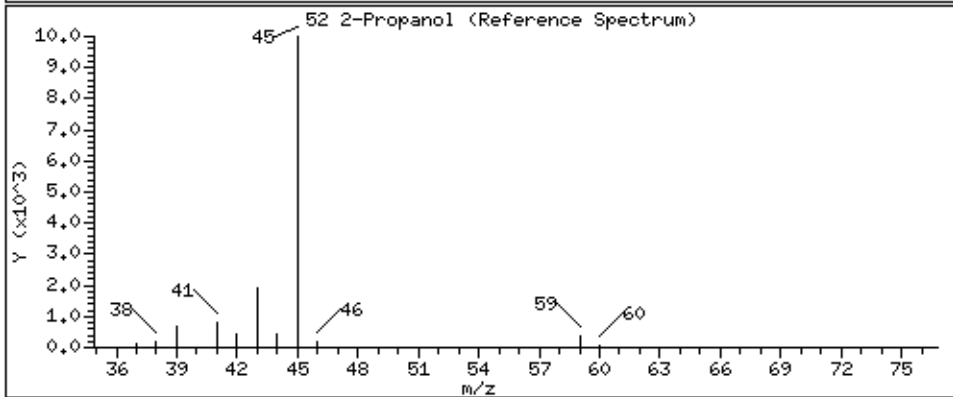
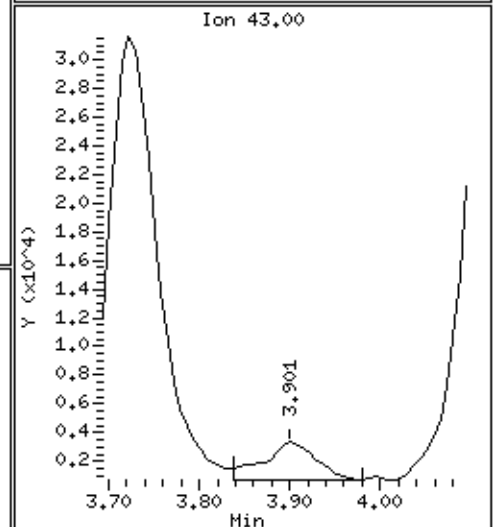
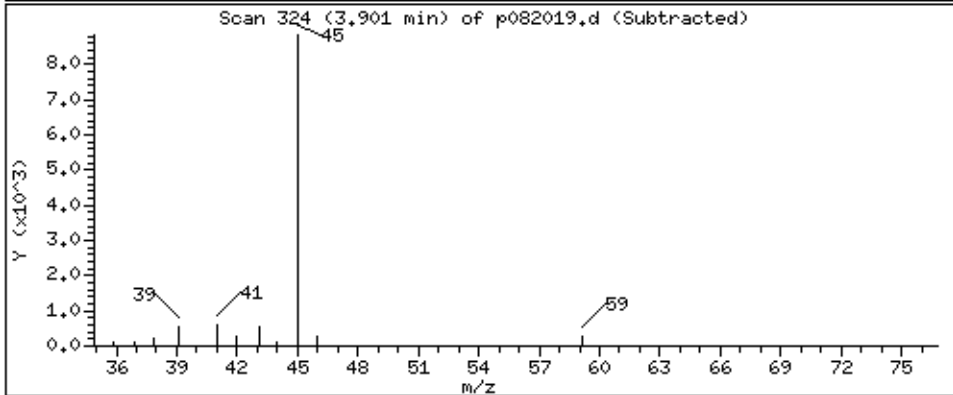
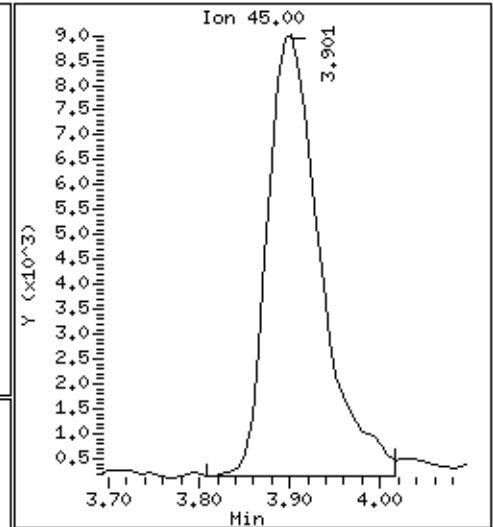
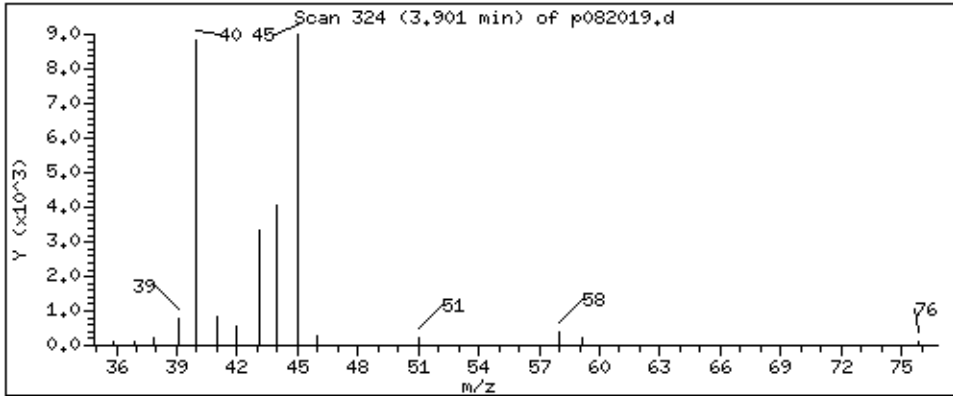
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 6.145 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

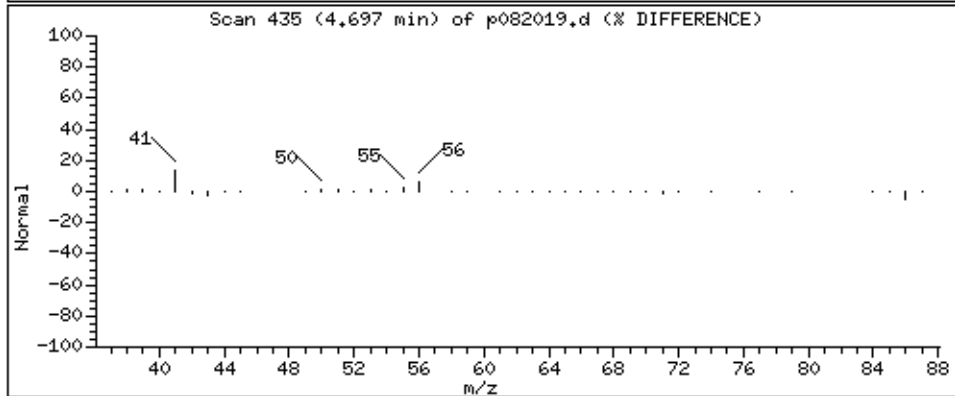
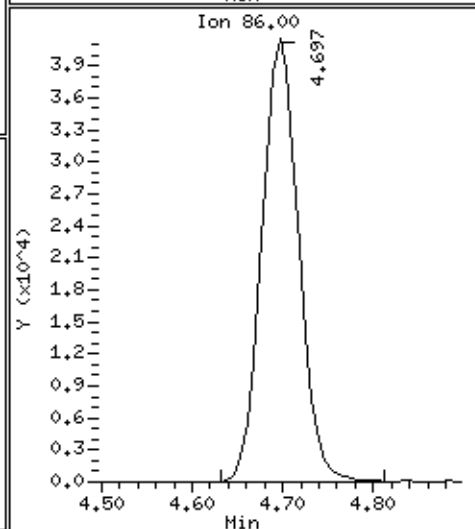
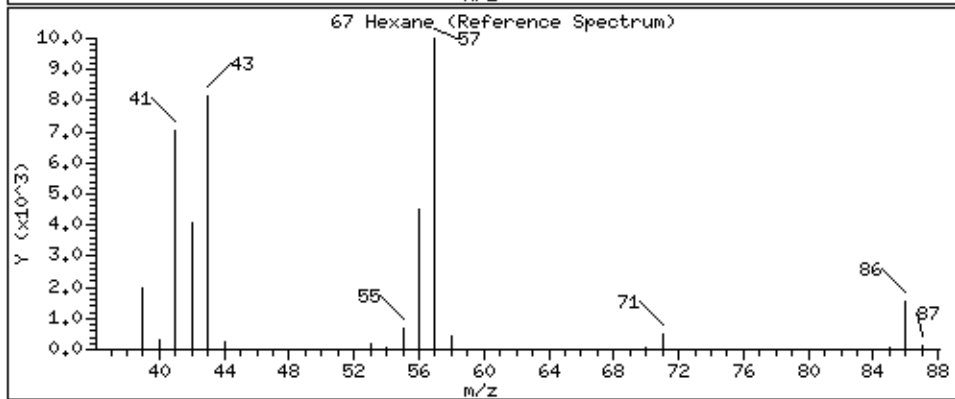
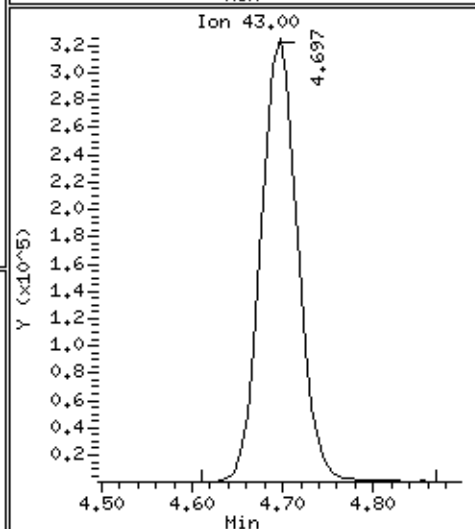
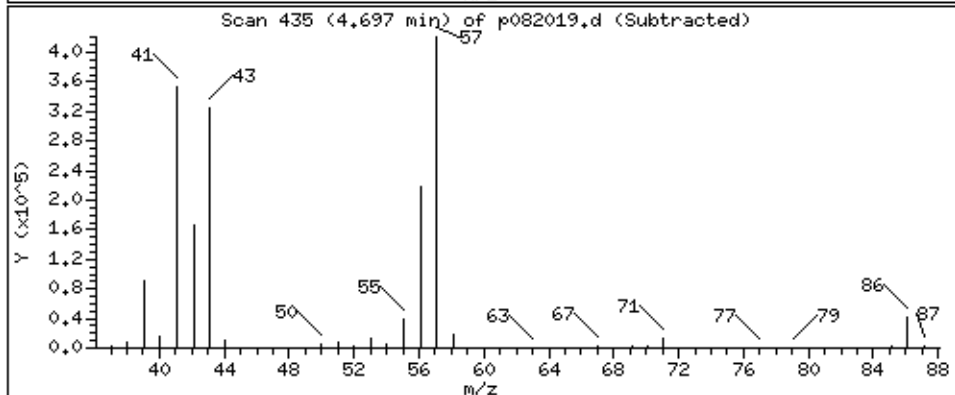
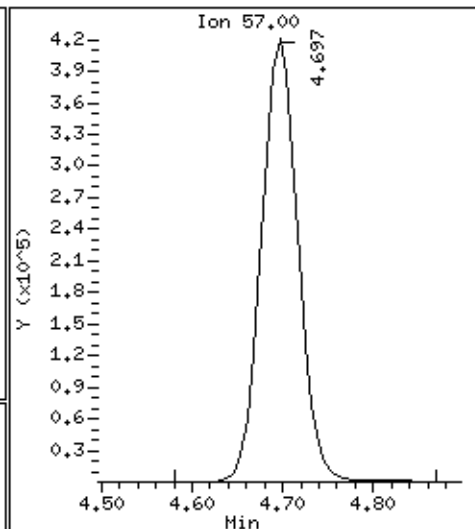
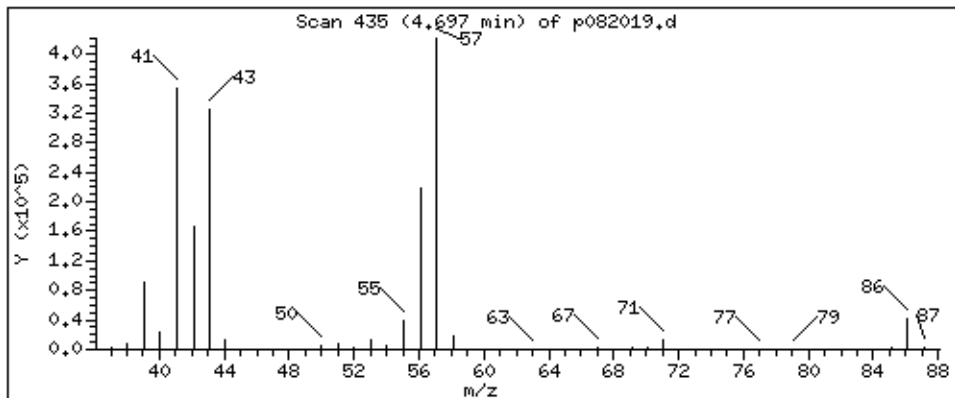
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 215.87 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

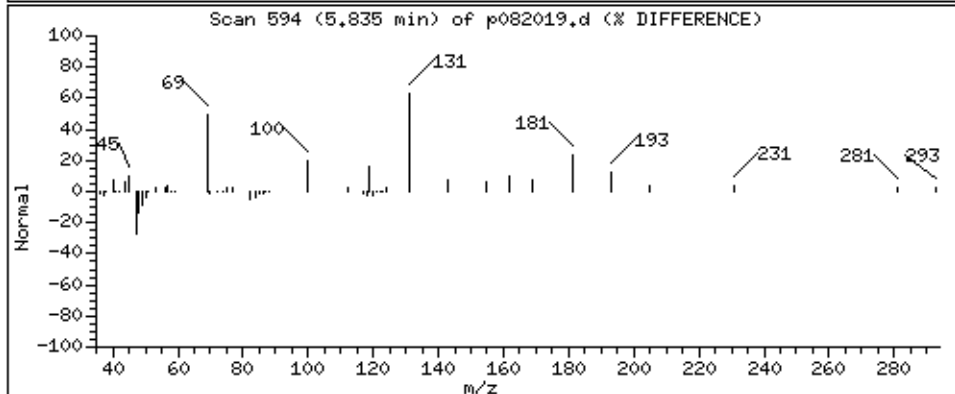
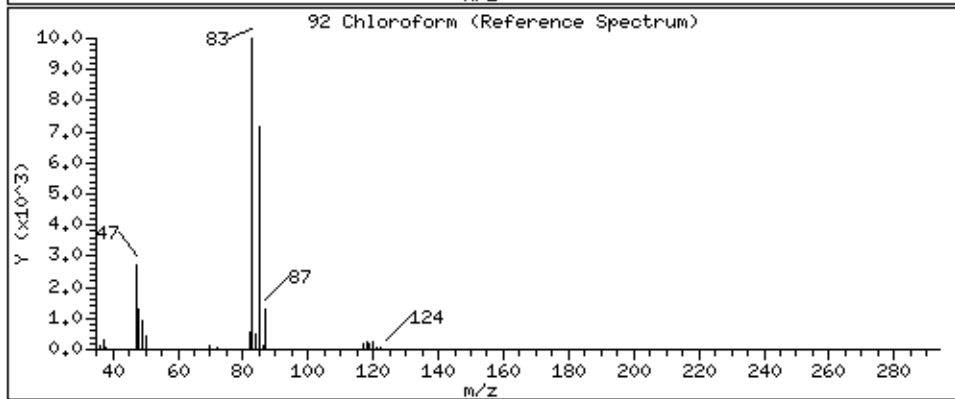
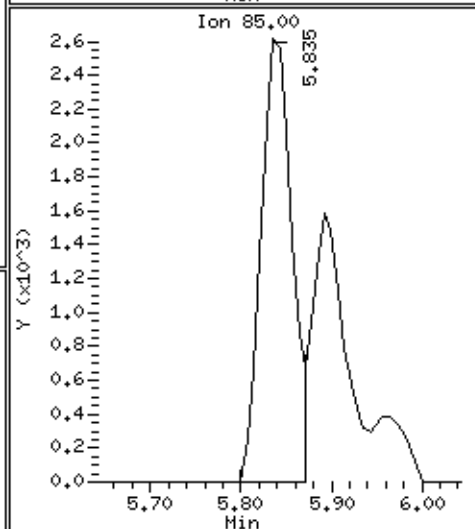
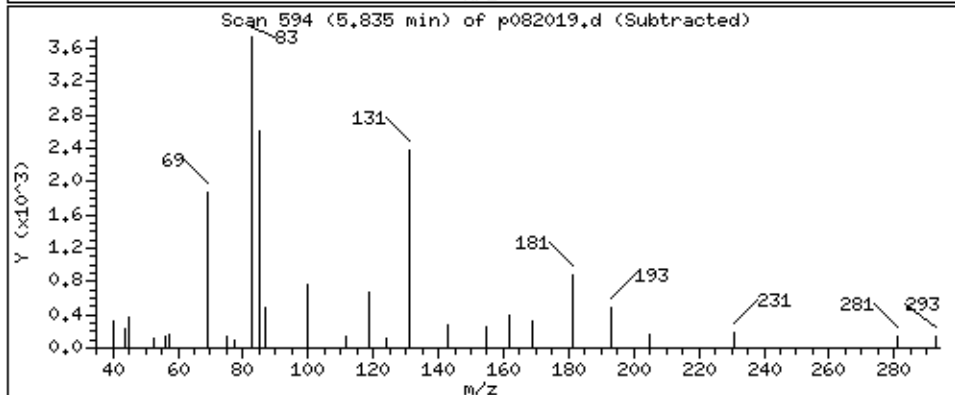
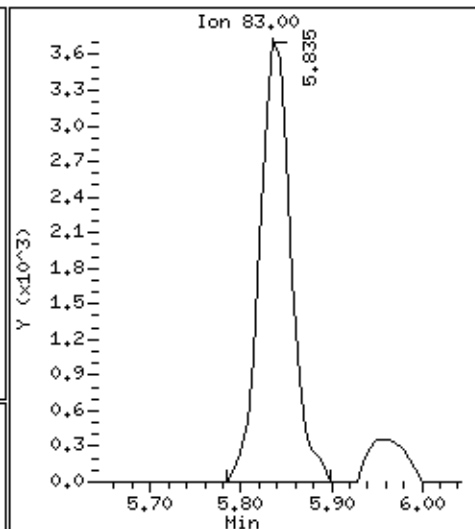
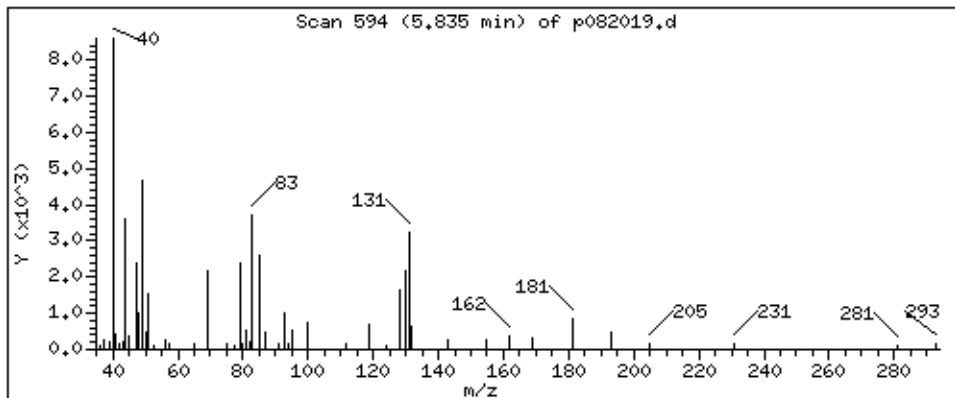
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 1.837 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

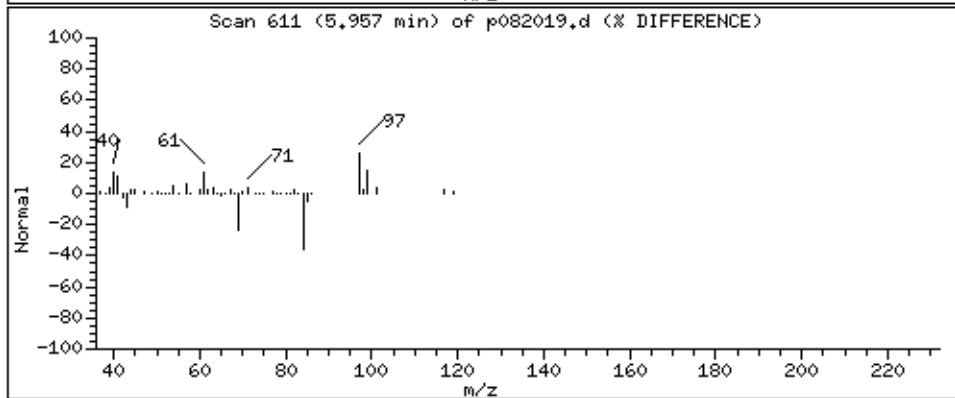
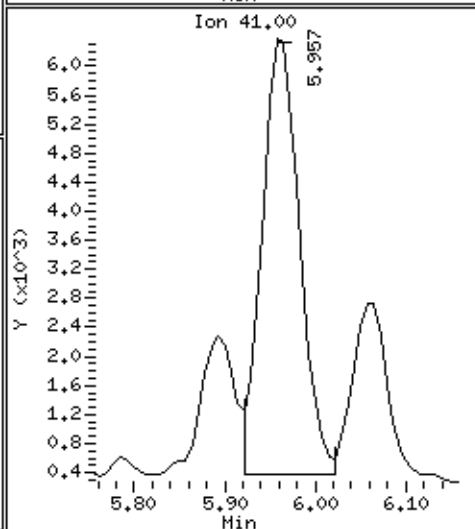
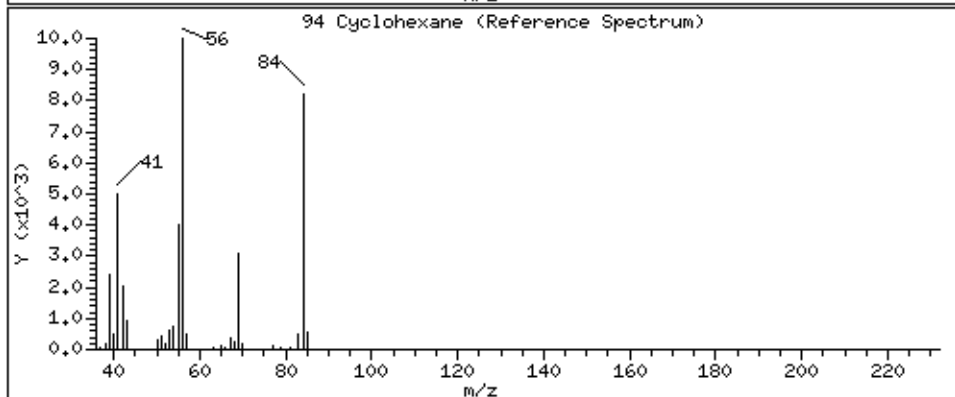
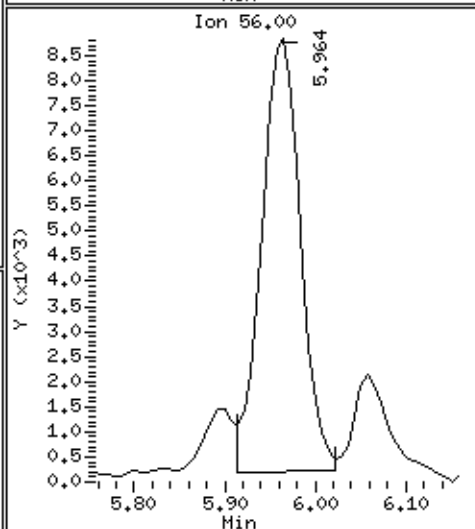
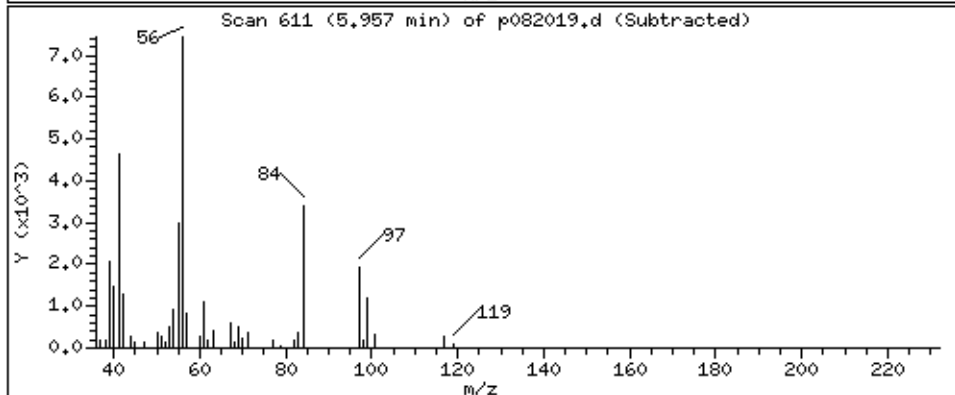
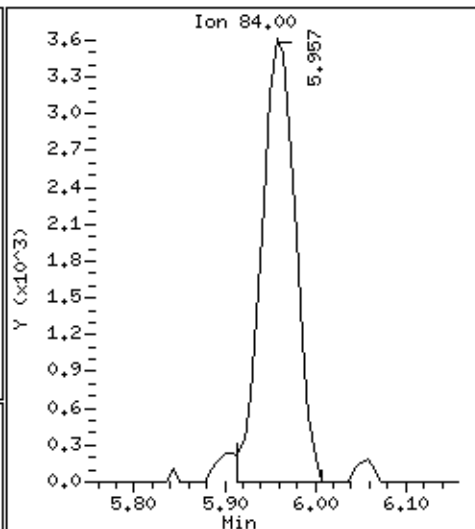
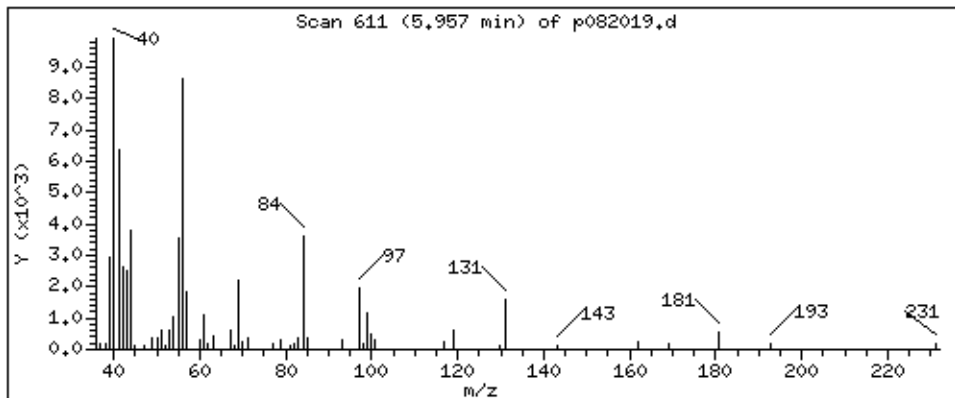
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

94 Cyclohexane

Concentration: 2,688 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

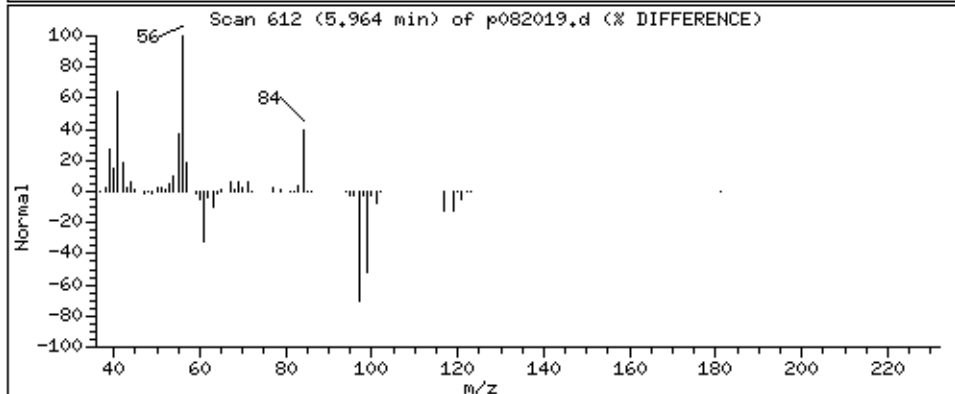
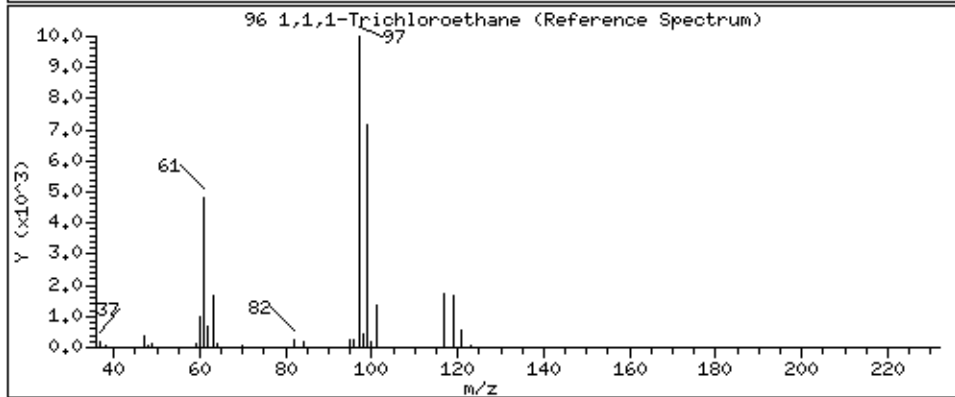
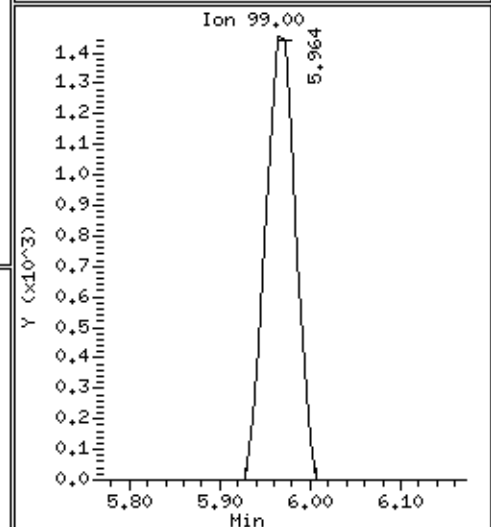
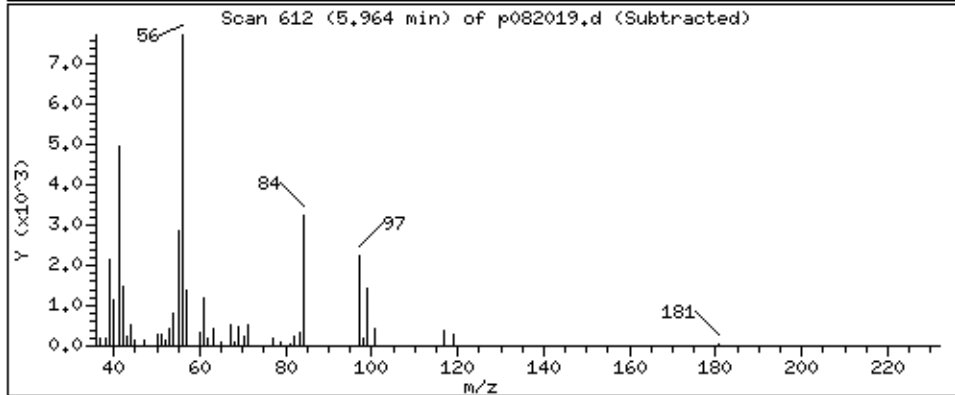
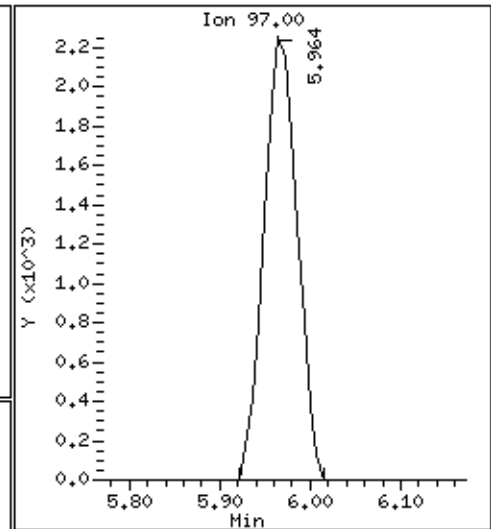
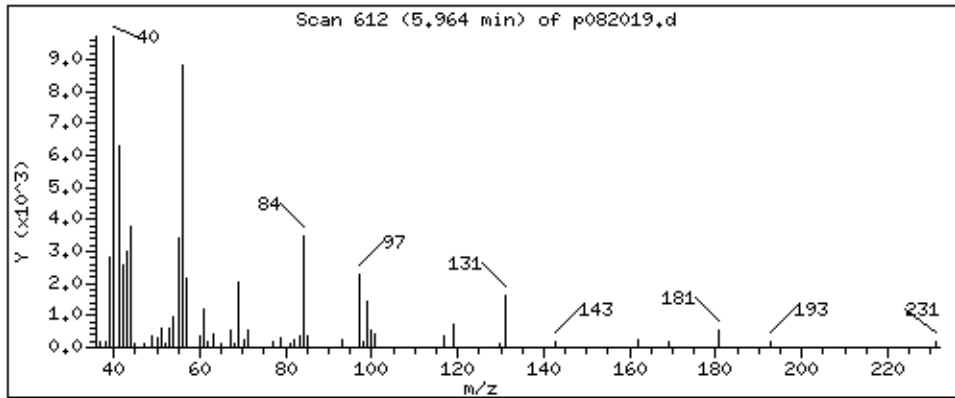
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

96 1,1,1-Trichloroethane

Concentration: 1,054 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

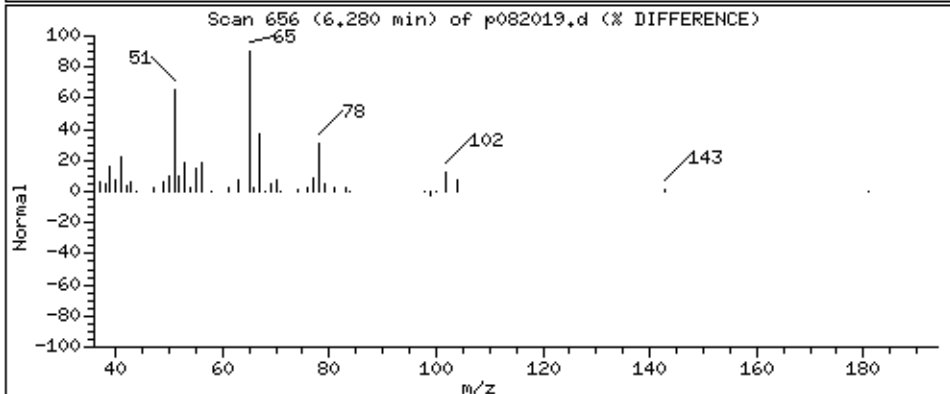
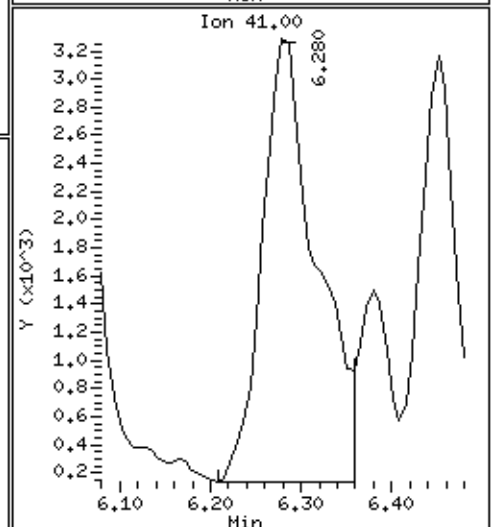
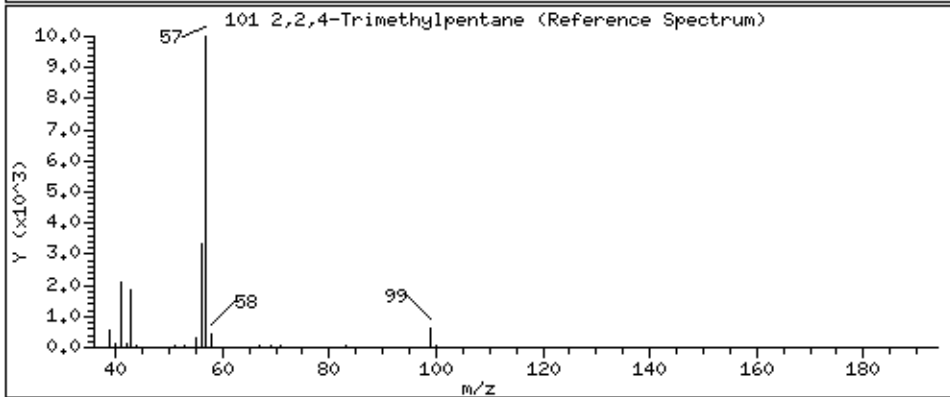
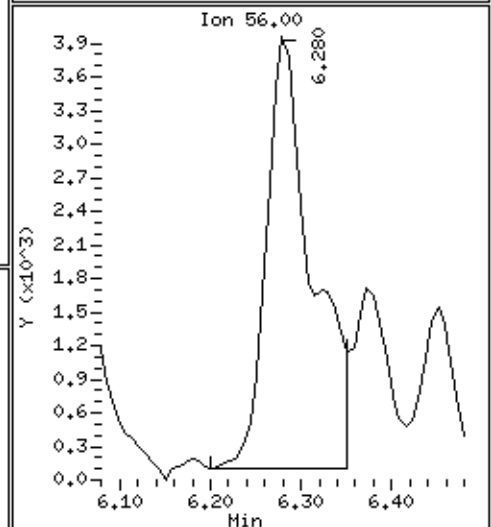
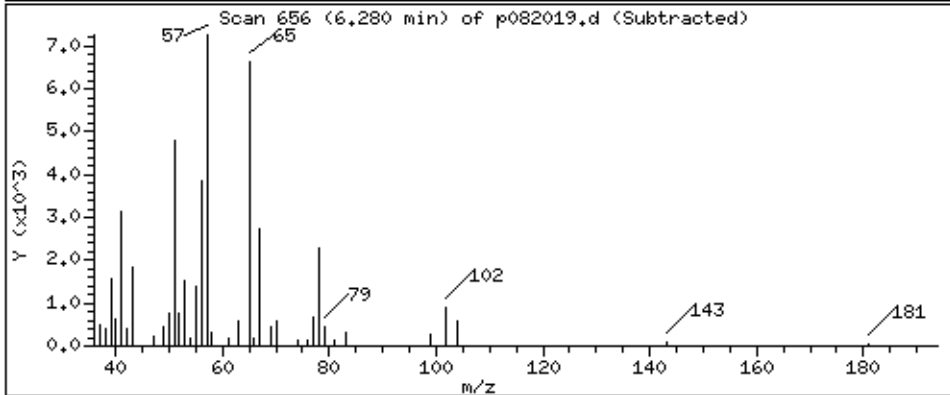
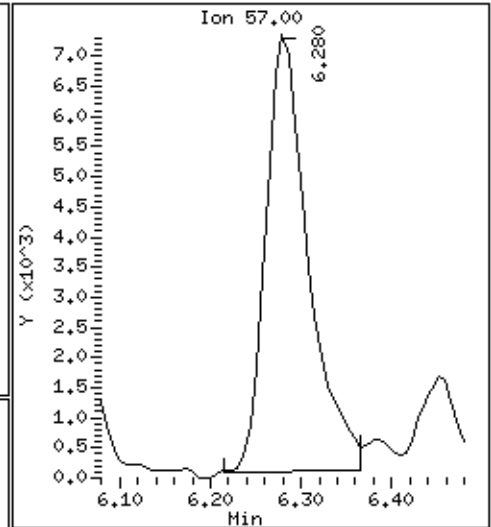
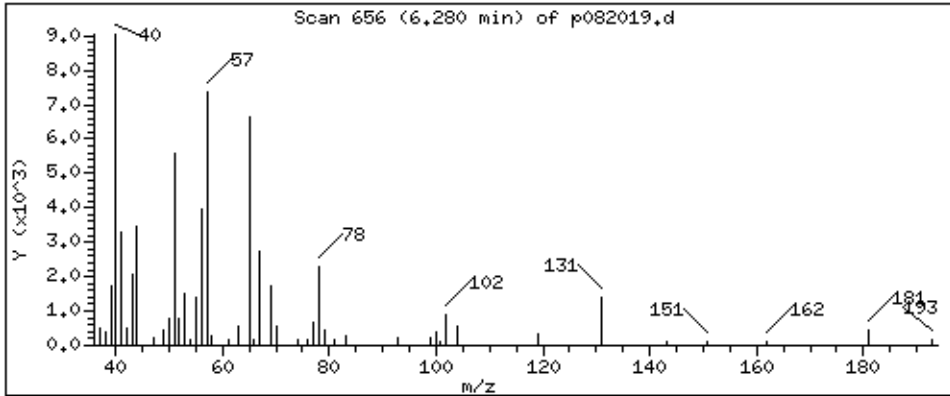
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

101 2,2,4-Trimethylpentane

Concentration: 1,244 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

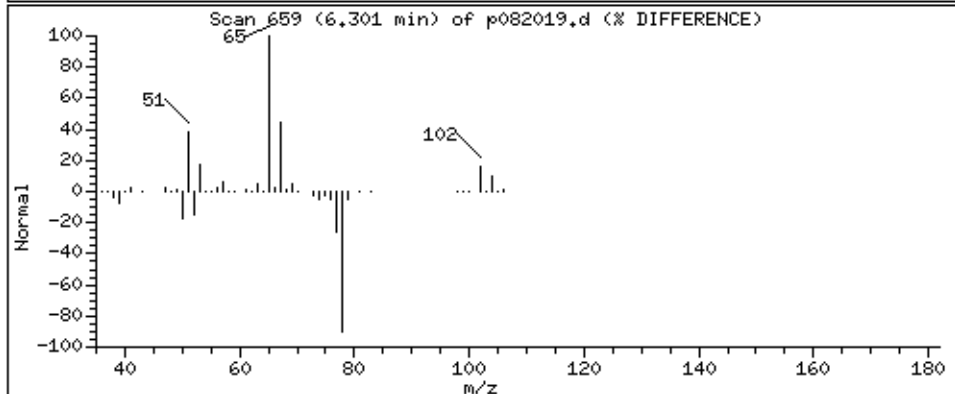
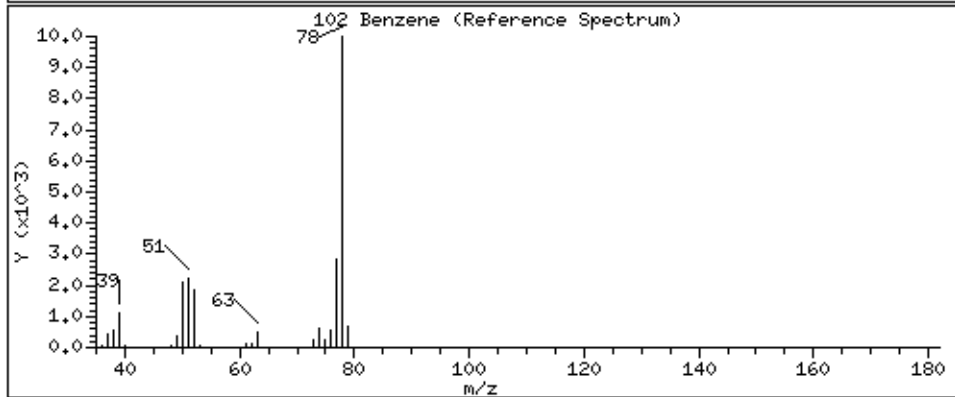
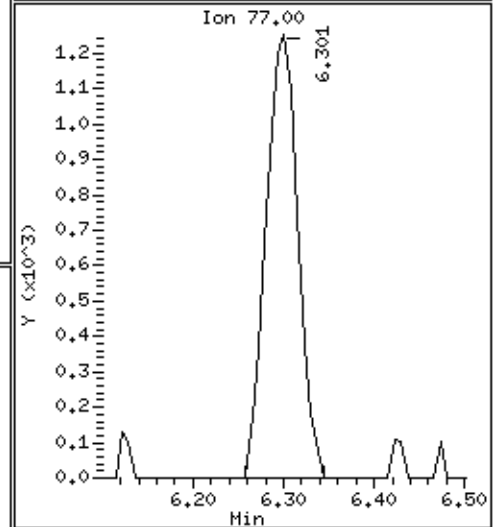
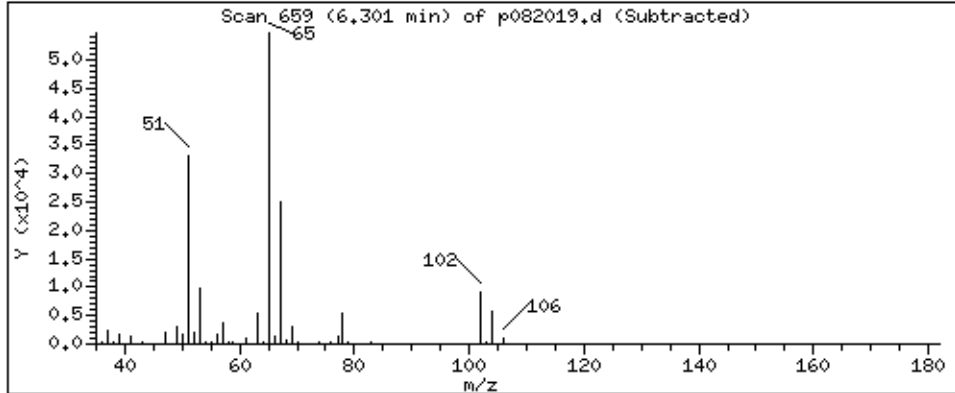
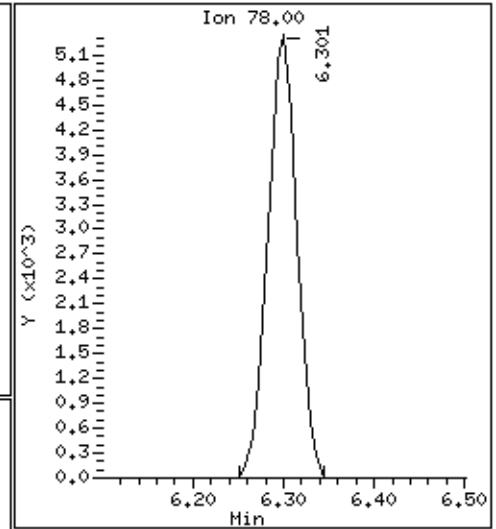
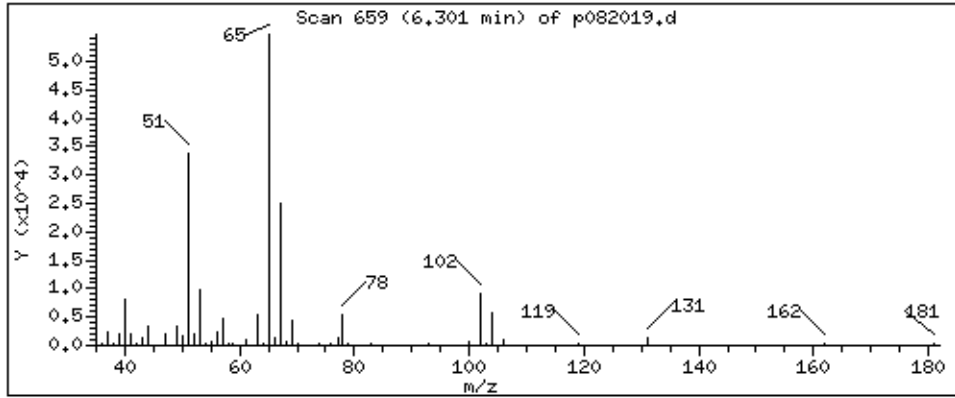
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

102 Benzene

Concentration: 1,792 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

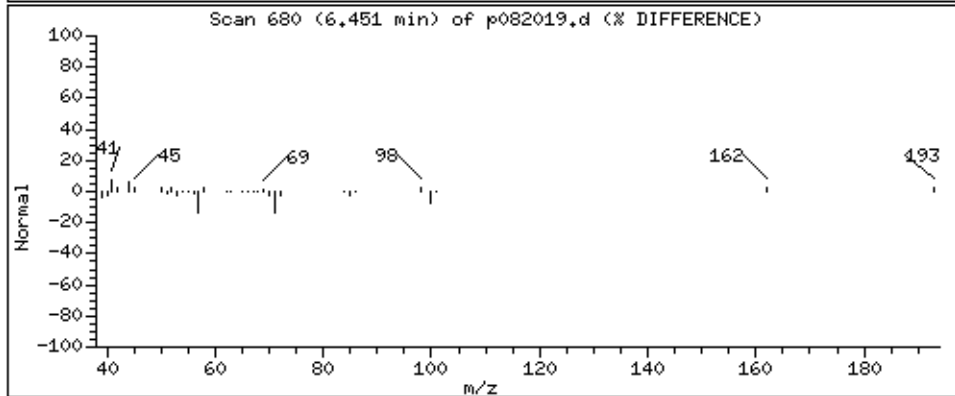
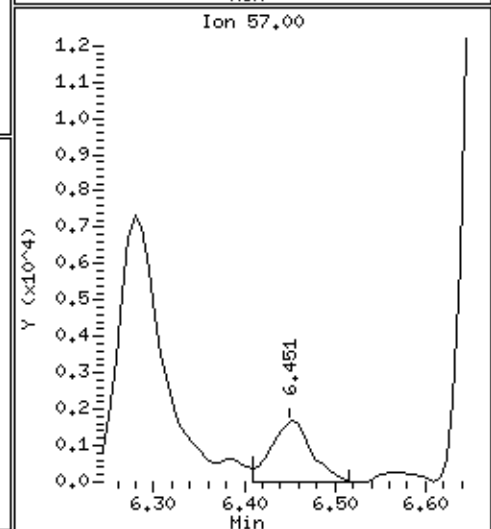
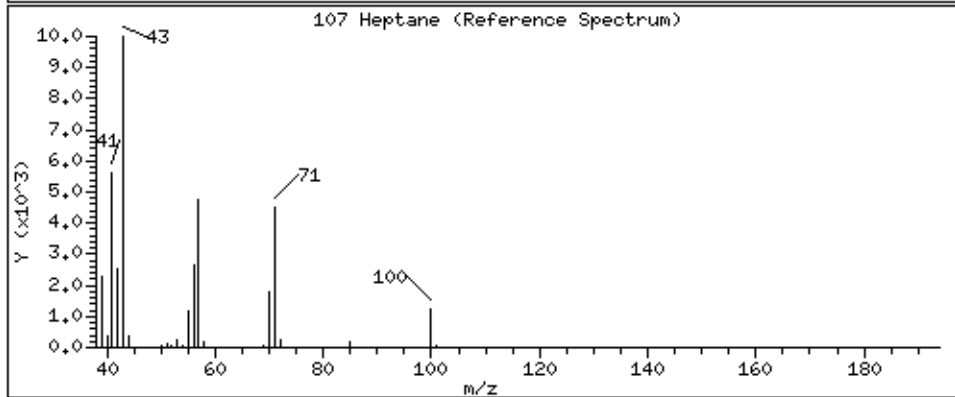
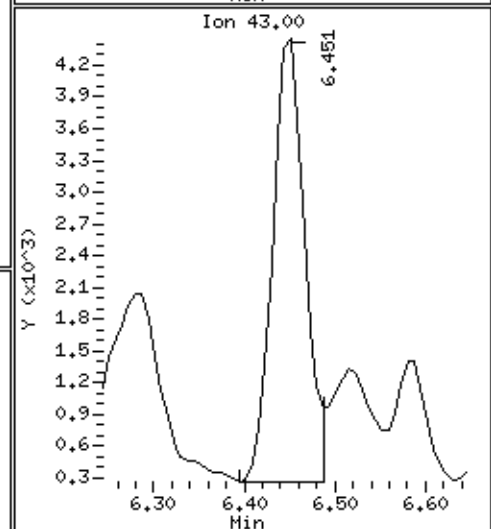
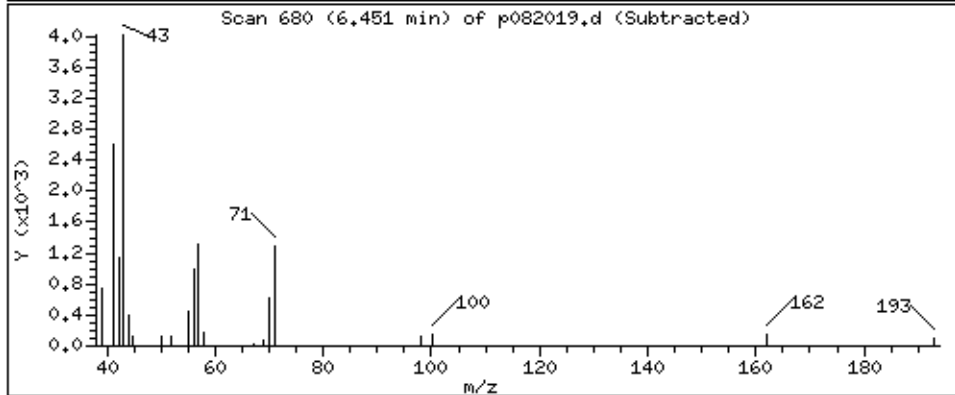
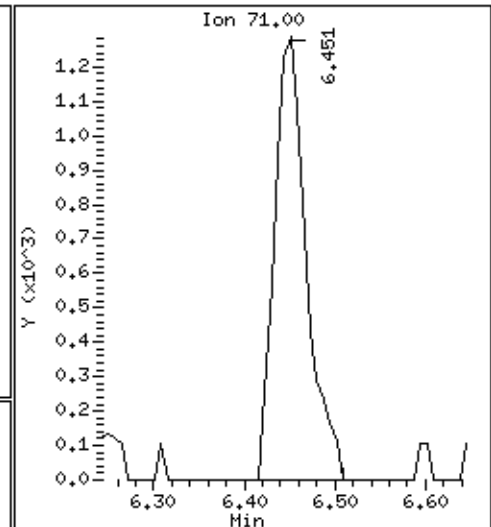
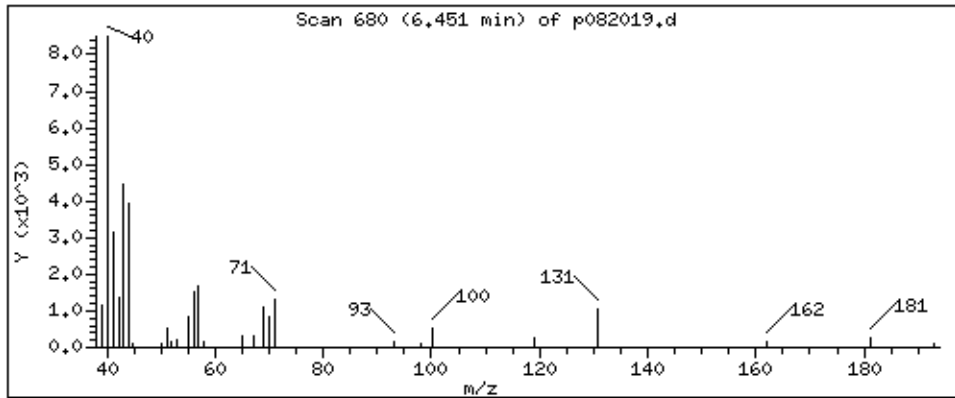
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

107 Heptane

Concentration: 1,180 PPBV





Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

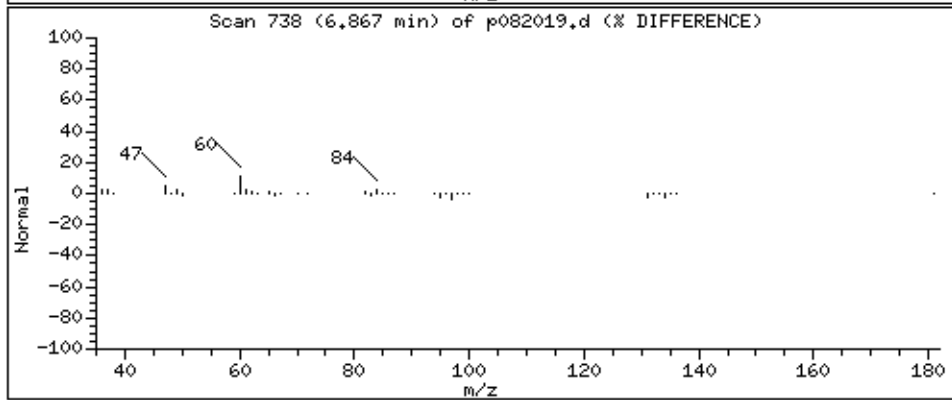
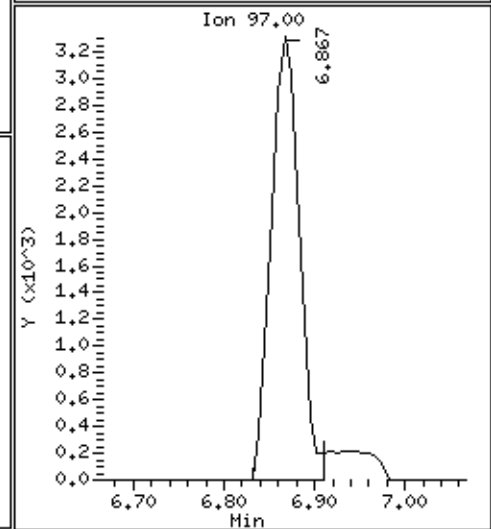
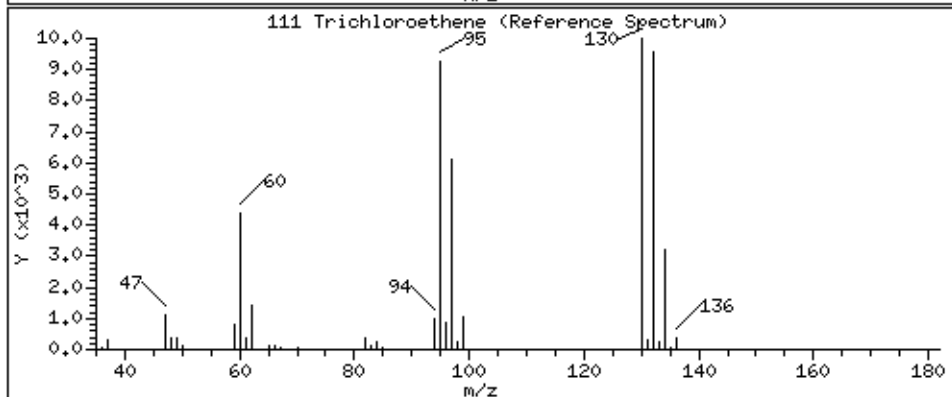
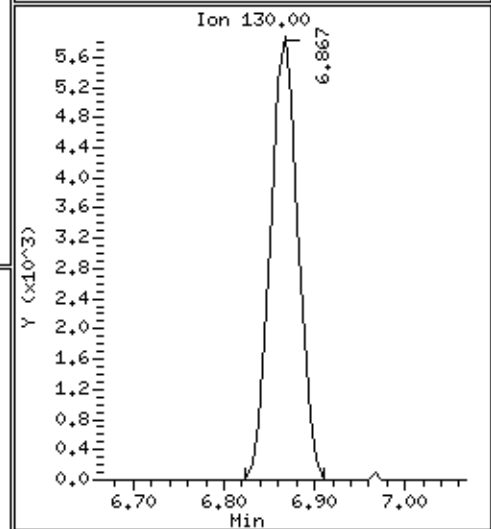
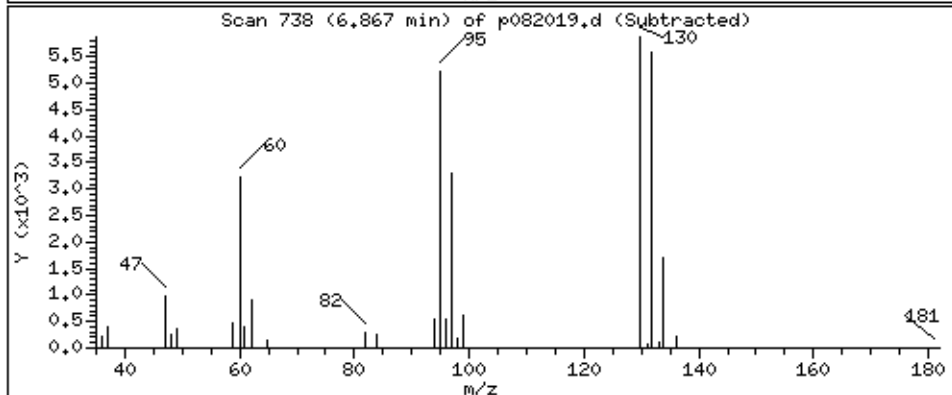
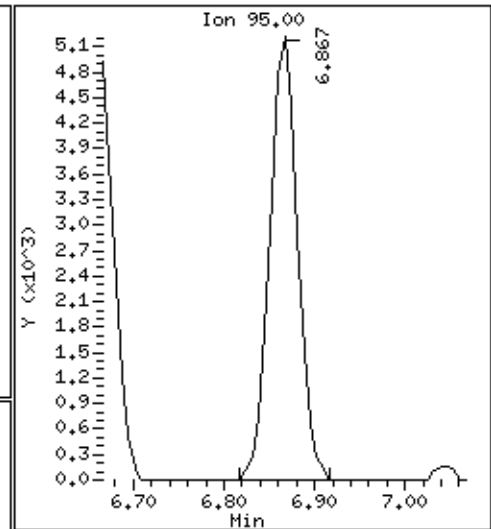
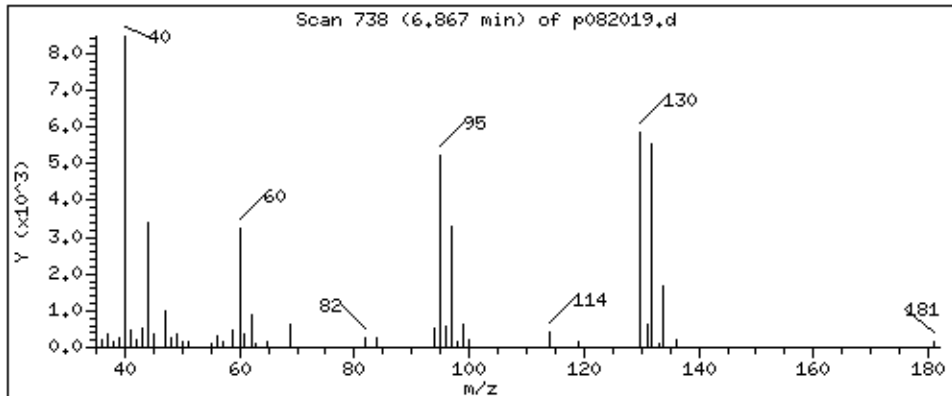
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

111 Trichloroethene

Concentration: 3.438 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

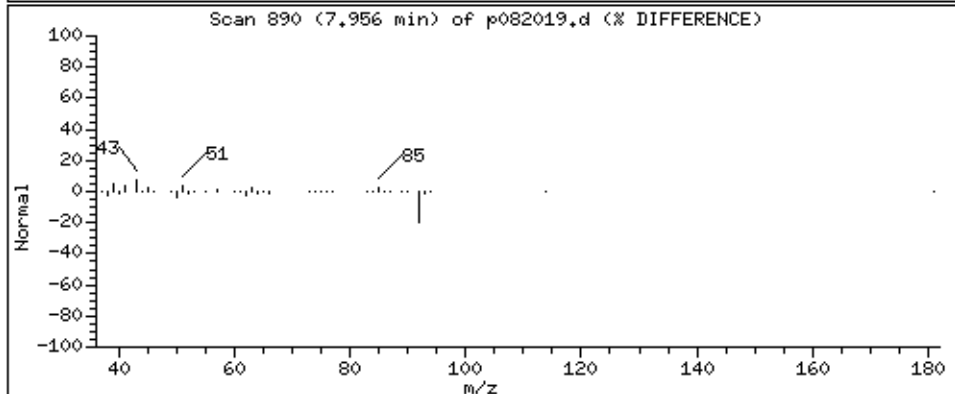
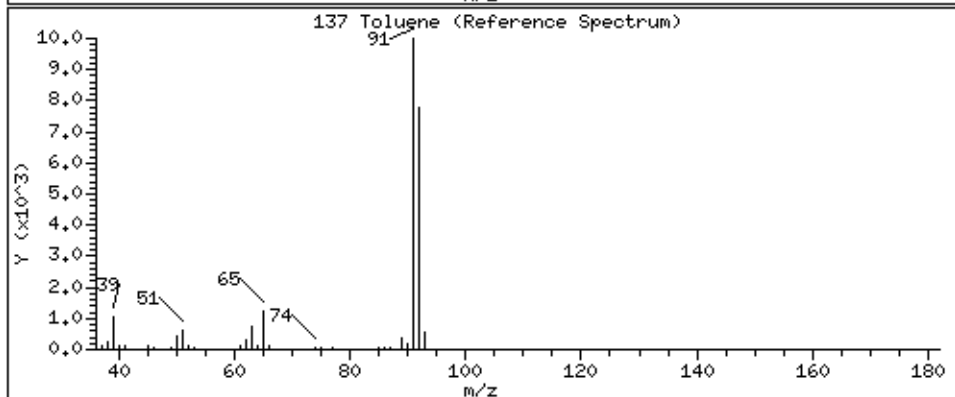
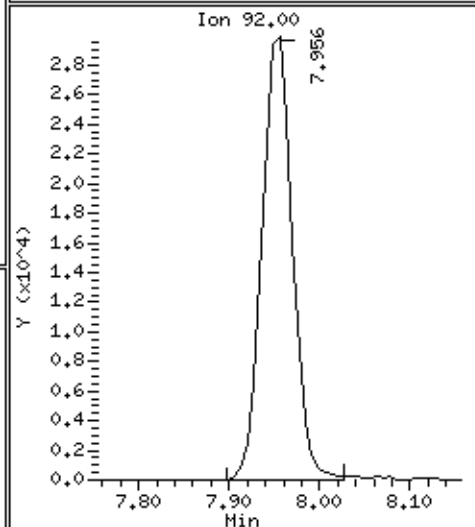
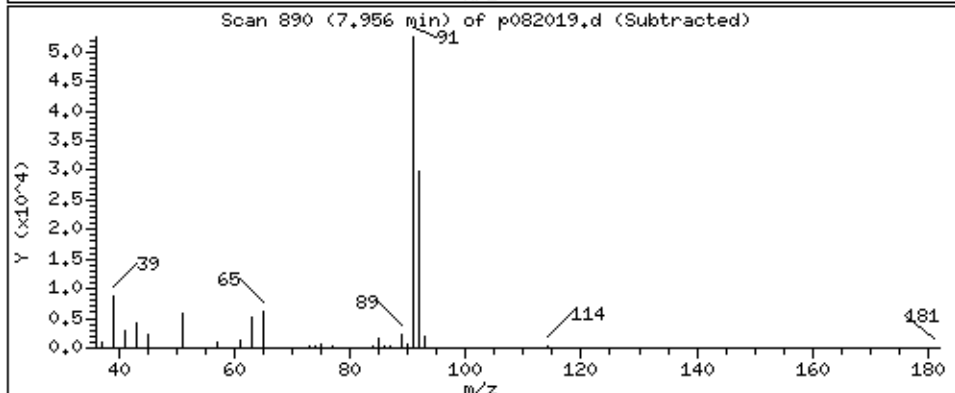
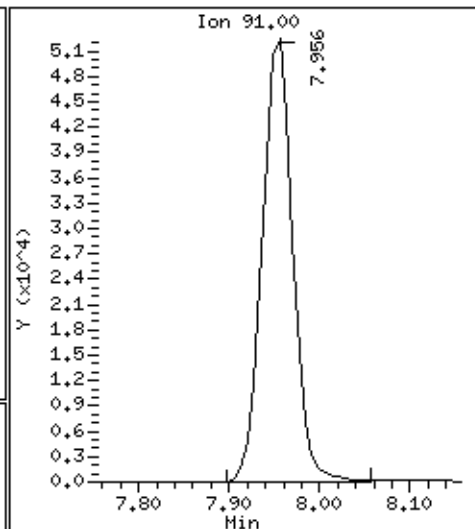
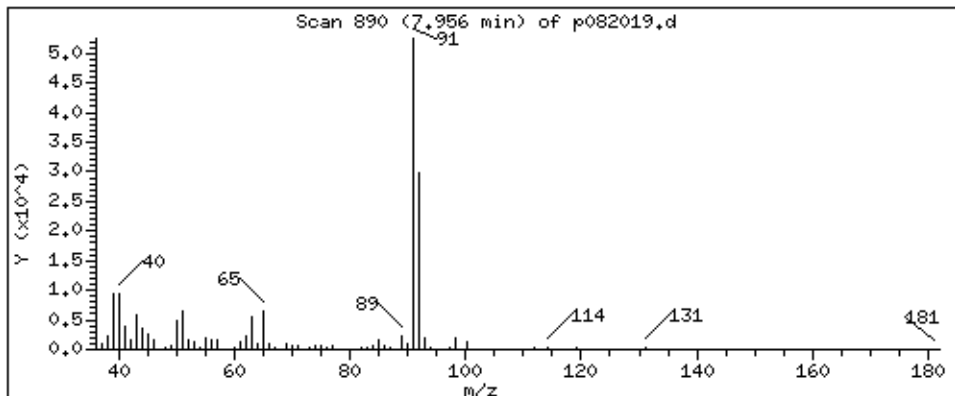
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 13,295 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

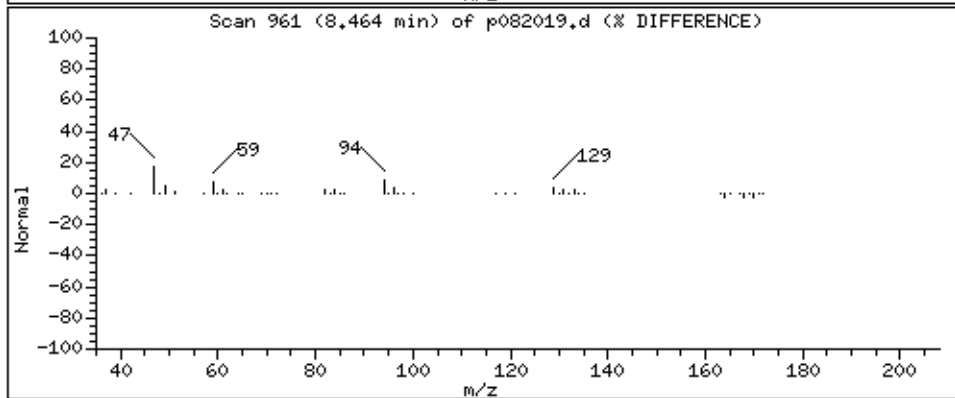
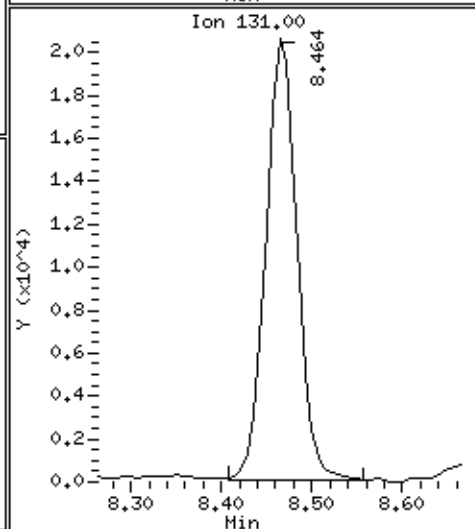
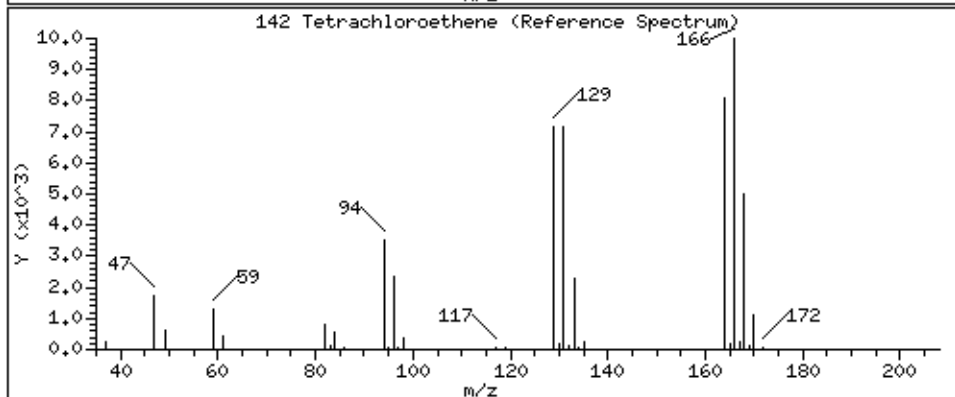
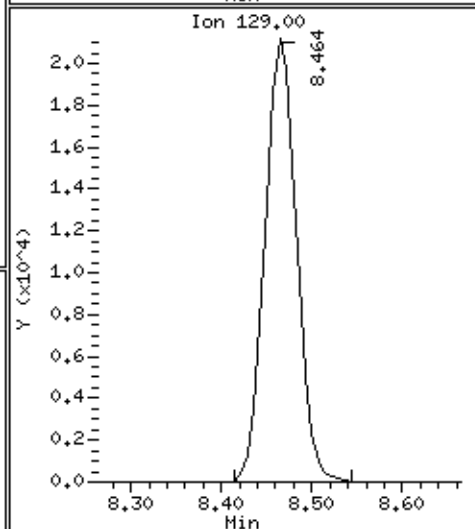
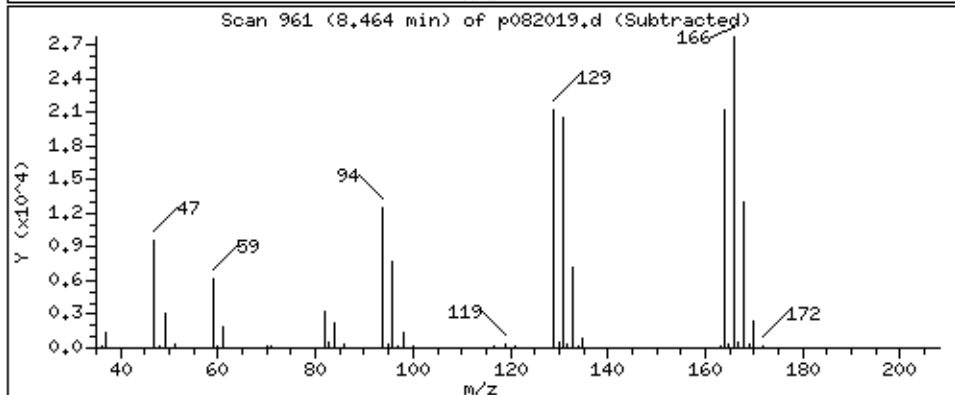
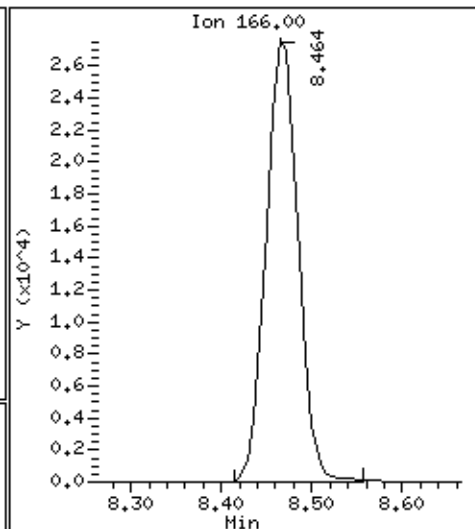
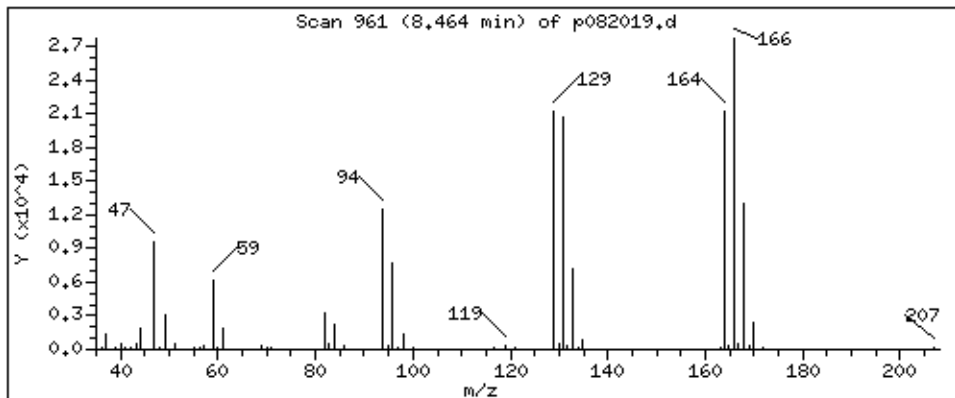
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 14,567 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

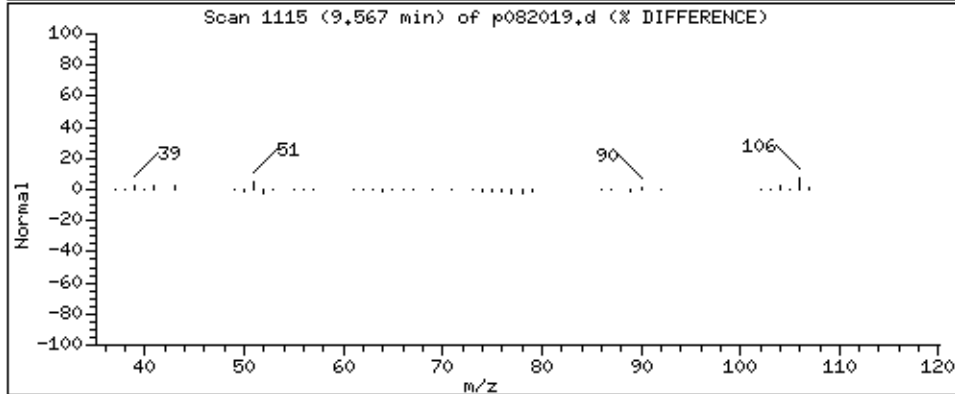
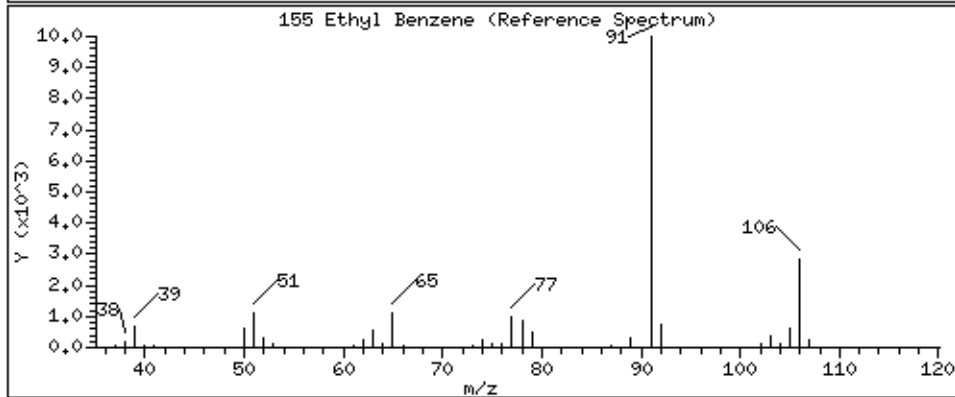
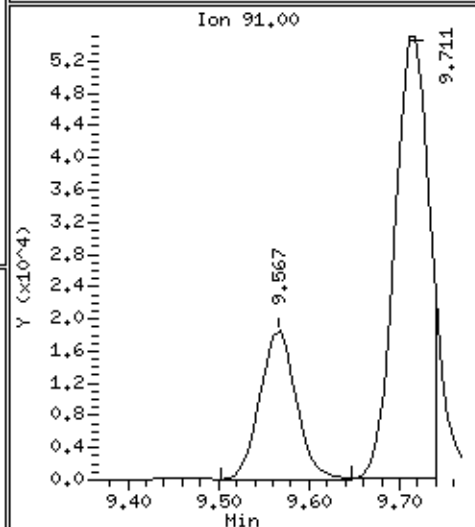
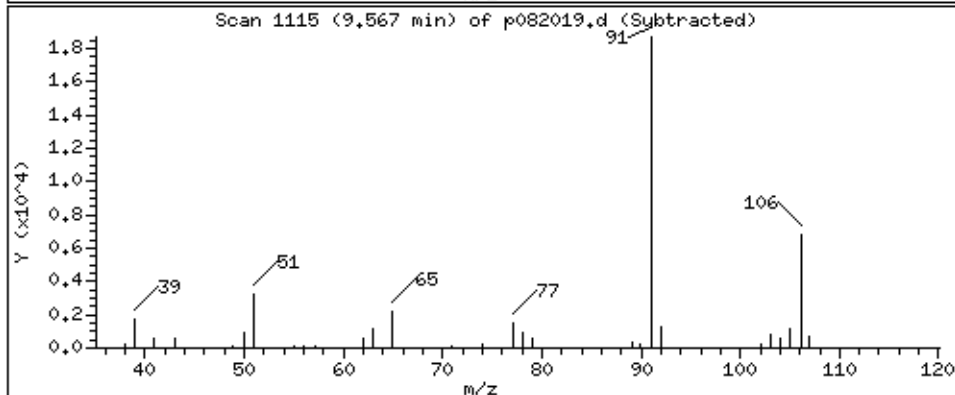
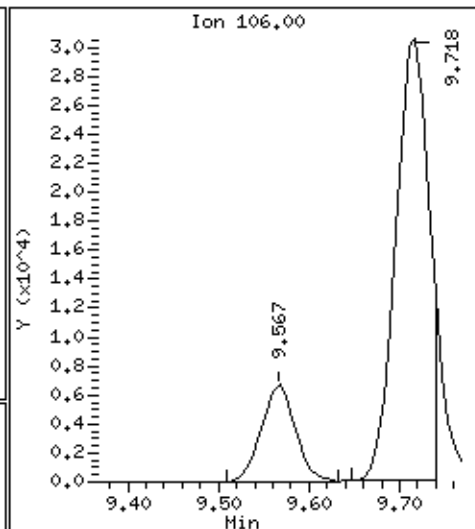
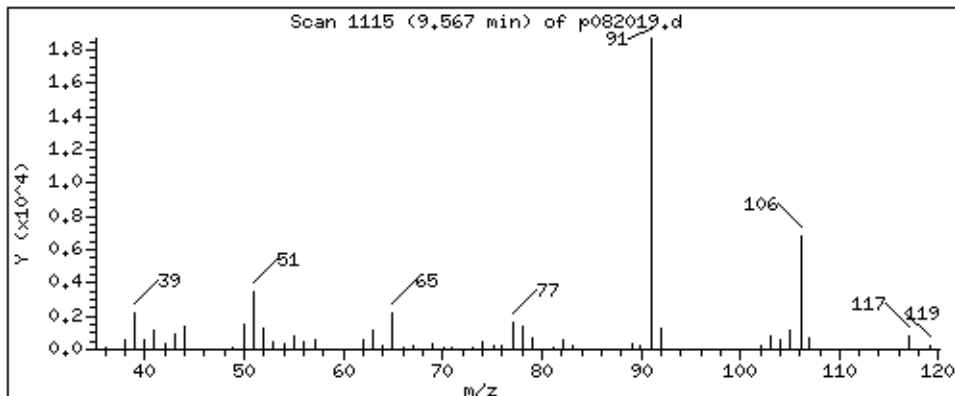
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 4.163 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

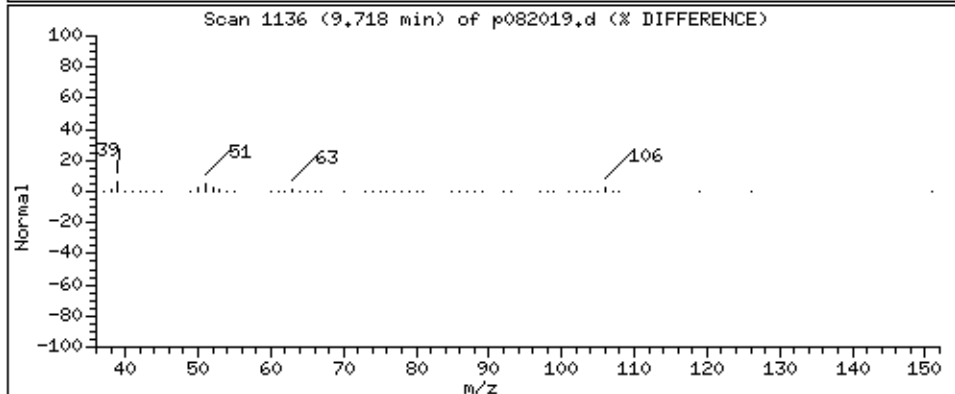
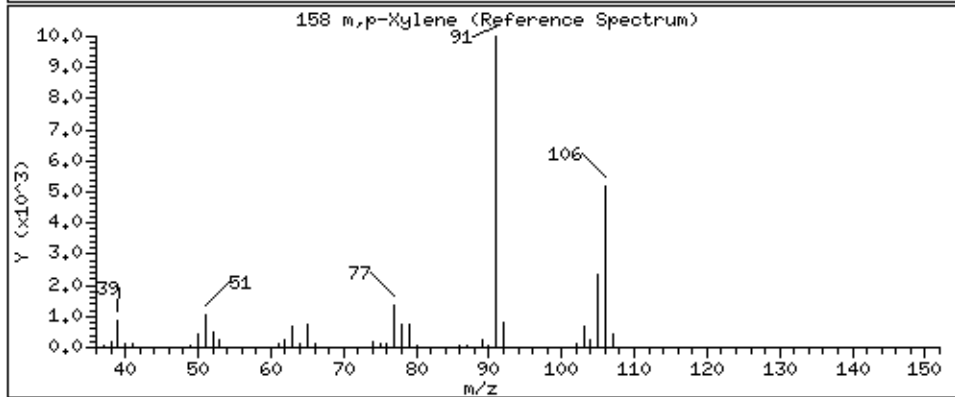
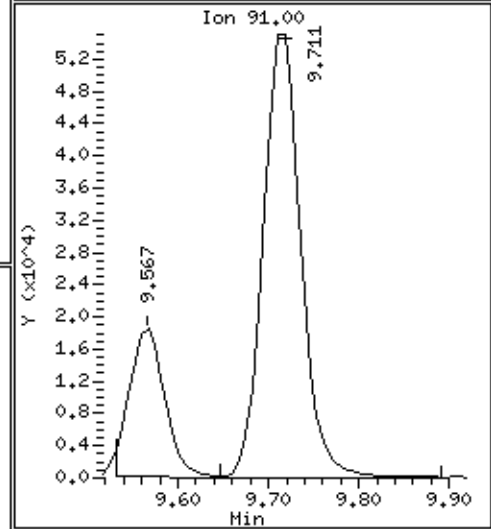
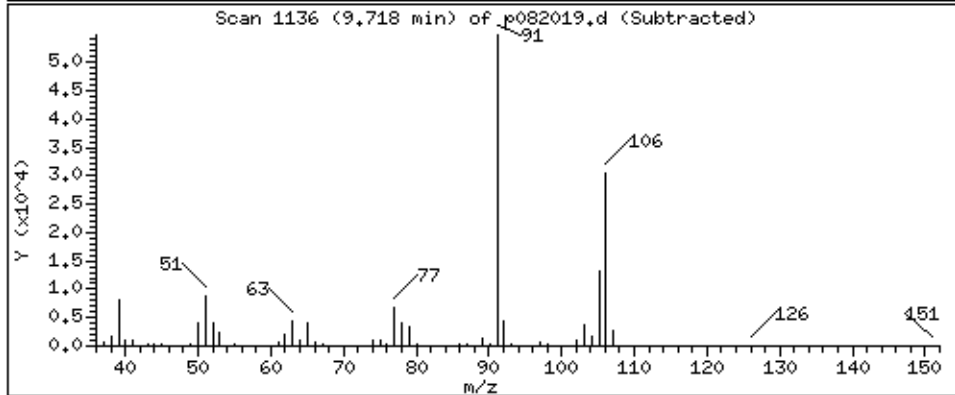
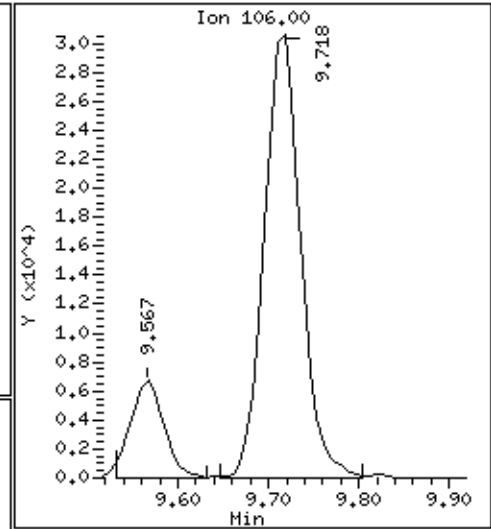
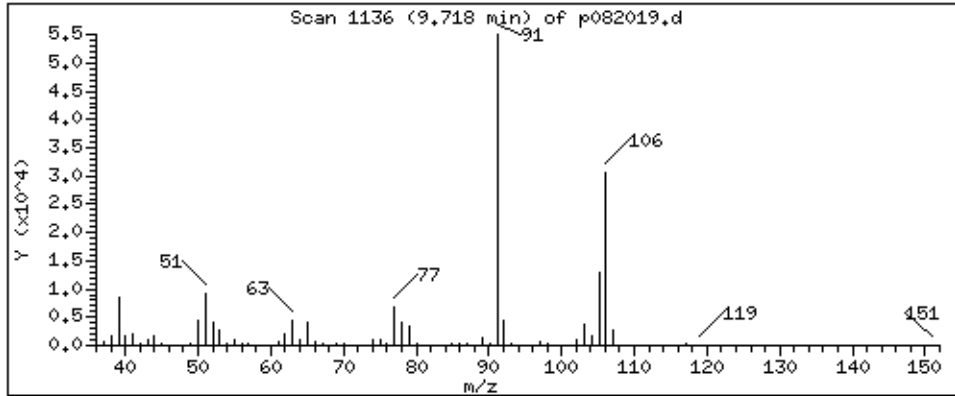
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 16,080 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

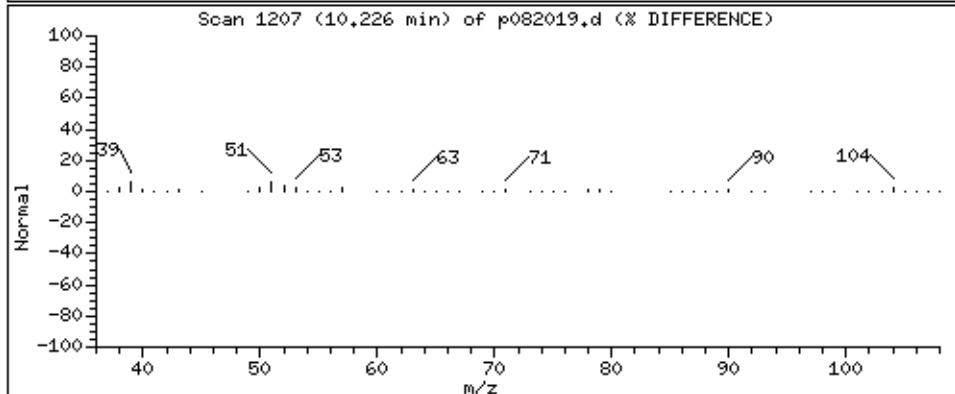
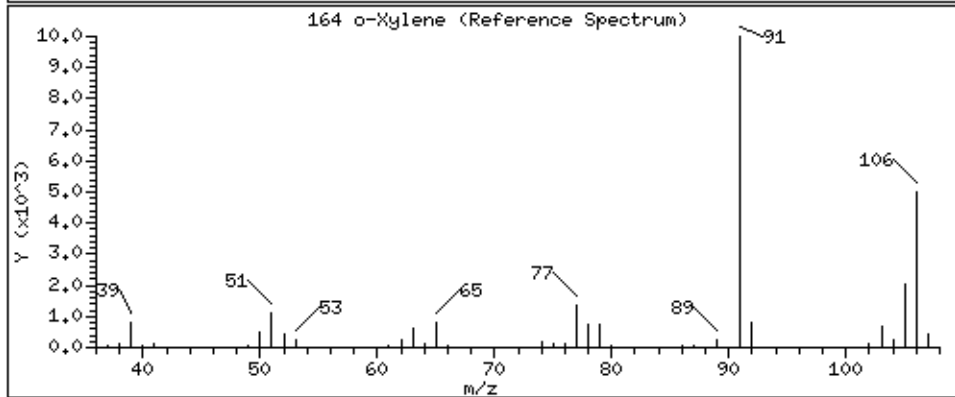
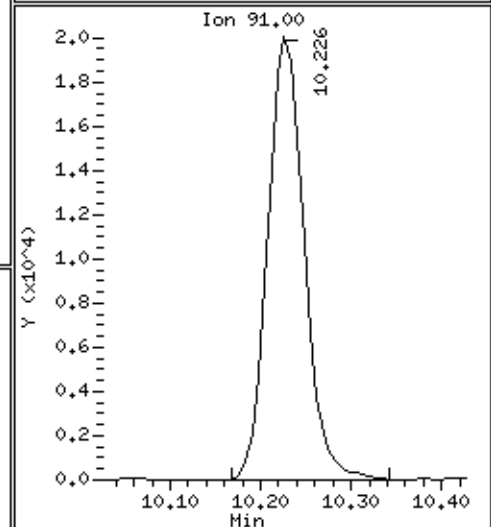
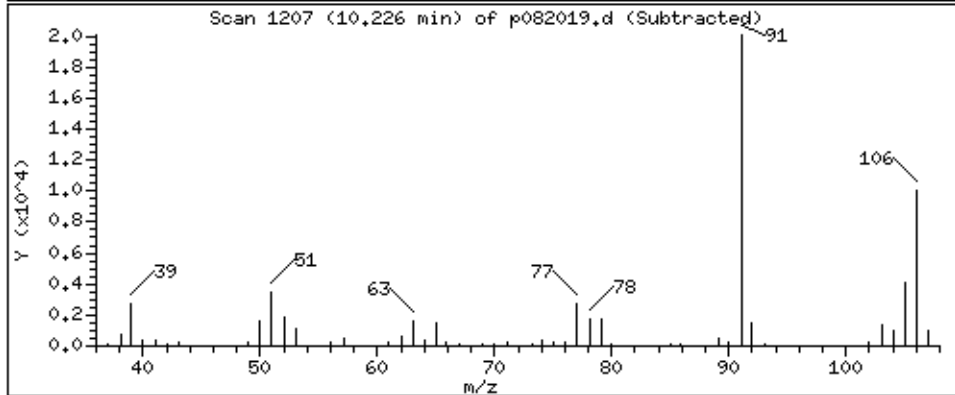
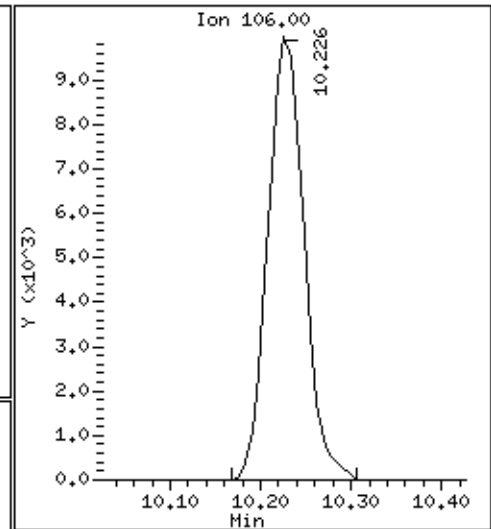
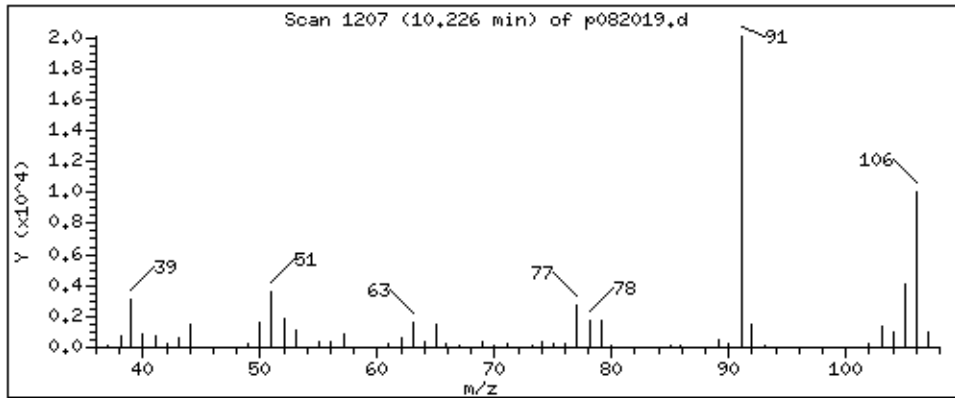
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 5.424 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

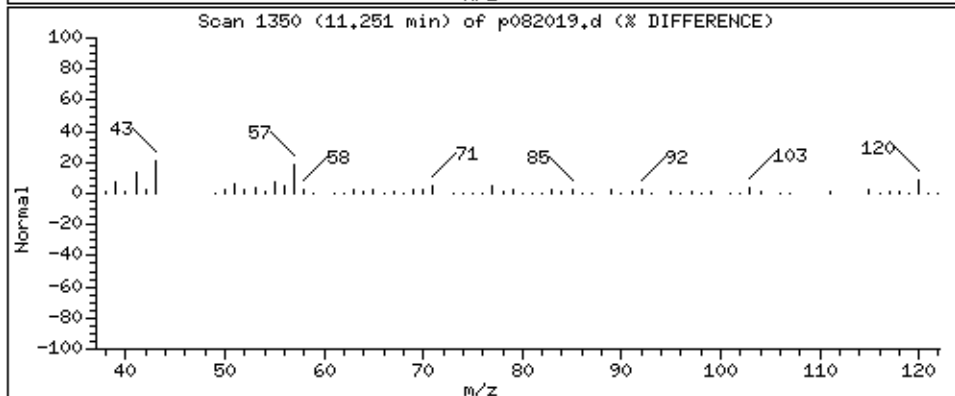
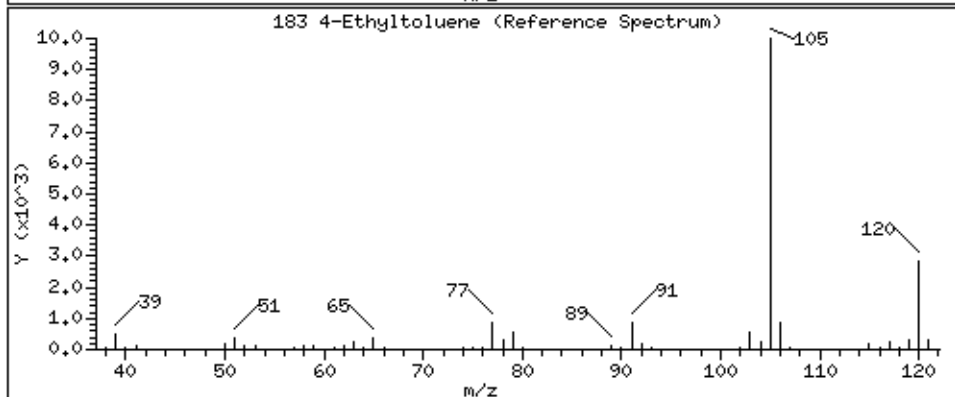
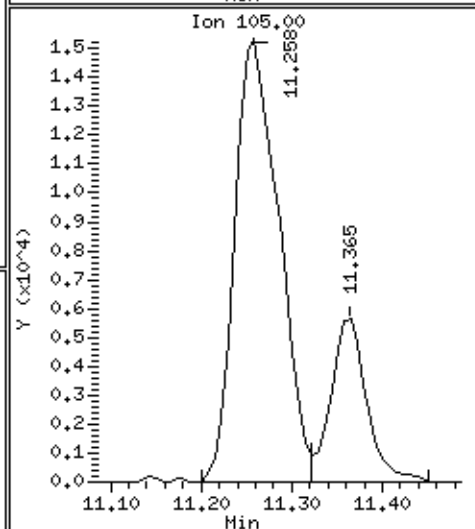
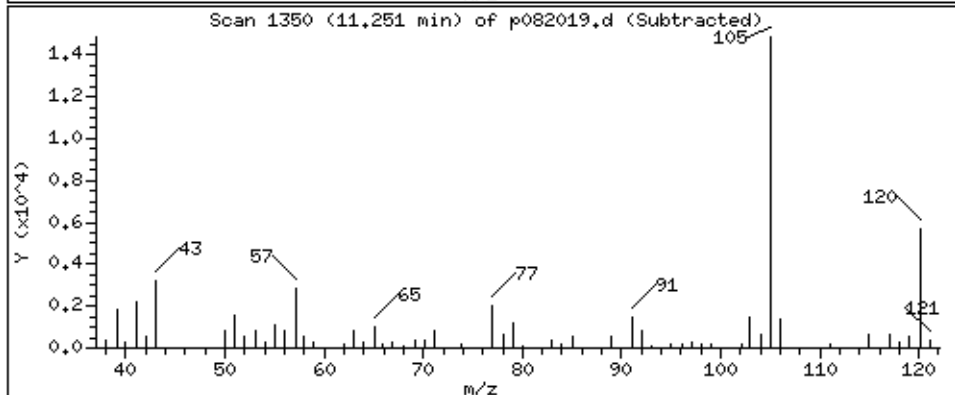
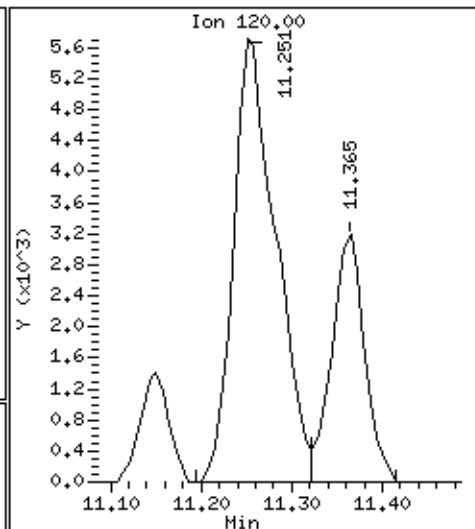
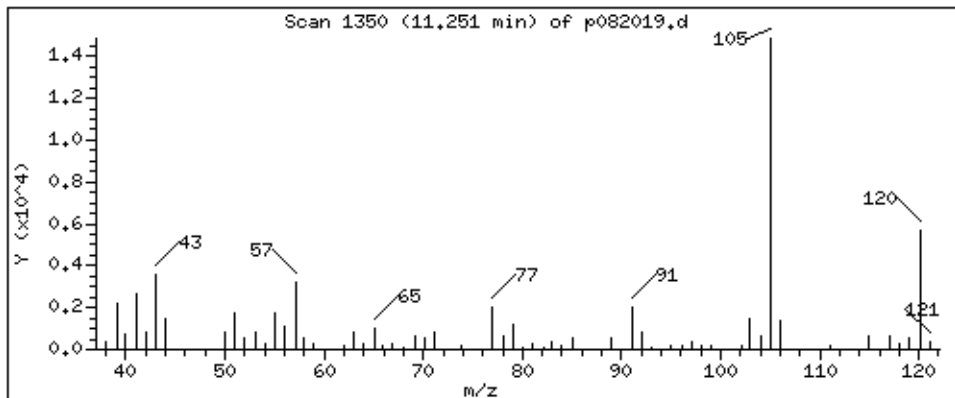
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 3.596 PPBV



Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

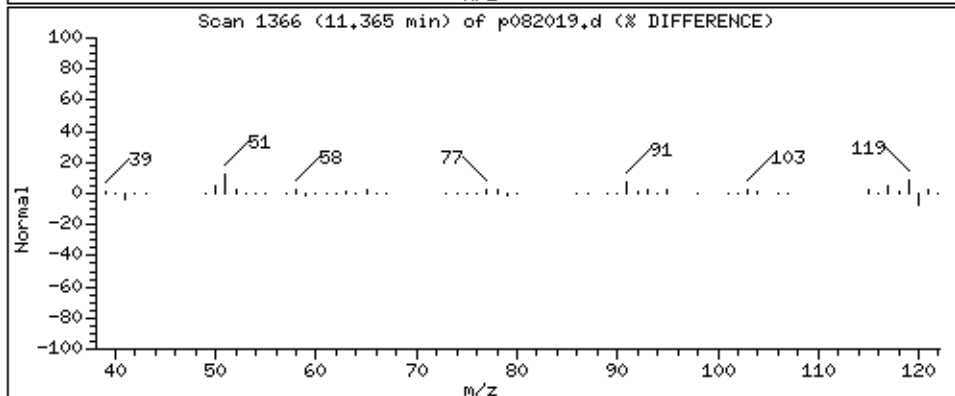
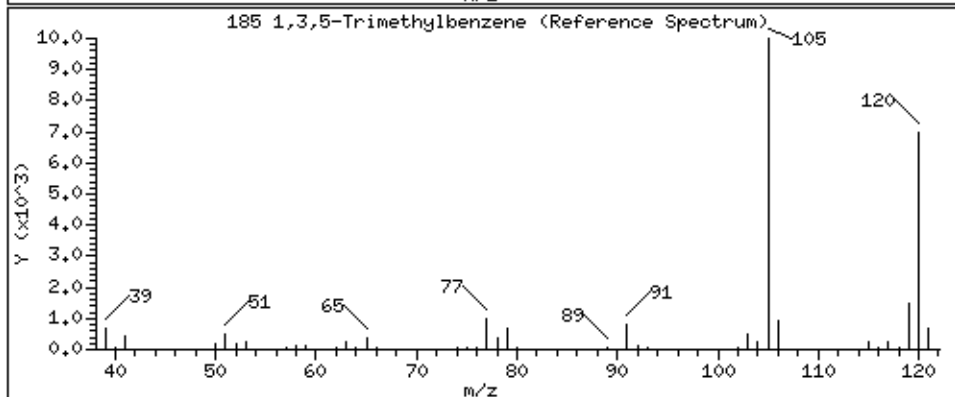
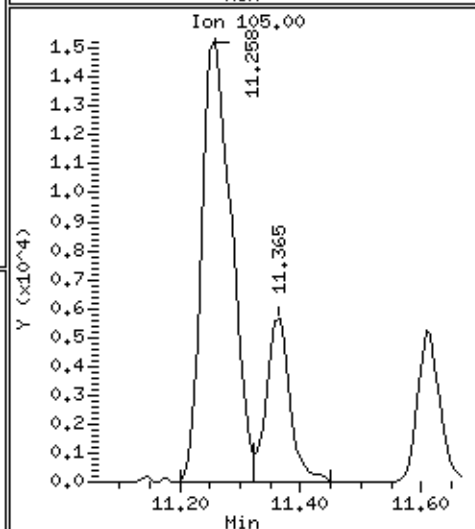
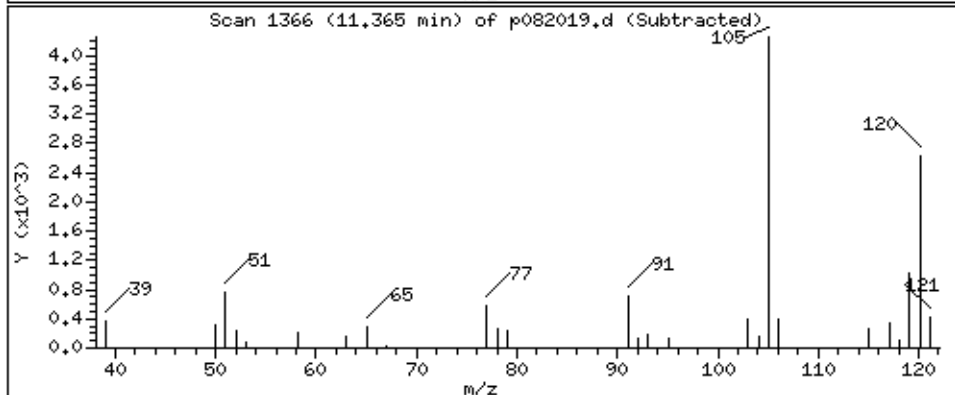
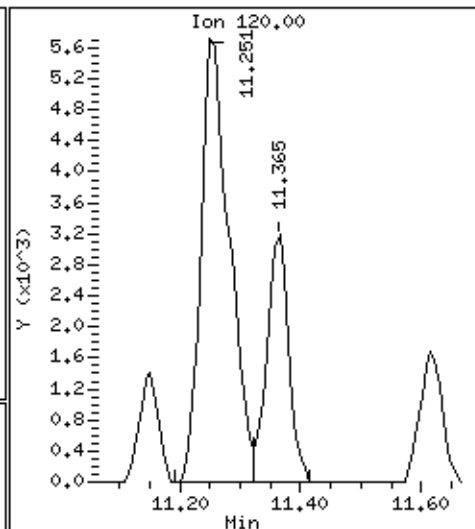
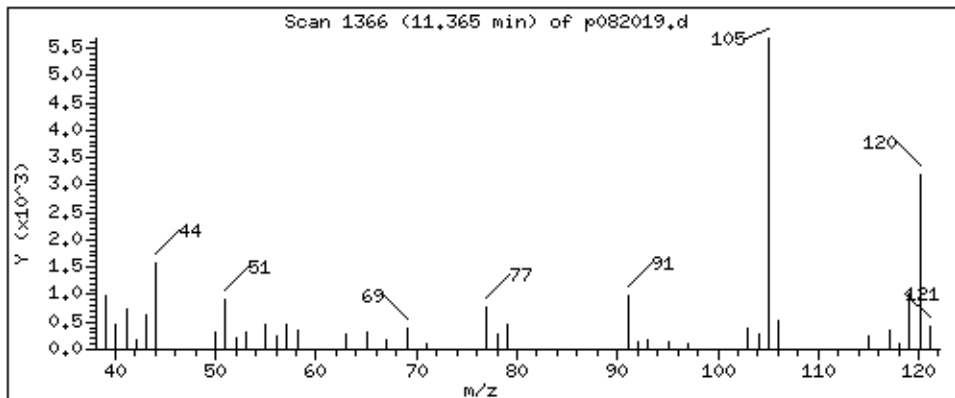
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

185 1,3,5-Trimethylbenzene

Concentration: 1.139 PPBV





Date : 20-AUG-2021 23:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 01022

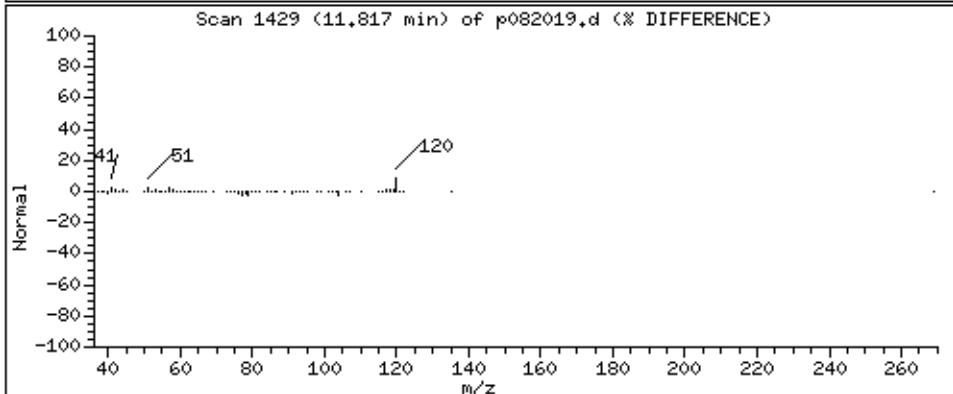
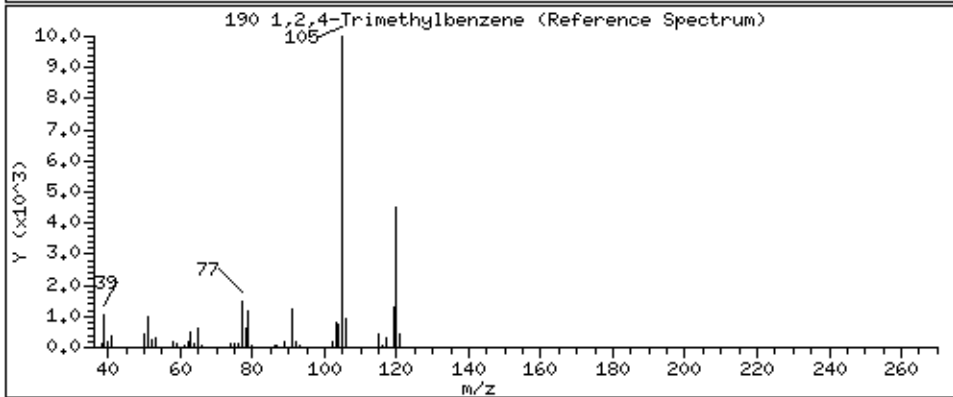
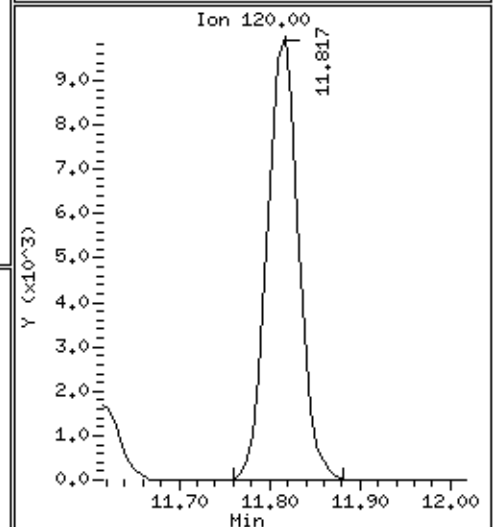
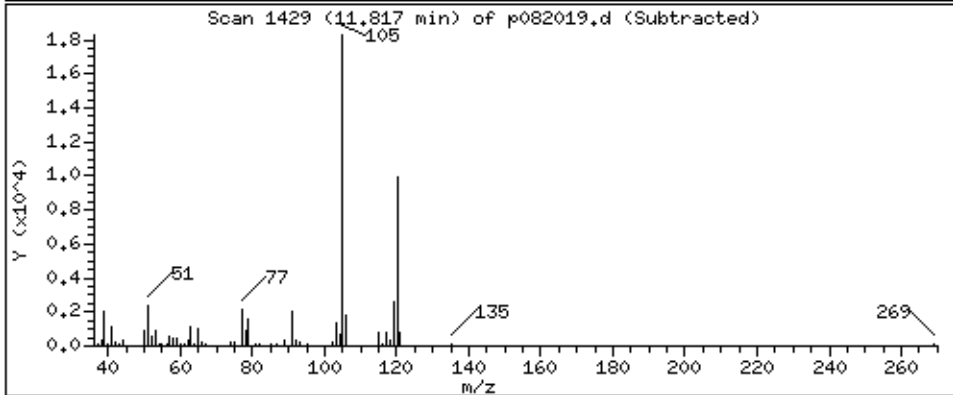
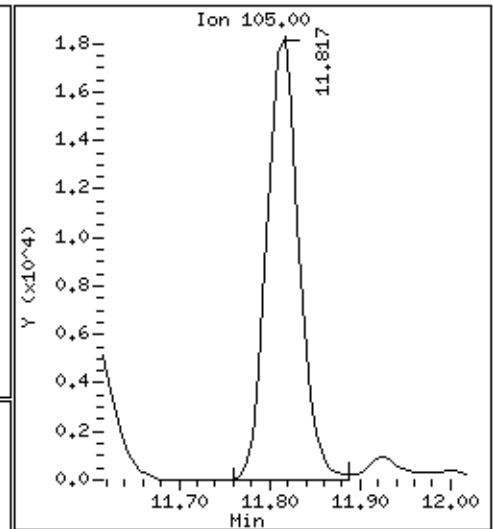
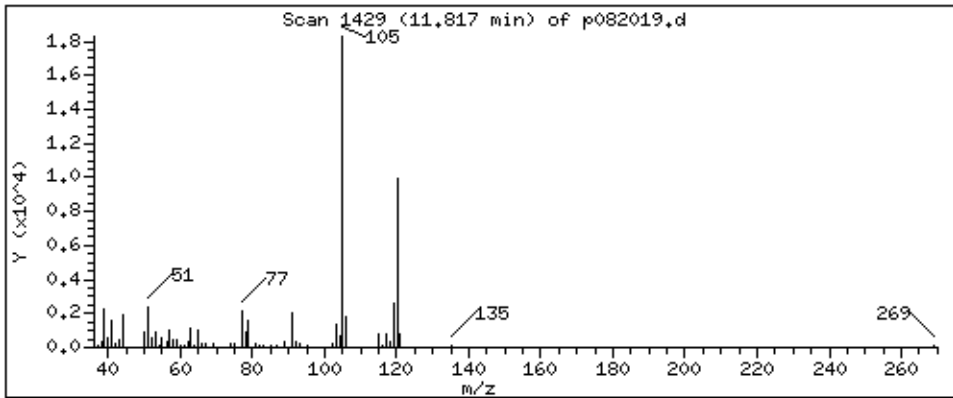
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 3.350 PPBV



Client Sample ID: SG-VW24A-05

Lab ID#: 2108390-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082024	Date of Collection:	8/17/21 8:25:00 AM
Dil. Factor:	2.02	Date of Analysis:	8/21/21 01:44 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.0	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
1,1-Difluoroethane	4.0	6.8	11	18
1,2,3-Trichloropropane	4.0	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	1.4	5.0	7.1
1,2-Dibromo-3-chloropropane	4.0	Not Detected	39	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
2-Hexanone	4.0	Not Detected	16	Not Detected
2-Propanol	4.0	5.2	9.9	13
3-Chloropropene	4.0	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	1.4	5.0	7.1
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Acetone	10	10	24	25
Acrolein	4.0	Not Detected	9.3	Not Detected
Acrylonitrile	4.0	Not Detected	8.8	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Carbon Disulfide	4.0	4.8	12	15
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Chloroethane	4.0	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	4.9	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected

Client Sample ID: SG-VW24A-05

Lab ID#: 2108390-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082024	Date of Collection:	8/17/21 8:25:00 AM
Dil. Factor:	2.02	Date of Analysis:	8/21/21 01:44 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
Cyclohexane	1.0	1.1	3.5	3.7
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
Dibromomethane	4.0	Not Detected	29	Not Detected
Ethanol	10	12	19	22
Ethyl Acetate	4.0	Not Detected	14	Not Detected
Ethyl Benzene	1.0	1.6	4.4	6.9
Ethyl-tert-butyl ether	4.0	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Freon 12	1.0	1.6	5.0	7.8
Freon 113	1.0	Not Detected	7.7	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Freon 134a	4.0	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected
Hexachloroethane	4.0	Not Detected	39	Not Detected
Hexane	1.0	76	3.6	270
Iodomethane	10	Not Detected	59	Not Detected
Isopropyl ether	4.0	Not Detected	17	Not Detected
m,p-Xylene	1.0	5.9	4.4	26
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
o-Xylene	1.0	2.1	4.4	9.2
Propylbenzene	1.0	Not Detected	5.0	Not Detected
Propylene	4.0	Not Detected	7.0	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
tert-Amyl methyl ether	4.0	Not Detected	17	Not Detected
tert-Butyl alcohol	4.0	Not Detected	12	Not Detected
Tetrachloroethene	1.0	39	6.8	260
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	4.2	3.8	16
TPH ref. to Gasoline (MW=100)	100	160	410	650
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Trichloroethene	1.0	1.9	5.4	10
Vinyl Acetate	4.0	Not Detected	14	Not Detected
Vinyl Bromide	4.0	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW24A-05

Lab ID#: 2108390-15A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082024	Date of Collection: 8/17/21 8:25:00 AM
Dil. Factor:	2.02	Date of Analysis: 8/21/21 01:44 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	104	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082024.d  
 Lab Smp Id: 2108390-15A  
 Inj Date : 21-AUG-2021 01:44  
 Operator : kk  
 Smp Info : 200ml 34000236  
 Misc Info : 5.0 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5fl  
 Cal Date : 19-MAY-2021 19:45  
 Als bottle: 6  
 Dil Factor: 2.02000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msdp.i  
 Quant Type: ISTD  
 Cal File: p051915.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	104811	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	81527			48.23- 108.23	77.79
5.785	5.778	(1.000)	49	240122			150.57- 210.57	229.10
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	374966	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	55304			0.00- 45.71	14.75
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	389377	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	202194			23.78- 83.78	51.93
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	158706	27.4377	27.438	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	74599			27.21- 87.21	47.00
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	408509	25.0888	25.089	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	44615			0.00- 40.44	10.92

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	267862			34.95- 94.95	65.57
-----								
§ 170 4-Bromofluorobenzene CAS #: 460-00-4								
10.921	10.921	(1.154)	174	259128	25.9160	25.916	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	302970			95.92- 155.92	116.92
10.921	10.921	(1.154)	176	245624			66.89- 126.89	94.79
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.717	1.703	(0.297)	65	7961	3.35096	6.769	80.00- 120.00	100.00
1.731	1.759	(0.299)	51	49486			597.63- 657.63	621.54
1.717	1.717	(0.297)	47	6413			33.72- 93.72	80.56
-----								
8 Freon 12 CAS #: 75-71-8								
1.731	1.717	(0.299)	85	7368	0.78380	1.583	80.00- 120.00	100.00
1.731	1.717	(0.299)	87	2307			2.37- 62.37	31.32
-----								
39 Ethanol CAS #: 64-17-5								
3.250	3.242	(0.562)	46	6121	5.88895	11.896	80.00- 120.00	100.00
3.257	3.285	(0.563)	45	14541			511.19- 571.19	237.56
-----								
47 Acetone CAS #: 67-64-1								
3.730	3.722	(0.645)	58	14232	5.17954	10.463	80.00- 120.00	100.00
3.730	3.722	(0.645)	43	60261			302.95- 362.95	423.42
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.837	3.830	(0.663)	76	27782	2.37839	4.804	80.00- 120.00	100.00
-----								
52 2-Propanol CAS #: 67-63-0								
3.901	3.894	(0.674)	45	28728	2.59413	5.240	80.00- 120.00	100.00
3.901	3.894	(0.674)	43	8544			0.00- 47.19	29.74
-----								
67 Hexane CAS #: 110-54-3								
4.697	4.697	(0.812)	57	389296	37.7039	76.162	80.00- 120.00	100.00
4.697	4.697	(0.812)	43	307460			37.52- 97.52	78.98
4.697	4.697	(0.812)	86	38924			0.00- 41.48	10.00
-----								
94 Cyclohexane CAS #: 110-82-7								
5.964	5.957	(1.031)	84	3526	0.53481	1.080	80.00- 120.00	100.00
5.957	5.957	(1.030)	56	10006			142.57- 202.57	283.77
5.964	5.957	(1.031)	41	6415			62.09- 122.09	181.93
-----								
111 Trichloroethene CAS #: 79-01-6								
6.867	6.867	(1.030)	95	5737	0.95549	1.930	80.00- 120.00	100.00
6.867	6.867	(1.030)	130	6050			76.29- 136.29	105.47
6.867	6.867	(1.030)	97	3399			33.63- 93.63	59.26
-----								

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
-----									
137	Toluene							CAS #:	108-88-3
7.956	7.956	(1.193)	91	35488	2.07878	4.199	80.00- 120.00		100.00
7.956	7.956	(1.193)	92	19712		28.38-	88.38		55.55
-----									
142	Tetrachloroethene							CAS #:	127-18-4
8.471	8.464	(0.895)	166	172017	19.3839	39.155	80.00- 120.00		100.00
8.464	8.464	(0.895)	129	129553		47.84-	107.84		75.31
8.464	8.464	(0.895)	131	128353		45.29-	105.29		74.62
-----									
155	Ethyl Benzene							CAS #:	100-41-4
9.567	9.567	(1.011)	106	6402	0.79185	1.600	80.00- 120.00		100.00
9.567	9.567	(1.011)	91	18930		273.74-	333.74		295.70
-----									
158	m,p-Xylene							CAS #:	108-38-3
9.718	9.718	(1.027)	106	29492	2.91256	5.883	80.00- 120.00		100.00
9.718	9.718	(1.027)	91	54125		163.73-	223.73		183.52
-----									
164	o-Xylene							CAS #:	95-47-6
10.226	10.226	(1.081)	106	10160	1.04724	2.115	80.00- 120.00		100.00
10.226	10.226	(1.081)	91	21177		177.45-	237.45		208.42
-----									
183	4-Ethyltoluene							CAS #:	622-96-8
11.258	11.287	(1.190)	120	7010	0.71332	1.441	80.00- 120.00		100.00
11.258	11.287	(1.190)	105	20256		284.55-	344.55		288.95
-----									
190	1,2,4-Trimethylbenzene							CAS #:	95-63-6
11.817	11.817	(1.249)	105	18389	0.72006	1.454	80.00- 120.00		100.00
11.817	11.817	(1.249)	120	9924		19.05-	79.05		53.97
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082024.d  
 Lab Smp Id: 2108390-15A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: kk  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 5.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	104811	-4.17
108 1,4-Difluorobenze	406799	244079	569519	374966	-7.83
153 Chlorobenzene-d5	400841	240505	561177	389377	-2.86

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.



Report Date: 24-Aug-2021 11:46

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-15A  
Level: LOW Operator: kk  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 5.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.438	109.75	70-130
\$ 134 Toluene-d8	25.000	25.089	100.36	70-130
\$ 170 4-Bromofluorobenz	25.000	25.916	103.66	70-130

Date : 21-AUG-2021 01:44

Client ID:

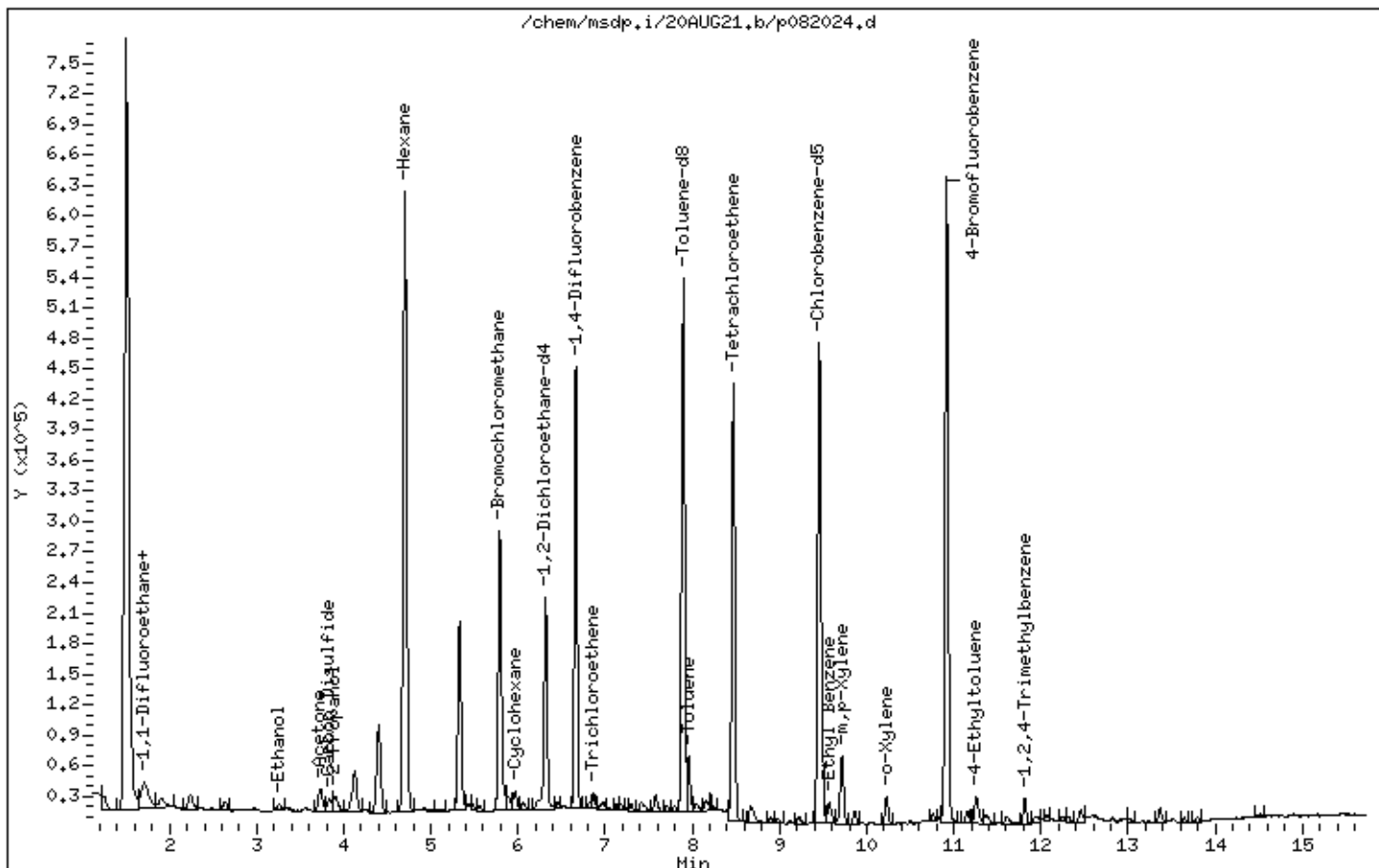
Instrument: msdp.i

Sample Info: 200ml 34000236

Operator: kk

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

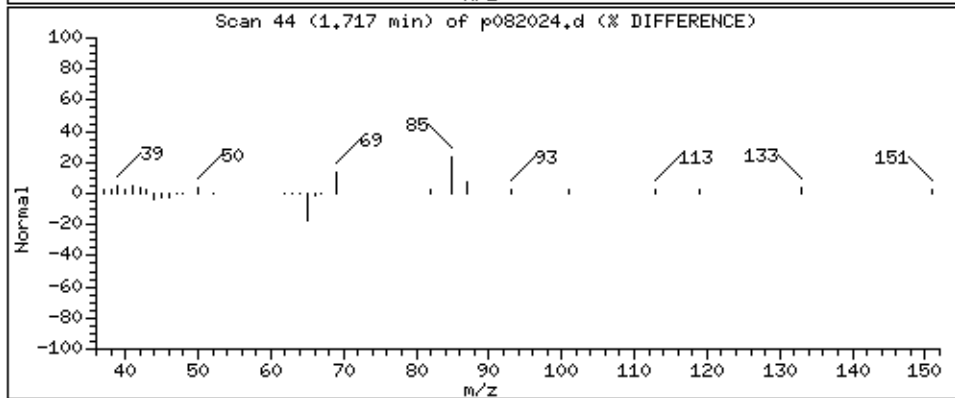
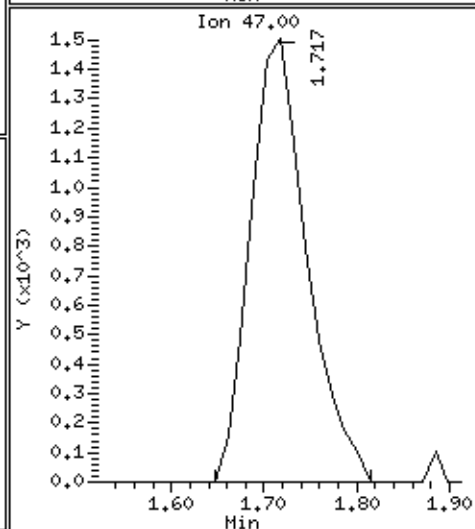
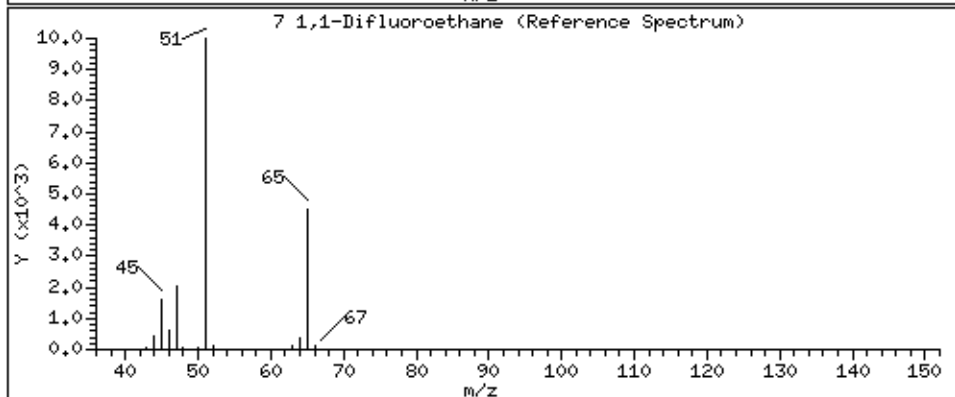
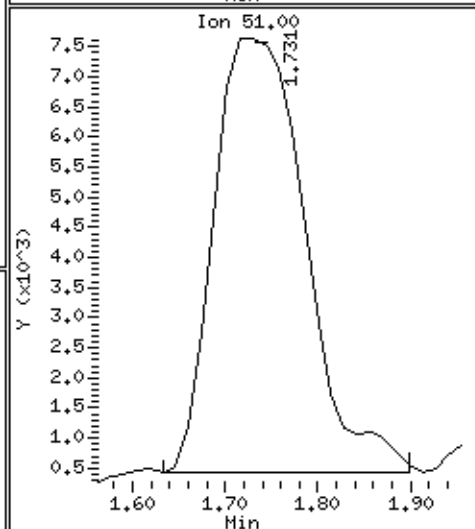
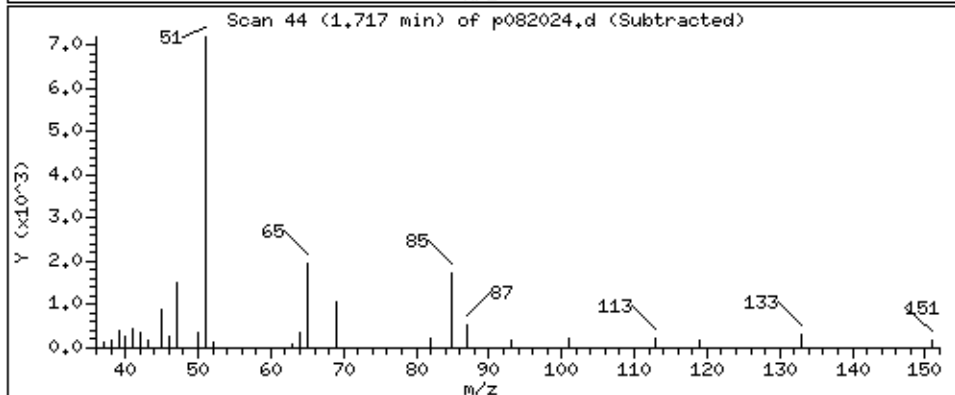
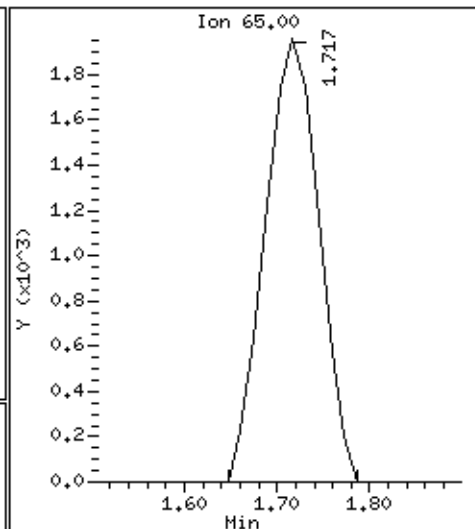
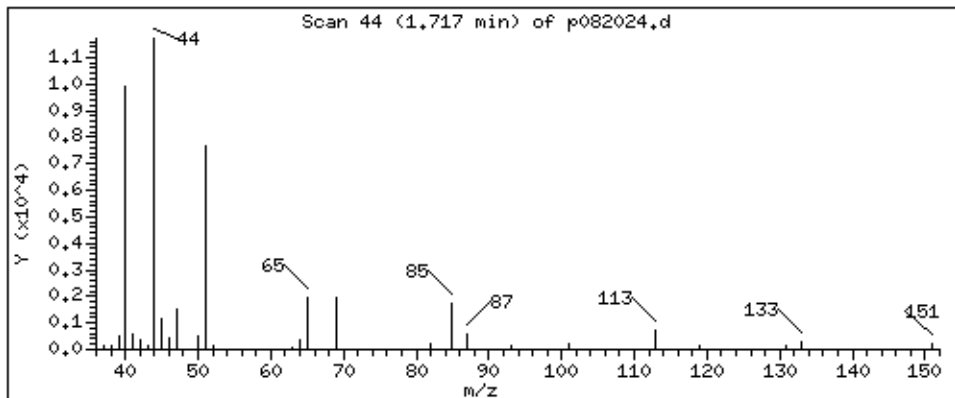
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 6.769 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

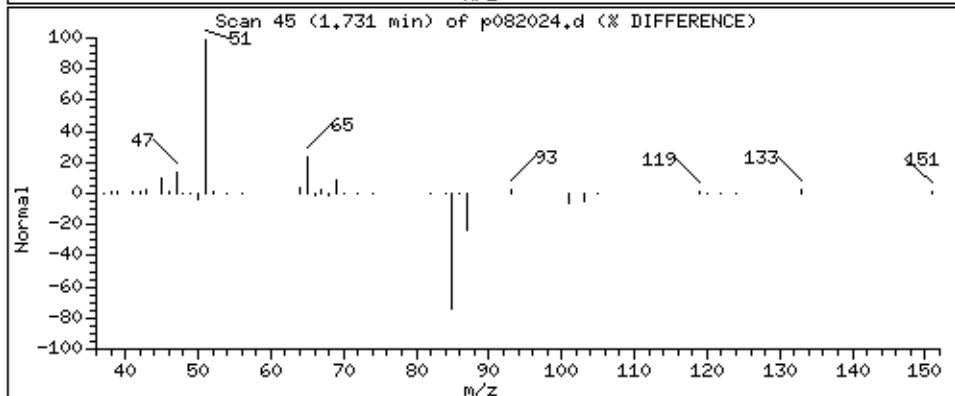
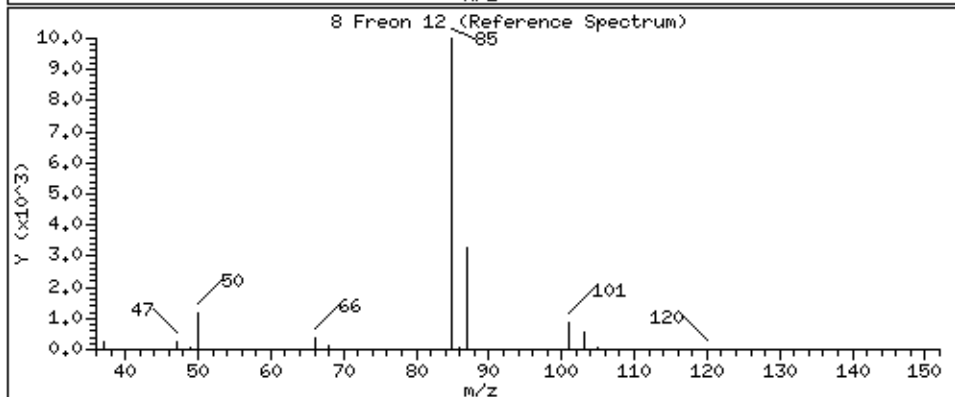
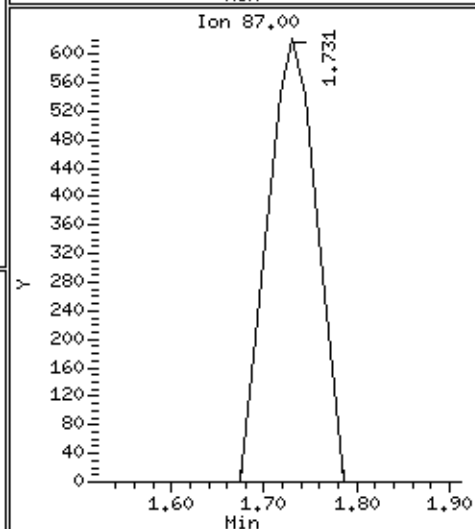
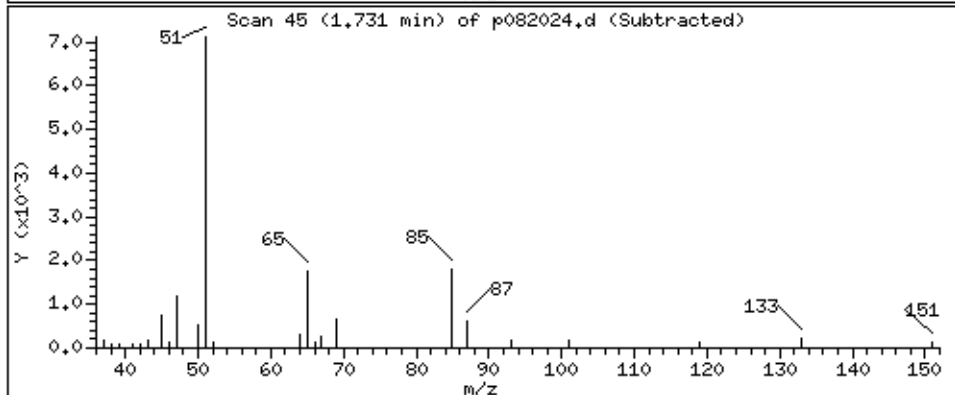
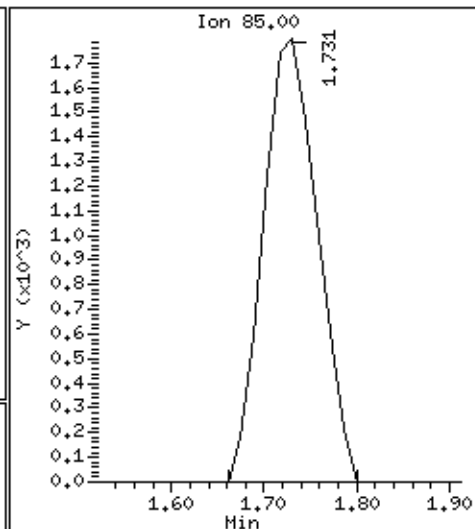
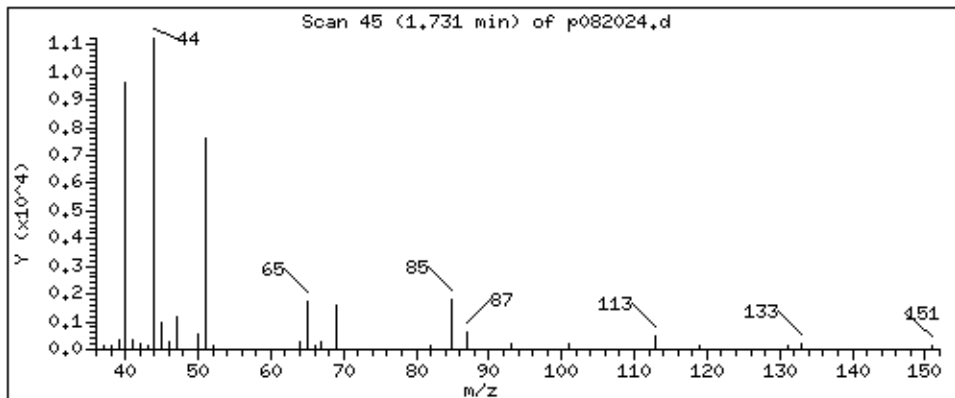
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 1,583 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

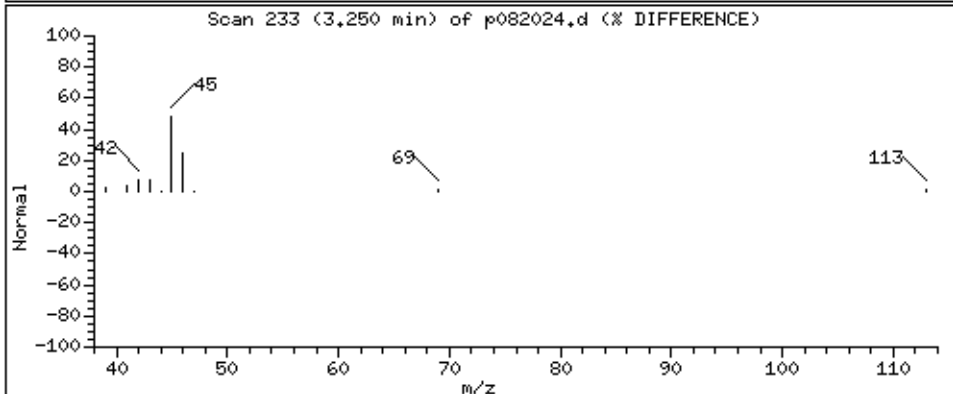
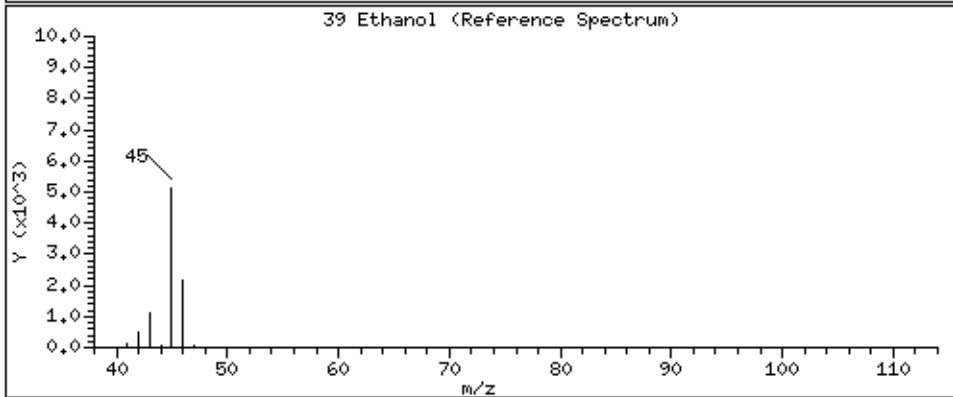
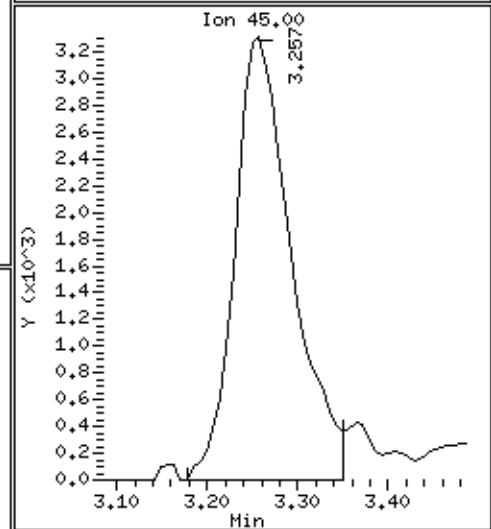
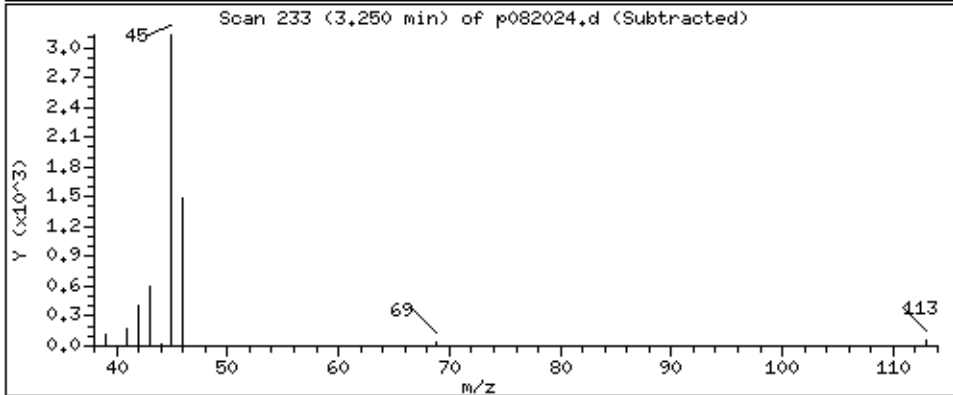
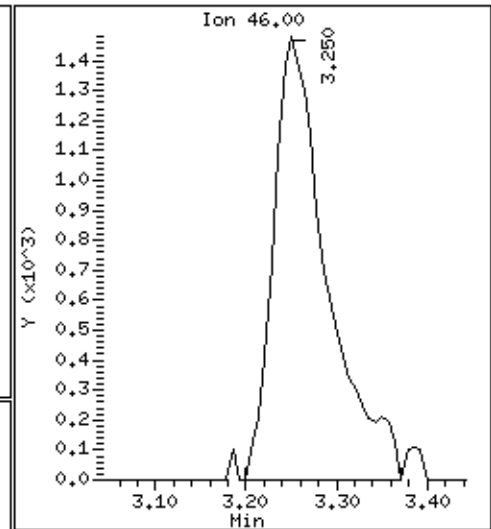
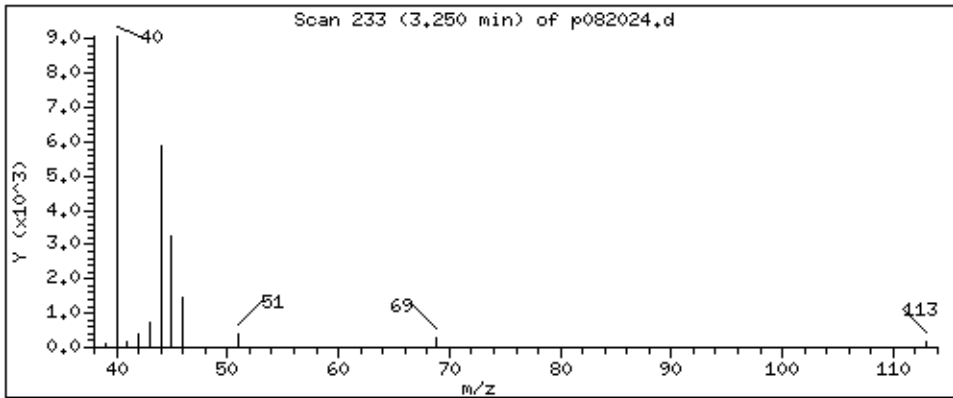
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 11.896 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

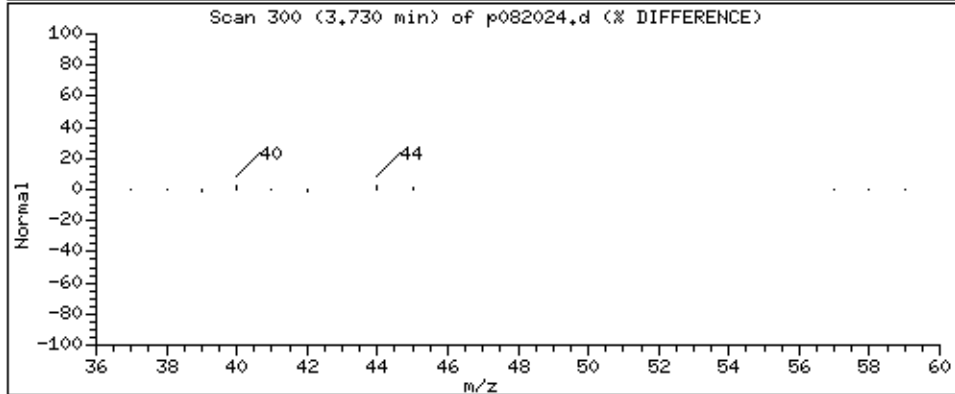
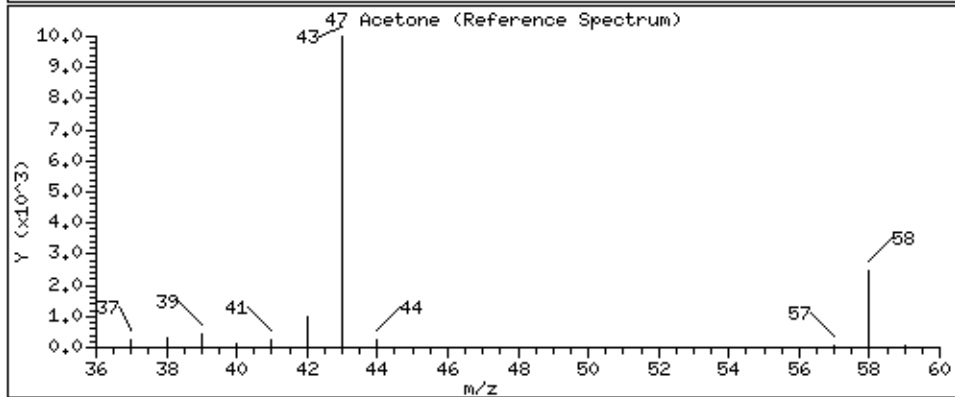
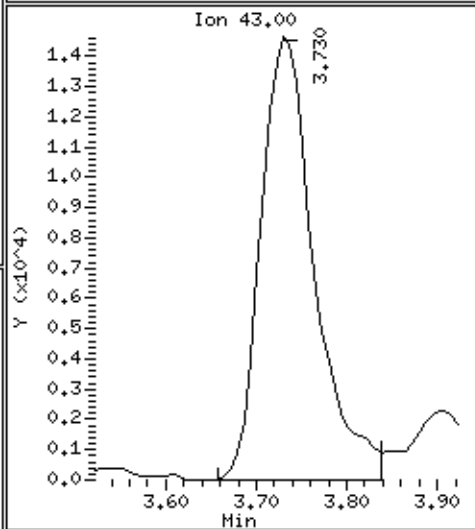
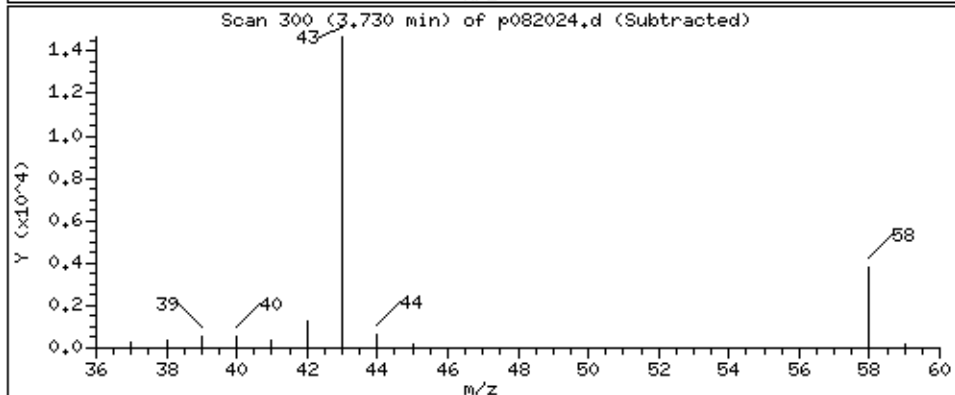
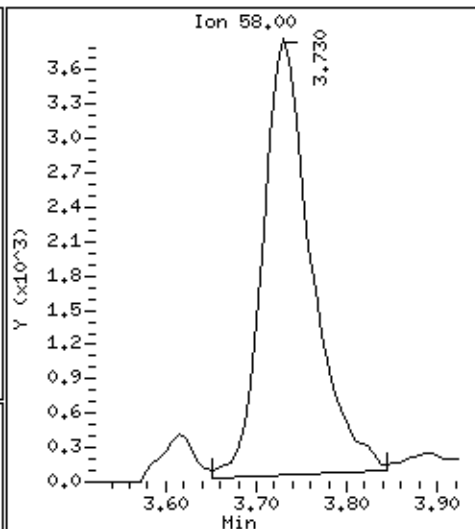
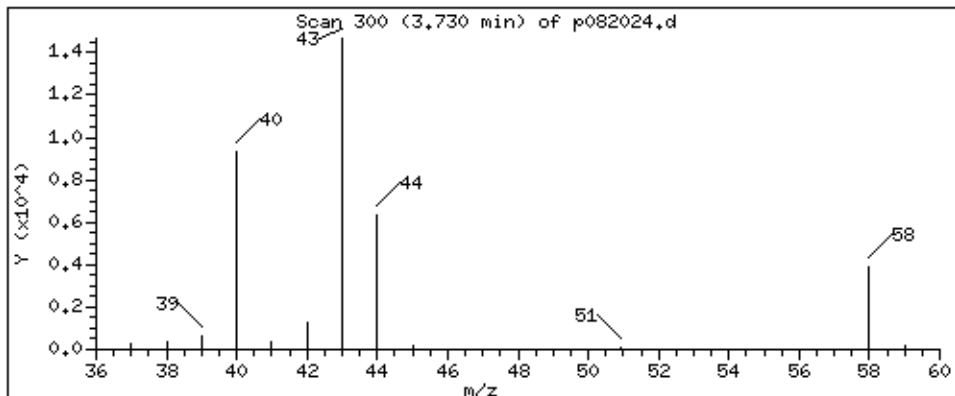
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 10.463 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

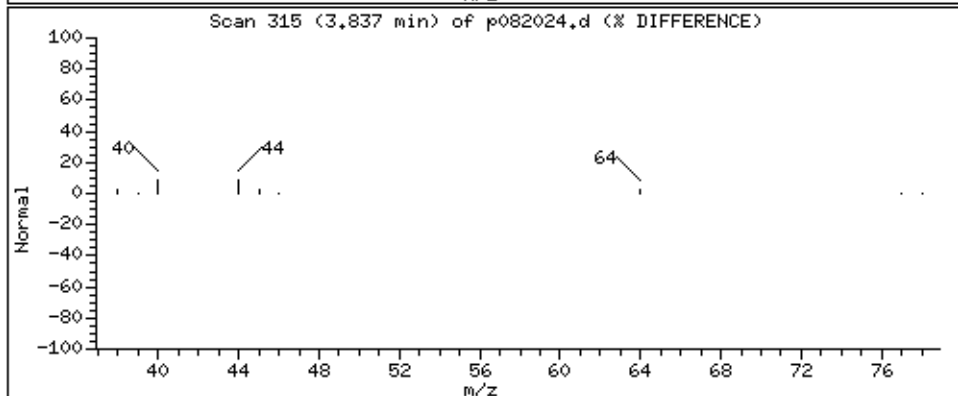
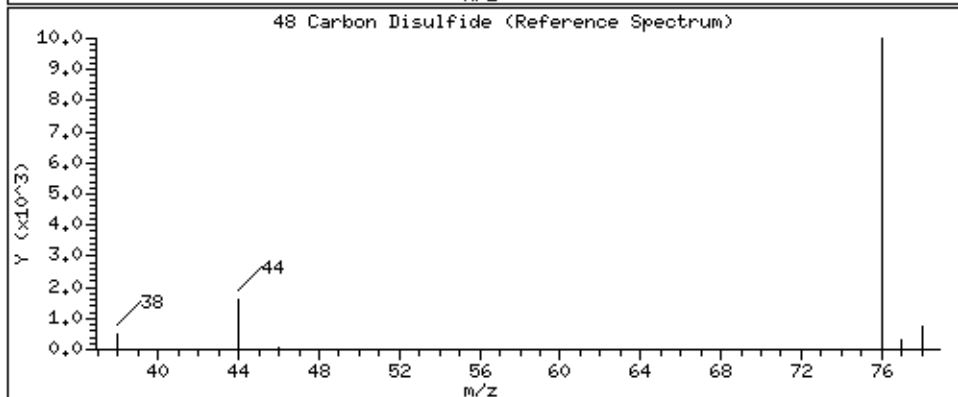
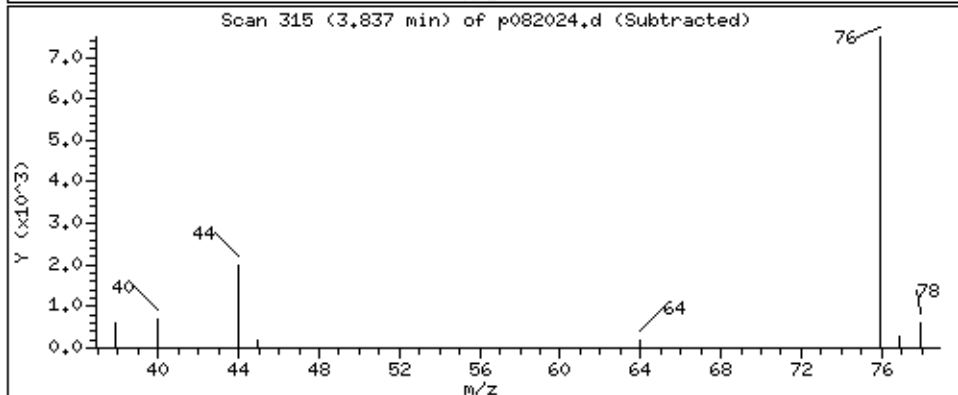
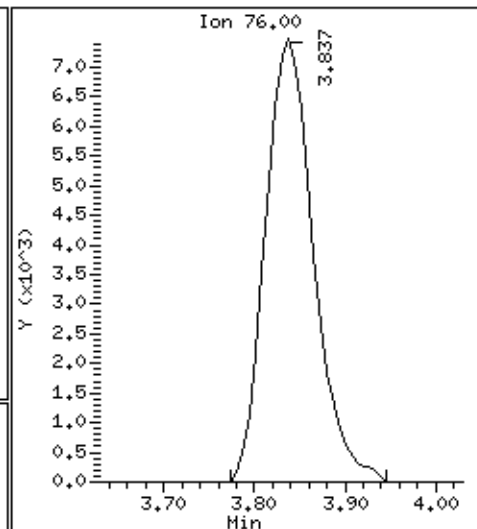
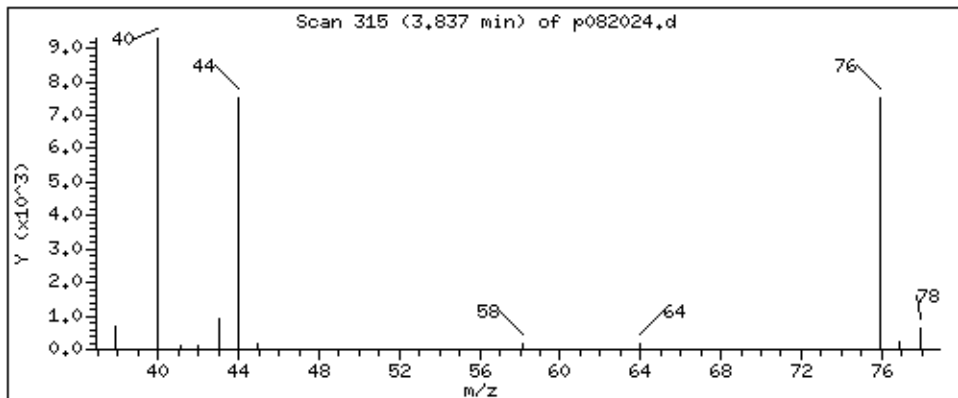
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

48 Carbon Disulfide

Concentration: 4.804 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

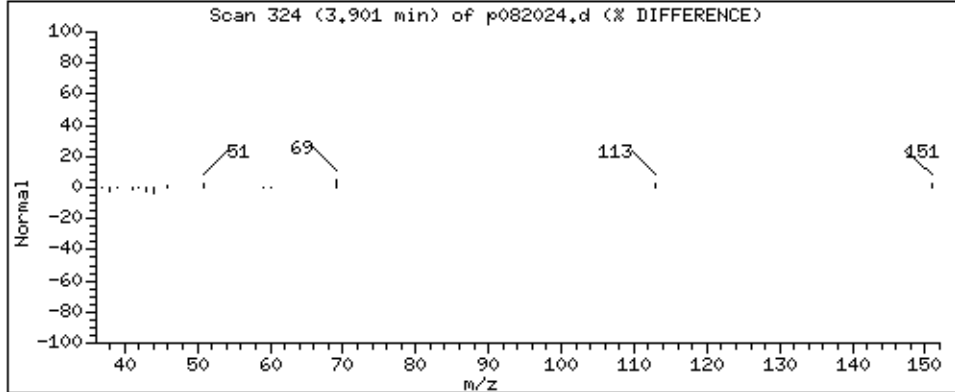
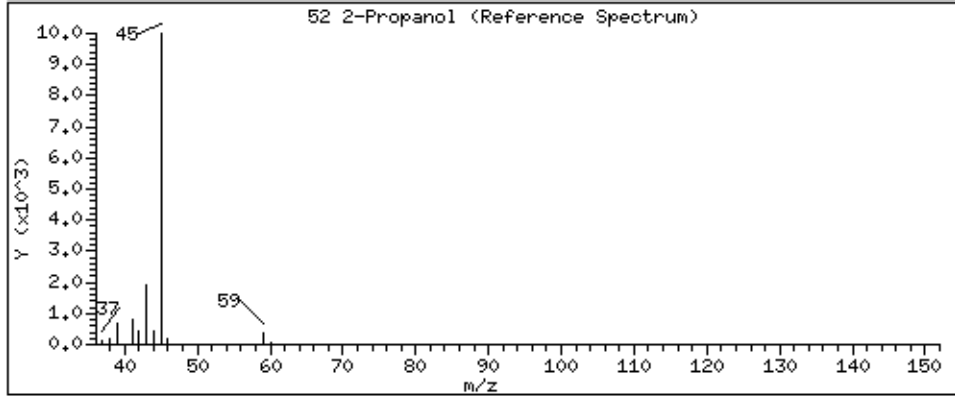
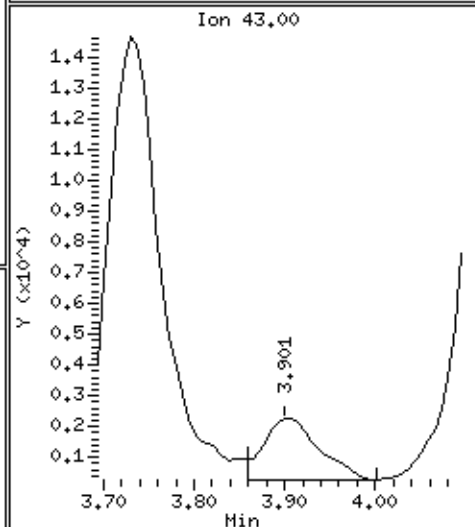
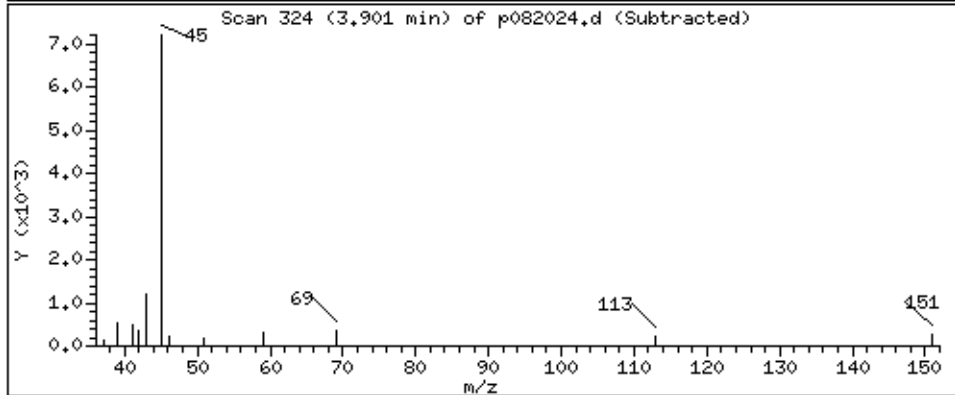
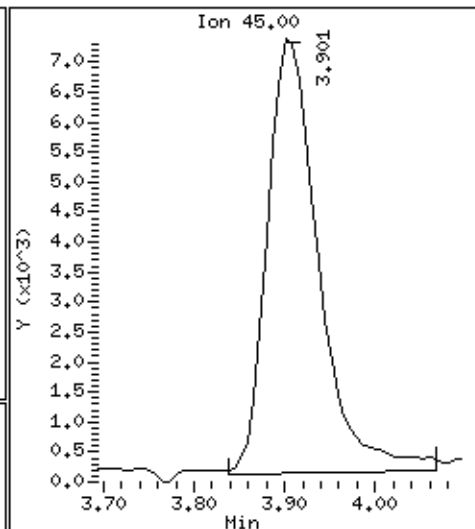
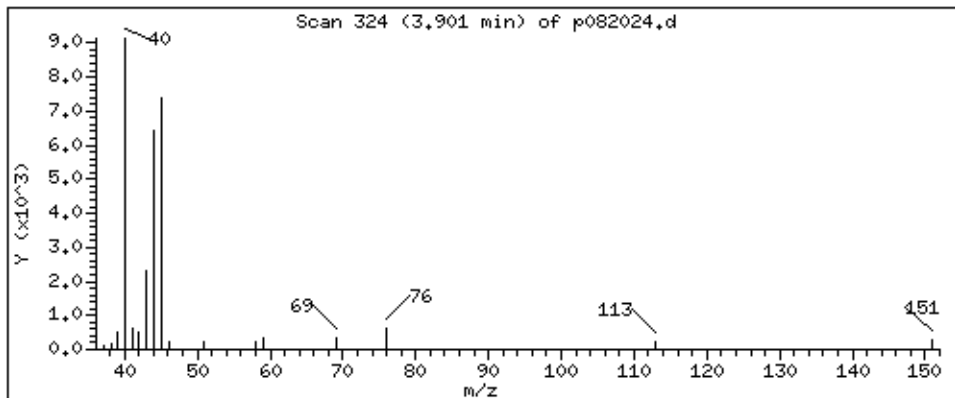
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 5.240 PPBV





Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

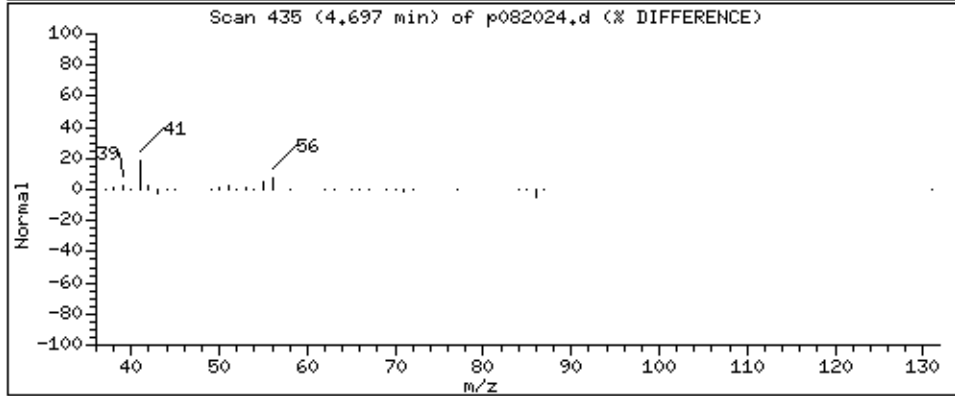
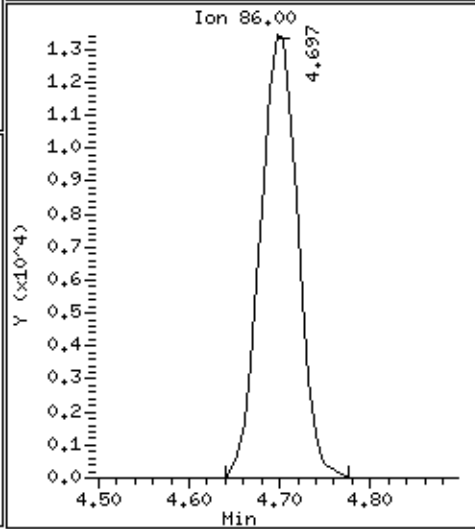
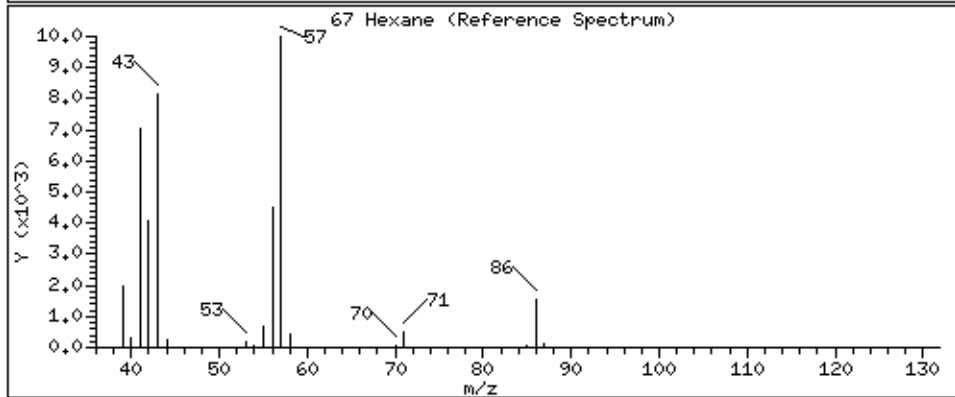
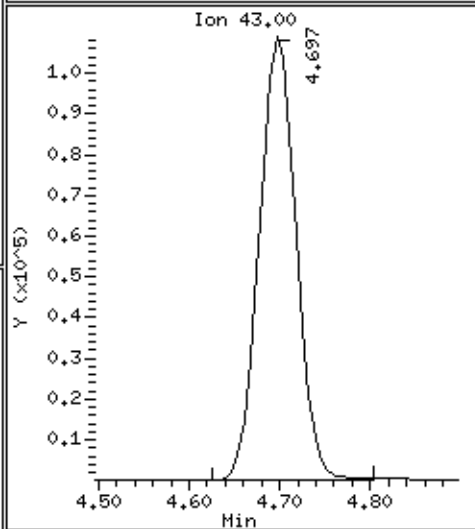
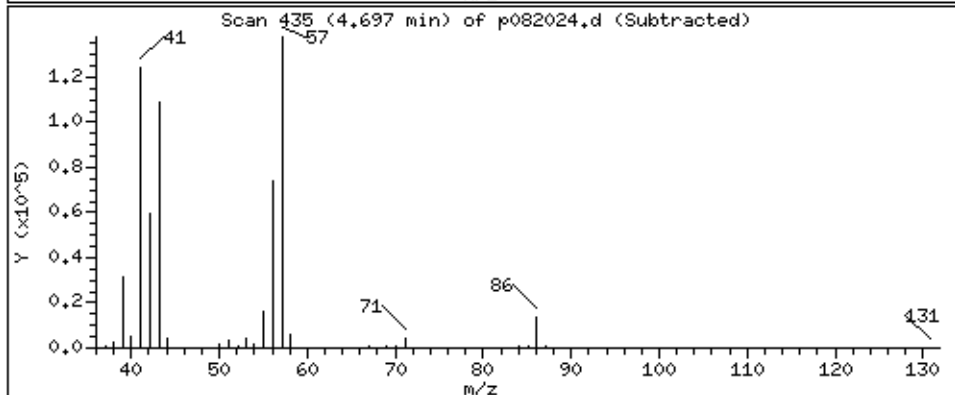
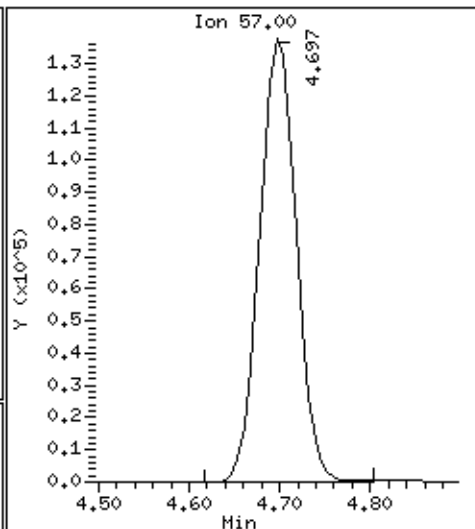
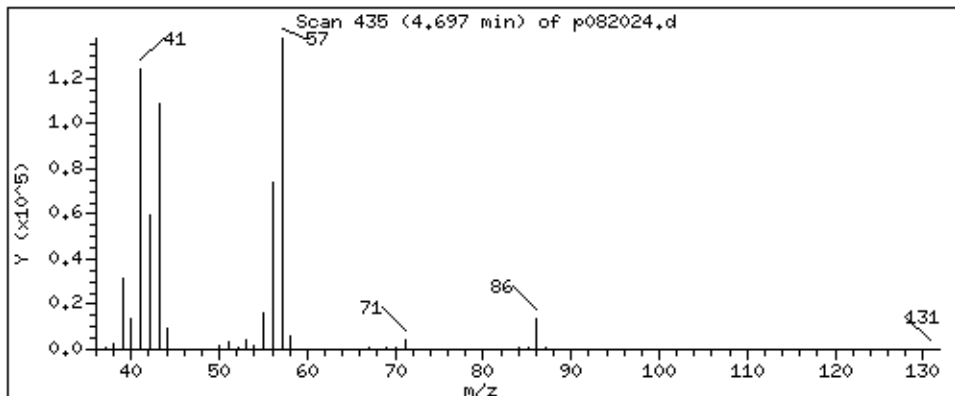
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 76.162 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

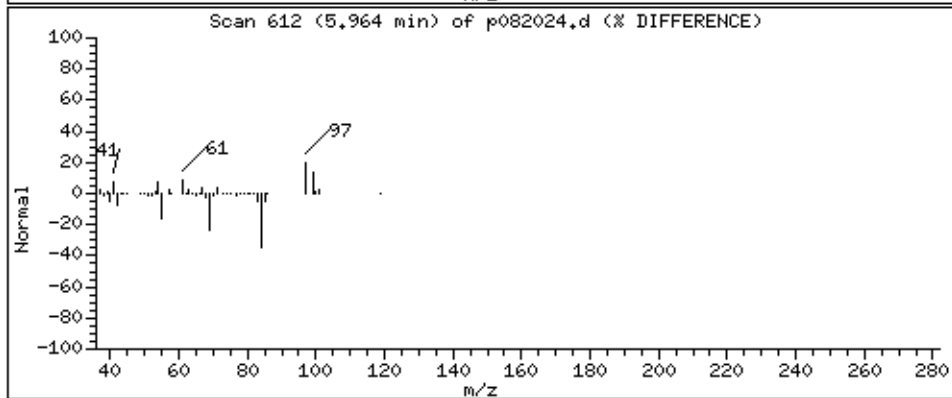
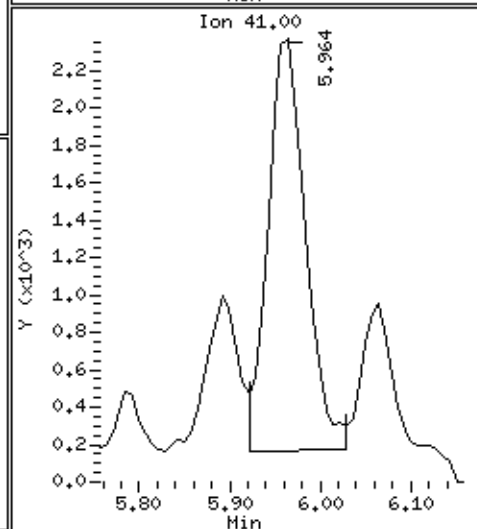
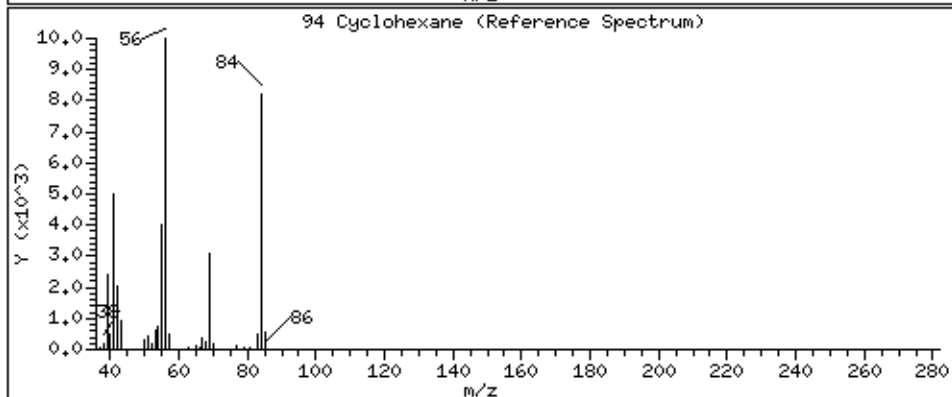
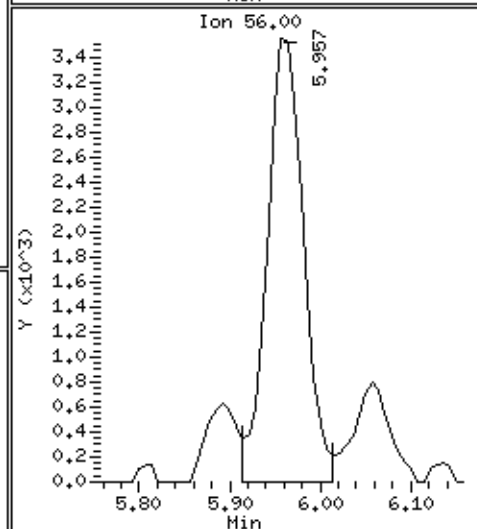
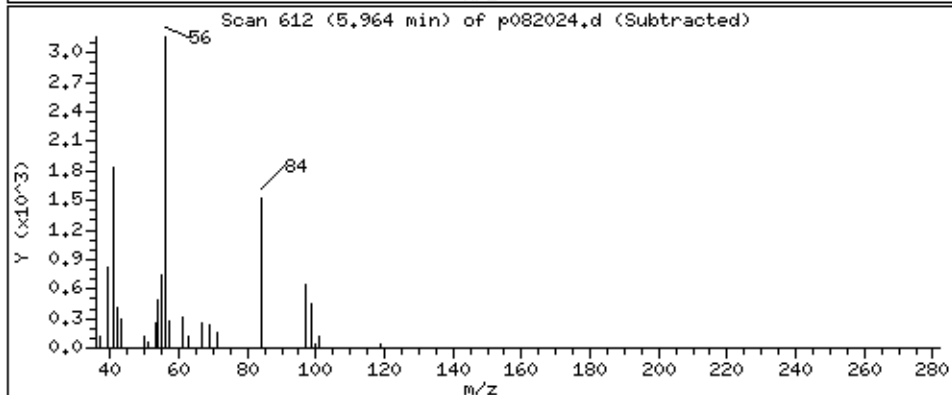
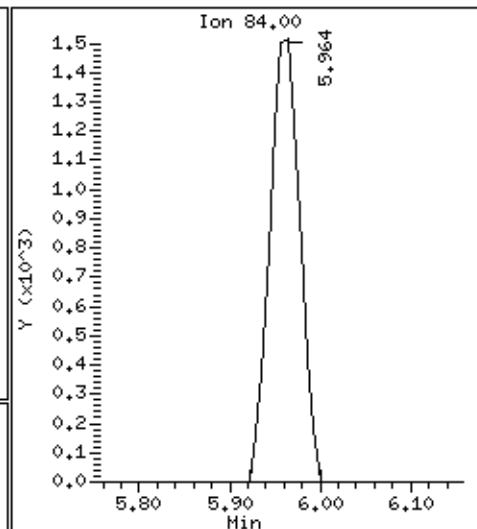
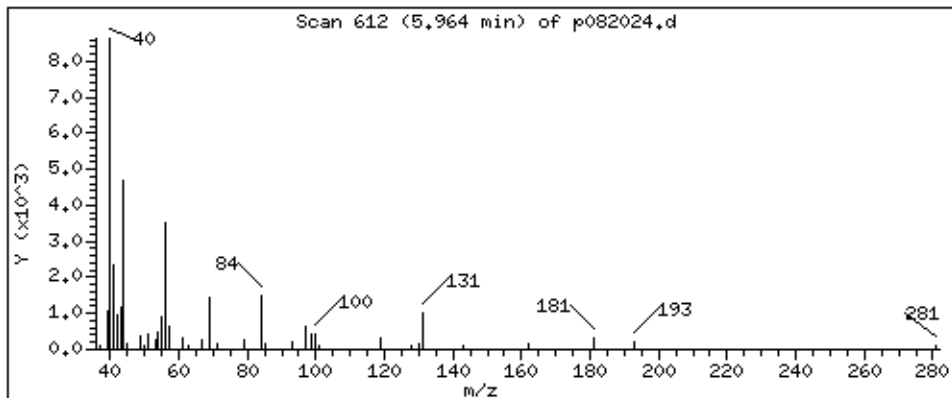
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

94 Cyclohexane

Concentration: 1,080 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

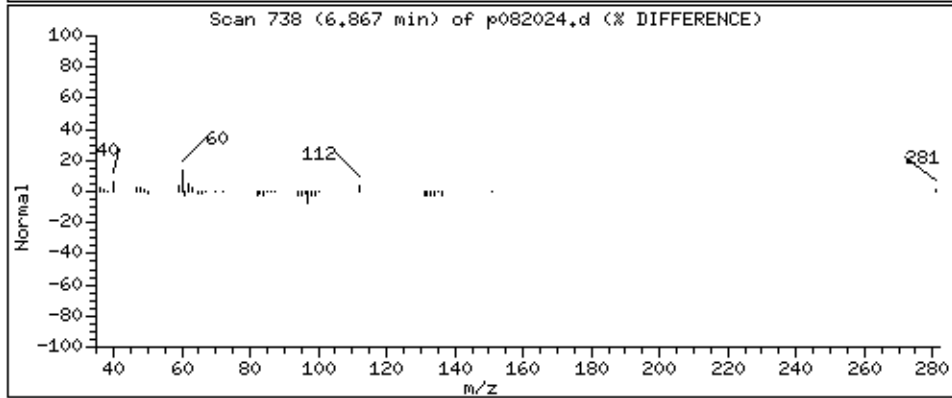
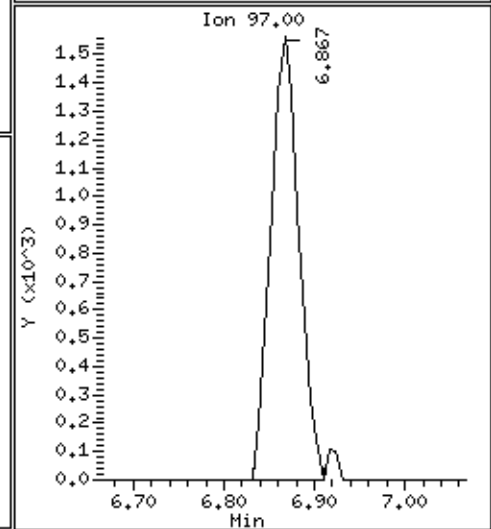
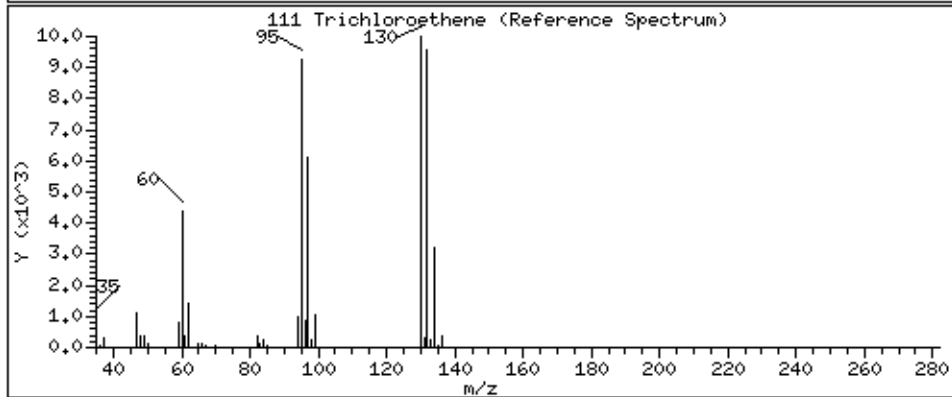
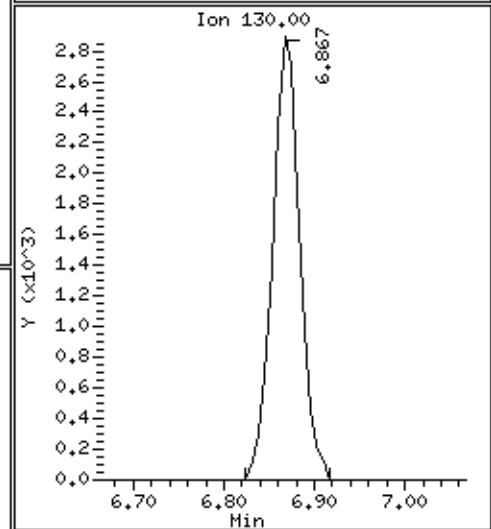
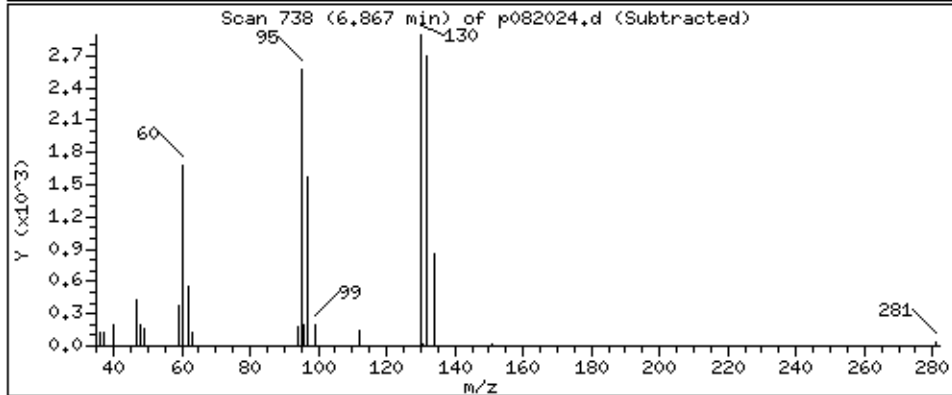
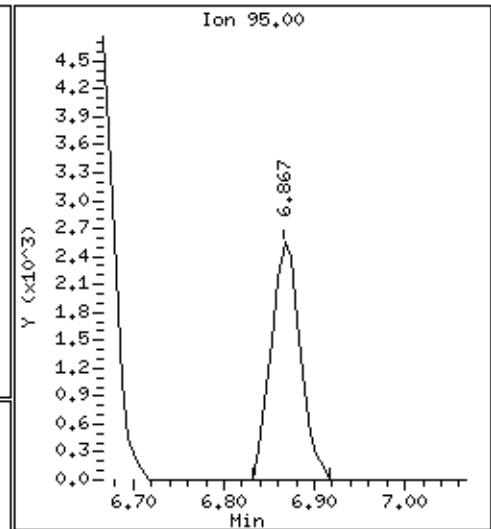
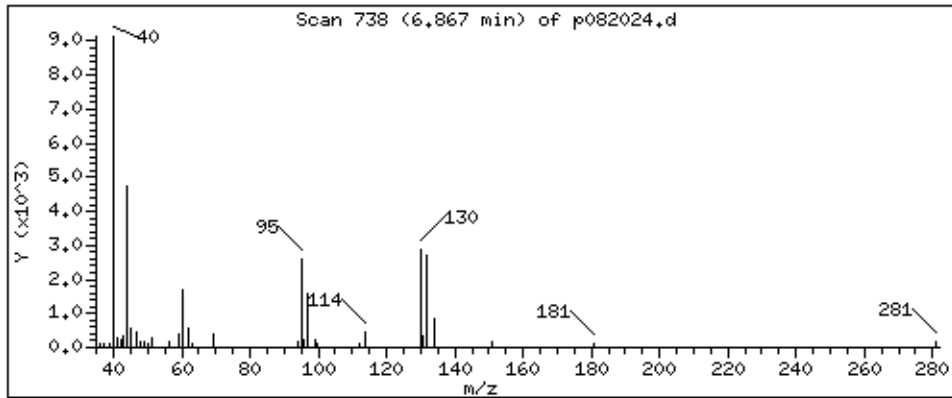
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

111 Trichloroethene

Concentration: 1,930 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

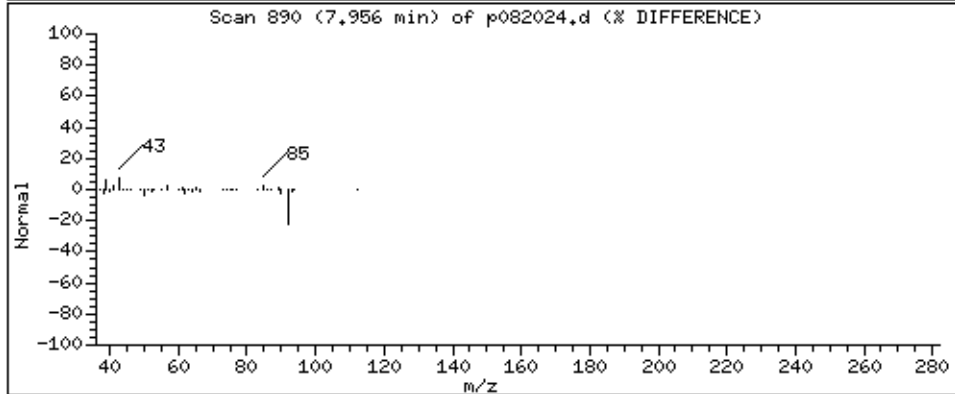
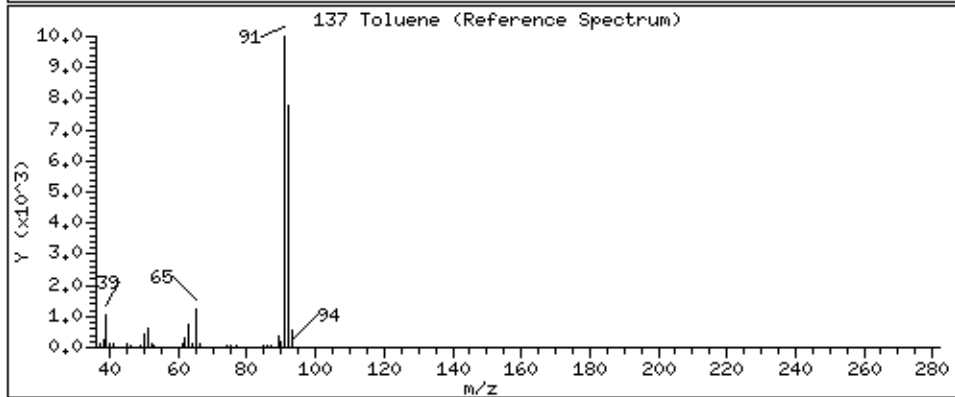
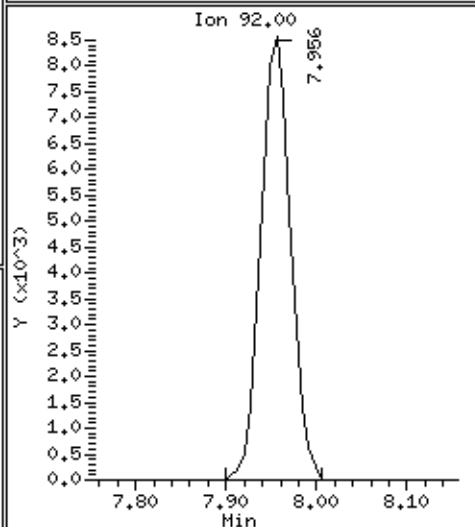
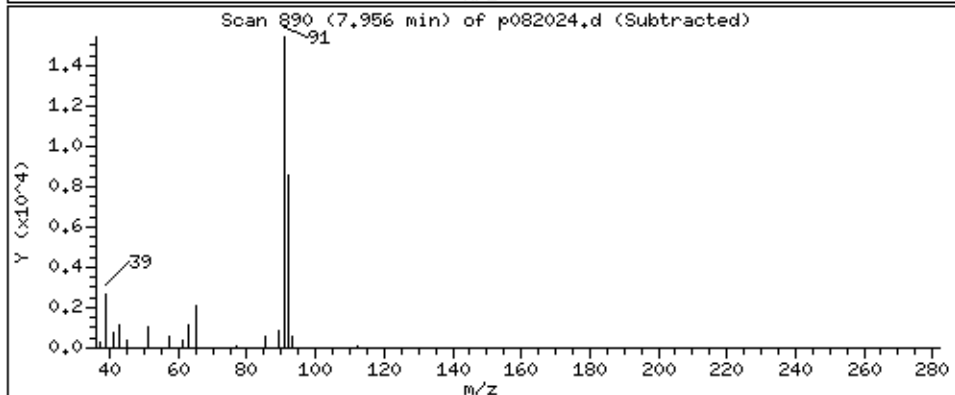
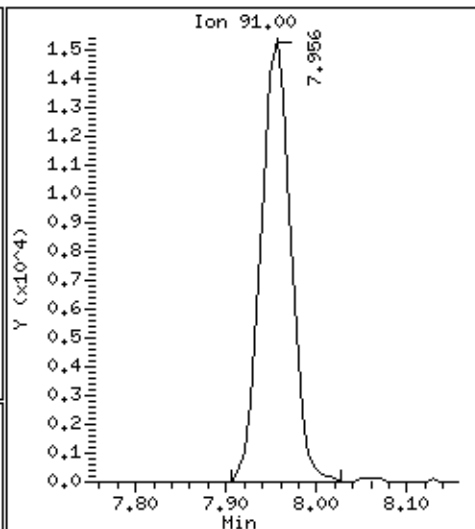
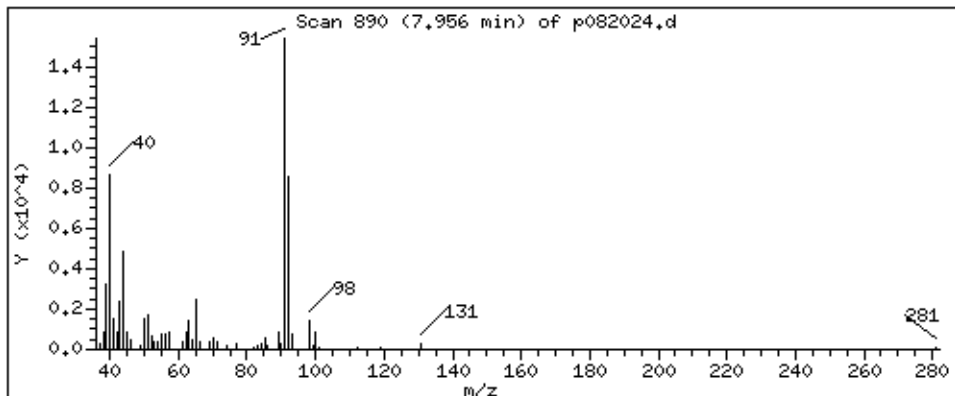
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 4.199 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

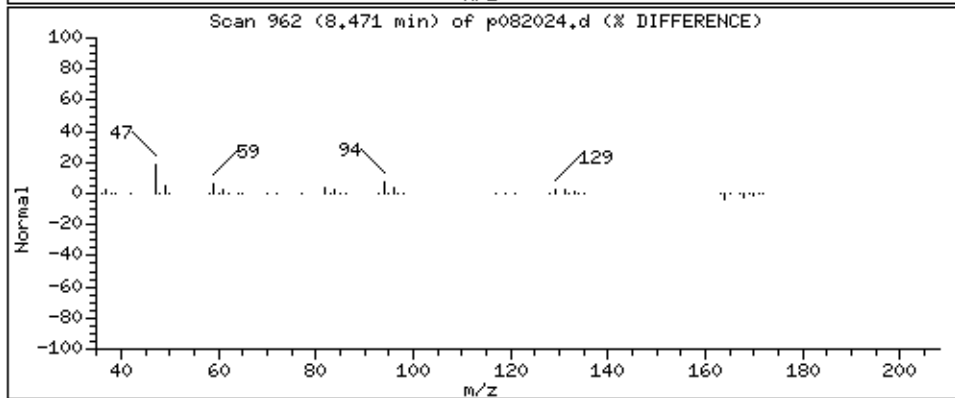
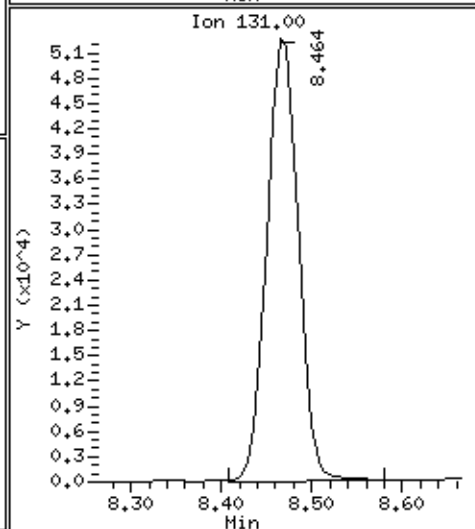
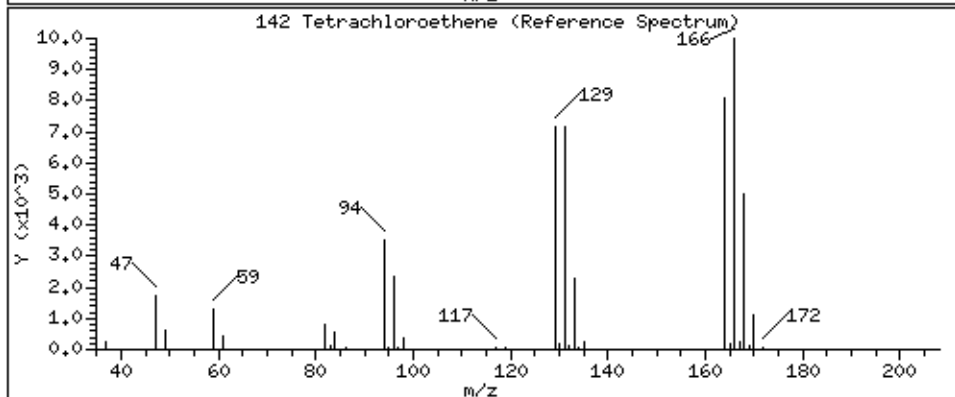
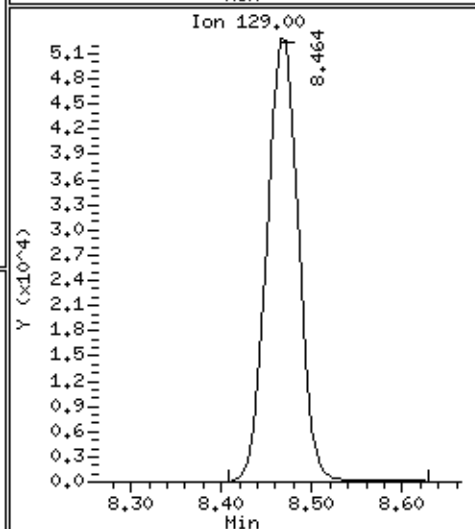
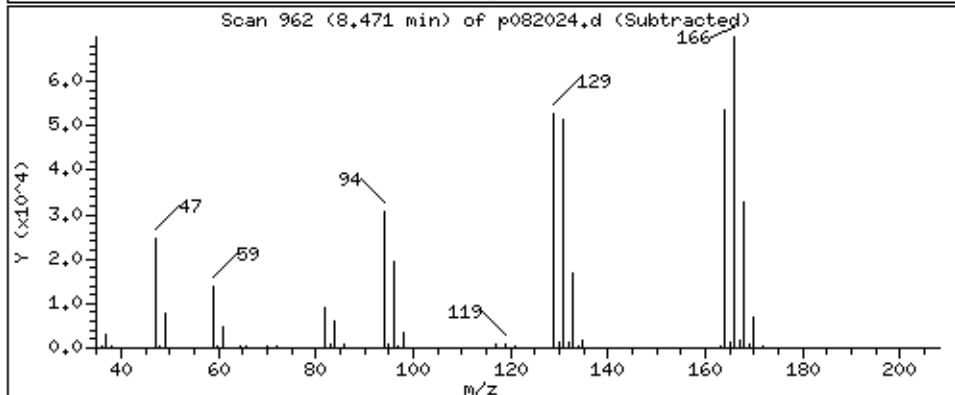
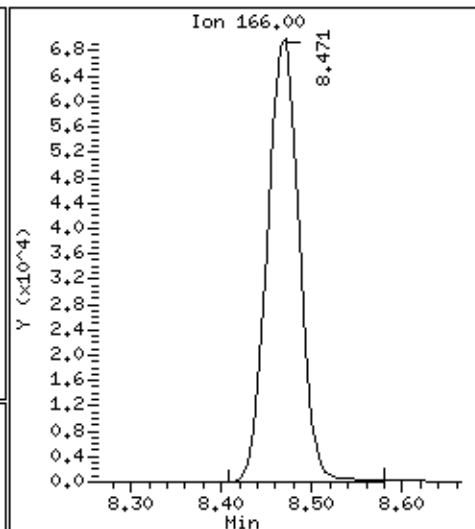
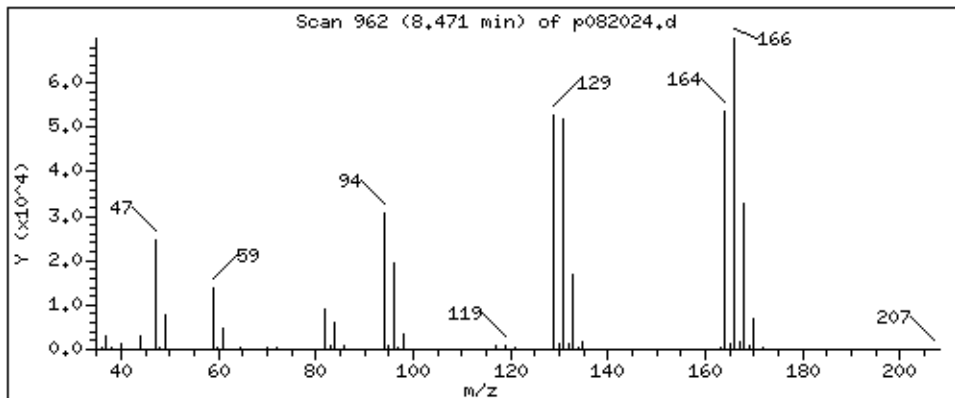
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 39,155 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

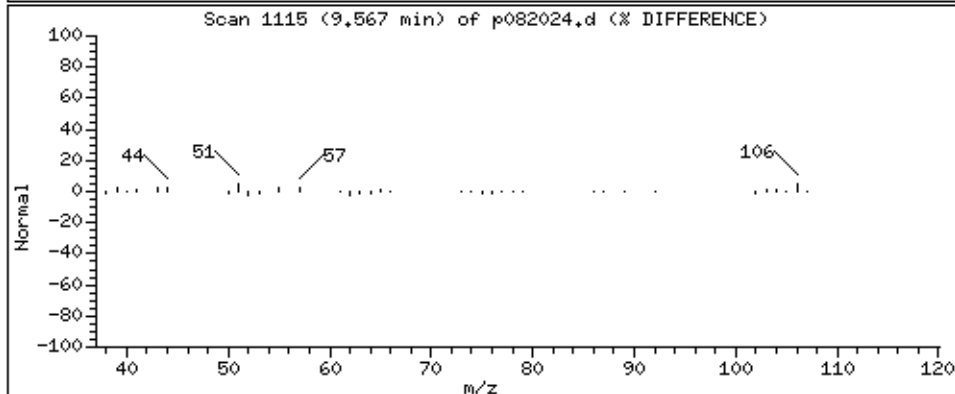
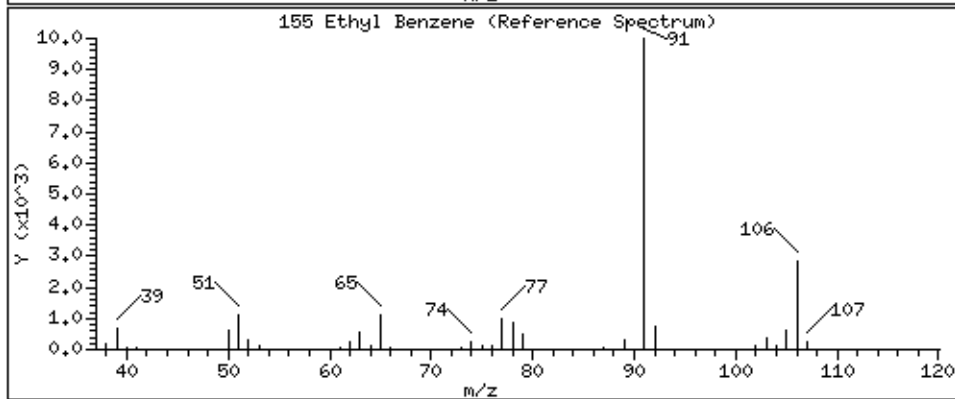
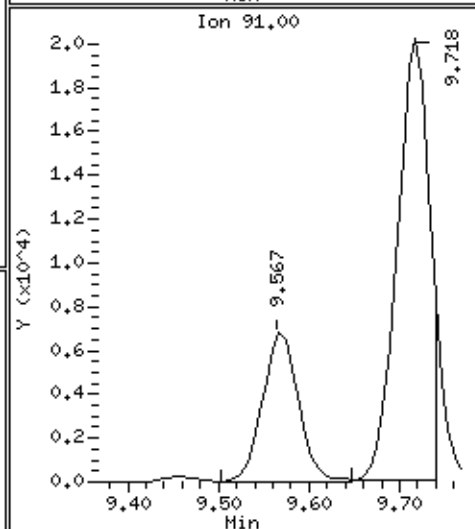
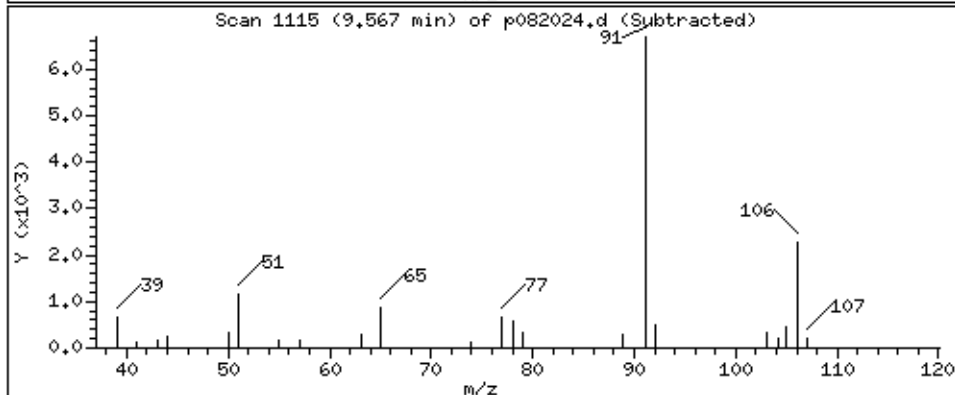
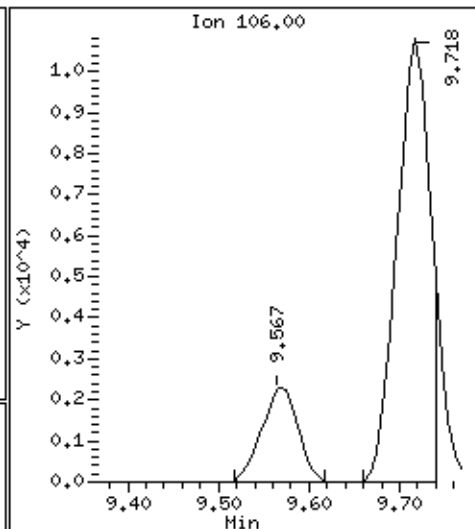
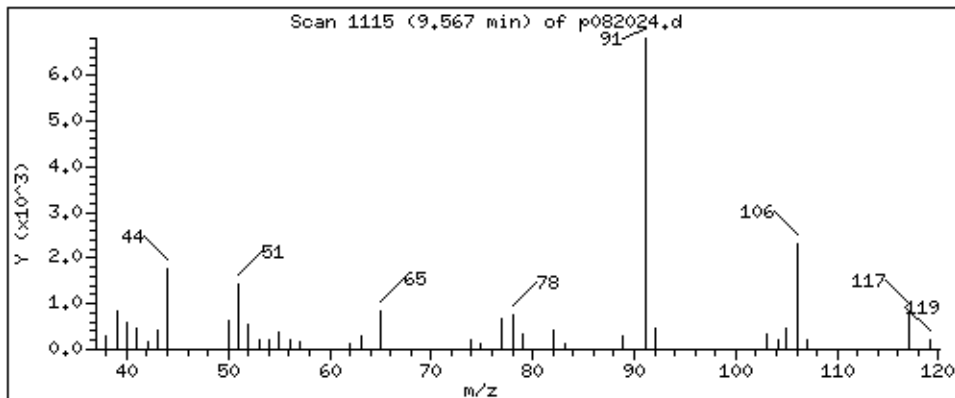
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 1,600 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

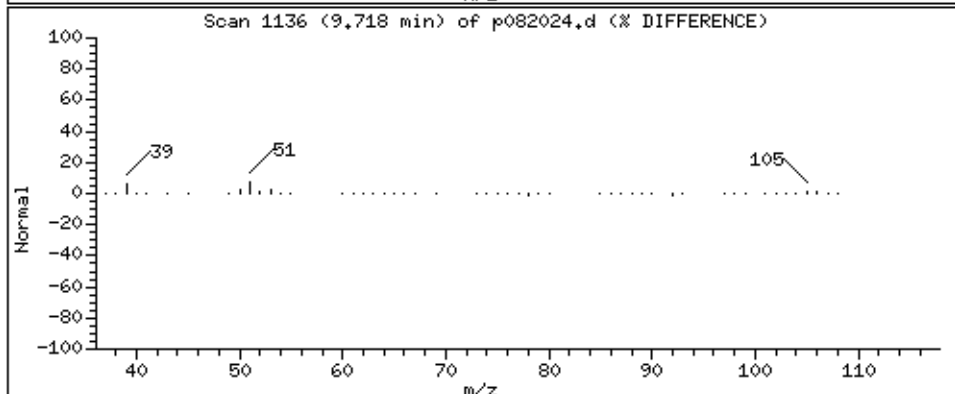
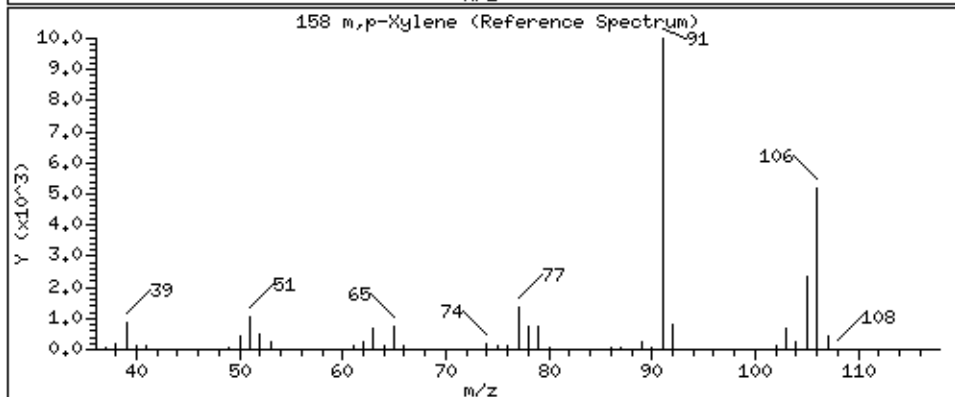
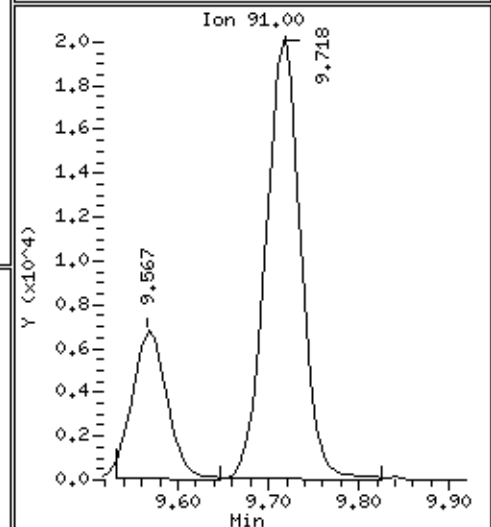
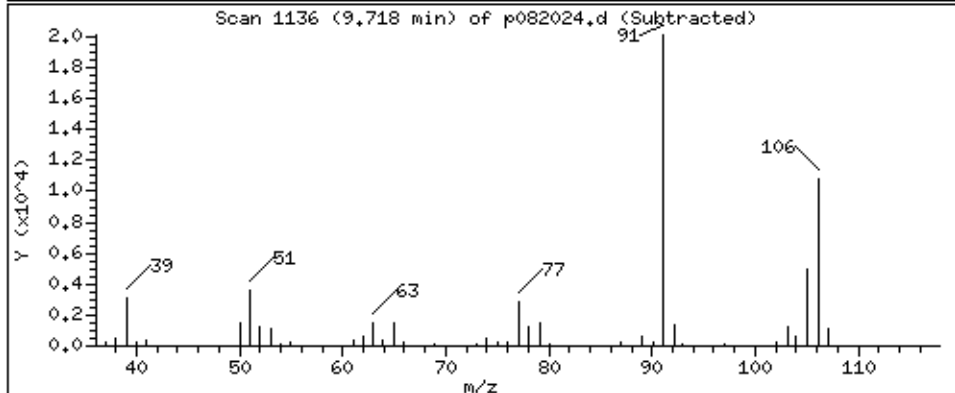
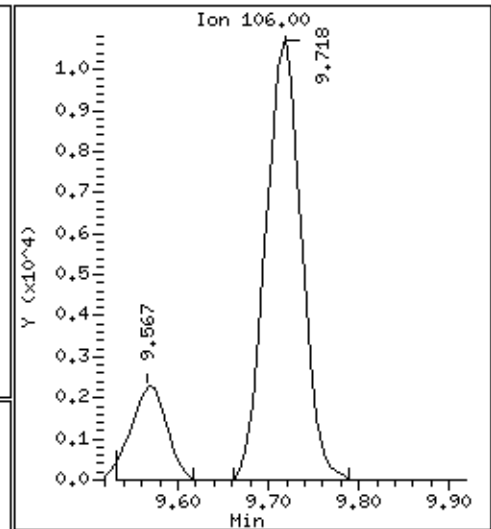
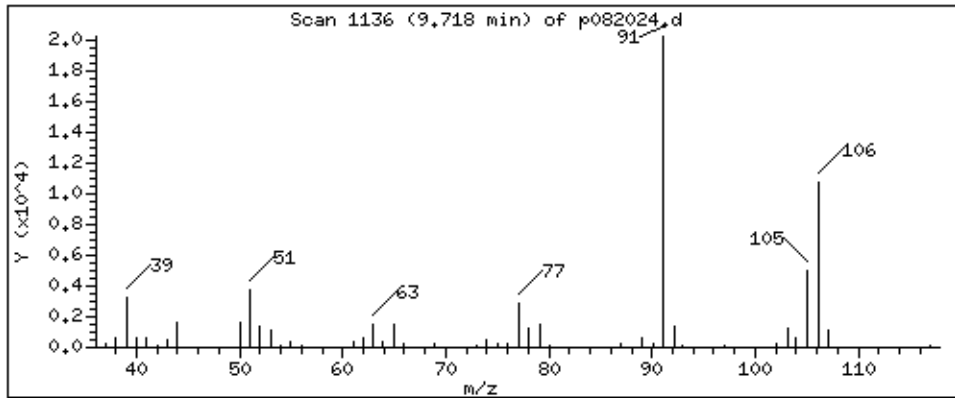
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 5.883 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

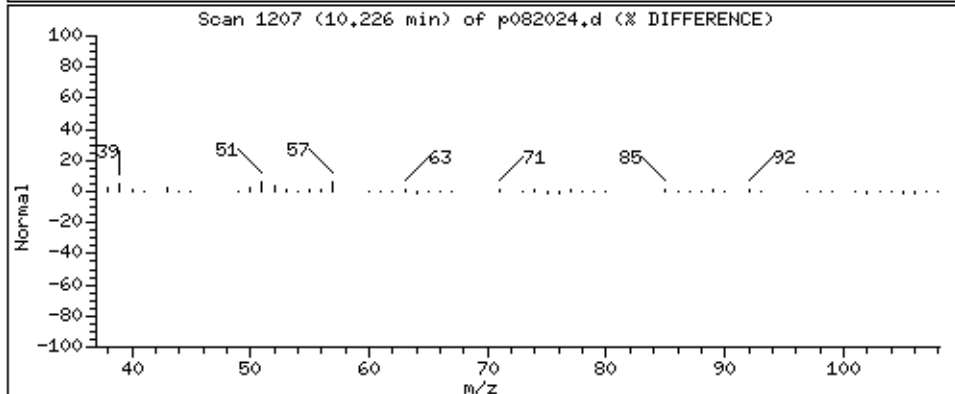
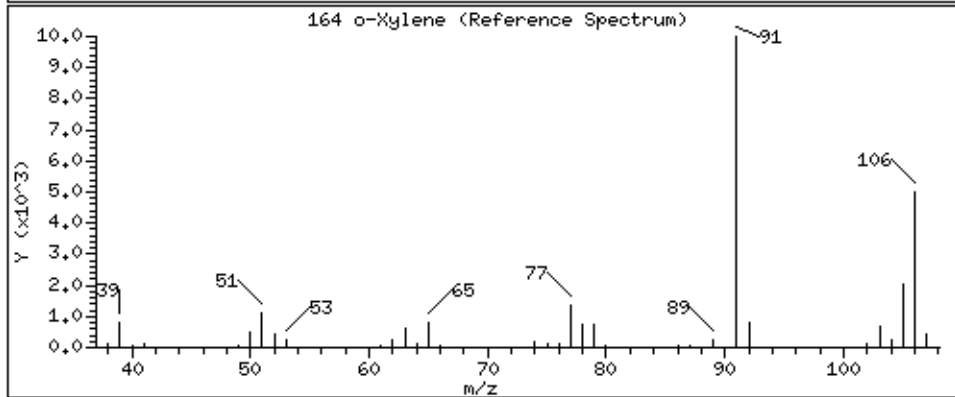
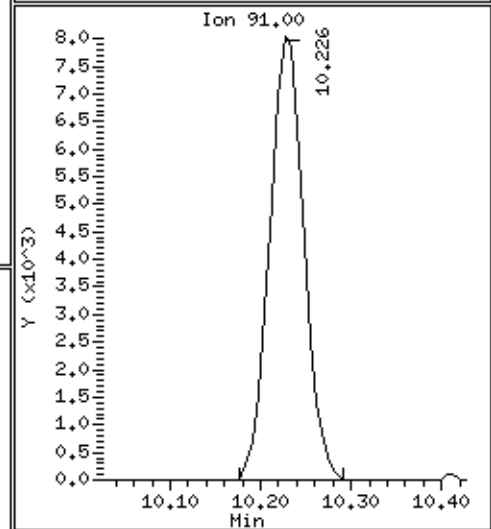
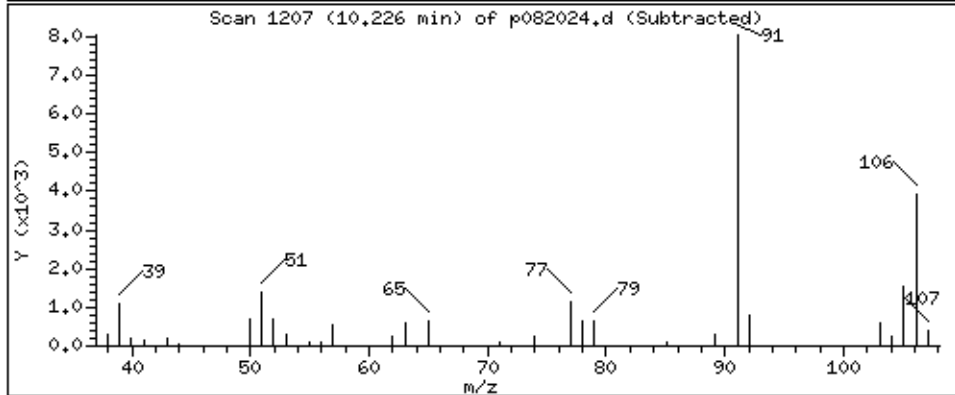
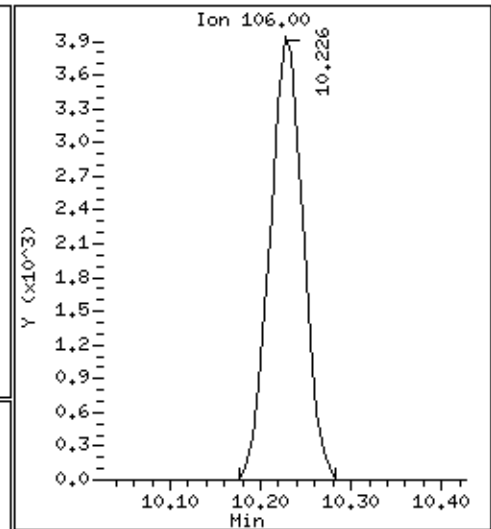
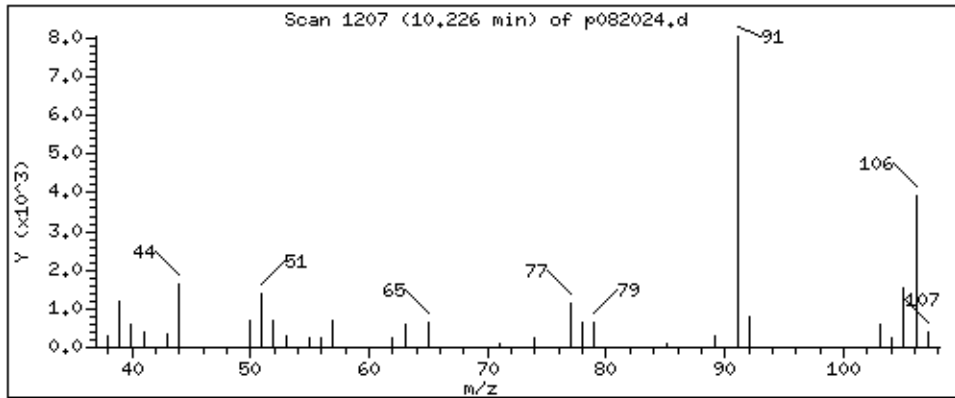
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 2,115 PPBV





Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

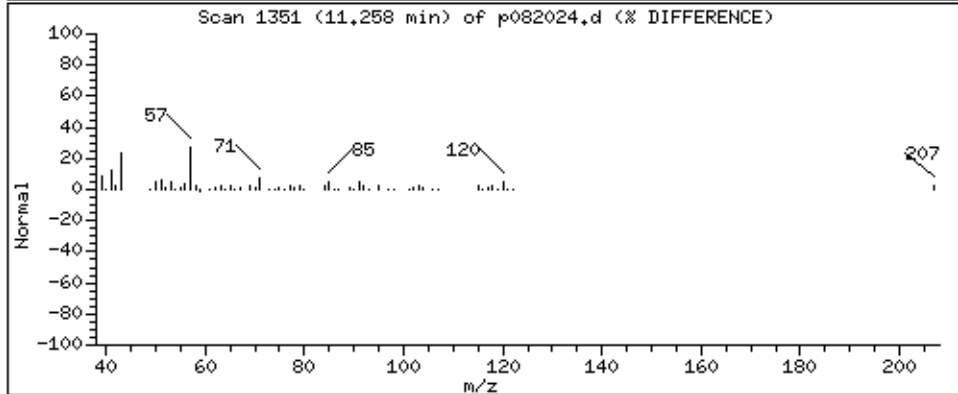
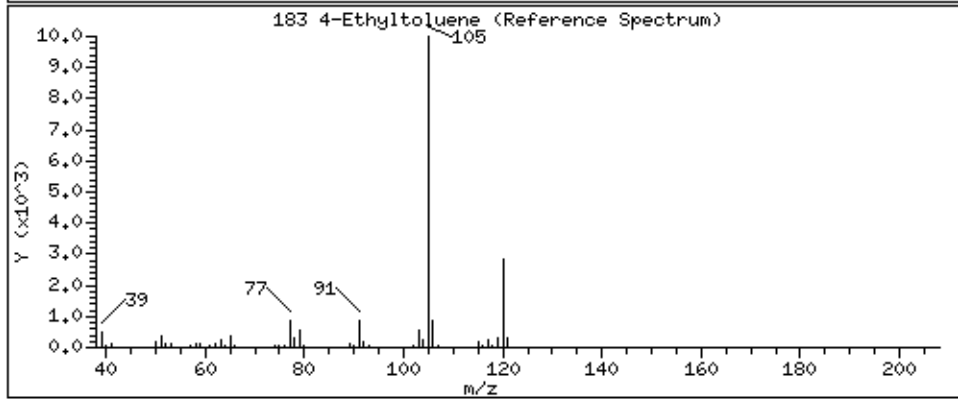
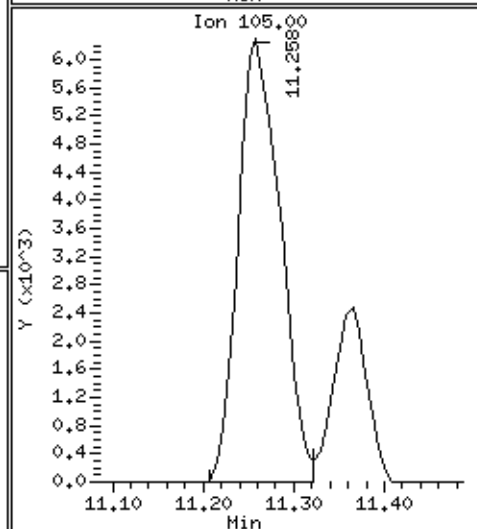
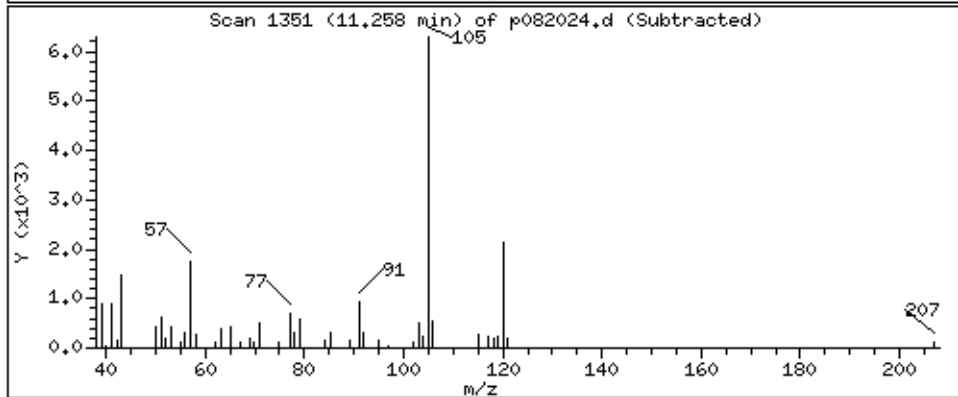
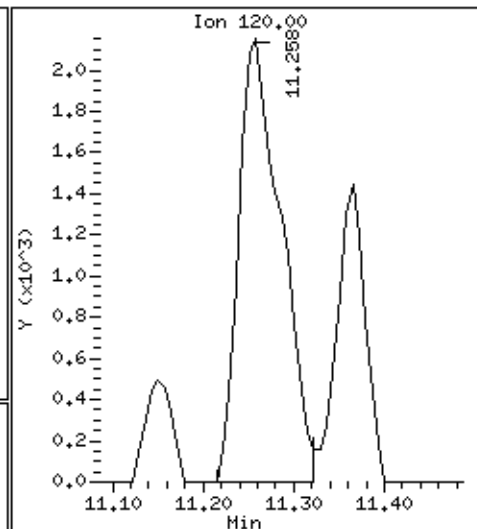
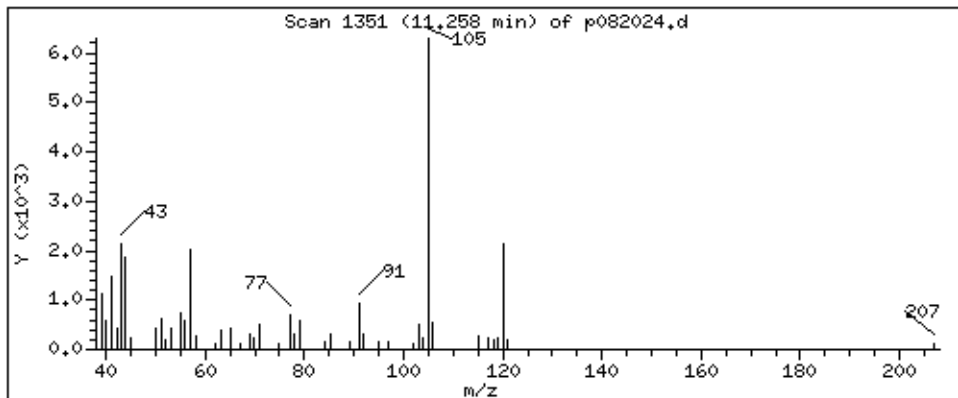
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 1.441 PPBV



Date : 21-AUG-2021 01:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 34000236

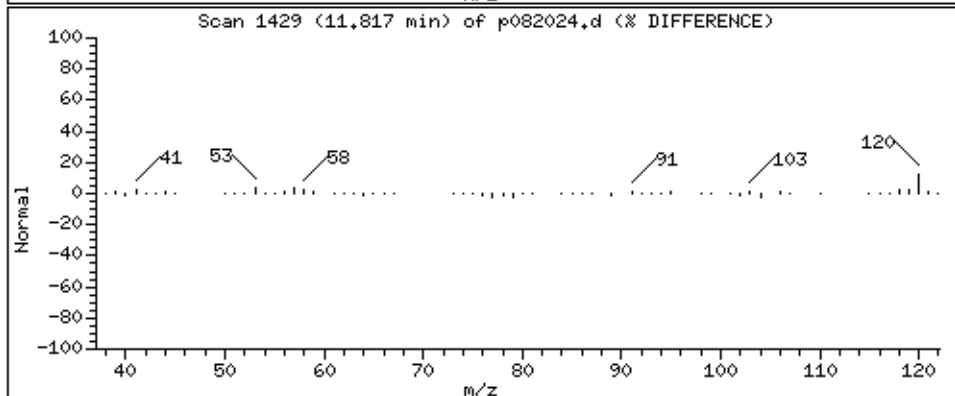
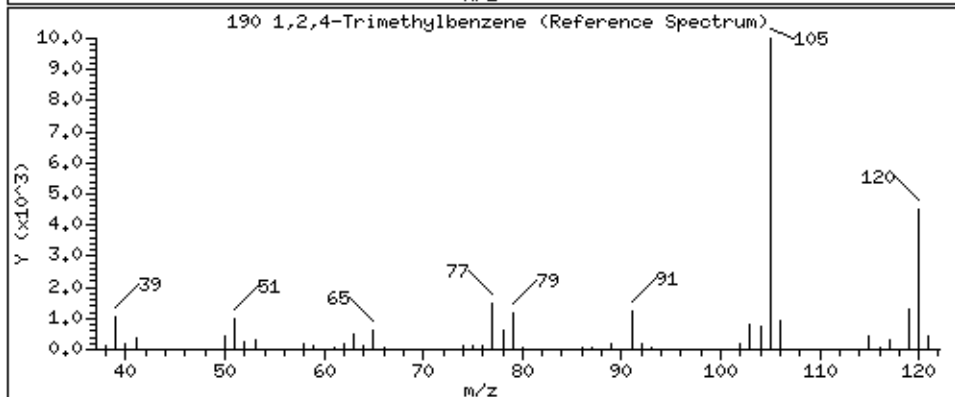
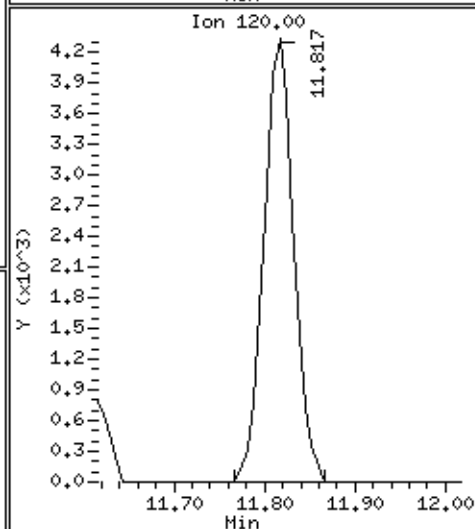
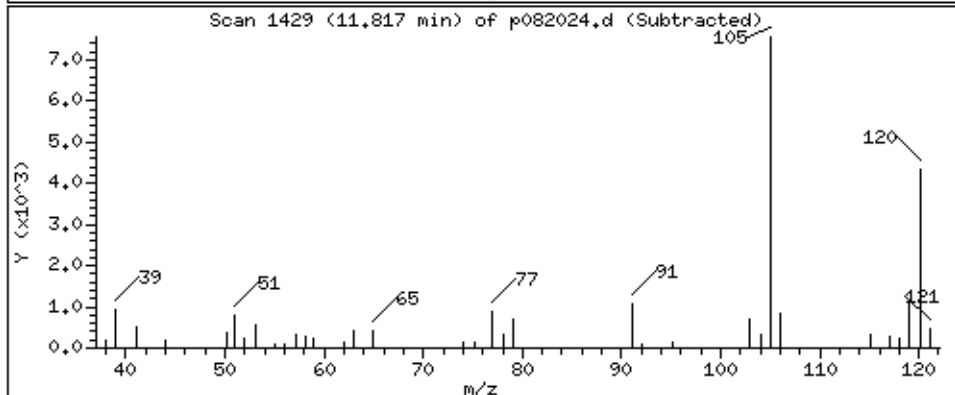
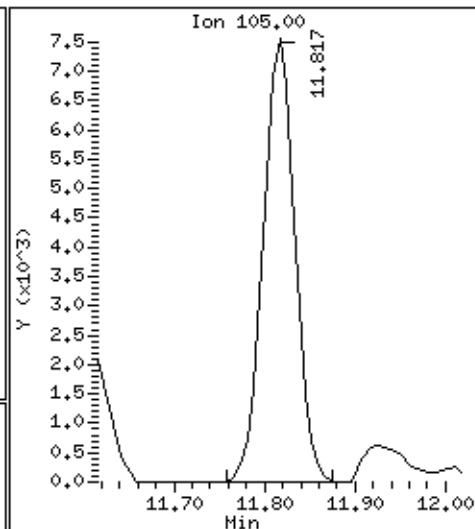
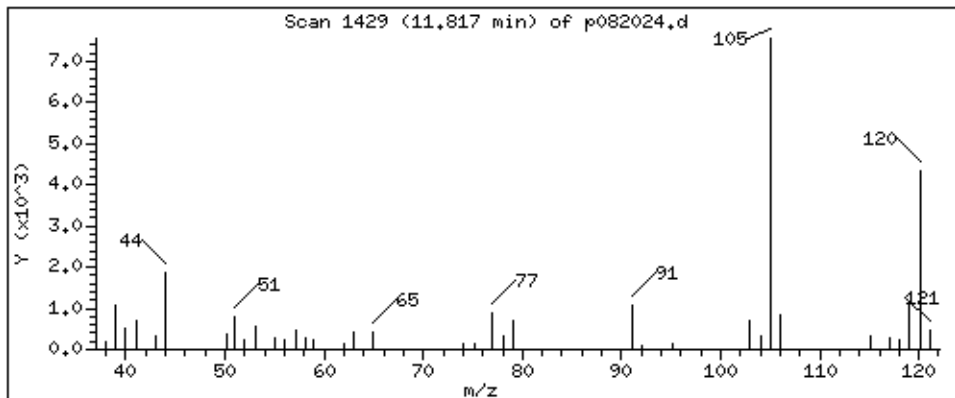
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 1.454 PPBV



Client Sample ID: SG-VW29A-03

Lab ID#: 2108390-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082025	Date of Collection:	8/17/21 9:04:00 AM
Dil. Factor:	2.14	Date of Analysis:	8/21/21 02:14 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.3	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.3	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.3	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	1.1	1.6	5.2	8.1
1,2-Dibromo-3-chloropropane	4.3	Not Detected	41	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	13	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected
2-Propanol	4.3	7.6	10	19
3-Chloropropene	4.3	Not Detected	13	Not Detected
4-Ethyltoluene	1.1	1.4	5.3	6.9
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Acetone	11	Not Detected	25	Not Detected
Acrolein	4.3	Not Detected	9.8	Not Detected
Acrylonitrile	4.3	Not Detected	9.3	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.5	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Carbon Disulfide	4.3	Not Detected	13	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Chloroform	1.1	Not Detected	5.2	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected

Client Sample ID: SG-VW29A-03

Lab ID#: 2108390-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082025	Date of Collection:	8/17/21 9:04:00 AM
Dil. Factor:	2.14	Date of Analysis:	8/21/21 02:14 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
Cumene	1.1	Not Detected	5.2	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
Dibromomethane	4.3	Not Detected	30	Not Detected
Ethanol	11	13	20	25
Ethyl Acetate	4.3	Not Detected	15	Not Detected
Ethyl Benzene	1.1	1.3	4.6	5.7
Ethyl-tert-butyl ether	4.3	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Freon 12	1.1	1.2	5.3	5.7
Freon 113	1.1	Not Detected	8.2	Not Detected
Freon 114	1.1	Not Detected	7.5	Not Detected
Freon 134a	4.3	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected
Hexachloroethane	4.3	Not Detected	41	Not Detected
Hexane	1.1	68	3.8	240
Iodomethane	11	Not Detected	62	Not Detected
Isopropyl ether	4.3	Not Detected	18	Not Detected
m,p-Xylene	1.1	4.9	4.6	21
Methyl tert-butyl ether	4.3	Not Detected	15	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.1	1.8	4.6	7.8
Propylbenzene	1.1	Not Detected	5.3	Not Detected
Propylene	4.3	Not Detected	7.4	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
tert-Amyl methyl ether	4.3	Not Detected	18	Not Detected
tert-Butyl alcohol	4.3	Not Detected	13	Not Detected
Tetrachloroethene	1.1	21	7.2	140
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Toluene	1.1	3.6	4.0	13
TPH ref. to Gasoline (MW=100)	110	120	440	490
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
Vinyl Acetate	4.3	Not Detected	15	Not Detected
Vinyl Bromide	4.3	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW29A-03

Lab ID#: 2108390-16A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082025	Date of Collection: 8/17/21 9:04:00 AM
Dil. Factor:	2.14	Date of Analysis: 8/21/21 02:14 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	103	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082025.d  
Lab Smp Id: 2108390-16A  
Inj Date : 21-AUG-2021 02:14  
Operator : kk Inst ID: msdp.i  
Smp Info : 200ml N5638  
Misc Info : 6.5 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
Meth Date : 20-Aug-2021 12:59 p5fl Quant Type: ISTD  
Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
Als bottle: 7  
Dil Factor: 2.14000  
Integrator: HP RTE Compound Sublist: AEC25677.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5		
5.785	5.785	(1.000)	130	105089	25.0000	80.00- 120.00	100.00	
5.785	5.785	(1.000)	128	83060		48.23- 108.23	79.04	
5.785	5.778	(1.000)	49	246227		150.57- 210.57	234.30	
-----								
* 108	1,4-Difluorobenzene					CAS #: 540-36-3		
6.666	6.659	(1.000)	114	372375	25.0000	80.00- 120.00	100.00	
6.666	6.659	(1.000)	88	55700		0.00- 45.71	14.96	
-----								
* 153	Chlorobenzene-d5					CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	388321	25.0000	80.00- 120.00	100.00	
9.460	9.460	(1.000)	82	195007		23.78- 83.78	50.22	
-----								
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0		
6.315	6.315	(1.092)	65	159079	27.4294	27.429 80.00- 120.00	100.00	
6.315	6.315	(1.092)	67	74429		27.21- 87.21	46.79	
-----								
\$ 134	Toluene-d8					CAS #: 2037-26-5		
7.891	7.891	(1.184)	98	408983	25.2927	25.293 80.00- 120.00	100.00	
7.891	7.891	(1.184)	70	45960		0.00- 40.44	11.24	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	264970			34.95- 94.95	64.79
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	256121	25.6849	25.685	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	295202			95.92- 155.92	115.26
10.921	10.921	(1.154)	176	242556			66.89- 126.89	94.70
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.731	1.717	(0.299)	85	5075	0.53844	1.152	80.00- 120.00	100.00
1.731	1.717	(0.299)	87	1760			2.37- 62.37	34.68
-----								
39 Ethanol								
						CAS #: 64-17-5		
3.250	3.242	(0.562)	46	6500	6.23704	13.347	80.00- 120.00	100.00
3.257	3.285	(0.563)	45	17658			511.19- 571.19	271.67
-----								
52 2-Propanol								
						CAS #: 67-63-0		
3.909	3.894	(0.676)	45	39461	3.55389	7.605	80.00- 120.00	100.00
3.901	3.894	(0.674)	43	7888			0.00- 47.19	19.99
-----								
67 Hexane								
						CAS #: 110-54-3		
4.704	4.697	(0.813)	57	330914	31.9647	68.404	80.00- 120.00	100.00
4.704	4.697	(0.813)	43	267018			37.52- 97.52	80.69
4.704	4.697	(0.813)	86	33624			0.00- 41.48	10.16
-----								
137 Toluene								
						CAS #: 108-88-3		
7.956	7.956	(1.193)	91	28293	1.66885	3.571	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	15976			28.38- 88.38	56.47
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
8.471	8.464	(0.895)	166	85688	9.68209	20.720	80.00- 120.00	100.00
8.471	8.464	(0.895)	129	63807			47.84- 107.84	74.47
8.471	8.464	(0.895)	131	61187			45.29- 105.29	71.41
-----								
155 Ethyl Benzene								
						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	4917	0.60983	1.305	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	15956			273.74- 333.74	324.50
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	23062	2.28374	4.887	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	46150			163.73- 223.73	200.11
-----								
164 o-Xylene								
						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	8115	0.83873	1.795	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	17803			177.45- 237.45	219.38
-----								

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene					CAS #: 622-96-8			
11.258	11.287	(1.190)	120	6393	0.65231	1.396	80.00- 120.00	100.00
11.258	11.287	(1.190)	105	20088			284.55- 344.55	314.20
-----								
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
11.817	11.817	(1.249)	105	19659	0.77188	1.652	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	9436			19.05- 79.05	48.00
-----								



US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p082025.d  
Lab Smp Id: 2108390-16A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: kk  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.5 Hg->10 psi

Calibration Date: 20-AUG-2021  
Calibration Time: 11:13  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	105089	-3.92
108 1,4-Difluorobenze	406799	244079	569519	372375	-8.46
153 Chlorobenzene-d5	400841	240505	561177	388321	-3.12

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Report Date: 24-Aug-2021 11:48

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-16A  
Level: LOW Operator: kk  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.5 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.429	109.72	70-130
\$ 134 Toluene-d8	25.000	25.293	101.17	70-130
\$ 170 4-Bromofluorobenz	25.000	25.685	102.74	70-130

Date : 21-AUG-2021 02:14

Client ID:

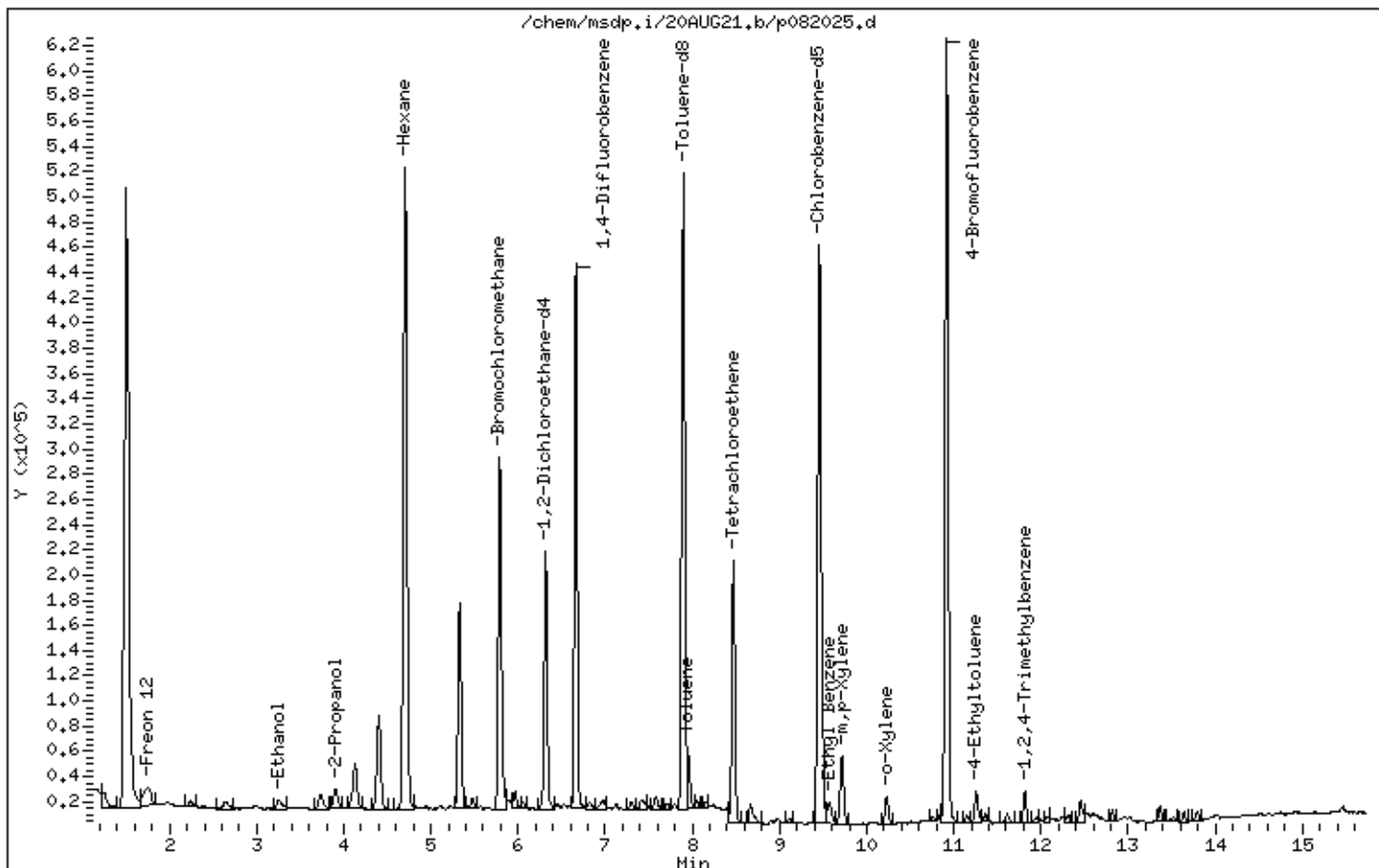
Instrument: msdp.i

Sample Info: 200ml N5638

Operator: kk

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

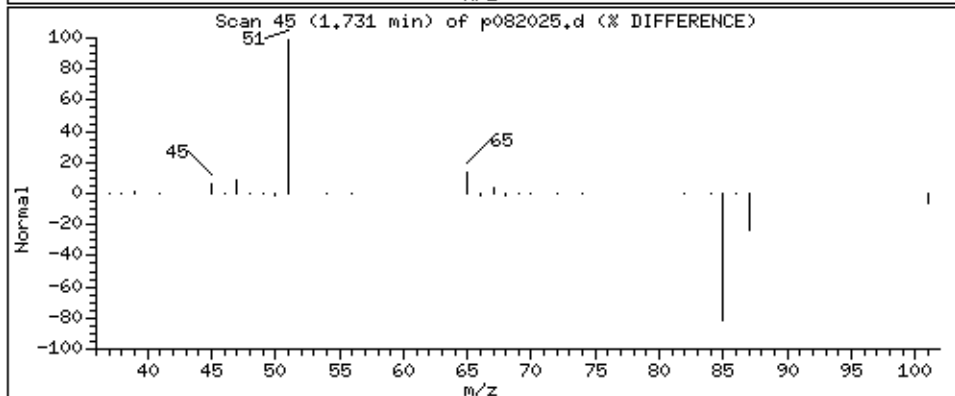
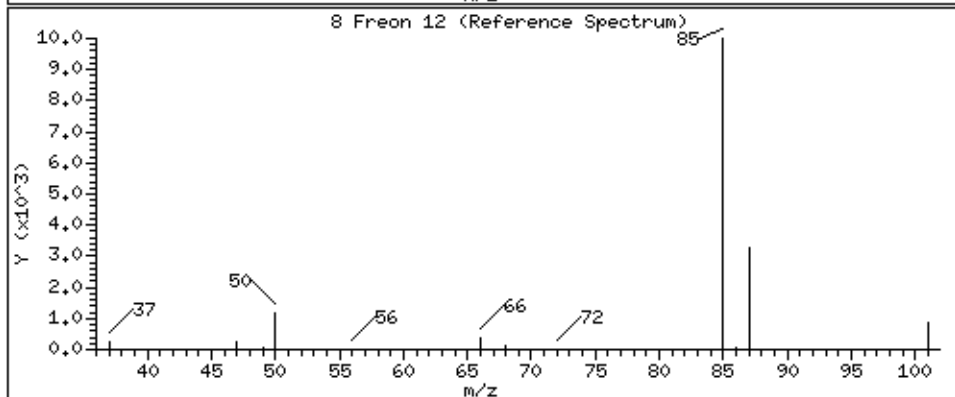
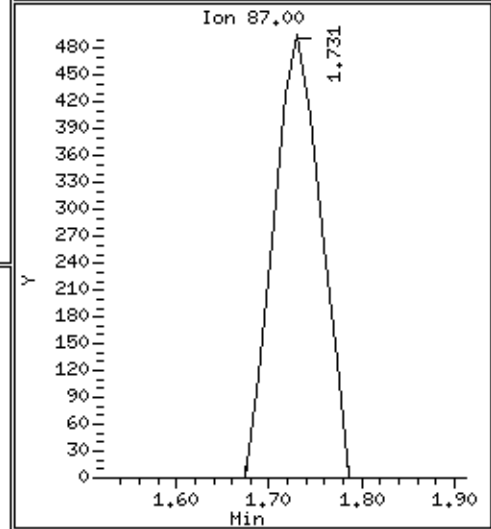
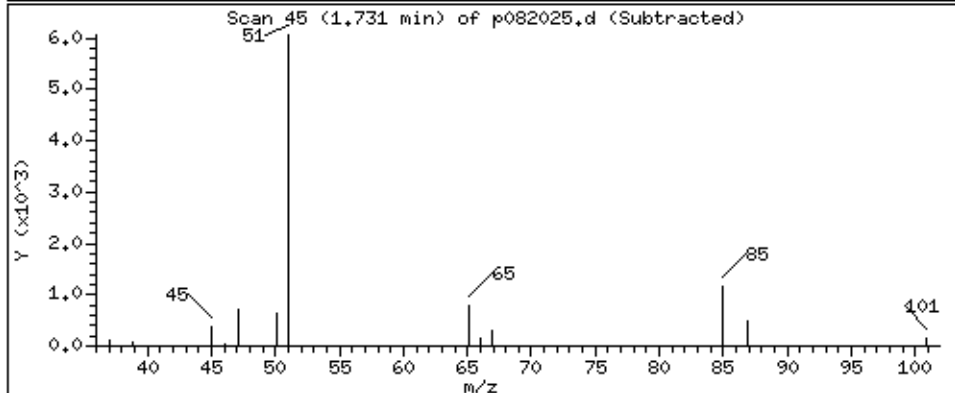
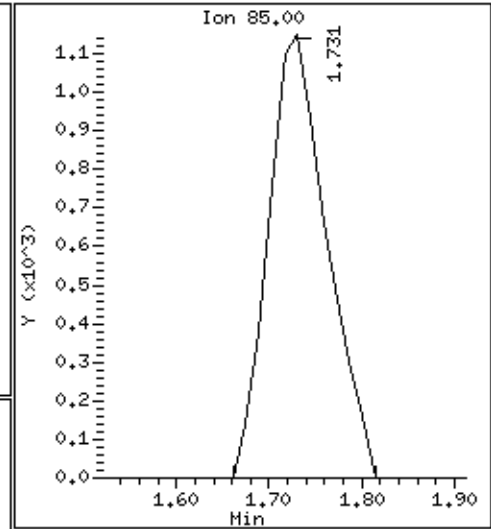
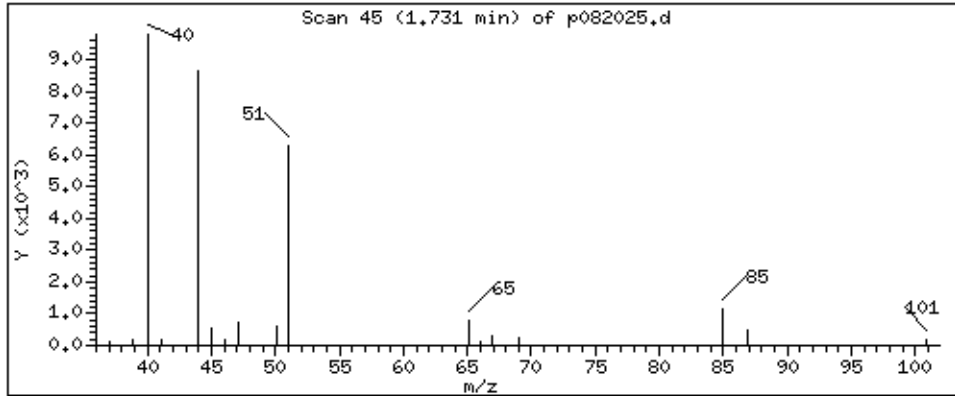
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 1,152 PPBV



Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

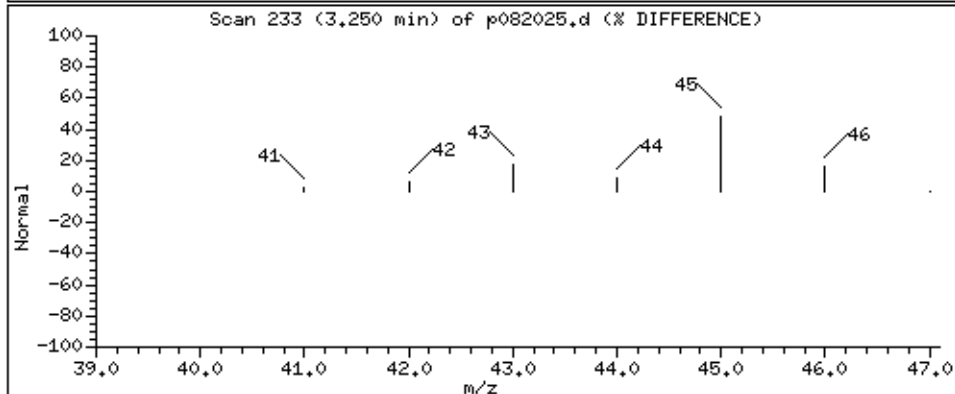
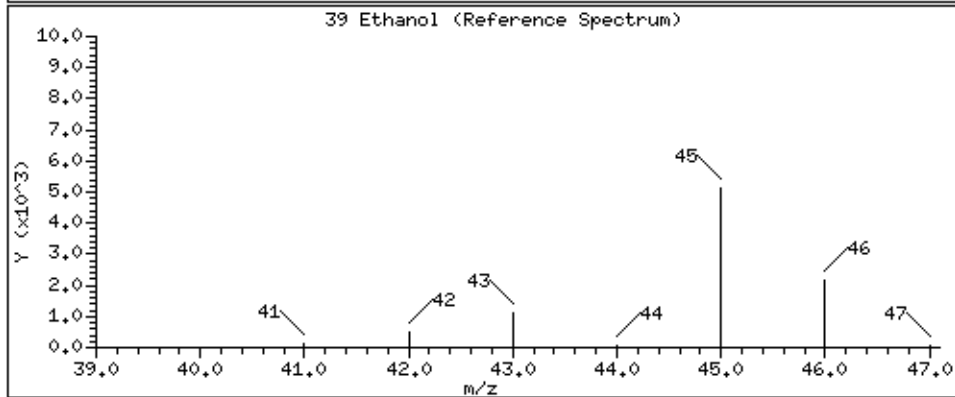
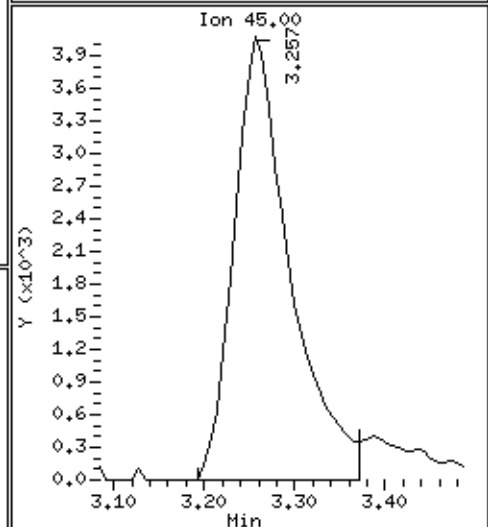
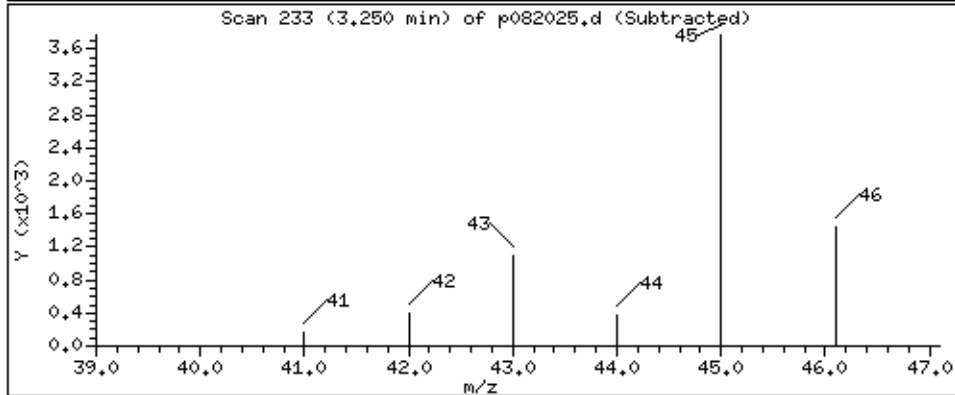
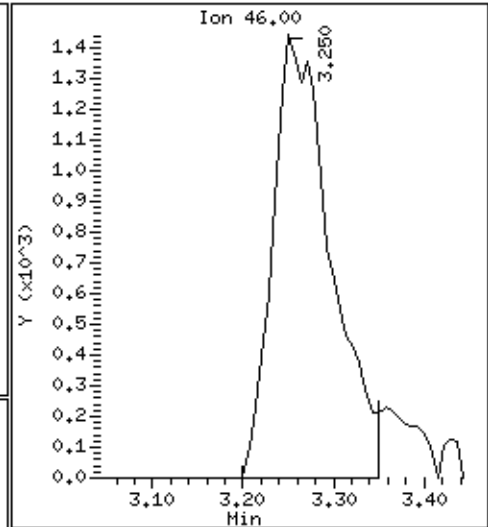
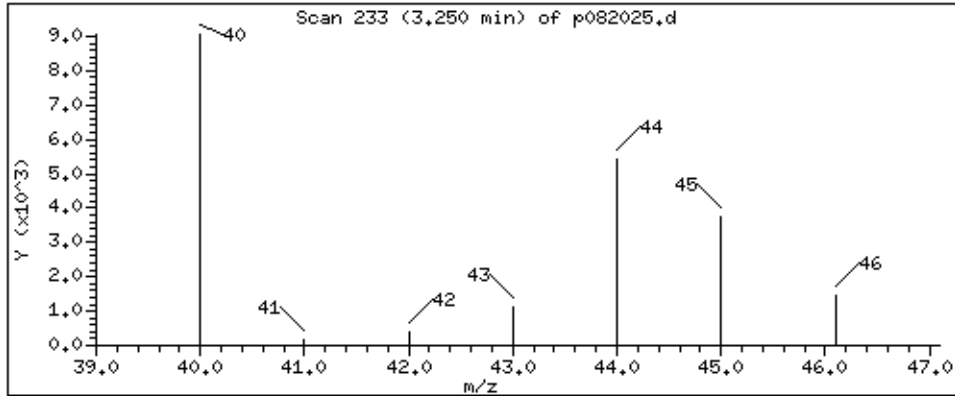
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 13,347 PPBV



Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

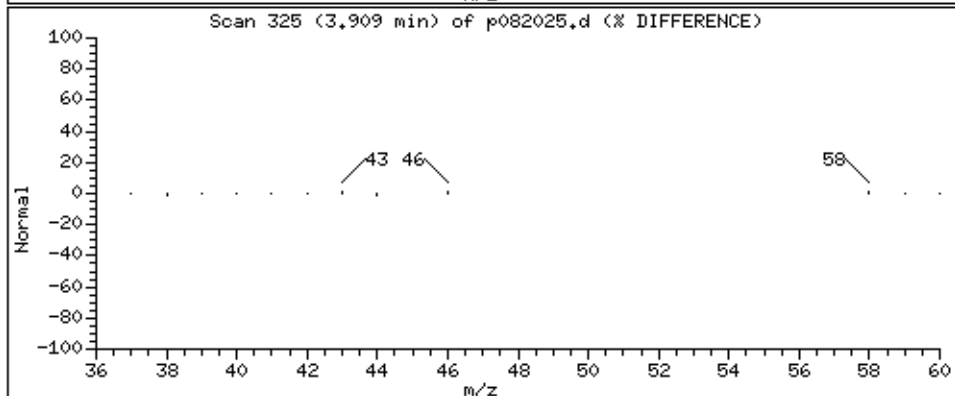
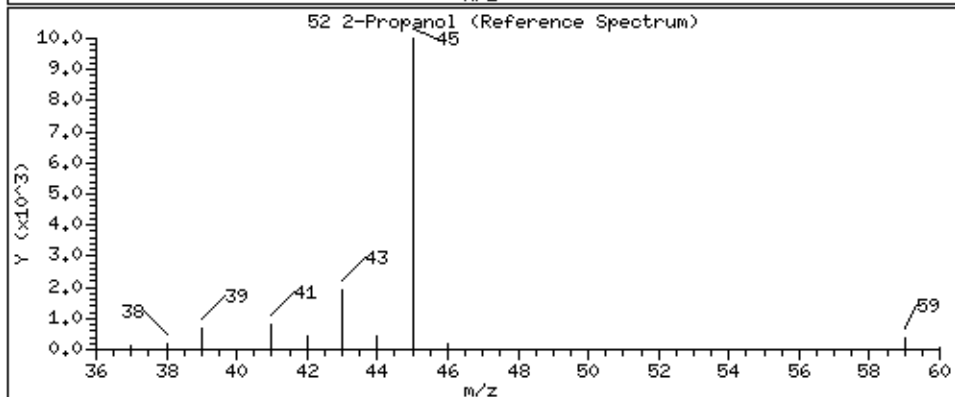
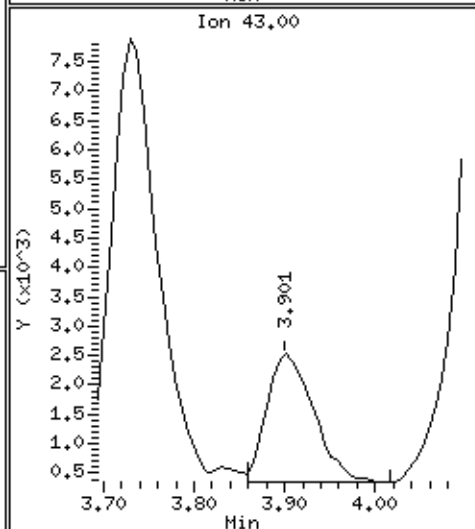
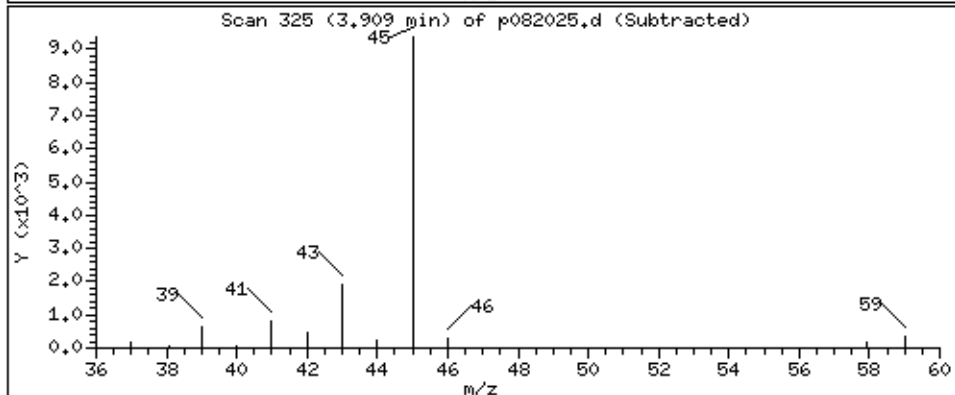
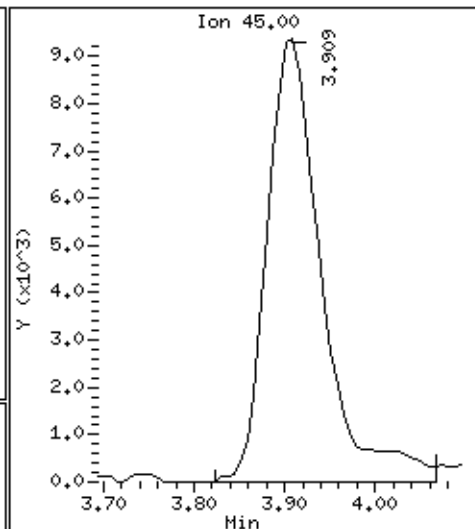
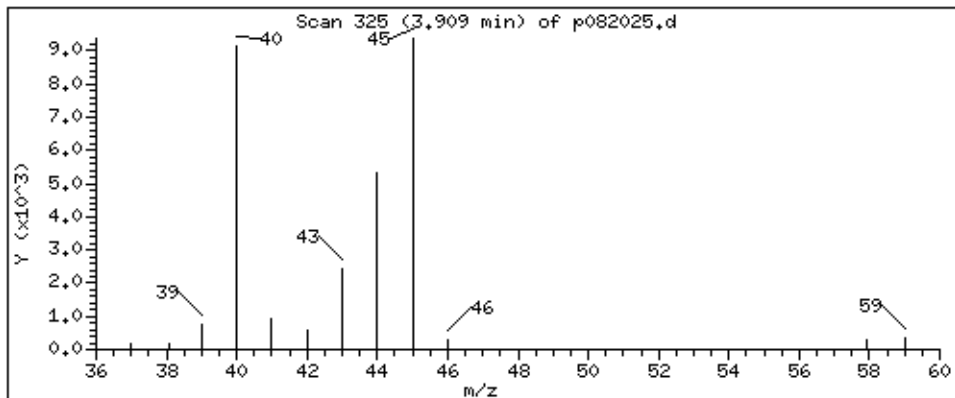
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 7.605 PPBV



Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

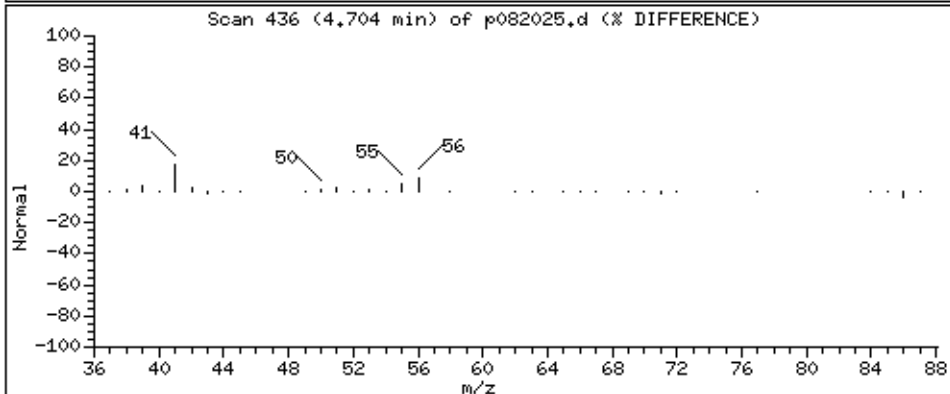
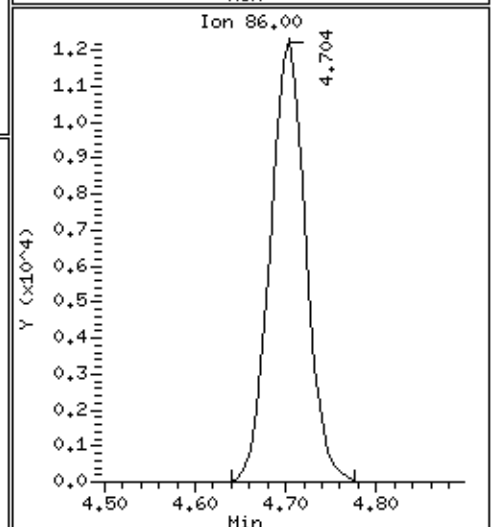
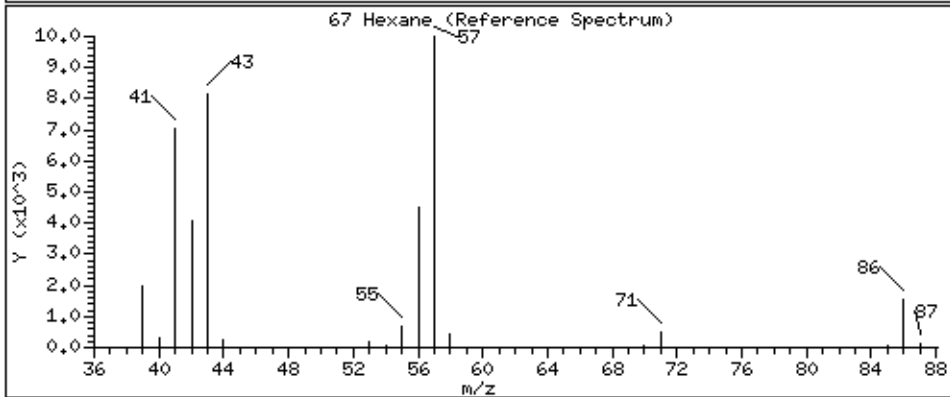
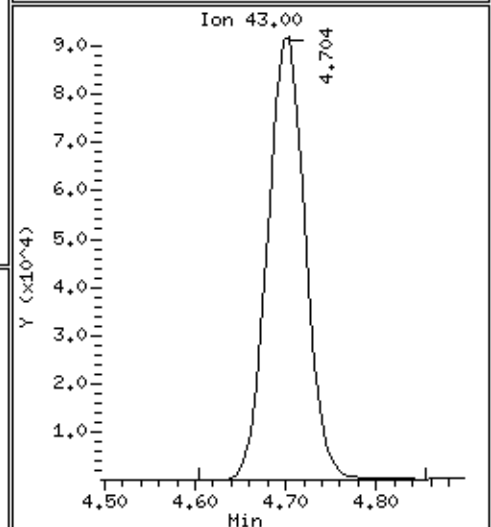
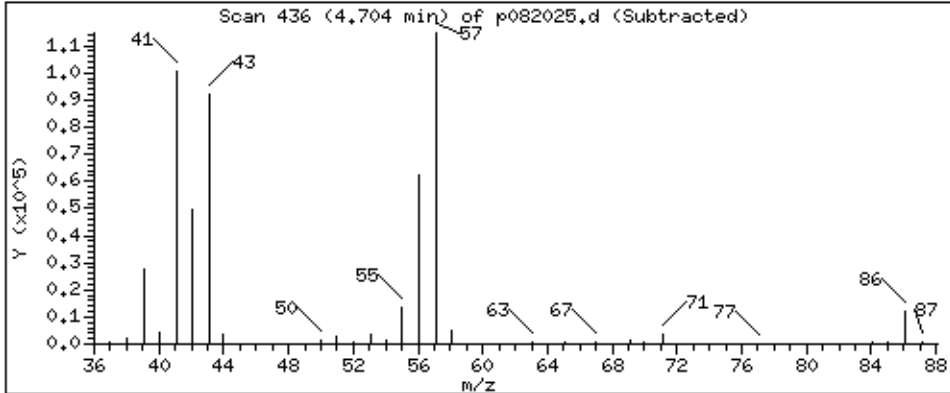
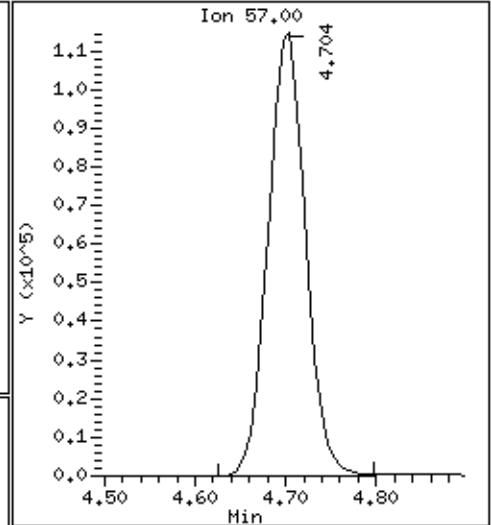
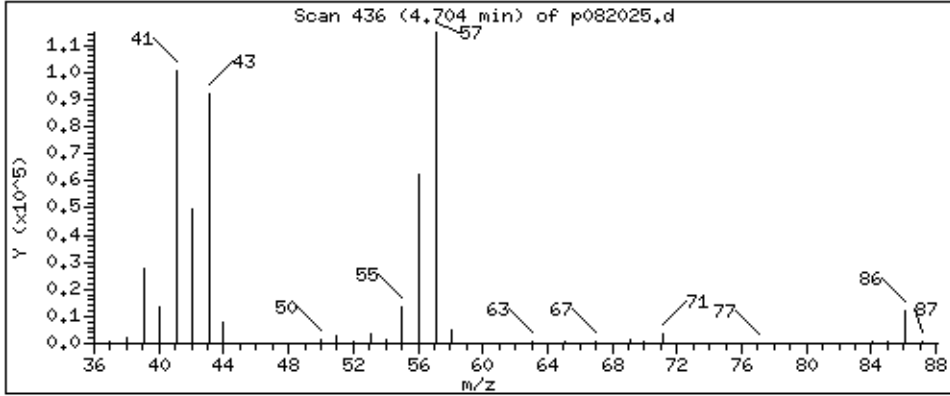
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 68.404 PPBV



Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

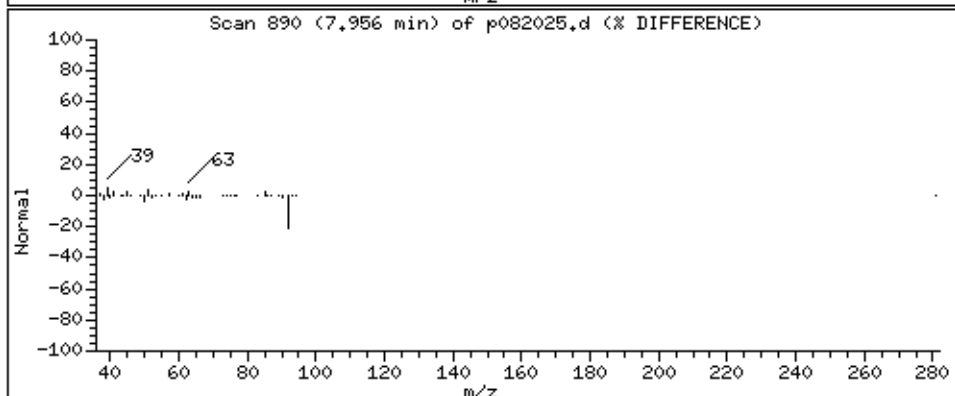
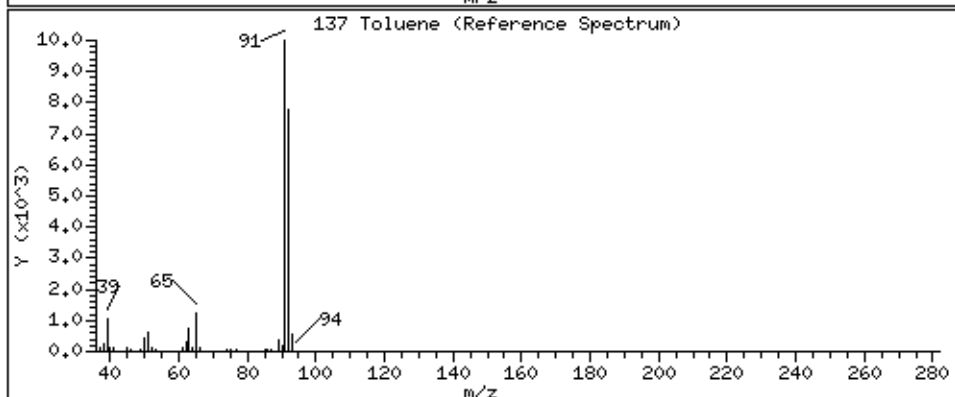
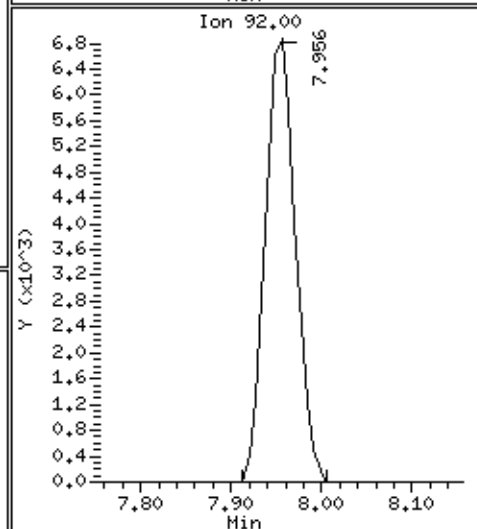
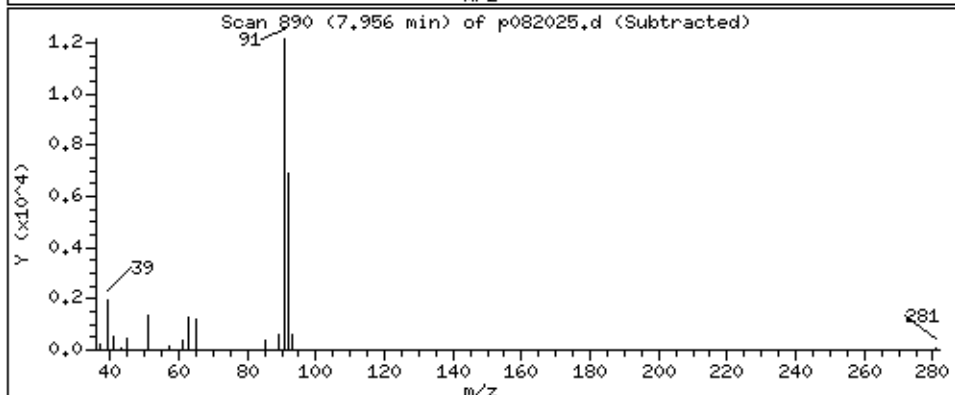
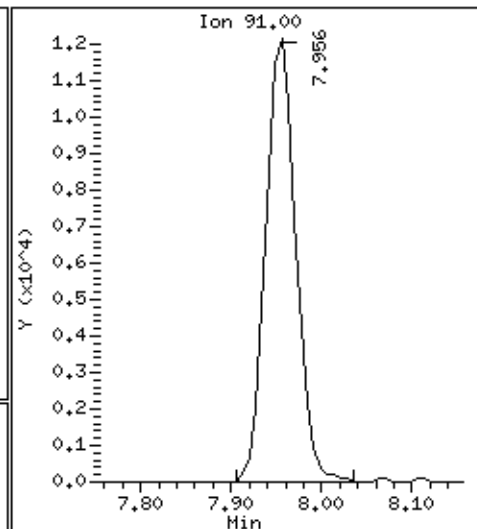
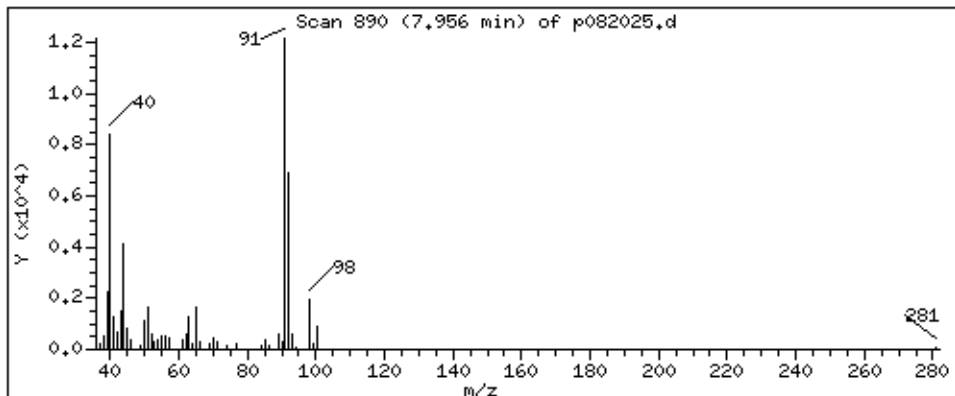
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 3,571 PPBV





Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

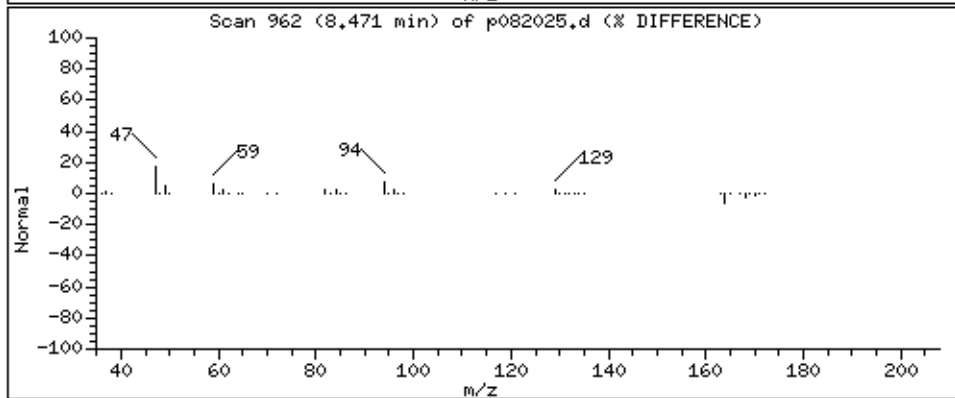
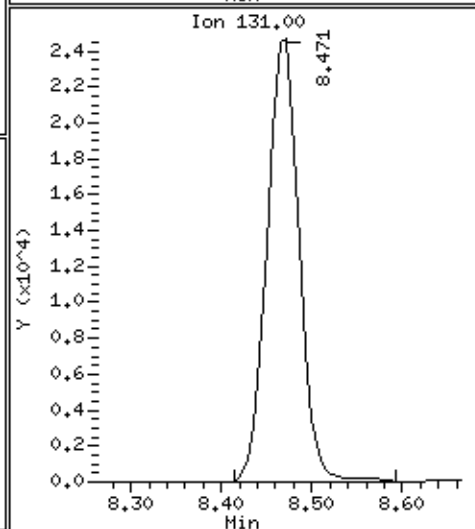
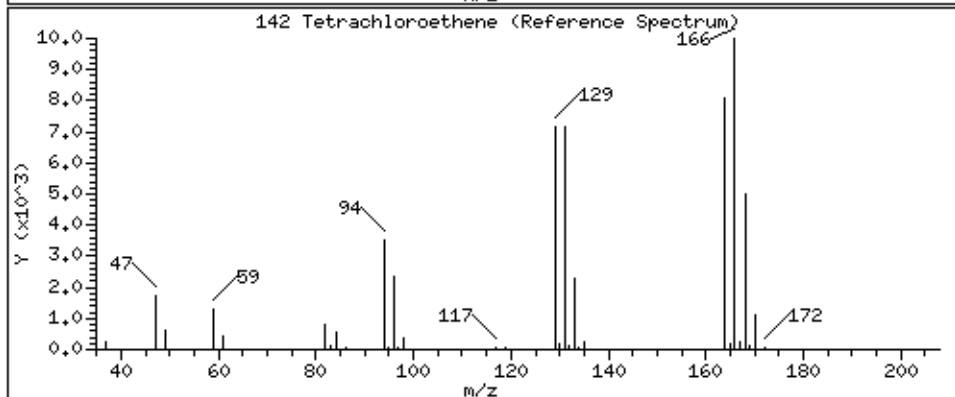
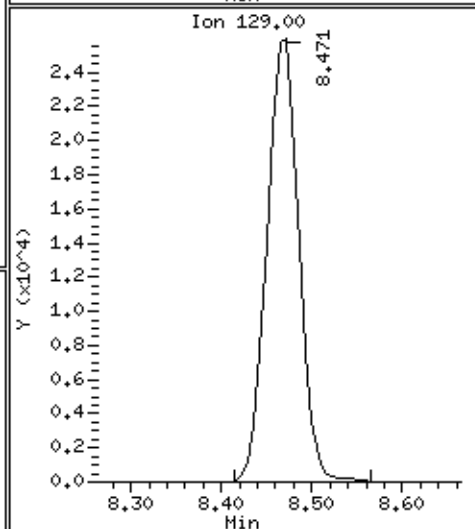
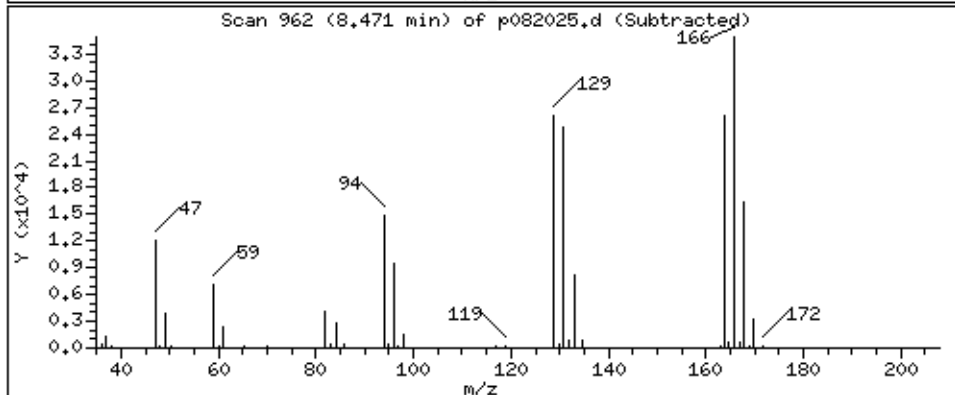
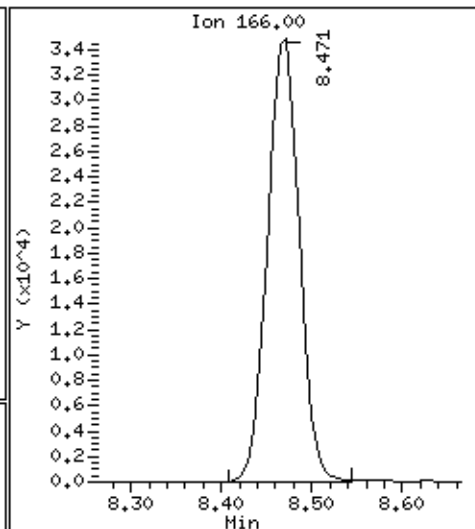
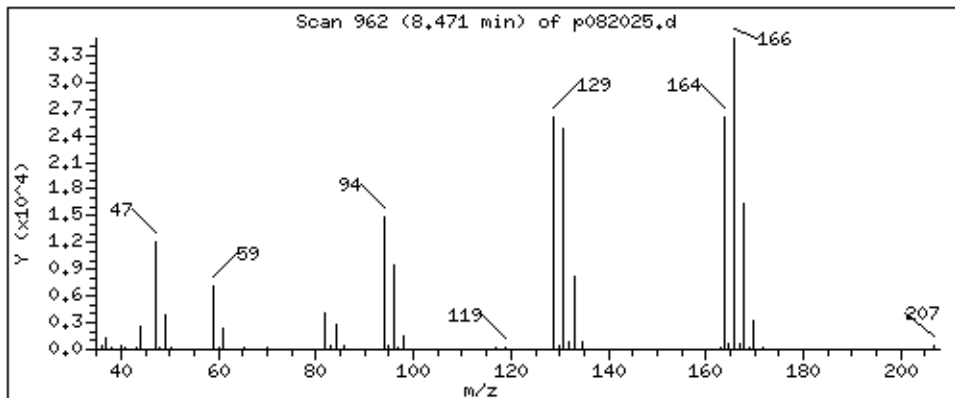
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 20,720 PPBV



Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

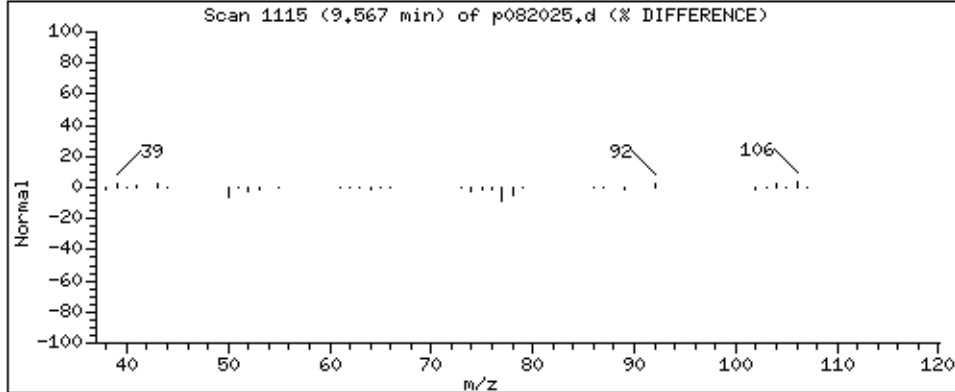
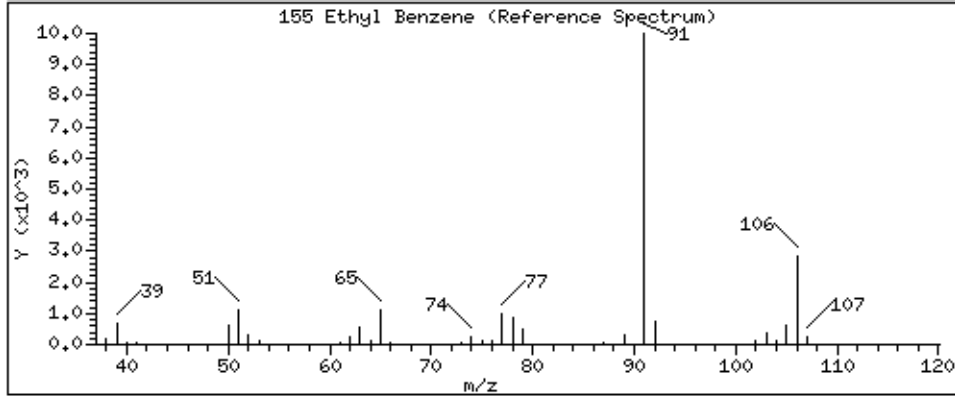
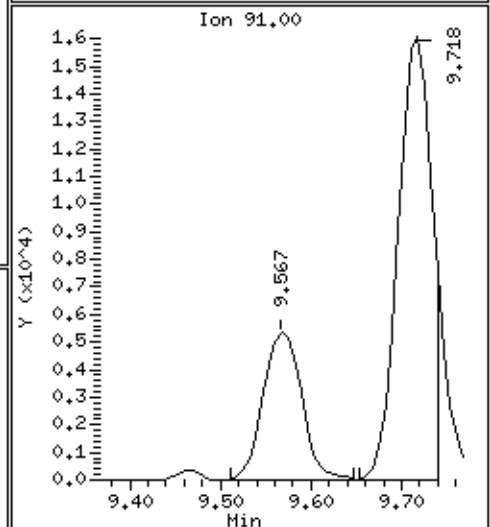
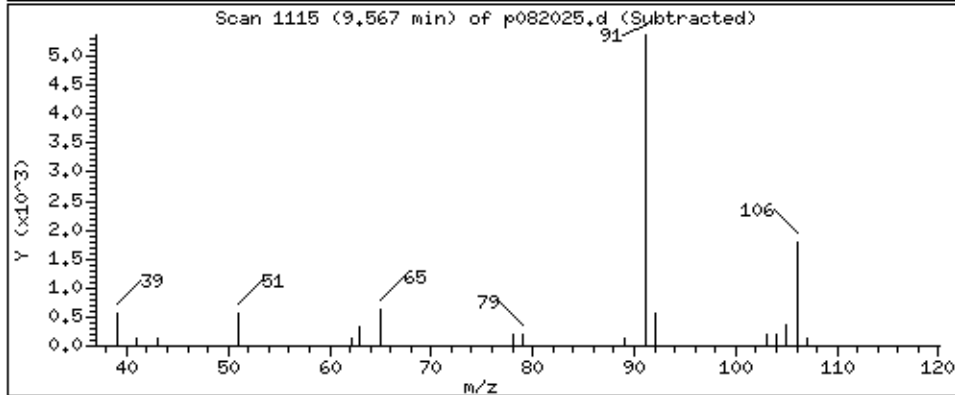
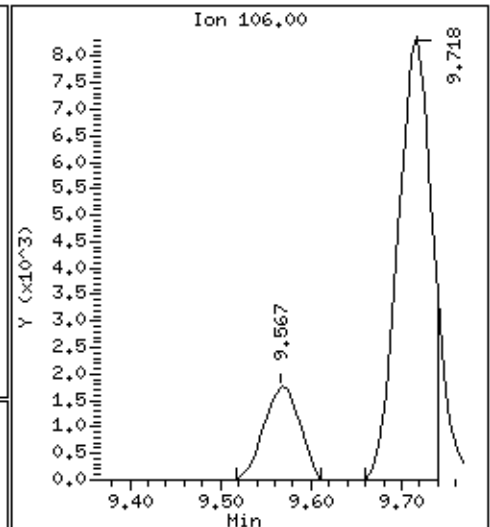
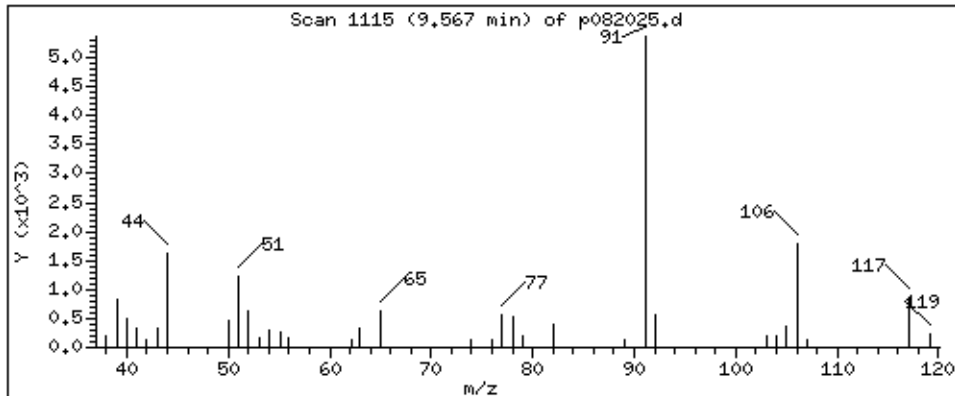
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 1,305 PPBV



Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

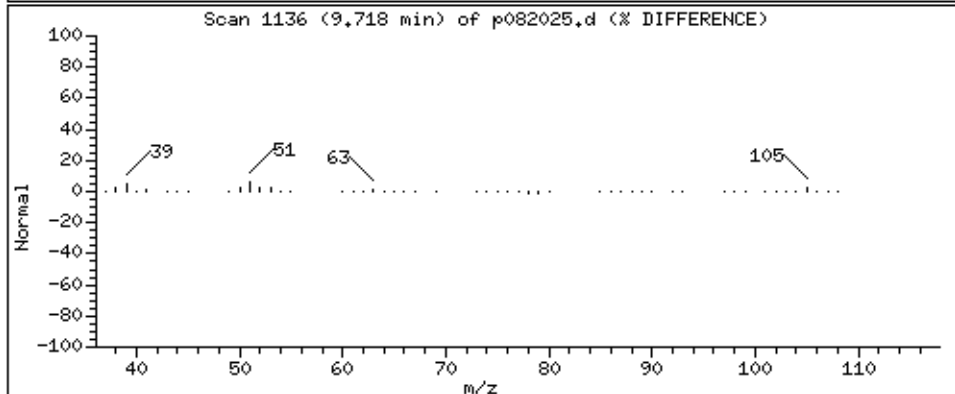
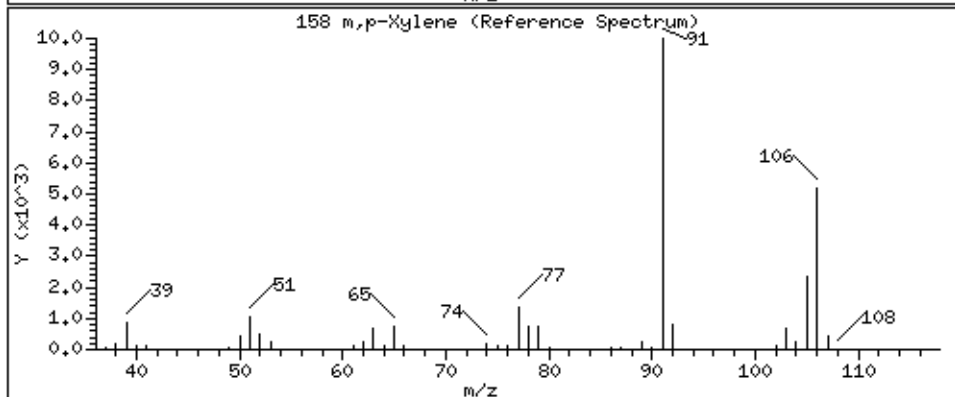
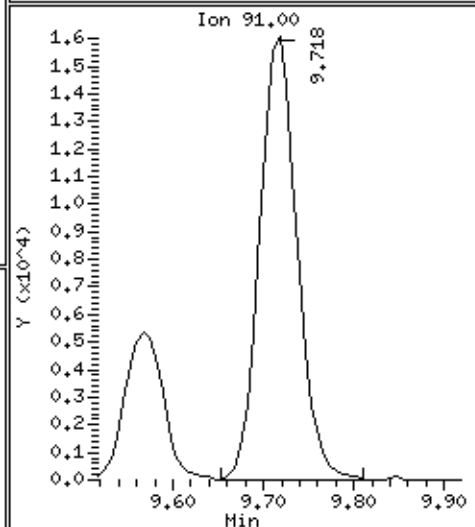
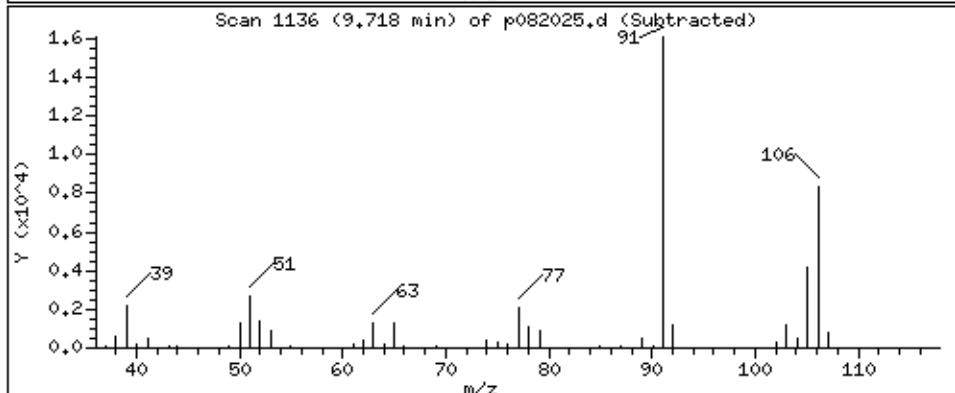
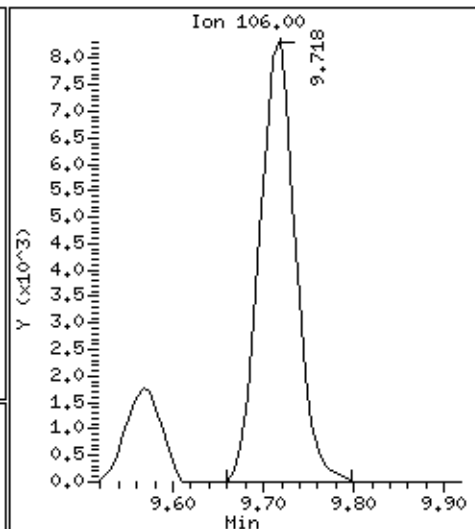
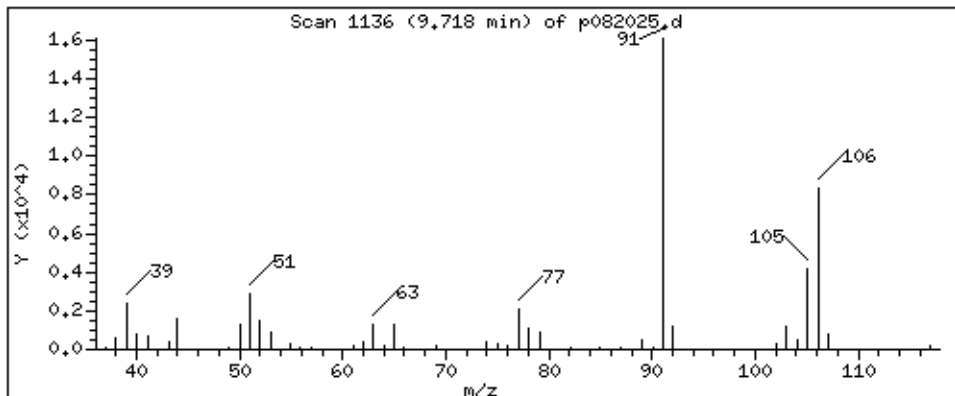
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 4.887 PPBV



Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

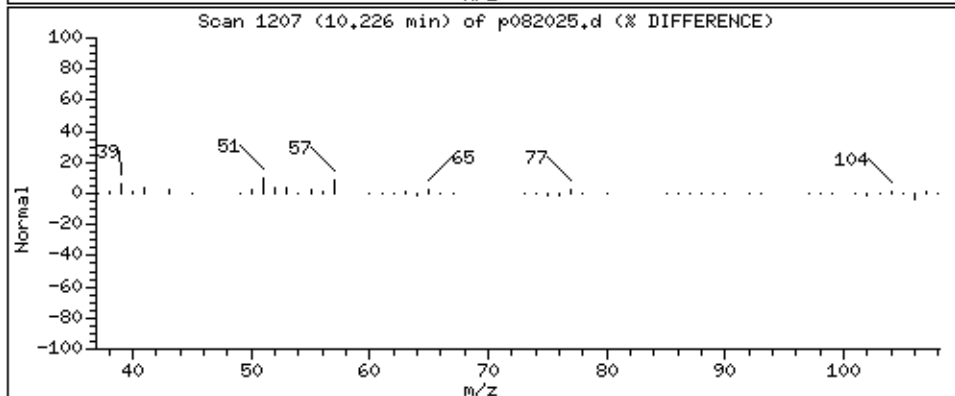
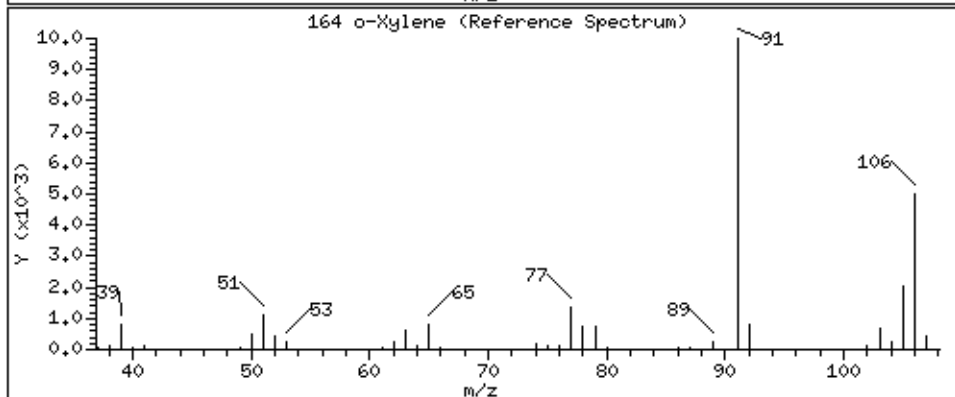
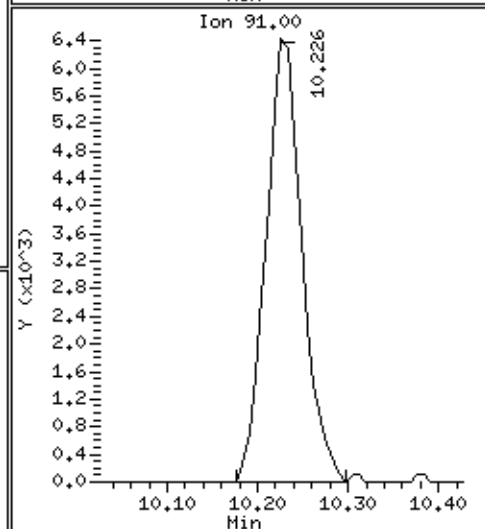
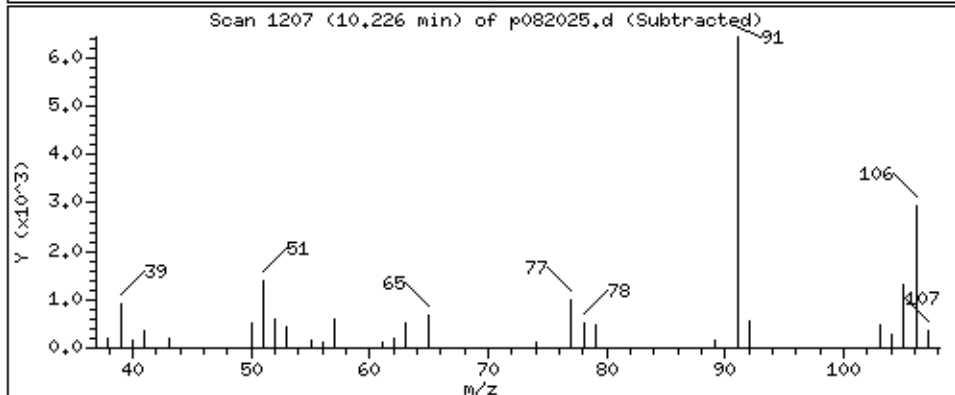
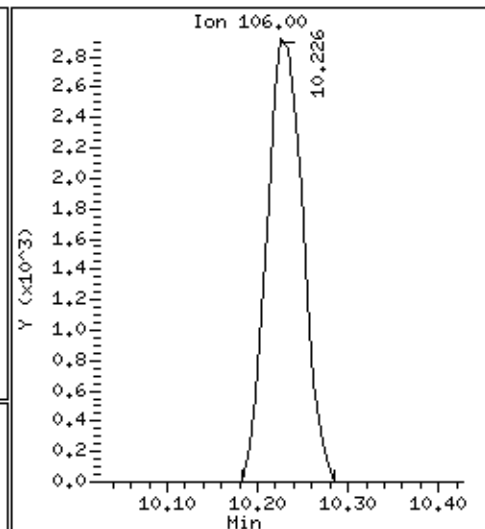
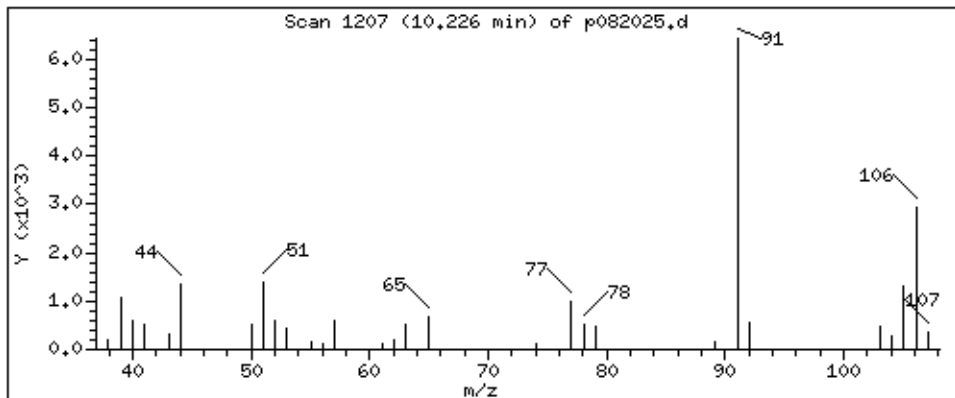
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 1,795 PPBV



Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

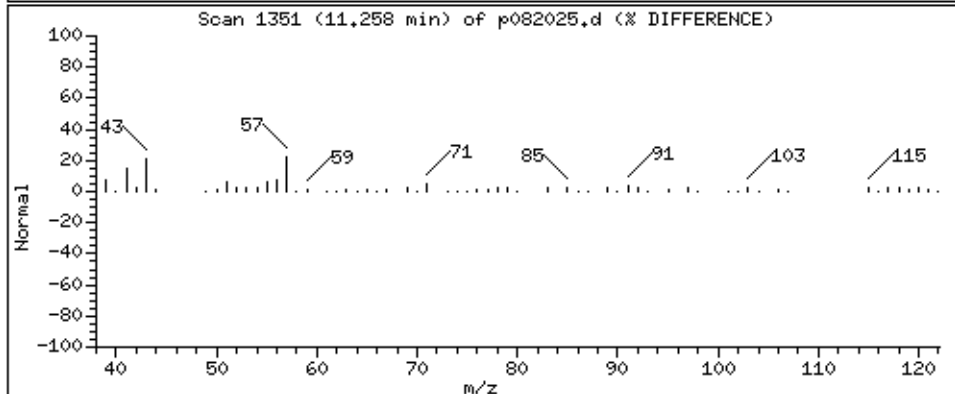
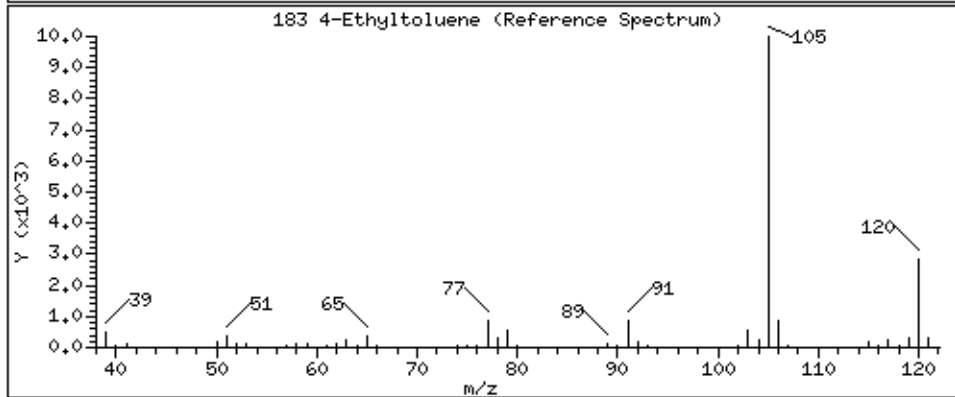
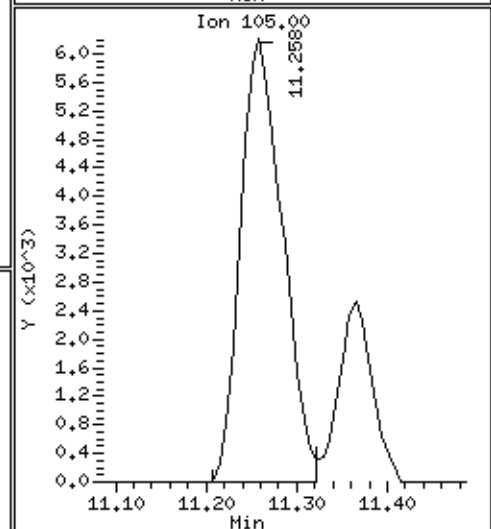
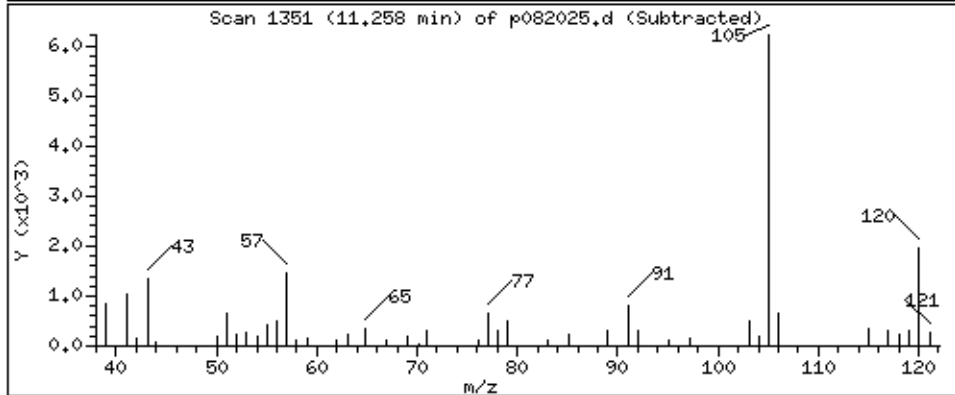
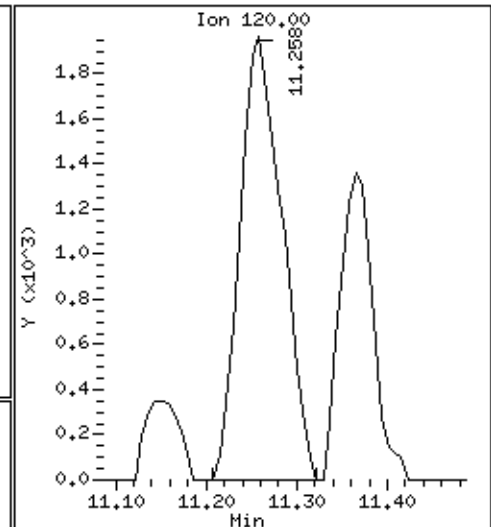
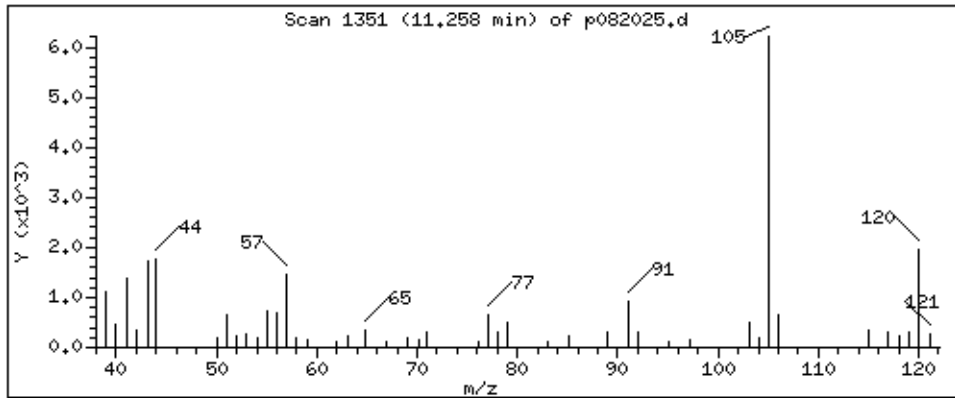
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 1,396 PPBV



Date : 21-AUG-2021 02:14

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5638

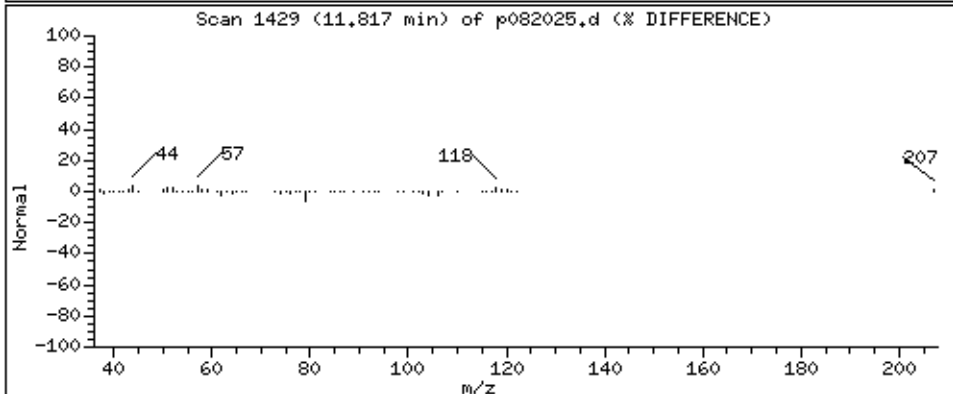
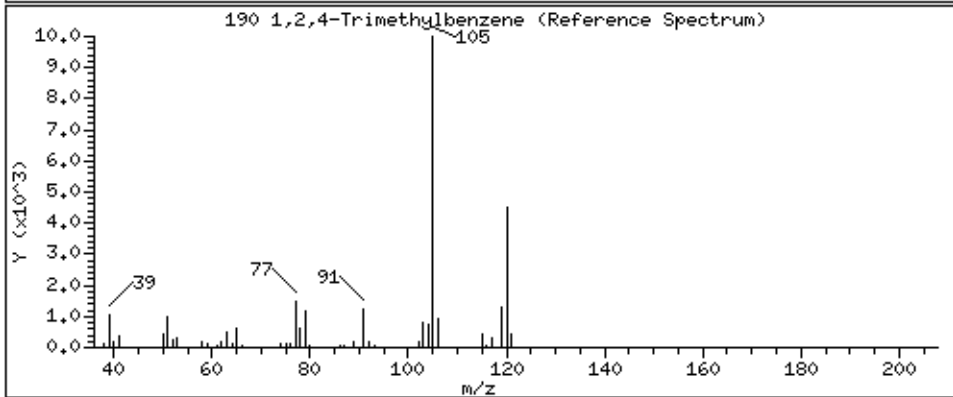
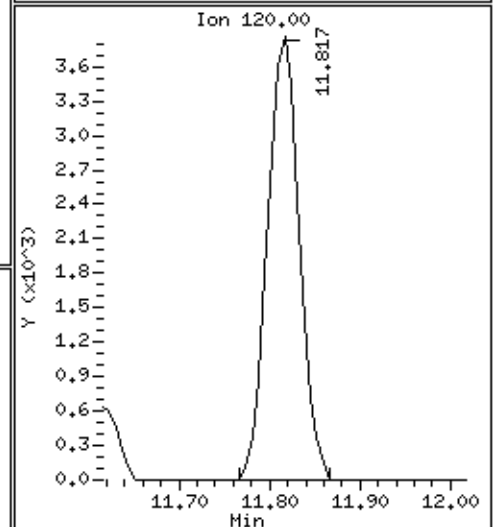
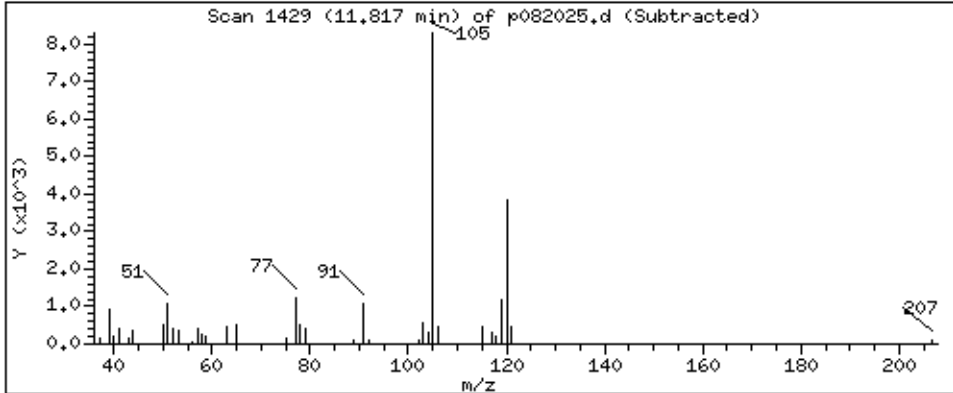
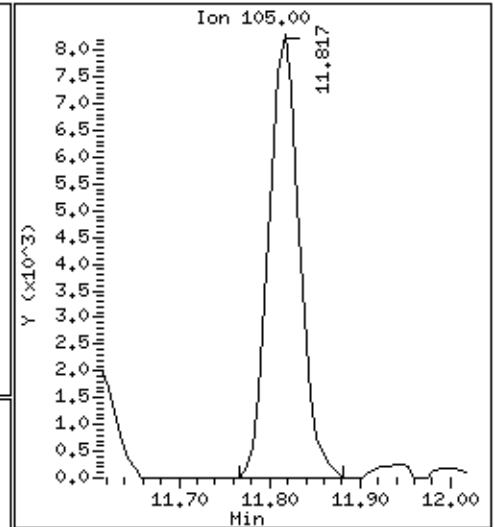
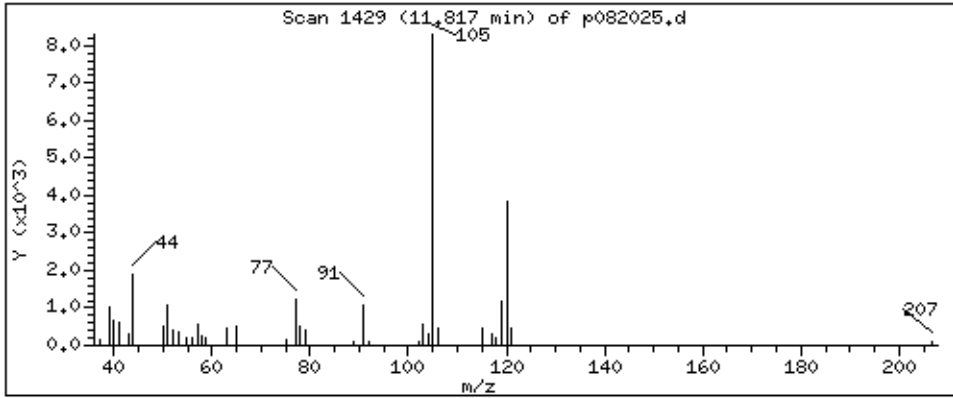
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 1.652 PPBV



Client Sample ID: SG-VW64A-02

Lab ID#: 2108390-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082027	Date of Collection:	8/17/21 9:38:00 AM
Dil. Factor:	2.06	Date of Analysis:	8/21/21 03:12 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
1,1-Difluoroethane	4.1	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.1	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	1.3	5.1	6.4
1,2-Dibromo-3-chloropropane	4.1	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected
2-Propanol	4.1	4.0 J	10	9.9 J
3-Chloropropene	4.1	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	1.1	5.1	5.6
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.1	Not Detected	9.4	Not Detected
Acrylonitrile	4.1	Not Detected	8.9	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
Bromodichloromethane	1.0	1.5	6.9	10
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Chloroform	1.0	46	5.0	220
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected

Client Sample ID: SG-VW64A-02

Lab ID#: 2108390-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082027	Date of Collection:	8/17/21 9:38:00 AM
Dil. Factor:	2.06	Date of Analysis:	8/21/21 03:12 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
Dibromomethane	4.1	Not Detected	29	Not Detected
Ethanol	10	10	19	20
Ethyl Acetate	4.1	Not Detected	15	Not Detected
Ethyl Benzene	1.0	1.3	4.5	5.8
Ethyl-tert-butyl ether	4.1	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Freon 12	1.0	2.4	5.1	12
Freon 113	1.0	Not Detected	7.9	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Hexachloroethane	4.1	Not Detected	40	Not Detected
Hexane	1.0	48	3.6	170
Iodomethane	10	Not Detected	60	Not Detected
Isopropyl ether	4.1	Not Detected	17	Not Detected
m,p-Xylene	1.0	4.1	4.5	18
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	1.7	4.5	7.4
Propylbenzene	1.0	Not Detected	5.1	Not Detected
Propylene	4.1	Not Detected	7.1	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
tert-Amyl methyl ether	4.1	Not Detected	17	Not Detected
tert-Butyl alcohol	4.1	Not Detected	12	Not Detected
Tetrachloroethene	1.0	45	7.0	300
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	4.2	3.9	16
TPH ref. to Gasoline (MW=100)	100	140	420	570
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
Vinyl Acetate	4.1	Not Detected	14	Not Detected
Vinyl Bromide	4.1	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected



Client Sample ID: SG-VW64A-02

Lab ID#: 2108390-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082027	Date of Collection: 8/17/21 9:38:00 AM
Dil. Factor:	2.06	Date of Analysis: 8/21/21 03:12 AM

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	104	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082027.d  
 Lab Smp Id: 2108390-17A  
 Inj Date : 21-AUG-2021 03:12  
 Operator : kk Inst ID: msdp.i  
 Smp Info : 200ml 1L1678  
 Misc Info : 5.5 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5fl Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 9  
 Dil Factor: 2.06000  
 Integrator: HP RTE Compound Sublist: AEC25677.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	106780	25.0000	80.00- 120.00	100.00	
5.778	5.785	(1.000)	128	80388		48.23- 108.23	75.28	
5.778	5.778	(1.000)	49	265366		150.57- 210.57	248.52	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.659	(1.000)	114	371484	25.0000	80.00- 120.00	100.00	
6.659	6.659	(1.000)	88	53128		0.00- 45.71	14.30	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	386757	25.0000	80.00- 120.00	100.00	
9.460	9.460	(1.000)	82	197611		23.78- 83.78	51.09	
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.308	6.315	(1.090)	65	158927	26.9692	26.969 80.00- 120.00	100.00	
6.308	6.315	(1.090)	67	73470		27.21- 87.21	46.23	
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	401062	24.8624	24.862 80.00- 120.00	100.00	
7.891	7.891	(1.185)	70	44075		0.00- 40.44	10.99	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	265942			34.95- 94.95	66.31
-----								
§ 170 4-Bromofluorobenzene								
							CAS #: 460-00-4	
10.921	10.921	(1.154)	174	258069	25.9850	25.985	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	301878			95.92- 155.92	116.98
10.921	10.921	(1.154)	176	246116			66.89- 126.89	95.37
-----								
8 Freon 12								
							CAS #: 75-71-8	
1.703	1.717	(0.294)	85	11293	1.17918	2.429	80.00- 120.00	100.00
1.703	1.717	(0.294)	87	3306			2.37- 62.37	29.28
-----								
39 Ethanol								
							CAS #: 64-17-5	
3.250	3.242	(0.562)	46	5334	5.03716	10.376	80.00- 120.00	100.00
3.242	3.285	(0.560)	45	13607			511.19- 571.19	255.09
-----								
52 2-Propanol								
							CAS #: 67-63-0	
3.894	3.894	(0.673)	45	22139	1.96228	4.042	80.00- 120.00	100.00(a)
3.887	3.894	(0.672)	43	5189			0.00- 47.19	23.44
-----								
67 Hexane								
							CAS #: 110-54-3	
4.689	4.697	(0.811)	57	245944	23.3808	48.164	80.00- 120.00	100.00
4.689	4.697	(0.811)	43	199099			37.52- 97.52	80.95
4.689	4.697	(0.811)	86	24487			0.00- 41.48	9.96
-----								
92 Chloroform								
							CAS #: 67-66-3	
5.835	5.843	(1.009)	83	206959	22.2760	45.888	80.00- 120.00	100.00
5.835	5.843	(1.009)	85	132565			34.70- 94.70	64.05
-----								
122 Bromodichloromethane								
							CAS #: 75-27-4	
7.318	7.318	(1.099)	83	6827	0.74020	1.525	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	4308			35.24- 95.24	63.11
-----								
137 Toluene								
							CAS #: 108-88-3	
7.949	7.956	(1.194)	91	34348	2.03086	4.184	80.00- 120.00	100.00
7.956	7.956	(1.195)	92	18442			28.38- 88.38	53.69
-----								
142 Tetrachloroethene								
							CAS #: 127-18-4	
8.464	8.464	(0.895)	166	191621	21.7393	44.783	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	147608			47.84- 107.84	77.03
8.464	8.464	(0.895)	131	141229			45.29- 105.29	73.70
-----								
155 Ethyl Benzene								
							CAS #: 100-41-4	
9.567	9.567	(1.011)	106	5187	0.64592	1.330	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	14455			273.74- 333.74	278.65
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
158 m,p-Xylene					CAS #: 108-38-3			
9.718	9.718	(1.027)	106	20043	1.99281	4.105	80.00- 120.00	100.00
9.711	9.718	(1.026)	91	37473			163.73- 223.73	186.96
-----								
164 o-Xylene					CAS #: 95-47-6			
10.226	10.226	(1.081)	106	7926	0.82251	1.694	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	16211			177.45- 237.45	204.52
-----								
183 4-Ethyltoluene					CAS #: 622-96-8			
11.265	11.287	(1.191)	120	5349	0.54799	1.129	80.00- 120.00	100.00
11.258	11.287	(1.190)	105	15683			284.55- 344.55	293.17
-----								
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
11.817	11.817	(1.249)	105	16106	0.63494	1.308	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	6953			19.05- 79.05	43.17
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082027.d  
 Lab Smp Id: 2108390-17A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: kk  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 5.5 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	106780	-2.37
108 1,4-Difluorobenze	406799	244079	569519	371484	-8.68
153 Chlorobenzene-d5	400841	240505	561177	386757	-3.51

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Report Date: 24-Aug-2021 11:54

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-17A  
Level: LOW Operator: kk  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 5.5 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	26.969	107.88	70-130
\$ 134 Toluene-d8	25.000	24.862	99.45	70-130
\$ 170 4-Bromofluorobenz	25.000	25.985	103.94	70-130

Date : 21-AUG-2021 03:12

Client ID:

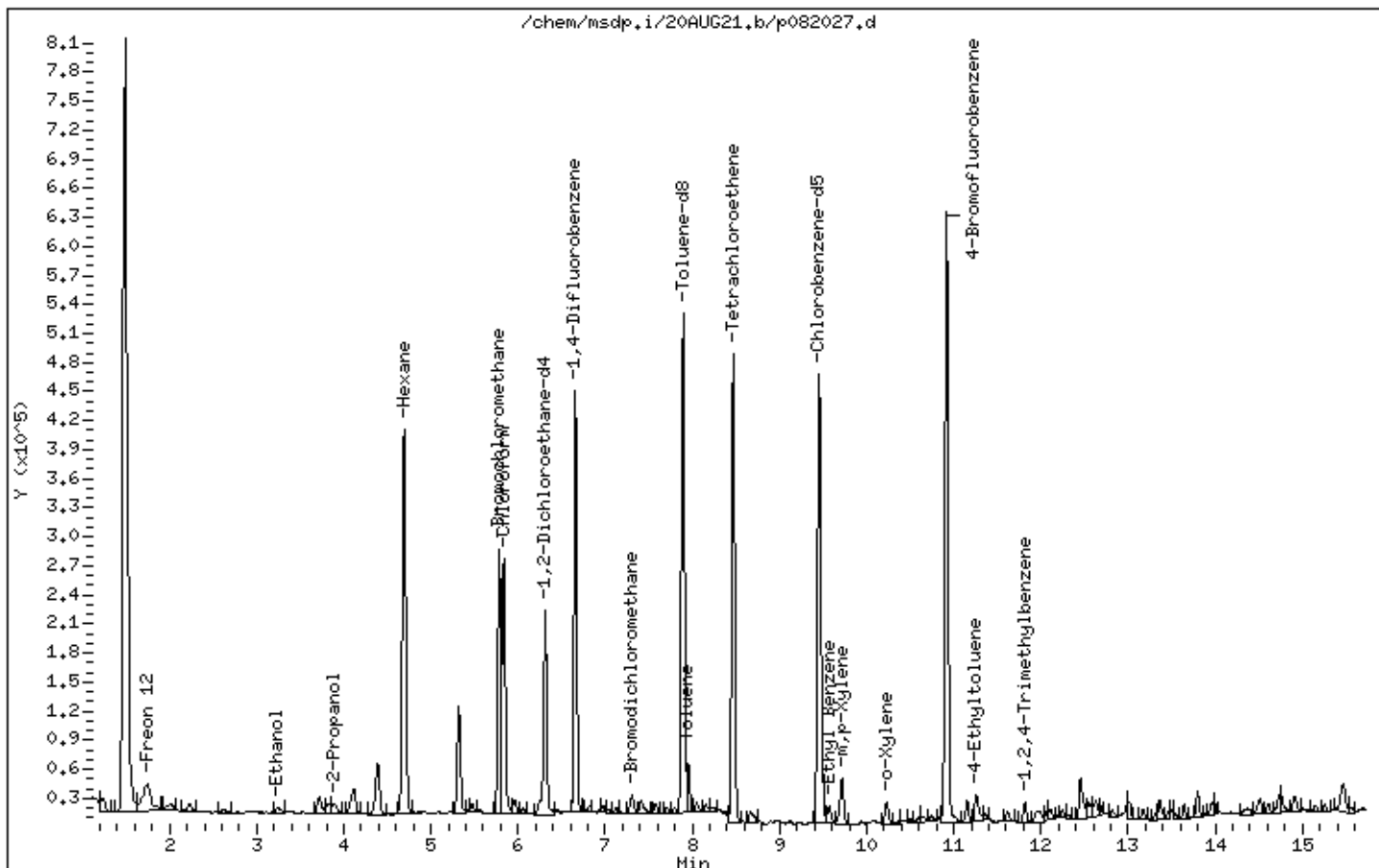
Instrument: msdp.i

Sample Info: 200ml 1L1678

Operator: kk

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

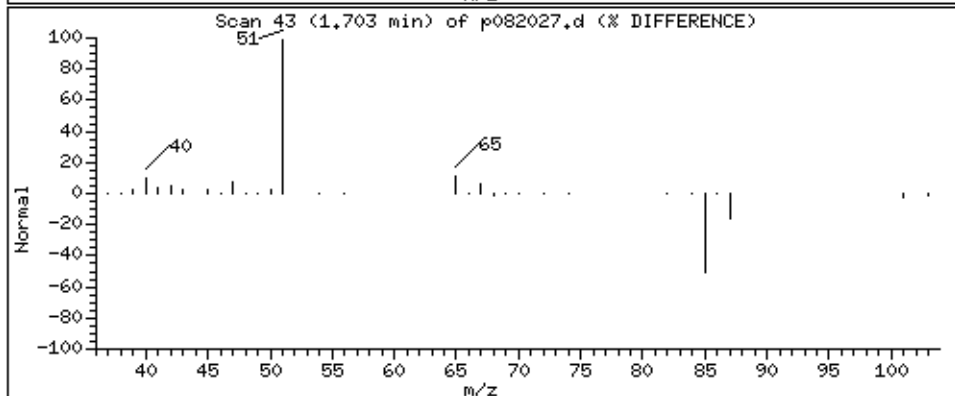
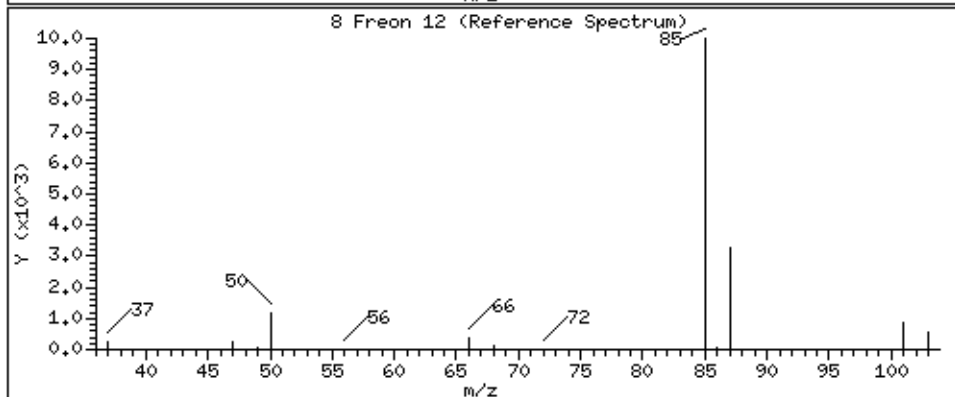
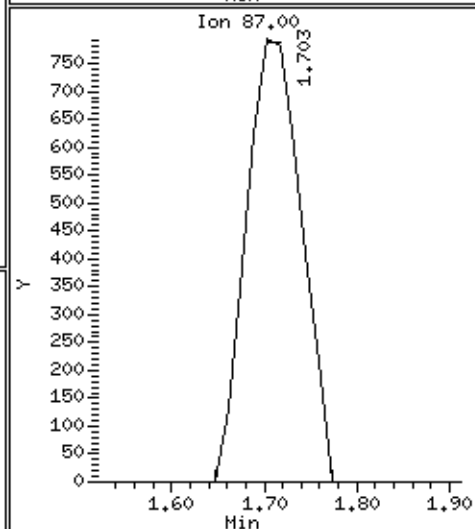
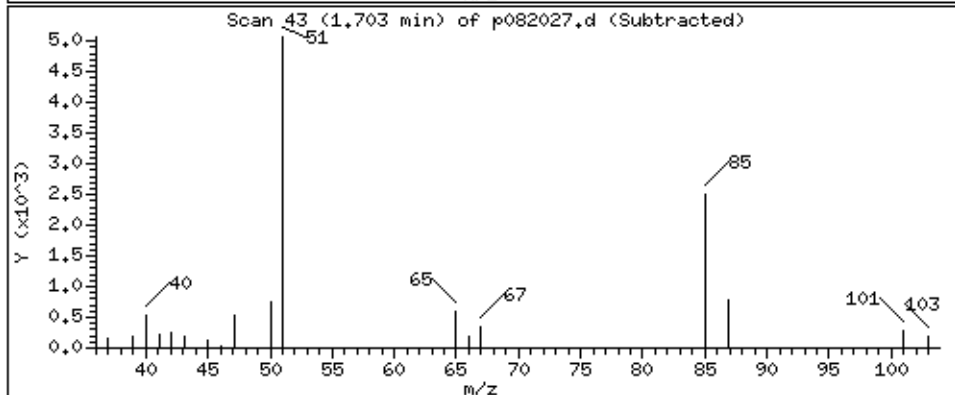
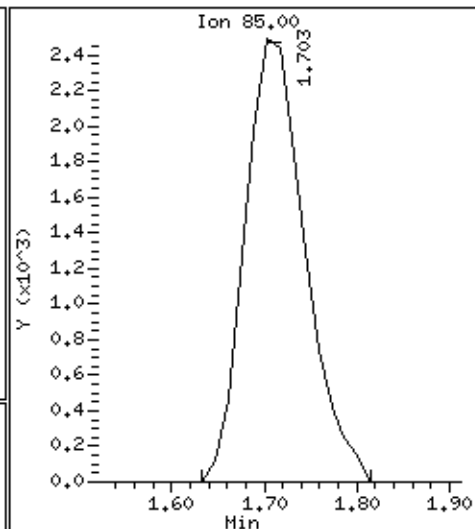
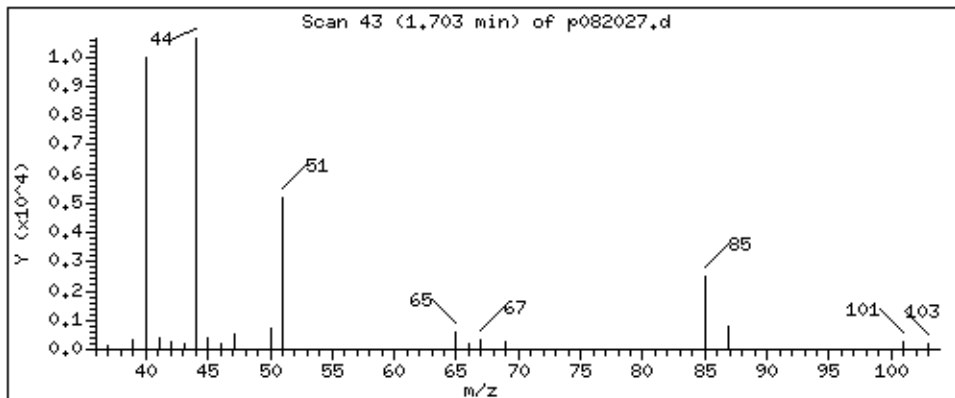
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 2.429 PPBV





Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

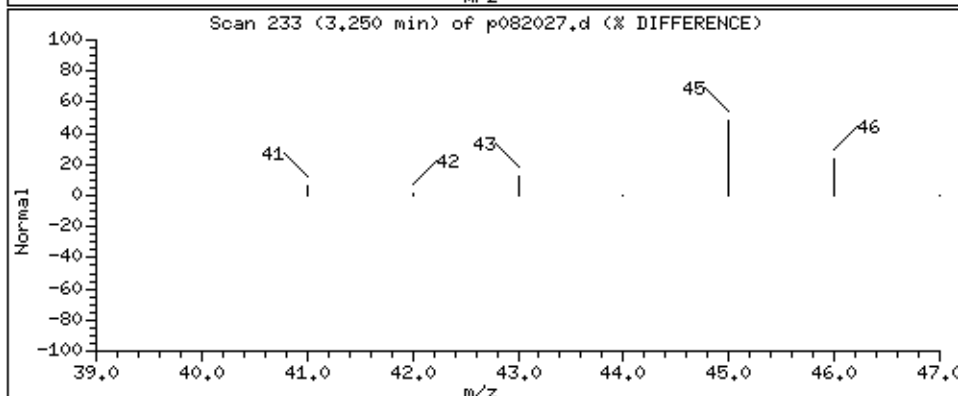
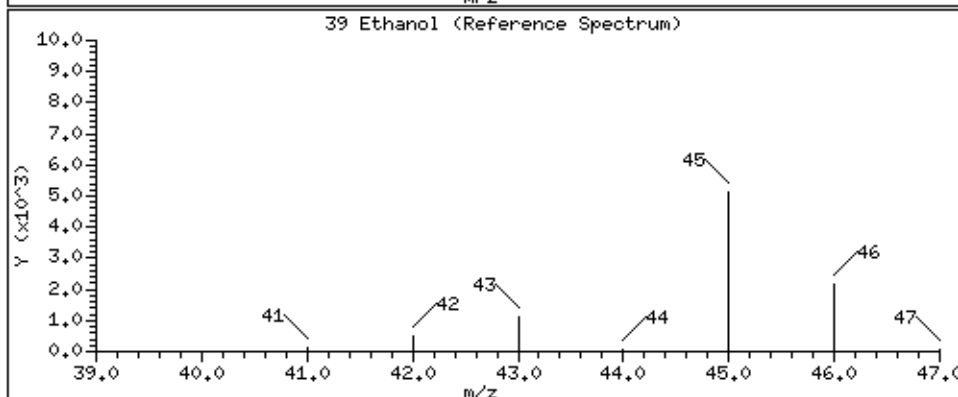
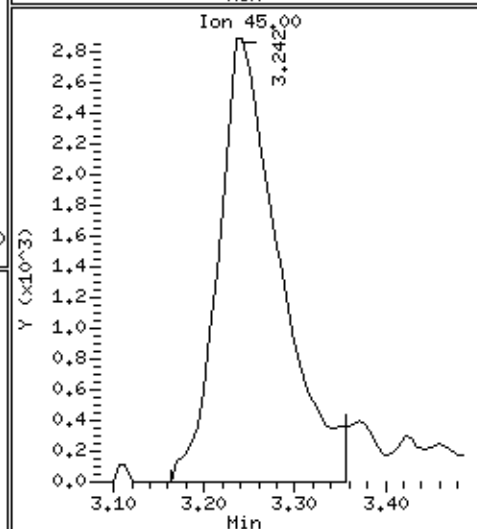
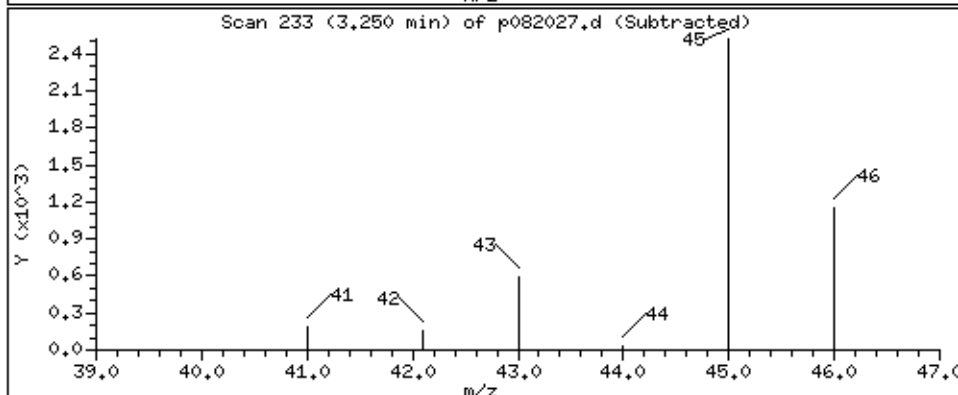
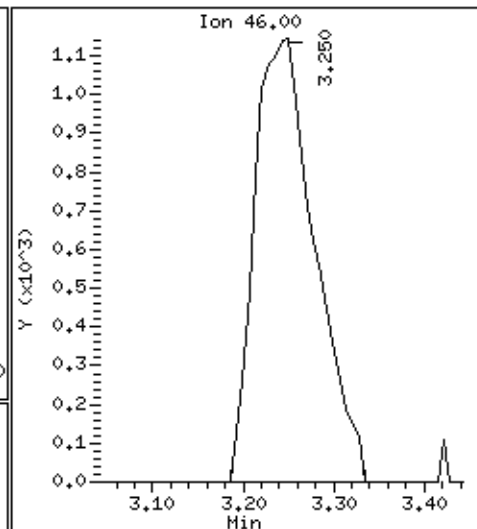
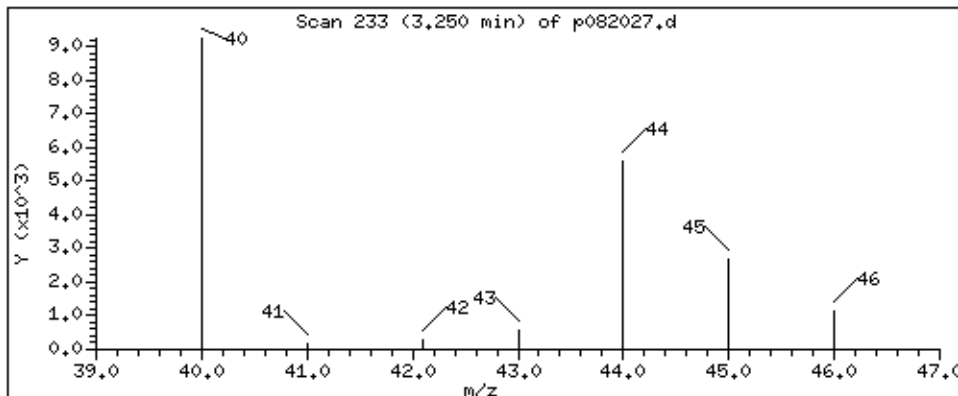
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 10,376 PPBV



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

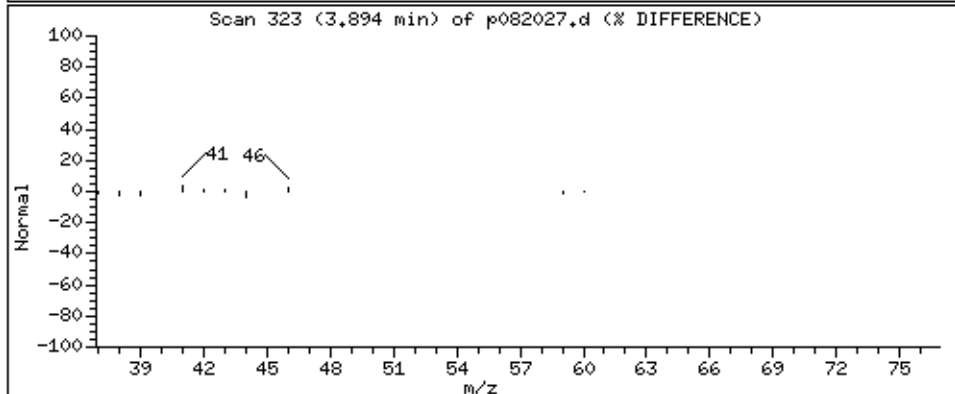
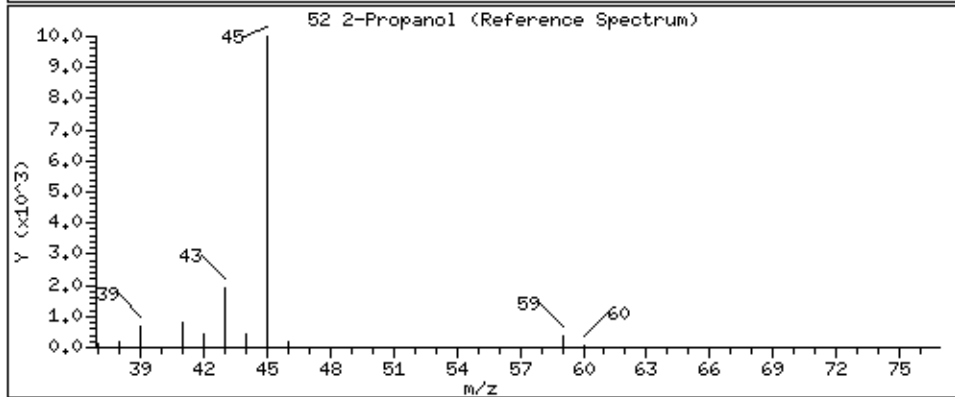
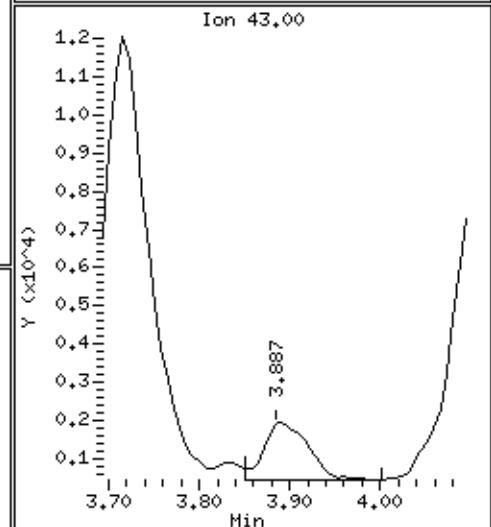
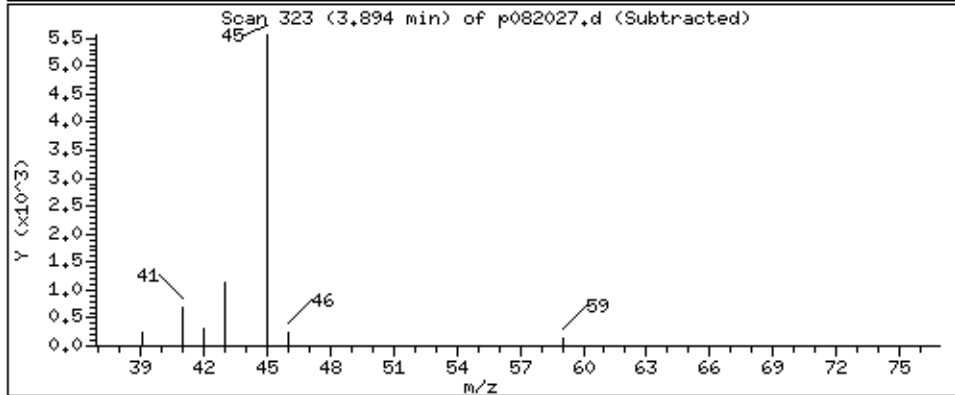
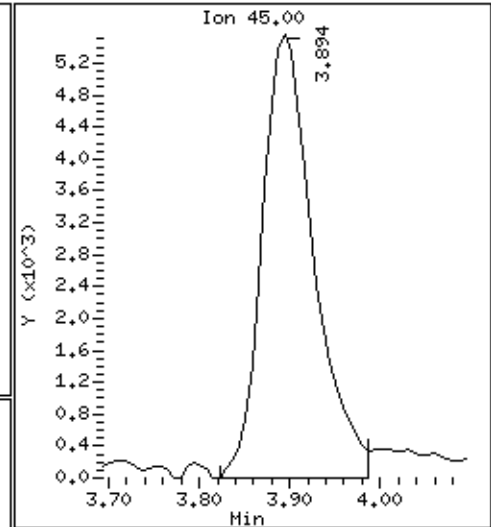
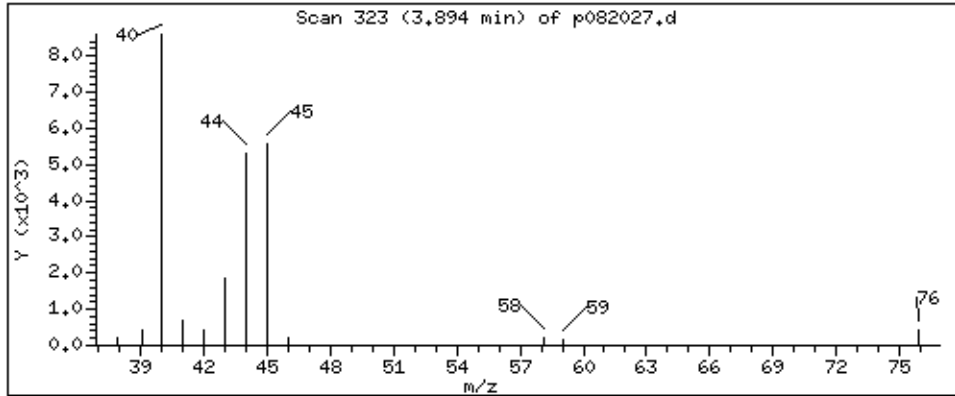
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 4.042 PPBV



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

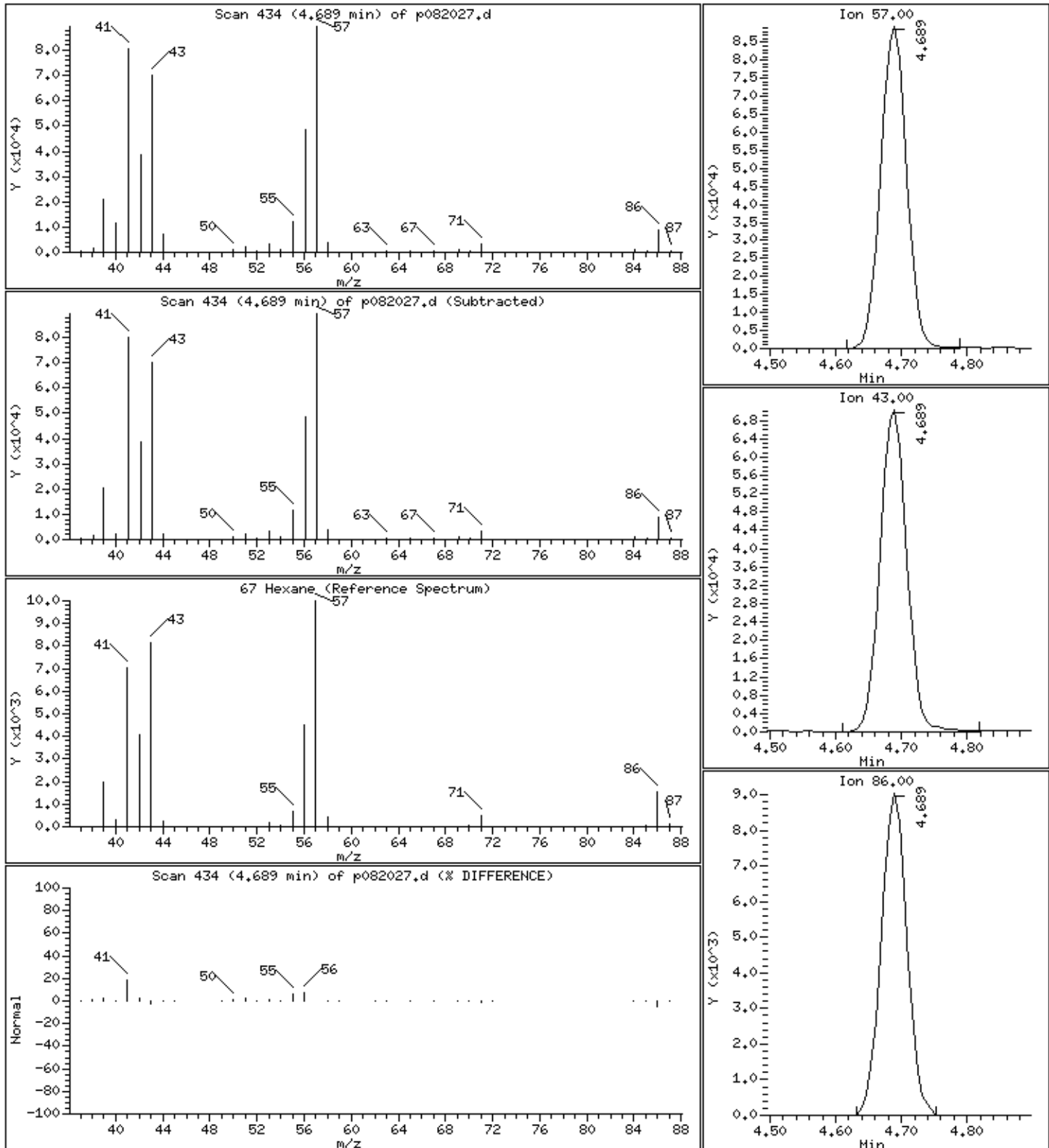
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 48,164 PPBV



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

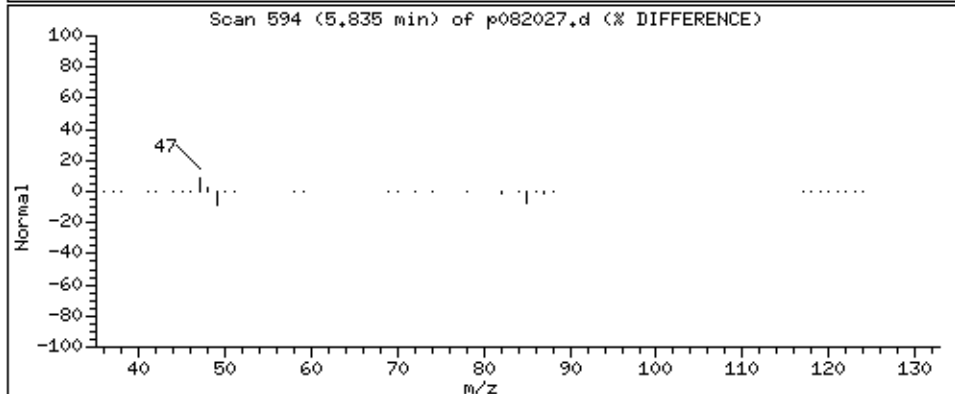
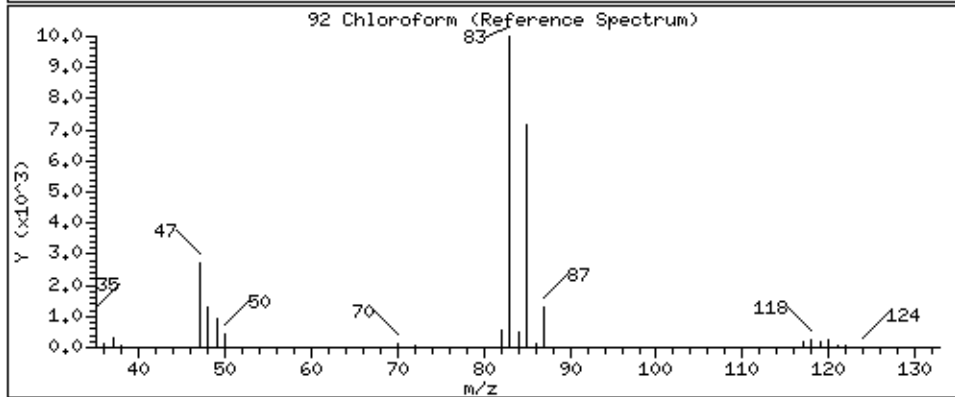
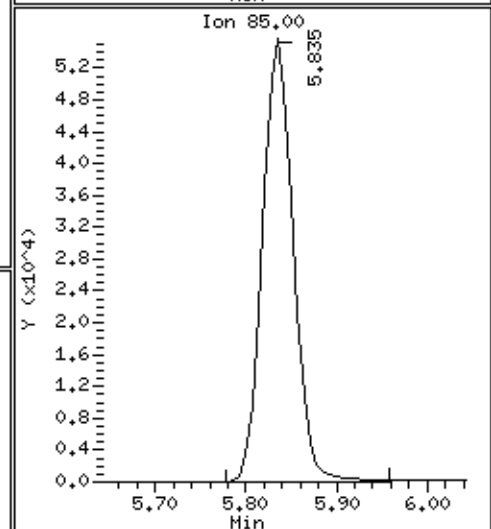
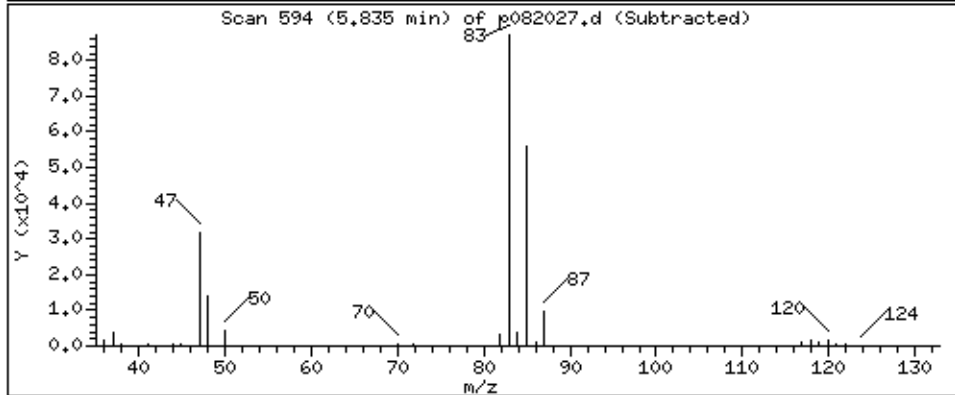
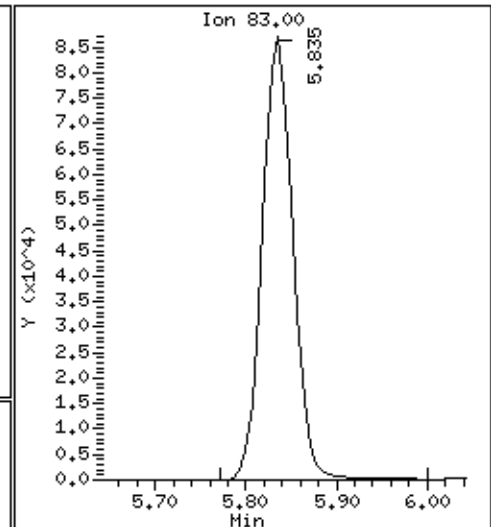
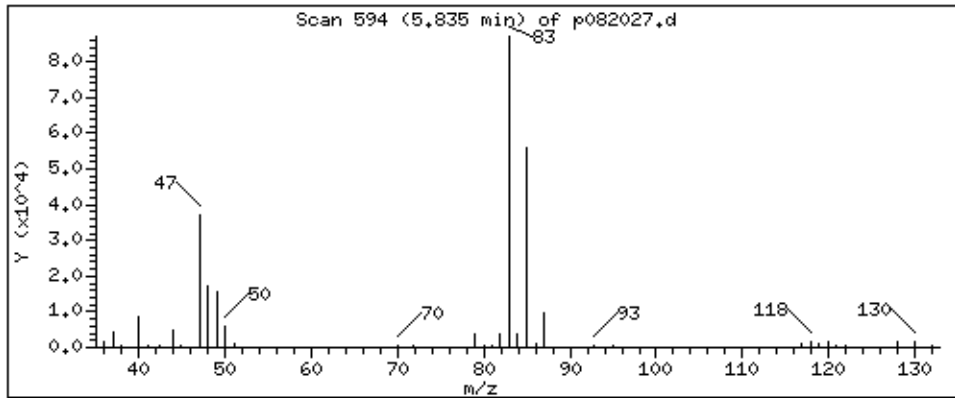
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 45,888 PPBV



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

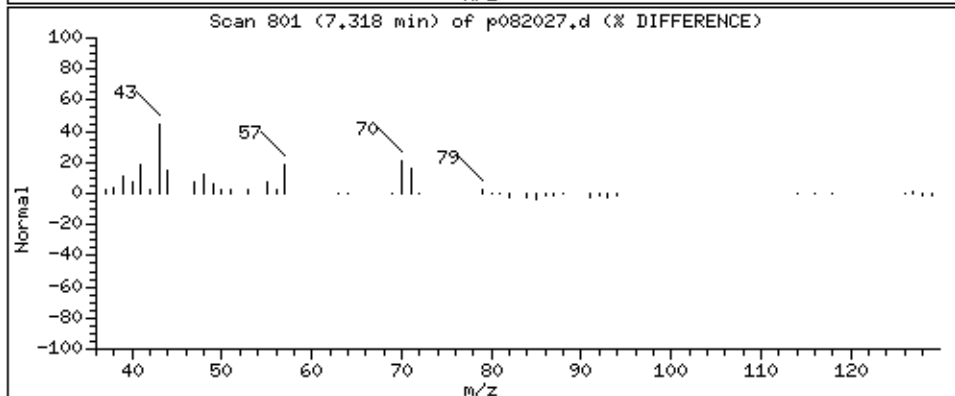
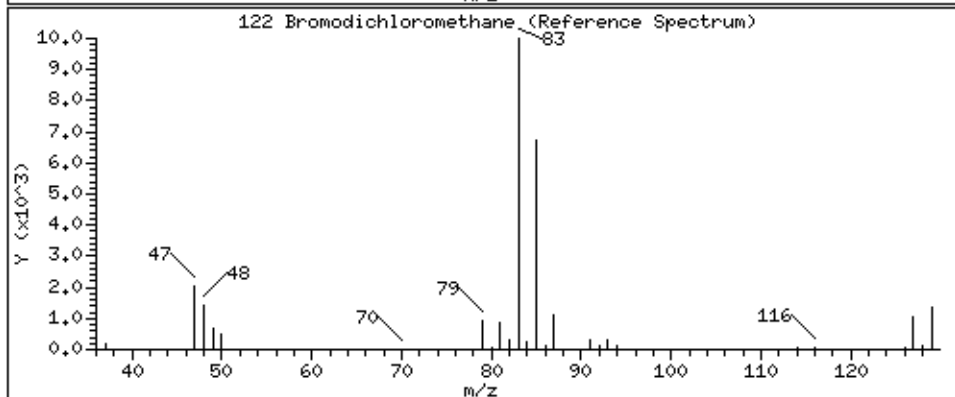
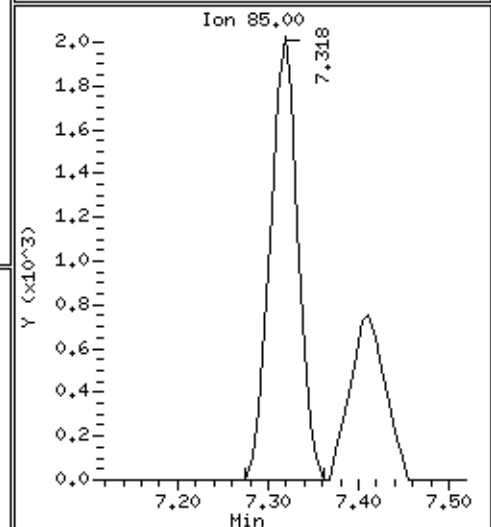
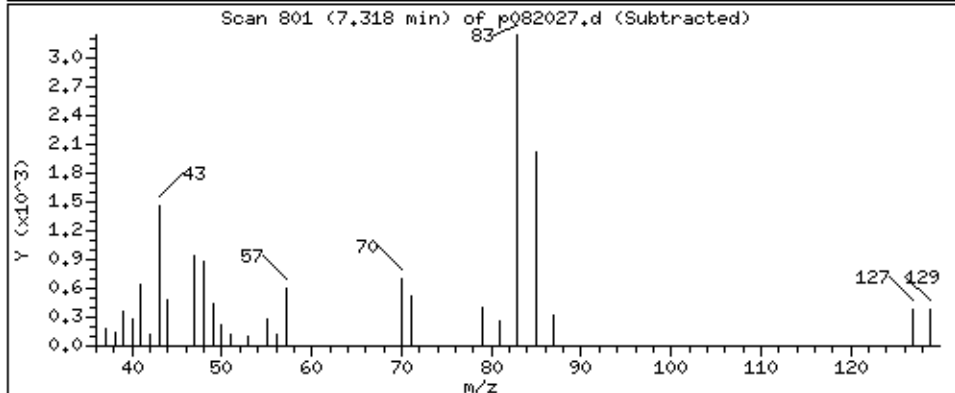
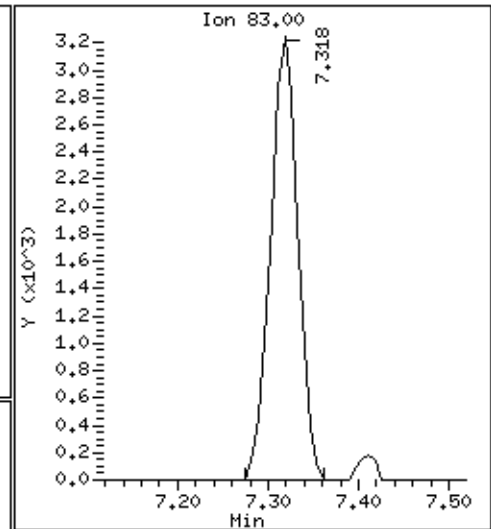
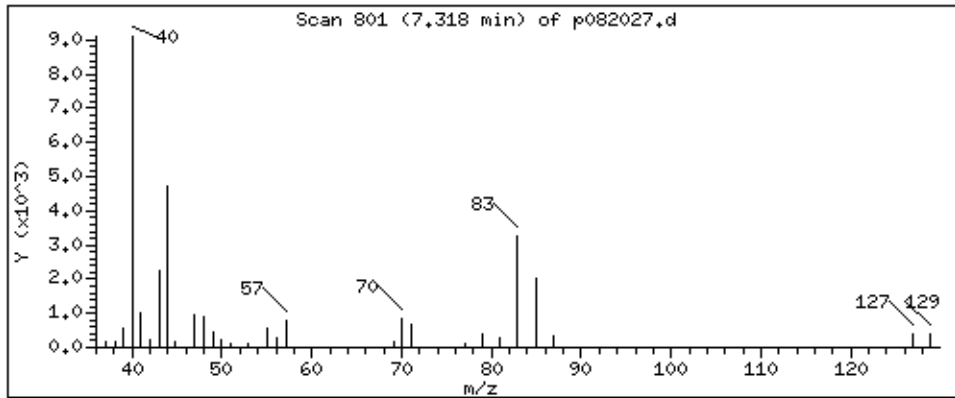
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

122 Bromodichloromethane

Concentration: 1,525 PPBV



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

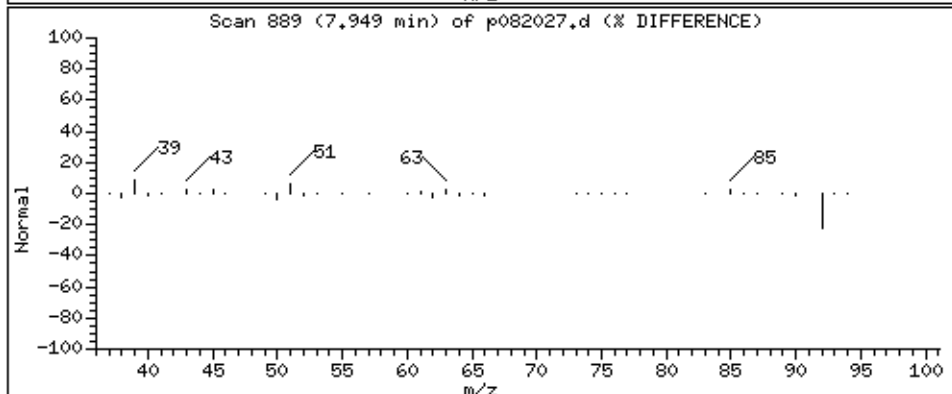
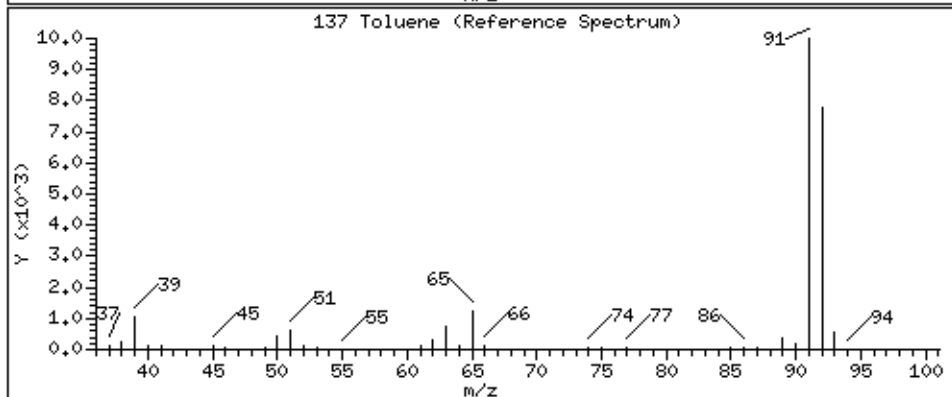
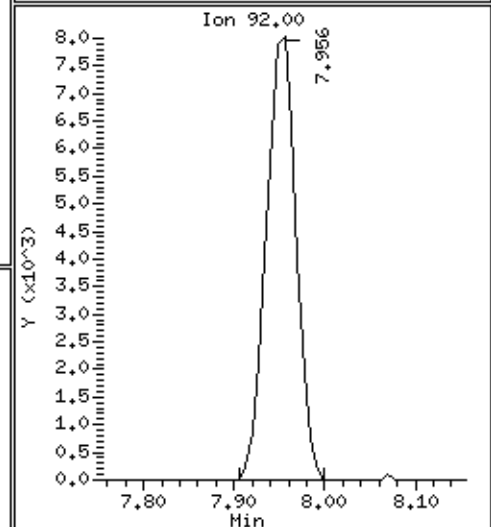
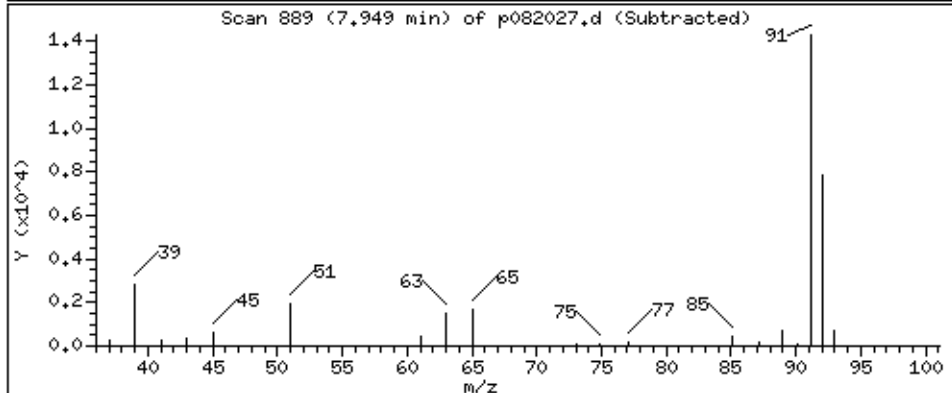
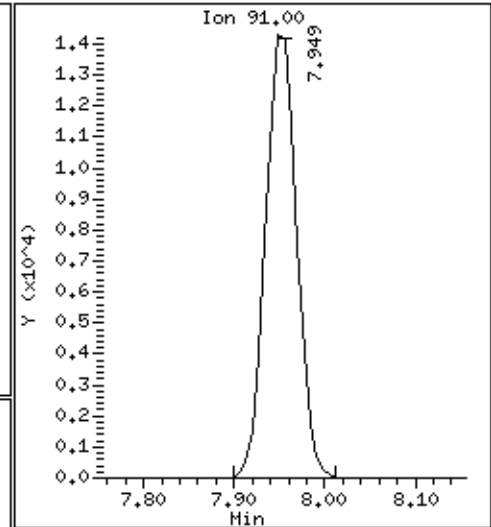
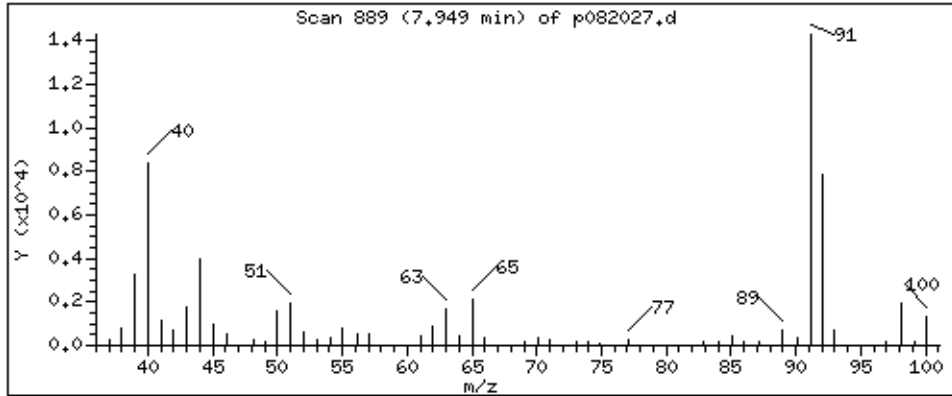
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 4.184 PPBV



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

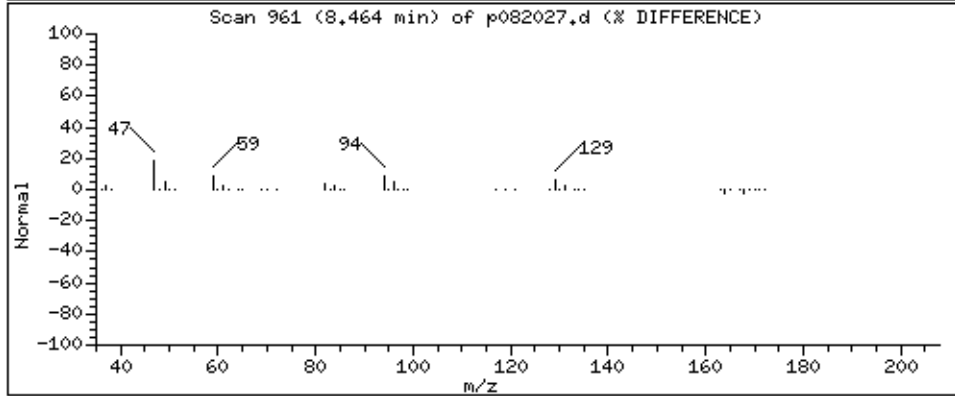
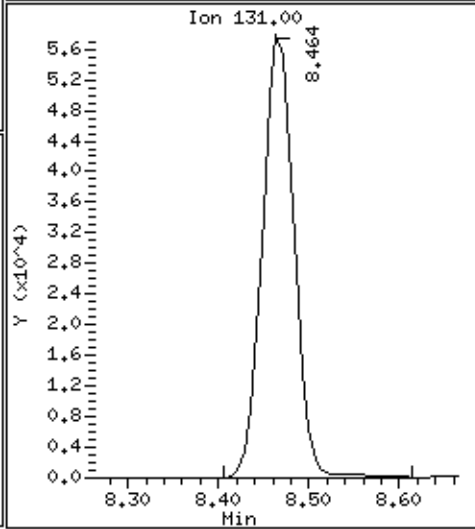
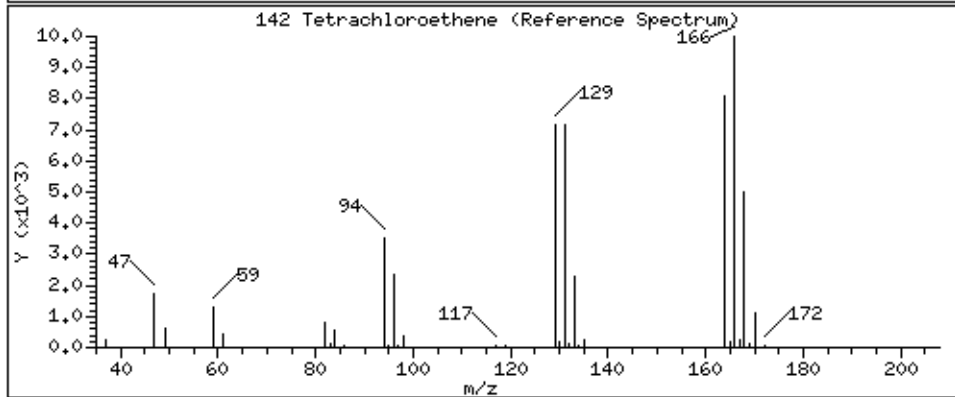
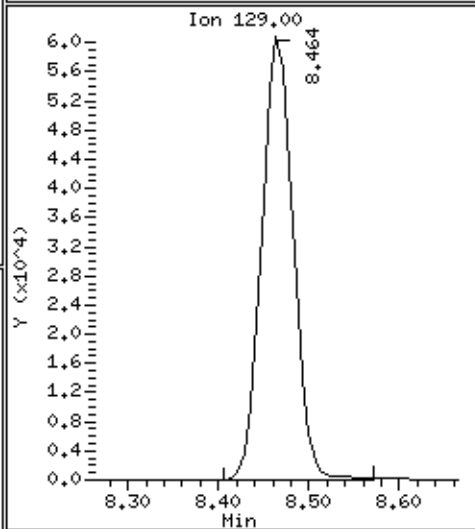
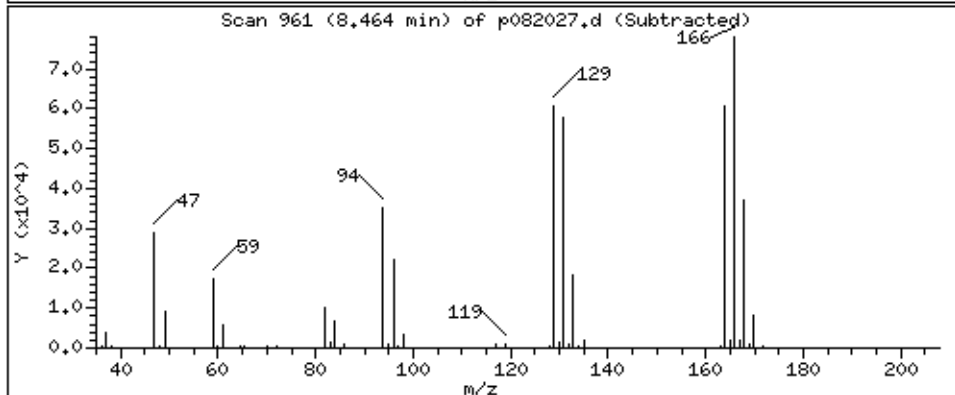
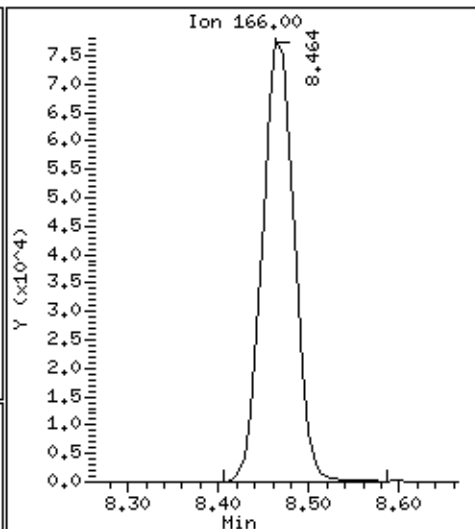
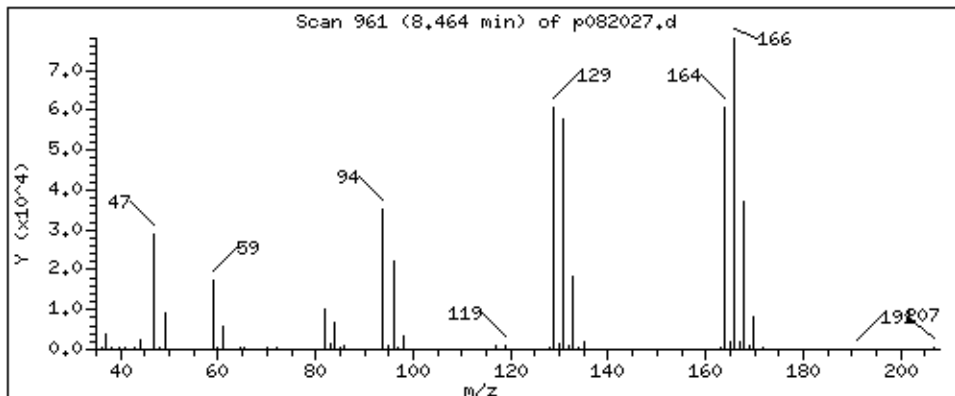
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 44,783 PPBV



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

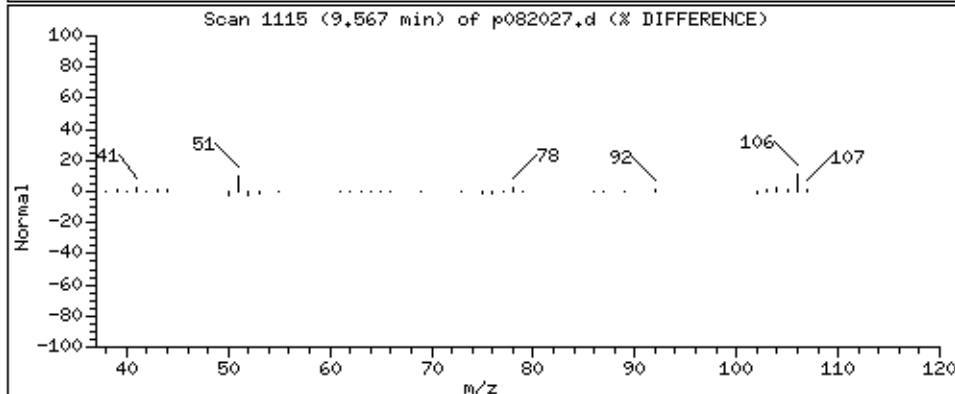
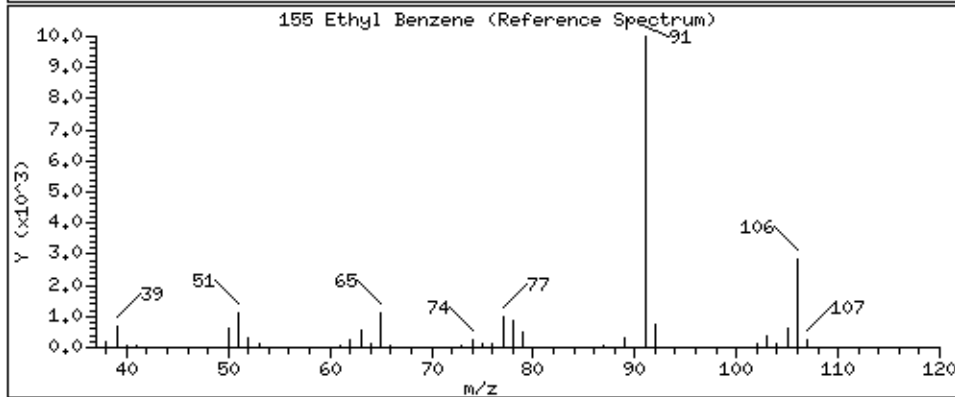
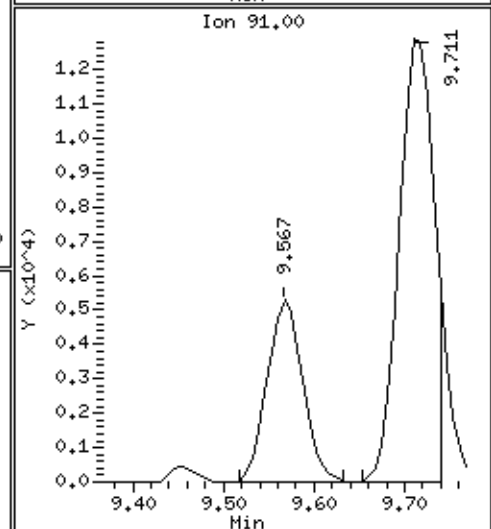
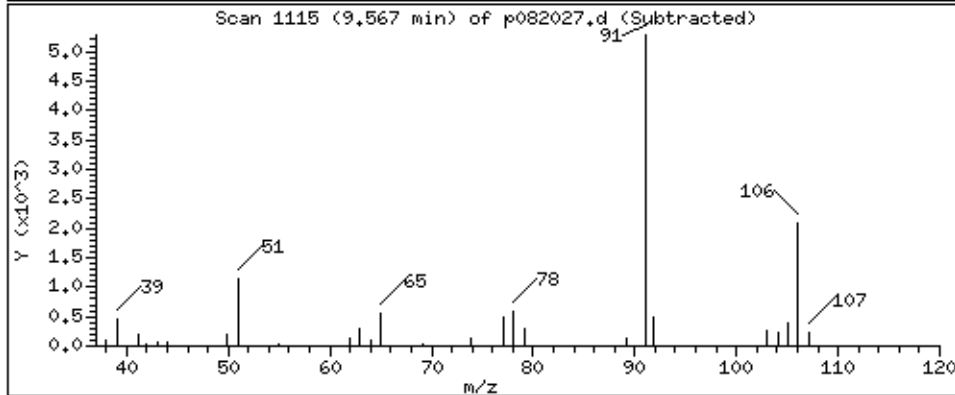
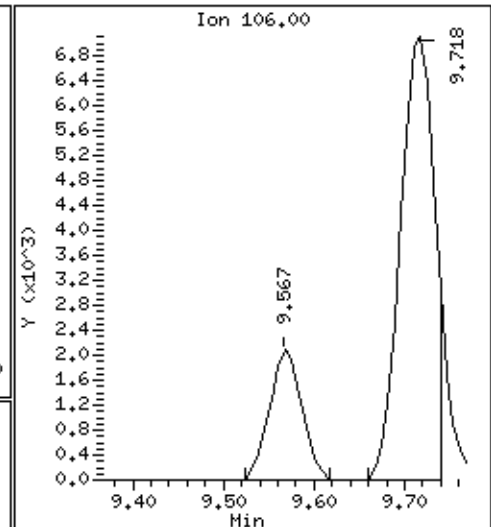
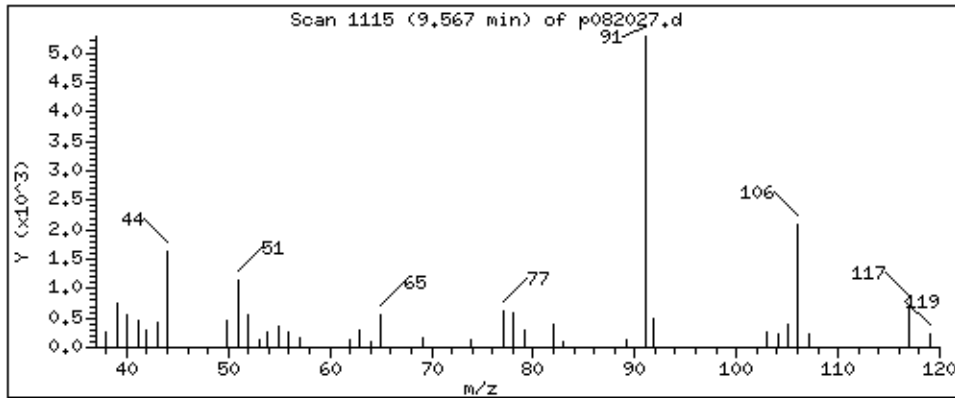
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 1,330 PPBV





Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

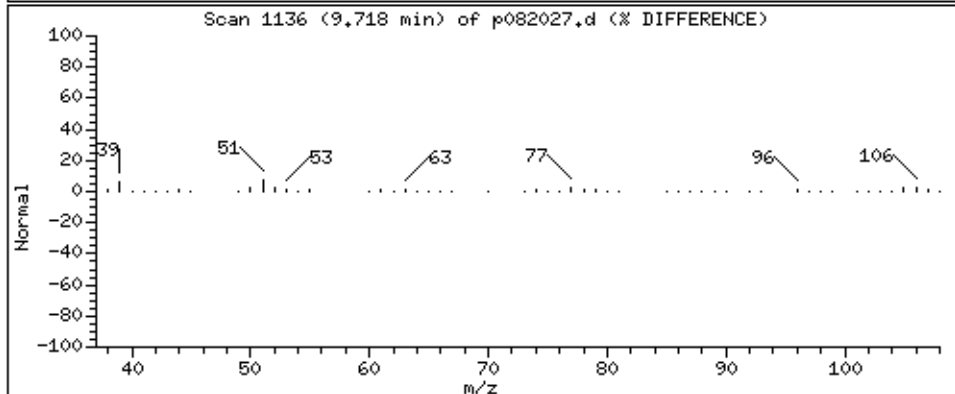
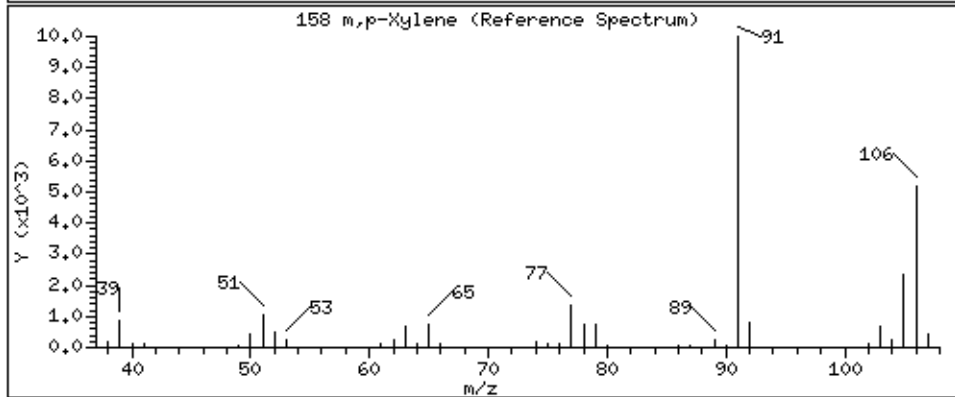
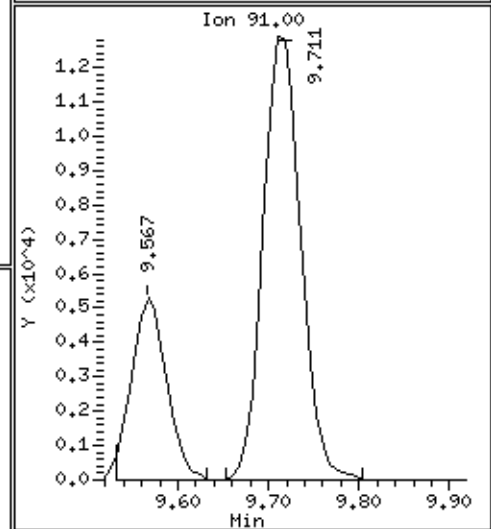
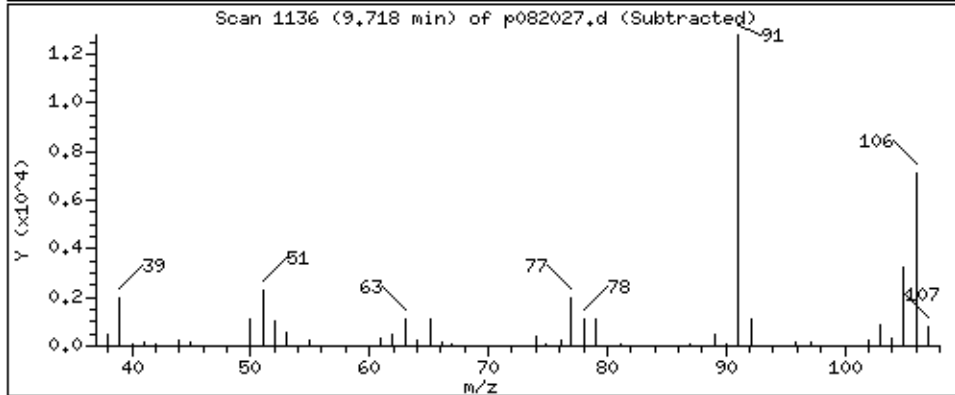
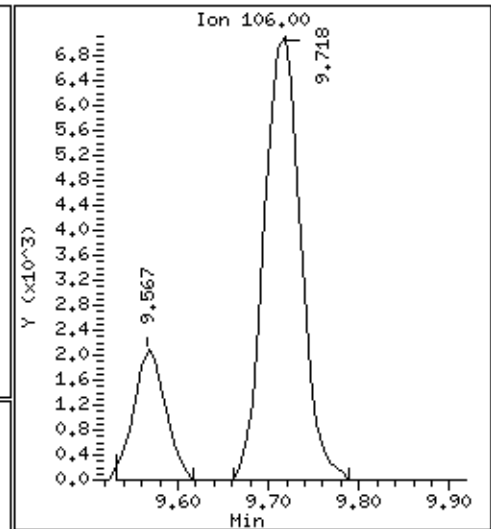
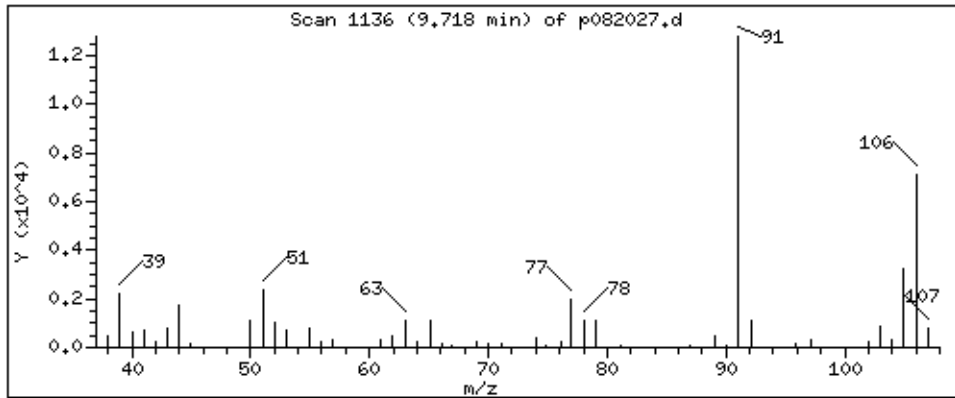
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 4.105 PPBV



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

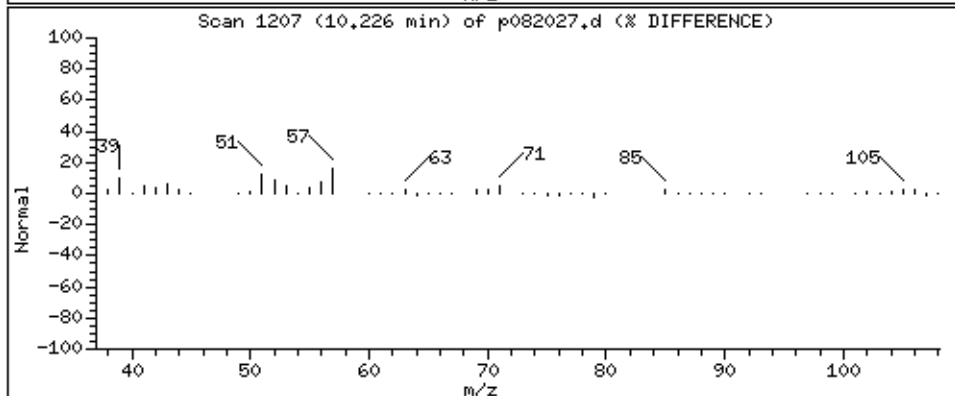
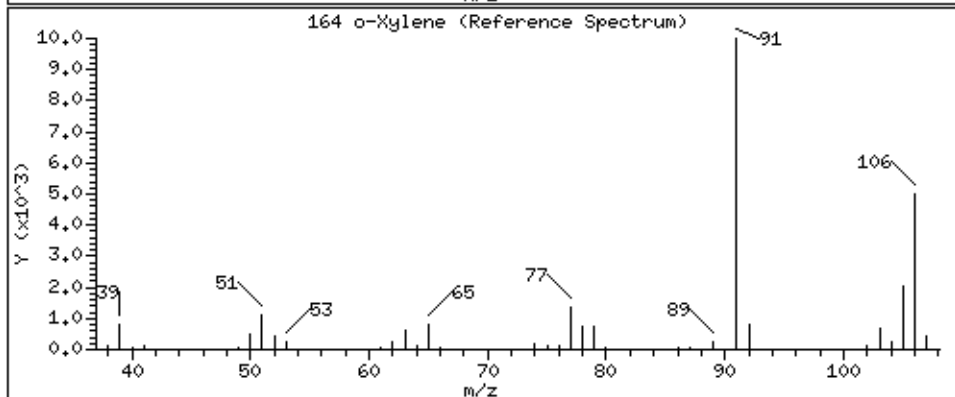
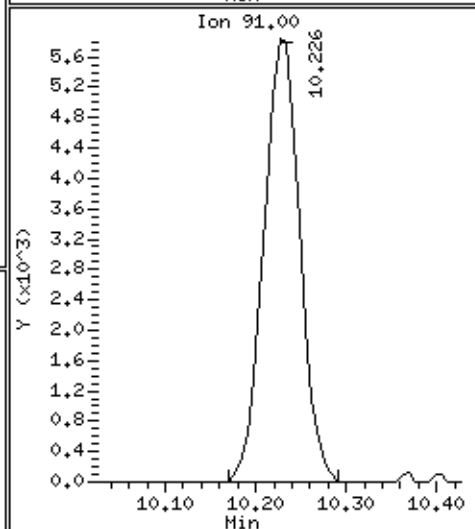
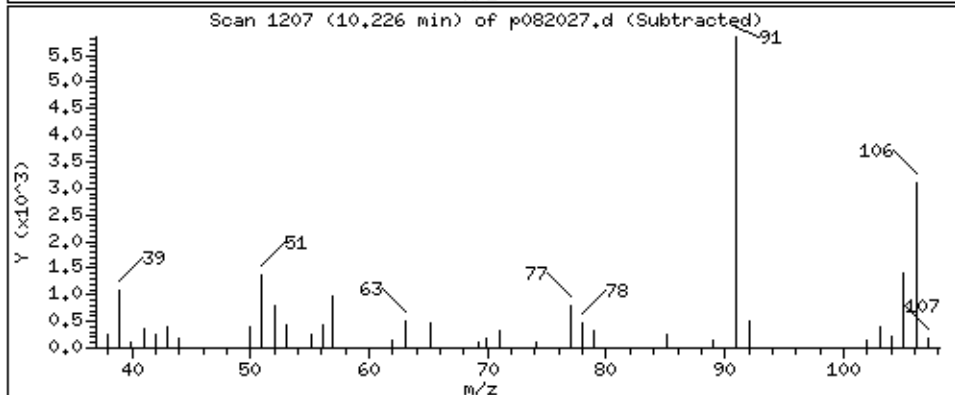
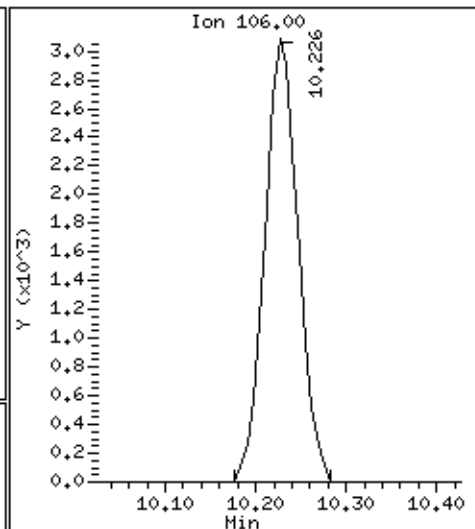
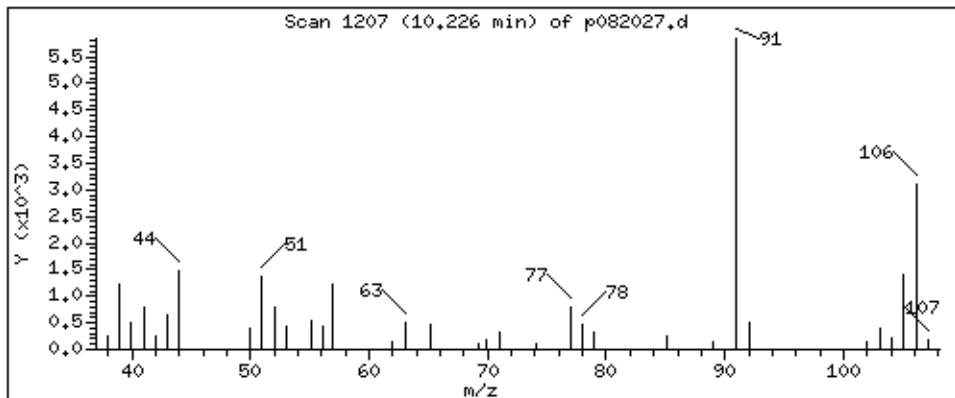
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 1,694 PPBV



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

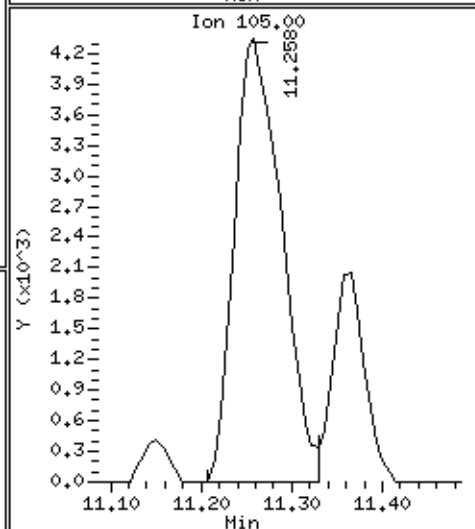
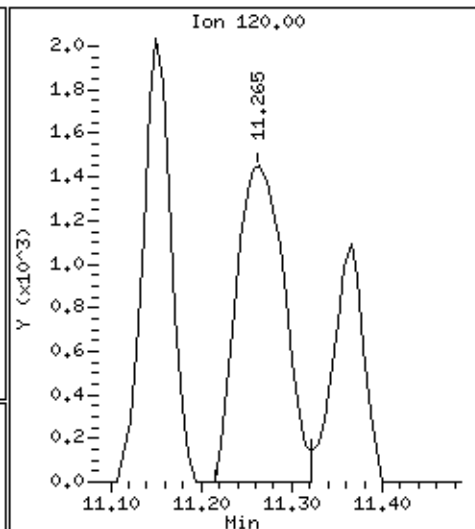
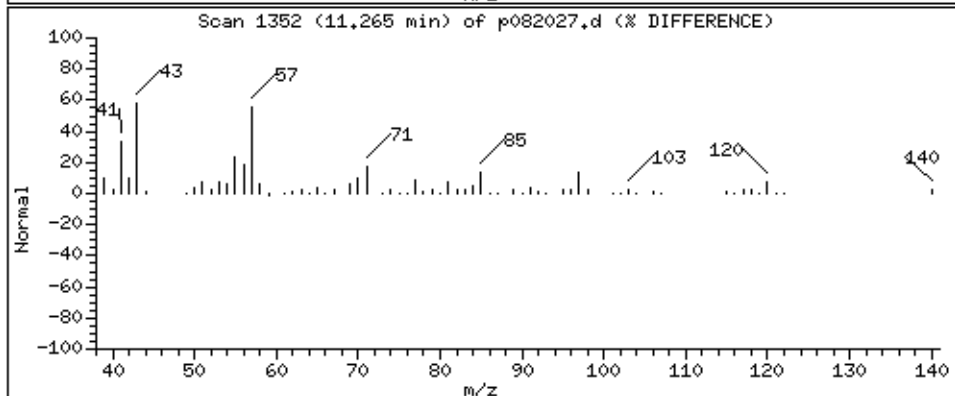
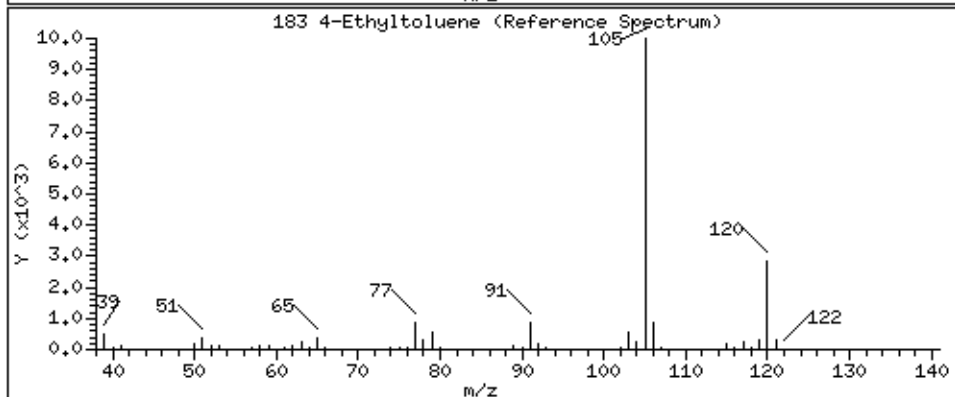
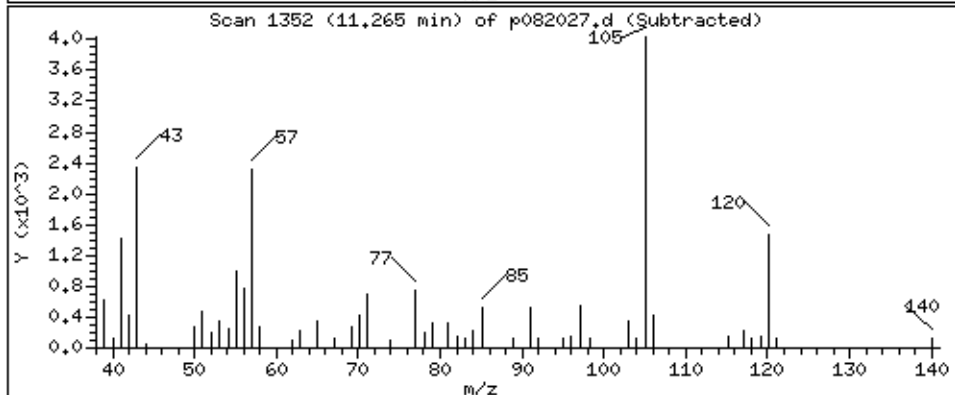
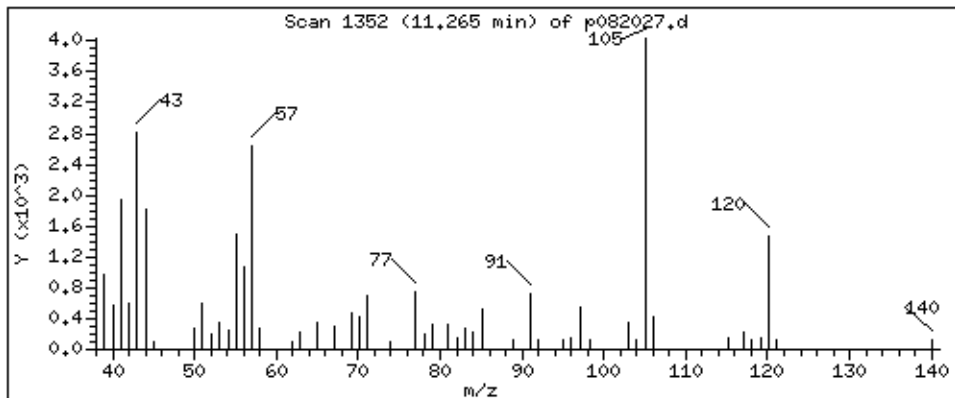
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 1,129 PPBV



Date : 21-AUG-2021 03:12

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1678

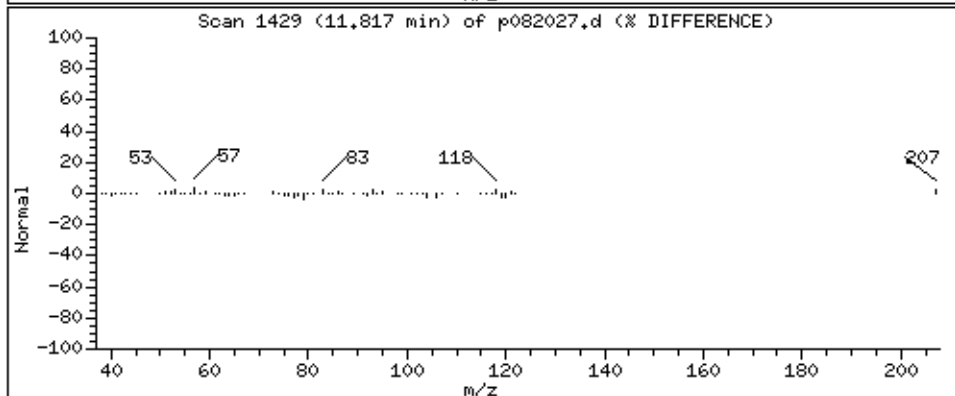
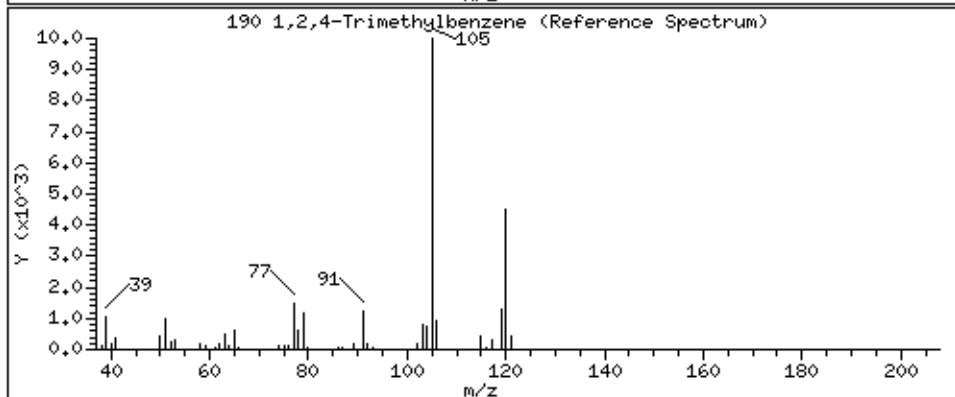
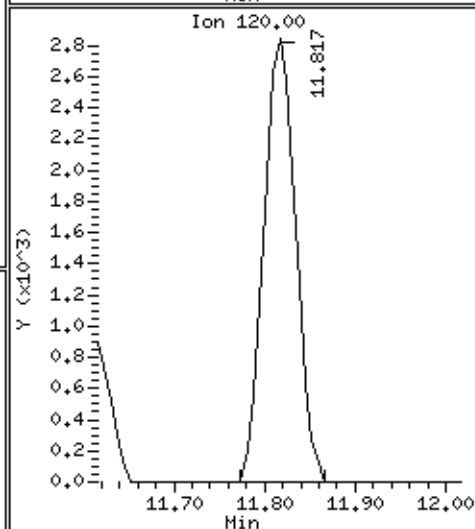
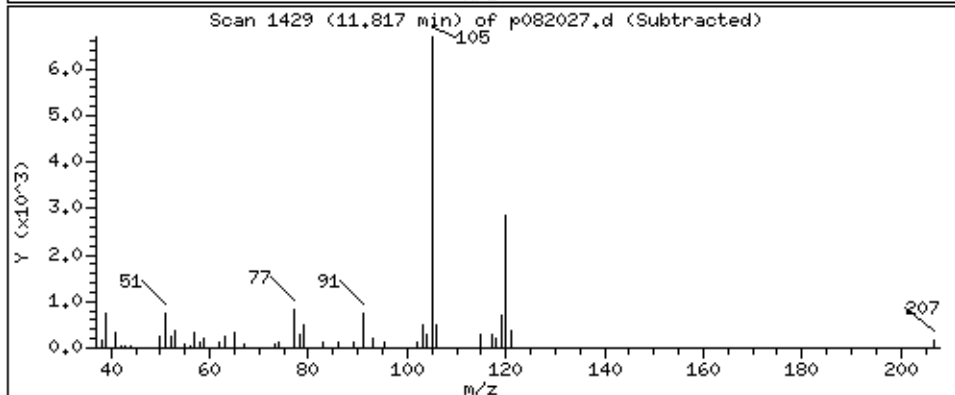
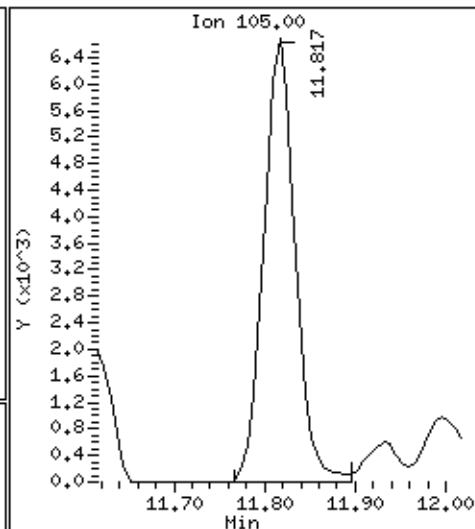
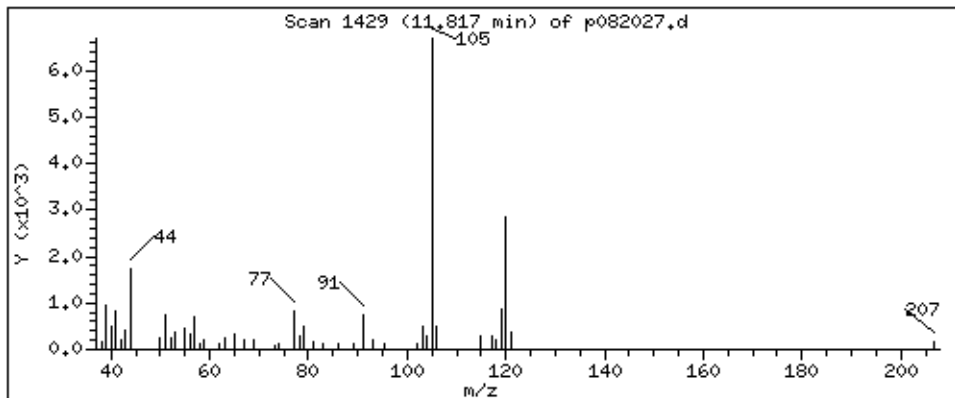
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 1,308 PPBV



Client Sample ID: SG-VW59A-02

Lab ID#: 2108390-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082028	Date of Collection:	8/17/21 10:16:00 AM
Dil. Factor:	2.02	Date of Analysis:	8/21/21 03:42 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.0	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
1,1-Difluoroethane	4.0	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.0	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2-Dibromo-3-chloropropane	4.0	Not Detected	39	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
2-Hexanone	4.0	Not Detected	16	Not Detected
2-Propanol	4.0	Not Detected	9.9	Not Detected
3-Chloropropene	4.0	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.0	Not Detected	9.3	Not Detected
Acrylonitrile	4.0	Not Detected	8.8	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Chloroethane	4.0	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	4.9	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected

Client Sample ID: SG-VW59A-02

Lab ID#: 2108390-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082028	Date of Collection:	8/17/21 10:16:00 AM
Dil. Factor:	2.02	Date of Analysis:	8/21/21 03:42 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
Dibromomethane	4.0	Not Detected	29	Not Detected
Ethanol	10	12	19	22
Ethyl Acetate	4.0	Not Detected	14	Not Detected
Ethyl Benzene	1.0	1.0	4.4	4.4
Ethyl-tert-butyl ether	4.0	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Freon 12	1.0	1.5	5.0	7.5
Freon 113	1.0	Not Detected	7.7	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Freon 134a	4.0	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected
Hexachloroethane	4.0	Not Detected	39	Not Detected
Hexane	1.0	42	3.6	150
Iodomethane	10	Not Detected	59	Not Detected
Isopropyl ether	4.0	Not Detected	17	Not Detected
m,p-Xylene	1.0	3.7	4.4	16
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
o-Xylene	1.0	1.4	4.4	6.1
Propylbenzene	1.0	Not Detected	5.0	Not Detected
Propylene	4.0	Not Detected	7.0	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
tert-Amyl methyl ether	4.0	Not Detected	17	Not Detected
tert-Butyl alcohol	4.0	Not Detected	12	Not Detected
Tetrachloroethene	1.0	15	6.8	100
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	3.7	3.8	14
TPH ref. to Gasoline (MW=100)	100	Not Detected	410	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Trichloroethene	1.0	Not Detected	5.4	Not Detected
Vinyl Acetate	4.0	Not Detected	14	Not Detected
Vinyl Bromide	4.0	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SG-VW59A-02**
**Lab ID#: 2108390-18A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p082028</b>	<b>Date of Collection: 8/17/21 10:16:00 AM</b>
<b>Dil. Factor:</b>	<b>2.02</b>	<b>Date of Analysis: 8/21/21 03:42 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	102	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082028.d  
 Lab Smp Id: 2108390-18A  
 Inj Date : 21-AUG-2021 03:42  
 Operator : kk  
 Smp Info : 200ml O0239  
 Misc Info : 5.0 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5f1  
 Cal Date : 19-MAY-2021 19:45  
 Als bottle: 10  
 Dil Factor: 2.02000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msdp.i  
 Quant Type: ISTD  
 Cal File: p051915.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	104790	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	81003			48.23- 108.23	77.30
5.785	5.778	(1.000)	49	241580			150.57- 210.57	230.54
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	369112	25.0000		80.00- 120.00	100.00
6.666	6.659	(1.000)	88	53857			0.00- 45.71	14.59
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	385745	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	197629			23.78- 83.78	51.23
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	157276	27.1959	27.196	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	74412			27.21- 87.21	47.31
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	406061	25.3340	25.334	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	44521			0.00- 40.44	10.96



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	260778			34.95- 94.95	64.22
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	253636	25.6056	25.606	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	292553			95.92- 155.92	115.34
10.921	10.921	(1.154)	176	241792			66.89- 126.89	95.33
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.730	1.717	(0.299)	85	7039	0.74895	1.513	80.00- 120.00	100.00
1.730	1.717	(0.299)	87	2118			2.37- 62.37	30.09
-----								
39 Ethanol								
						CAS #: 64-17-5		
3.271	3.242	(0.565)	46	5989	5.76311	11.641	80.00- 120.00	100.00
3.257	3.285	(0.563)	45	16715			511.19- 571.19	279.09
-----								
67 Hexane								
						CAS #: 110-54-3		
4.696	4.697	(0.812)	57	213099	20.6431	41.699	80.00- 120.00	100.00
4.696	4.697	(0.812)	43	171211			37.52- 97.52	80.34
4.703	4.697	(0.813)	86	20228			0.00- 41.48	9.49
-----								
137 Toluene								
						CAS #: 108-88-3		
7.956	7.956	(1.193)	91	30961	1.84236	3.722	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	17408			28.38- 88.38	56.23
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
8.471	8.464	(0.895)	166	66739	7.59136	15.334	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	52209			47.84- 107.84	78.23
8.471	8.464	(0.895)	131	52107			45.29- 105.29	78.08
-----								
155 Ethyl Benzene								
						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	4022	0.50216	1.014	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	12414			273.74- 333.74	308.60
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	18527	1.84691	3.731	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	35451			163.73- 223.73	191.34
-----								
164 o-Xylene								
						CAS #: 95-47-6		
10.233	10.226	(1.082)	106	6701	0.69721	1.408	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	13998			177.45- 237.45	208.90
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082028.d  
 Lab Smp Id: 2108390-18A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: kk  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 5.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	104790	-4.19
108 1,4-Difluorobenze	406799	244079	569519	369112	-9.26
153 Chlorobenzene-d5	400841	240505	561177	385745	-3.77

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.10
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Report Date: 24-Aug-2021 12:39

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-18A  
Level: LOW Operator: kk  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 5.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.196	108.78	70-130
\$ 134 Toluene-d8	25.000	25.334	101.34	70-130
\$ 170 4-Bromofluorobenz	25.000	25.606	102.42	70-130

Date : 21-AUG-2021 03:42

Client ID:

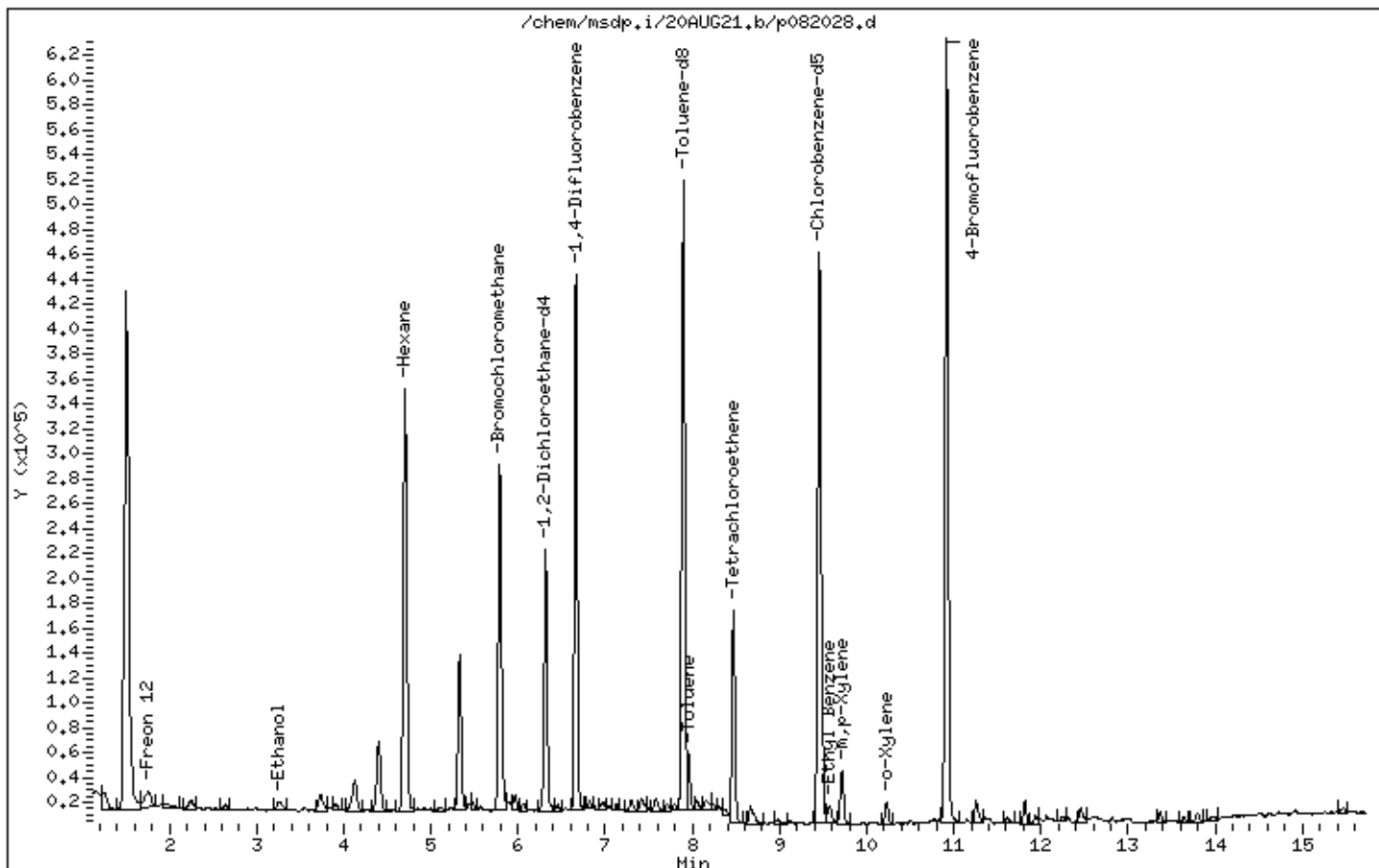
Instrument: msdp.i

Sample Info: 200ml 00239

Operator: kk

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 03:42

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00239

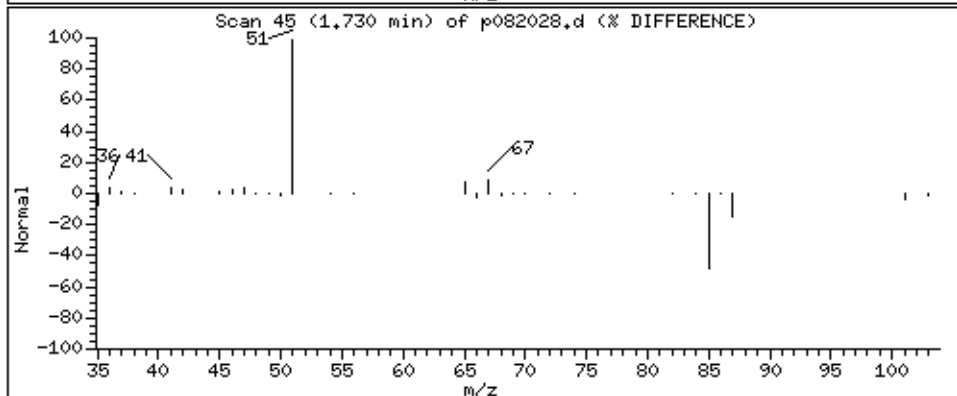
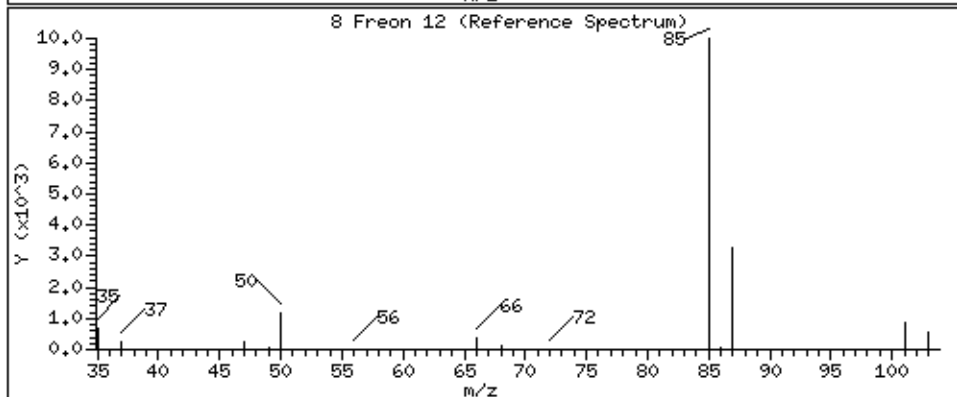
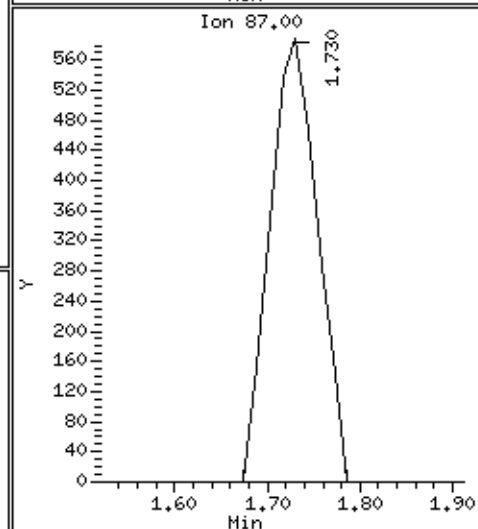
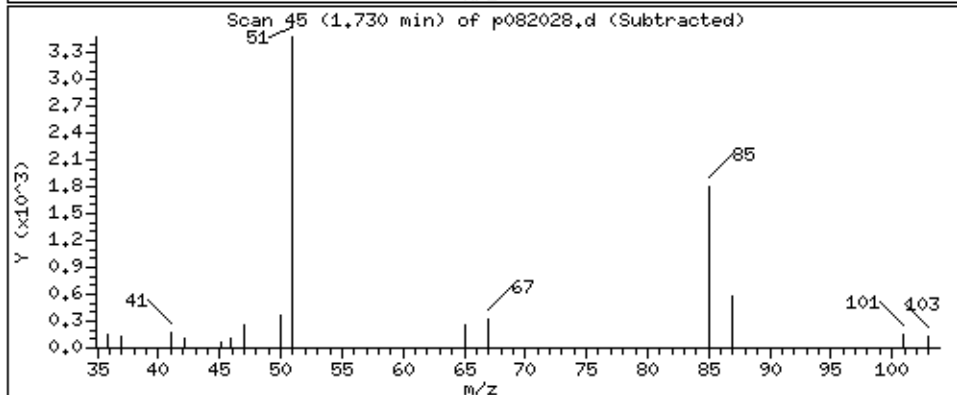
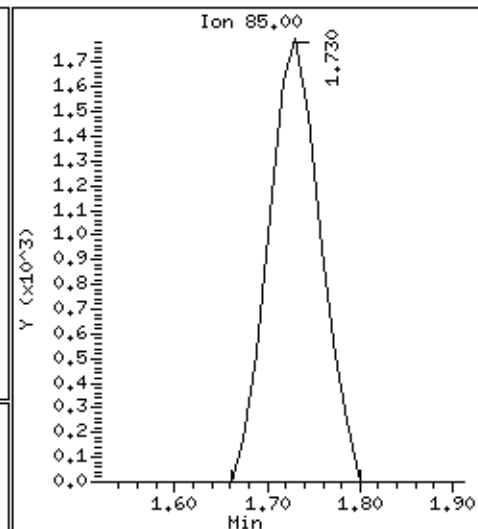
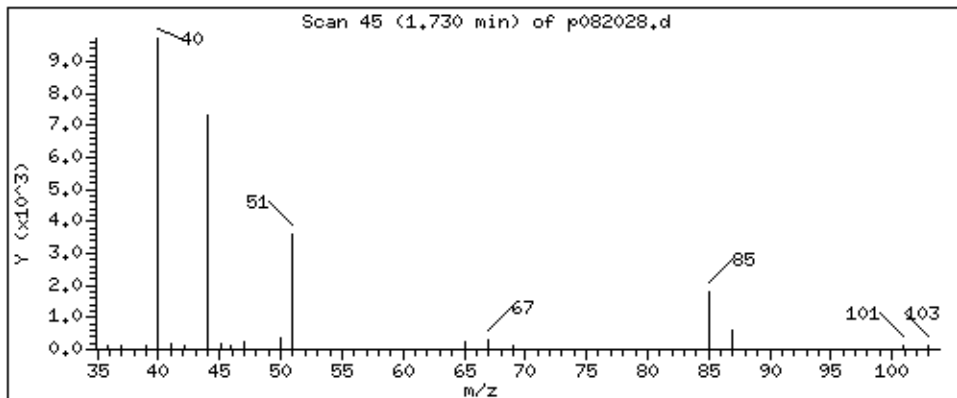
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 1,513 PPBV



Date : 21-AUG-2021 03:42

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00239

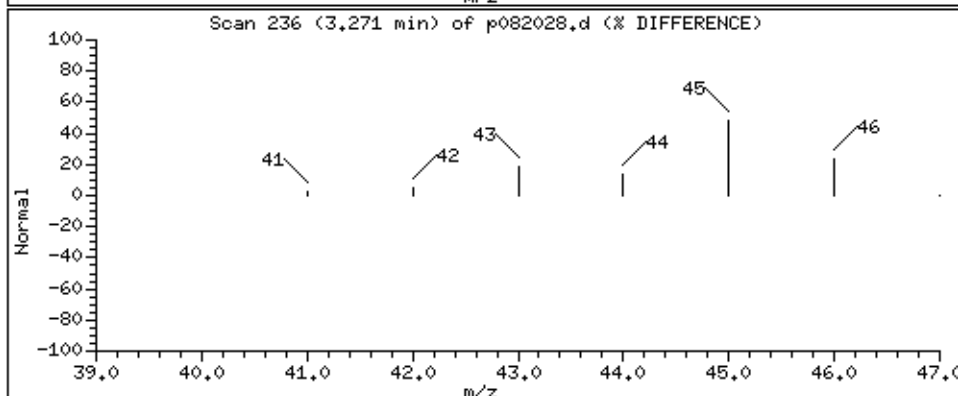
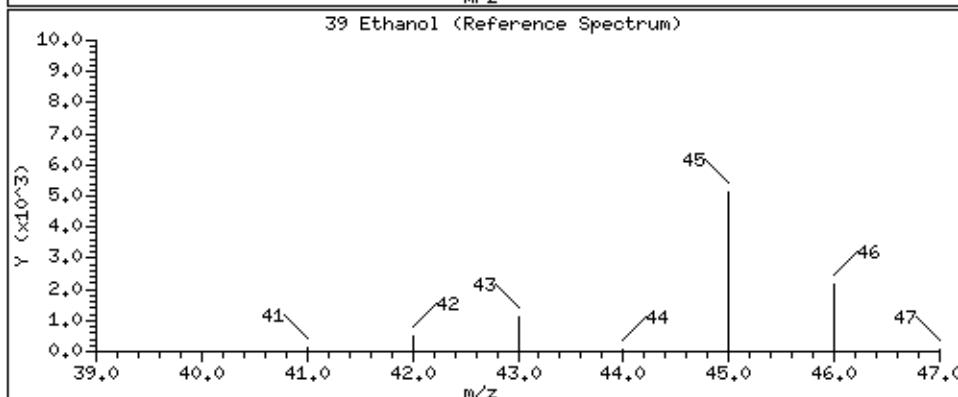
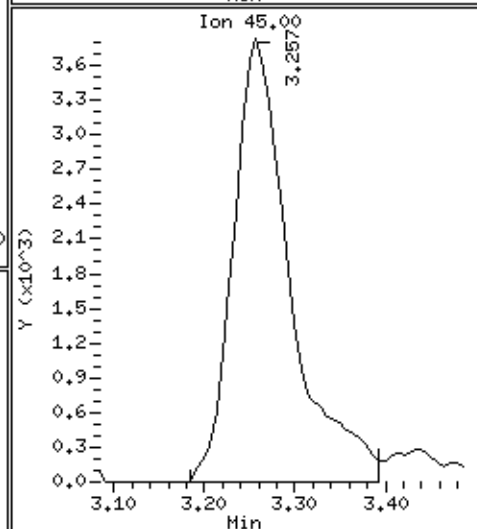
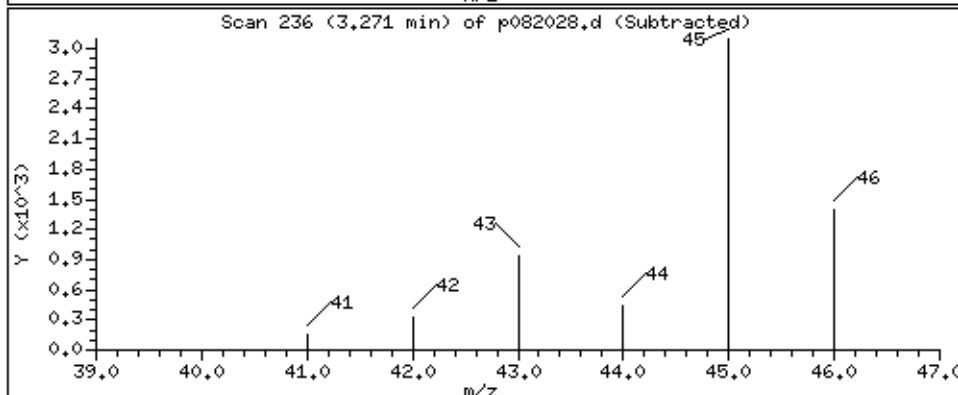
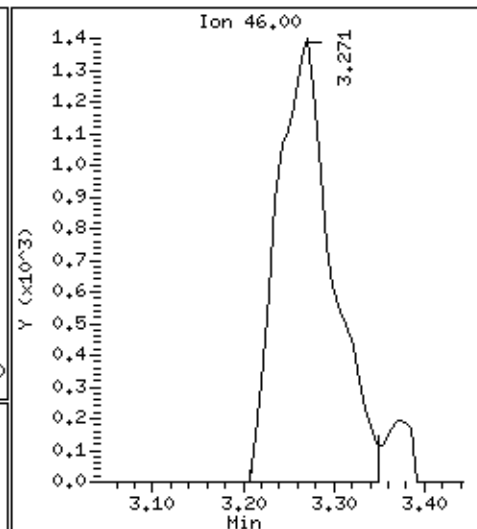
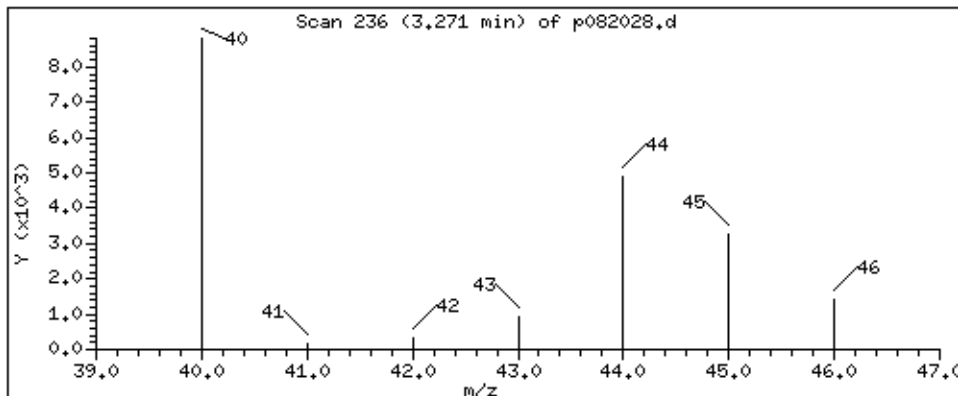
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 11,641 PPBV



Date : 21-AUG-2021 03:42

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00239

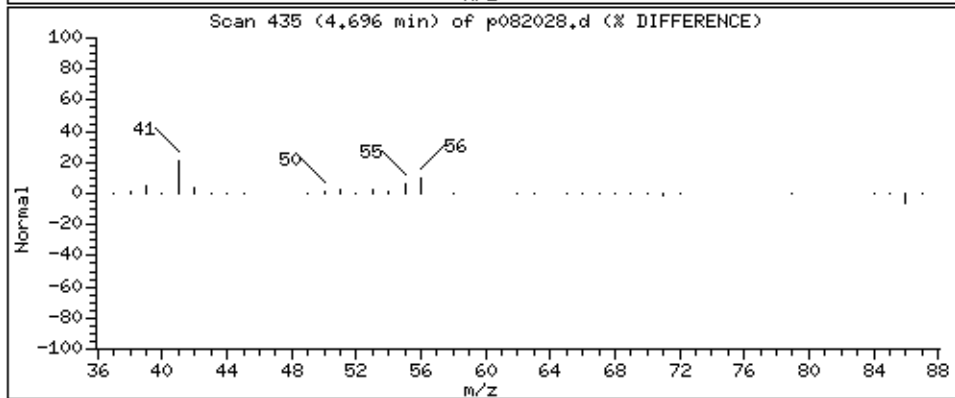
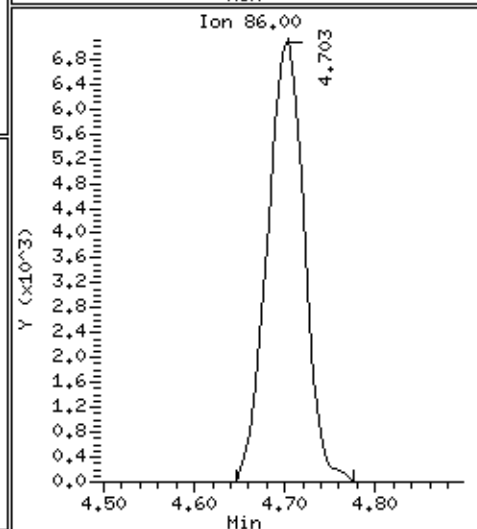
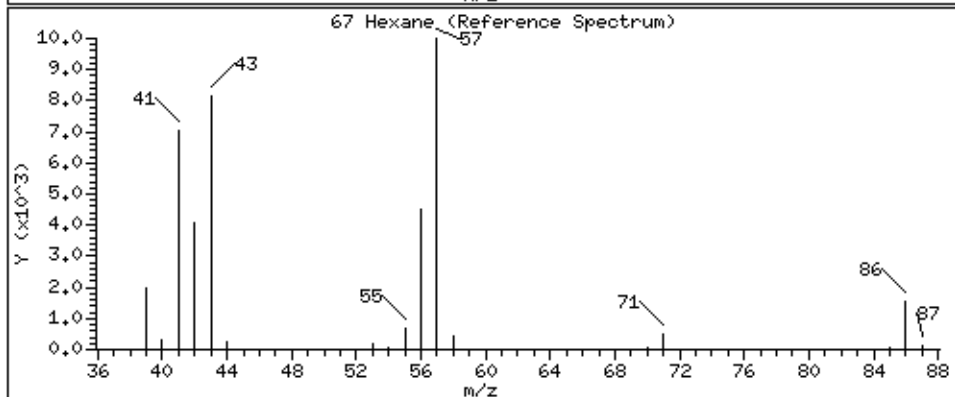
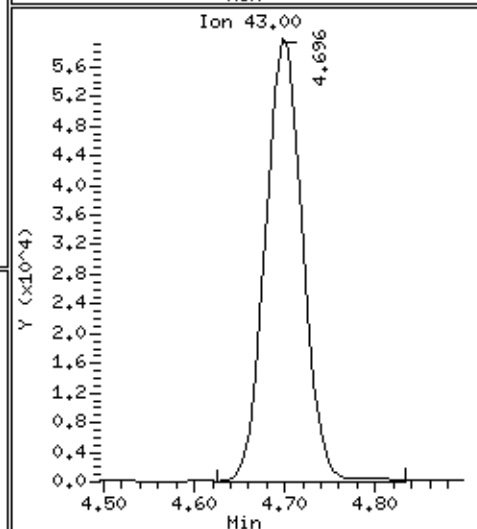
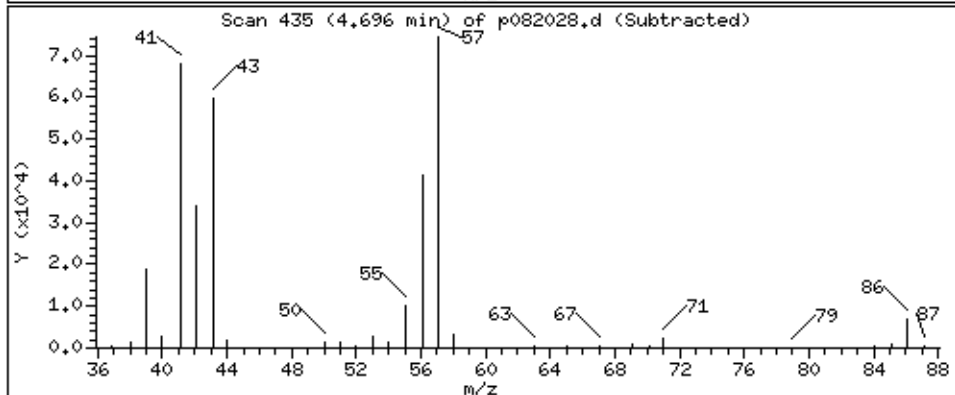
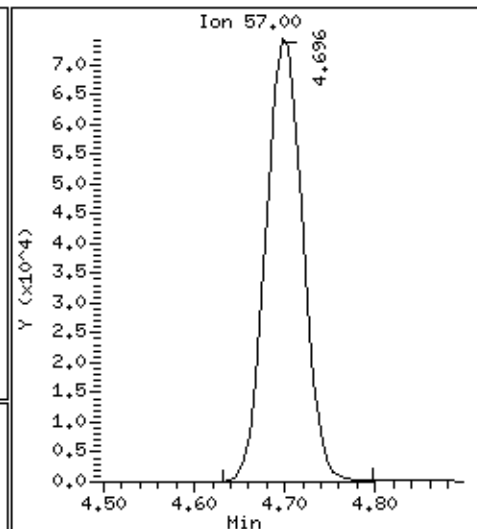
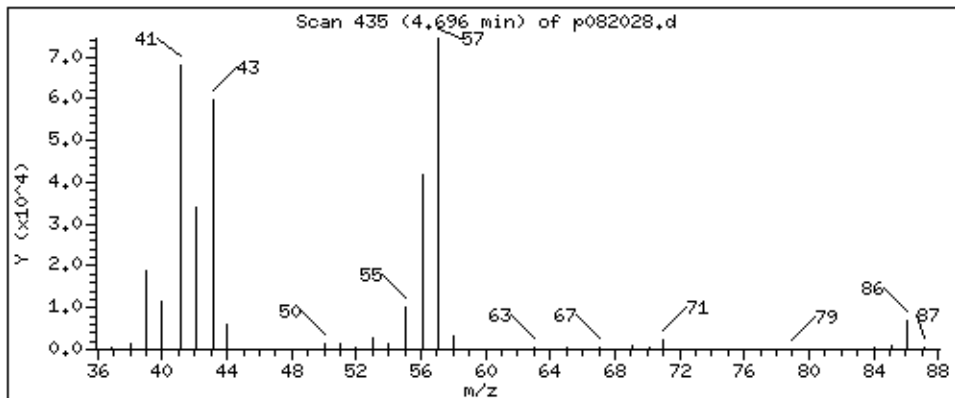
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 41.699 PPBV



Date : 21-AUG-2021 03:42

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00239

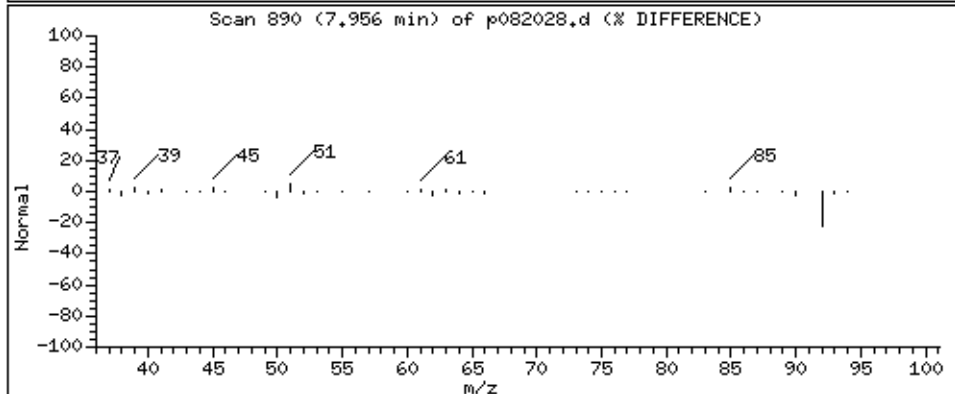
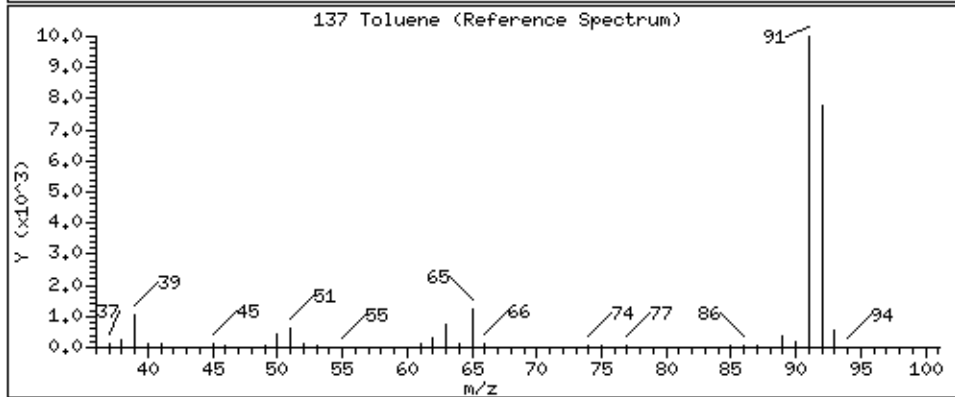
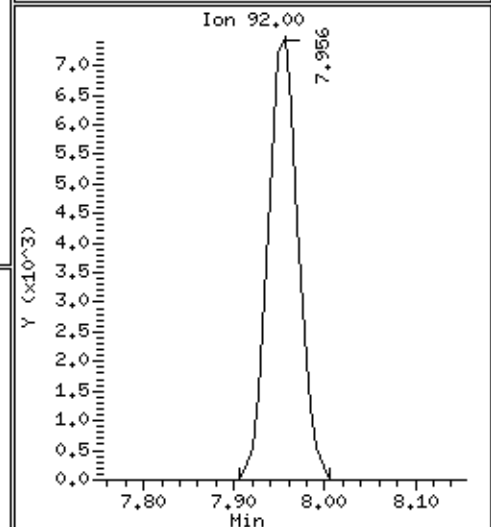
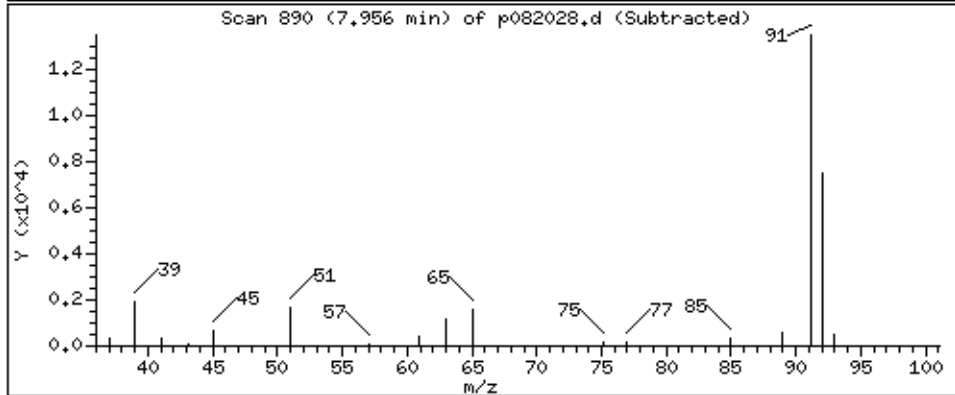
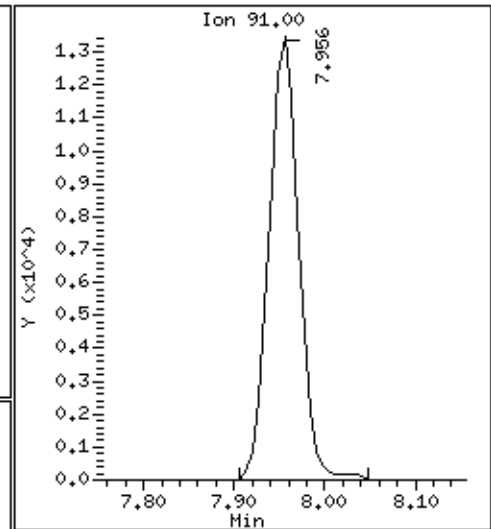
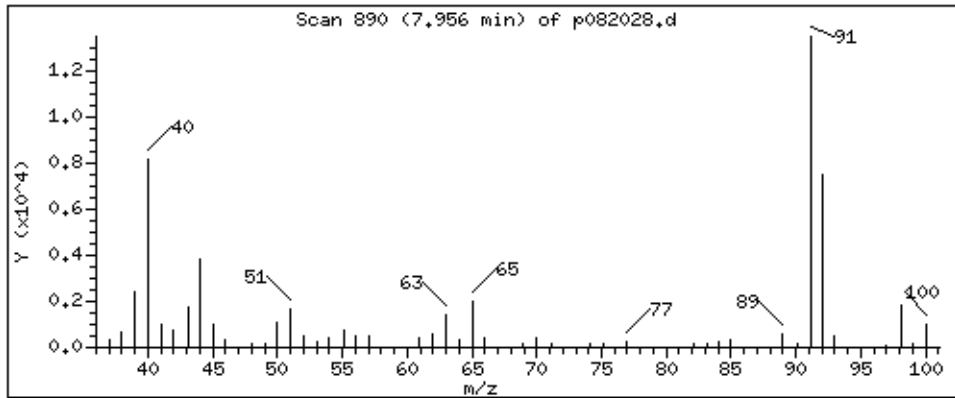
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 3.722 PPBV





Date : 21-AUG-2021 03:42

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00239

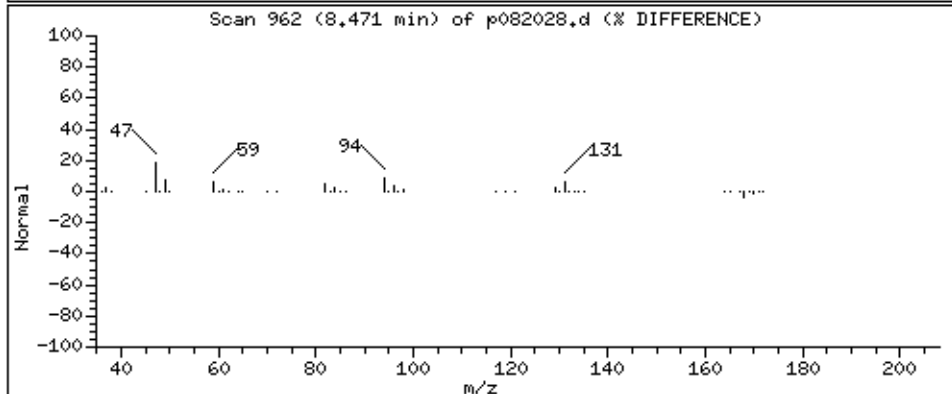
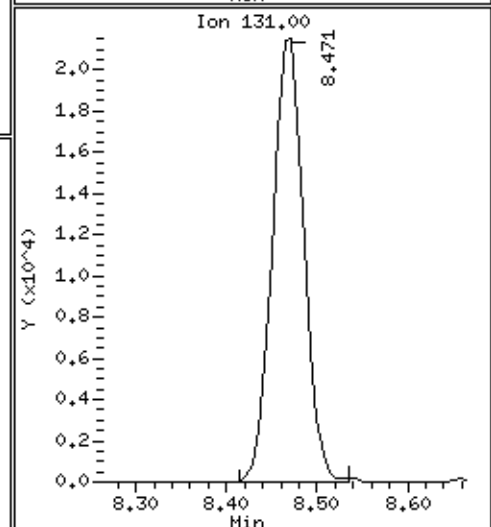
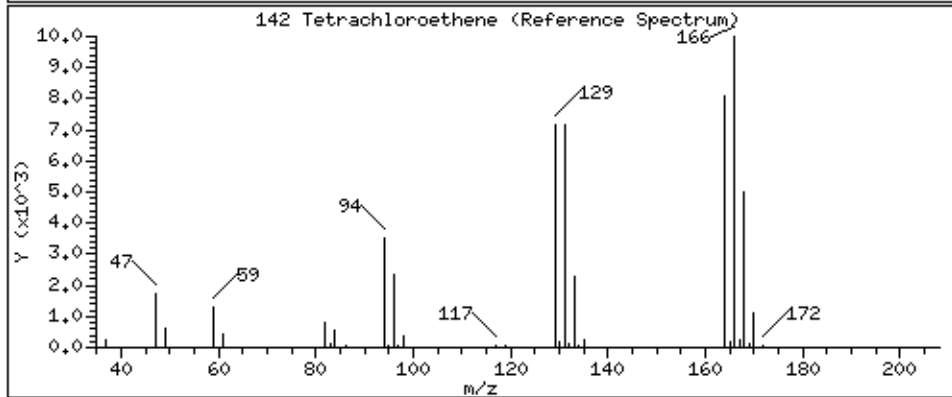
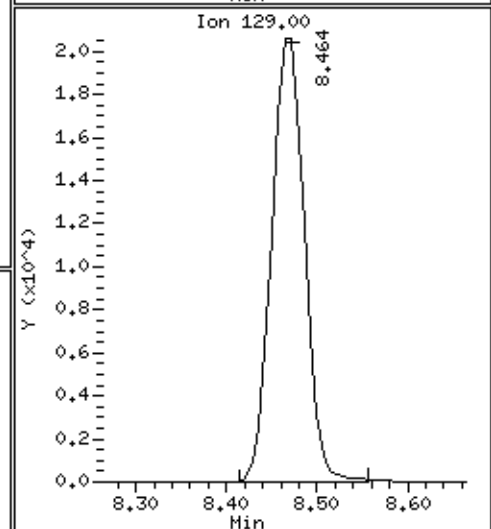
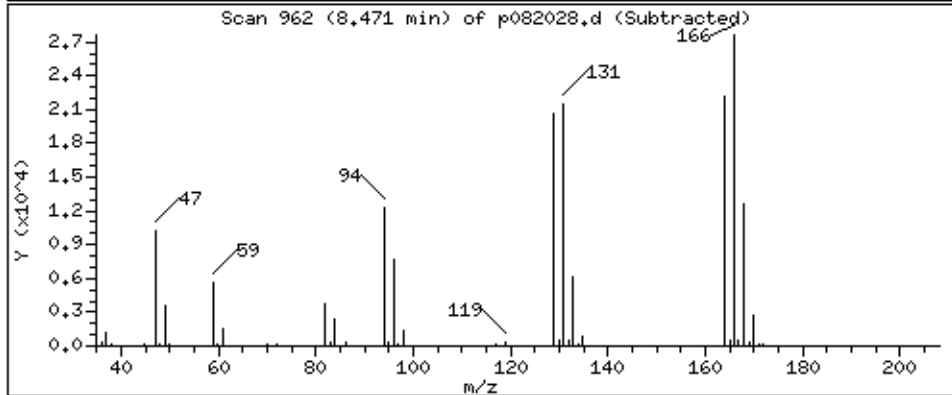
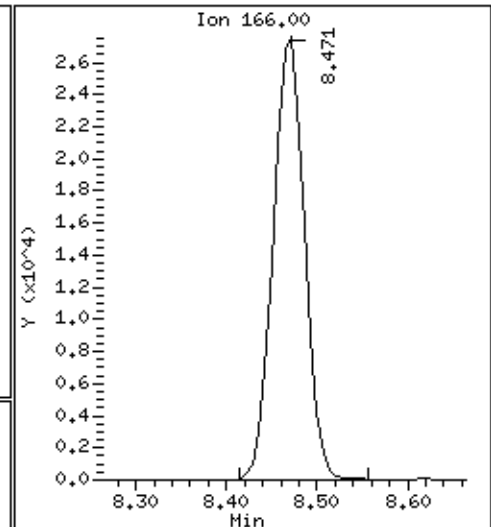
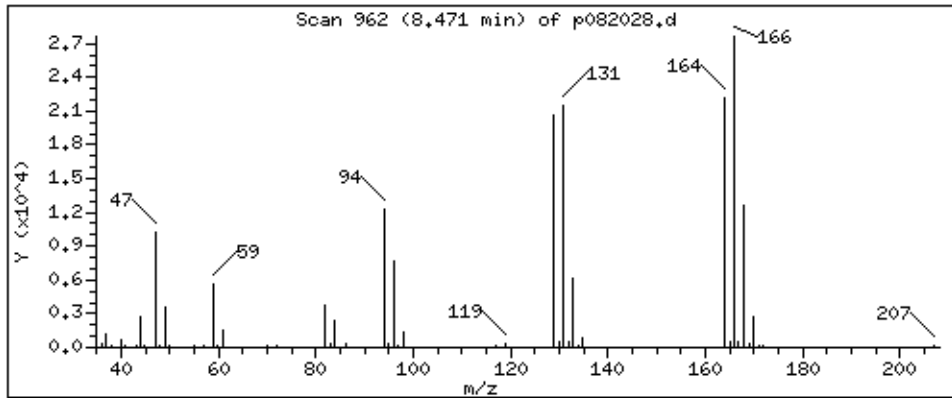
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 15,334 PPBV



Date : 21-AUG-2021 03:42

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00239

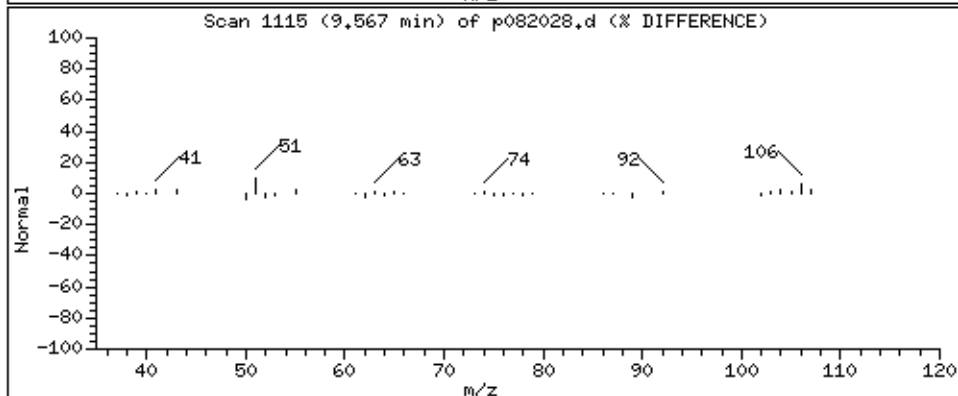
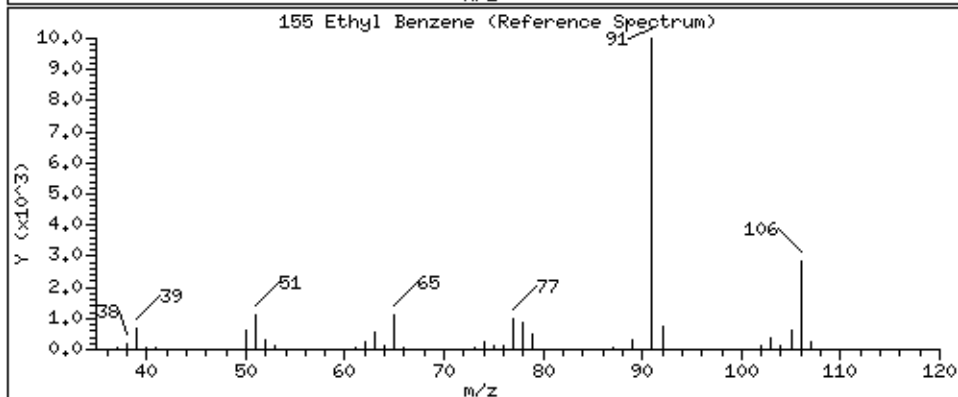
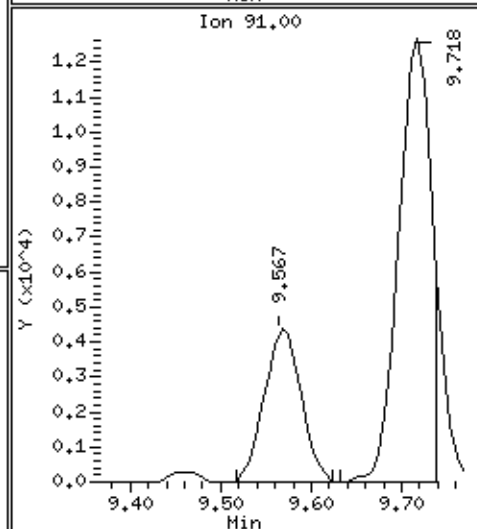
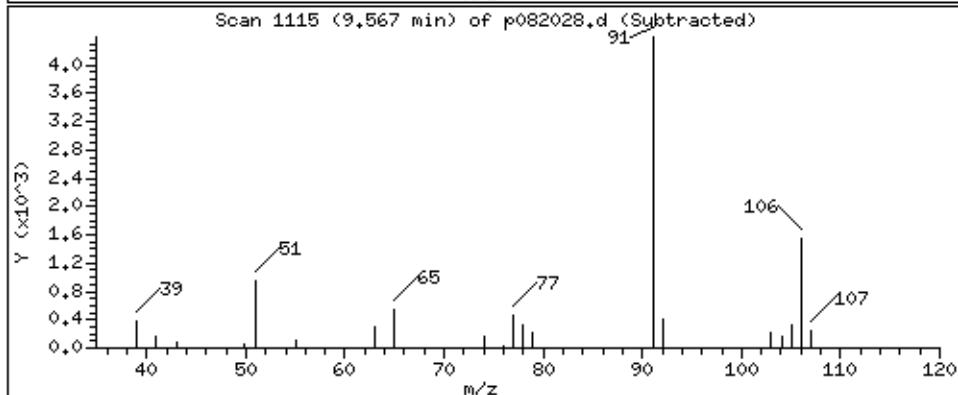
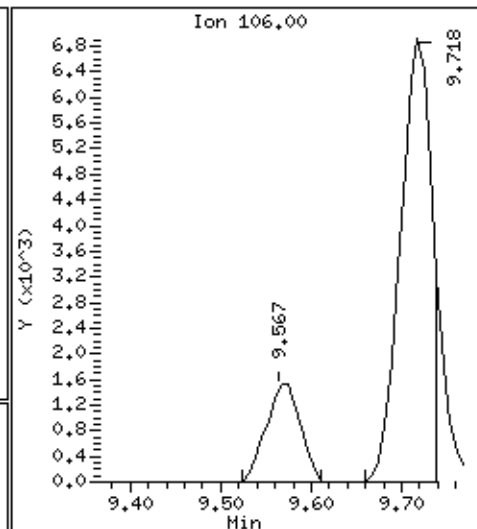
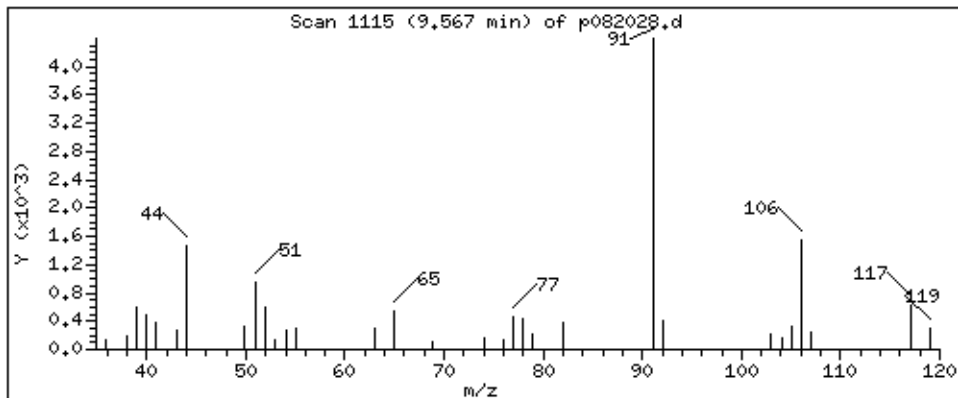
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 1.014 PPBV



Date : 21-AUG-2021 03:42

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00239

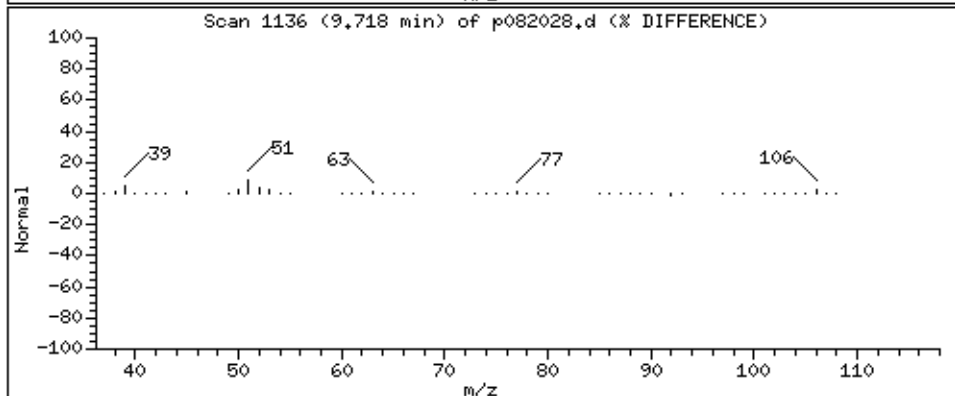
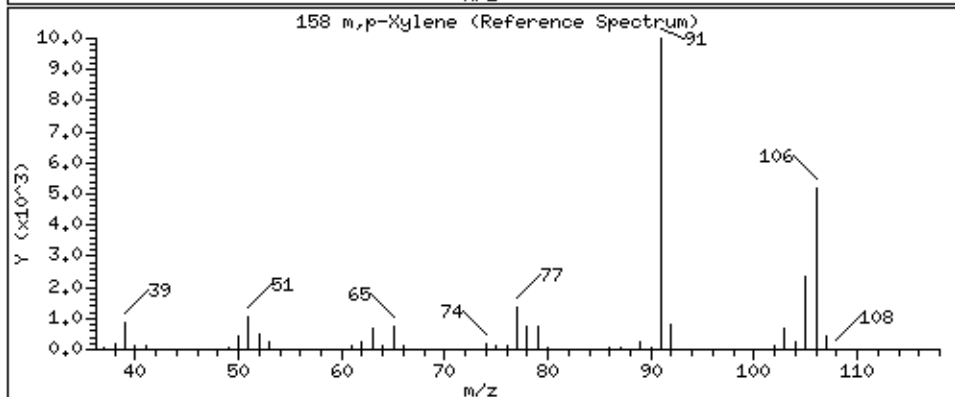
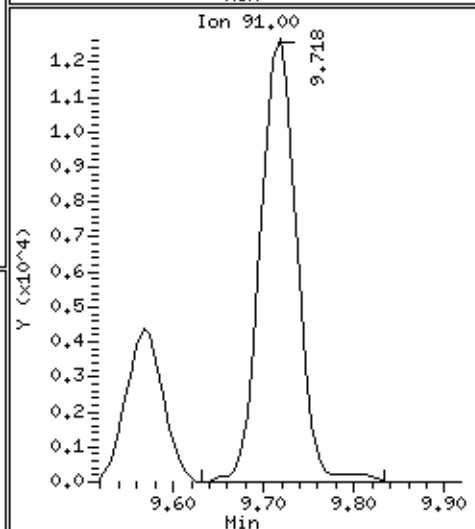
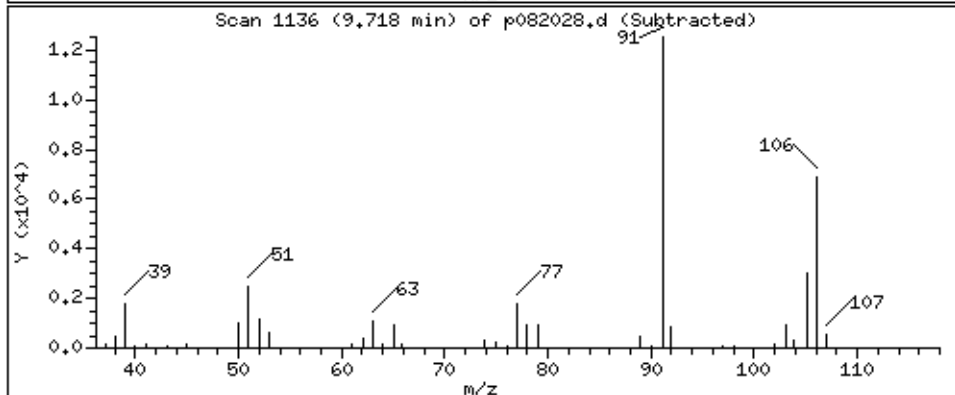
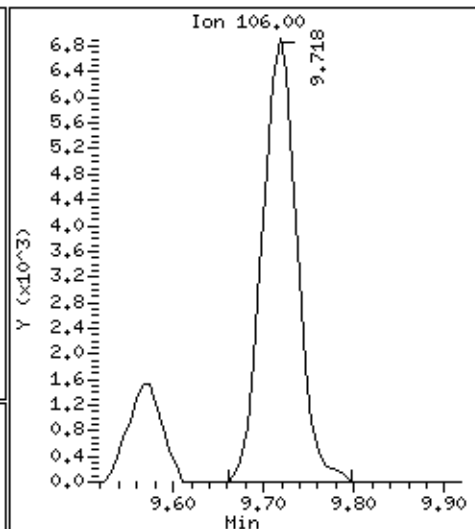
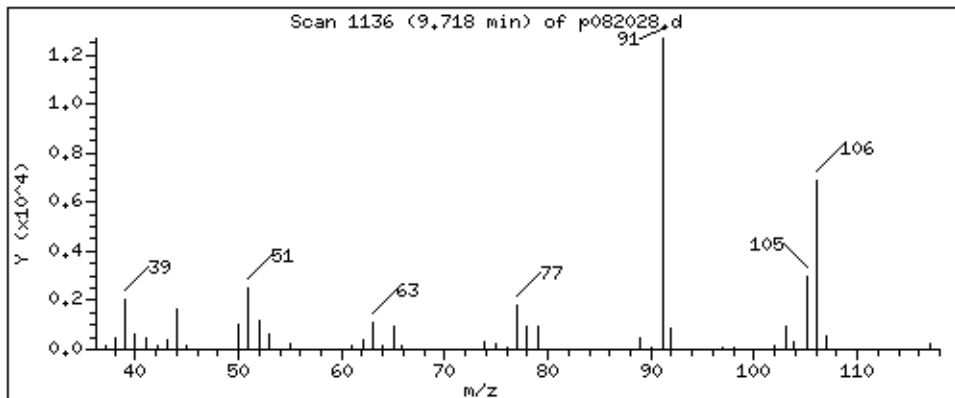
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 3.731 PPBV



Date : 21-AUG-2021 03:42

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00239

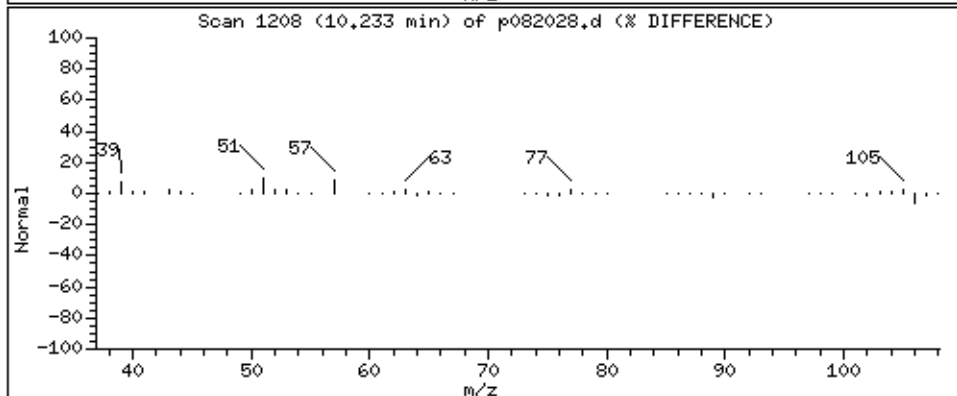
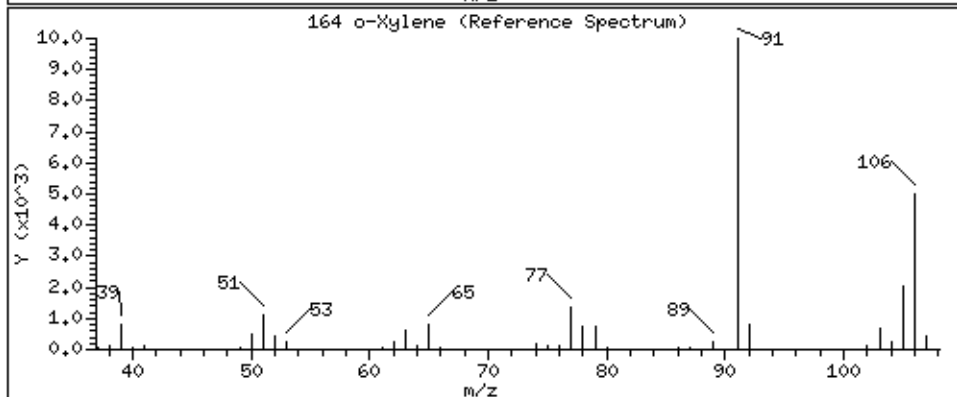
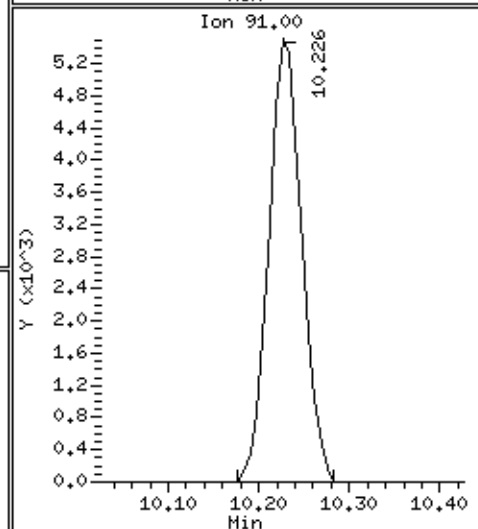
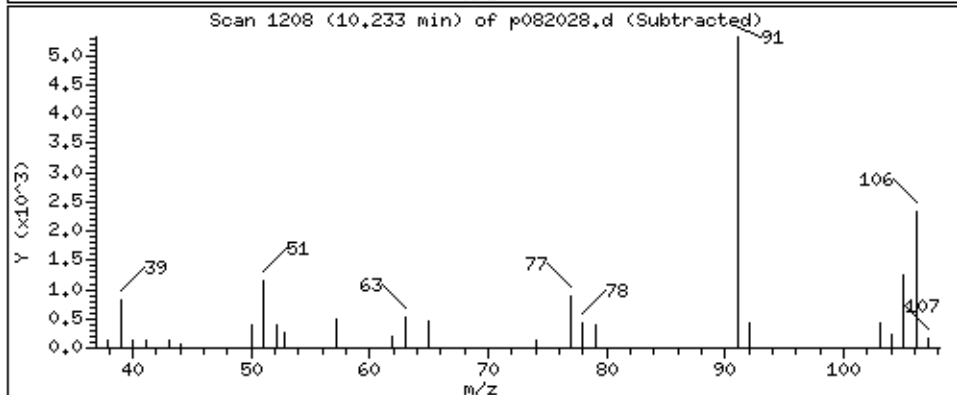
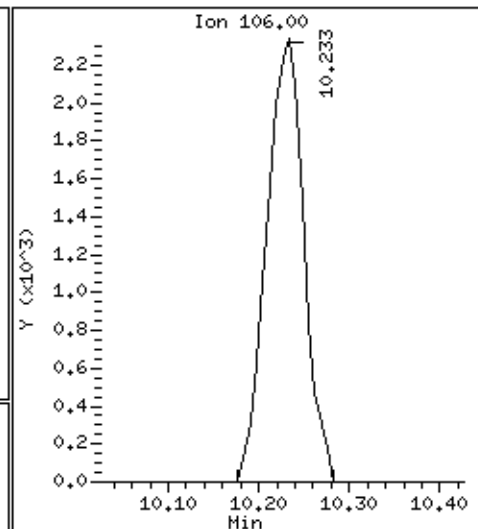
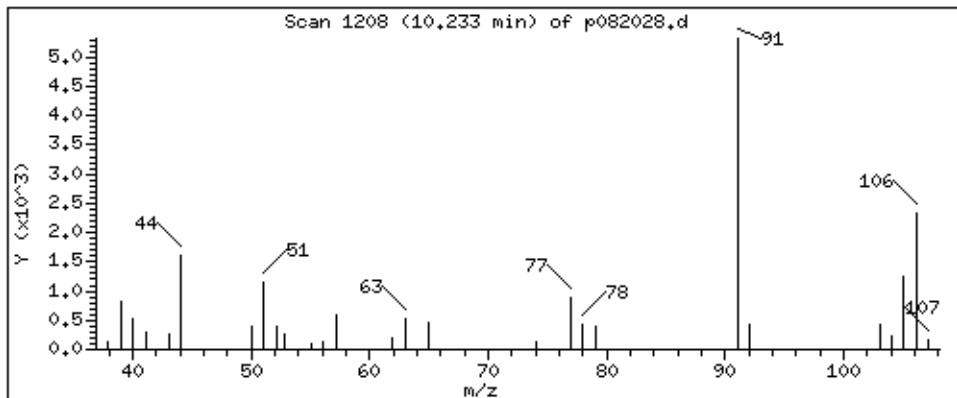
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 1.408 PPBV





Air Toxics

Client Sample ID: SG-VW59B-02

Lab ID#: 2108390-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082029	Date of Collection:	8/17/21 10:43:00 AM
Dil. Factor:	2.10	Date of Analysis:	8/21/21 04:11 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.2	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,2-Dibromo-3-chloropropane	4.2	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected
2-Propanol	4.2	Not Detected	10	Not Detected
3-Chloropropene	4.2	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Acetone	10	Not Detected	25	Not Detected
Acrolein	4.2	Not Detected	9.6	Not Detected
Acrylonitrile	4.2	Not Detected	9.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
Chloromethane	10	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected

Client Sample ID: SG-VW59B-02

Lab ID#: 2108390-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082029	Date of Collection:	8/17/21 10:43:00 AM
Dil. Factor:	2.10	Date of Analysis:	8/21/21 04:11 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
Dibromomethane	4.2	Not Detected	30	Not Detected
Ethanol	10	14	20	27
Ethyl Acetate	4.2	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.2	Not Detected	18	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 12	1.0	5.3	5.2	26
Freon 113	1.0	Not Detected	8.0	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Freon 134a	4.2	Not Detected	18	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected
Hexachloroethane	4.2	Not Detected	41	Not Detected
Hexane	1.0	36	3.7	130
Iodomethane	10	Not Detected	61	Not Detected
Isopropyl ether	4.2	Not Detected	18	Not Detected
m,p-Xylene	1.0	2.5	4.6	11
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	1.1	4.6	4.7
Propylbenzene	1.0	Not Detected	5.2	Not Detected
Propylene	4.2	Not Detected	7.2	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
tert-Amyl methyl ether	4.2	Not Detected	18	Not Detected
tert-Butyl alcohol	4.2	Not Detected	13	Not Detected
Tetrachloroethene	1.0	45	7.1	300
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Toluene	1.0	1.7	4.0	6.5
TPH ref. to Gasoline (MW=100)	100	Not Detected	430	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Vinyl Acetate	4.2	Not Detected	15	Not Detected
Vinyl Bromide	4.2	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SG-VW59B-02

Lab ID#: 2108390-19A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082029	Date of Collection: 8/17/21 10:43:00 AM
Dil. Factor:	2.10	Date of Analysis: 8/21/21 04:11 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	102	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082029.d  
 Lab Smp Id: 2108390-19A  
 Inj Date : 21-AUG-2021 04:11  
 Operator : kk  
 Smp Info : 200ml 1L1817  
 Misc Info : 6.0 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5f1  
 Cal Date : 19-MAY-2021 19:45  
 Als bottle: 11  
 Dil Factor: 2.10000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msdp.i  
 Quant Type: ISTD  
 Cal File: p051915.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	104316	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	83019			48.23- 108.23	79.58
5.785	5.778	(1.000)	49	242902			150.57- 210.57	232.85
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	370394	25.0000		80.00- 120.00	100.00
6.666	6.659	(1.000)	88	52016			0.00- 45.71	14.04
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	382215	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	196095			23.78- 83.78	51.30
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	159023	27.6229	27.623	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	74122			27.21- 87.21	46.61
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	408957	25.4264	25.426	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	44563			0.00- 40.44	10.90



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	260820			34.95- 94.95	63.78
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	250956	25.5690	25.569	80.00- 120.00	100.00
10.921	10.914	(1.154)	95	293227			95.92- 155.92	116.84
10.921	10.921	(1.154)	176	239216			66.89- 126.89	95.32
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.730	1.717	(0.299)	85	23732	2.53655	5.327	80.00- 120.00	100.00
1.730	1.717	(0.299)	87	7657			2.37- 62.37	32.27
-----								
39 Ethanol								
						CAS #: 64-17-5		
3.257	3.242	(0.563)	46	7021	6.78688	14.252	80.00- 120.00	100.00
3.264	3.285	(0.564)	45	20291			511.19- 571.19	289.01
-----								
67 Hexane								
						CAS #: 110-54-3		
4.696	4.697	(0.812)	57	178623	17.3820	36.502	80.00- 120.00	100.00
4.696	4.697	(0.812)	43	141853			37.52- 97.52	79.42
4.696	4.697	(0.812)	86	17611			0.00- 41.48	9.86
-----								
137 Toluene								
						CAS #: 108-88-3		
7.956	7.956	(1.193)	91	13929	0.82599	1.734	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	8165			28.38- 88.38	58.62
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
8.471	8.464	(0.895)	166	185032	21.2412	44.606	80.00- 120.00	100.00
8.471	8.464	(0.895)	129	144189			47.84- 107.84	77.93
8.471	8.464	(0.895)	131	137300			45.29- 105.29	74.20
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	11988	1.20609	2.533	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	23664			163.73- 223.73	197.40
-----								
164 o-Xylene								
						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	4897	0.51422	1.080	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	9888			177.45- 237.45	201.91
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082029.d  
 Lab Smp Id: 2108390-19A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: kk  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 6.0 Hg->10 psi

Calibration Date: 20-AUG-2021  
 Calibration Time: 11:13  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	104316	-4.63
108 1,4-Difluorobenze	406799	244079	569519	370394	-8.95
153 Chlorobenzene-d5	400841	240505	561177	382215	-4.65

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.10
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-19A  
Level: LOW Operator: kk  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 6.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.623	110.49	70-130
\$ 134 Toluene-d8	25.000	25.426	101.71	70-130
\$ 170 4-Bromofluorobenz	25.000	25.569	102.28	70-130

Date : 21-AUG-2021 04:11

Client ID:

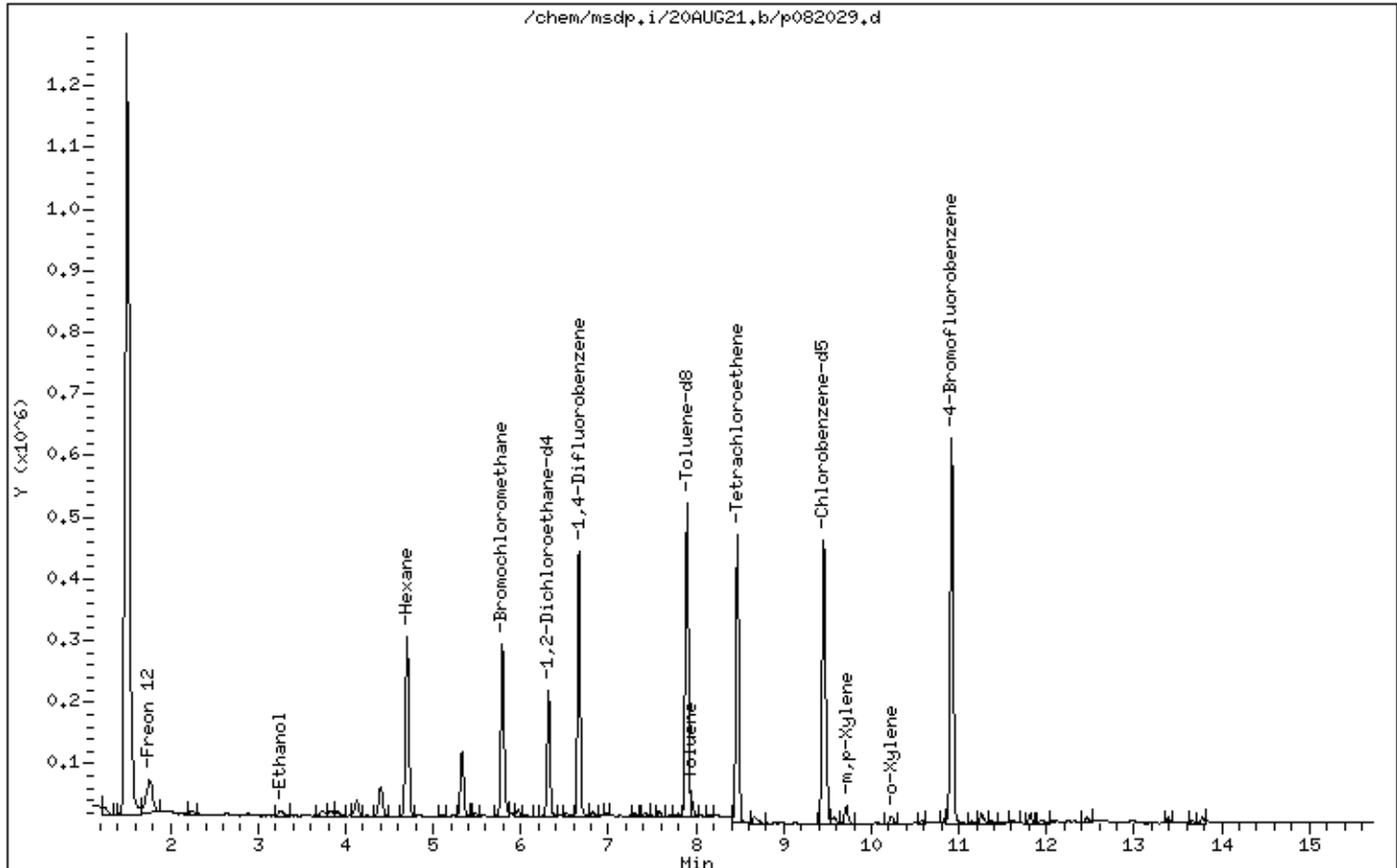
Instrument: msdp.i

Sample Info: 200ml 1L1817

Operator: kk

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 04:11

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1817

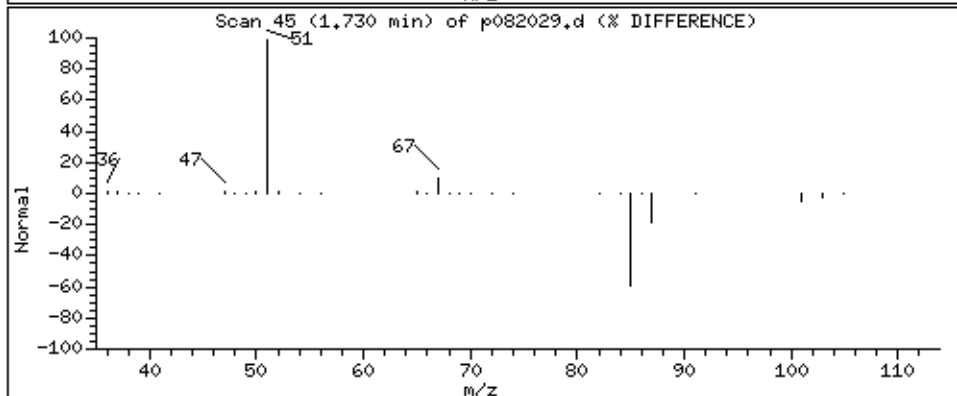
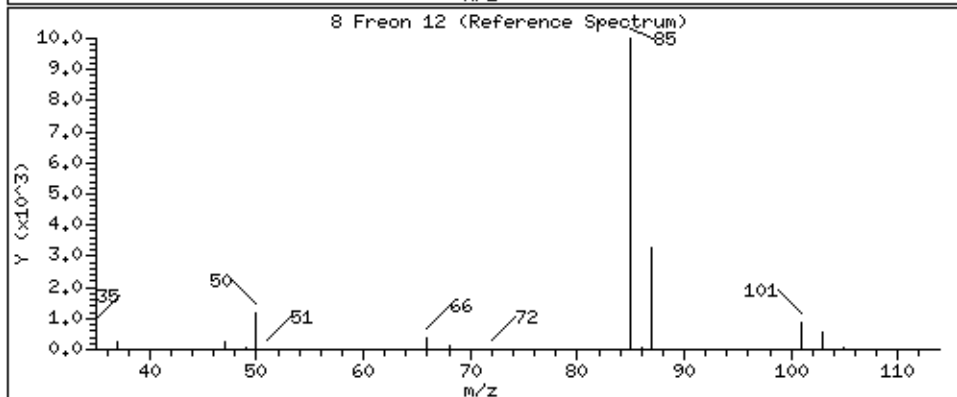
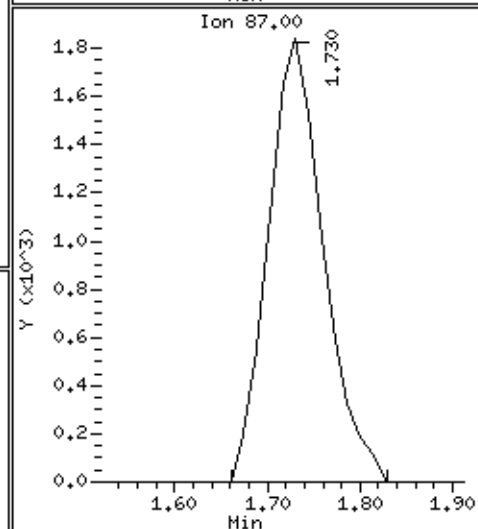
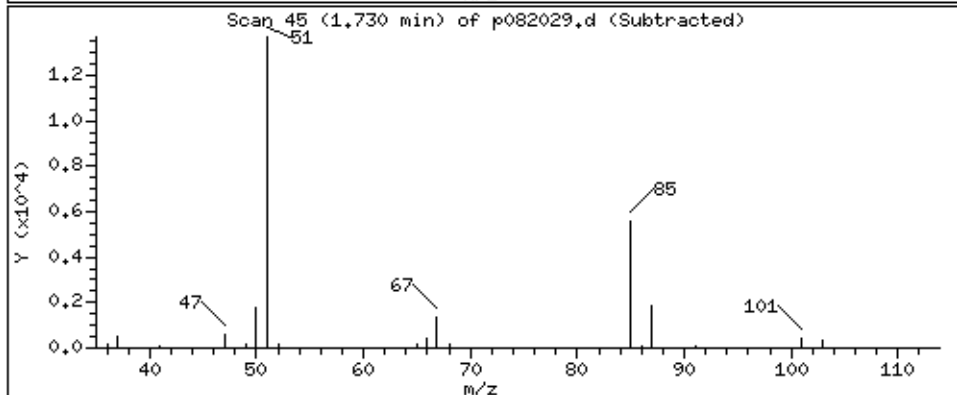
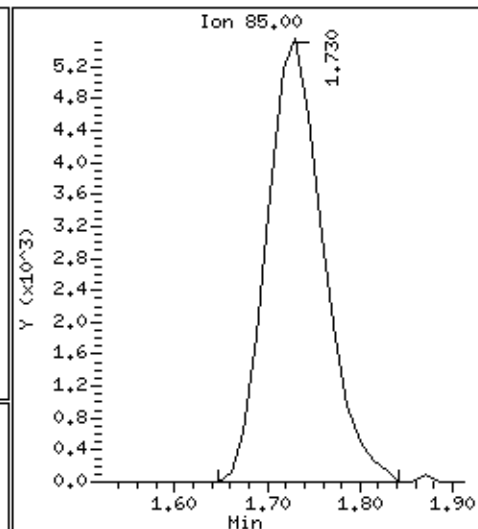
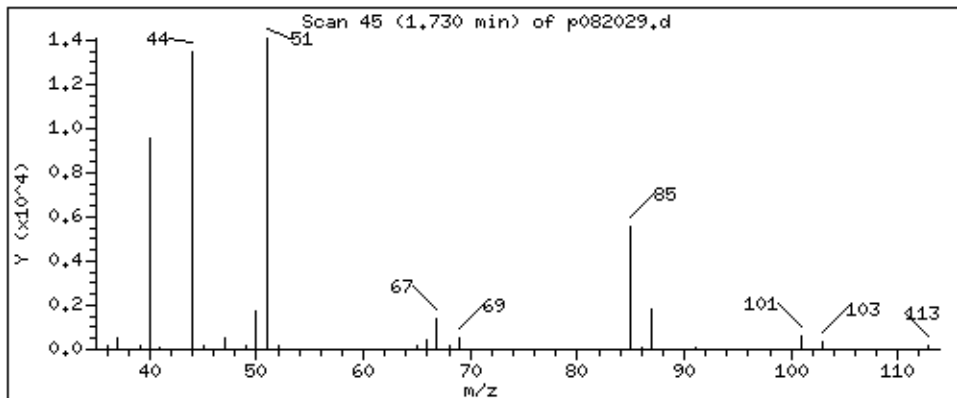
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 5.327 PPBV



Date : 21-AUG-2021 04:11

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1817

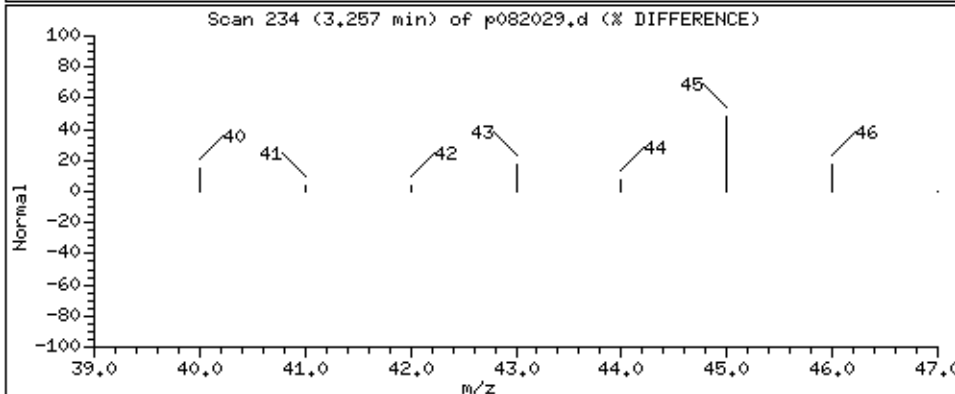
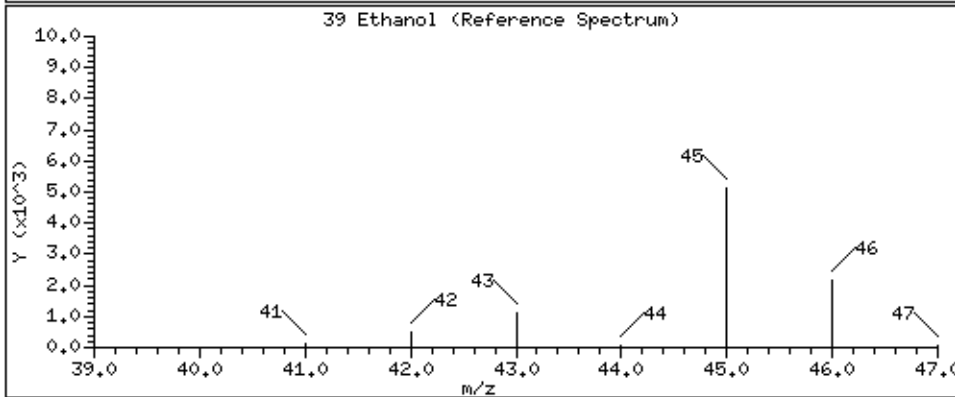
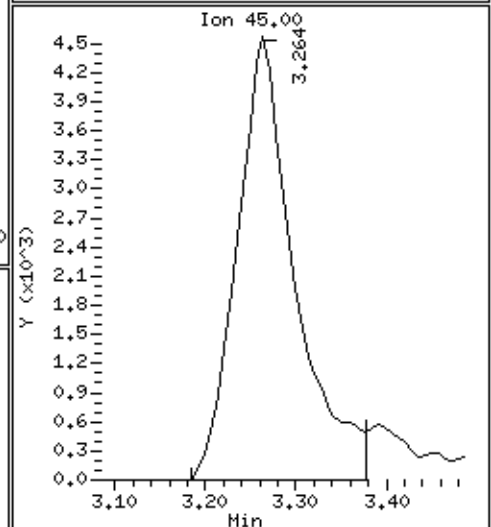
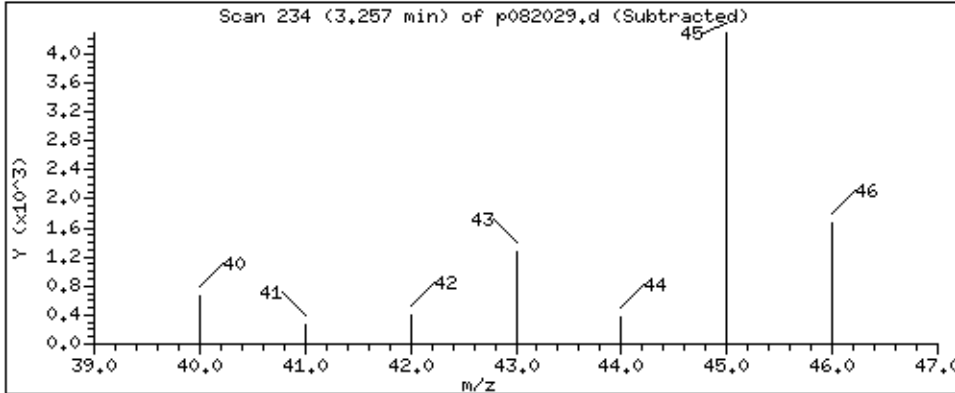
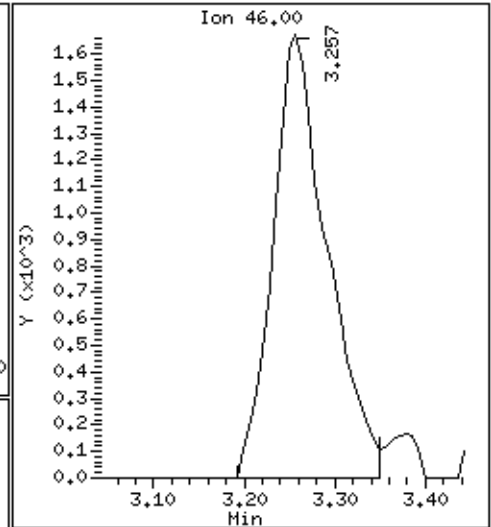
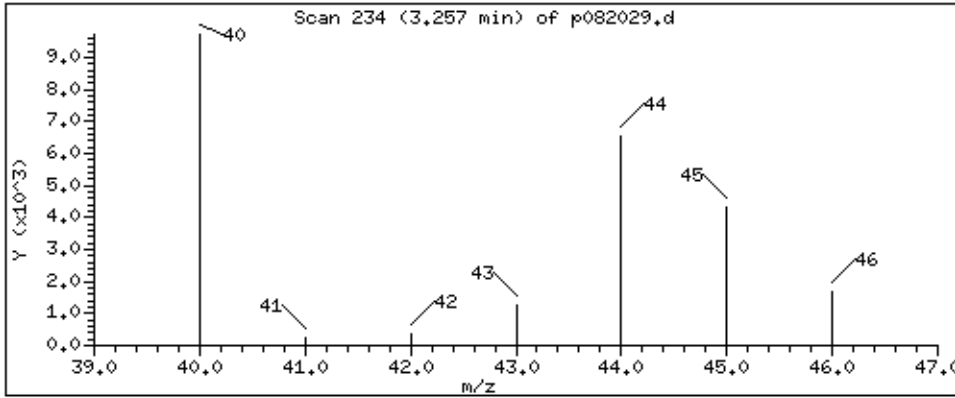
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 14,252 PPBV



Date : 21-AUG-2021 04:11

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1817

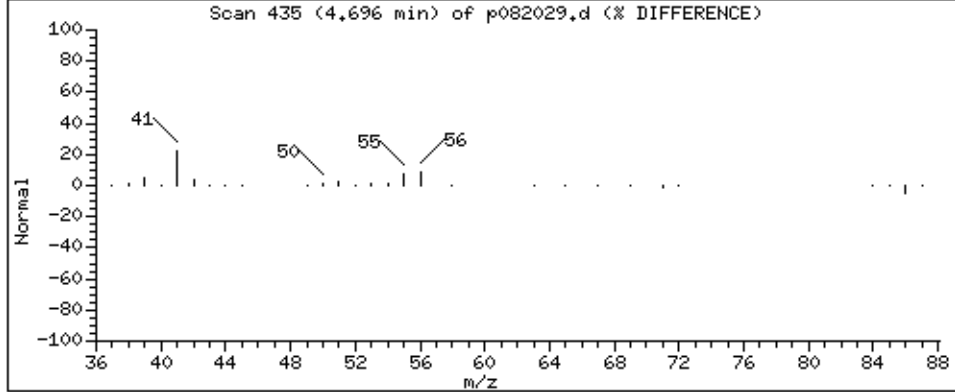
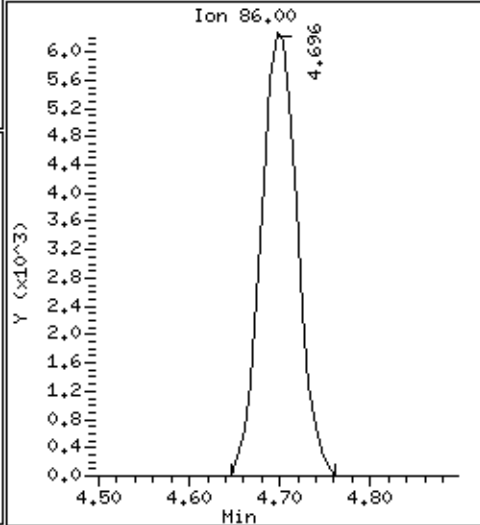
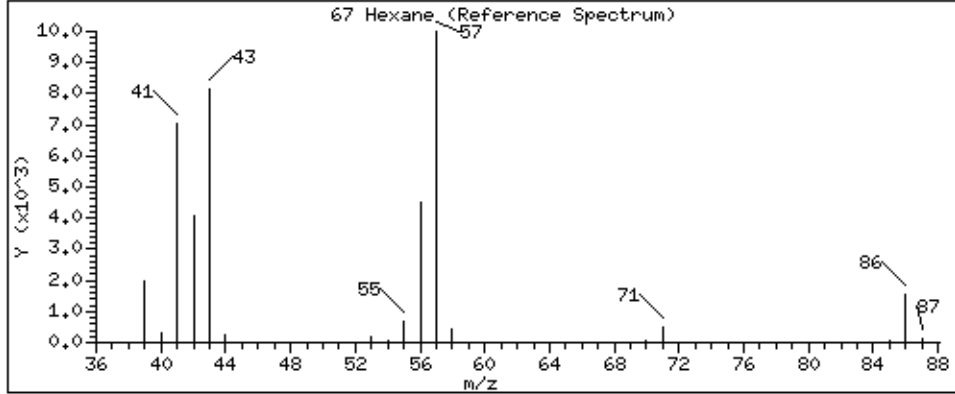
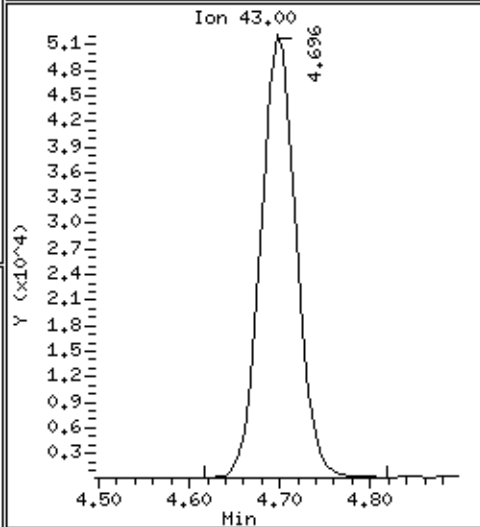
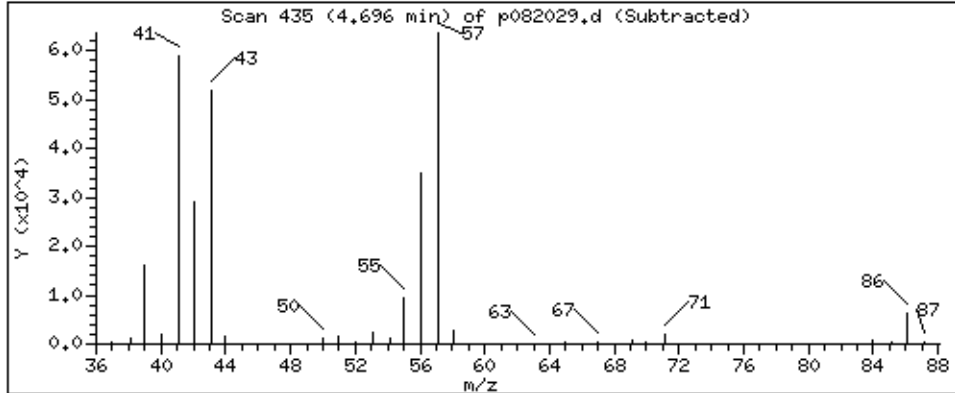
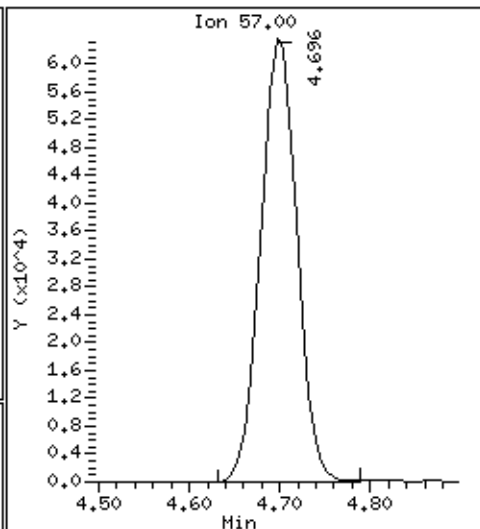
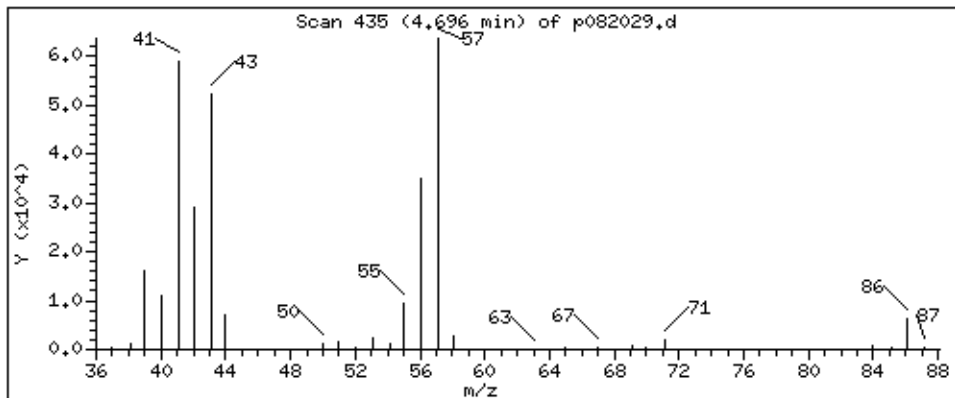
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 36,502 PPBV



Date : 21-AUG-2021 04:11

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1817

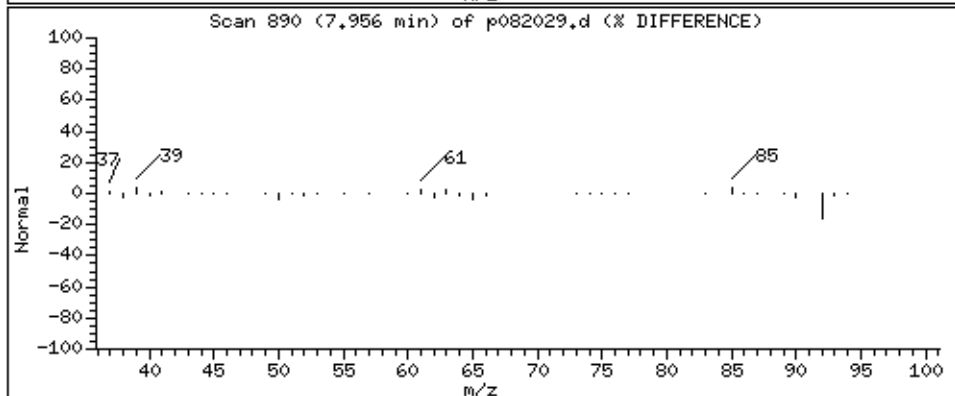
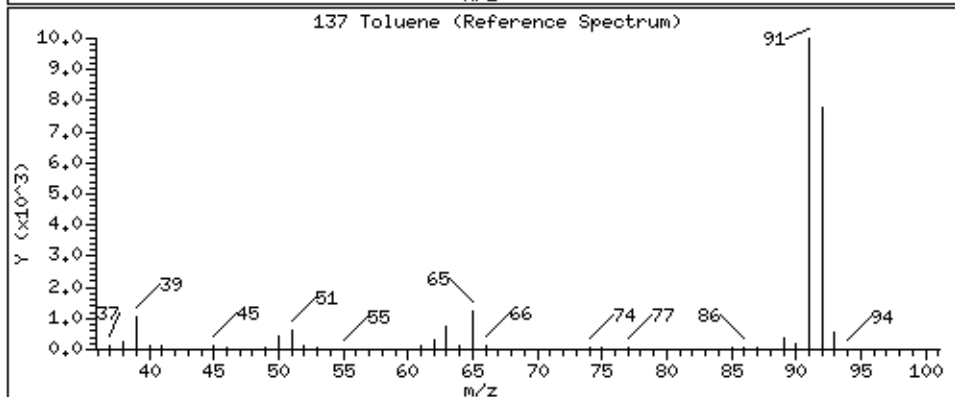
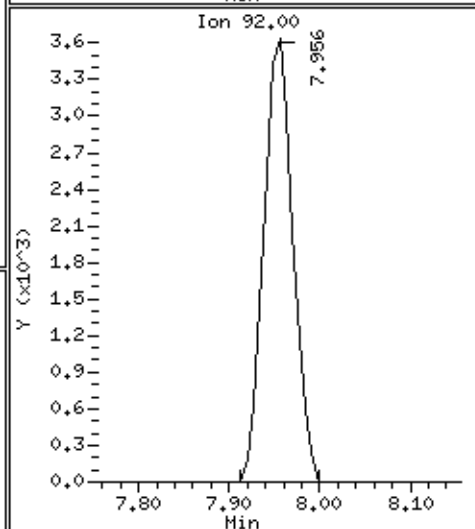
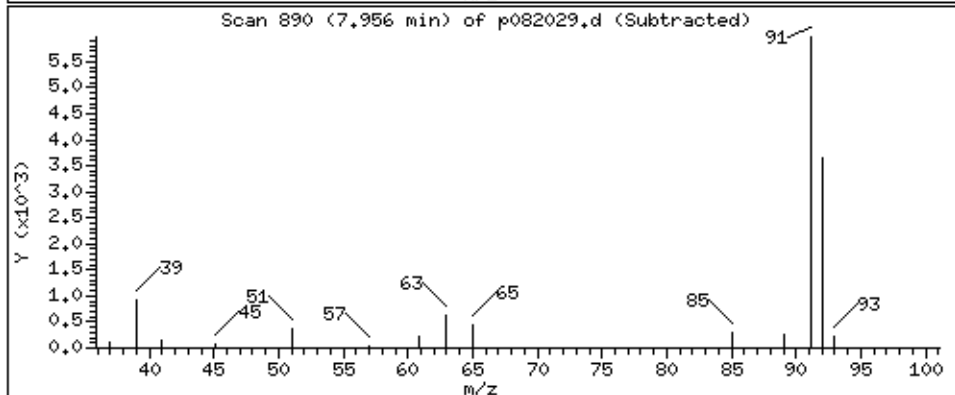
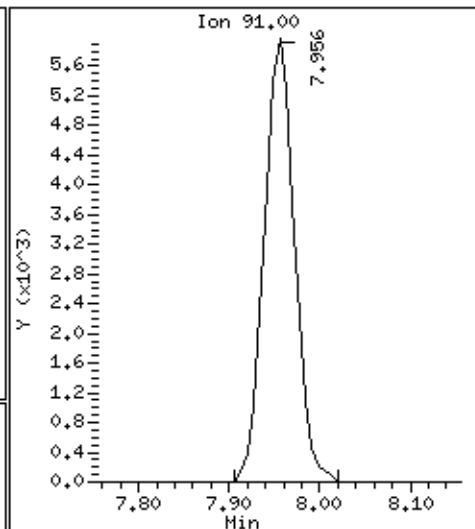
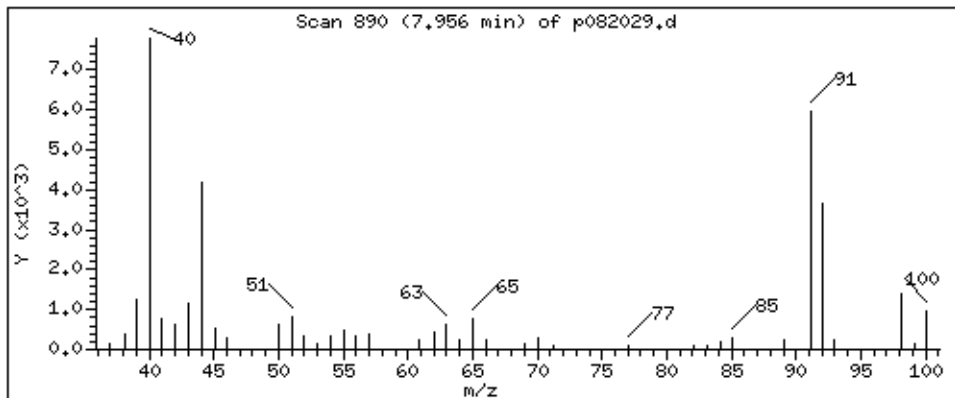
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 1,734 PPBV





Date : 21-AUG-2021 04:11

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1817

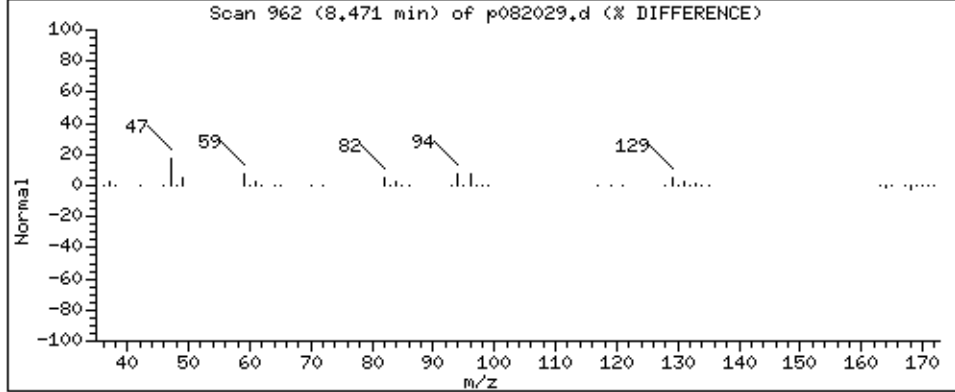
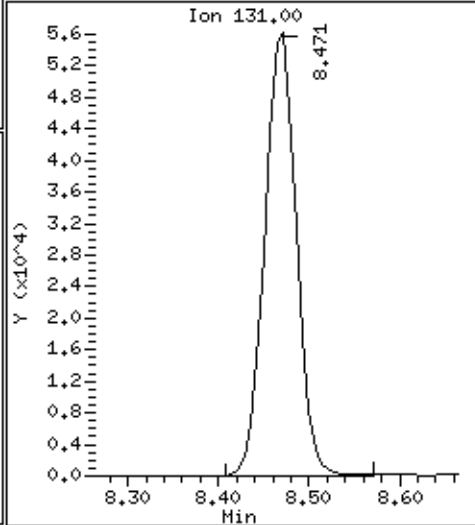
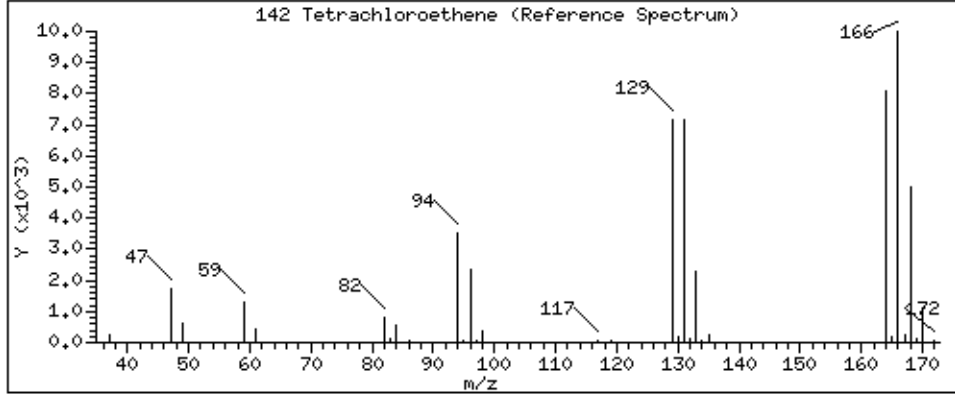
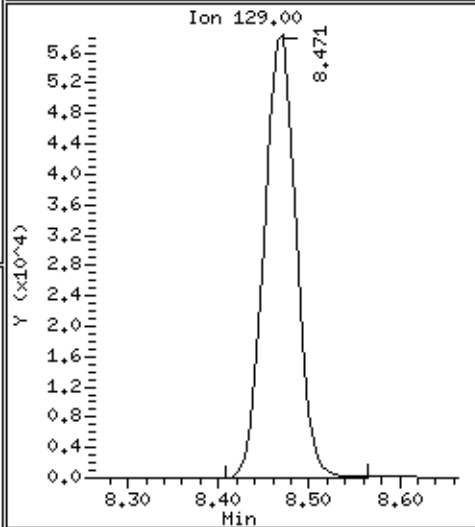
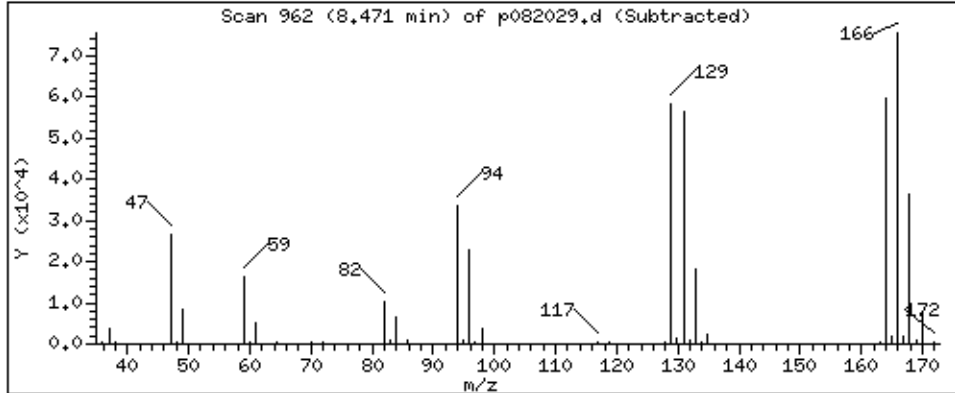
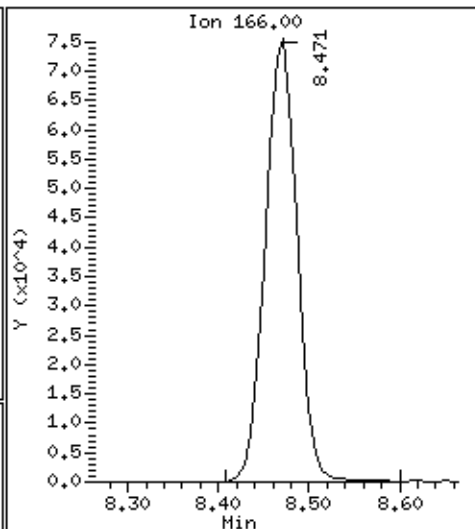
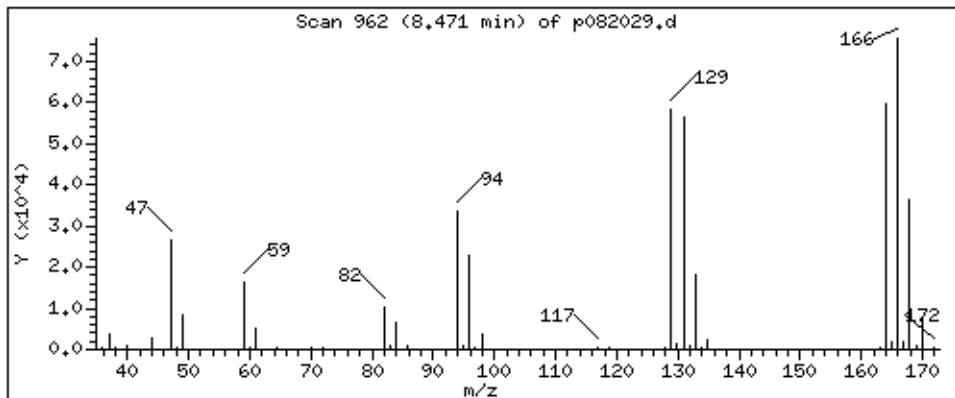
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 44,606 PPBV



Date : 21-AUG-2021 04:11

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1817

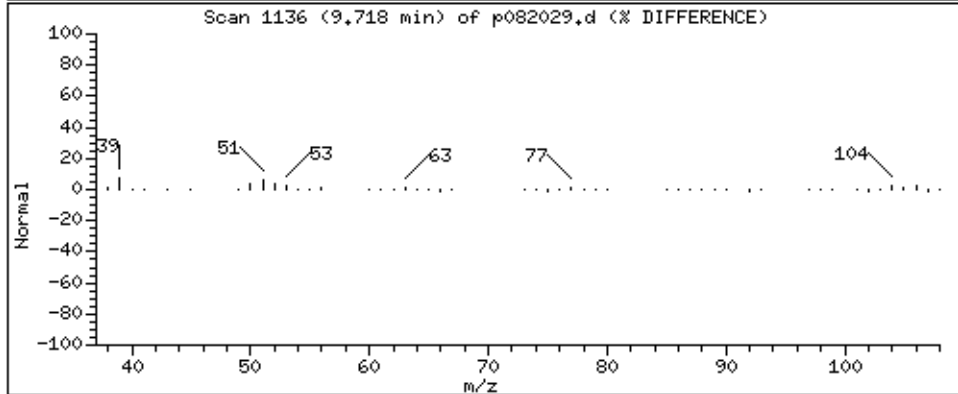
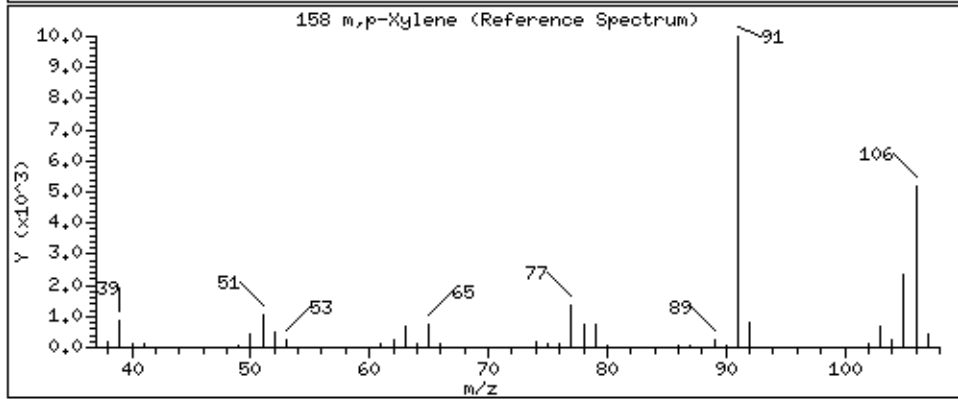
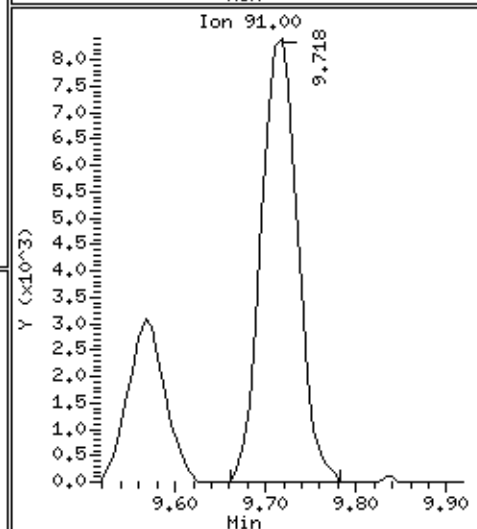
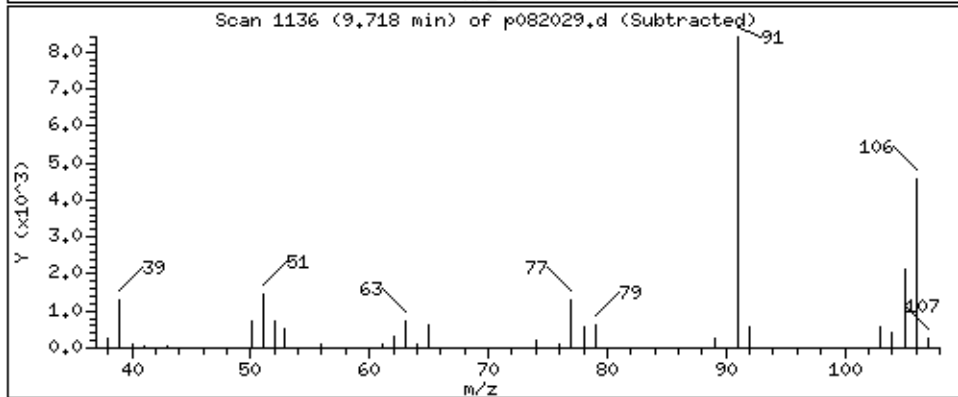
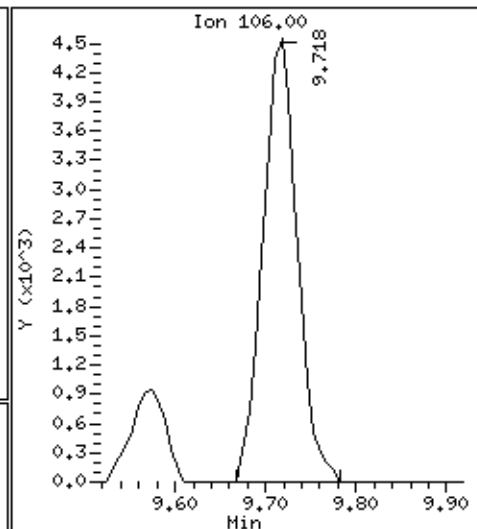
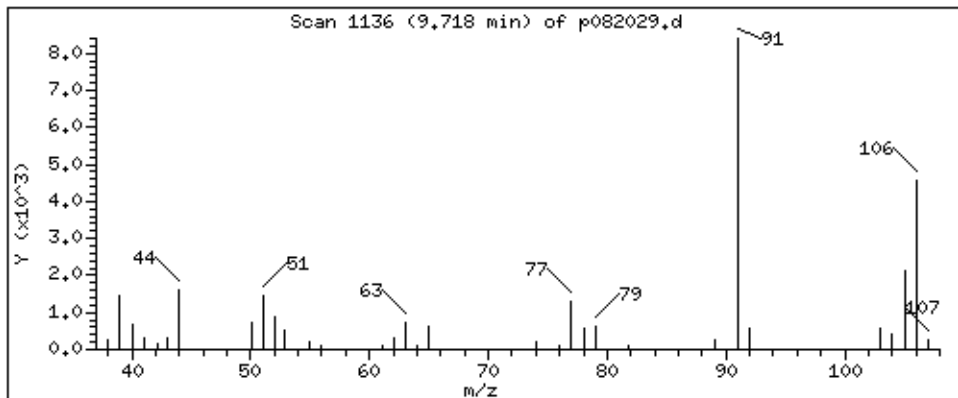
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 2,533 PPBV



Date : 21-AUG-2021 04:11

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1817

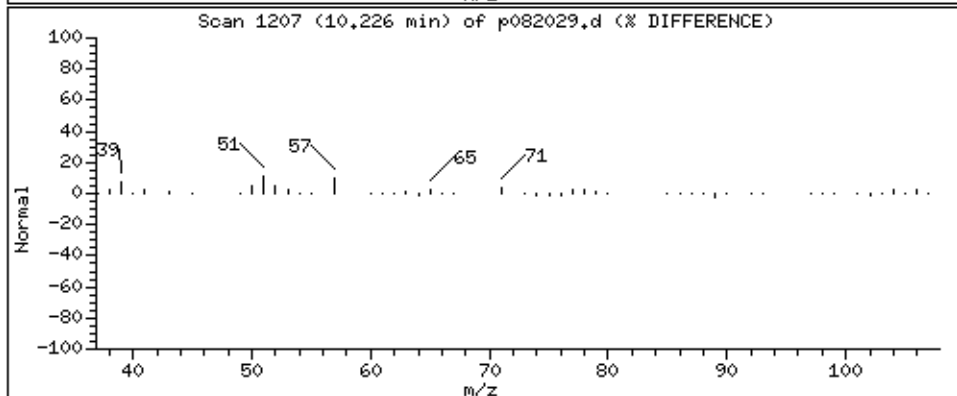
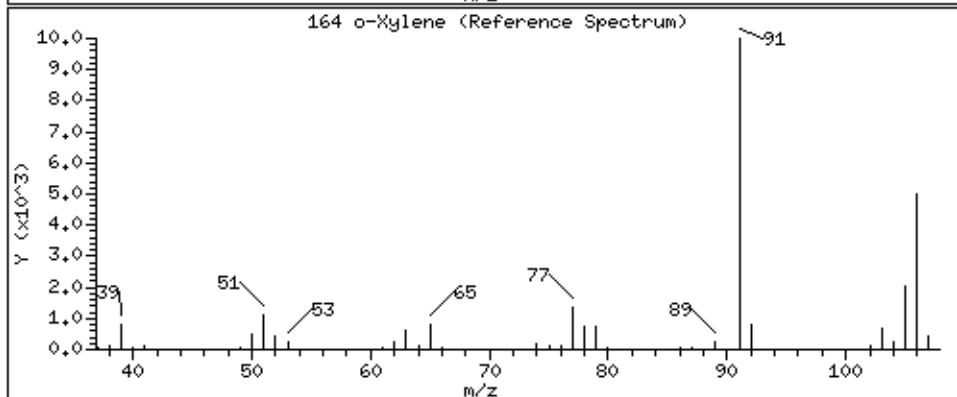
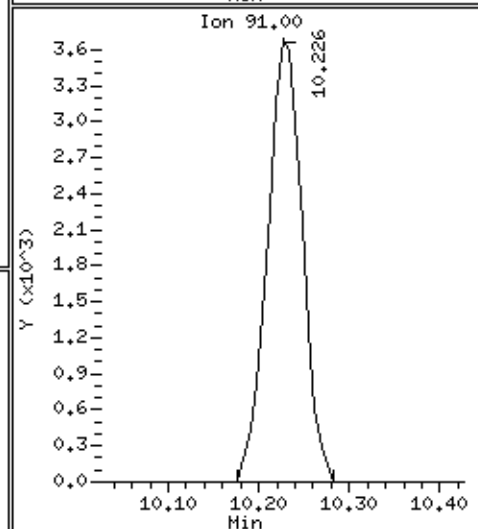
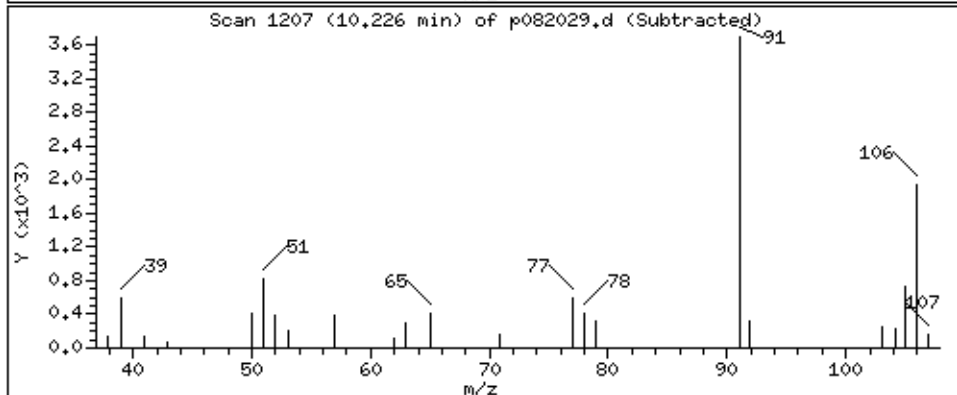
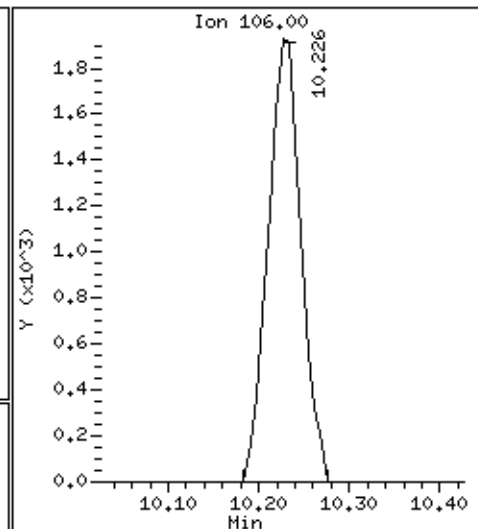
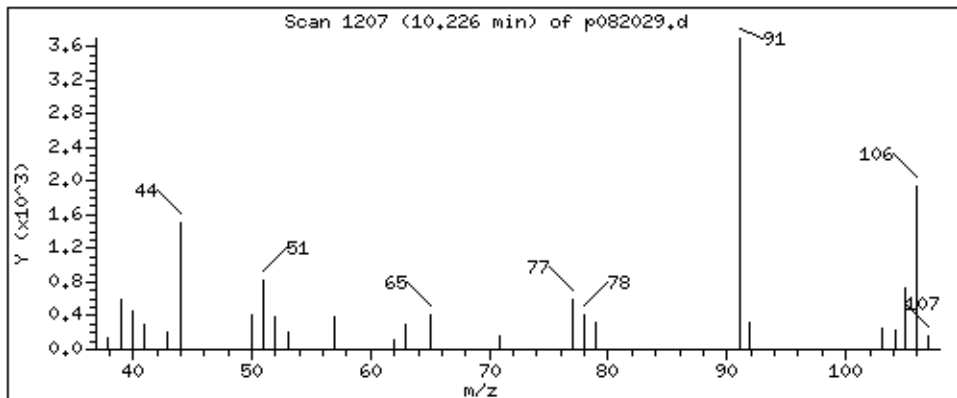
Operator: kk

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 1,080 PPBV



Client Sample ID: SSV-FSS01-02

Lab ID#: 2108390-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082110	Date of Collection:	8/17/21 11:22:00 AM
Dil. Factor:	2.06	Date of Analysis:	8/21/21 04:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
1,1-Difluoroethane	4.1	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.1	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2-Dibromo-3-chloropropane	4.1	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected
2-Propanol	4.1	Not Detected	10	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.1	Not Detected	9.4	Not Detected
Acrylonitrile	4.1	Not Detected	8.9	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected



Air Toxics

Client Sample ID: SSV-FSS01-02

Lab ID#: 2108390-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082110	Date of Collection:	8/17/21 11:22:00 AM
Dil. Factor:	2.06	Date of Analysis:	8/21/21 04:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
Dibromomethane	4.1	Not Detected	29	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Ethyl Acetate	4.1	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Ethyl-tert-butyl ether	4.1	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 113	1.0	Not Detected	7.9	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Hexachloroethane	4.1	Not Detected	40	Not Detected
Hexane	1.0	22	3.6	77
Iodomethane	10	Not Detected	60	Not Detected
Isopropyl ether	4.1	Not Detected	17	Not Detected
m,p-Xylene	1.0	1.1	4.5	4.8
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
Propylene	4.1	Not Detected	7.1	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
tert-Amyl methyl ether	4.1	Not Detected	17	Not Detected
tert-Butyl alcohol	4.1	Not Detected	12	Not Detected
Tetrachloroethene	1.0	1.4	7.0	9.4
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
Vinyl Acetate	4.1	Not Detected	14	Not Detected
Vinyl Bromide	4.1	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SSV-FSS01-02

Lab ID#: 2108390-20A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082110	Date of Collection: 8/17/21 11:22:00 AM
Dil. Factor:	2.06	Date of Analysis: 8/21/21 04:17 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	109	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/21AUG21.b/p082110.d  
Lab Smp Id: 2108390-20A  
Inj Date : 21-AUG-2021 16:17  
Operator : mb  
Smp Info : 200ml N5602  
Misc Info : 5.5 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
Meth Date : 23-Aug-2021 07:32 lk8g  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 1  
Dil Factor: 2.06000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.785	5.785	(1.000)	130	103399	25.0000	80.00- 120.00	100.00		
5.785	5.785	(1.000)	128	79882		48.23- 108.23	77.26		
5.785	5.785	(1.000)	49	231983		150.57- 210.57	224.36		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.666	6.666	(1.000)	114	374486	25.0000	80.00- 120.00	100.00		
6.666	6.666	(1.000)	88	53789		0.00- 45.71	14.36		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	388908	25.0000	80.00- 120.00	100.00		
9.460	9.460	(1.000)	82	197442		23.78- 83.78	50.77		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
6.315	6.315	(1.092)	65	159218	27.9021	27.902 80.00- 120.00	100.00		
6.315	6.315	(1.092)	67	75468		27.21- 87.21	47.40		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.891	7.891	(1.184)	98	411444	25.3015	25.301 80.00- 120.00	100.00		
7.891	7.891	(1.184)	70	43758		0.00- 40.44	10.64		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	267295			34.95- 94.95	64.97
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	272352	27.2714	27.271	80.00- 120.00	100.00
10.921	10.921	(1.154)	95	319716			95.92- 155.92	117.39
10.921	10.921	(1.154)	176	266202			66.89- 126.89	97.74
-----								
67 Hexane								
						CAS #: 110-54-3		
4.697	4.697	(0.812)	57	107538	10.5574	21.748	80.00- 120.00	100.00
4.697	4.697	(0.812)	43	90047			37.52- 97.52	83.74
4.697	4.697	(0.812)	86	10830			0.00- 41.48	10.07
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	5987	0.67546	1.391	80.00- 120.00	100.00
8.471	8.464	(0.895)	129	4737			47.84- 107.84	79.13
8.464	8.464	(0.895)	131	5093			45.29- 105.29	85.07
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	5386	0.53255	1.097	80.00- 120.00	100.00
9.711	9.718	(1.026)	91	11916			163.73- 223.73	221.24
-----								



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082110.d  
 Lab Smp Id: 2108390-20A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: mb  
 Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Misc Info: 5.5 Hg->10 psi

Calibration Date: 21-AUG-2021  
 Calibration Time: 09:37  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	102894	61736	144052	103399	0.49
108 1,4-Difluorobenze	387356	232414	542298	374486	-3.32
153 Chlorobenzene-d5	386134	231680	540588	388908	0.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.67	6.34	7.00	6.67	0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 21AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-20A  
Level: LOW Operator: mb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
Misc Info: 5.5 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.902	111.61	70-130
\$ 134 Toluene-d8	25.000	25.301	101.21	70-130
\$ 170 4-Bromofluorobenz	25.000	27.271	109.09	70-130

Date : 21-AUG-2021 16:17

Client ID:

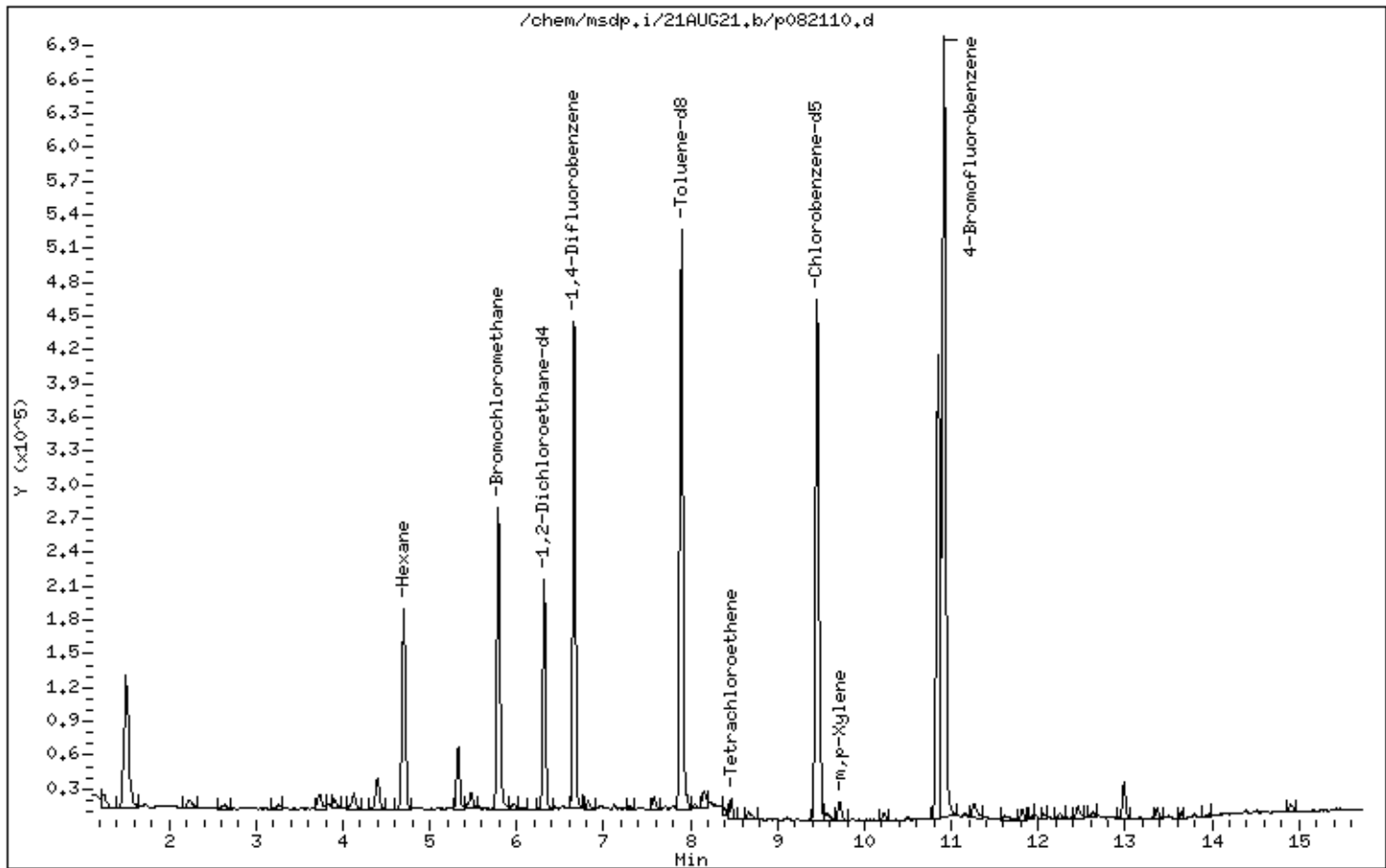
Instrument: msdp.i

Sample Info: 200ml N5602

Operator: mb

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 16:17

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5602

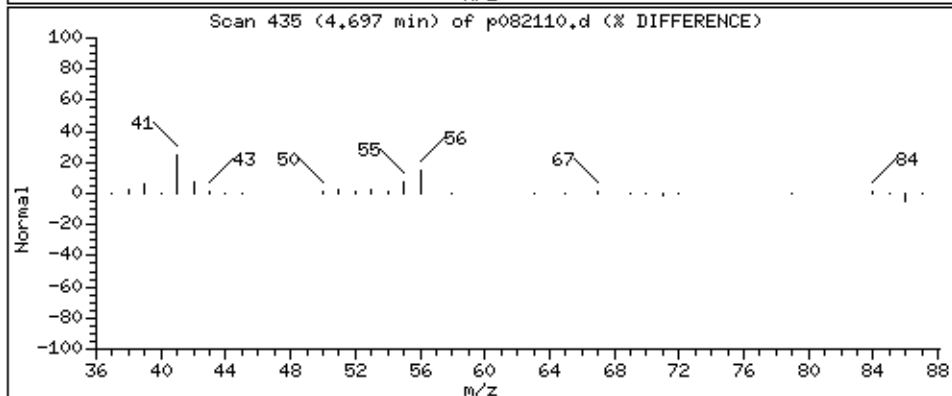
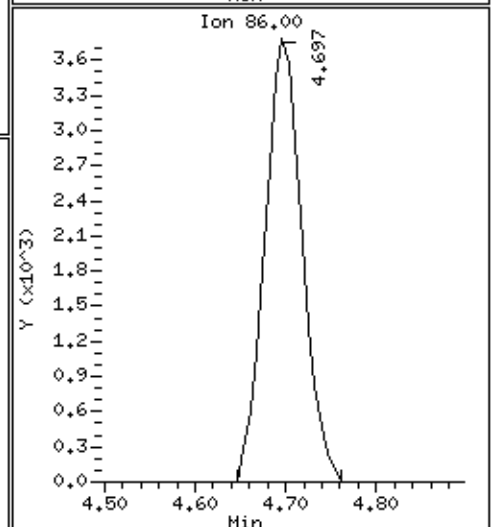
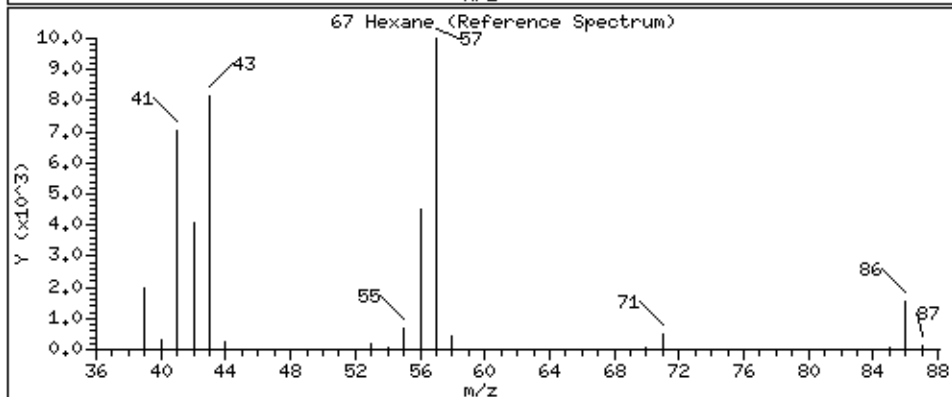
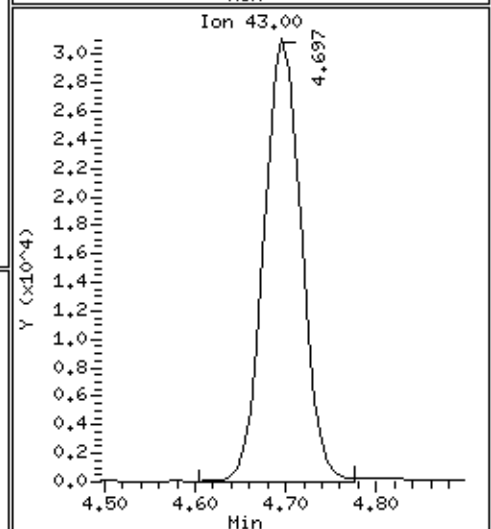
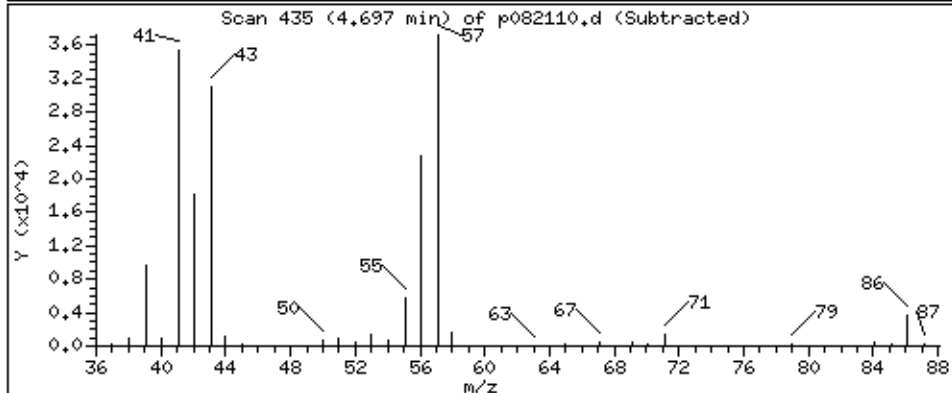
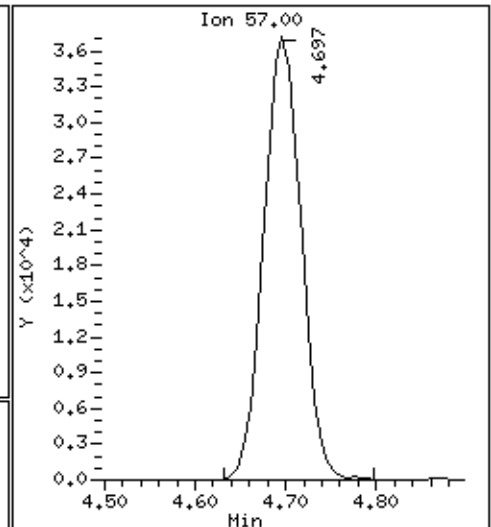
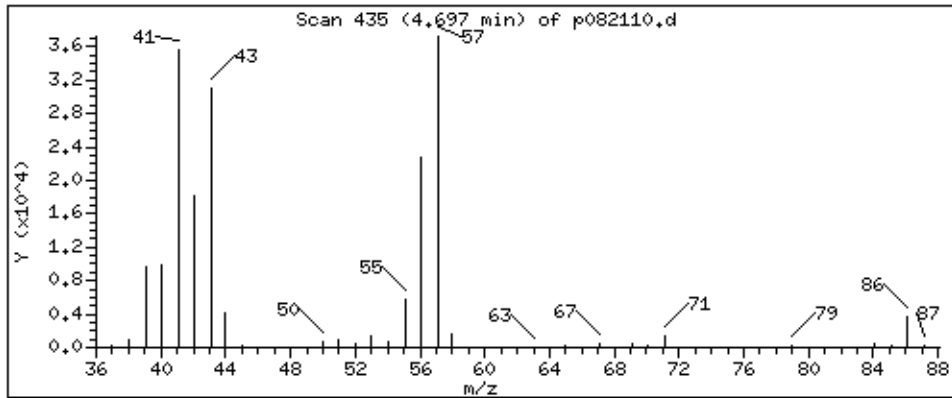
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 21,748 PPBV



Date : 21-AUG-2021 16:17

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5602

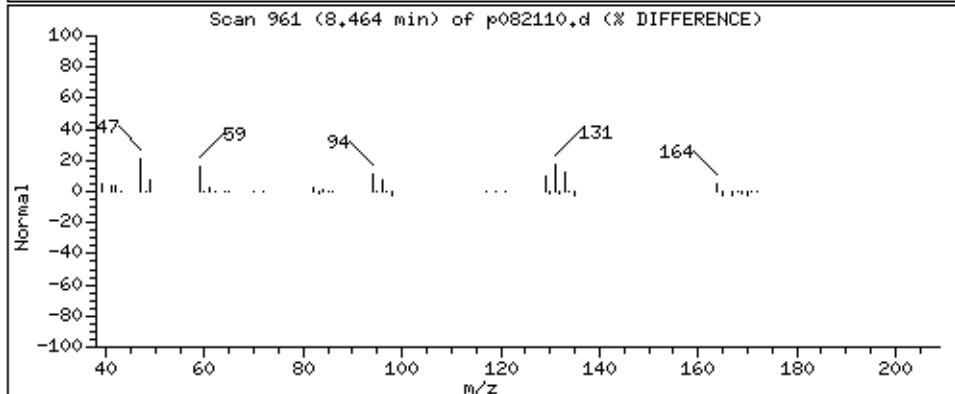
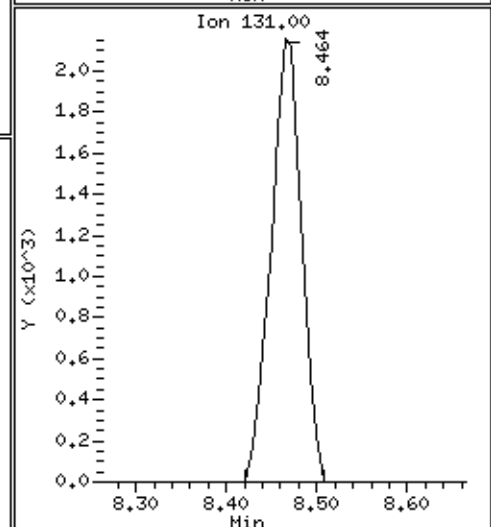
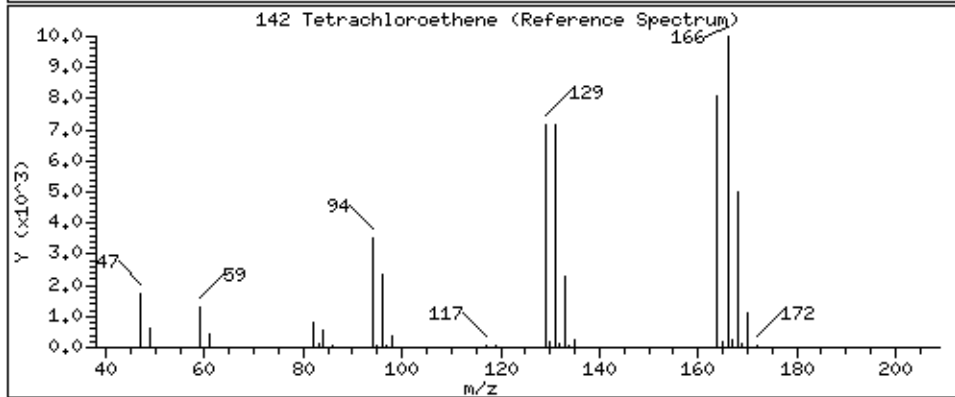
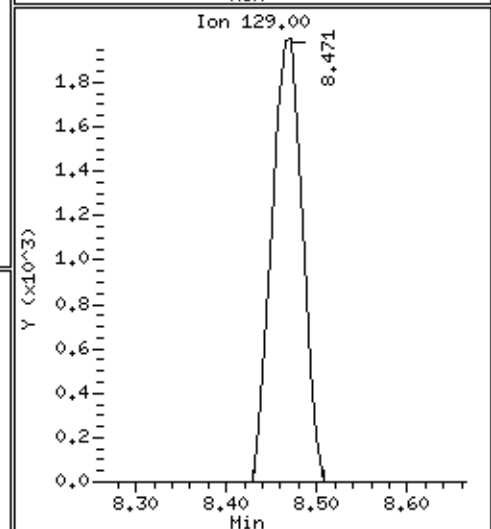
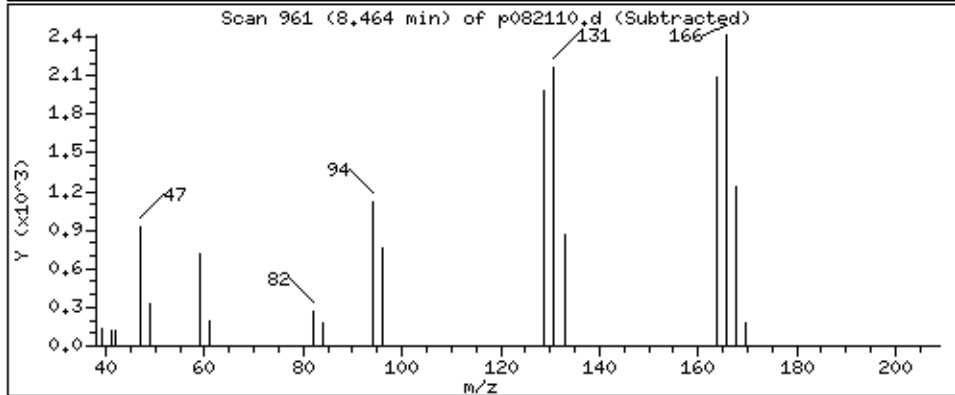
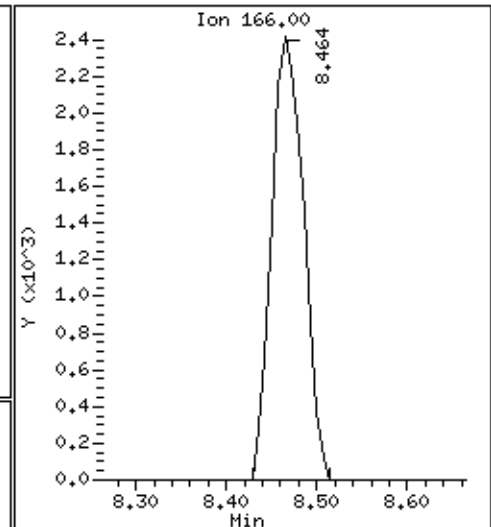
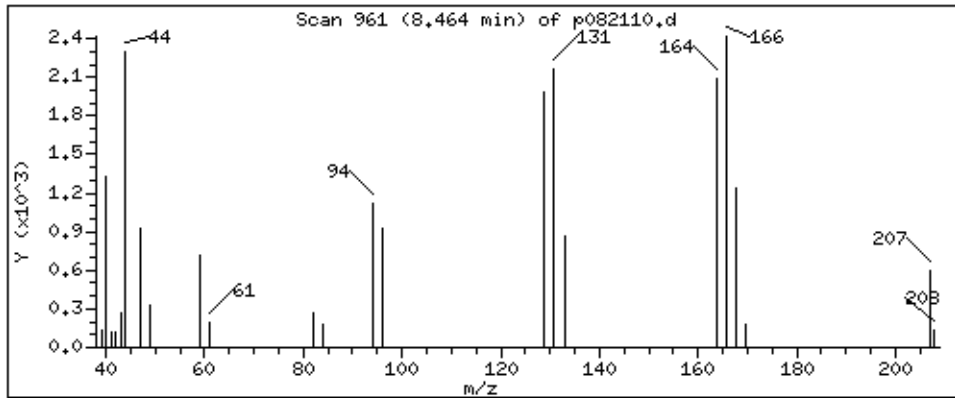
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 1,391 PPBV



Date : 21-AUG-2021 16:17

Client ID:

Instrument: msdp.i

Sample Info: 200ml N5602

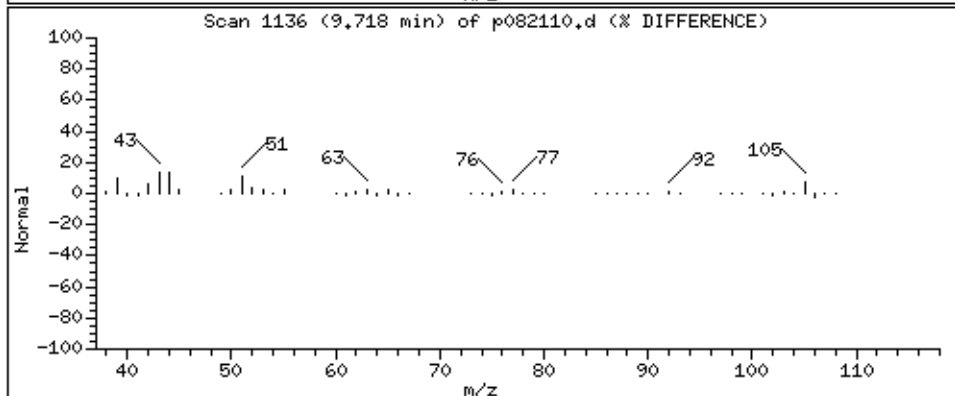
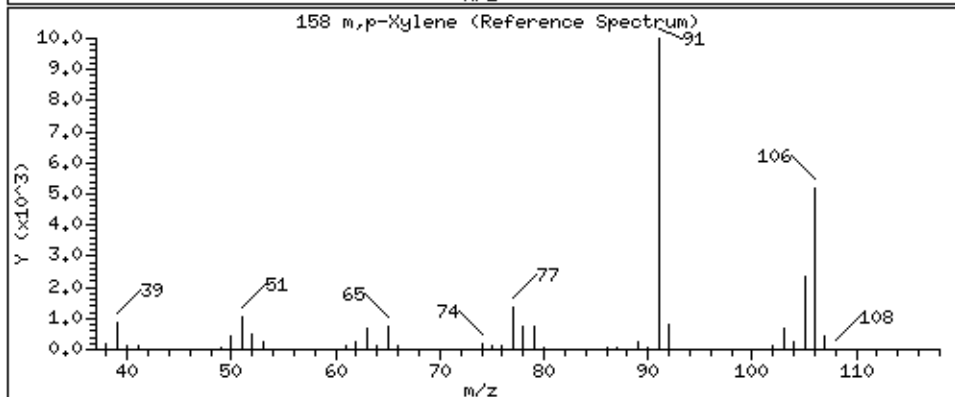
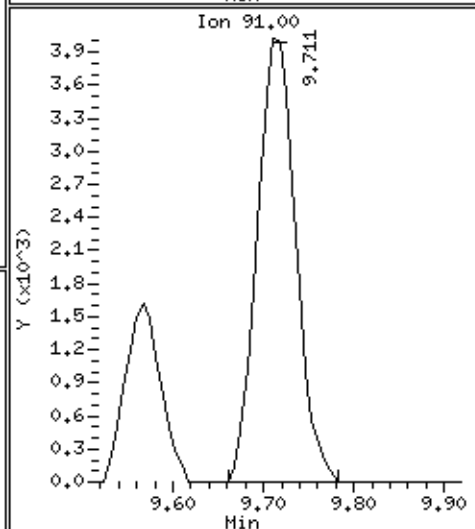
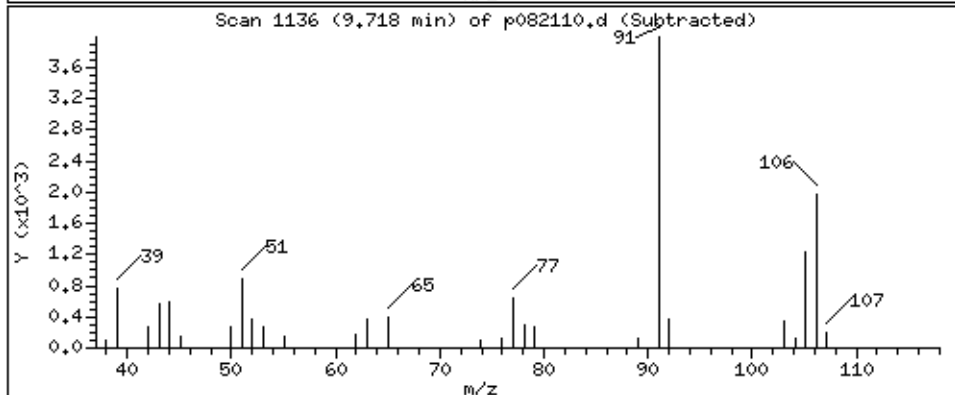
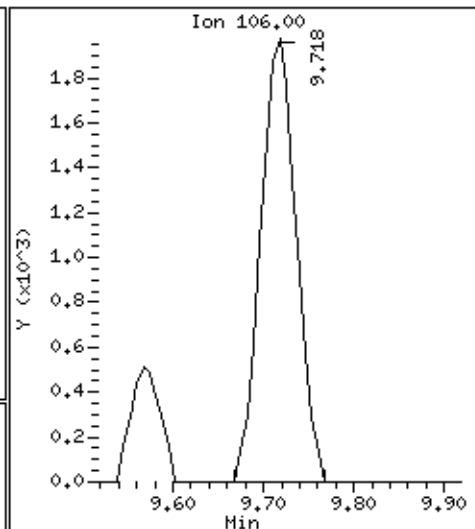
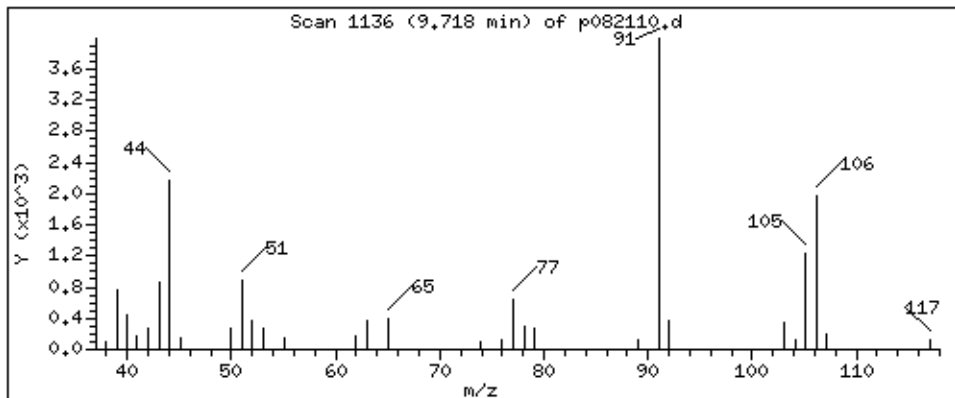
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 1.097 PPBV



Client Sample ID: SSV-FSS01-03

Lab ID#: 2108390-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082109	Date of Collection:	8/17/21 11:22:00 AM
Dil. Factor:	2.06	Date of Analysis:	8/21/21 03:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
1,1-Difluoroethane	4.1	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.1	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2-Dibromo-3-chloropropane	4.1	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected
2-Propanol	4.1	Not Detected	10	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.1	Not Detected	9.4	Not Detected
Acrylonitrile	4.1	Not Detected	8.9	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected



Air Toxics

Client Sample ID: SSV-FSS01-03

Lab ID#: 2108390-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082109	Date of Collection:	8/17/21 11:22:00 AM
Dil. Factor:	2.06	Date of Analysis:	8/21/21 03:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
Dibromomethane	4.1	Not Detected	29	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Ethyl Acetate	4.1	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Ethyl-tert-butyl ether	4.1	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 113	1.0	Not Detected	7.9	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Hexachloroethane	4.1	Not Detected	40	Not Detected
Hexane	1.0	15	3.6	54
Iodomethane	10	Not Detected	60	Not Detected
Isopropyl ether	4.1	Not Detected	17	Not Detected
m,p-Xylene	1.0	1.3	4.5	5.5
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
Propylene	4.1	Not Detected	7.1	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
tert-Amyl methyl ether	4.1	Not Detected	17	Not Detected
tert-Butyl alcohol	4.1	Not Detected	12	Not Detected
Tetrachloroethene	1.0	1.4	7.0	9.7
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
Vinyl Acetate	4.1	Not Detected	14	Not Detected
Vinyl Bromide	4.1	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister



Client Sample ID: SSV-FSS01-03

Lab ID#: 2108390-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082109	Date of Collection: 8/17/21 11:22:00 AM
Dil. Factor:	2.06	Date of Analysis: 8/21/21 03:35 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	110	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/21AUG21.b/p082109.d  
Lab Smp Id: 2108390-21A  
Inj Date : 21-AUG-2021 15:35  
Operator : mb  
Smp Info : 200ml N1957  
Misc Info : 5.5 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
Meth Date : 23-Aug-2021 07:32 lk8g  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 1  
Dil Factor: 2.06000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.785	5.785	(1.000)	130	105400	25.0000	80.00- 120.00	100.00		
5.785	5.785	(1.000)	128	83381		48.23- 108.23	79.11		
5.785	5.785	(1.000)	49	233995		150.57- 210.57	222.01		
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.659	6.666	(1.000)	114	383169	25.0000	80.00- 120.00	100.00		
6.659	6.666	(1.000)	88	54283		0.00- 45.71	14.17		
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	393136	25.0000	80.00- 120.00	100.00		
9.460	9.460	(1.000)	82	199408		23.78- 83.78	50.72		
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
6.315	6.315	(1.092)	65	161663	27.7927	27.793 80.00- 120.00	100.00		
6.315	6.315	(1.092)	67	77393		27.21- 87.21	47.87		
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.891	7.891	(1.185)	98	419540	25.2147	25.215 80.00- 120.00	100.00		
7.891	7.891	(1.185)	70	44882		0.00- 40.44	10.70		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	273764			34.95- 94.95	65.25
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	276721	27.4109	27.411	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	324350			95.92- 155.92	117.21
10.921	10.921	(1.154)	176	267322			66.89- 126.89	96.60
-----								
67 Hexane								
						CAS #: 110-54-3		
4.696	4.697	(0.812)	57	77855	7.49823	15.446	80.00- 120.00	100.00
4.696	4.697	(0.812)	43	63655			37.52- 97.52	81.76
4.696	4.697	(0.812)	86	7753			0.00- 41.48	9.96
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
8.471	8.464	(0.895)	166	6240	0.69644	1.435	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	4921			47.84- 107.84	78.86
8.464	8.464	(0.895)	131	4443			45.29- 105.29	71.21
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	6316	0.61779	1.273	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	11046			163.73- 223.73	174.87
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p082109.d  
Lab Smp Id: 2108390-21A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: mb  
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
Misc Info: 5.5 Hg->10 psi

Calibration Date: 21-AUG-2021  
Calibration Time: 09:37  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	102894	61736	144052	105400	2.44
108 1,4-Difluorobenze	387356	232414	542298	383169	-1.08
153 Chlorobenzene-d5	386134	231680	540588	393136	1.81

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.67	6.34	7.00	6.66	-0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 21AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-21A  
Level: LOW Operator: mb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
Misc Info: 5.5 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.793	111.17	70-130
\$ 134 Toluene-d8	25.000	25.215	100.86	70-130
\$ 170 4-Bromofluorobenz	25.000	27.411	109.64	70-130

Date : 21-AUG-2021 15:35

Client ID:

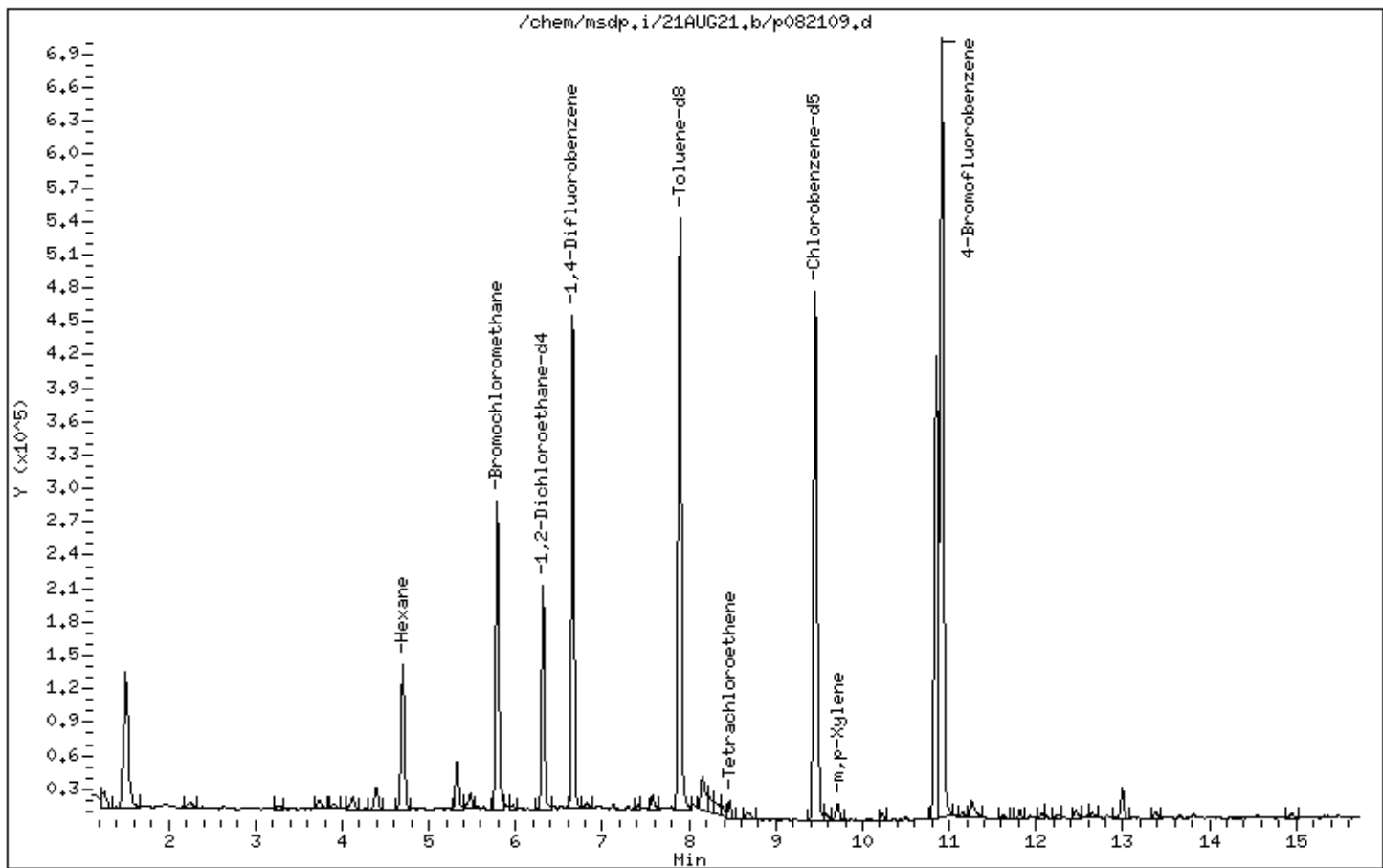
Instrument: msdp.i

Sample Info: 200ml N1957

Operator: mb

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 15:35

Client ID:

Instrument: msdp.i

Sample Info: 200ml N1957

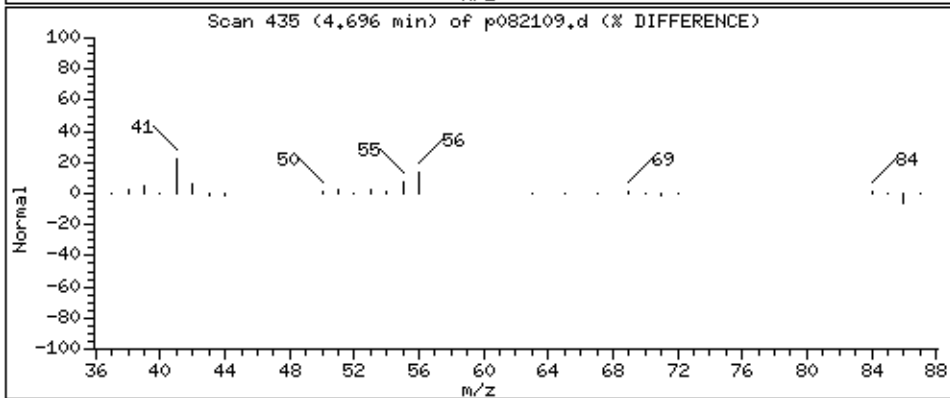
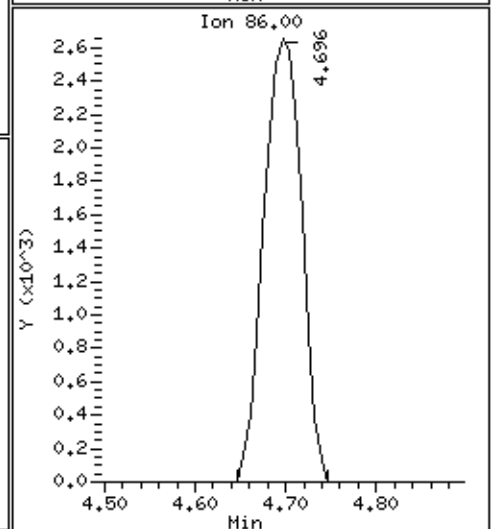
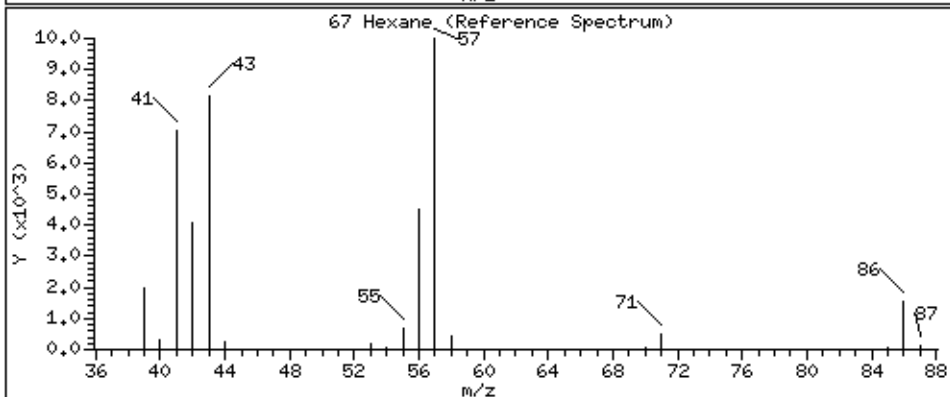
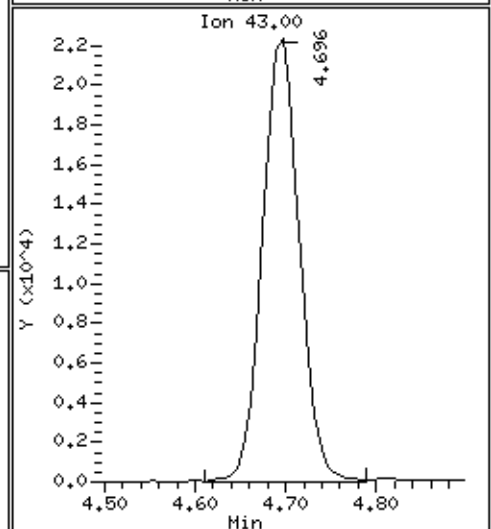
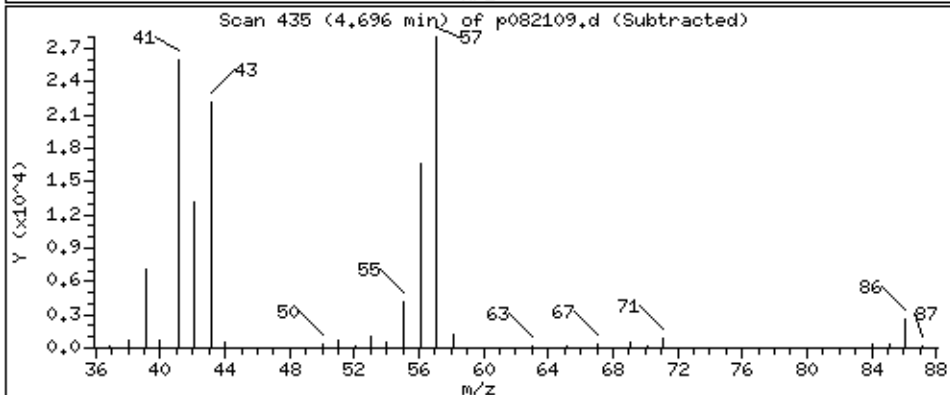
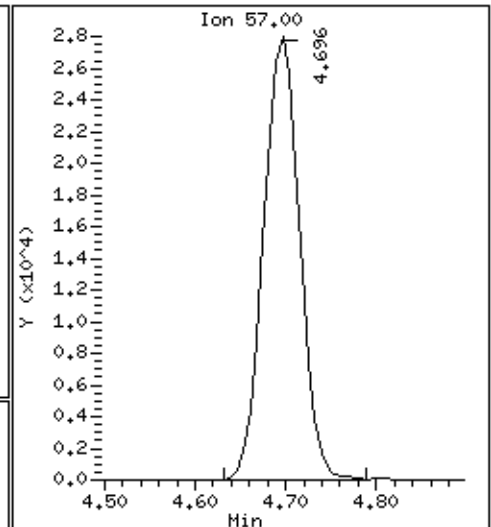
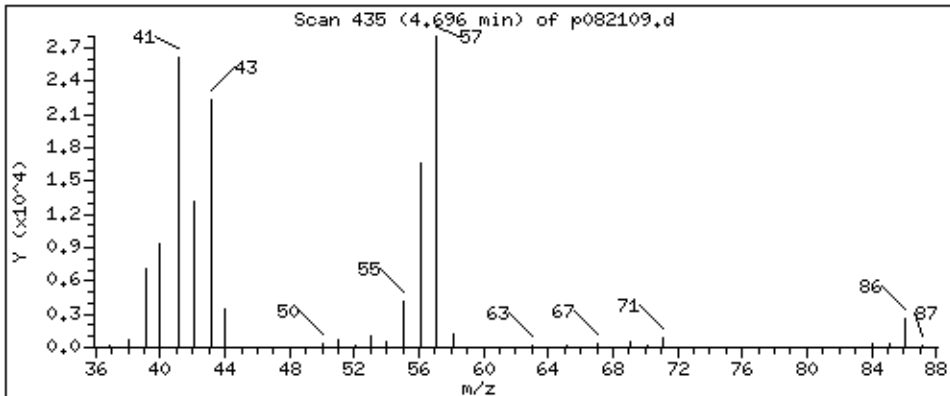
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 15,446 PPBV



Date : 21-AUG-2021 15:35

Client ID:

Instrument: msdp.i

Sample Info: 200ml N1957

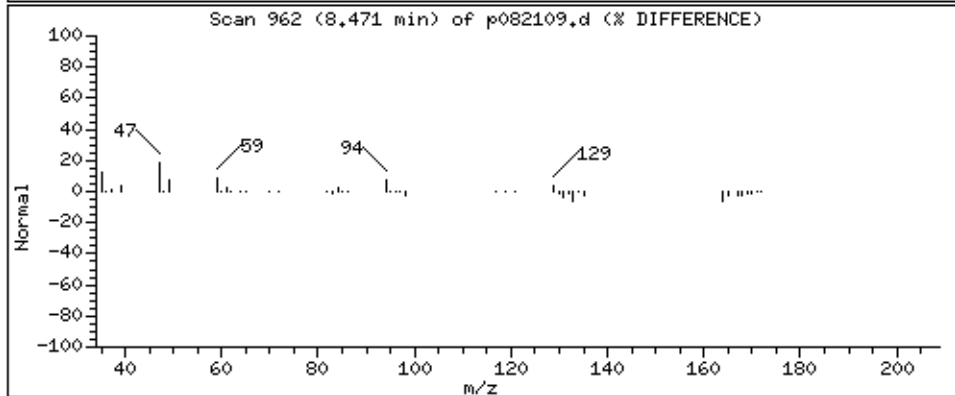
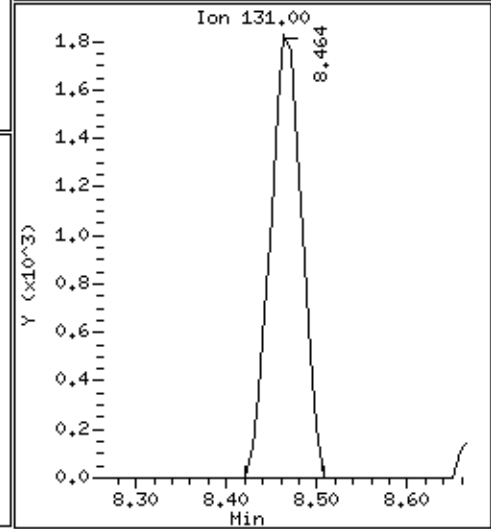
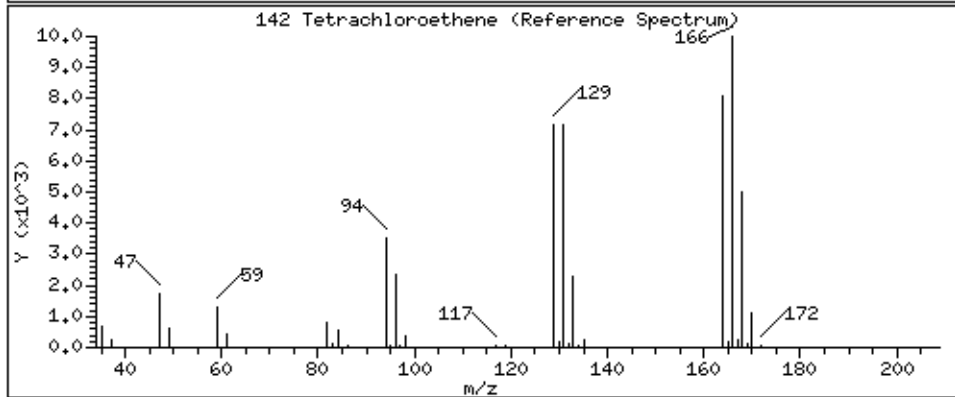
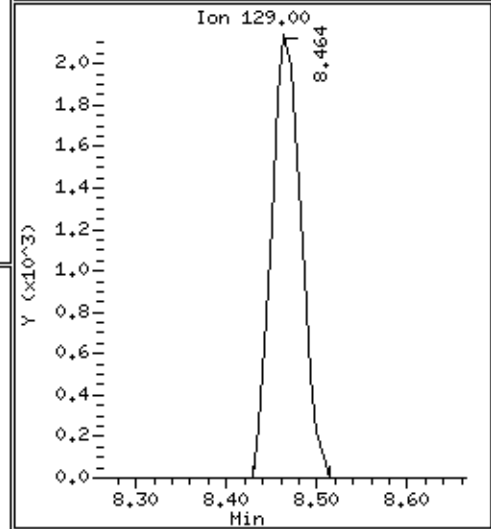
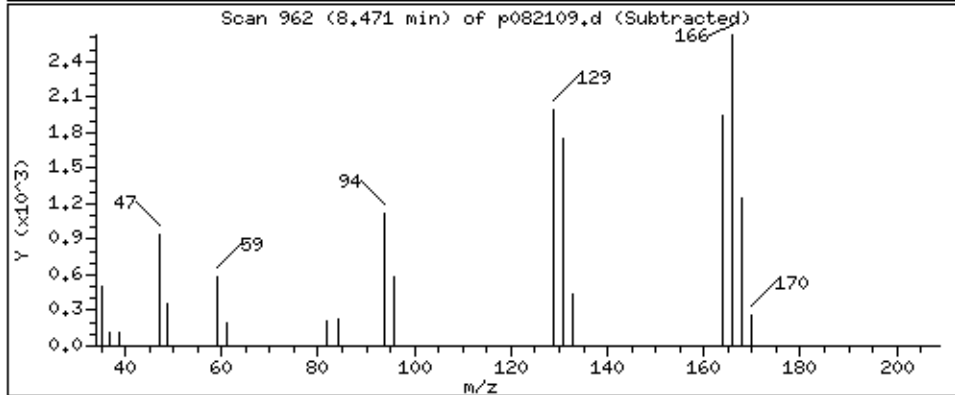
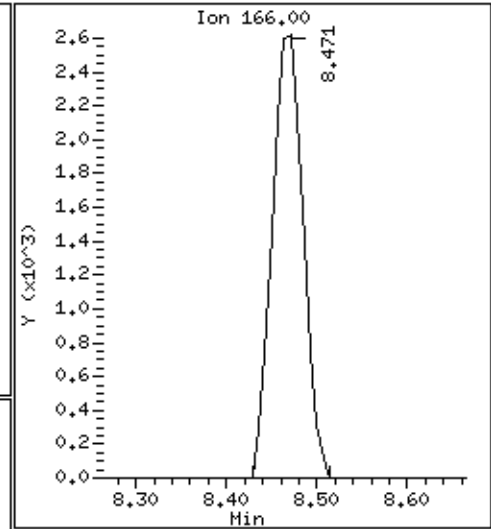
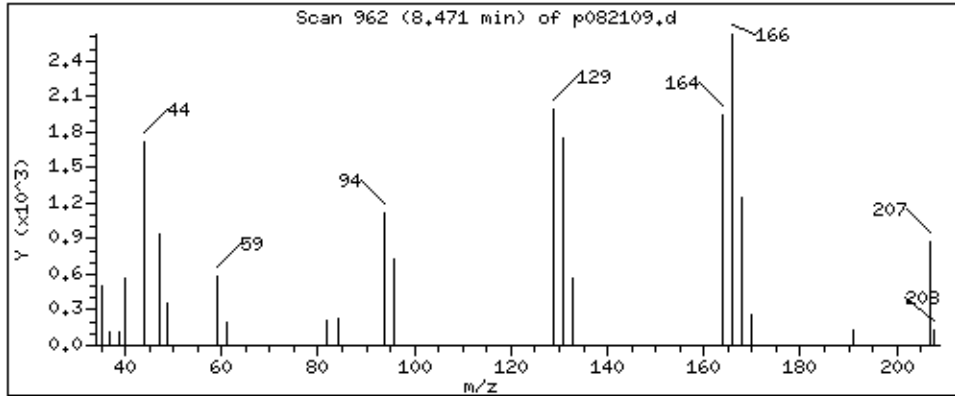
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 1.435 PPBV





Date : 21-AUG-2021 15:35

Client ID:

Instrument: msdp.i

Sample Info: 200ml N1957

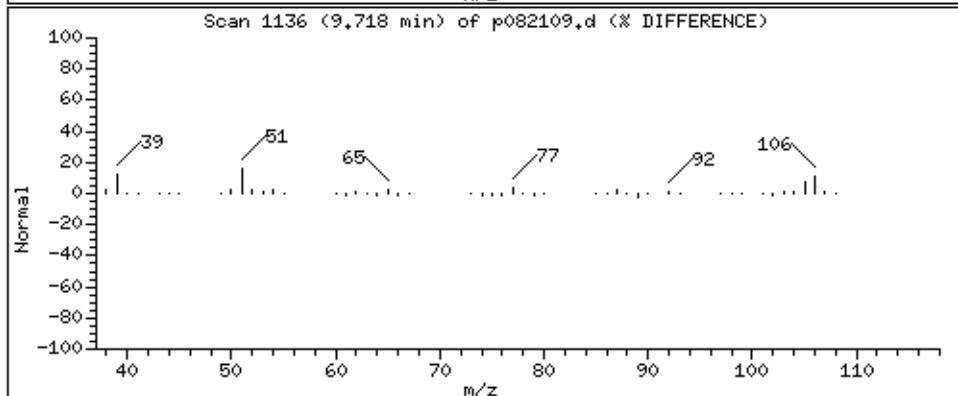
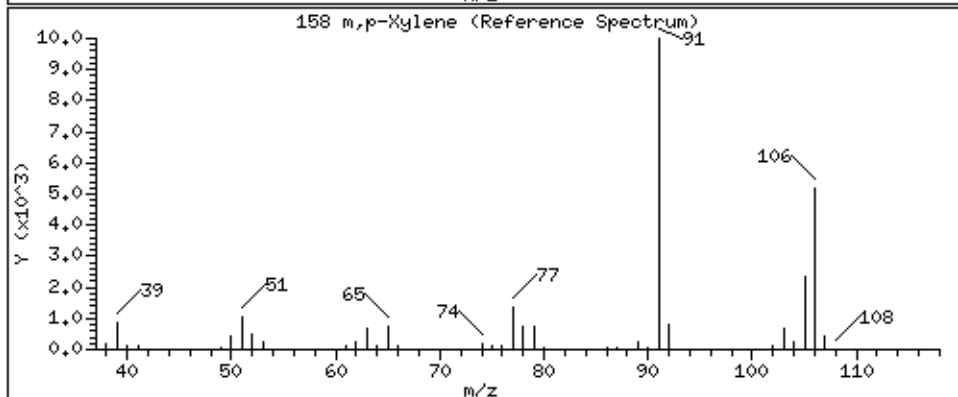
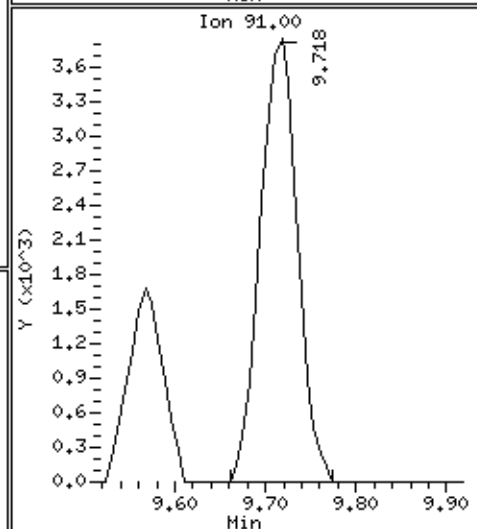
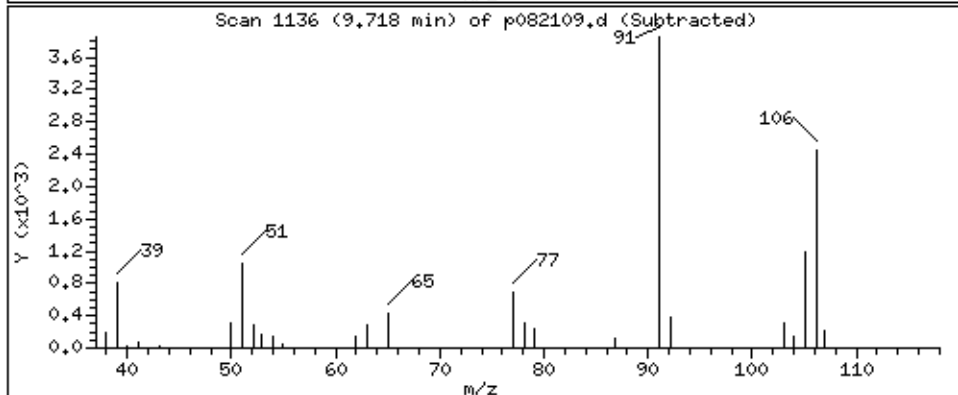
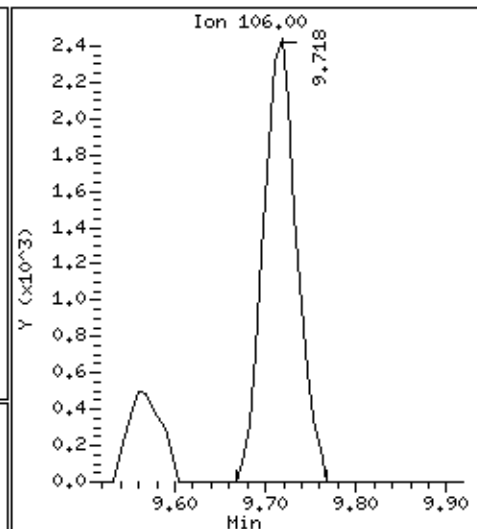
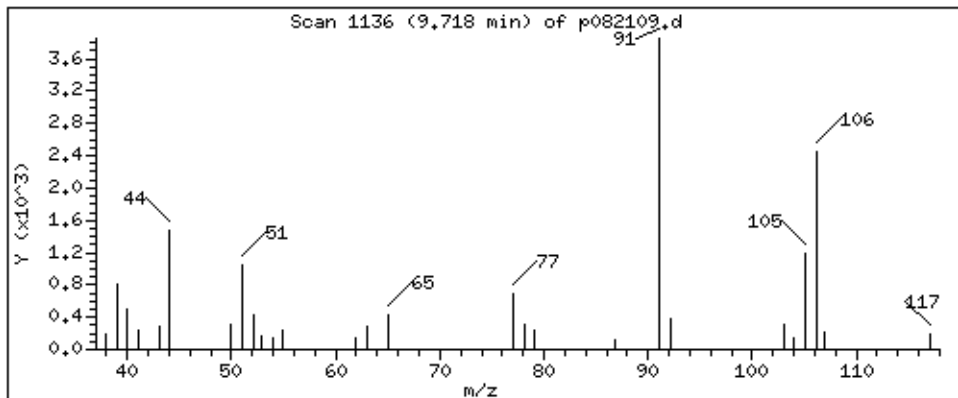
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 1.273 PPBV



Client Sample ID: SSV-FSS02-02

Lab ID#: 2108390-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082111	Date of Collection:	8/17/21 11:40:00 AM
Dil. Factor:	2.02	Date of Analysis:	8/21/21 04:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.0	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
1,1-Difluoroethane	4.0	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.0	Not Detected	24	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	2.0	5.0	10
1,2-Dibromo-3-chloropropane	4.0	Not Detected	39	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
2-Hexanone	4.0	Not Detected	16	Not Detected
2-Propanol	4.0	Not Detected	9.9	Not Detected
3-Chloropropene	4.0	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	1.7	5.0	8.3
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.0	Not Detected	9.3	Not Detected
Acrylonitrile	4.0	Not Detected	8.8	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Chloroethane	4.0	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	4.9	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected

Client Sample ID: SSV-FSS02-02

Lab ID#: 2108390-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082111	Date of Collection:	8/17/21 11:40:00 AM
Dil. Factor:	2.02	Date of Analysis:	8/21/21 04:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
Dibromomethane	4.0	Not Detected	29	Not Detected
Ethanol	10	12	19	22
Ethyl Acetate	4.0	Not Detected	14	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
Ethyl-tert-butyl ether	4.0	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Freon 12	1.0	Not Detected	5.0	Not Detected
Freon 113	1.0	Not Detected	7.7	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Freon 134a	4.0	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected
Hexachloroethane	4.0	Not Detected	39	Not Detected
Hexane	1.0	28	3.6	97
Iodomethane	10	Not Detected	59	Not Detected
Isopropyl ether	4.0	Not Detected	17	Not Detected
m,p-Xylene	1.0	3.4	4.4	15
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
o-Xylene	1.0	1.6	4.4	7.1
Propylbenzene	1.0	Not Detected	5.0	Not Detected
Propylene	4.0	4.8	7.0	8.2
Styrene	1.0	Not Detected	4.3	Not Detected
tert-Amyl methyl ether	4.0	Not Detected	17	Not Detected
tert-Butyl alcohol	4.0	Not Detected	12	Not Detected
Tetrachloroethene	1.0	9.3	6.8	63
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	2.0	3.8	7.7
TPH ref. to Gasoline (MW=100)	100	130	410	530
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
Trichloroethene	1.0	Not Detected	5.4	Not Detected
Vinyl Acetate	4.0	Not Detected	14	Not Detected
Vinyl Bromide	4.0	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SSV-FSS02-02

Lab ID#: 2108390-22A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082111	Date of Collection: 8/17/21 11:40:00 AM
Dil. Factor:	2.02	Date of Analysis: 8/21/21 04:46 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	105	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/21AUG21.b/p082111.d  
 Lab Smp Id: 2108390-22A  
 Inj Date : 21-AUG-2021 16:46  
 Operator : mb  
 Smp Info : 200ml 1L1647  
 Misc Info : 4.5 Hg->10.6 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Meth Date : 23-Aug-2021 07:32 lk8g  
 Cal Date : 19-MAY-2021 19:45  
 Als bottle: 2  
 Dil Factor: 2.02000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msdp.i  
 Quant Type: ISTD  
 Cal File: p051915.d  
 Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO
				RESPONSE	( PPBV)		
-----							
* 90	Bromochloromethane			CAS #: 74-97-5			
5.785	5.785	(1.000)	130	105025	25.0000	80.00- 120.00	100.00
5.785	5.785	(1.000)	128	81449		48.23- 108.23	77.55
5.785	5.785	(1.000)	49	236873		150.57- 210.57	225.54
-----							
* 108	1,4-Difluorobenzene			CAS #: 540-36-3			
6.666	6.666	(1.000)	114	376574	25.0000	80.00- 120.00	100.00
6.666	6.666	(1.000)	88	56256		0.00- 45.71	14.94
-----							
* 153	Chlorobenzene-d5			CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	388106	25.0000	80.00- 120.00	100.00
9.460	9.460	(1.000)	82	197640		23.78- 83.78	50.92
-----							
\$ 104	1,2-Dichloroethane-d4			CAS #: 17060-07-0			
6.315	6.315	(1.092)	65	157761	27.2187	27.219 80.00- 120.00	100.00
6.315	6.315	(1.092)	67	73070		27.21- 87.21	46.32
-----							
\$ 134	Toluene-d8			CAS #: 2037-26-5			
7.891	7.891	(1.184)	98	412625	25.2334	25.233 80.00- 120.00	100.00
7.891	7.891	(1.184)	70	44072		0.00- 40.44	10.68

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	265583			34.95- 94.95	64.36
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	261731	26.2621	26.262	80.00- 120.00	100.00
10.921	10.921	(1.154)	95	307334			95.92- 155.92	117.42
10.921	10.921	(1.154)	176	251607			66.89- 126.89	96.13
-----								
5 Propylene								
						CAS #: 115-07-1		
1.688	1.689	(0.292)	41	11369	2.36557	4.778	80.00- 120.00	100.00
1.688	1.689	(0.292)	42	5775			35.28- 95.28	50.80
1.688	1.689	(0.292)	39	9114			38.35- 98.35	80.16
-----								
39 Ethanol								
						CAS #: 64-17-5		
3.257	3.250	(0.563)	46	6128	5.88367	11.885	80.00- 120.00	100.00
3.257	3.250	(0.563)	45	17573			511.19- 571.19	286.75
-----								
67 Hexane								
						CAS #: 110-54-3		
4.704	4.697	(0.813)	57	141380	13.6650	27.603	80.00- 120.00	100.00
4.696	4.697	(0.812)	43	114324			37.52- 97.52	80.86
4.704	4.697	(0.813)	86	14546			0.00- 41.48	10.29
-----								
137 Toluene								
						CAS #: 108-88-3		
7.956	7.956	(1.193)	91	17432	1.01675	2.054	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	9461			28.38- 88.38	54.27
-----								
142 Tetrachloroethene								
						CAS #: 127-18-4		
8.471	8.464	(0.895)	166	40866	4.62011	9.333	80.00- 120.00	100.00
8.471	8.464	(0.895)	129	32329			47.84- 107.84	79.11
8.471	8.464	(0.895)	131	31193			45.29- 105.29	76.33
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	17228	1.70697	3.448	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	33452			163.73- 223.73	194.17
-----								
164 o-Xylene								
						CAS #: 95-47-6		
10.233	10.226	(1.082)	106	7815	0.80817	1.632	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	16224			177.45- 237.45	207.59
-----								
183 4-Ethyltoluene								
						CAS #: 622-96-8		
11.251	11.287	(1.189)	120	8186	0.83572	1.688	80.00- 120.00	100.00
11.251	11.287	(1.189)	105	23418			284.55- 344.55	286.06
-----								
190 1,2,4-Trimethylbenzene								
						CAS #: 95-63-6		
11.816	11.817	(1.249)	105	25945	1.01926	2.059	80.00- 120.00	100.00
11.816	11.817	(1.249)	120	11773			19.05- 79.05	45.38
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082111.d  
 Lab Smp Id: 2108390-22A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: mb  
 Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Misc Info: 4.5 Hg->10.6 psi

Calibration Date: 21-AUG-2021  
 Calibration Time: 09:37  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	102894	61736	144052	105025	2.07
108 1,4-Difluorobenze	387356	232414	542298	376574	-2.78
153 Chlorobenzene-d5	386134	231680	540588	388106	0.51

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.67	6.34	7.00	6.67	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 21AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-22A  
Level: LOW Operator: mb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
Misc Info: 4.5 Hg->10.6 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.219	108.87	70-130
\$ 134 Toluene-d8	25.000	25.233	100.93	70-130
\$ 170 4-Bromofluorobenz	25.000	26.262	105.05	70-130



Date : 21-AUG-2021 16:46

Client ID:

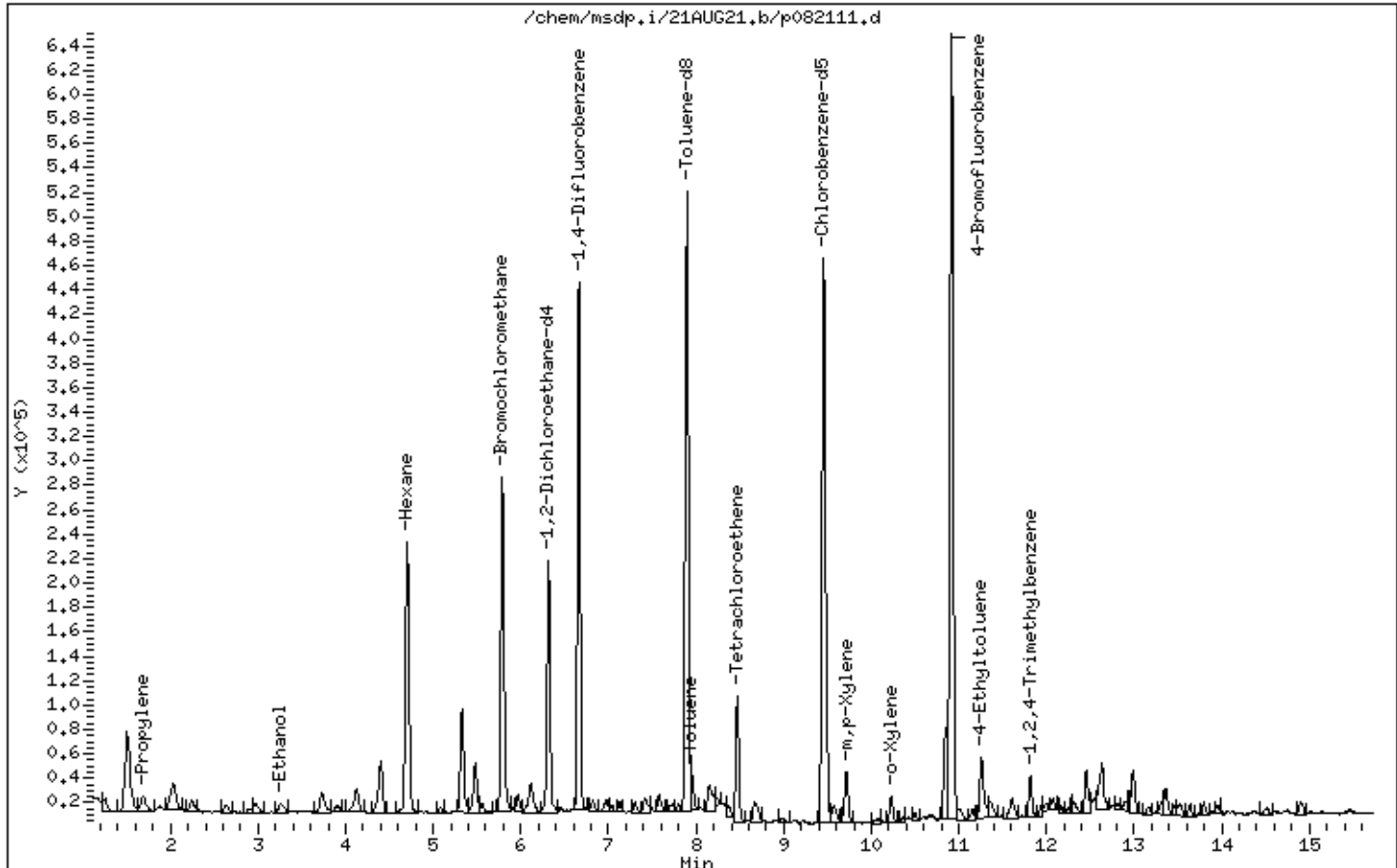
Instrument: msdp.i

Sample Info: 200ml 1L1647

Operator: mb

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 16:46

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1647

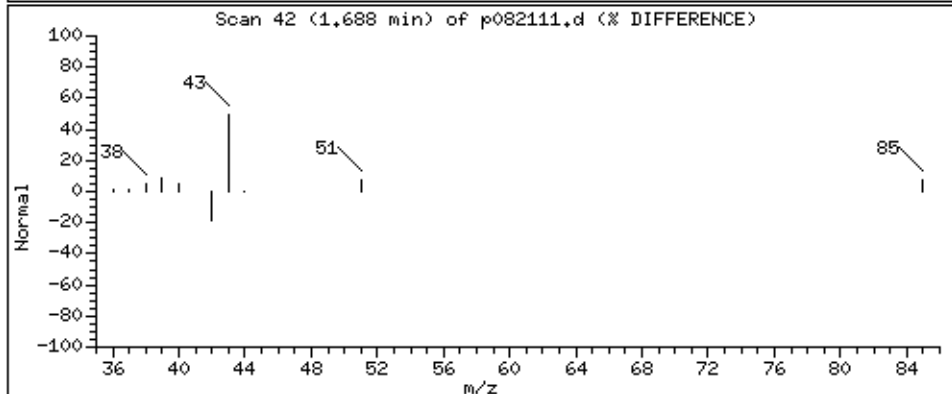
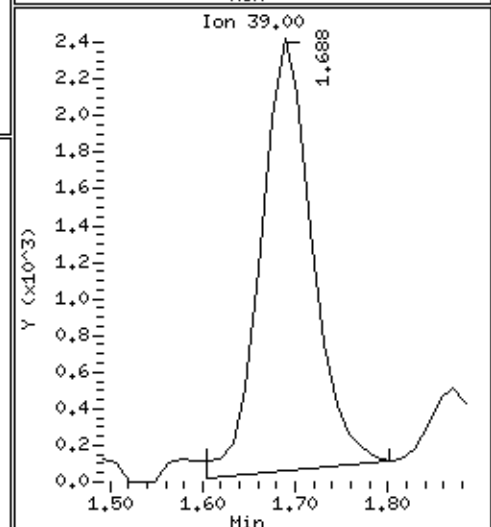
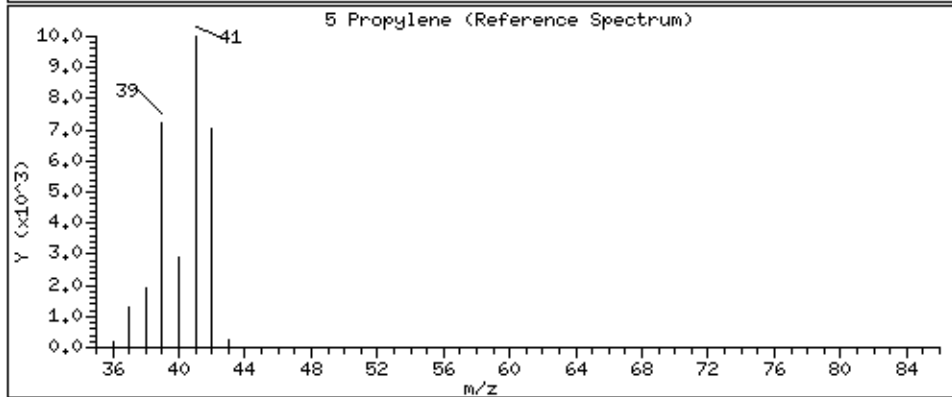
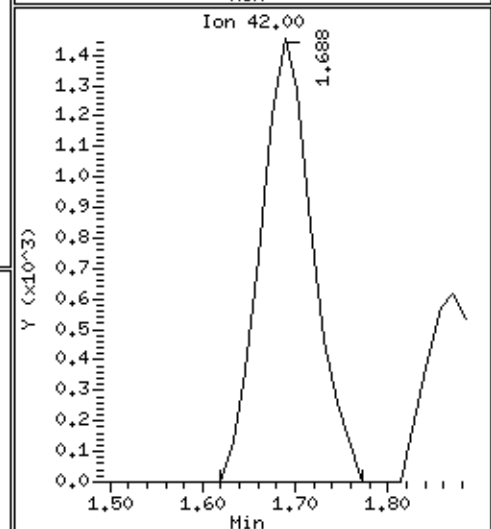
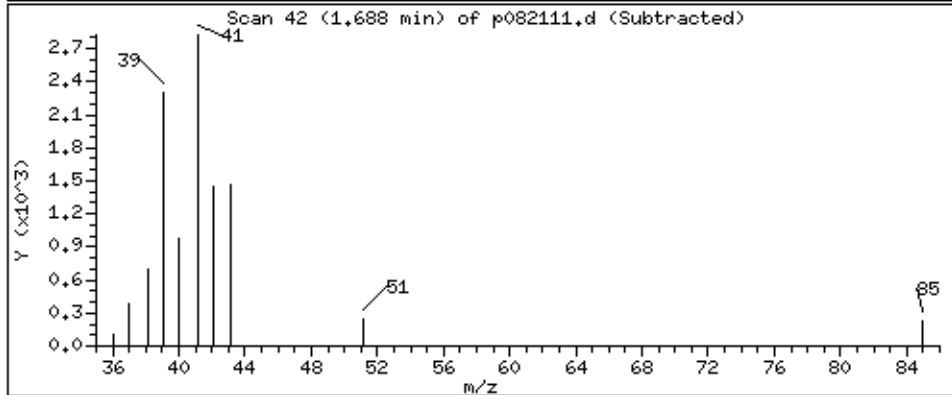
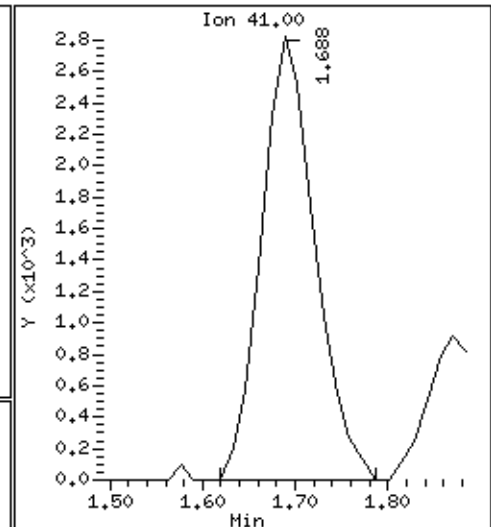
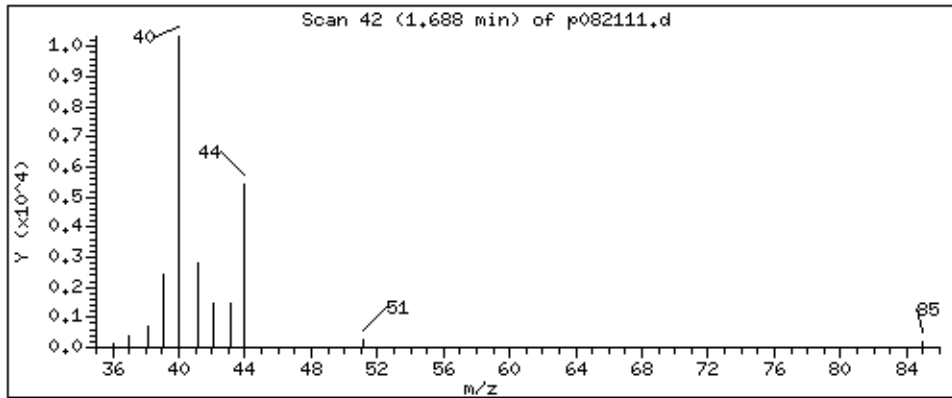
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

5 Propylene

Concentration: 4.778 PPBV



Date : 21-AUG-2021 16:46

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1647

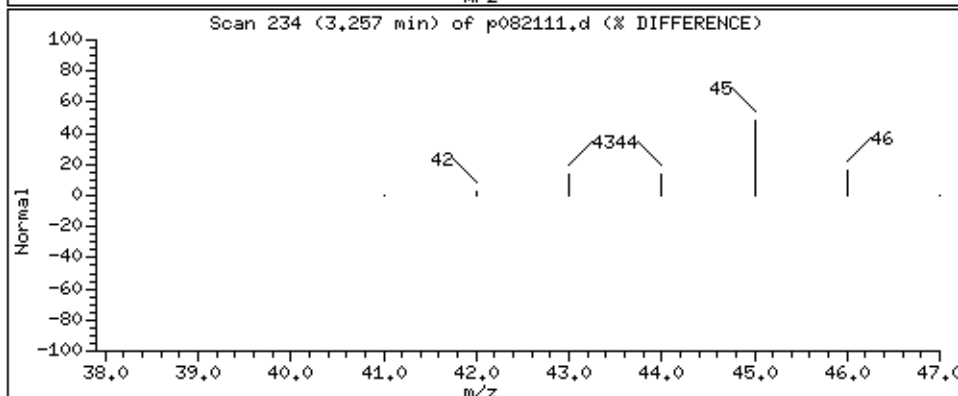
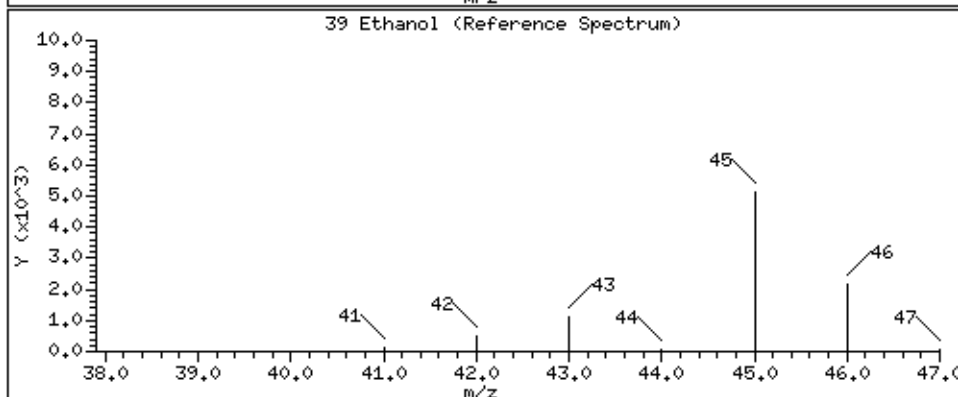
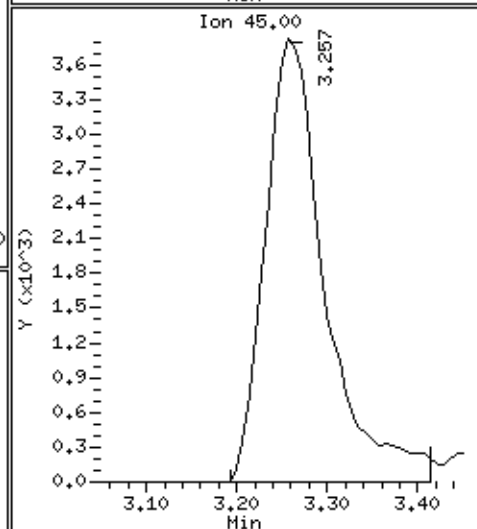
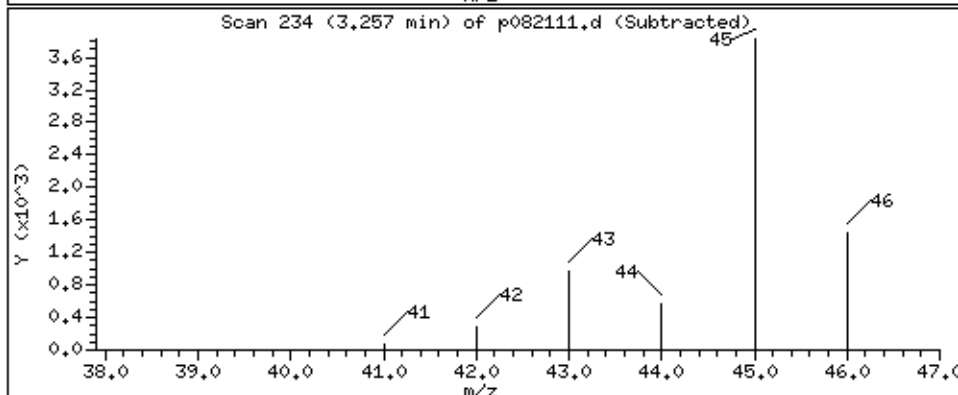
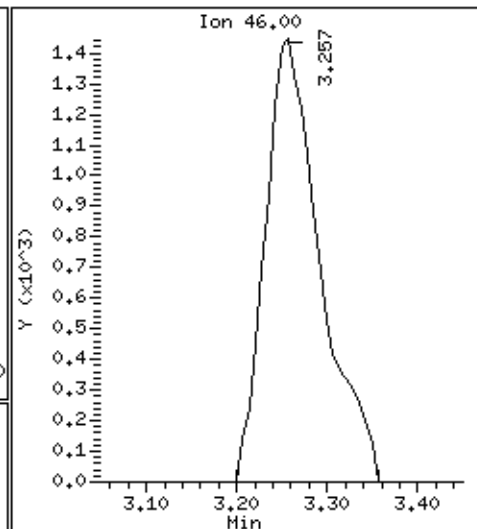
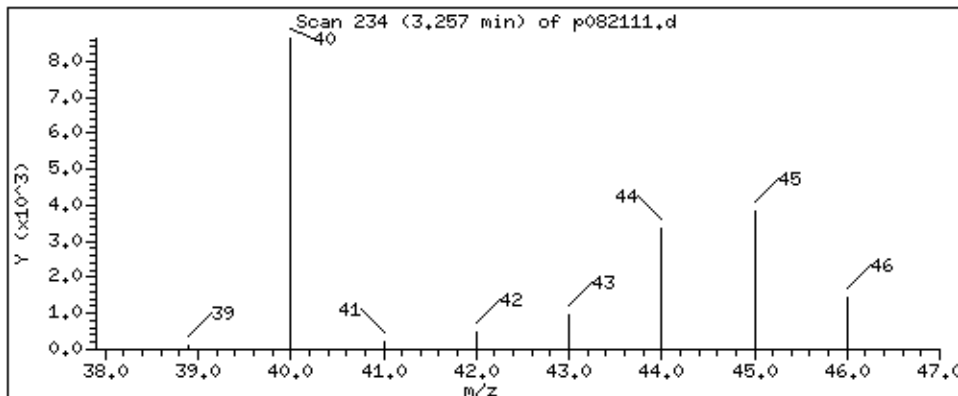
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 11,885 PPBV



Date : 21-AUG-2021 16:46

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1647

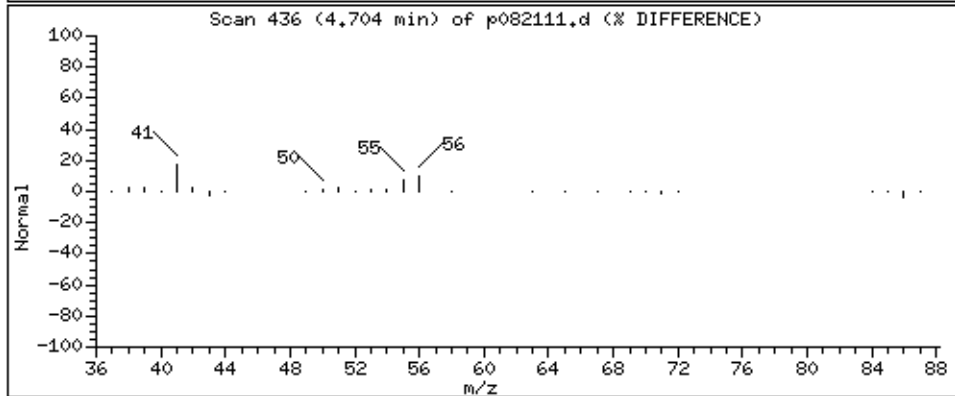
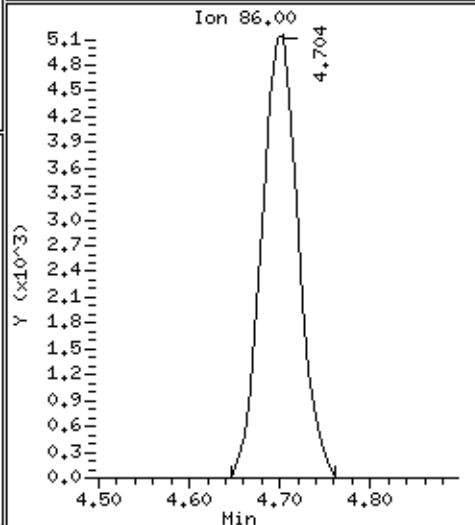
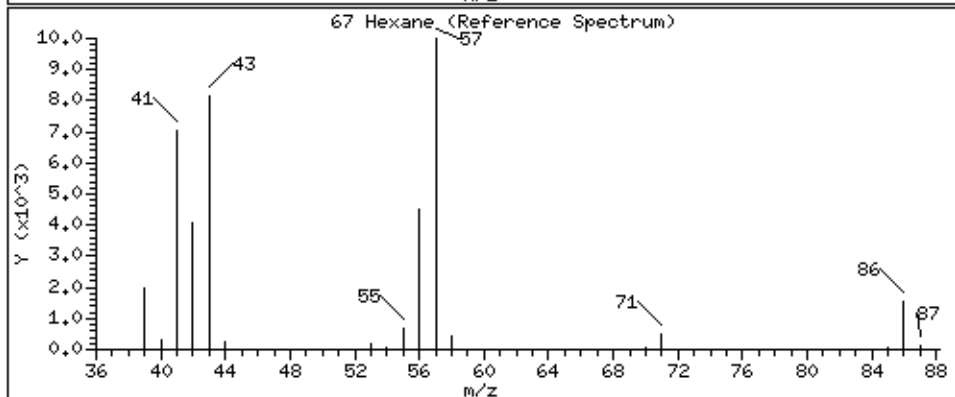
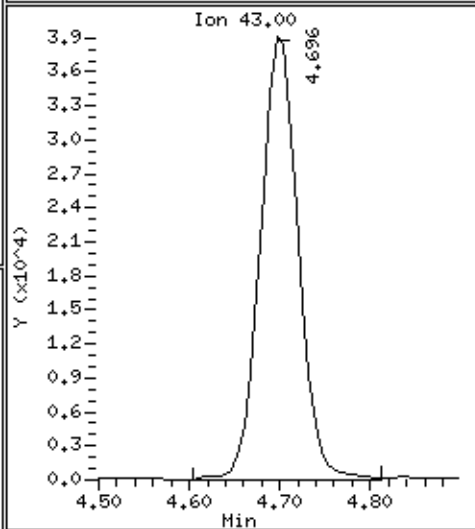
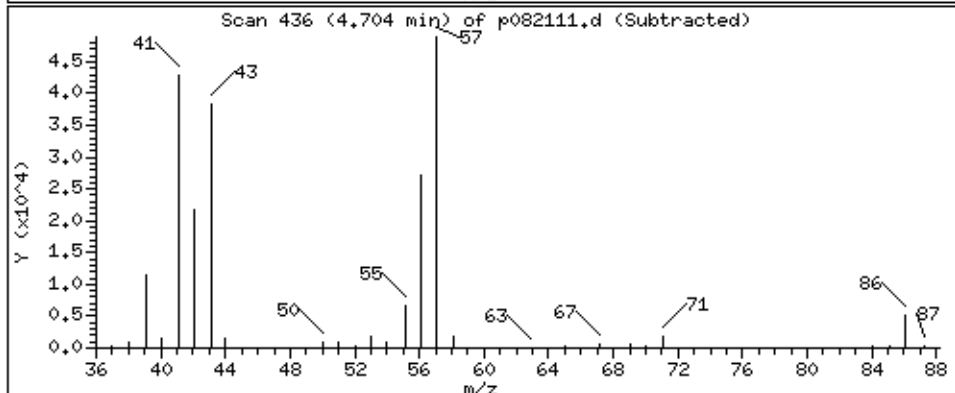
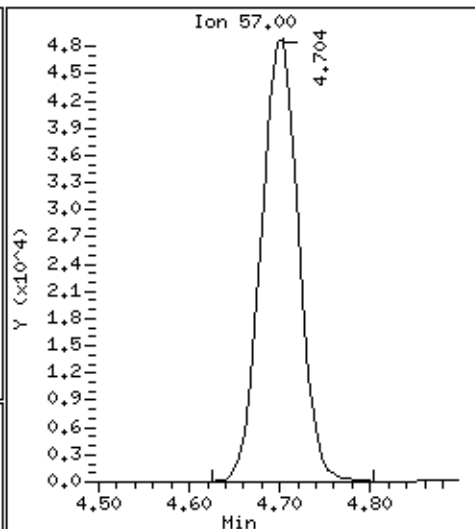
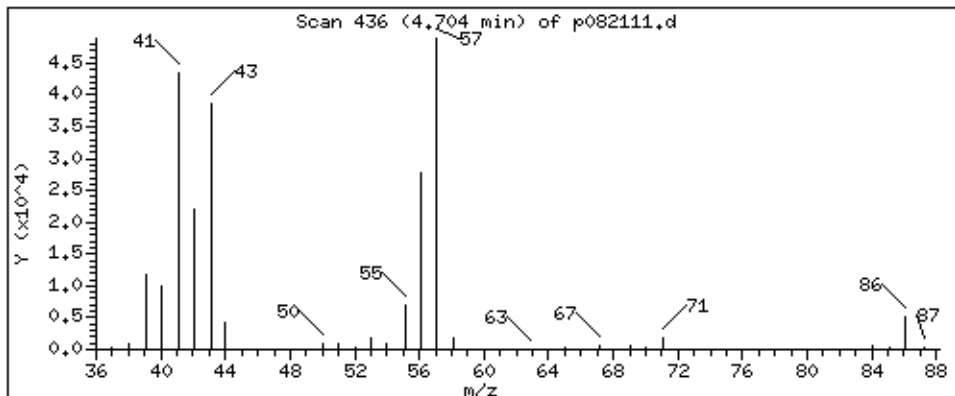
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 27,603 PPBV



Date : 21-AUG-2021 16:46

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1647

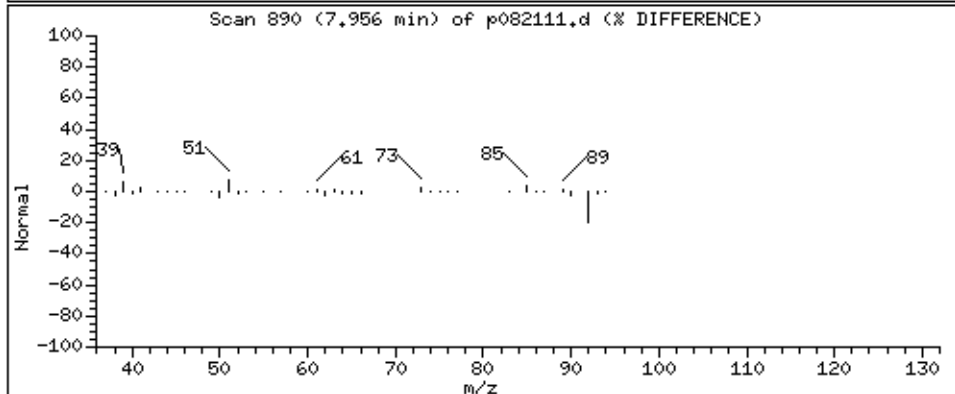
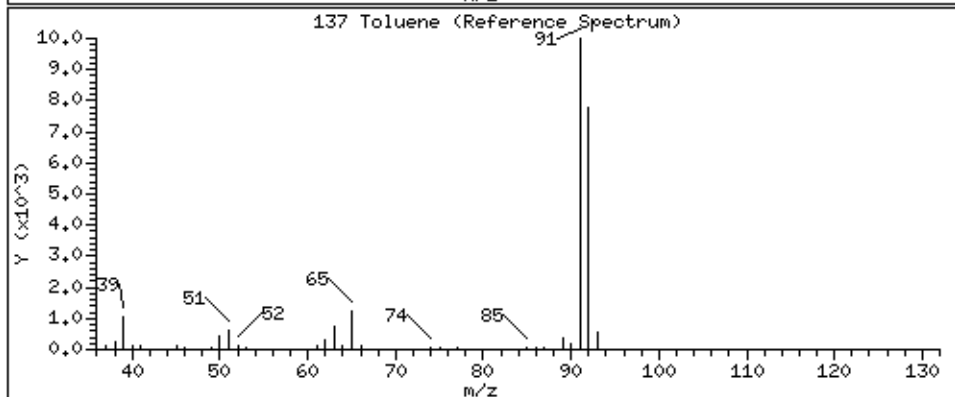
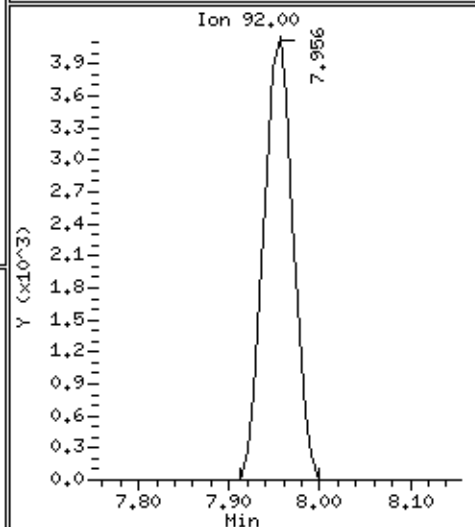
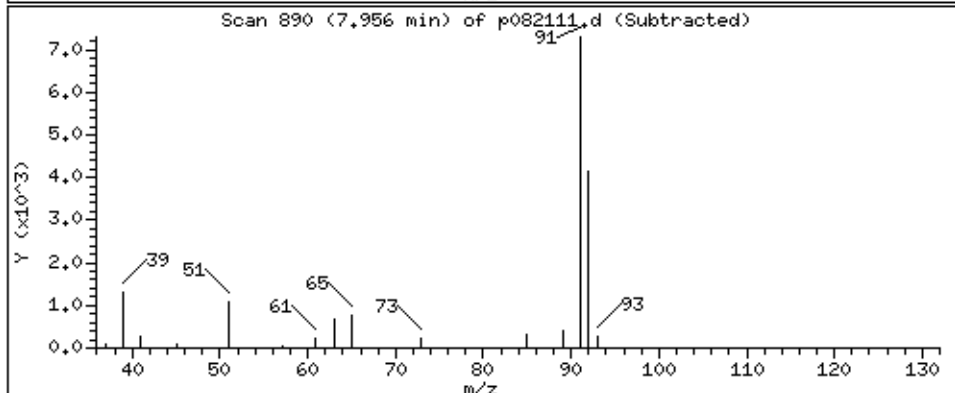
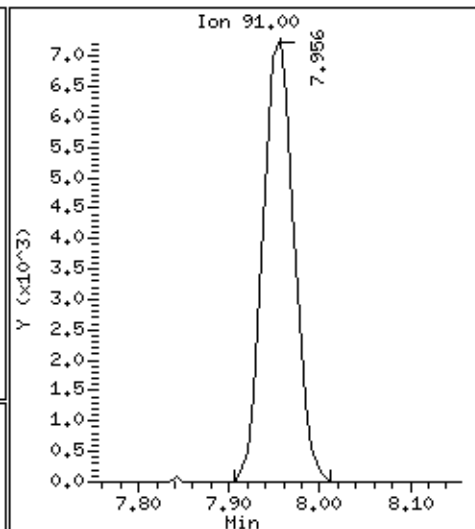
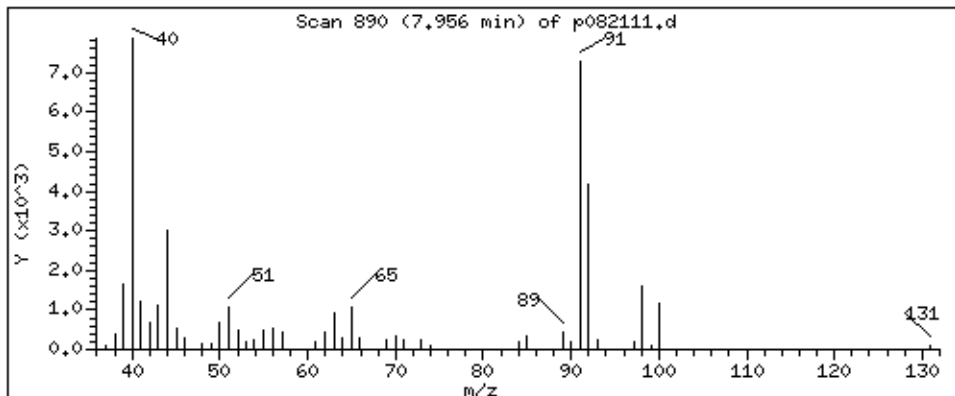
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 2,054 PPBV



Date : 21-AUG-2021 16:46

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1647

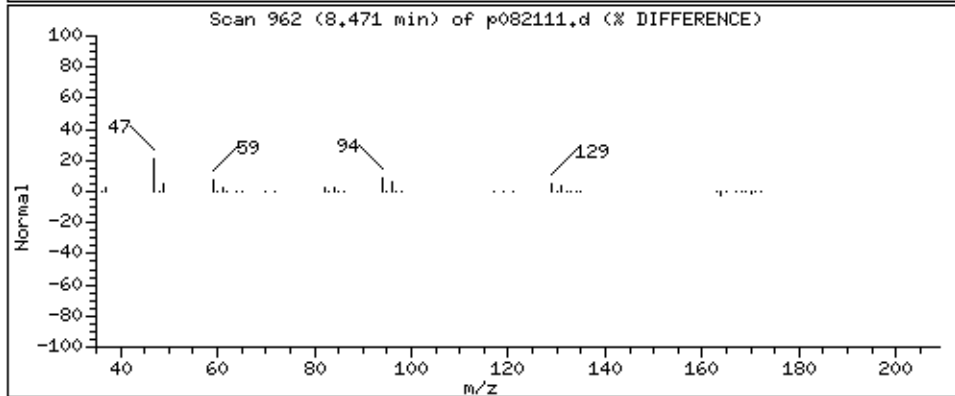
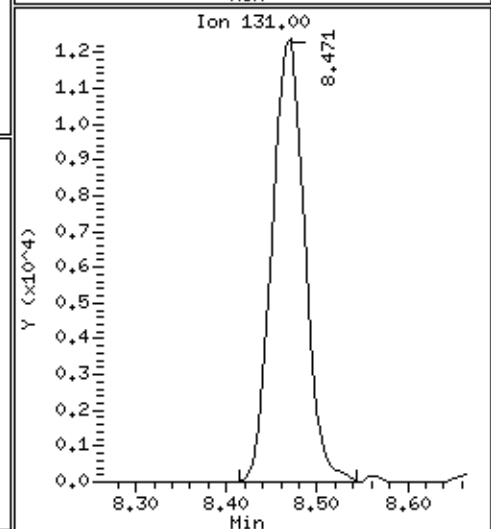
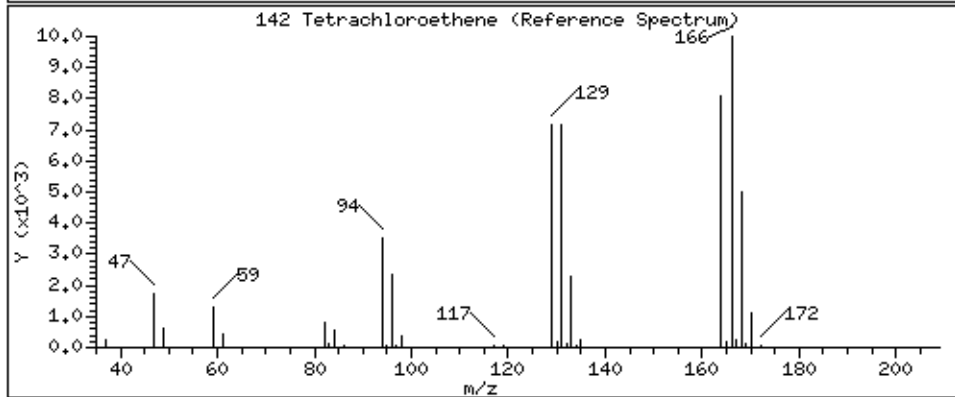
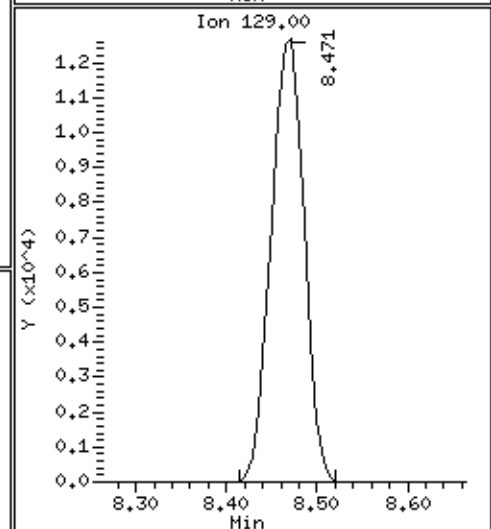
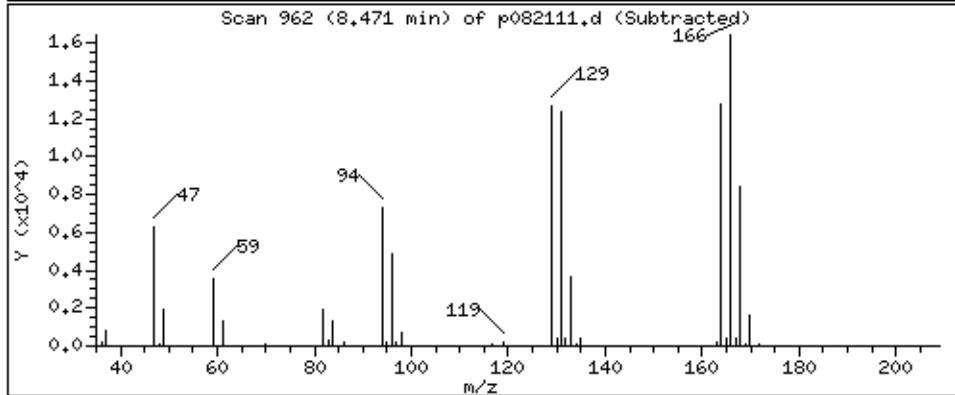
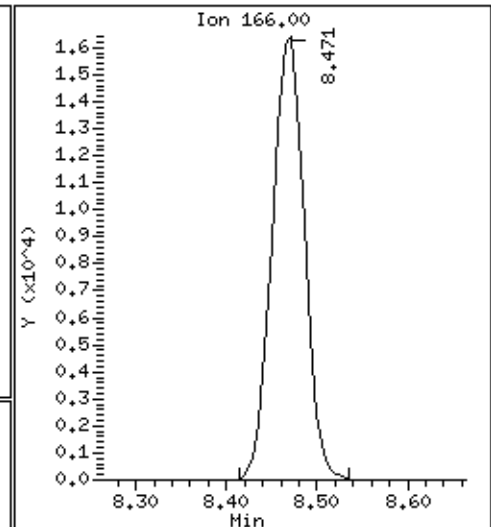
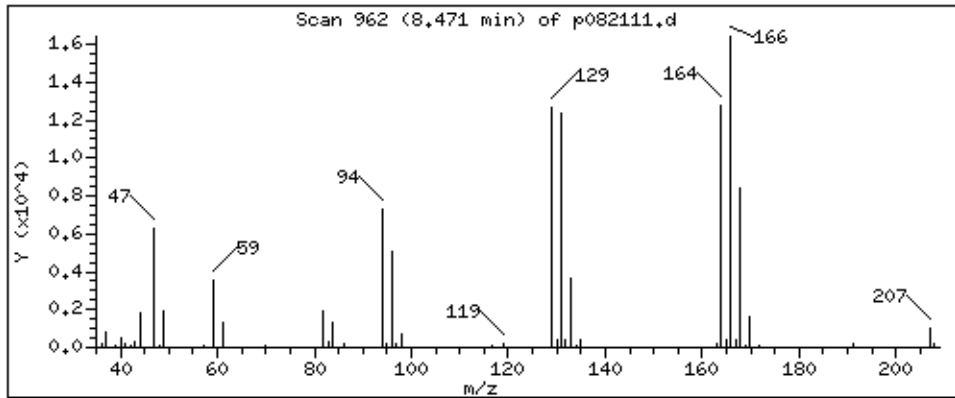
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 9.333 PPBV



Date : 21-AUG-2021 16:46

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1647

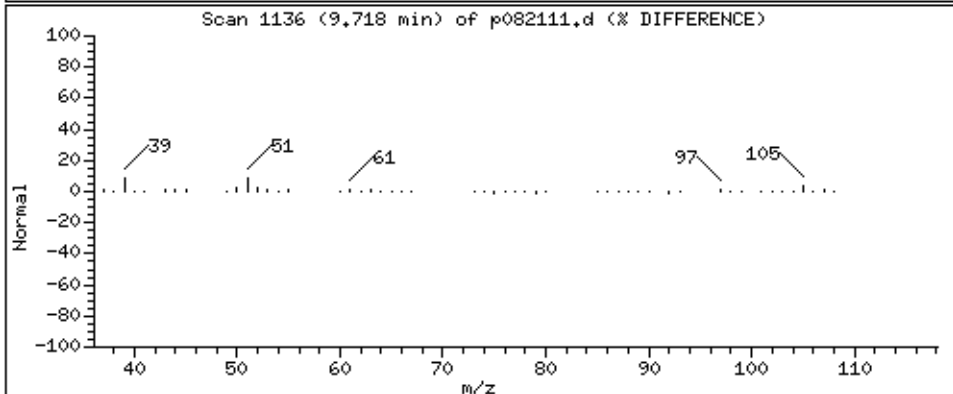
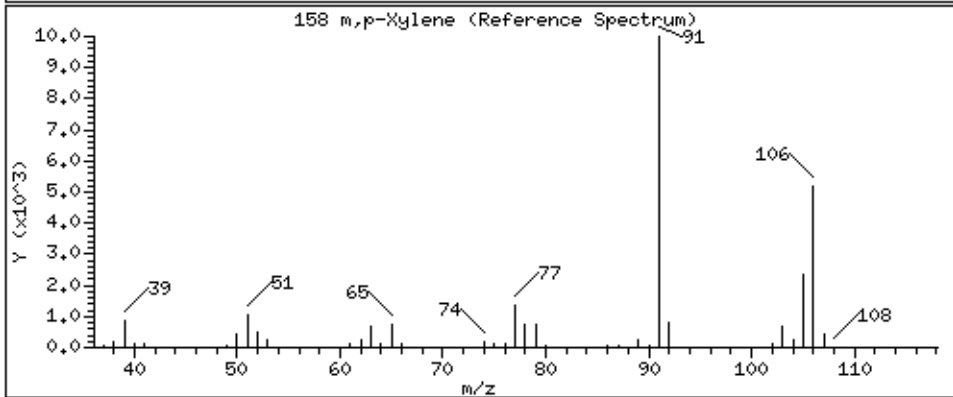
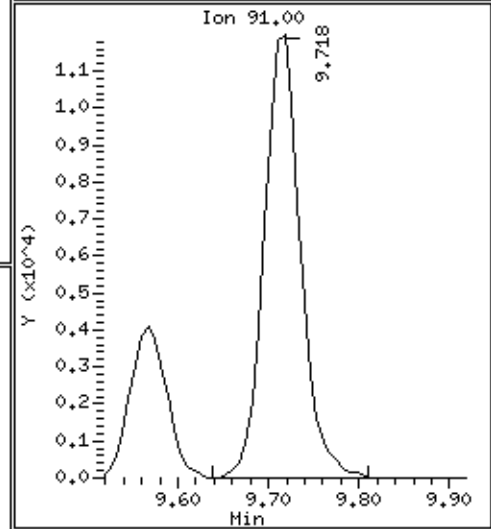
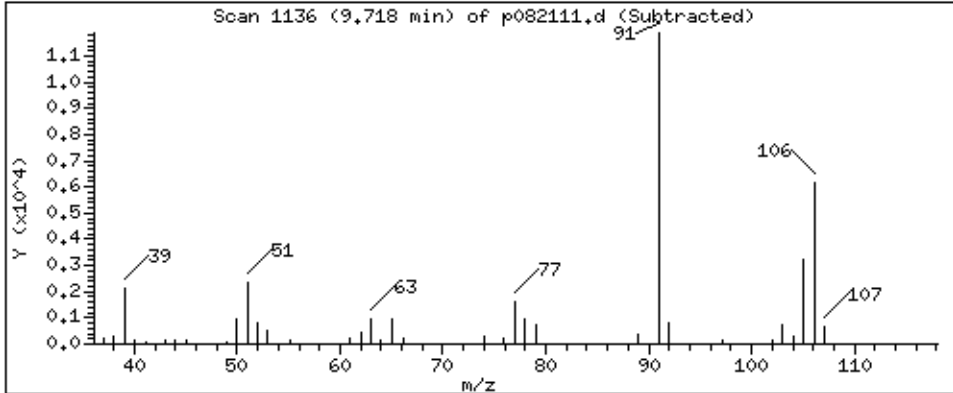
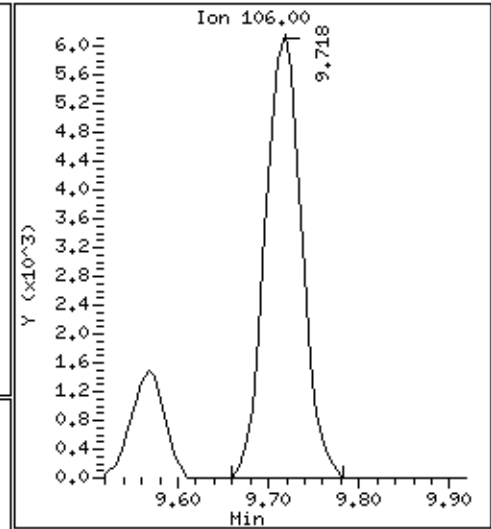
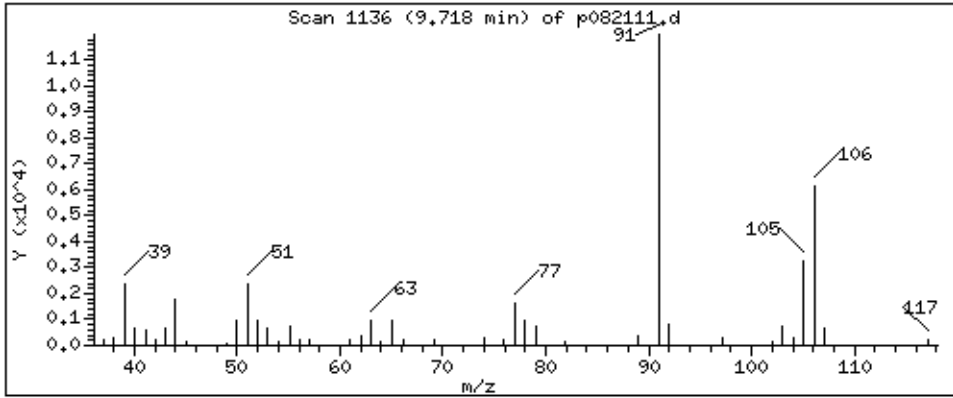
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 3.448 PPBV



Date : 21-AUG-2021 16:46

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1647

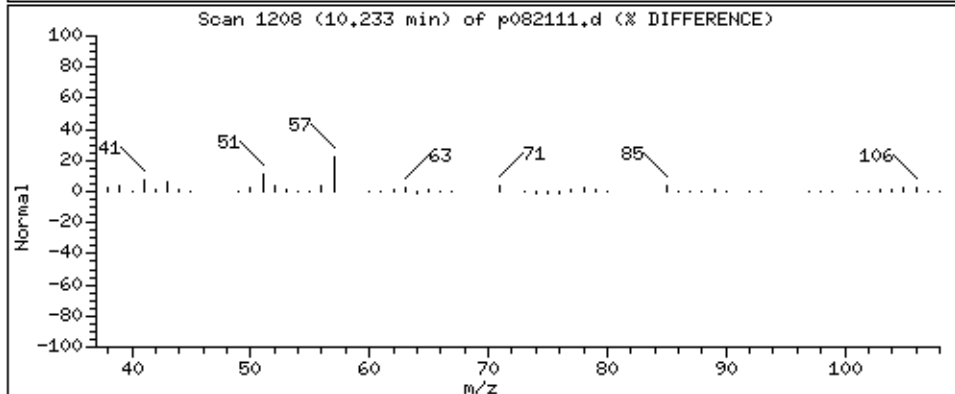
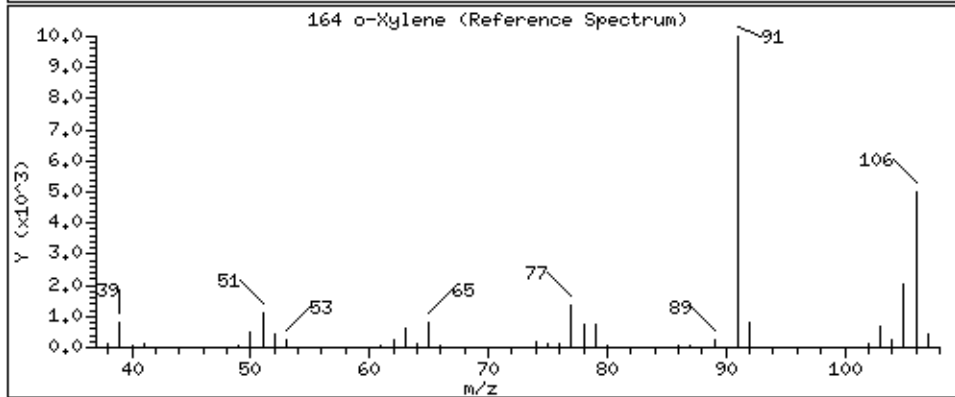
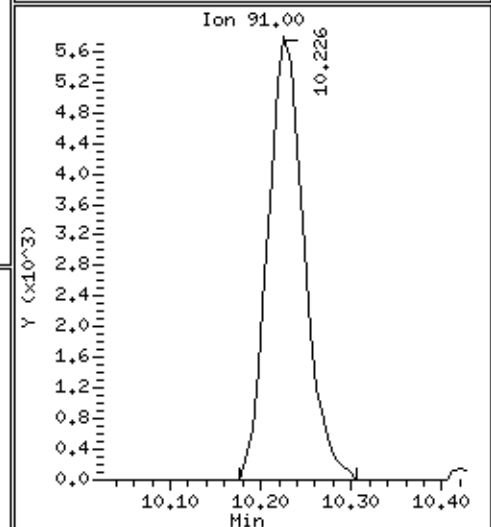
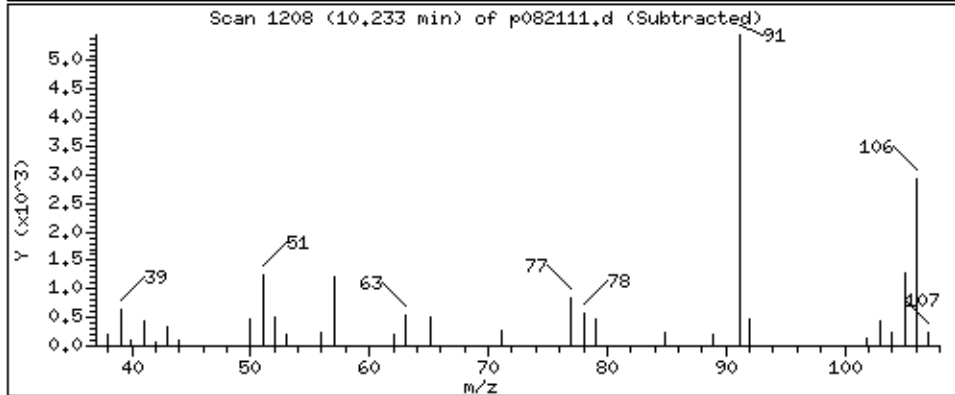
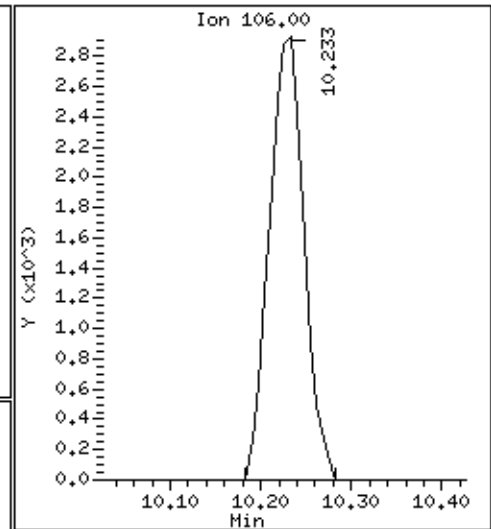
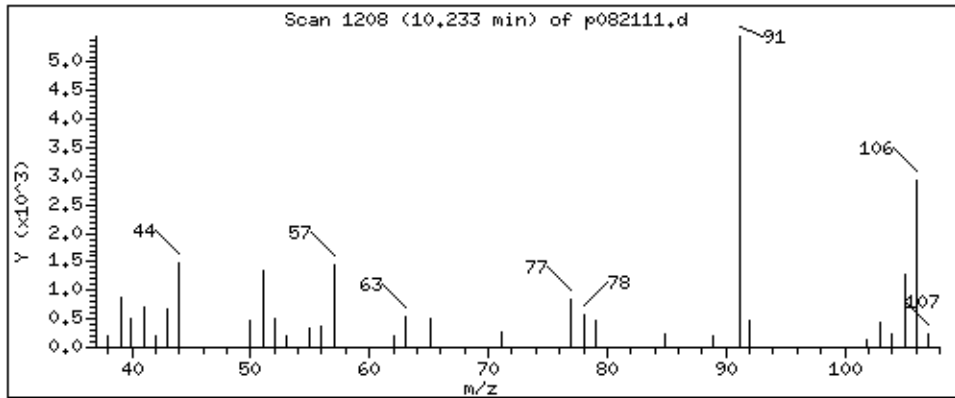
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 1.632 PPBV





Date : 21-AUG-2021 16:46

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1647

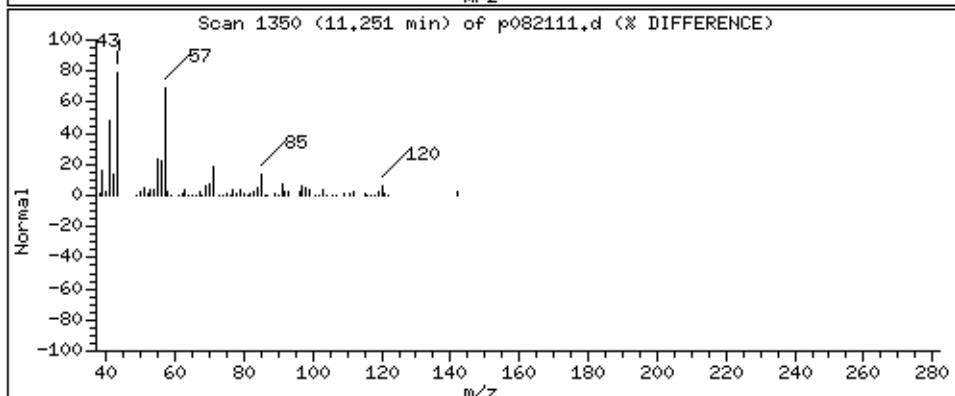
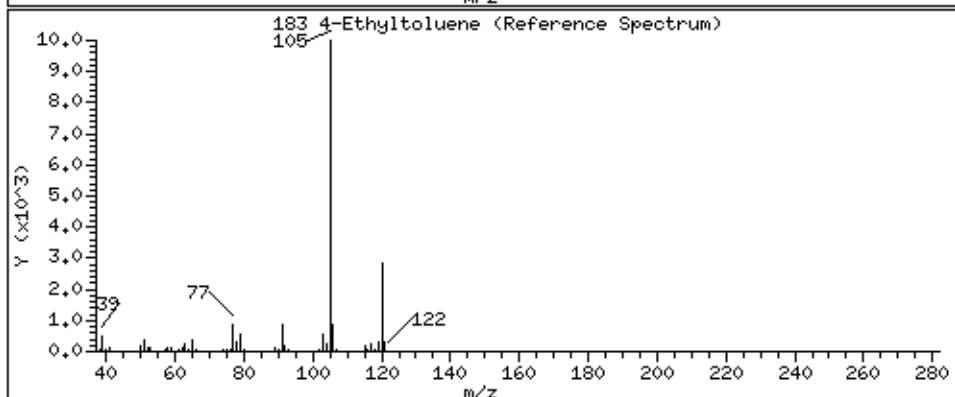
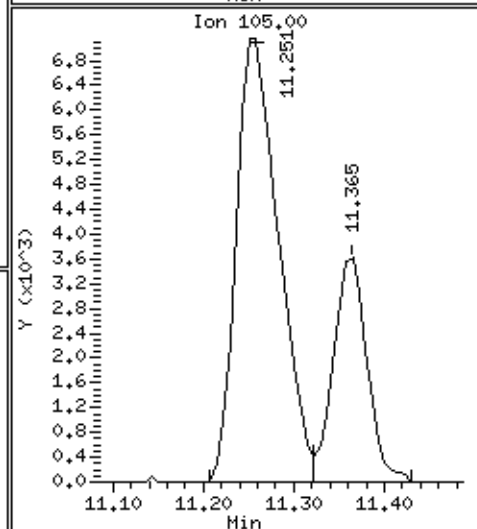
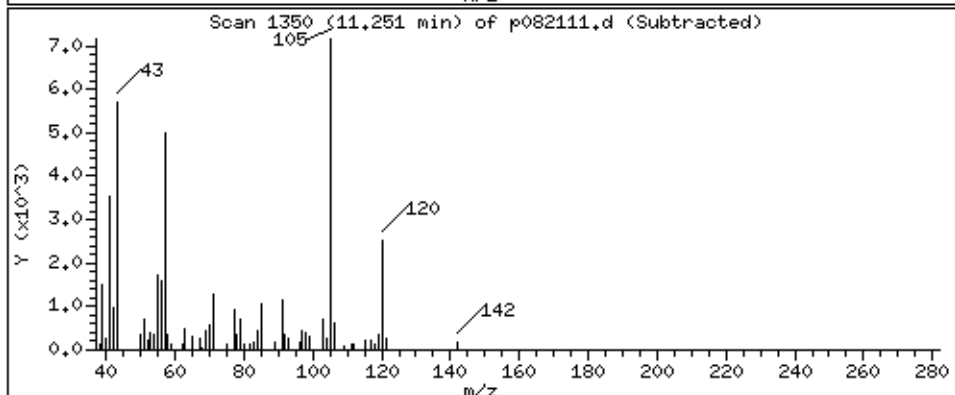
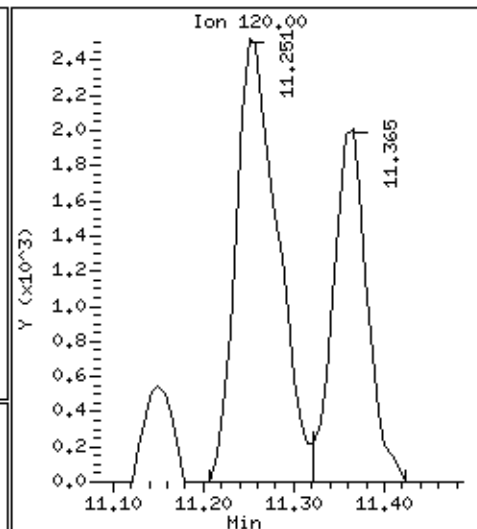
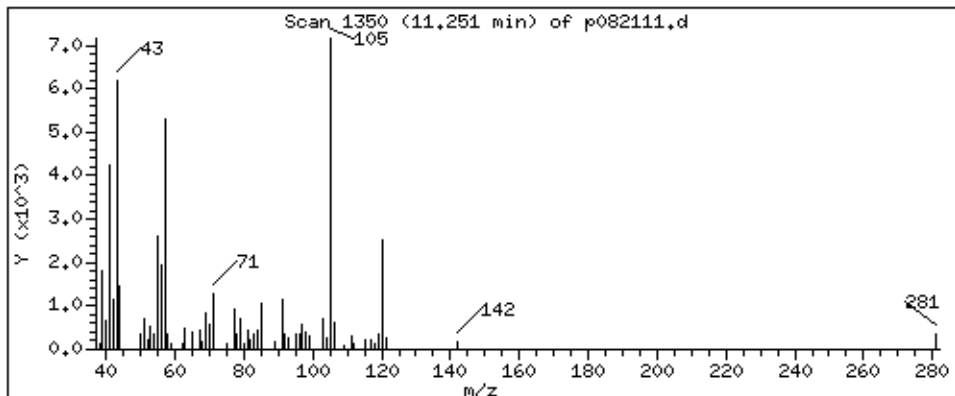
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 1,688 PPBV



Date : 21-AUG-2021 16:46

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1647

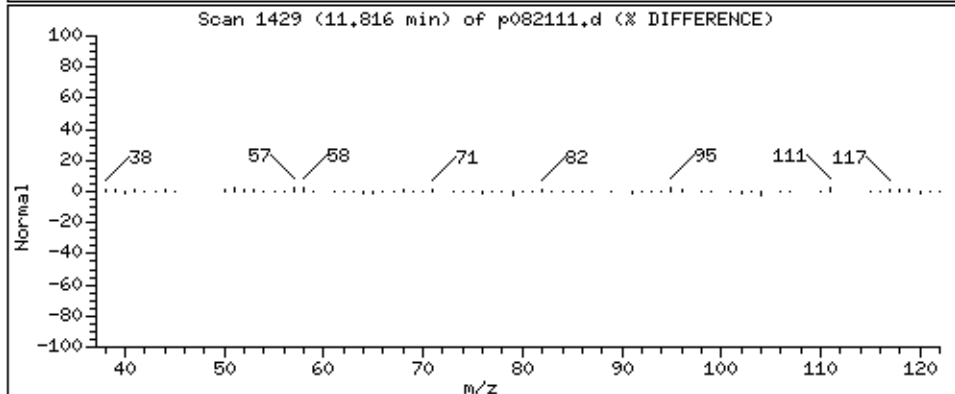
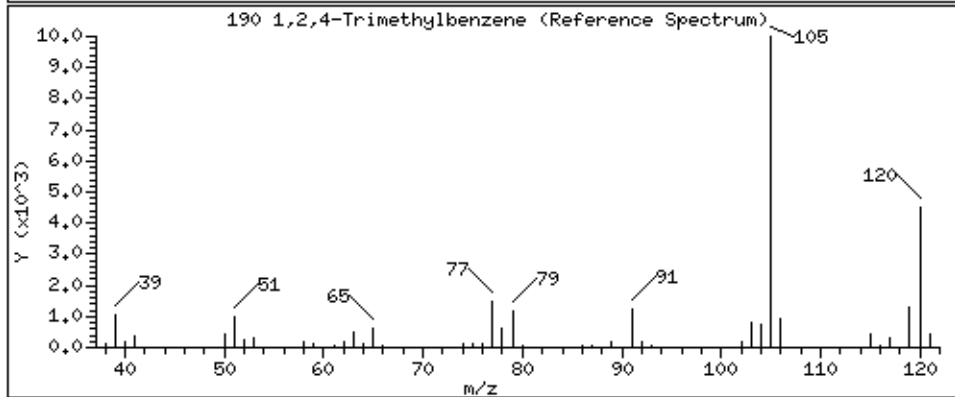
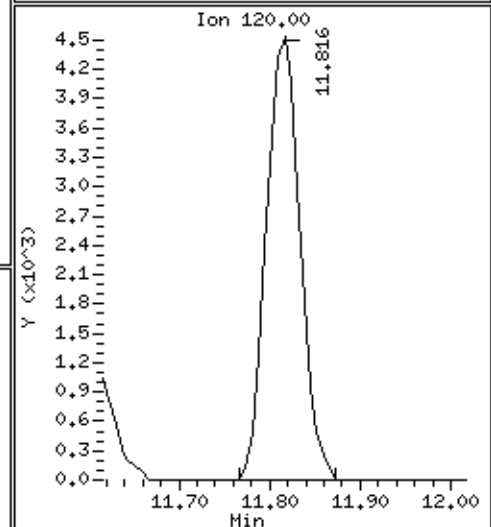
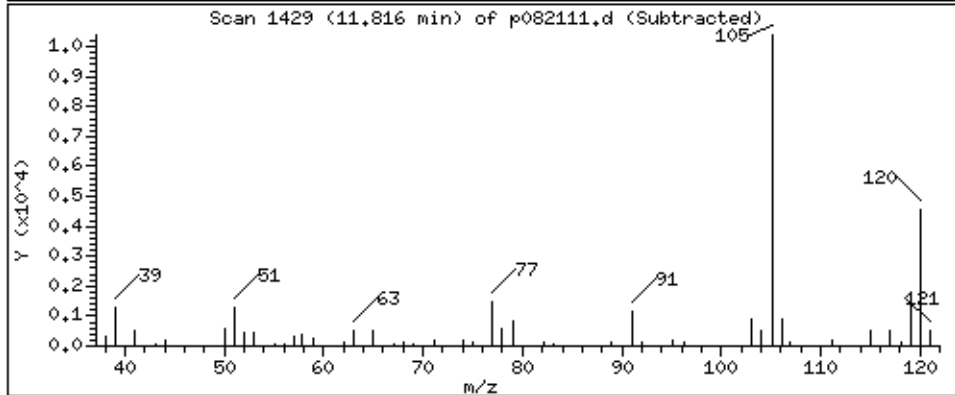
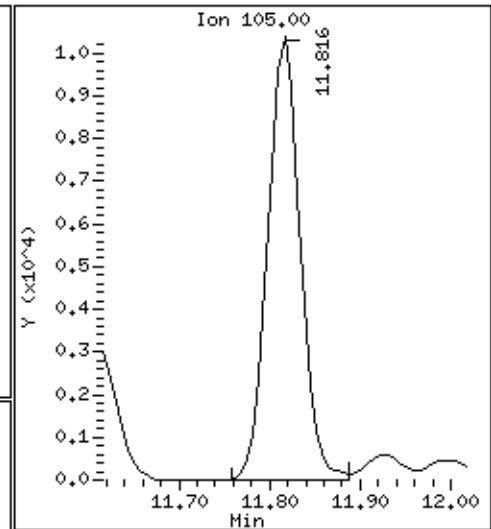
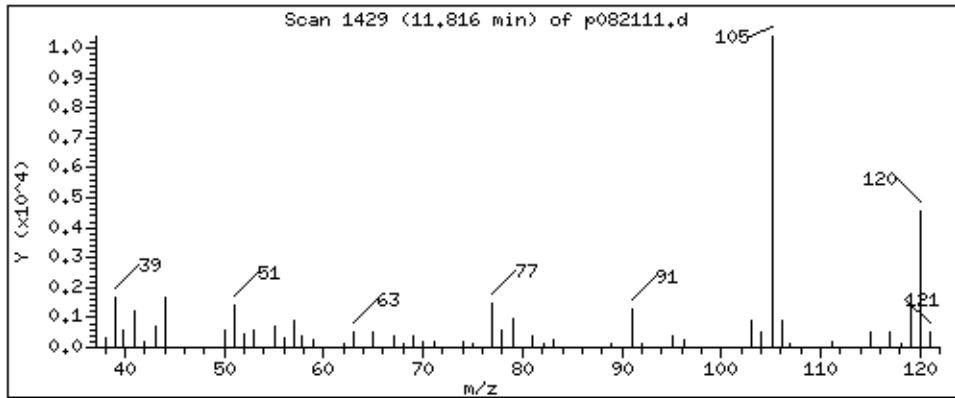
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 2.059 PPBV



Client Sample ID: SSV-GSS01-02

Lab ID#: 2108390-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082112	Date of Collection:	8/17/21 12:23:00 PM
Dil. Factor:	2.06	Date of Analysis:	8/21/21 05:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
1,1-Difluoroethane	4.1	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.1	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2-Dibromo-3-chloropropane	4.1	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected
2-Propanol	4.1	Not Detected	10	Not Detected
3-Chloropropene	4.1	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.1	Not Detected	9.4	Not Detected
Acrylonitrile	4.1	Not Detected	8.9	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected



Air Toxics

Client Sample ID: SSV-GSS01-02

Lab ID#: 2108390-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082112	Date of Collection:	8/17/21 12:23:00 PM
Dil. Factor:	2.06	Date of Analysis:	8/21/21 05:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
Dibromomethane	4.1	Not Detected	29	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Ethyl Acetate	4.1	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Ethyl-tert-butyl ether	4.1	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 113	1.0	Not Detected	7.9	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Hexachloroethane	4.1	Not Detected	40	Not Detected
Hexane	1.0	14	3.6	50
Iodomethane	10	Not Detected	60	Not Detected
Isopropyl ether	4.1	Not Detected	17	Not Detected
m,p-Xylene	1.0	1.3	4.5	5.5
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
Propylene	4.1	Not Detected	7.1	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
tert-Amyl methyl ether	4.1	Not Detected	17	Not Detected
tert-Butyl alcohol	4.1	Not Detected	12	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
Vinyl Acetate	4.1	Not Detected	14	Not Detected
Vinyl Bromide	4.1	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SSV-GSS01-02

Lab ID#: 2108390-23A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082112	Date of Collection: 8/17/21 12:23:00 PM
Dil. Factor:	2.06	Date of Analysis: 8/21/21 05:16 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	108	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/21AUG21.b/p082112.d  
Lab Smp Id: 2108390-23A  
Inj Date : 21-AUG-2021 17:16  
Operator : mb  
Smp Info : 200ml 1L3941  
Misc Info : 5.5 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
Meth Date : 23-Aug-2021 07:32 lk8g  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 3  
Dil Factor: 2.06000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 90	Bromochloromethane					CAS #: 74-97-5			
5.785	5.785	(1.000)	130	102800	25.0000	80.00- 120.00	100.00		
5.785	5.785	(1.000)	128	80129		48.23- 108.23	77.95		
5.785	5.785	(1.000)	49	236741		150.57- 210.57	230.29		
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.666	6.666	(1.000)	114	369160	25.0000	80.00- 120.00	100.00		
6.666	6.666	(1.000)	88	55030		0.00- 45.71	14.91		
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	382227	25.0000	80.00- 120.00	100.00		
9.460	9.460	(1.000)	82	195297		23.78- 83.78	51.09		
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
6.315	6.315	(1.092)	65	157863	27.8258	27.826 80.00- 120.00	100.00		
6.315	6.315	(1.092)	67	74709		27.21- 87.21	47.33		
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.891	7.891	(1.184)	98	411454	25.6671	25.667 80.00- 120.00	100.00		
7.891	7.891	(1.184)	70	44984		0.00- 40.44	10.93		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	263786			34.95- 94.95	64.11
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	265775	27.0780	27.078	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	311725			95.92- 155.92	117.29
10.921	10.921	(1.154)	176	258651			66.89- 126.89	97.32
-----								
67 Hexane								
						CAS #: 110-54-3		
4.696	4.697	(0.812)	57	69689	6.88151	14.176	80.00- 120.00	100.00
4.696	4.697	(0.812)	43	56956			37.52- 97.52	81.73
4.696	4.697	(0.812)	86	6500			0.00- 41.48	9.33
-----								
158 m,p-Xylene								
						CAS #: 108-38-3		
9.710	9.718	(1.026)	106	6088	0.61248	1.262	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	12581			163.73- 223.73	206.63
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082112.d  
 Lab Smp Id: 2108390-23A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: mb  
 Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Misc Info: 5.5 Hg->10 psi

Calibration Date: 21-AUG-2021  
 Calibration Time: 09:37  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	102894	61736	144052	102800	-0.09
108 1,4-Difluorobenze	387356	232414	542298	369160	-4.70
153 Chlorobenzene-d5	386134	231680	540588	382227	-1.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.67	6.34	7.00	6.67	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.



Report Date: 24-Aug-2021 12:23

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 21AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-23A  
Level: LOW Operator: mb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
Misc Info: 5.5 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.826	111.30	70-130
\$ 134 Toluene-d8	25.000	25.667	102.67	70-130
\$ 170 4-Bromofluorobenz	25.000	27.078	108.31	70-130

Date : 21-AUG-2021 17:16

Client ID:

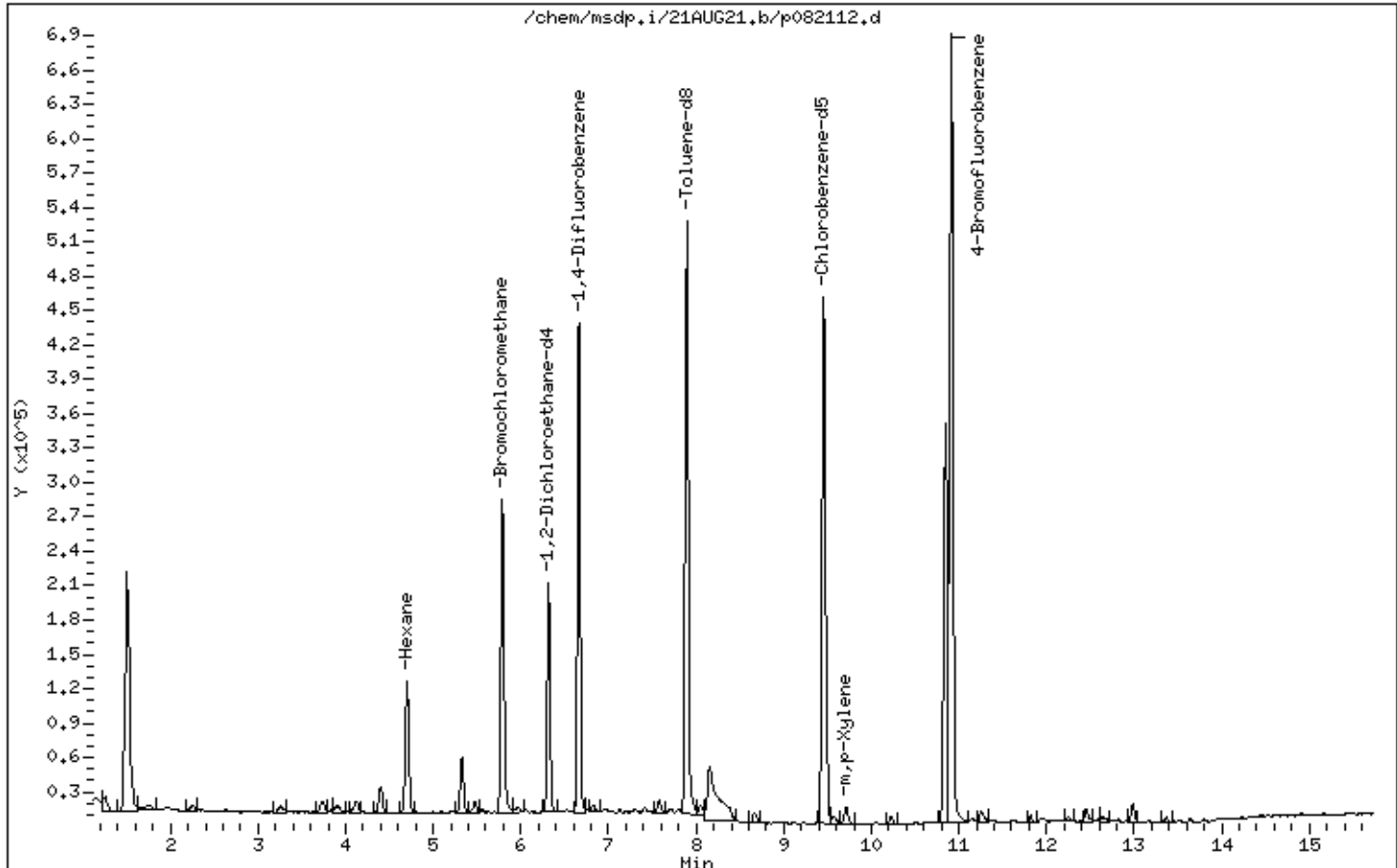
Instrument: msdp.i

Sample Info: 200ml 1L3941

Operator: mb

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 17:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3941

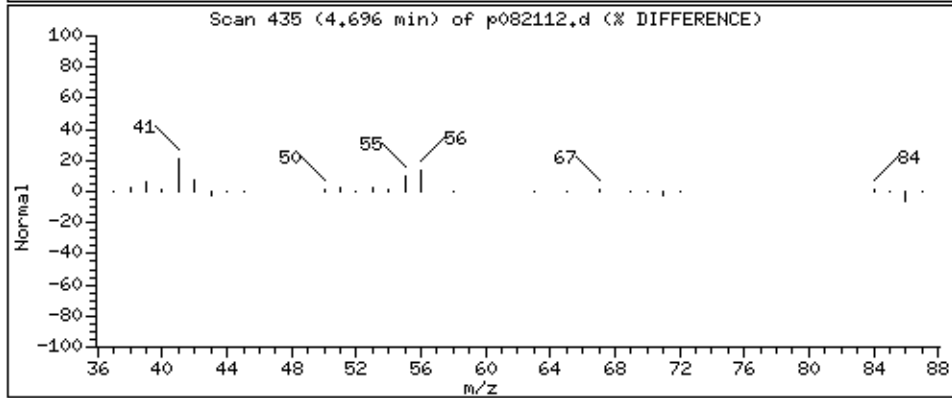
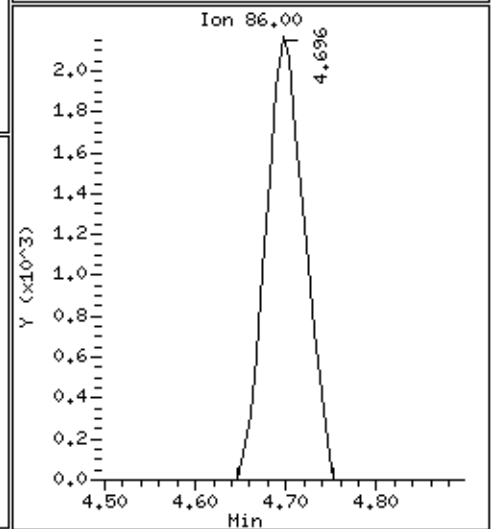
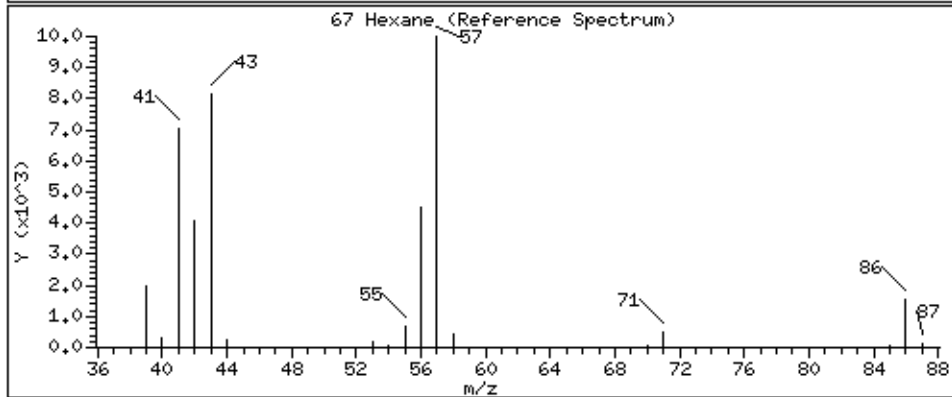
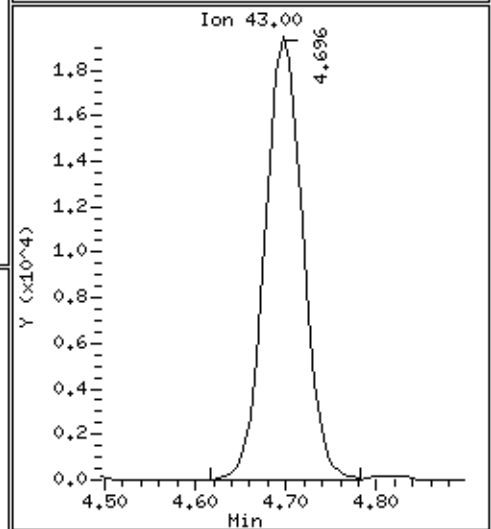
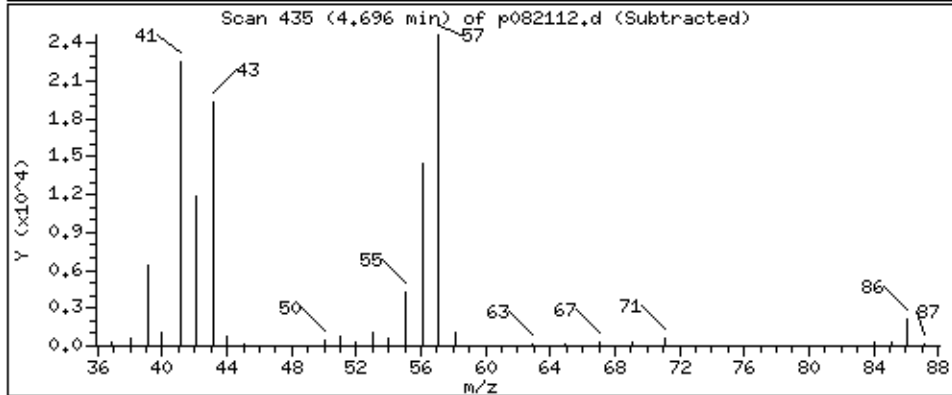
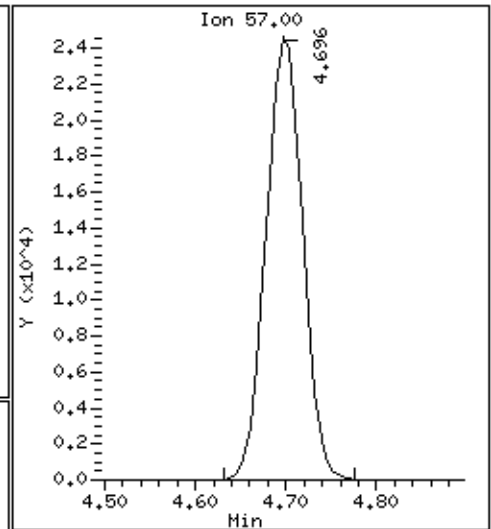
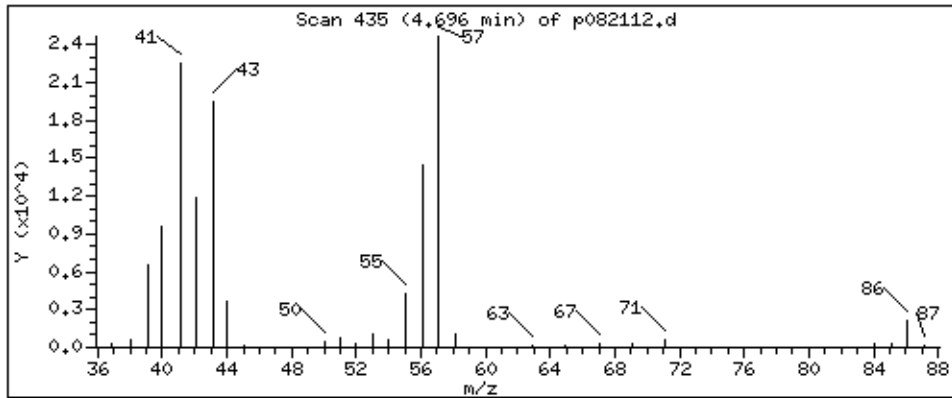
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 14,176 PPBV



Date : 21-AUG-2021 17:16

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L3941

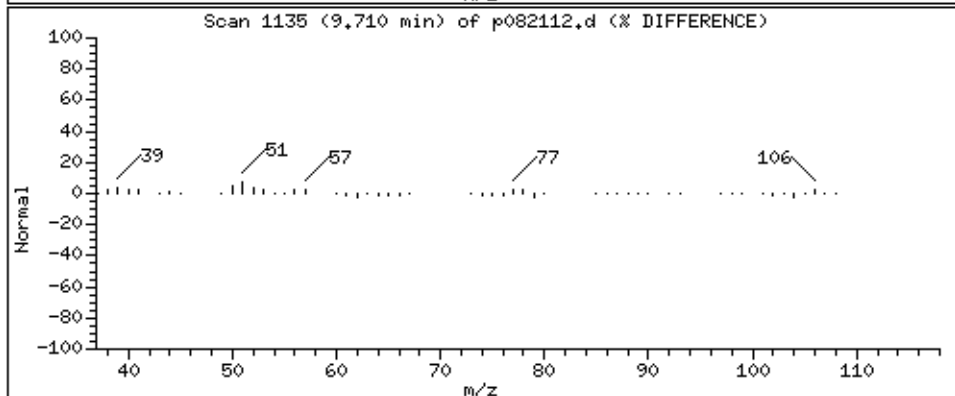
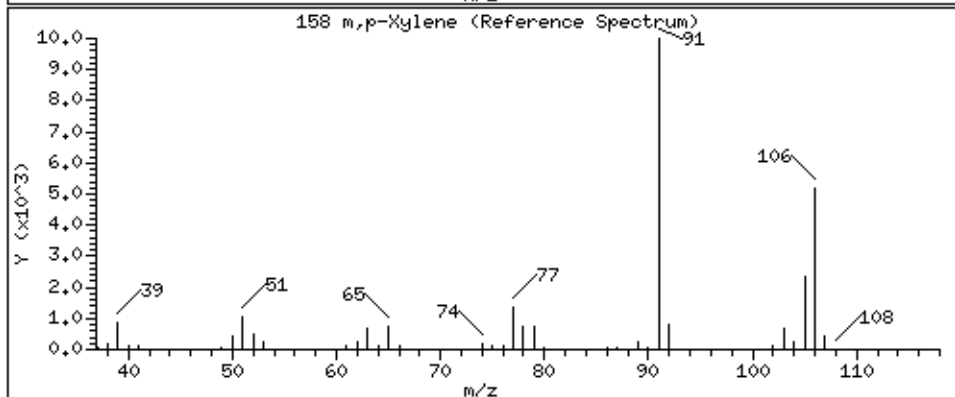
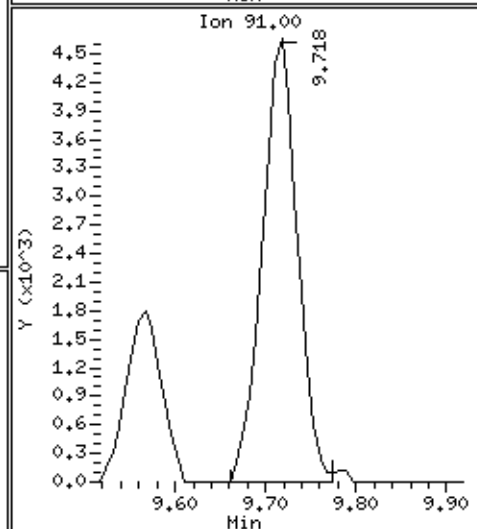
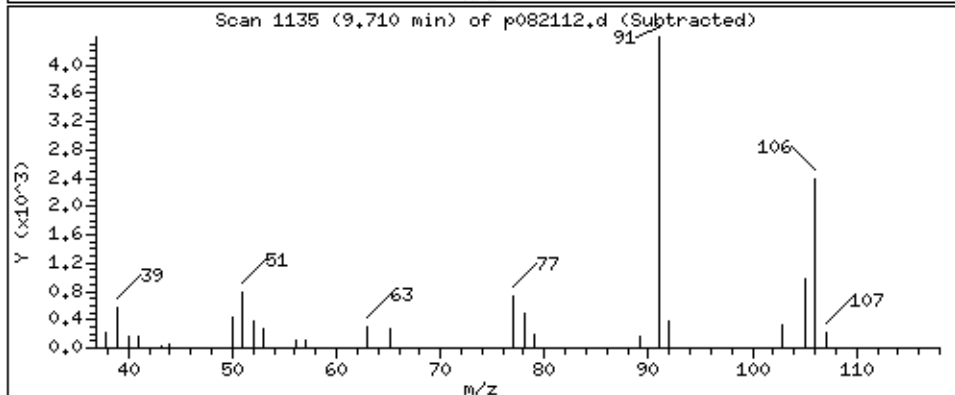
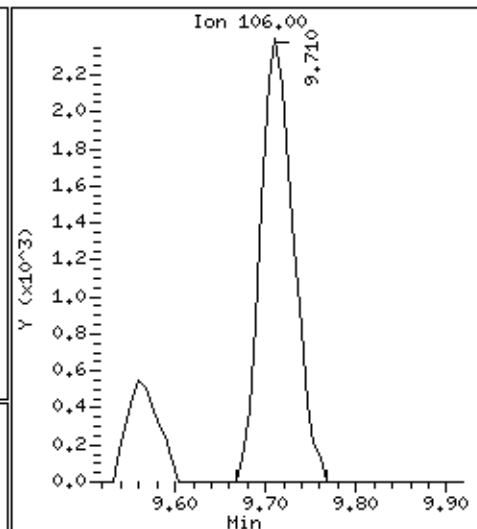
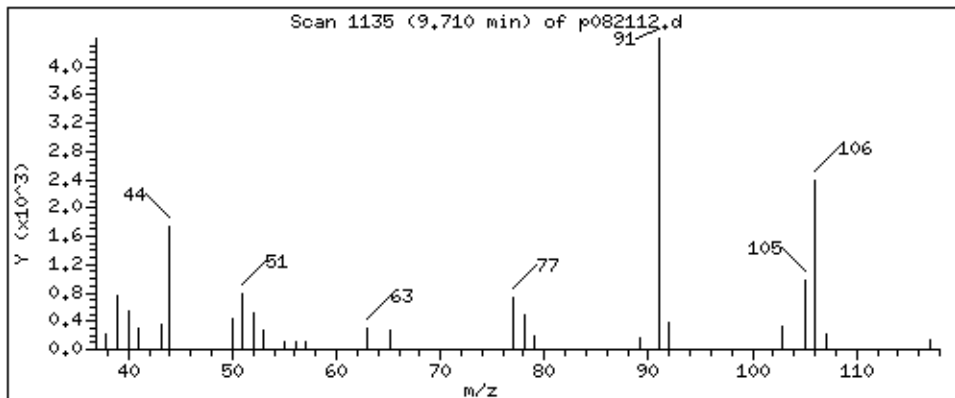
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 1.262 PPBV



Client Sample ID: SSV-GSS02-02

Lab ID#: 2108390-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082113	Date of Collection:	8/17/21 12:50:00 PM
Dil. Factor:	2.14	Date of Analysis:	8/21/21 05:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.3	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.3	Not Detected	12	Not Detected
1,2,3-Trichloropropane	4.3	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,2-Dibromo-3-chloropropane	4.3	Not Detected	41	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	Not Detected	13	Not Detected
2-Hexanone	4.3	Not Detected	18	Not Detected
2-Propanol	4.3	12	10	31
3-Chloropropene	4.3	Not Detected	13	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Acetone	11	Not Detected	25	Not Detected
Acrolein	4.3	Not Detected	9.8	Not Detected
Acrylonitrile	4.3	Not Detected	9.3	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.5	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
Bromodichloromethane	1.1	Not Detected	7.2	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Carbon Disulfide	4.3	Not Detected	13	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Chloroform	1.1	Not Detected	5.2	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected



Air Toxics

Client Sample ID: SSV-GSS02-02

Lab ID#: 2108390-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082113	Date of Collection:	8/17/21 12:50:00 PM
Dil. Factor:	2.14	Date of Analysis:	8/21/21 05:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
Cumene	1.1	Not Detected	5.2	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
Dibromomethane	4.3	Not Detected	30	Not Detected
Ethanol	11	16	20	30
Ethyl Acetate	4.3	Not Detected	15	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.3	Not Detected	18	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
Freon 114	1.1	Not Detected	7.5	Not Detected
Freon 134a	4.3	Not Detected	18	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected
Hexachloroethane	4.3	Not Detected	41	Not Detected
Hexane	1.1	21	3.8	75
Iodomethane	11	Not Detected	62	Not Detected
Isopropyl ether	4.3	Not Detected	18	Not Detected
m,p-Xylene	1.1	1.7	4.6	7.5
Methyl tert-butyl ether	4.3	Not Detected	15	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected
Propylbenzene	1.1	Not Detected	5.3	Not Detected
Propylene	4.3	Not Detected	7.4	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
tert-Amyl methyl ether	4.3	Not Detected	18	Not Detected
tert-Butyl alcohol	4.3	Not Detected	13	Not Detected
Tetrachloroethene	1.1	44	7.2	300
Tetrahydrofuran	1.1	1.6	3.2	4.6
Toluene	1.1	1.1	4.0	4.3
TPH ref. to Gasoline (MW=100)	110	120	440	490
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
Vinyl Acetate	4.3	Not Detected	15	Not Detected
Vinyl Bromide	4.3	Not Detected	19	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

**Client Sample ID: SSV-GSS02-02**
**Lab ID#: 2108390-24A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p082113</b>	<b>Date of Collection: 8/17/21 12:50:00 PM</b>
<b>Dil. Factor:</b>	<b>2.14</b>	<b>Date of Analysis: 8/21/21 05:45 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	111	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/21AUG21.b/p082113.d  
Lab Smp Id: 2108390-24A  
Inj Date : 21-AUG-2021 17:45  
Operator : mb  
Smp Info : 200ml 1L1751  
Misc Info : 6.5 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
Meth Date : 23-Aug-2021 07:32 lk8g  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 4  
Dil Factor: 2.14000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE		RATIO	
				ON-COL	FINAL	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	
* 90	Bromochloromethane					CAS #: 74-97-5			
5.785	5.785	(1.000)	130	102715	25.0000	80.00-	120.00	100.00	
5.785	5.785	(1.000)	128	80295		48.23-	108.23	78.17	
5.785	5.785	(1.000)	49	235772		150.57-	210.57	229.54	
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.666	6.666	(1.000)	114	369444	25.0000	80.00-	120.00	100.00	
6.666	6.666	(1.000)	88	52389		0.00-	45.71	14.18	
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	386768	25.0000	80.00-	120.00	100.00	
9.460	9.460	(1.000)	82	193181		23.78-	83.78	49.95	
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
6.315	6.315	(1.092)	65	157878	27.8515	27.851	80.00-	120.00	100.00
6.315	6.315	(1.092)	67	75332		27.21-	87.21	47.72	
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.891	7.891	(1.184)	98	406267	25.3241	25.324	80.00-	120.00	100.00
7.891	7.891	(1.184)	70	42903		0.00-	40.44	10.56	



CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)									
7.891	7.891	(1.184)	100	262498				34.95- 94.95	64.61
-----									
§ 170 4-Bromofluorobenzene									
								CAS #: 460-00-4	
10.921	10.921	(1.154)	174	275950	27.7846	27.784		80.00- 120.00	100.00
10.914	10.921	(1.154)	95	324061				95.92- 155.92	117.43
10.921	10.921	(1.154)	176	266053				66.89- 126.89	96.41
-----									
39 Ethanol									
								CAS #: 64-17-5	
3.264	3.250	(0.564)	46	7530	7.39236	15.820		80.00- 120.00	100.00
3.257	3.250	(0.563)	45	20269				511.19- 571.19	269.17
-----									
52 2-Propanol									
								CAS #: 67-63-0	
3.901	3.894	(0.674)	45	63222	5.82543	12.466		80.00- 120.00	100.00
3.901	3.894	(0.674)	43	14926				0.00- 47.19	23.61
-----									
67 Hexane									
								CAS #: 110-54-3	
4.696	4.697	(0.812)	57	100935	9.97518	21.347		80.00- 120.00	100.00
4.696	4.697	(0.812)	43	84073				37.52- 97.52	83.29
4.696	4.697	(0.812)	86	10721				0.00- 41.48	10.62
-----									
89 Tetrahydrofuran									
								CAS #: 109-99-9	
5.785	5.778	(1.000)	42	5693	0.73732	1.578		80.00- 120.00	100.00
5.785	5.778	(1.000)	71	756				0.00- 55.82	13.29
5.785	5.778	(1.000)	72	972				0.00- 57.59	17.08
-----									
137 Toluene									
								CAS #: 108-88-3	
7.955	7.956	(1.193)	91	8964	0.53293	1.140		80.00- 120.00	100.00
7.955	7.956	(1.193)	92	5490				28.38- 88.38	61.24
-----									
142 Tetrachloroethene									
								CAS #: 127-18-4	
8.464	8.464	(0.895)	166	180742	20.5045	43.880		80.00- 120.00	100.00
8.464	8.464	(0.895)	129	136491				47.84- 107.84	75.52
8.464	8.464	(0.895)	131	132466				45.29- 105.29	73.29
-----									
158 m,p-Xylene									
								CAS #: 108-38-3	
9.710	9.718	(1.026)	106	8084	0.80374	1.720		80.00- 120.00	100.00
9.710	9.718	(1.026)	91	15482				163.73- 223.73	191.50
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p082113.d  
Lab Smp Id: 2108390-24A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: mb  
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
Misc Info: 6.5 Hg->10 psi

Calibration Date: 21-AUG-2021  
Calibration Time: 09:37  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	102894	61736	144052	102715	-0.17
108 1,4-Difluorobenze	387356	232414	542298	369444	-4.62
153 Chlorobenzene-d5	386134	231680	540588	386768	0.16

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.67	6.34	7.00	6.67	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 21AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-24A  
Level: LOW Operator: mb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
Misc Info: 6.5 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.851	111.41	70-130
\$ 134 Toluene-d8	25.000	25.324	101.30	70-130
\$ 170 4-Bromofluorobenz	25.000	27.784	111.14	70-130

Date : 21-AUG-2021 17:45

Client ID:

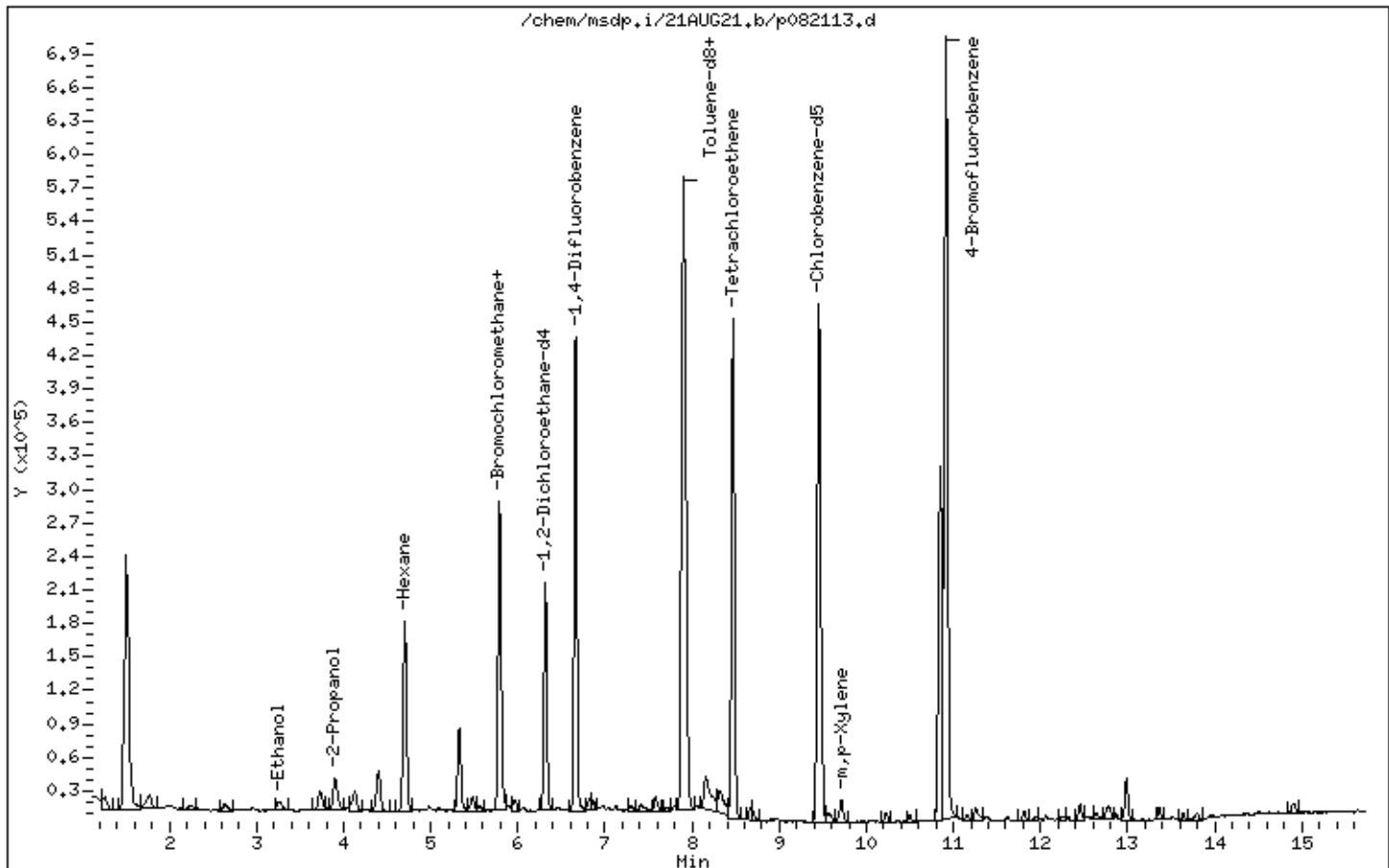
Instrument: msdp.i

Sample Info: 200ml 1L1751

Operator: mb

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 17:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1751

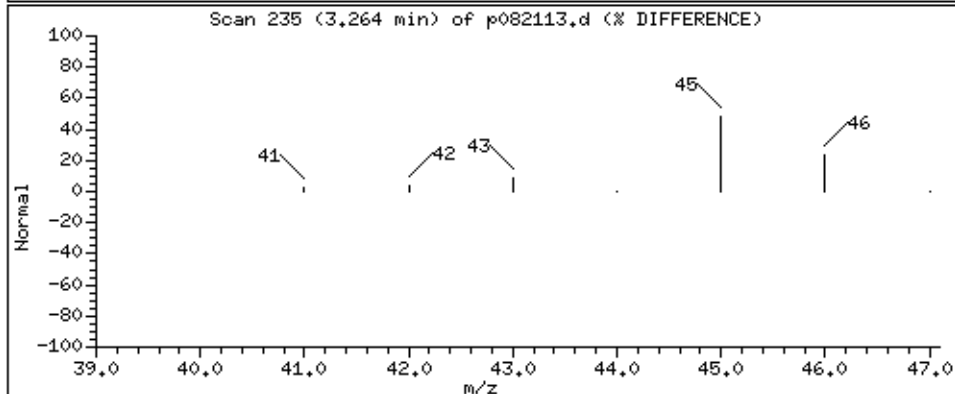
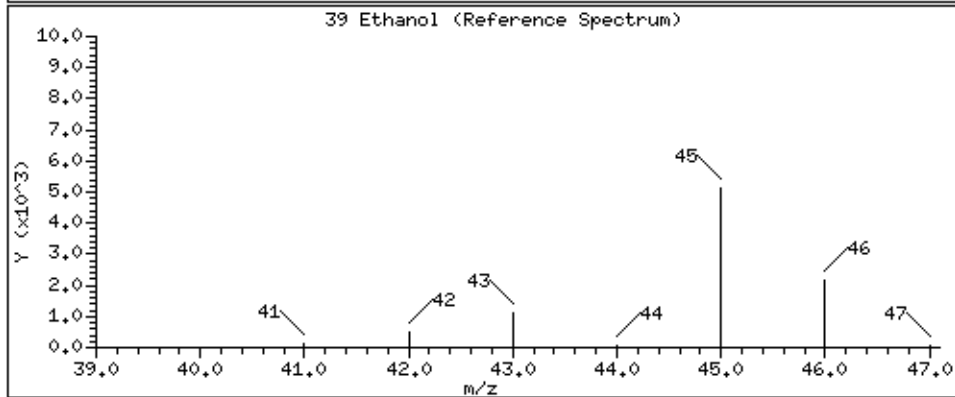
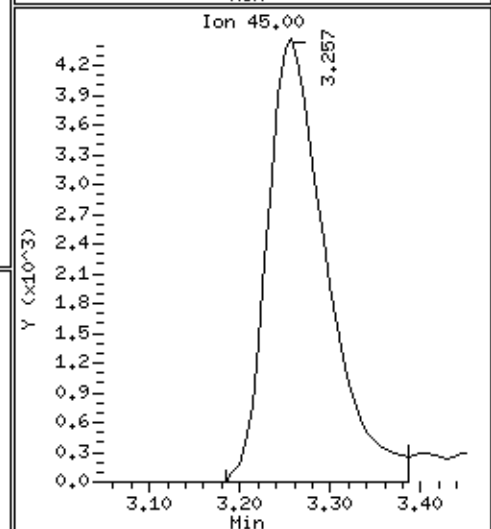
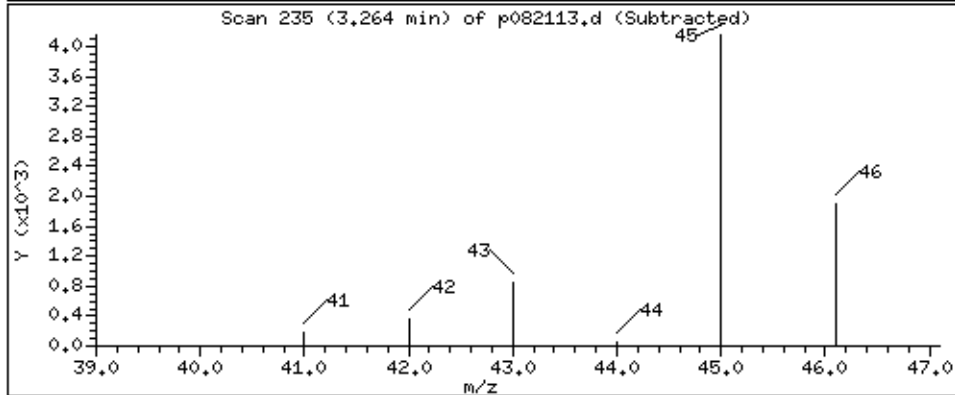
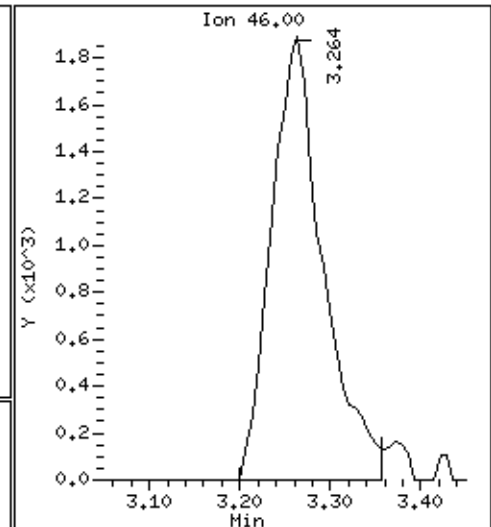
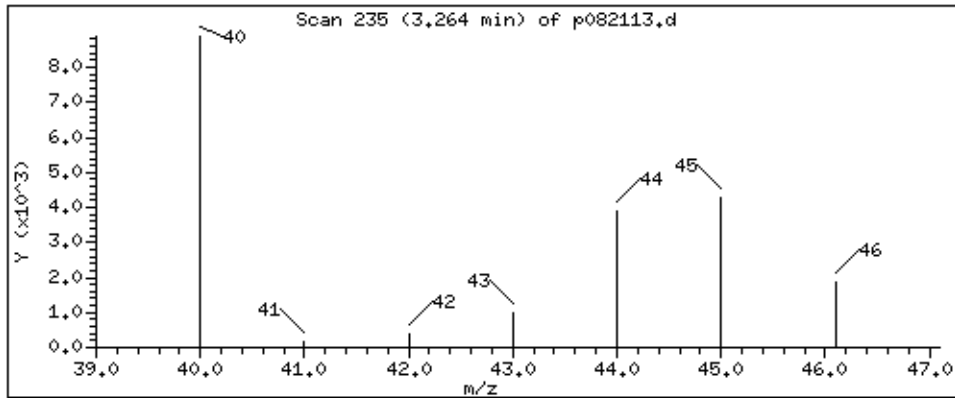
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 15,820 PPBV



Date : 21-AUG-2021 17:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1751

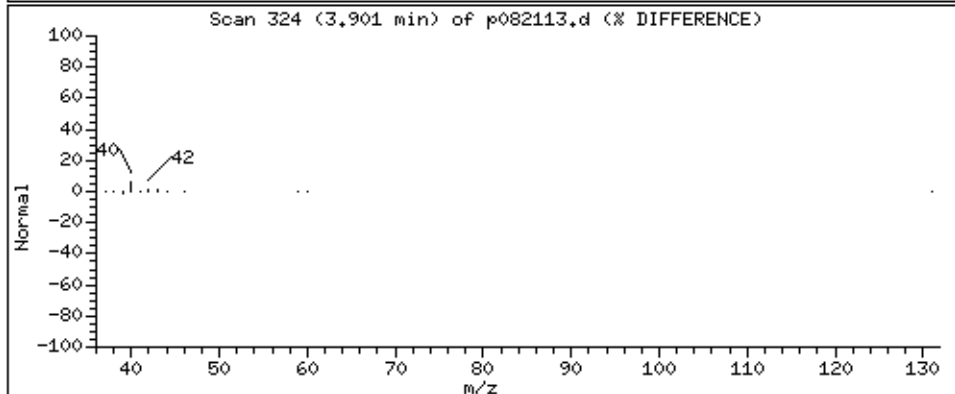
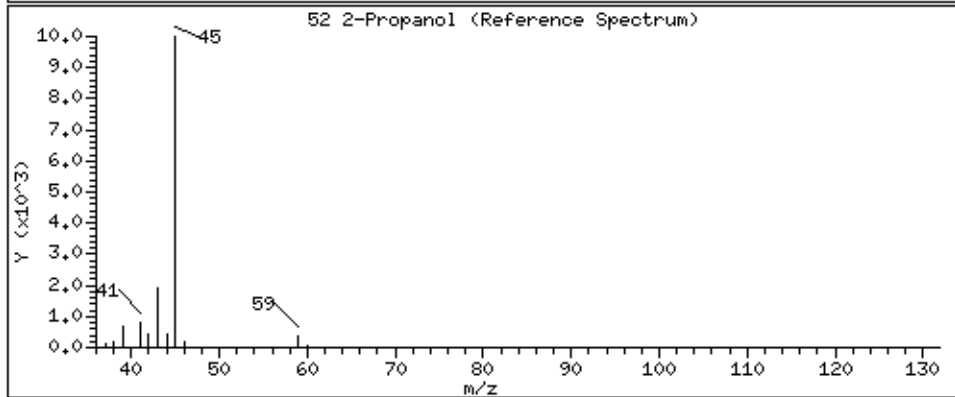
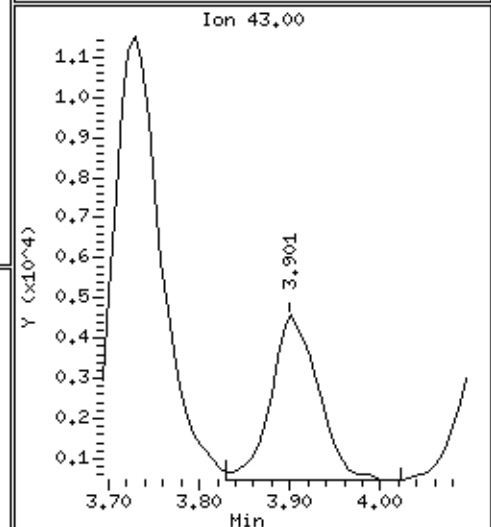
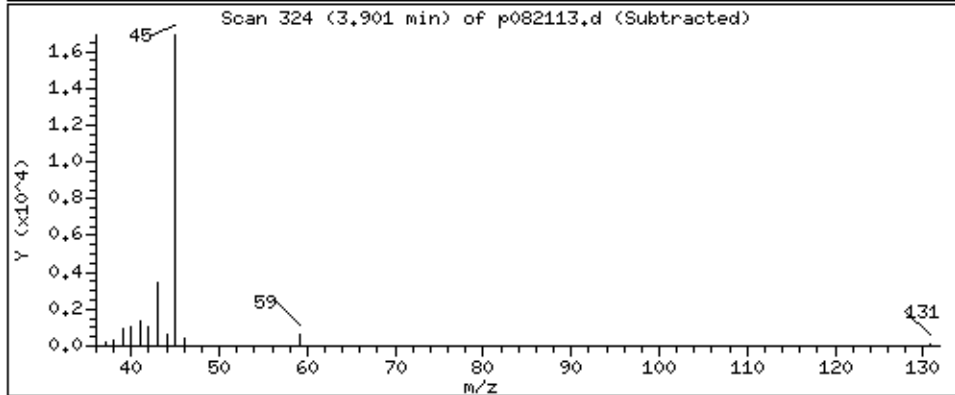
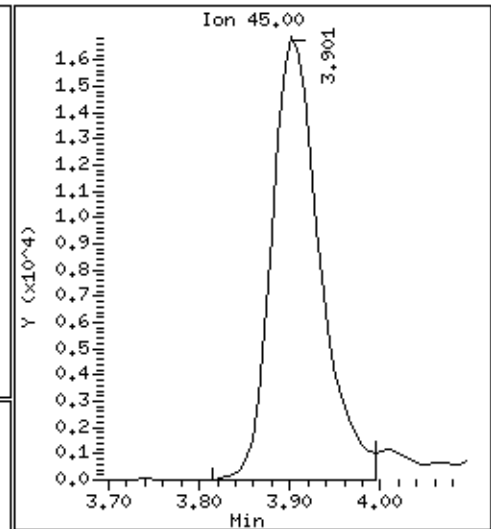
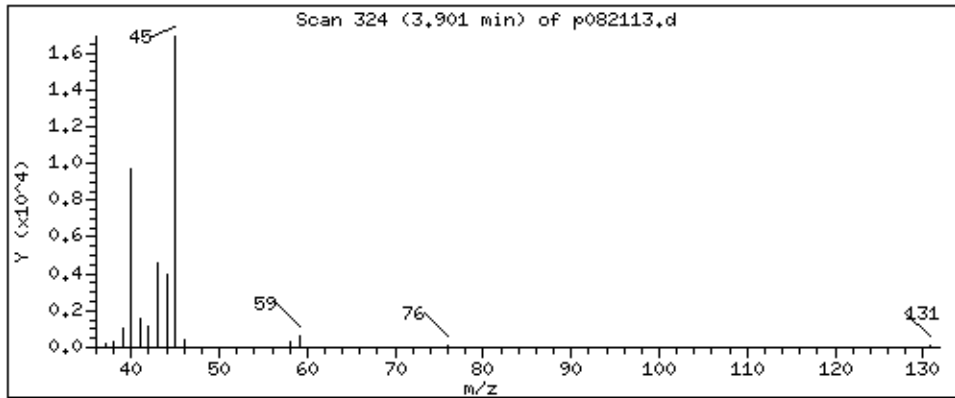
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 12.466 PPBV



Date : 21-AUG-2021 17:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1751

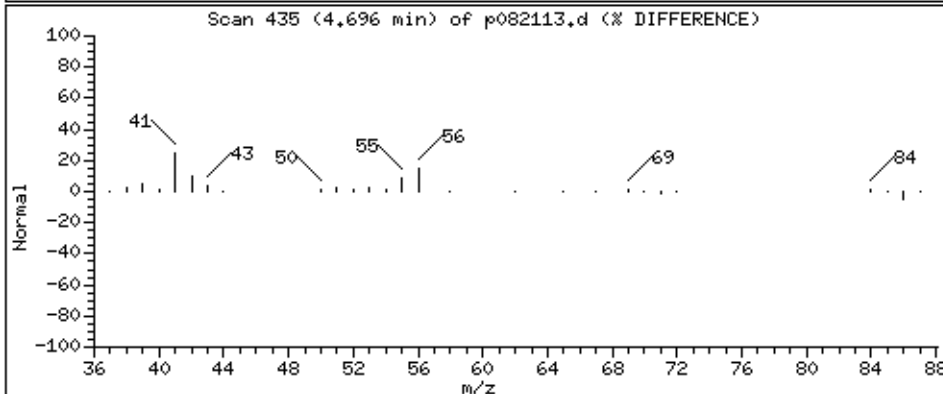
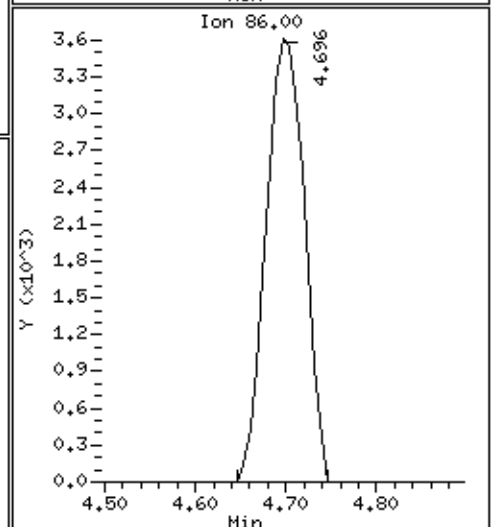
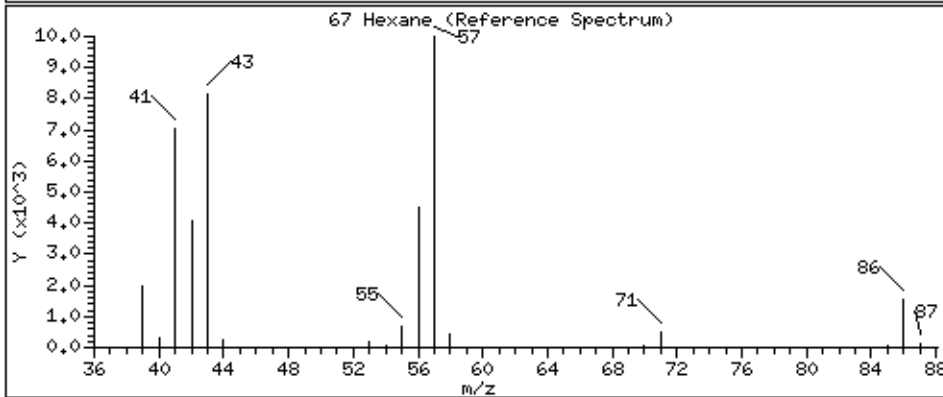
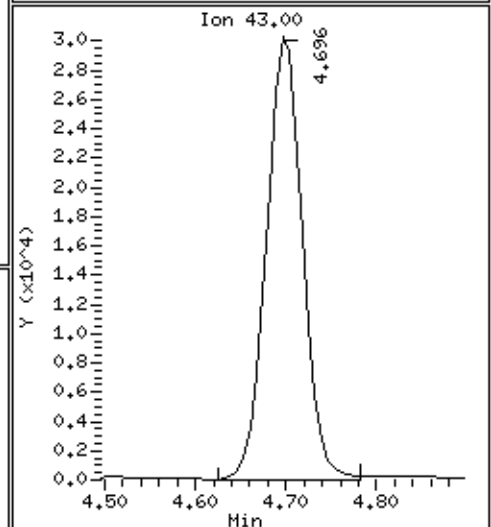
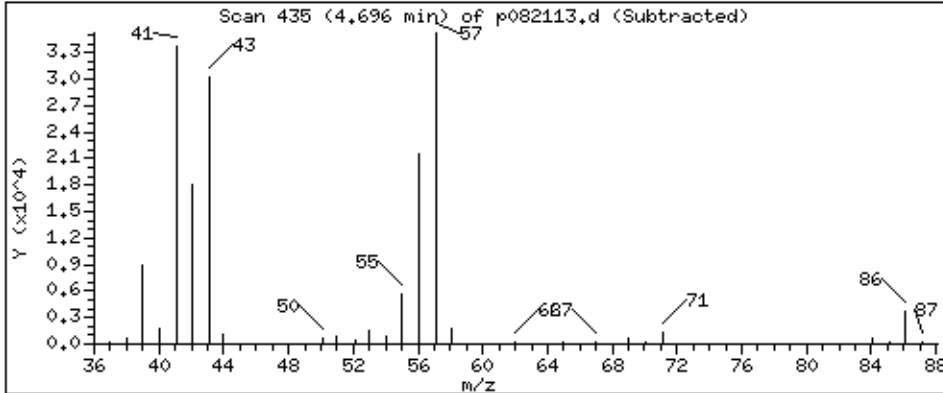
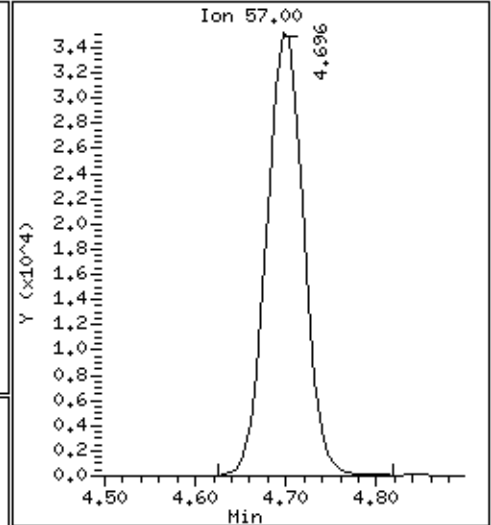
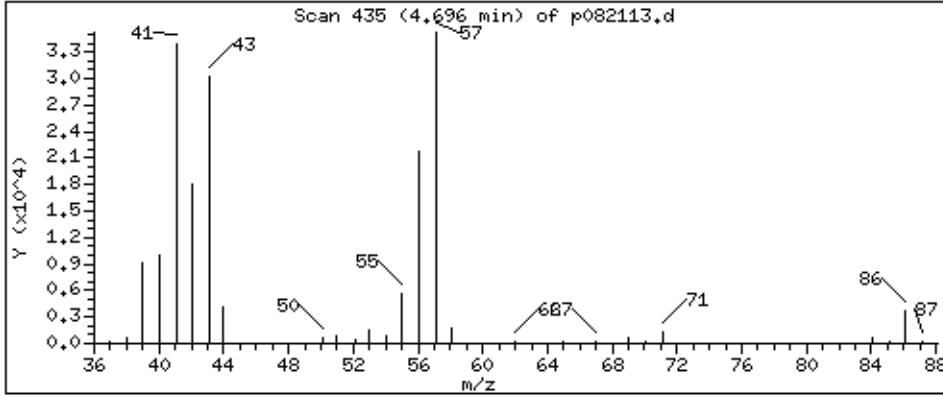
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 21,347 PPBW



Date : 21-AUG-2021 17:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1751

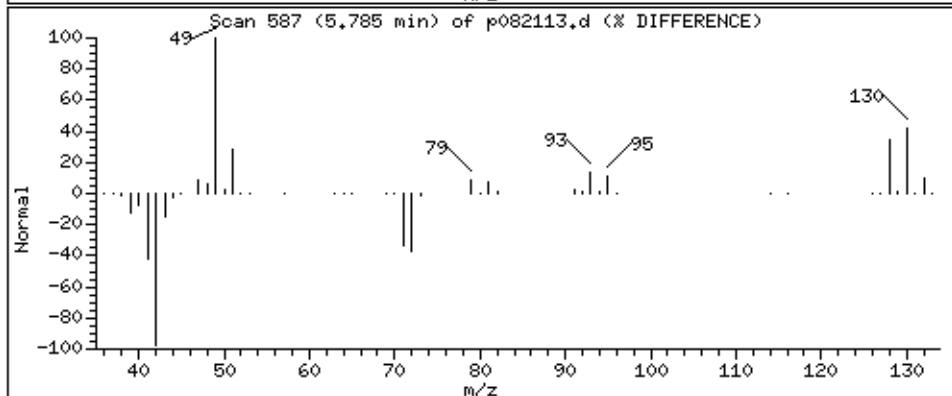
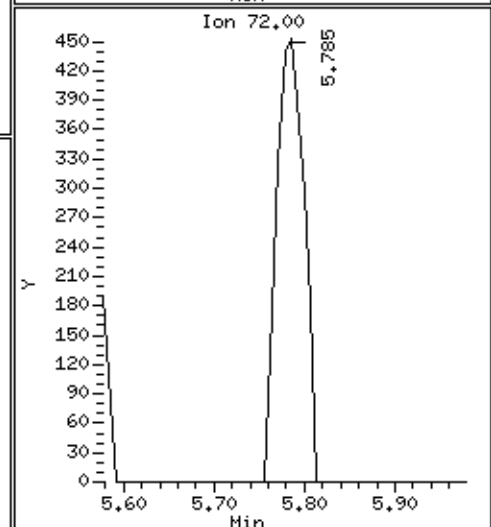
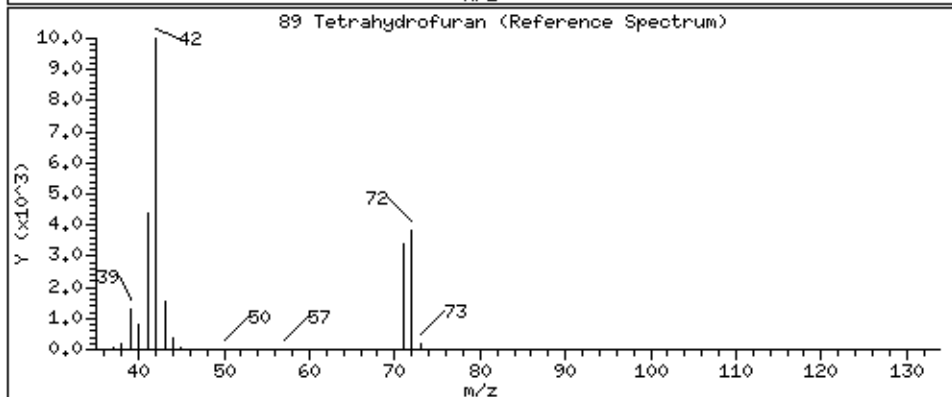
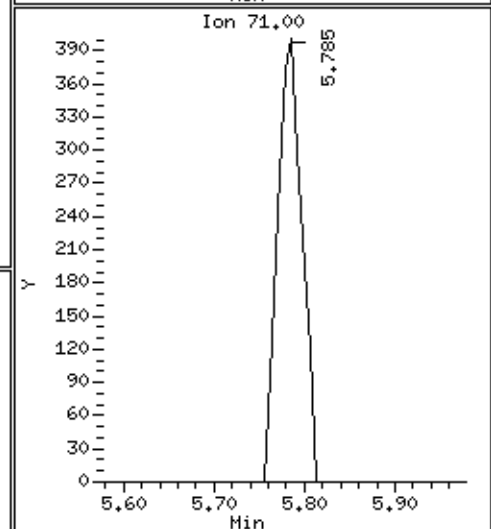
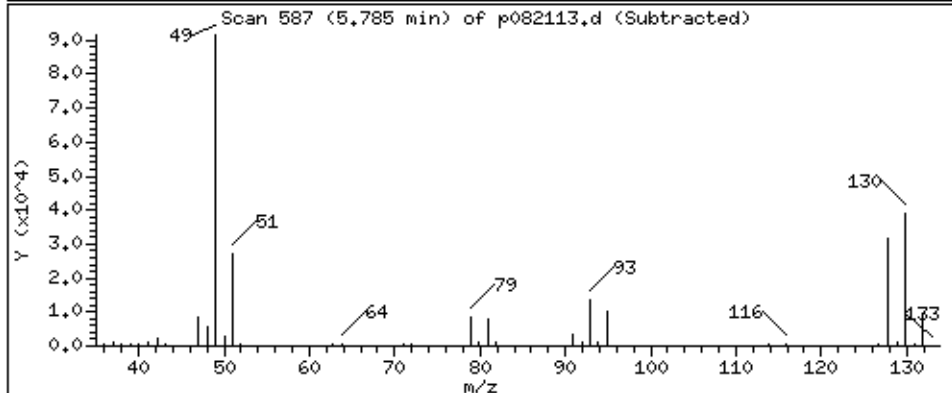
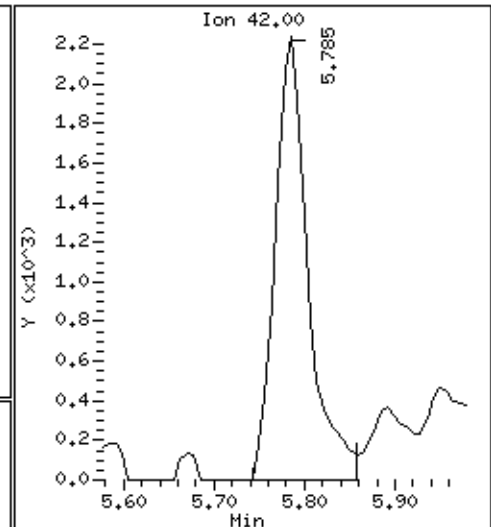
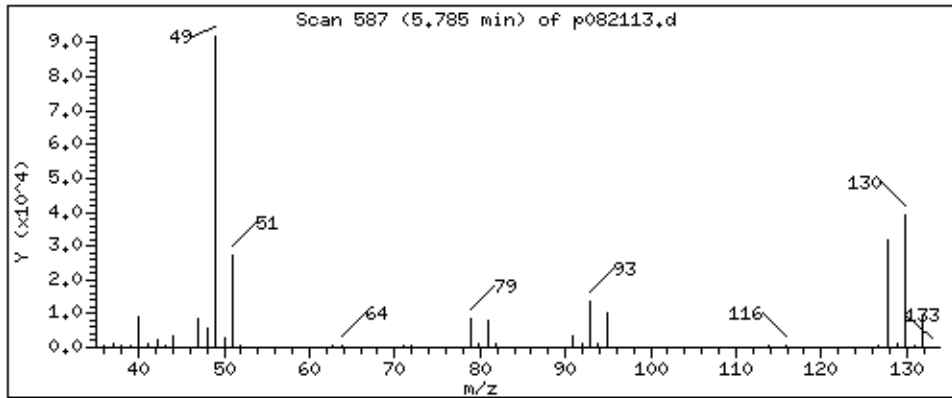
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

89 Tetrahydrofuran

Concentration: 1,578 PPBV





Date : 21-AUG-2021 17:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1751

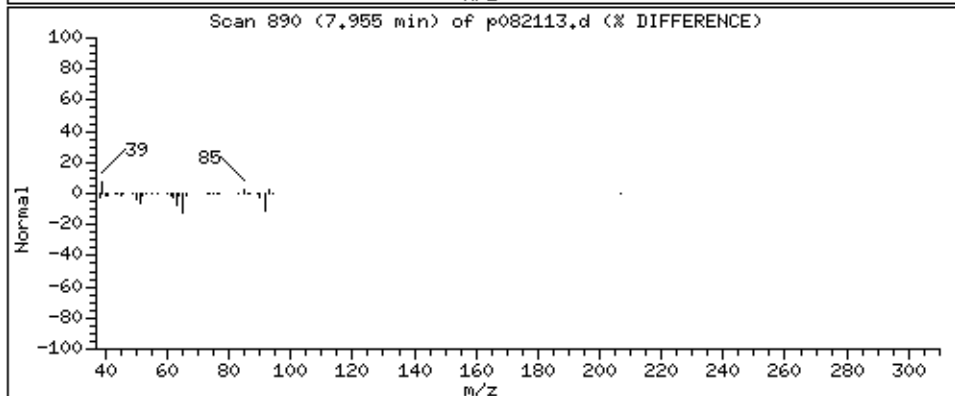
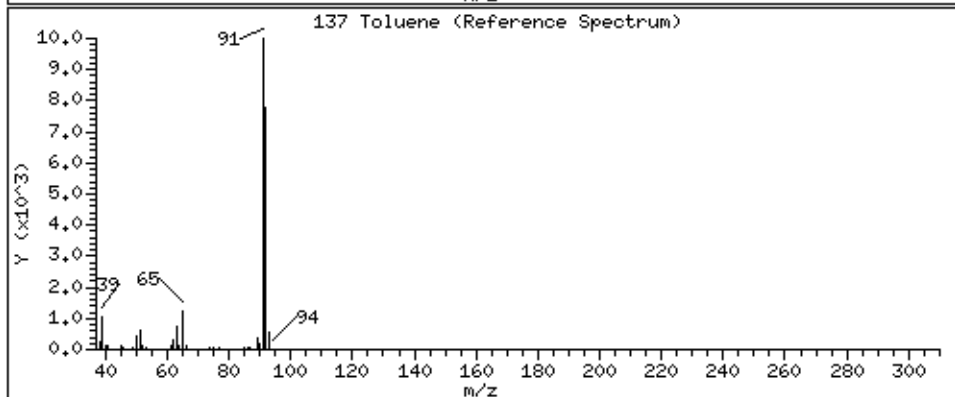
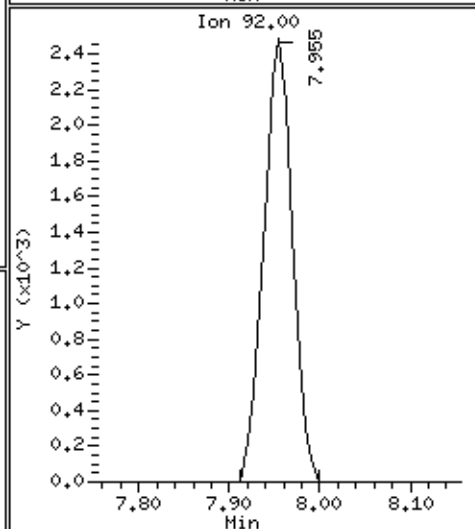
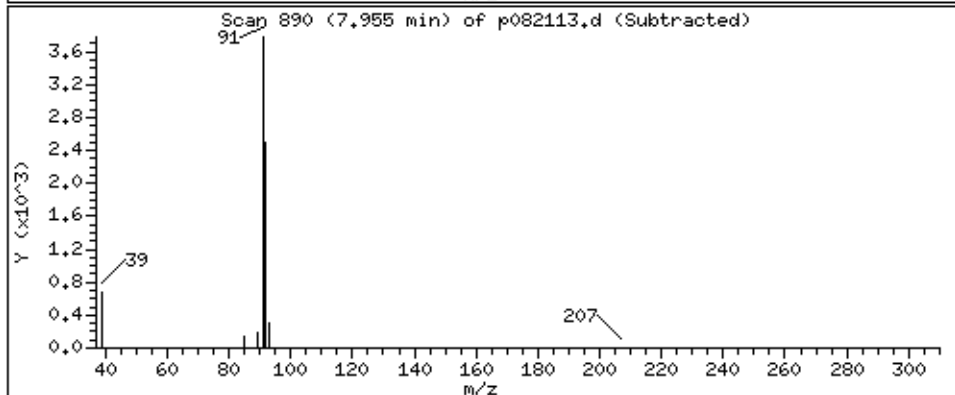
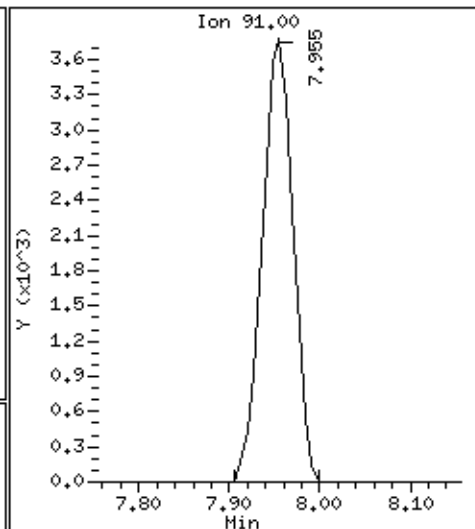
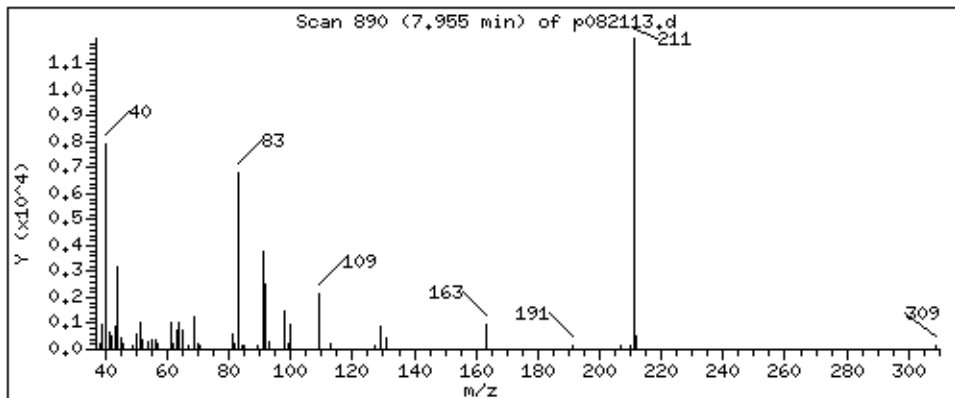
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 1,140 PPBV



Date : 21-AUG-2021 17:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1751

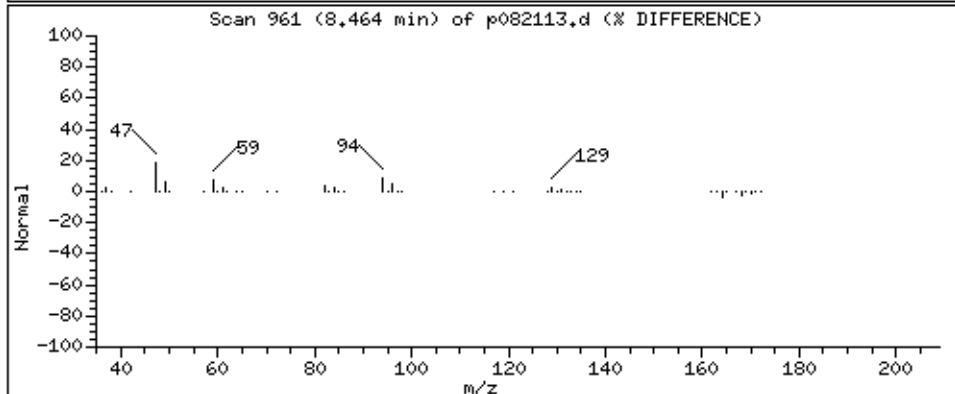
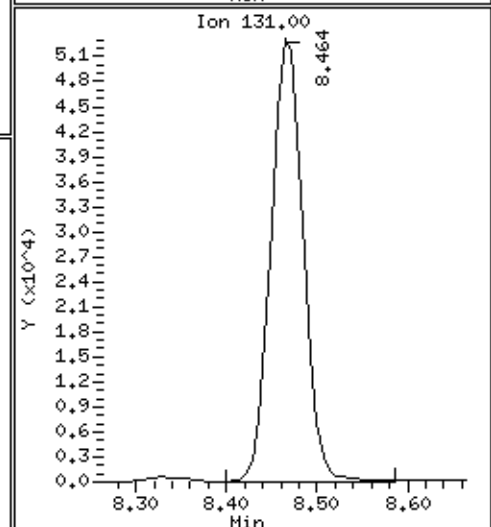
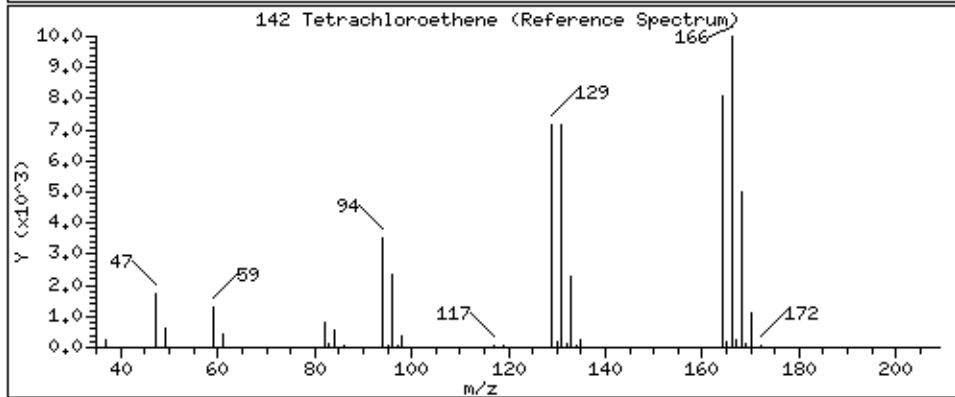
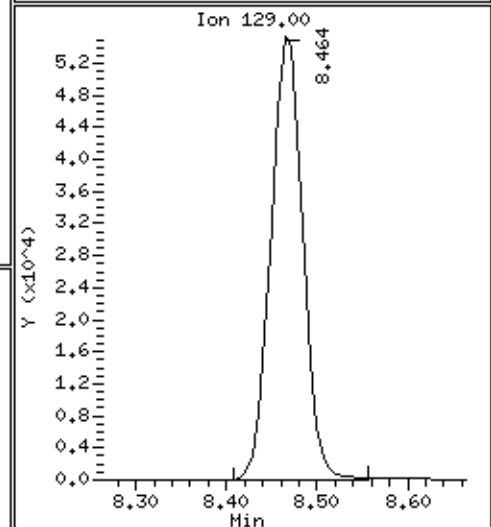
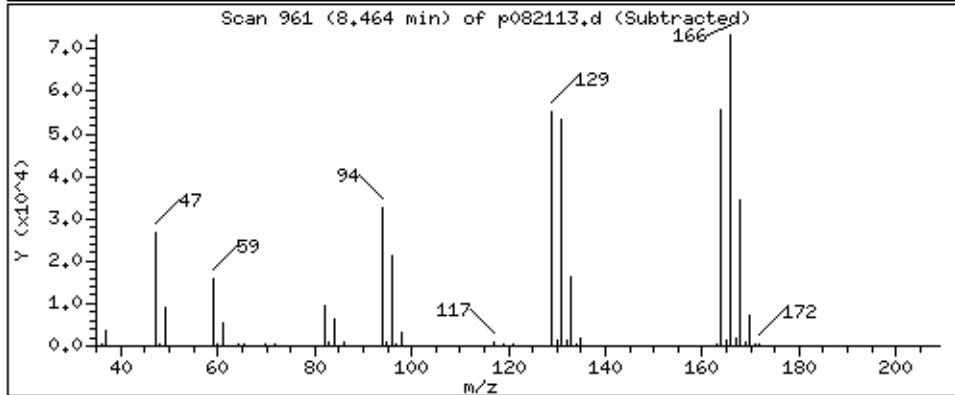
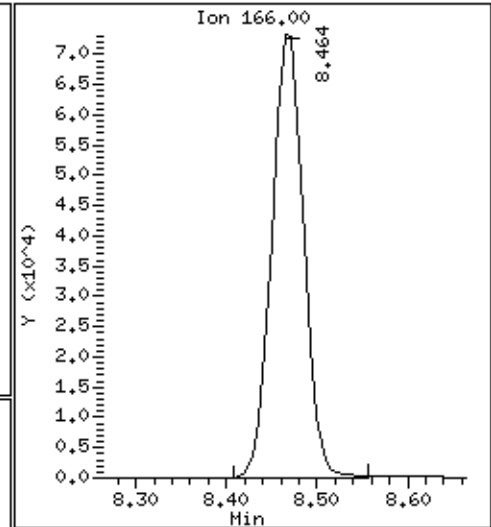
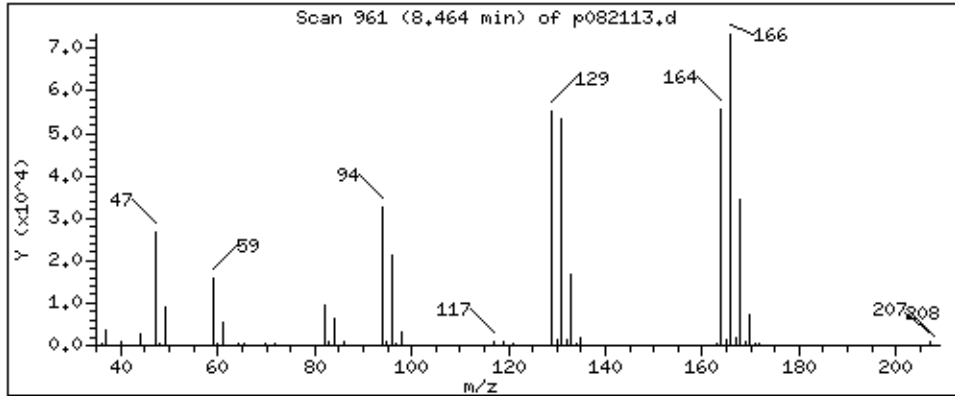
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 43,880 PPBV



Date : 21-AUG-2021 17:45

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L1751

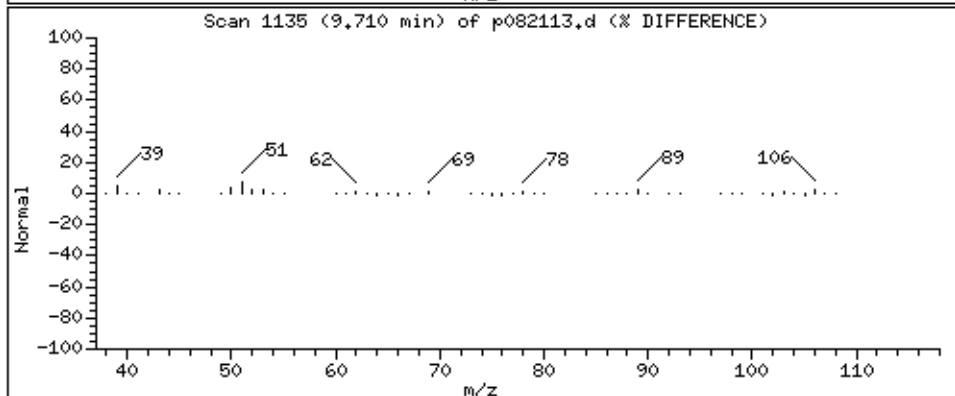
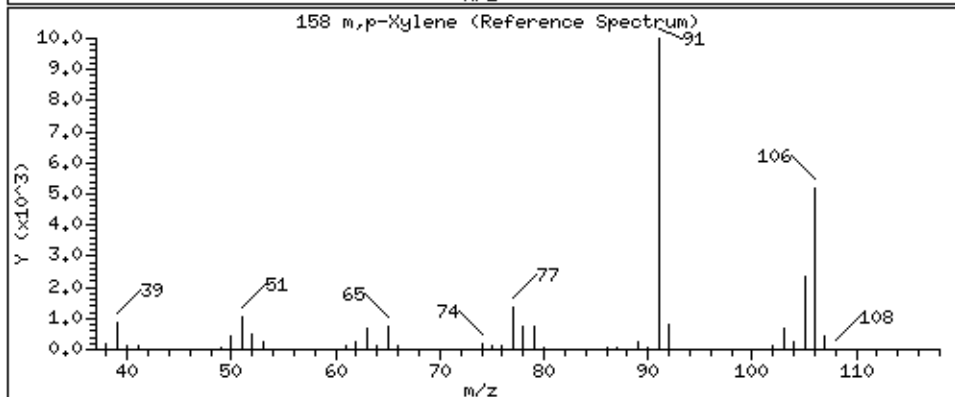
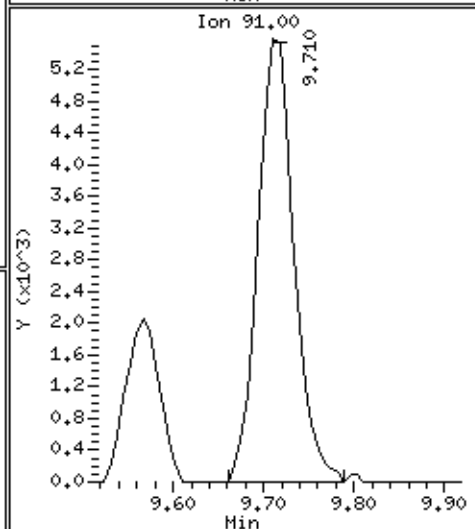
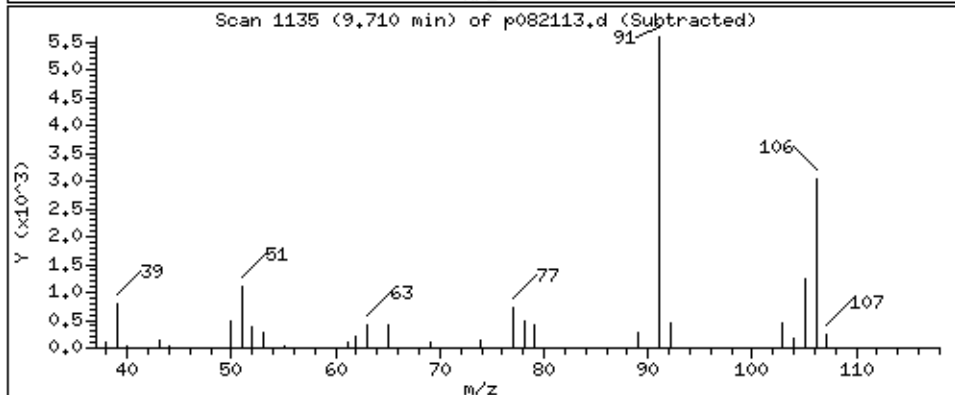
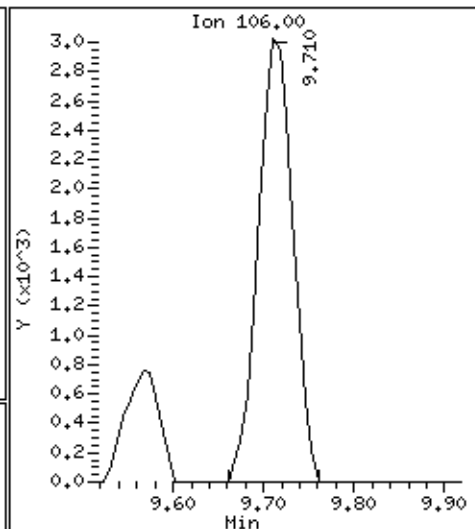
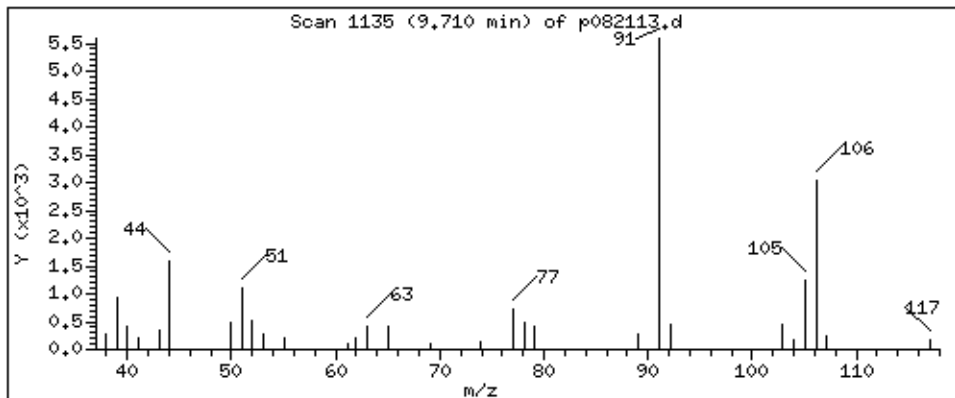
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 1.720 PPBV



Client Sample ID: SSV-HMBSS01-02

Lab ID#: 2108390-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082114	Date of Collection:	8/17/21 1:22:00 PM
Dil. Factor:	2.06	Date of Analysis:	8/21/21 06:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
1,1-Difluoroethane	4.1	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.1	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2-Dibromo-3-chloropropane	4.1	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
2-Hexanone	4.1	Not Detected	17	Not Detected
2-Propanol	4.1	5.2	10	13
3-Chloropropene	4.1	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Acetone	10	Not Detected	24	Not Detected
Acrolein	4.1	Not Detected	9.4	Not Detected
Acrylonitrile	4.1	Not Detected	8.9	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected



Air Toxics

Client Sample ID: SSV-HMBSS01-02

Lab ID#: 2108390-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082114	Date of Collection:	8/17/21 1:22:00 PM
Dil. Factor:	2.06	Date of Analysis:	8/21/21 06:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
Dibromomethane	4.1	Not Detected	29	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Ethyl Acetate	4.1	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
Ethyl-tert-butyl ether	4.1	Not Detected	17	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 113	1.0	Not Detected	7.9	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Hexachloroethane	4.1	Not Detected	40	Not Detected
Hexane	1.0	16	3.6	58
Iodomethane	10	Not Detected	60	Not Detected
Isopropyl ether	4.1	Not Detected	17	Not Detected
m,p-Xylene	1.0	1.6	4.5	6.7
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
Propylene	4.1	Not Detected	7.1	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
tert-Amyl methyl ether	4.1	Not Detected	17	Not Detected
tert-Butyl alcohol	4.1	Not Detected	12	Not Detected
Tetrachloroethene	1.0	11	7.0	72
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	420	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
Vinyl Acetate	4.1	Not Detected	14	Not Detected
Vinyl Bromide	4.1	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SSV-HMBSS01-02

Lab ID#: 2108390-25A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082114	Date of Collection: 8/17/21 1:22:00 PM
Dil. Factor:	2.06	Date of Analysis: 8/21/21 06:15 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	105	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/21AUG21.b/p082114.d  
Lab Smp Id: 2108390-25A  
Inj Date : 21-AUG-2021 18:15  
Operator : mb  
Smp Info : 200ml N2042  
Misc Info : 5.5 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
Meth Date : 23-Aug-2021 07:32 lk8g  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 5  
Dil Factor: 2.06000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.785	5.785	(1.000)	130	101967	25.0000	80.00- 120.00	100.00		
5.785	5.785	(1.000)	128	81729		48.23- 108.23	80.15		
5.785	5.785	(1.000)	49	234063		150.57- 210.57	229.55		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.666	6.666	(1.000)	114	365558	25.0000	80.00- 120.00	100.00		
6.666	6.666	(1.000)	88	54319		0.00- 45.71	14.86		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	380886	25.0000	80.00- 120.00	100.00		
9.460	9.460	(1.000)	82	195434		23.78- 83.78	51.31		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
6.315	6.315	(1.092)	65	156181	27.7542	27.754 80.00- 120.00	100.00		
6.315	6.315	(1.092)	67	74753		27.21- 87.21	47.86		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.891	7.891	(1.184)	98	402155	25.3342	25.334 80.00- 120.00	100.00		
7.891	7.891	(1.184)	70	44913		0.00- 40.44	11.17		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	257442			34.95- 94.95	64.02
-----								
\$ 170 4-Bromofluorobenzene CAS #: 460-00-4								
10.921	10.921	(1.154)	174	256731	26.2487	26.249	80.00- 120.00	100.00
10.921	10.921	(1.154)	95	300355			95.92- 155.92	116.99
10.921	10.921	(1.154)	176	242668			66.89- 126.89	94.52
-----								
52 2-Propanol CAS #: 67-63-0								
3.909	3.894	(0.676)	45	27272	2.53134	5.214	80.00- 120.00	100.00
3.901	3.894	(0.674)	43	6631			0.00- 47.19	24.32
-----								
67 Hexane CAS #: 110-54-3								
4.697	4.697	(0.812)	57	80682	8.03211	16.546	80.00- 120.00	100.00
4.697	4.697	(0.812)	43	65184			37.52- 97.52	80.79
4.697	4.697	(0.812)	86	8489			0.00- 41.48	10.52
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.471	8.464	(0.895)	166	44691	5.14832	10.606	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	34591			47.84- 107.84	77.40
8.471	8.464	(0.895)	131	34028			45.29- 105.29	76.14
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.718	9.718	(1.027)	106	7467	0.75386	1.553	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	14630			163.73- 223.73	195.91
-----								



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082114.d  
 Lab Smp Id: 2108390-25A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: mb  
 Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Misc Info: 5.5 Hg->10 psi

Calibration Date: 21-AUG-2021  
 Calibration Time: 09:37  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	102894	61736	144052	101967	-0.90
108 1,4-Difluorobenze	387356	232414	542298	365558	-5.63
153 Chlorobenzene-d5	386134	231680	540588	380886	-1.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	0.00
108 1,4-Difluorobenze	6.67	6.34	7.00	6.67	0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 21AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-25A  
Level: LOW Operator: mb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
Misc Info: 5.5 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.754	111.02	70-130
\$ 134 Toluene-d8	25.000	25.334	101.34	70-130
\$ 170 4-Bromofluorobenz	25.000	26.249	104.99	70-130

Date : 21-AUG-2021 18:15

Client ID:

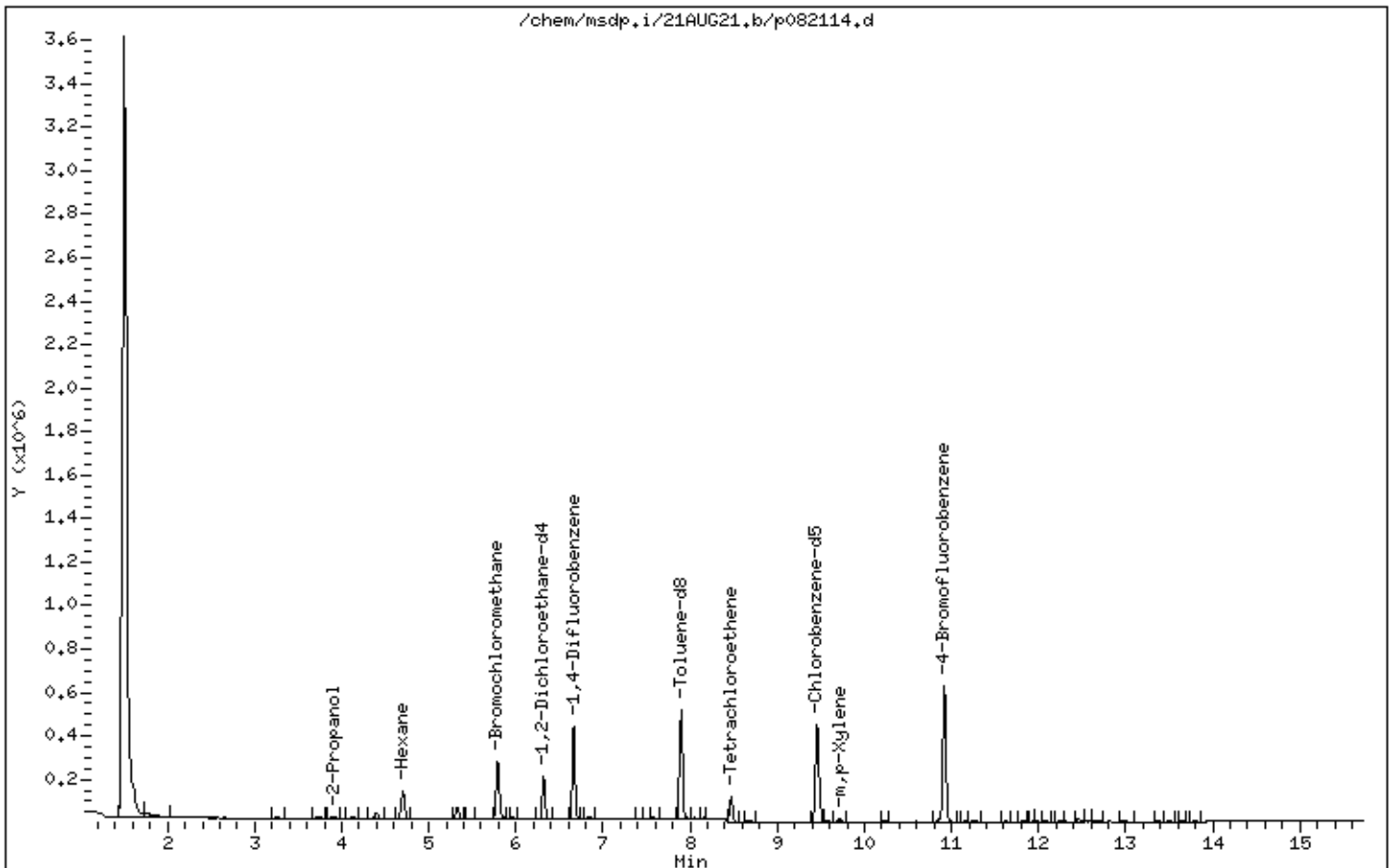
Instrument: msdp.i

Sample Info: 200ml N2042

Operator: mb

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 18:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml N2042

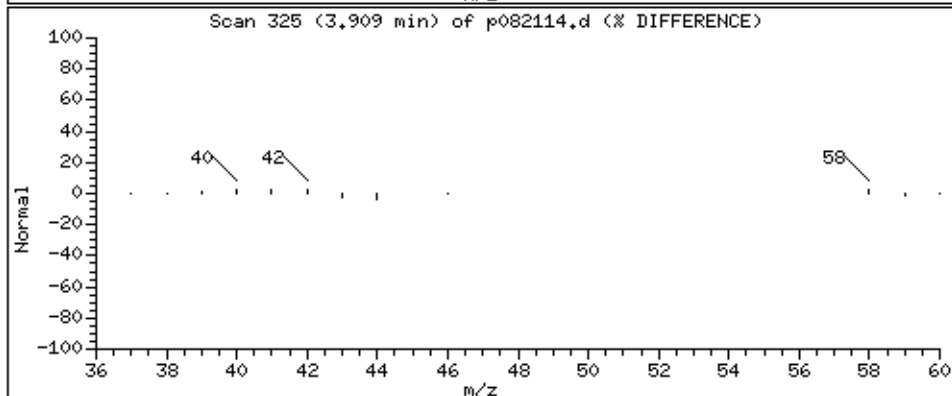
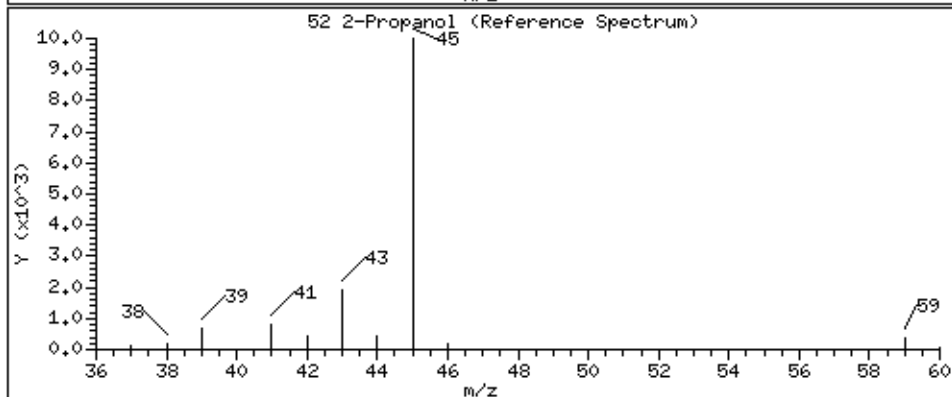
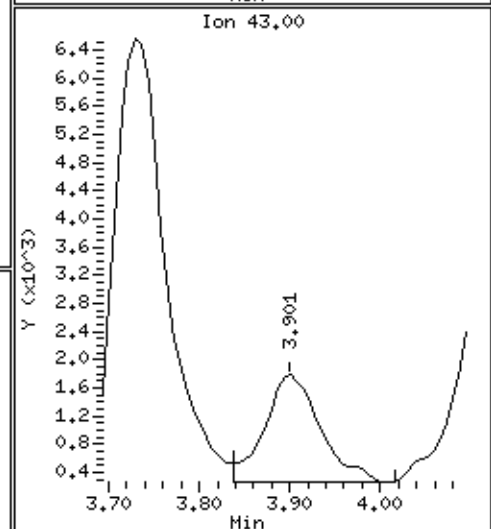
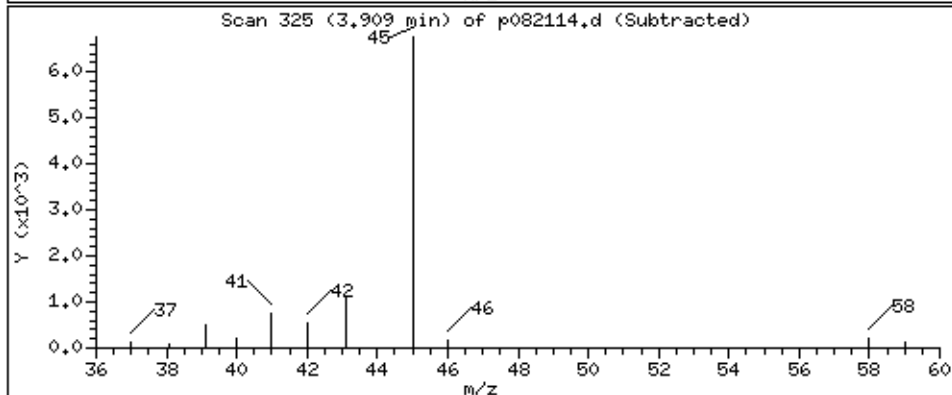
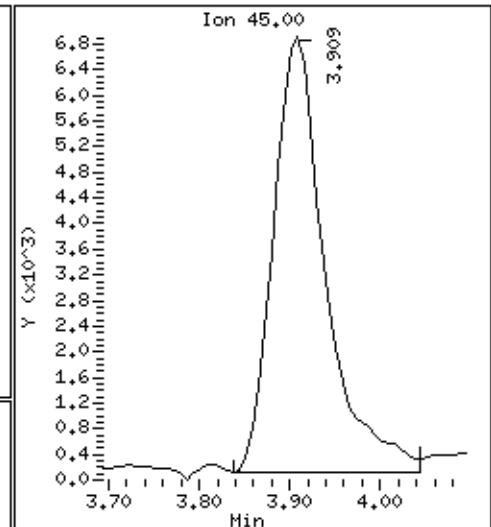
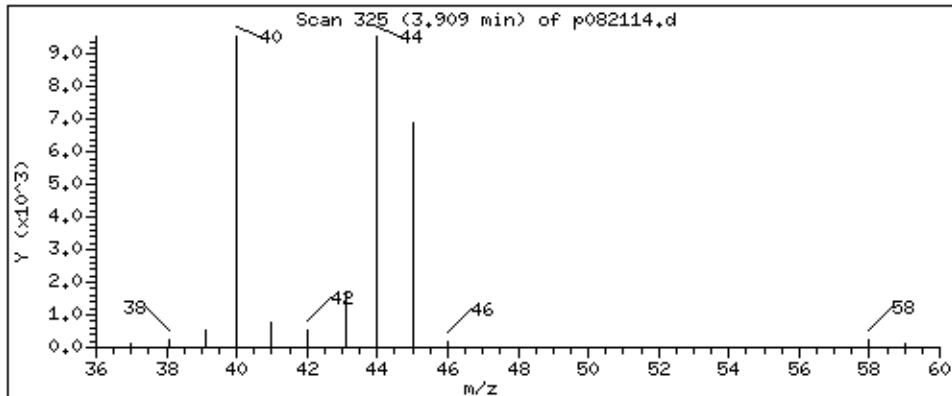
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 5.214 PPBV



Date : 21-AUG-2021 18:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml N2042

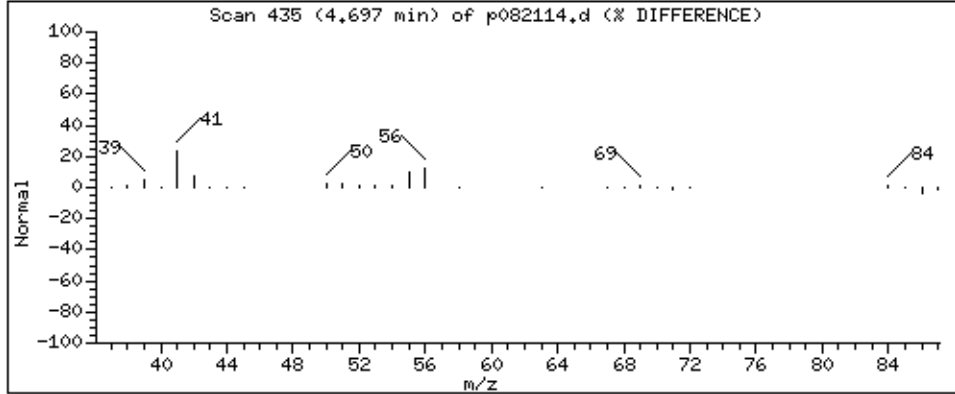
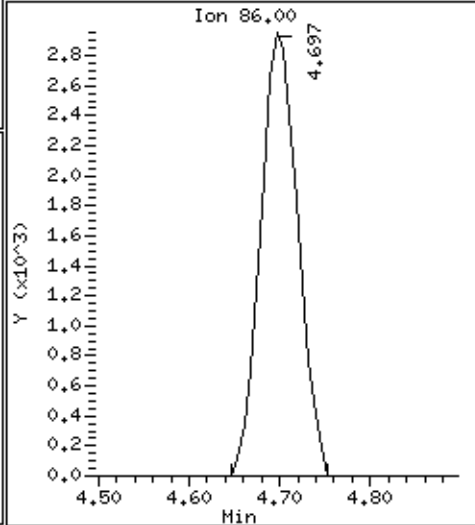
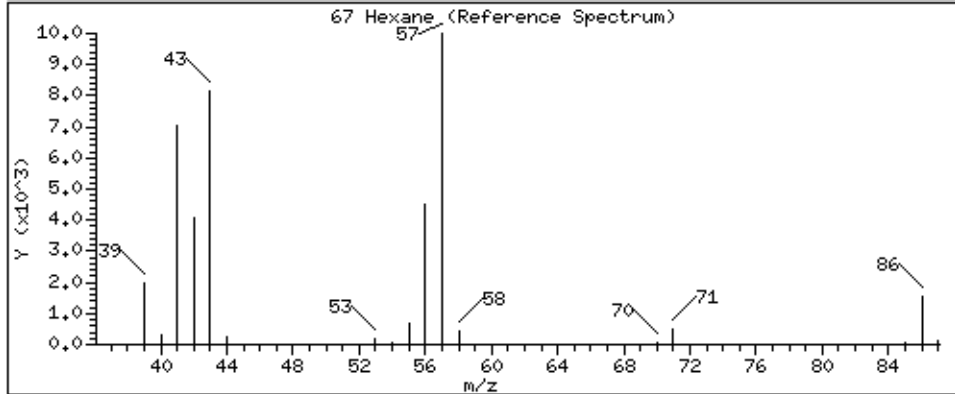
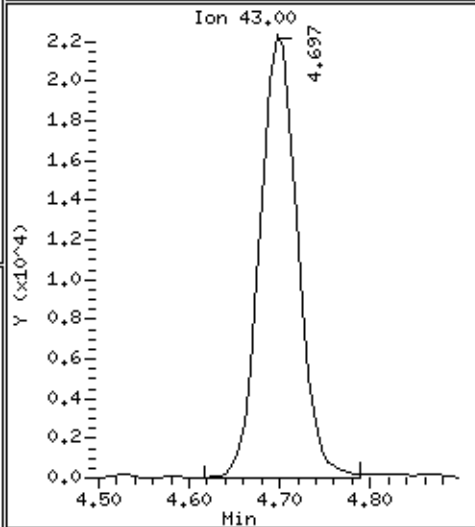
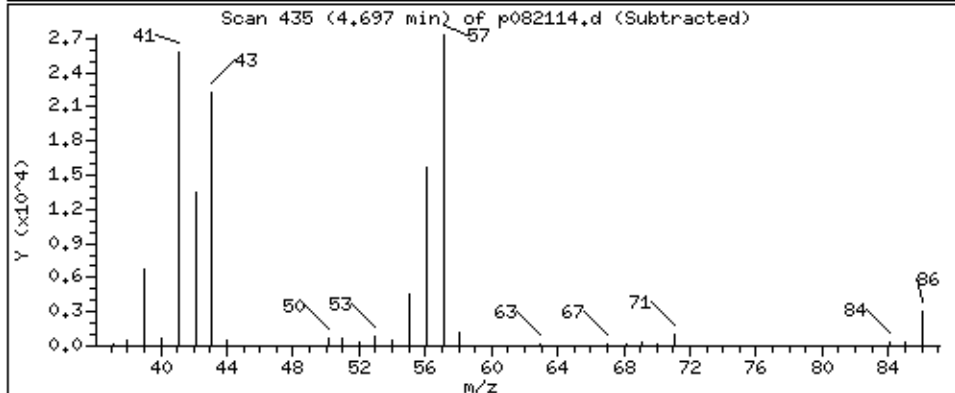
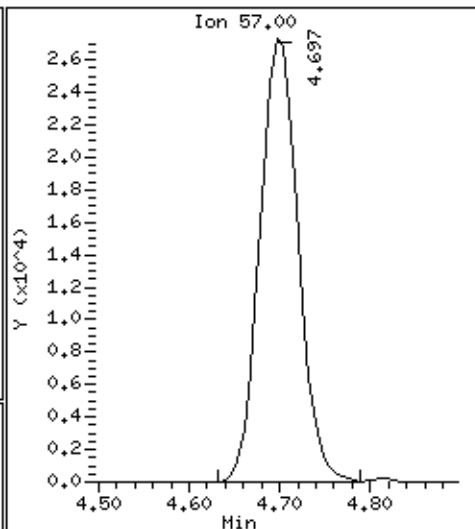
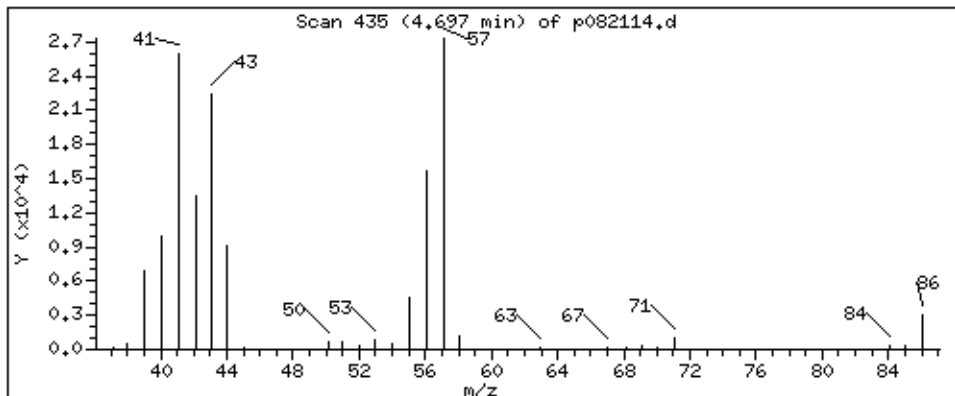
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 16,546 PPBV



Date : 21-AUG-2021 18:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml N2042

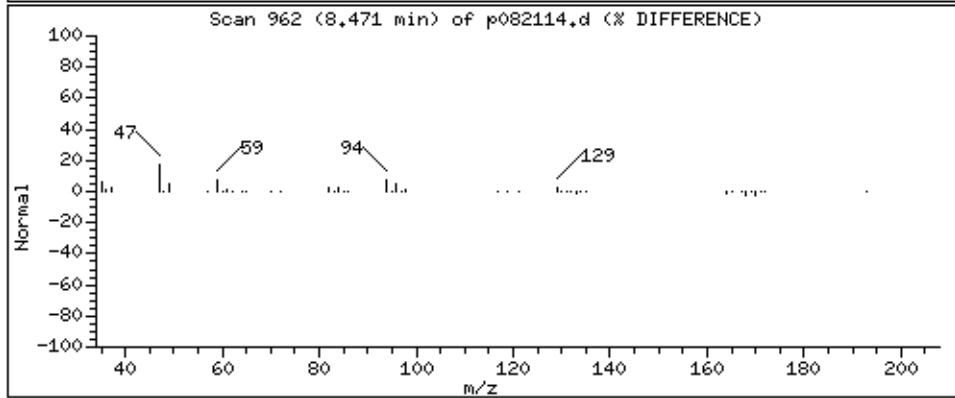
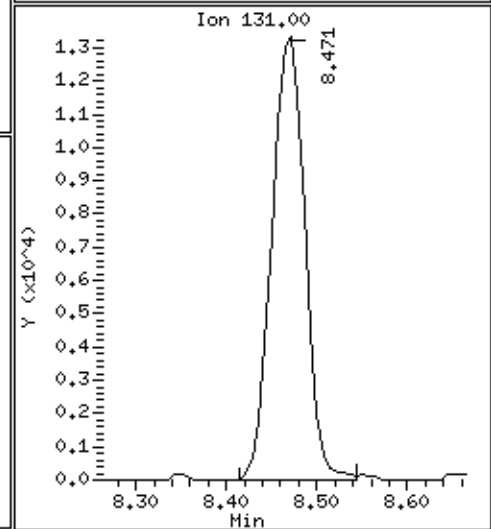
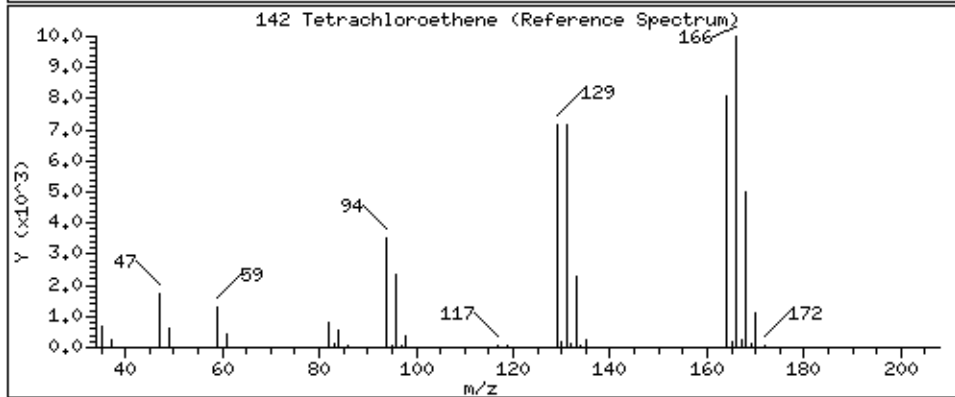
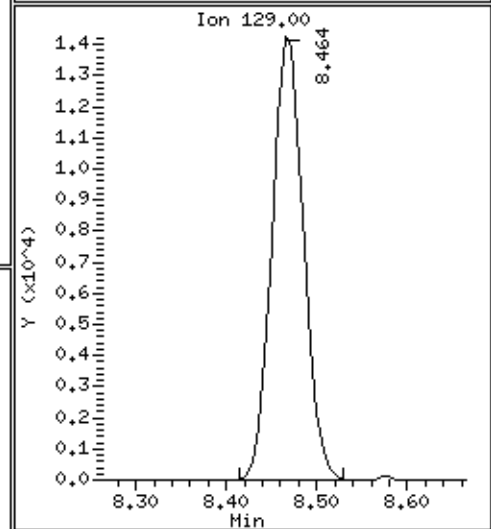
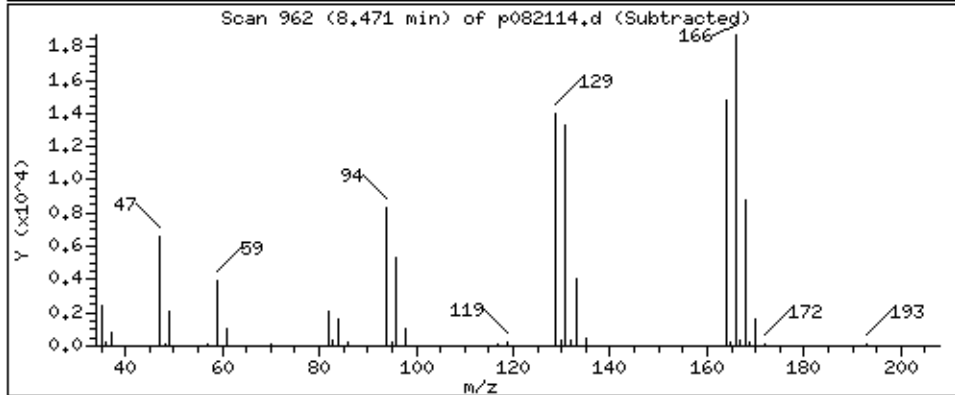
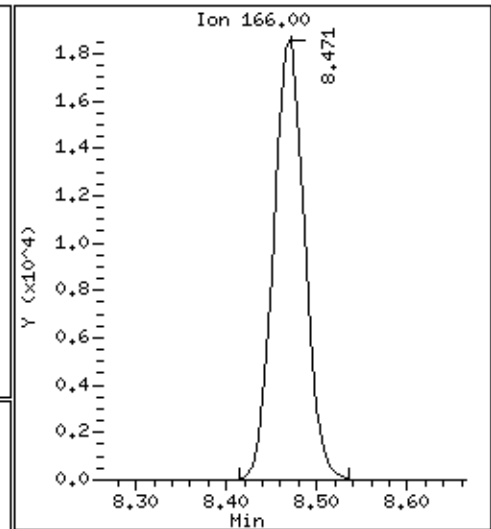
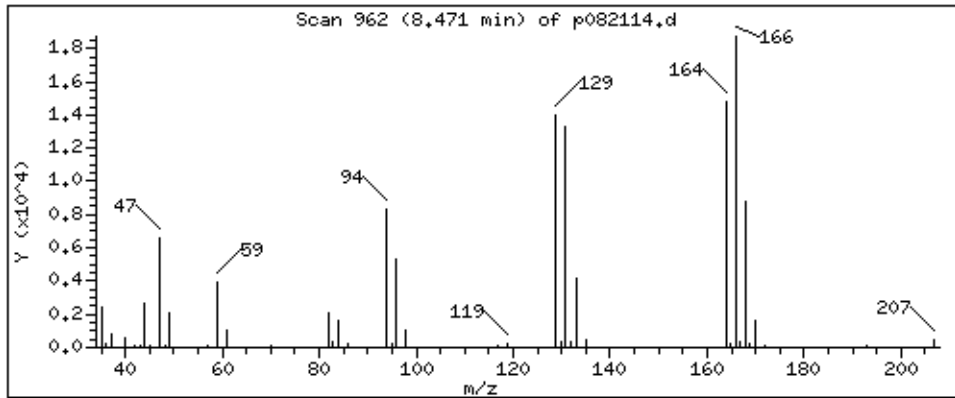
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 10,606 PPBV



Date : 21-AUG-2021 18:15

Client ID:

Instrument: msdp.i

Sample Info: 200ml N2042

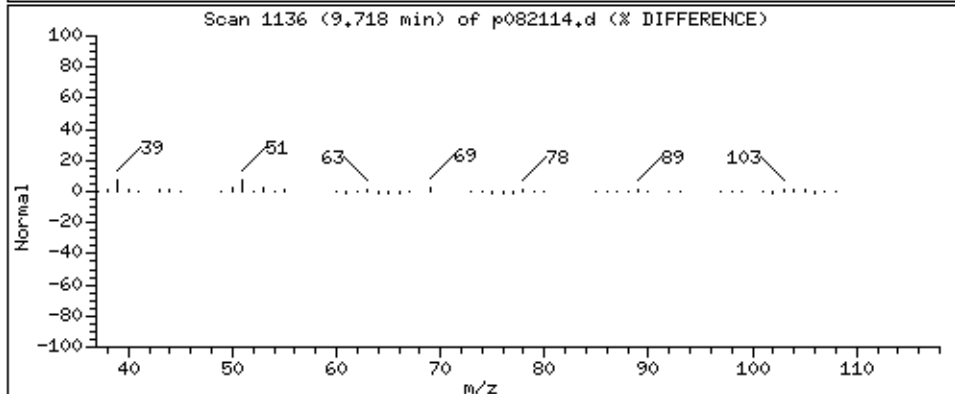
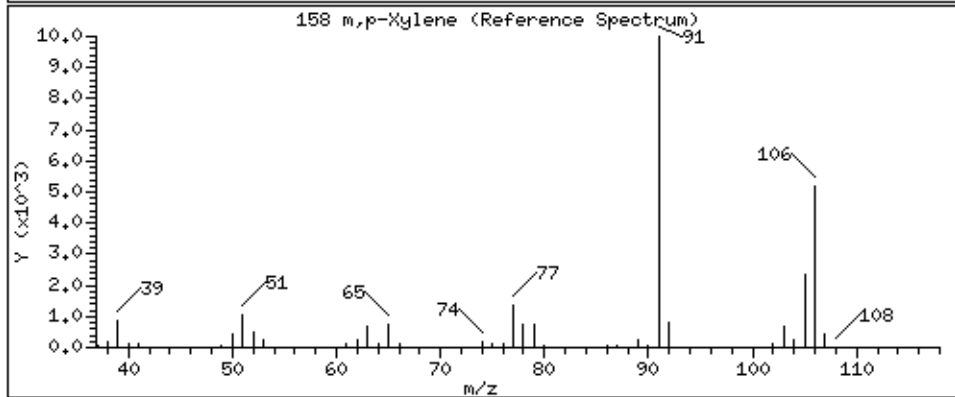
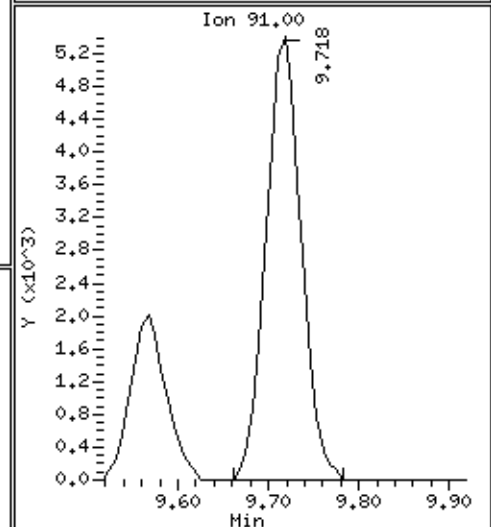
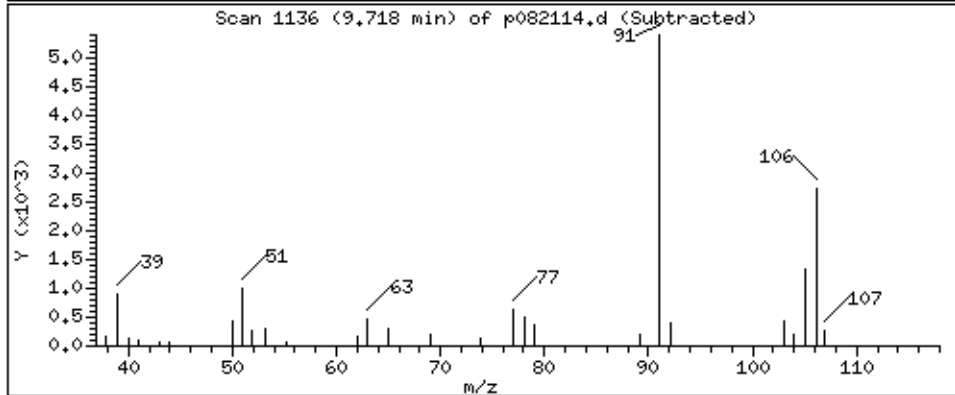
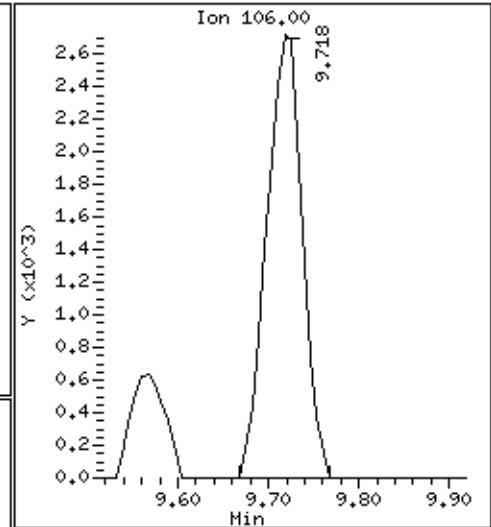
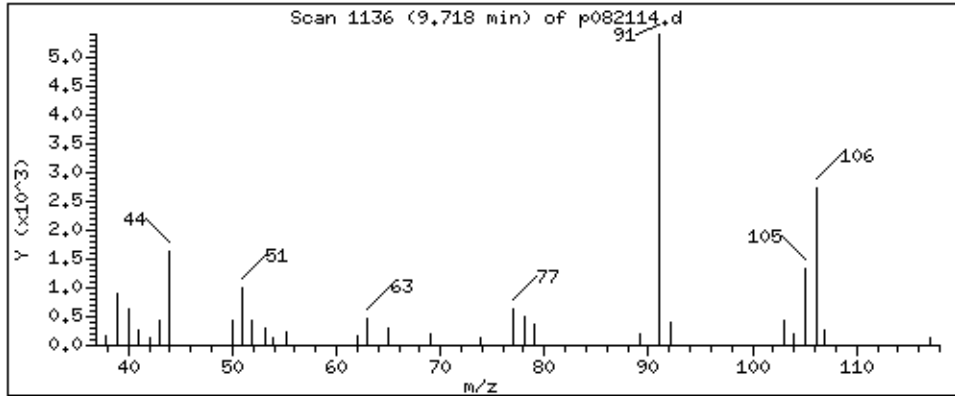
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 1,553 PPBV



Client Sample ID: SSV-JSS01-02

Lab ID#: 2108390-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082115	Date of Collection:	8/17/21 1:45:00 PM
Dil. Factor:	2.10	Date of Analysis:	8/21/21 06:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
1,1-Difluoroethane	4.2	Not Detected	11	Not Detected
1,2,3-Trichloropropane	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,2-Dibromo-3-chloropropane	4.2	Not Detected	40	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.1	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.2	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
2,2,4-Trimethylpentane	1.0	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
2-Hexanone	4.2	Not Detected	17	Not Detected
2-Propanol	4.2	8.0	10	20
3-Chloropropene	4.2	Not Detected	13	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Acetone	10	Not Detected	25	Not Detected
Acrolein	4.2	Not Detected	9.6	Not Detected
Acrylonitrile	4.2	Not Detected	9.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Bromomethane	10	Not Detected	41	Not Detected
Carbon Disulfide	4.2	10	13	32
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
Chloromethane	10	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected





Air Toxics

Client Sample ID: SSV-JSS01-02

Lab ID#: 2108390-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082115	Date of Collection:	8/17/21 1:45:00 PM
Dil. Factor:	2.10	Date of Analysis:	8/21/21 06:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Cumene	1.0	Not Detected	5.2	Not Detected
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
Dibromomethane	4.2	Not Detected	30	Not Detected
Ethanol	10	23	20	44
Ethyl Acetate	4.2	Not Detected	15	Not Detected
Ethyl Benzene	1.0	Not Detected	4.6	Not Detected
Ethyl-tert-butyl ether	4.2	Not Detected	18	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 12	1.0	Not Detected	5.2	Not Detected
Freon 113	1.0	Not Detected	8.0	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Freon 134a	4.2	Not Detected	18	Not Detected
Heptane	1.0	Not Detected	4.3	Not Detected
Hexachlorobutadiene	4.2	Not Detected	45	Not Detected
Hexachloroethane	4.2	Not Detected	41	Not Detected
Hexane	1.0	35	3.7	120
Iodomethane	10	Not Detected	61	Not Detected
Isopropyl ether	4.2	Not Detected	18	Not Detected
m,p-Xylene	1.0	2.2	4.6	9.5
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Naphthalene	2.1	Not Detected	11	Not Detected
o-Xylene	1.0	Not Detected	4.6	Not Detected
Propylbenzene	1.0	Not Detected	5.2	Not Detected
Propylene	4.2	Not Detected	7.2	Not Detected
Styrene	1.0	Not Detected	4.5	Not Detected
tert-Amyl methyl ether	4.2	Not Detected	18	Not Detected
tert-Butyl alcohol	4.2	Not Detected	13	Not Detected
Tetrachloroethene	1.0	3.4	7.1	23
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Toluene	1.0	1.4	4.0	5.2
TPH ref. to Gasoline (MW=100)	100	120	430	490
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.8	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Vinyl Acetate	4.2	Not Detected	15	Not Detected
Vinyl Bromide	4.2	Not Detected	18	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: SSV-JSS01-02

Lab ID#: 2108390-26A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082115	Date of Collection: 8/17/21 1:45:00 PM
Dil. Factor:	2.10	Date of Analysis: 8/21/21 06:44 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	111	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/21AUG21.b/p082115.d  
Lab Smp Id: 2108390-26A  
Inj Date : 21-AUG-2021 18:44  
Operator : mb  
Smp Info : 200ml O0246  
Misc Info : 6.0 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
Meth Date : 23-Aug-2021 07:32 lk8g  
Cal Date : 19-MAY-2021 19:45  
Als bottle: 6  
Dil Factor: 2.10000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msdp.i  
Quant Type: ISTD  
Cal File: p051915.d  
Compound Sublist: AEC25677.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	102837	25.0000	80.00- 120.00	100.00	
5.785	5.785	(1.000)	128	80946		48.23- 108.23	78.71	
5.785	5.785	(1.000)	49	230181		150.57- 210.57	223.83	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.666	(1.000)	114	363284	25.0000	80.00- 120.00	100.00	
6.666	6.666	(1.000)	88	54283		0.00- 45.71	14.94	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	383177	25.0000	80.00- 120.00	100.00	
9.460	9.460	(1.000)	82	195346		23.78- 83.78	50.98	
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	156149	27.5138	27.514 80.00- 120.00	100.00	
6.315	6.315	(1.092)	67	73797		27.21- 87.21	47.26	
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	398281	25.2473	25.247 80.00- 120.00	100.00	
7.891	7.891	(1.184)	70	44404		0.00- 40.44	11.15	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	257909			34.95- 94.95	64.76
-----								
\$ 170 4-Bromofluorobenzene								
							CAS #: 460-00-4	
10.921	10.921	(1.154)	174	273466	27.7925	27.792	80.00- 120.00	100.00
10.921	10.921	(1.154)	95	324975			95.92- 155.92	118.84
10.921	10.921	(1.154)	176	269343			66.89- 126.89	98.49
-----								
39 Ethanol								
							CAS #: 64-17-5	
3.257	3.250	(0.563)	46	11225	11.0068	23.114	80.00- 120.00	100.00
3.257	3.250	(0.563)	45	29903			511.19- 571.19	266.38
-----								
48 Carbon Disulfide								
							CAS #: 75-15-0	
3.837	3.830	(0.663)	76	55775	4.86651	10.220	80.00- 120.00	100.00
-----								
52 2-Propanol								
							CAS #: 67-63-0	
3.908	3.894	(0.676)	45	41600	3.82858	8.040	80.00- 120.00	100.00
3.901	3.894	(0.674)	43	10770			0.00- 47.19	25.89
-----								
67 Hexane								
							CAS #: 110-54-3	
4.696	4.697	(0.812)	57	169872	16.7682	35.213	80.00- 120.00	100.00
4.696	4.697	(0.812)	43	136972			37.52- 97.52	80.63
4.703	4.697	(0.813)	86	16616			0.00- 41.48	9.78
-----								
137 Toluene								
							CAS #: 108-88-3	
7.955	7.956	(1.193)	91	10886	0.65817	1.382	80.00- 120.00	100.00
7.955	7.956	(1.193)	92	5632			28.38- 88.38	51.74
-----								
142 Tetrachloroethene								
							CAS #: 127-18-4	
8.471	8.464	(0.895)	166	14365	1.64493	3.454	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	11340			47.84- 107.84	78.94
8.471	8.464	(0.895)	131	10965			45.29- 105.29	76.33
-----								
158 m,p-Xylene								
							CAS #: 108-38-3	
9.718	9.718	(1.027)	106	10416	1.04530	2.195	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	19527			163.73- 223.73	187.47
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p082115.d  
 Lab Smp Id: 2108390-26A  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: mb  
 Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Misc Info: 6.0 Hg->10 psi

Calibration Date: 21-AUG-2021  
 Calibration Time: 09:37  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	102894	61736	144052	102837	-0.06
108 1,4-Difluorobenze	387356	232414	542298	363284	-6.21
153 Chlorobenzene-d5	386134	231680	540588	383177	-0.77

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.67	6.34	7.00	6.67	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 21AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108390-26A  
Level: LOW Operator: mb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
Misc Info: 6.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.514	110.06	70-130
\$ 134 Toluene-d8	25.000	25.247	100.99	70-130
\$ 170 4-Bromofluorobenz	25.000	27.792	111.17	70-130

Date : 21-AUG-2021 18:44

Client ID:

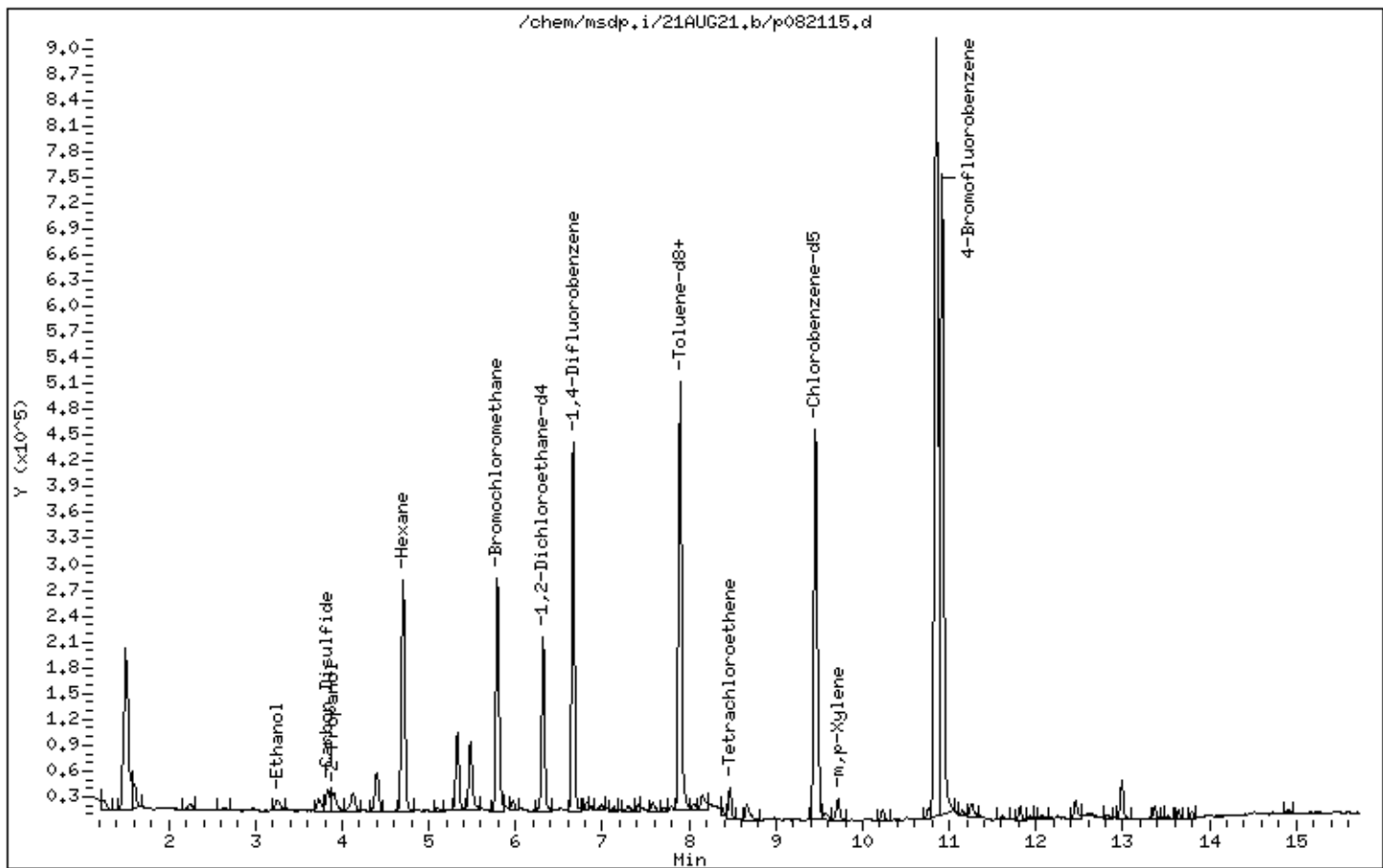
Instrument: msdp.i

Sample Info: 200ml 00246

Operator: mb

Column phase: RTX-624

Column diameter: 0.25



Date : 21-AUG-2021 18:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00246

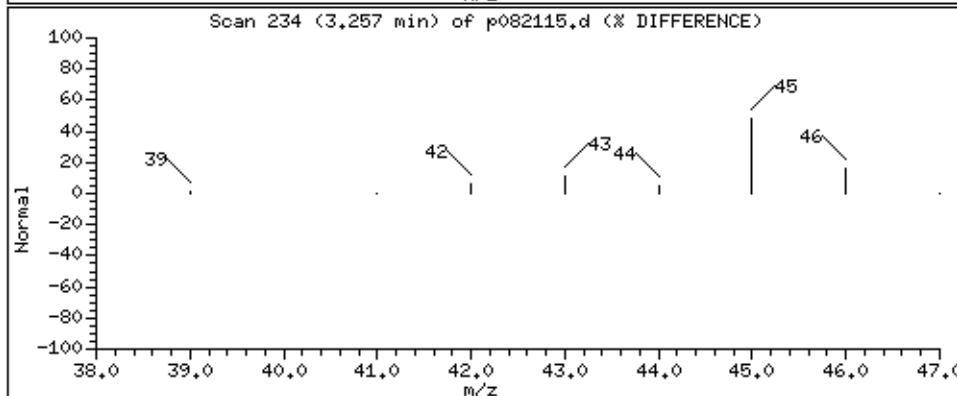
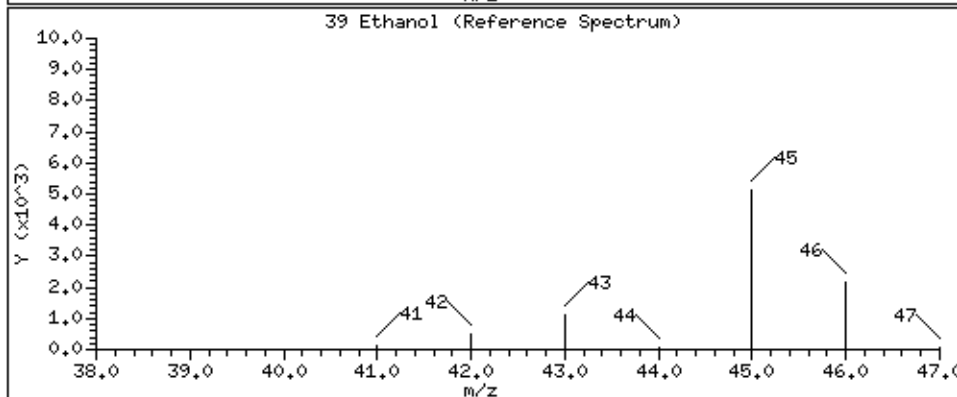
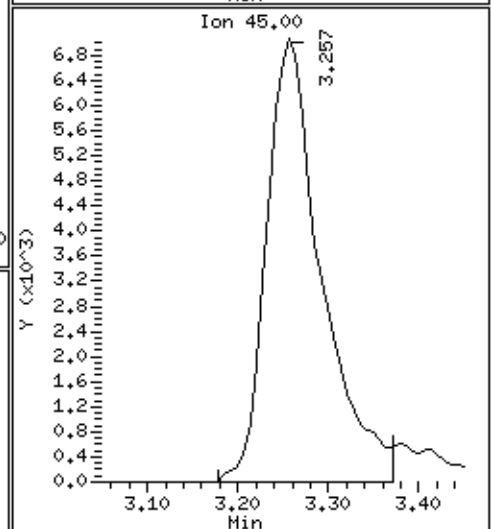
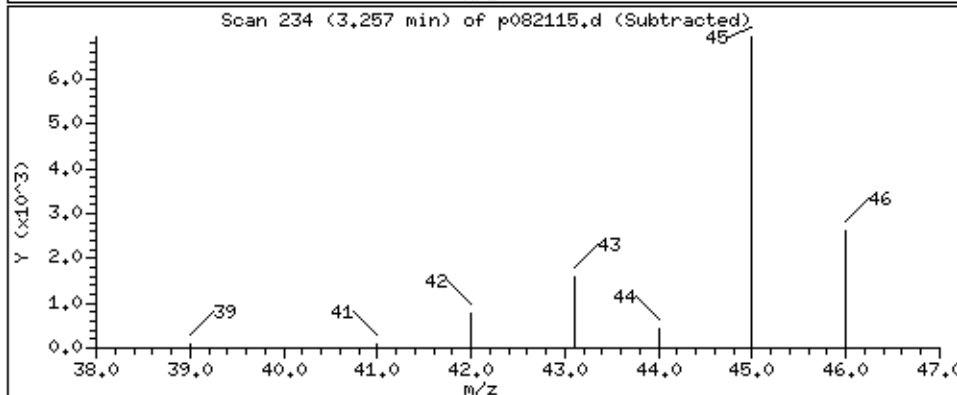
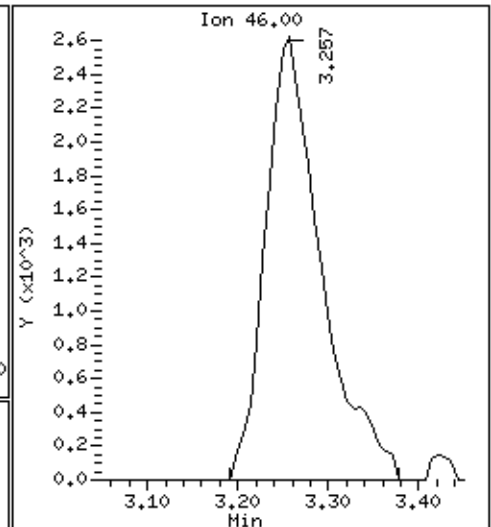
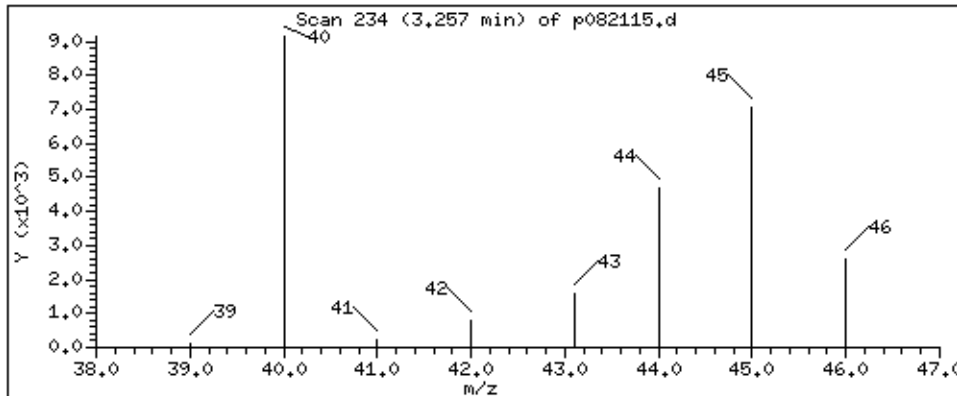
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 23,114 PPBW





Date : 21-AUG-2021 18:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00246

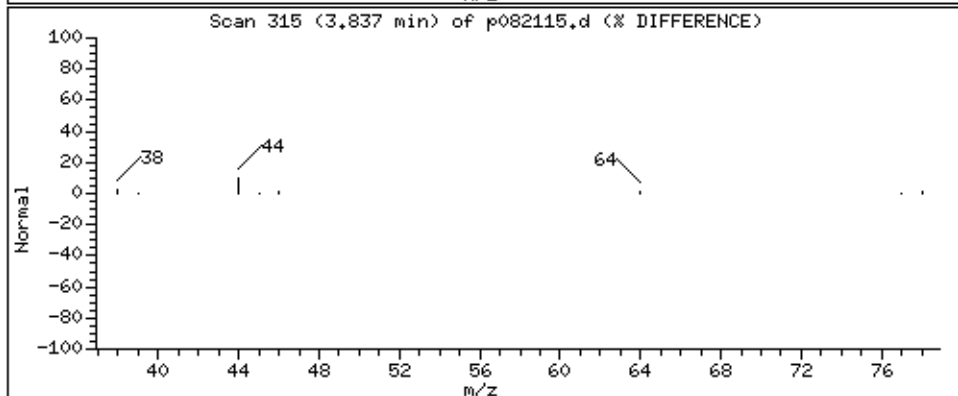
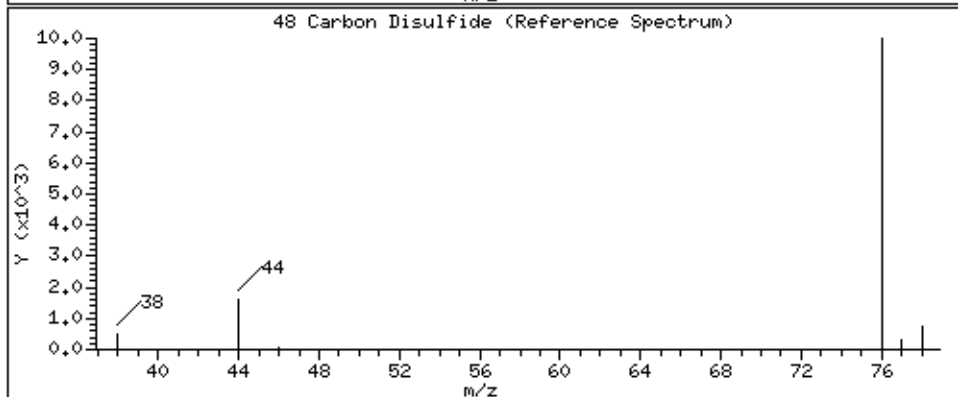
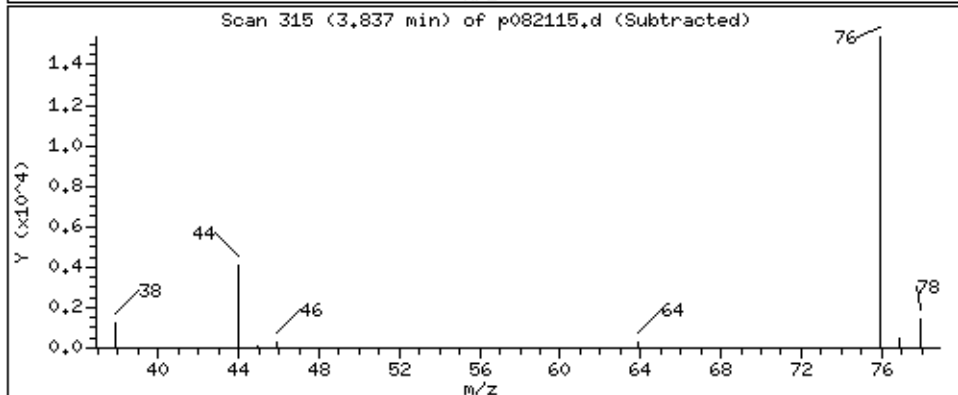
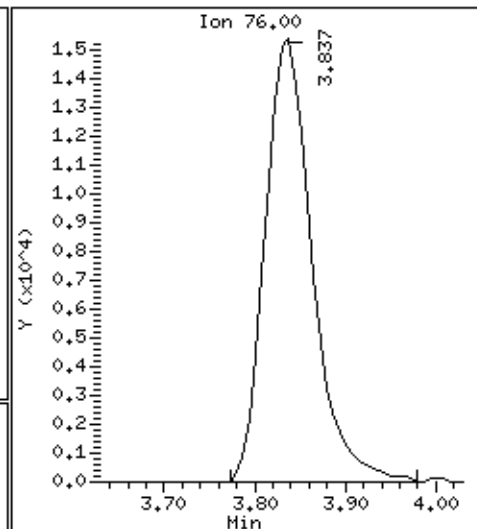
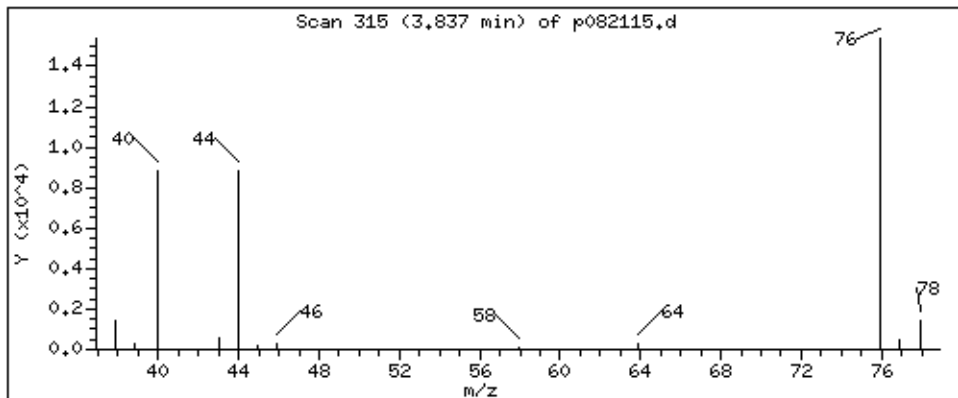
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

48 Carbon Disulfide

Concentration: 10,220 PPBV



Date : 21-AUG-2021 18:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00246

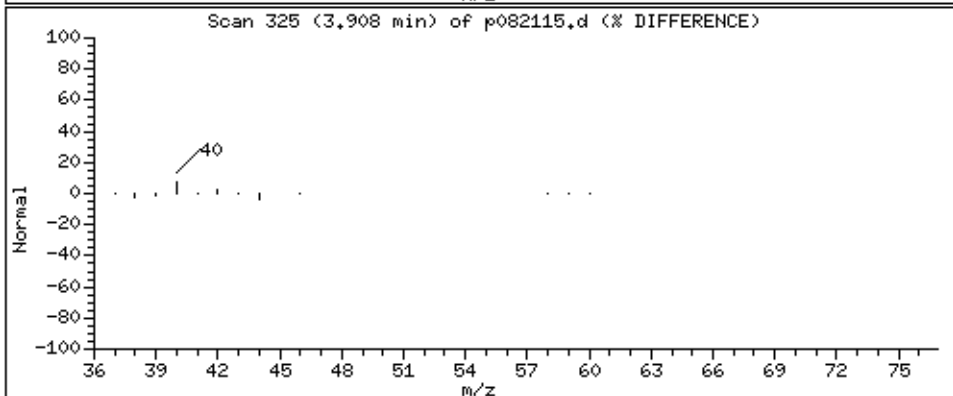
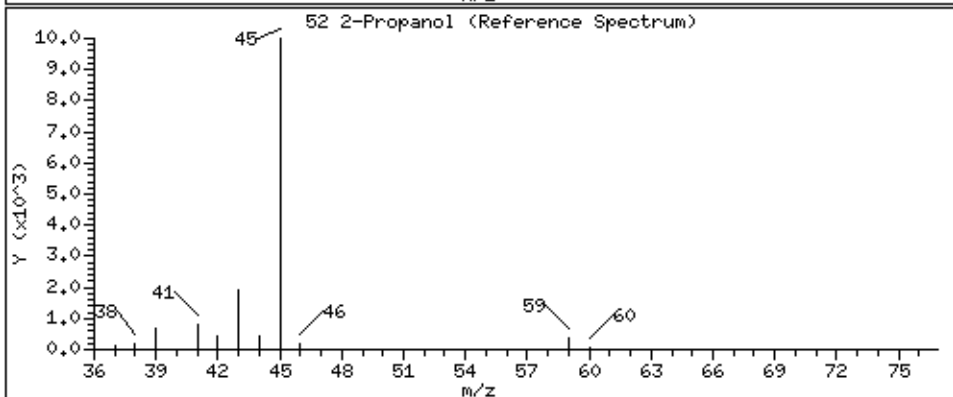
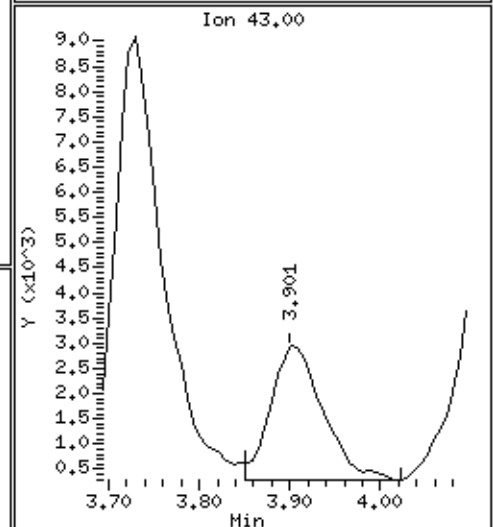
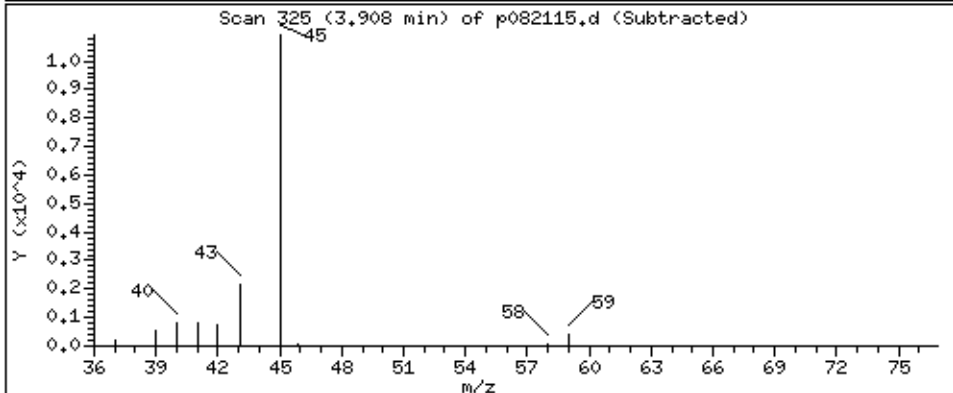
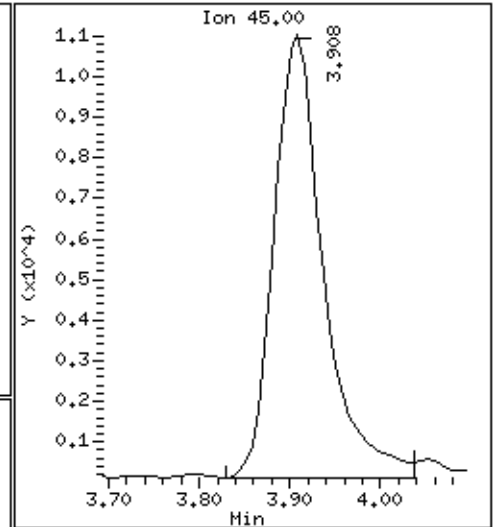
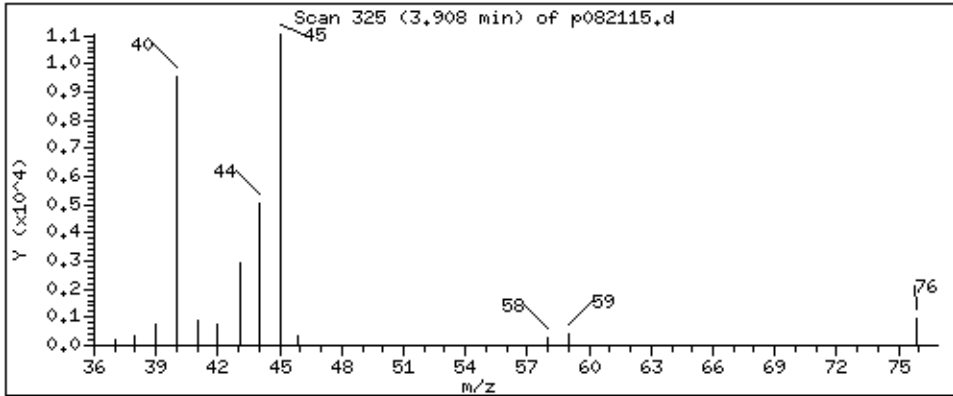
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 8,040 PPBV



Date : 21-AUG-2021 18:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00246

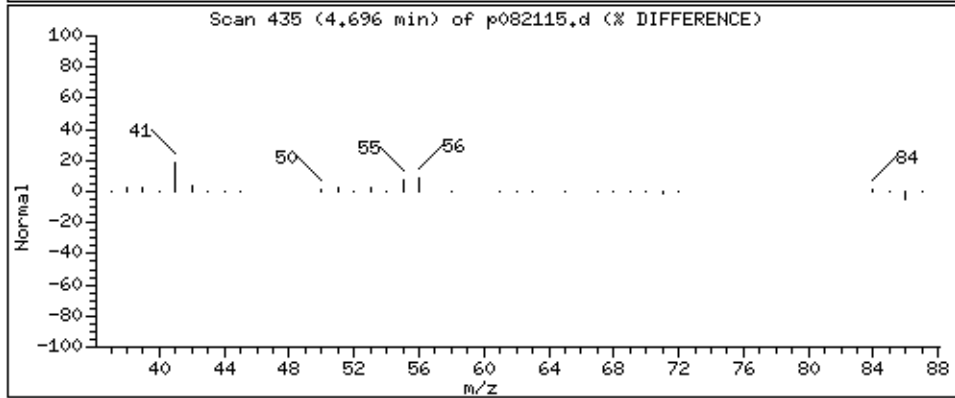
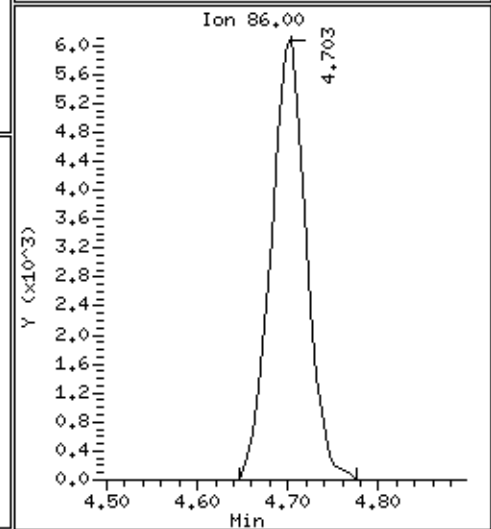
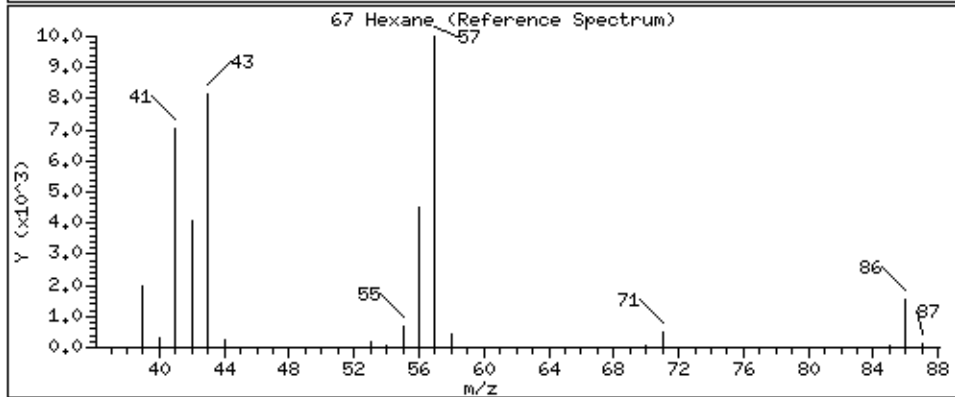
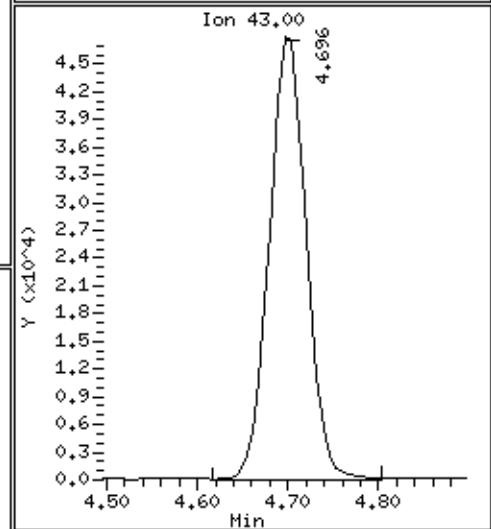
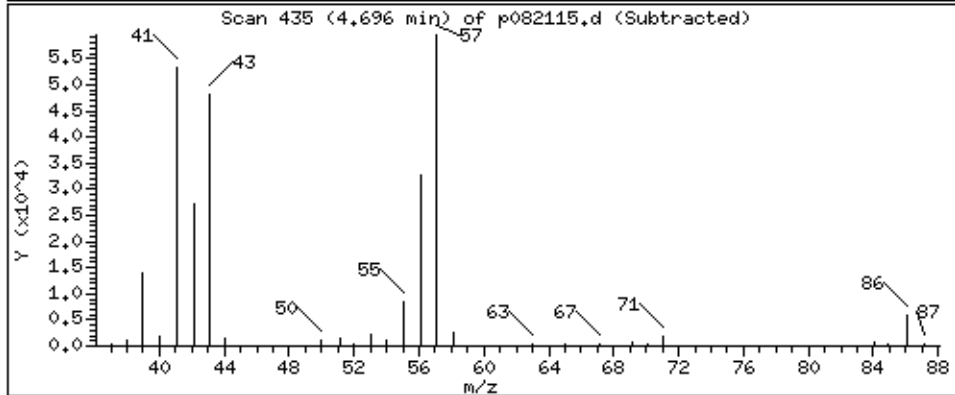
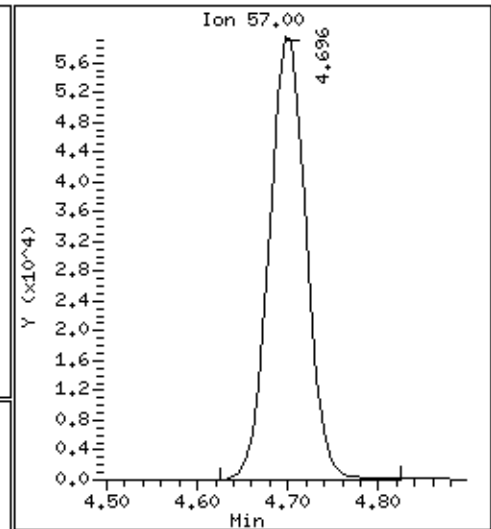
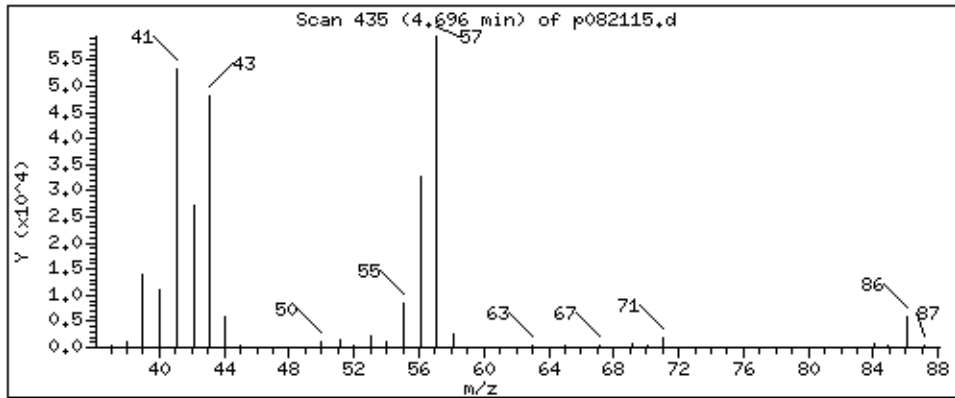
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 35,213 PPBW



Date : 21-AUG-2021 18:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00246

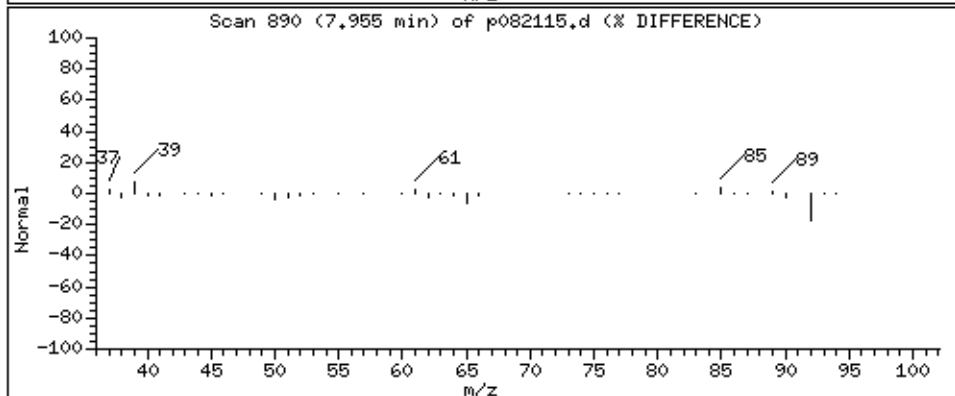
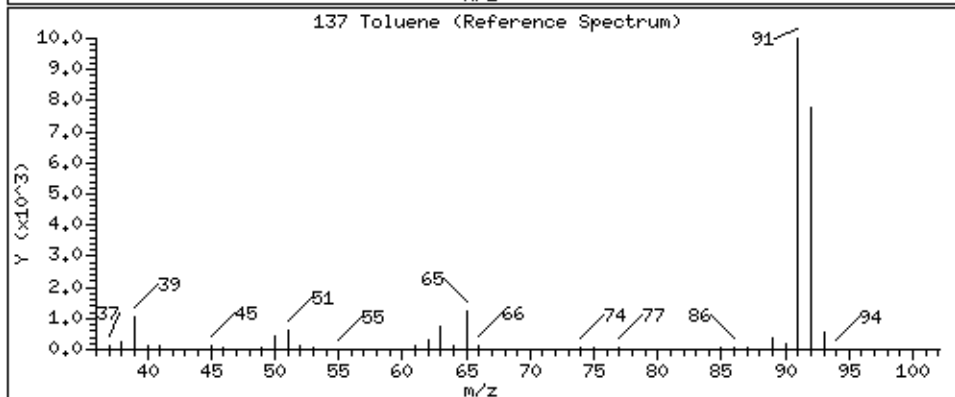
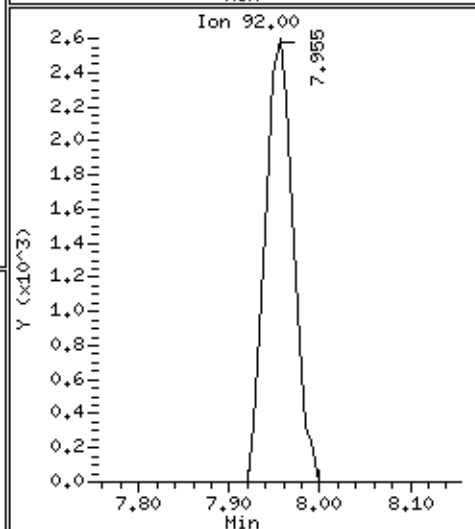
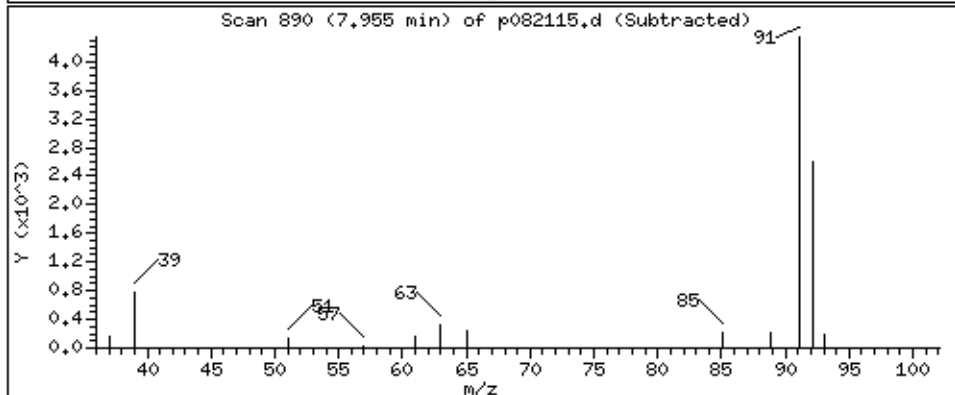
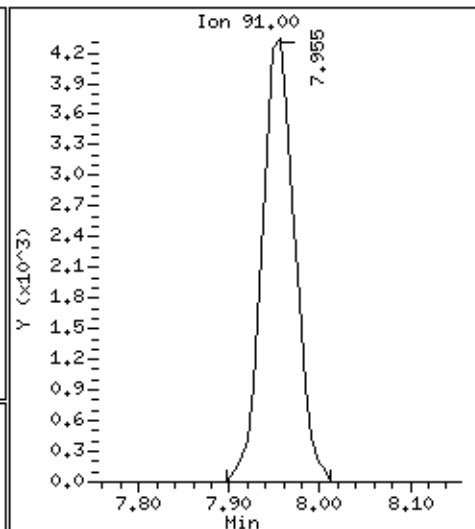
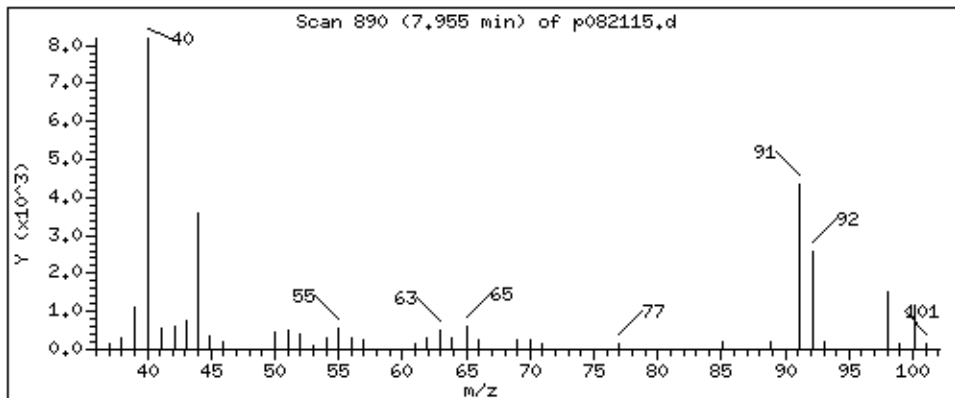
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 1,382 PPBV



Date : 21-AUG-2021 18:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00246

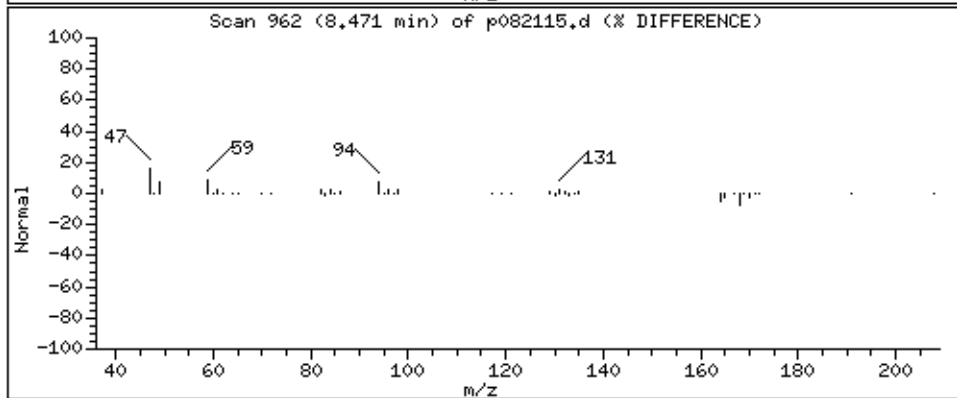
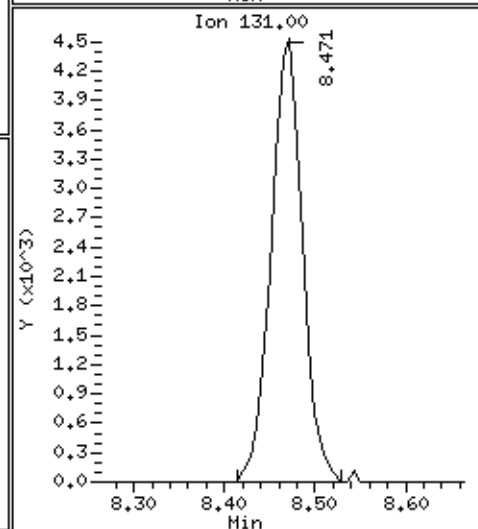
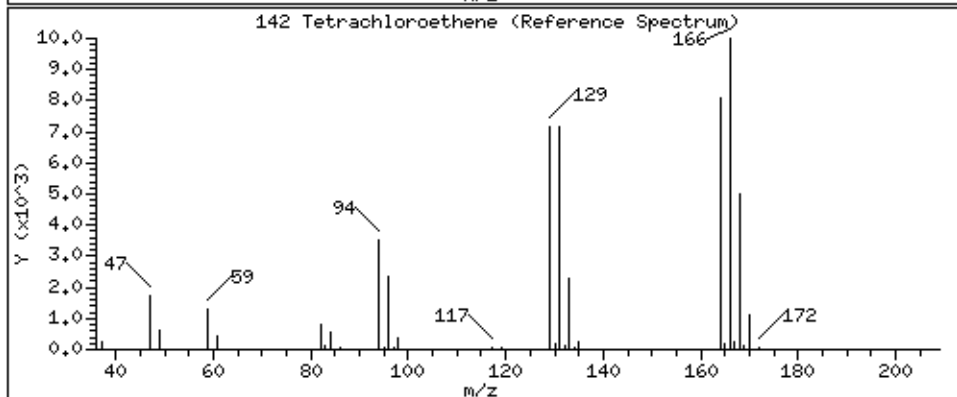
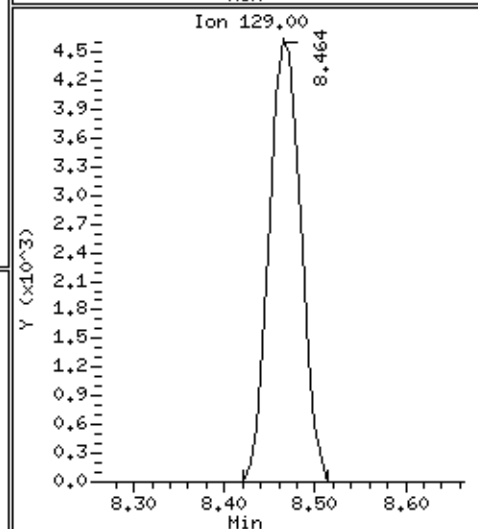
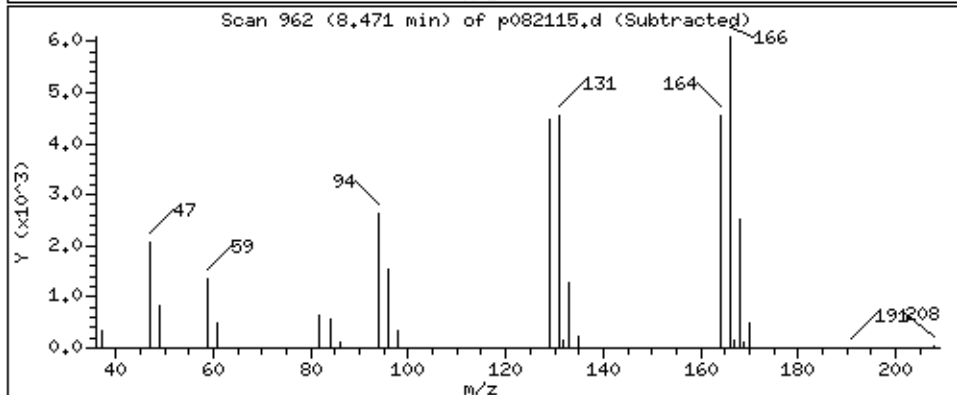
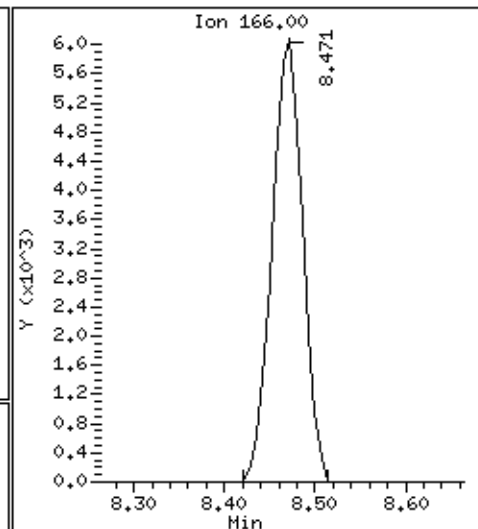
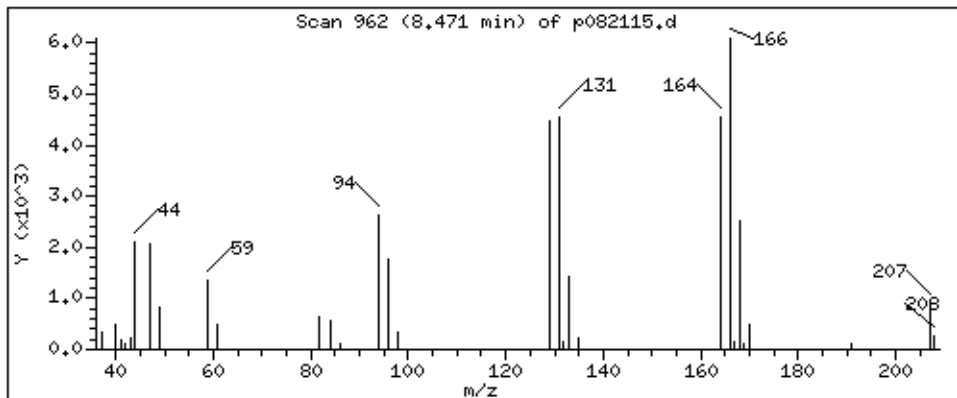
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 3.454 PPBV



Date : 21-AUG-2021 18:44

Client ID:

Instrument: msdp.i

Sample Info: 200ml 00246

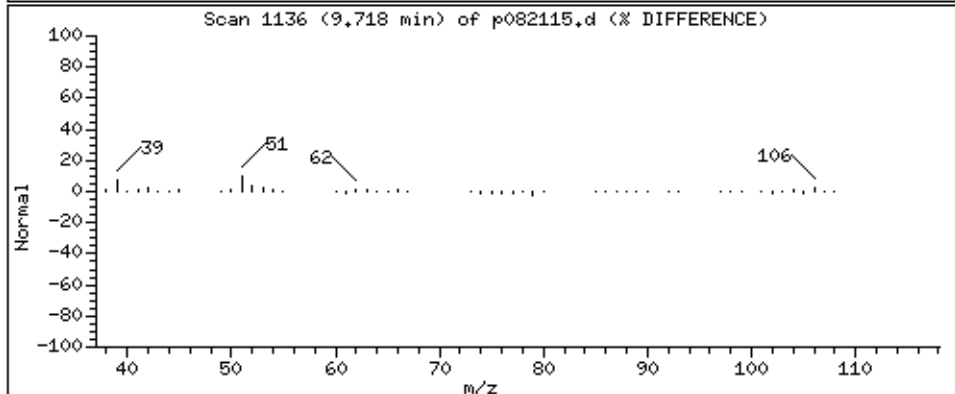
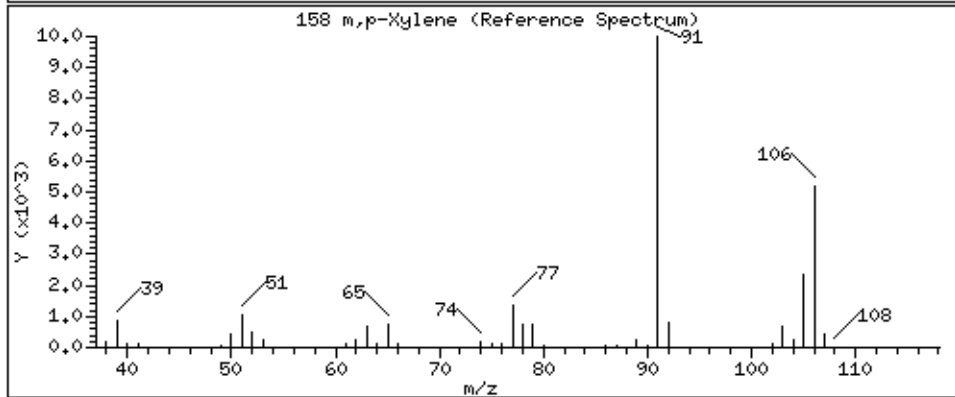
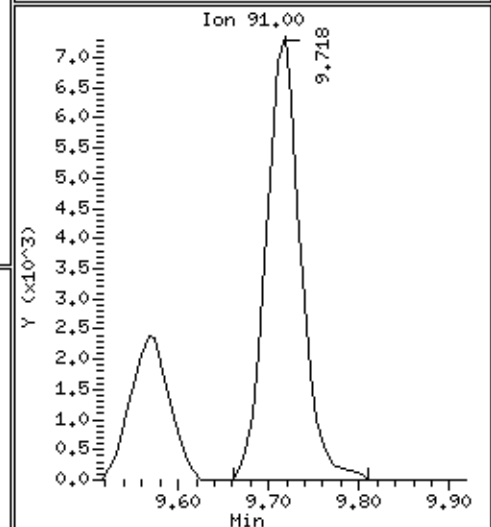
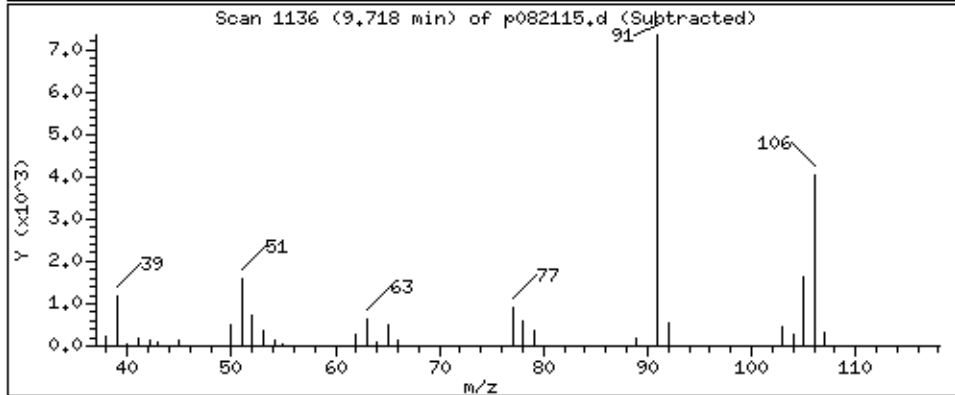
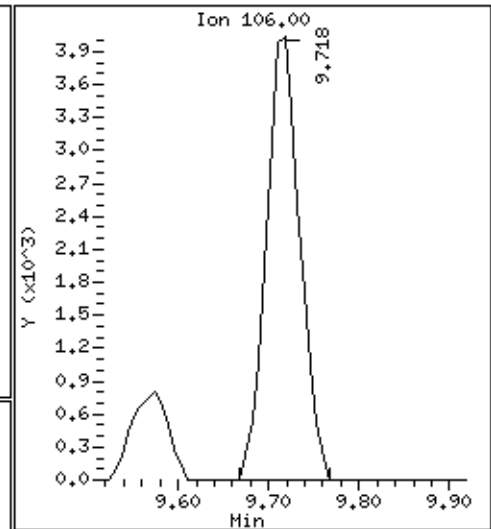
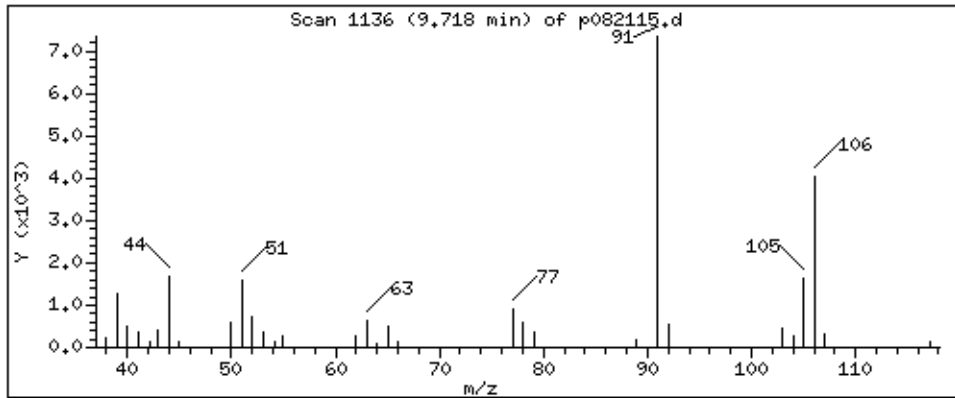
Operator: mb

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 2.195 PPBV



## **QC Results and Raw Data**



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2108390-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082007	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/20/21 02:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	2.0	Not Detected	14	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
1,2,3-Trichloropropane	2.0	Not Detected	12	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2-Dibromo-3-chloropropane	2.0	Not Detected	19	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Acrolein	2.0	Not Detected	4.6	Not Detected
Acrylonitrile	2.0	Not Detected	4.3	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected





Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2108390-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082007	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/20/21 02:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Dibromomethane	2.0	Not Detected	14	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Ethyl Acetate	2.0	Not Detected	7.2	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Freon 134a	2.0	Not Detected	8.3	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Hexachloroethane	2.0	Not Detected	19	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Iodomethane	5.0	Not Detected	29	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Propylene	2.0	Not Detected	3.4	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
Vinyl Bromide	2.0	Not Detected	8.7	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 2108390-27A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082007	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/20/21 02:17 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	102	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082007.d  
 Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
 Inj Date : 20-AUG-2021 14:17  
 Operator : mjb Inst ID: msdp.i  
 Smp Info : 200ml 35157  
 Misc Info : humid  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5fl Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 11 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AEC25677.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
RT	EXP RT (REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====
-----							
* 90	Bromochloromethane					CAS #: 74-97-5	
5.785	5.785 (1.000)	130	114524	25.0000		80.00- 120.00	100.00
5.785	5.785 (1.000)	128	90793			48.23- 108.23	79.28
5.785	5.778 (1.000)	49	255107			150.57- 210.57	222.75
-----							
* 108	1,4-Difluorobenzene					CAS #: 540-36-3	
6.666	6.659 (1.000)	114	416989	25.0000		80.00- 120.00	100.00
6.666	6.659 (1.000)	88	59945			0.00- 45.71	14.38
-----							
* 153	Chlorobenzene-d5					CAS #: 3114-55-4	
9.460	9.460 (1.000)	117	428531	25.0000		80.00- 120.00	100.00
9.460	9.460 (1.000)	82	216461			23.78- 83.78	50.51
-----							
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0	
6.315	6.315 (1.092)	65	173250	27.4118	27.412	80.00- 120.00	100.00
6.315	6.315 (1.092)	67	83634			27.21- 87.21	48.27
-----							
\$ 134	Toluene-d8					CAS #: 2037-26-5	
7.891	7.891 (1.184)	98	461522	25.4882	25.488	80.00- 120.00	100.00
7.891	7.891 (1.184)	70	48220			0.00- 40.44	10.45

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO	
					ON-COL	FINAL			
==	=====	=====	=====	=====	( PPBV)	( PPBV)	=====	=====	
\$ 134 Toluene-d8 (continued)									
7.891	7.891	(1.184)	100	296889			34.95- 94.95	64.33	
-----									
\$ 170 4-Bromofluorobenzene									
CAS #: 460-00-4									
10.921	10.921	(1.154)	174	280167	25.4600	25.460	80.00- 120.00	100.00	
10.921	10.914	(1.154)	95	320240			95.92- 155.92	114.30	
10.921	10.921	(1.154)	176	267495			66.89- 126.89	95.48	
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 20-AUG-2021
Lab File ID: p082007.d	Calibration Time: 11:13
Lab Smp Id: Lab Blank	Client Smp ID: Lab Blank
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: mjb	
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m	
Misc Info: humid	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	114524	4.71
108 1,4-Difluorobenze	406799	244079	569519	416989	2.50
153 Chlorobenzene-d5	400841	240505	561177	428531	6.91

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Report Date: 20-Aug-2021 14:38

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
Level: LOW Operator: mjb  
Data Type: MS DATA SampleType: BLANK  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.412	109.65	70-130
\$ 134 Toluene-d8	25.000	25.488	101.95	70-130
\$ 170 4-Bromofluorobenz	25.000	25.460	101.84	70-130

Date : 20-AUG-2021 14:17

Client ID: Lab Blank

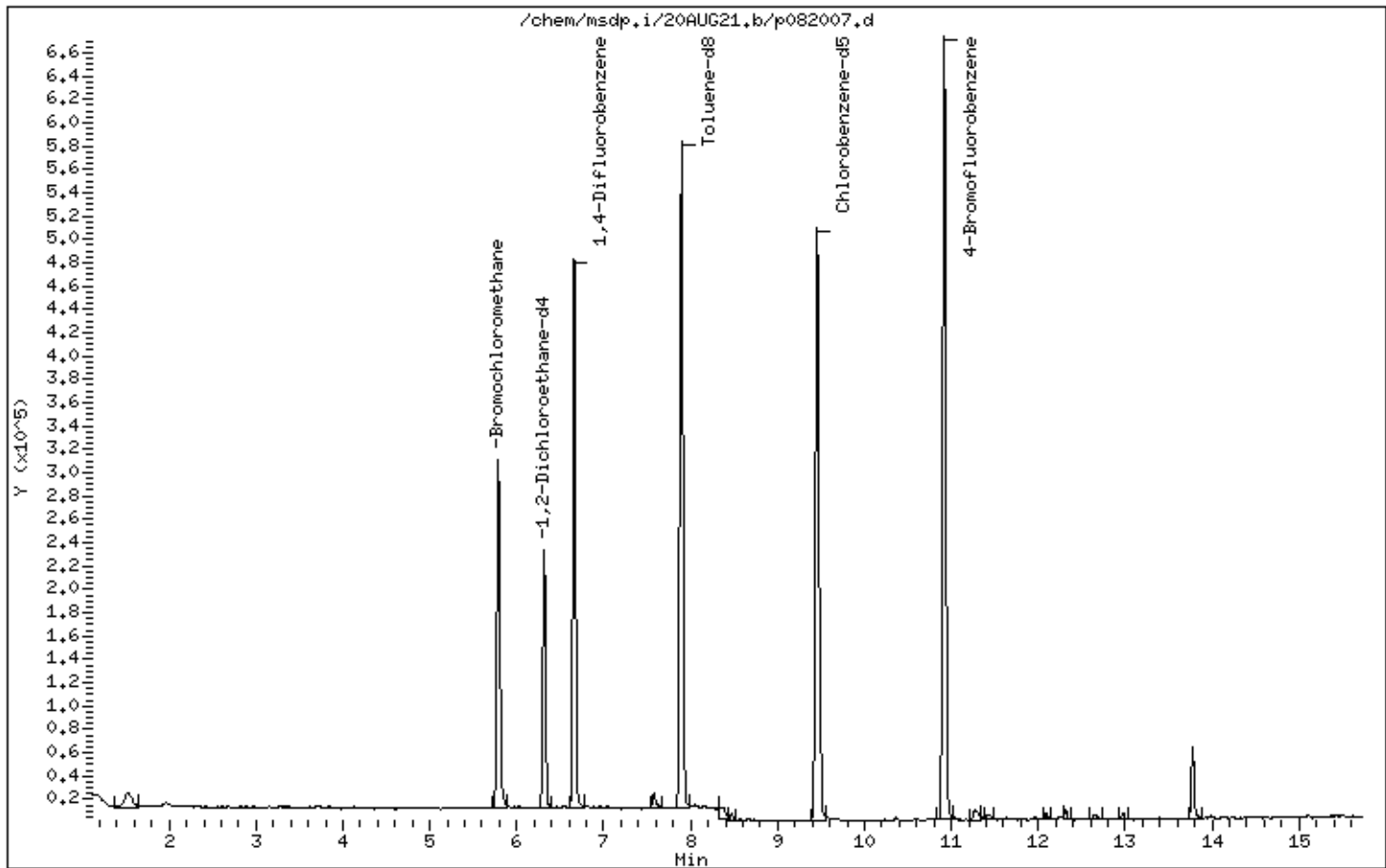
Instrument: msdp.i

Sample Info: 200ml 35157

Operator: mjb

Column phase: RTX-624

Column diameter: 0.25



Client Sample ID: Lab Blank

Lab ID#: 2108390-27B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082108	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/21/21 01:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	2.0	Not Detected	14	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
1,2,3-Trichloropropane	2.0	Not Detected	12	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2-Dibromo-3-chloropropane	2.0	Not Detected	19	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Acrolein	2.0	Not Detected	4.6	Not Detected
Acrylonitrile	2.0	Not Detected	4.3	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected





Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2108390-27B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082108	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/21/21 01:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Dibromomethane	2.0	Not Detected	14	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Ethyl Acetate	2.0	Not Detected	7.2	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Freon 134a	2.0	Not Detected	8.3	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Hexachloroethane	2.0	Not Detected	19	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Iodomethane	5.0	Not Detected	29	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Propylene	2.0	Not Detected	3.4	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
Vinyl Bromide	2.0	Not Detected	8.7	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 2108390-27B

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082108	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/21/21 01:48 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	102	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem1/msdp.i/21AUG21.b/p082108.d  
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
Inj Date : 21-AUG-2021 13:48  
Operator : mb Inst ID: msdp.i  
Smp Info : 200ml 35157  
Misc Info : humid  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
Meth Date : 21-Aug-2021 13:27 x8uy Quant Type: ISTD  
Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
Als bottle: 12  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20\_new.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	111071	25.0000	80.00- 120.00	100.00	
5.785	5.785	(1.000)	128	83454		48.23- 108.23	75.14	
5.785	5.778	(1.000)	49	239399		150.57- 210.57	215.54	
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.666	(1.000)	114	393522	25.0000	80.00- 120.00	100.00	
6.659	6.659	(1.000)	88	57234		0.00- 45.71	14.54	
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	398805	25.0000	80.00- 120.00	100.00	
9.460	9.460	(1.000)	82	205510		23.78- 83.78	51.53	
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	166558	27.1723	27.172 80.00- 120.00	100.00	
6.315	6.315	(1.092)	67	78197		27.21- 87.21	46.95	
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	431762	25.2666	25.266 80.00- 120.00	100.00	
7.891	7.891	(1.184)	70	46703		0.00- 40.44	10.82	

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO	
					ON-COL	FINAL			
==	=====	=====	=====	=====	( PPBV)	( PPBV)	=====	=====	
\$ 134 Toluene-d8 (continued)									
7.891	7.891	(1.184)	100	275971			34.95- 94.95	63.92	
-----									
\$ 170 4-Bromofluorobenzene									
						CAS #: 460-00-4			
10.921	10.921	(1.154)	174	261424	25.5275	25.528	80.00- 120.00	100.00	
10.921	10.914	(1.154)	95	300612			95.92- 155.92	114.99	
10.921	10.921	(1.154)	176	250670			66.89- 126.89	95.89	
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 21-AUG-2021
Lab File ID: p082108.d	Calibration Time: 09:37
Lab Smp Id: Lab Blank	Client Smp ID: Lab Blank
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: mb	
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m	
Misc Info: humid	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	102894	61736	144052	111071	7.95
108 1,4-Difluorobenze	387356	232414	542298	393522	1.59
153 Chlorobenzene-d5	386134	231680	540588	398805	3.28

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.79	-0.00
108 1,4-Difluorobenze	6.67	6.34	7.00	6.67	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Report Date: 21-Aug-2021 14:22

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 21AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
Level: LOW Operator: mb  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AT20\_new.sub  
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
Misc Info: humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.172	108.69	70-130
\$ 134 Toluene-d8	25.000	25.266	101.07	70-130
\$ 170 4-Bromofluorobenz	25.000	25.528	102.11	70-130

Date : 21-AUG-2021 13:48

Client ID: Lab Blank

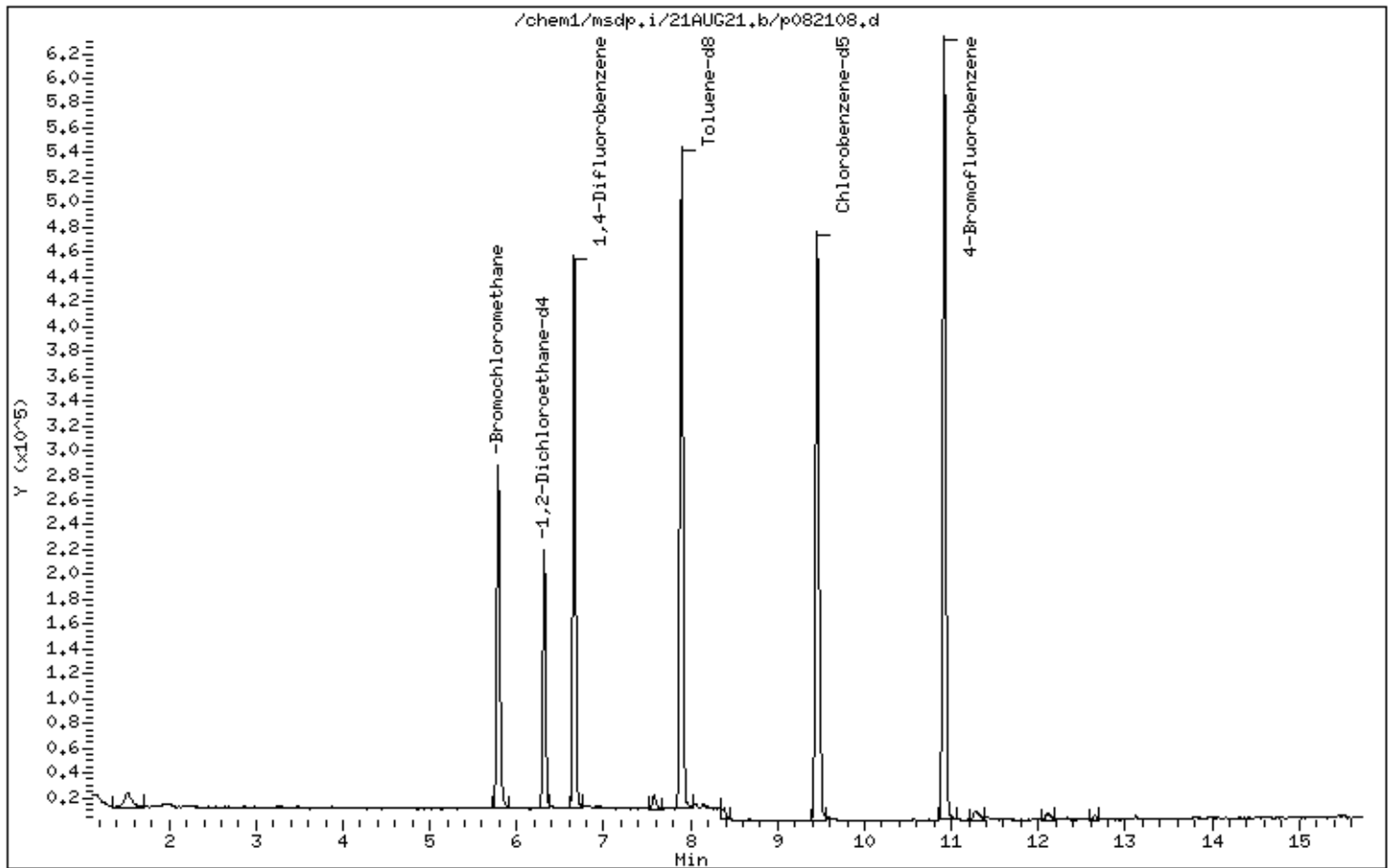
Instrument: msdp.i

Sample Info: 200ml 35157

Operator: mb

Column phase: RTX-624

Column diameter: 0.25



**LEVEL-IV VALIDATABLE**  
**MODIFIED EPA METHOD TO-15**  
**SURROGATE RECOVERY FORM**

Lab Name : Eurofins Air Toxics, LLC \_\_\_\_\_ SDG No. :2108390

CLIENT SAMPLE NO.		SURROGATE % RECOVERY					TOTAL OUT	
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene		#
		1	SG-VW35A-03	113		100		
2	SG-VW44A-03	110		100		104		
3	SG-VW17A-03	110		100		104		
4	SG-VW58A-02	111		100		103		
5	SG-VW58B-02	110		102		104		
6	SG-VW60B-02	109		101		106		
7	SG-VW60A-02	108		100		107		
8	SG-VW61A-02	106		100		104		
9	SG-VW63A-02	111		103		106		
10	SG-VW63B-02	109		100		106		
11	SG-VW63B-03	110		102		103		
12	SG-VW55A-03	114		101		104		
13	SG-VW20A-03	108		101		105		
14	SG-VW21A-04	110		102		104		
15	SG-VW24A-05	110		100		104		
16	SG-VW29A-03	110		101		103		
17	SG-VW64A-02	108		99		104		
18	SG-VW59A-02	109		101		102		
19	SG-VW59B-02	110		102		102		
20	SSV-FSS01-02	112		101		109		
21	SSV-FSS01-03	111		101		110		
22	SSV-FSS02-02	109		101		105		
23	SSV-GSS01-02	111		103		108		
24	SSV-GSS02-02	111		101		111		
25	SSV-HMBSS01-02	111		101		105		
26	SSV-JSS01-02	110		101		111		
27	Lab Blank	110		102		102		
28	Lab Blank	109		101		102		
29	CCV	109		100		112		
30	CCV	115		101		111		
31	LCS	111		97		111		
32	LCSD	108		101		110		
33	LCS	108		100		112		
34	LCSD	108		100		110		

Surrogate Recovery Limits

1,2-Dichloroethane-d4      70 - 130  
Toluene-d8                      70 - 130



4-Bromofluorobenzene 70 - 130

\* Designates Values Outside of QC limits

**LEVEL-IV VALIDATABLE**

**MODIFIED EPA METHOD TO-15**

**INTERNAL STANDARD AREA AND RT SUMMARY**

Lab Name : Eurofins Air Toxics, LLC File ID: p082002.d Date : 2021-08-20 11:13:00 SDG No. : 2108390

		Bromochloromethane	RT	1,4-Difluorobenzene	RT	Chlorobenzene-d5	RT
24-HOUR CCV		109375	5.79	406799	6.66	400841	9.46
UPPER LIMIT		153125	6.12	569518	6.99	561177	9.79
LOWER LIMIT		65625	5.46	244079	6.33	240504	9.13
<b>CLIENT SAMPLE NO.</b>							
1	SG-VW35A-03	111350	5.79	427337	6.67	424317	9.46
2	SG-VW44A-03	112788	5.79	412871	6.67	418553	9.46
3	SG-VW17A-03	109467	5.79	409276	6.67	409380	9.46
4	SG-VW58A-02	106991	5.79	379824	6.67	391102	9.46
5	SG-VW58B-02	107098	5.79	386891	6.67	405299	9.46
6	SG-VW60B-02	108335	5.79	385237	6.67	403350	9.46
7	SG-VW60A-02	108206	5.79	388212	6.67	397526	9.46
8	SG-VW61A-02	106226	5.79	378182	6.67	387252	9.46
9	SG-VW63A-02	105799	5.79	377980	6.67	388347	9.46
10	SG-VW63B-02	107394	5.79	384059	6.67	393947	9.46
11	SG-VW63B-03	106163	5.79	380167	6.66	392144	9.46
12	SG-VW55A-03	104070	5.79	381466	6.67	390633	9.46
13	SG-VW20A-03	108090	5.79	377300	6.67	386050	9.46
14	SG-VW21A-04	108221	5.79	394335	6.66	398950	9.46
15	SG-VW24A-05	104811	5.79	374966	6.67	389377	9.46
16	SG-VW29A-03	105089	5.79	372375	6.67	388321	9.46
17	SG-VW64A-02	106780	5.79	371484	6.66	386757	9.46
18	SG-VW59A-02	104790	5.79	369112	6.67	385745	9.46
19	SG-VW59B-02	104316	5.79	370394	6.67	382215	9.46
20	Lab Blank	114524	5.79	416989	6.67	428531	9.46
21	CCV	109375	5.79	406799	6.66	400841	9.46
22	LCS	115405	5.78	421276	6.66	408672	9.46
23	LCSD	121146	5.78	435127	6.67	424998	9.46

Area Upper Limit = +40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT

Area Lower Limit = -40% of internal standard area

RT Lower Limit = -0.33 minutes of internal standard RT

\* Designates Values Outside of QC limits

**LEVEL-IV VALIDATABLE**

**MODIFIED EPA METHOD TO-15**

**INTERNAL STANDARD AREA AND RT SUMMARY**

Lab Name : Eurofins Air Toxics, LLC File ID: p082102.d Date : 2021-08-21 09:37:00 SDG No. : 2108390

		Bromochloromethane	RT	1,4-Difluorobenzene	RT	Chlorobenzene-d5	RT
24-HOUR CCV		102894	5.79	387356	6.67	386134	9.46
UPPER LIMIT		144051	6.12	542298	7.00	540587	9.79
LOWER LIMIT		61736	5.46	232413	6.34	231680	9.13
<b>CLIENT SAMPLE NO.</b>							
1	SSV-FSS01-02	103399	5.79	374486	6.67	388908	9.46
2	SSV-FSS01-03	105400	5.79	383169	6.66	393136	9.46
3	SSV-FSS02-02	105025	5.79	376574	6.67	388106	9.46
4	SSV-GSS01-02	102800	5.79	369160	6.67	382227	9.46
5	SSV-GSS02-02	102715	5.79	369444	6.67	386768	9.46
6	SSV-HMBSS01-02	101967	5.79	365558	6.67	380886	9.46
7	SSV-JSS01-02	102837	5.79	363284	6.67	383177	9.46
8	Lab Blank	111071	5.79	393522	6.67	398805	9.46
9	CCV	102894	5.79	387356	6.67	386134	9.46
10	LCS	113059	5.78	401051	6.66	391175	9.46
11	LCSD	116975	5.78	422374	6.67	408689	9.46

Area Upper Limit = +40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT

Area Lower Limit = -40% of internal standard area

RT Lower Limit = -0.33 minutes of internal standard RT

\* Designates Values Outside of QC limits

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab File ID: p082003.d & p082004.d

Lab Sample ID: 29A & 29AA

CAS Number	Compound	Original	Duplicate	Result Less Than	
		Amount	Amount	RPD	5X RL
71-55-6	1,1,1-Trichloroethane	104	100	3.9	
79-34-5	1,1,2,2-Tetrachloroethane	102	102	0	
79-00-5	1,1,2-Trichloroethane	103	102	0.98	
75-34-3	1,1-Dichloroethane	95	95	0	
75-35-4	1,1-Dichloroethene	86	87	1.2	
120-82-1	1,2,4-Trichlorobenzene	117	130	11	
95-63-6	1,2,4-Trimethylbenzene	106	106	0	
106-93-4	1,2-Dibromoethane (EDB)	107	106	0.94	
95-50-1	1,2-Dichlorobenzene	111	110	0.90	
107-06-2	1,2-Dichloroethane	121	118	2.5	
78-87-5	1,2-Dichloropropane	100	98	2.0	
108-67-8	1,3,5-Trimethylbenzene	105	106	0.95	
106-99-0	1,3-Butadiene	109	110	0.91	
541-73-1	1,3-Dichlorobenzene	112	111	0.90	
106-46-7	1,4-Dichlorobenzene	112	111	0.90	
123-91-1	1,4-Dioxane	92	94	2.2	
540-84-1	2,2,4-Trimethylpentane	100	98	2.0	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	81	82	1.2	
591-78-6	2-Hexanone	108	108	0	
67-63-0	2-Propanol	111	108	2.7	
107-05-1	3-Chloropropene	82	83	1.2	
622-96-8	4-Ethyltoluene	105	105	0	
108-10-1	4-Methyl-2-pentanone	104	102	1.9	
67-64-1	Acetone	96	94	2.1	
100-44-7	alpha-Chlorotoluene	106	106	0	
71-43-2	Benzene	94	93	1.1	
75-27-4	Bromodichloromethane	110	109	0.91	
75-25-2	Bromoform	114	114	0	
74-83-9	Bromomethane	84	80	4.9	
75-15-0	Carbon Disulfide	84	82	2.4	
56-23-5	Carbon Tetrachloride	116	112	3.5	
108-90-7	Chlorobenzene	102	101	0.99	
75-00-3	Chloroethane	86	85	1.2	
67-66-3	Chloroform	101	100	1.00	
74-87-3	Chloromethane	123	119	3.3	
156-59-2	cis-1,2-Dichloroethene	94	90	4.3	

10061-01-5	cis-1,3-Dichloropropene	97	97	0
98-82-8	Cumene	99	99	0
110-82-7	Cyclohexane	86	86	0
124-48-1	Dibromochloromethane	113	112	0.89
64-17-5	Ethanol	90	86	4.5
100-41-4	Ethyl Benzene	100	100	0
75-69-4	Freon 11	109	106	2.8
76-13-1	Freon 113	99	95	4.1
76-14-2	Freon 114	102	100	2.0
75-71-8	Freon 12	106	104	1.9
142-82-5	Heptane	89	90	1.1
87-68-3	Hexachlorobutadiene	125	136	8.4
110-54-3	Hexane	96	94	2.1
108-38-3	m,p-Xylene	100	100	0
1634-04-4	Methyl tert-butyl ether	87	85	2.3
75-09-2	Methylene Chloride	116	112	3.5
91-20-3	Naphthalene	104	116	11
95-47-6	o-Xylene	99	99	0
103-65-1	Propylbenzene	104	104	0
115-07-1	Propylene	106	103	2.9
100-42-5	Styrene	95	97	2.1
127-18-4	Tetrachloroethene	107	107	0
109-99-9	Tetrahydrofuran	111	108	2.7
108-88-3	Toluene	95	96	1.0
156-60-5	trans-1,2-Dichloroethene	88	88	0
10061-02-6	trans-1,3-Dichloropropene	104	103	0.97
79-01-6	Trichloroethene	103	102	0.98
108-05-4	Vinyl Acetate	84	85	1.2
75-01-4	Vinyl Chloride	93	87	6.7

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab File ID: p082103.d & p082104.d

Lab Sample ID: 29B & 29BB

CAS Number	Compound	Original	Duplicate	Result Less Than	
		Amount	Amount	RPD	5X RL
71-55-6	1,1,1-Trichloroethane	102	102	0	
79-34-5	1,1,2,2-Tetrachloroethane	103	102	0.98	
79-00-5	1,1,2-Trichloroethane	105	104	0.96	
75-34-3	1,1-Dichloroethane	95	94	1.1	
75-35-4	1,1-Dichloroethene	88	88	0	
120-82-1	1,2,4-Trichlorobenzene	118	130	9.7	
95-63-6	1,2,4-Trimethylbenzene	108	107	0.93	
106-93-4	1,2-Dibromoethane (EDB)	108	106	1.9	
95-50-1	1,2-Dichlorobenzene	112	112	0	
107-06-2	1,2-Dichloroethane	122	118	3.3	
78-87-5	1,2-Dichloropropane	99	98	1.0	
108-67-8	1,3,5-Trimethylbenzene	107	106	0.94	
106-99-0	1,3-Butadiene	110	114	3.6	
541-73-1	1,3-Dichlorobenzene	113	113	0	
106-46-7	1,4-Dichlorobenzene	114	113	0.88	
123-91-1	1,4-Dioxane	92	93	1.1	
540-84-1	2,2,4-Trimethylpentane	98	99	1.0	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	82	81	1.2	
591-78-6	2-Hexanone	110	109	0.91	
67-63-0	2-Propanol	110	109	0.91	
107-05-1	3-Chloropropene	80	82	2.5	
622-96-8	4-Ethyltoluene	108	106	1.9	
108-10-1	4-Methyl-2-pentanone	103	104	0.97	
67-64-1	Acetone	96	95	1.0	
100-44-7	alpha-Chlorotoluene	107	108	0.93	
71-43-2	Benzene	95	93	2.1	
75-27-4	Bromodichloromethane	110	110	0	
75-25-2	Bromoform	116	114	1.7	
74-83-9	Bromomethane	82	80	2.5	
75-15-0	Carbon Disulfide	82	82	0	
56-23-5	Carbon Tetrachloride	114	113	0.88	
108-90-7	Chlorobenzene	102	102	0	
75-00-3	Chloroethane	83	84	1.2	
67-66-3	Chloroform	97	98	1.0	
74-87-3	Chloromethane	121	118	2.5	
156-59-2	cis-1,2-Dichloroethene	91	91	0	

10061-01-5	cis-1,3-Dichloropropene	98	97	1.0
98-82-8	Cumene	100	99	1.0
110-82-7	Cyclohexane	84	85	1.2
124-48-1	Dibromochloromethane	115	113	1.8
64-17-5	Ethanol	91	87	4.5
100-41-4	Ethyl Benzene	101	100	1.00
75-69-4	Freon 11	107	108	0.93
76-13-1	Freon 113	95	95	0
76-14-2	Freon 114	99	100	1.0
75-71-8	Freon 12	106	105	0.95
142-82-5	Heptane	90	89	1.1
87-68-3	Hexachlorobutadiene	126	137	8.4
110-54-3	Hexane	95	94	1.1
108-38-3	m,p-Xylene	101	100	1.00
1634-04-4	Methyl tert-butyl ether	85	85	0
75-09-2	Methylene Chloride	115	113	1.8
91-20-3	Naphthalene	103	116	12
95-47-6	o-Xylene	99	98	1.0
103-65-1	Propylbenzene	106	105	0.95
115-07-1	Propylene	106	105	0.95
100-42-5	Styrene	98	97	1.0
127-18-4	Tetrachloroethene	110	107	2.8
109-99-9	Tetrahydrofuran	110	111	0.90
108-88-3	Toluene	96	96	0
156-60-5	trans-1,2-Dichloroethene	88	89	1.1
10061-02-6	trans-1,3-Dichloropropene	105	104	0.96
79-01-6	Trichloroethene	104	103	0.97
108-05-4	Vinyl Acetate	84	84	0
75-01-4	Vinyl Chloride	91	87	4.5

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Calibration File Names:

- Level 2: /chem/msdp.i/19MAY21.b/p051914.d
- Level 3: /chem/msdp.i/19MAY21.b/p051915.d
- Level 4: /chem/msdp.i/19MAY21.b/p051916.d
- Level 5: /chem/msdp.i/19MAY21.b/p051917.d
- Level 6: /chem/msdp.i/19MAY21.b/p051918.d
- Level 7: /chem/msdp.i/19MAY21.b/p051919.d
- Level 8: /chem/msdp.i/19MAY21.b/p051920.d
- Level 9: /chem/msdp.i/19MAY21.b/p051921.d
- Level 10: /chem/msdp.i/19MAY21.b/p051924.d

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	0.64347	0.55833	0.28699	0.48663	0.54132	0.48307	26.850
4 Freon 134a	+++++	0.77011	0.84089	0.78129	0.71828	0.77669	0.79126	5.405
5 Propylene	+++++	+++++	1.30044	1.16437	0.97808	1.08818	1.14402	9.390



## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
6 Propane	0.35885	0.70755	0.41224	0.45766	0.35651	0.39030		
	0.42780	0.42956	++++				0.44256	25.464
7 1,1-Difluoroethane	++++	++++	0.71318	0.51293	0.51356	0.55570		
	0.58422	0.52044	++++				0.56667	13.609
8 Freon 12	++++	1.89452	2.25684	2.41287	1.98305	2.23908		
	2.37709	2.51953	2.25486				2.24223	9.426
9 Chlorodifluoromethane	++++	0.19040	0.21703	0.22854	0.20953	0.22781		
	0.23846	0.23864	++++				0.22149	7.823
10 Freon 114	++++	2.19697	2.35022	2.42550	1.98865	2.15848		
	2.32315	2.38505	1.78003				2.20100	10.095
11 Freon 14	++++	++++	++++	++++	++++	++++		
	++++	++++	++++				++++	++++
12 Isobutane	++++	++++	2.94068	2.70679	2.13532	2.31544		
	2.47976	2.61851	++++				2.53275	11.334
13 Freon 142b	2.88379	2.72504	2.51717	2.51995	1.92155	2.20295		
	2.38394	2.38895	++++				2.44292	12.194
14 Acetaldehyde	++++	++++	++++	++++	++++	++++		
	++++	++++	++++				++++	++++

## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
15 Chloromethane	+++++	+++++	1.62633	1.12803	1.35456	1.40983		
	1.30365	0.98253	+++++				1.30082	17.255
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 Butane	+++++	+++++	0.36632	0.35071	0.20777	0.23711		
	0.29558	0.35050	+++++				0.30133	22.008
19 Vinyl Chloride	+++++	1.63750	1.79369	1.70399	1.29644	1.43002		
	1.50248	1.58819	1.56702				1.56492	10.007
20 1,3-Butadiene	+++++	1.15962	1.11125	1.12135	1.33604	1.33164		
	1.39178	1.46398	1.15352				1.25865	10.936
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

## US32TAR1

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 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
24 Bromomethane	+++++	+++++	1.20010	1.20656	0.84526	0.89756		
	0.93585	0.95210	+++++				1.00624	15.607
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	0.55246	0.65854	0.47089	0.52675		
	0.57230	0.59544	+++++				0.56273	11.288
31 Isopentane	+++++	+++++	1.67935	1.76478	1.70699	1.64818		
	1.70298	1.77148	+++++				1.71230	2.809
32 Vinyl Bromide	+++++	0.89521	1.00012	0.99635	0.80298	0.86636		
	0.95282	0.99672	+++++				0.93008	8.292

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 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
33 Freon 11	+++++	2.37298	2.30540	2.51055	2.23314	2.30111		
	2.43347	2.54911	2.35618				2.38274	4.554
34 Dichlorofluoromethane	+++++	2.10328	2.06570	2.13311	1.73001	1.97932		
	2.12384	2.24043	+++++				2.05367	7.927
35 Pentane	+++++	2.89800	2.83104	2.84872	2.63186	2.68332		
	2.75389	2.83565	+++++				2.78321	3.479
36 1-Pentene	2.06121	1.59213	1.56421	1.63474	1.37543	1.48214		
	1.53709	1.54332	+++++				1.59878	12.659
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
38 Ethyl Ether	+++++	0.41543	0.47730	0.50593	0.42858	0.46228		
	0.48772	0.50964	+++++				0.46955	7.767
39 Ethanol	+++++	+++++	0.27474	0.25602	0.21630	0.23850		
	0.24473	0.25725	+++++				0.24792	8.009
40 Freon 123a	1.67643	1.70260	1.56653	1.71267	1.35347	1.42708		
	1.48357	1.59067	+++++				1.56413	8.516
41 Freon 123	2.23549	2.28998	2.32261	2.22470	2.10291	2.12379		
	2.22936	2.25042	+++++				2.22241	3.385

US32TAR1

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
42 Acrolein	+++++	+++++	0.43742	0.46343	0.37582	0.40776		
	0.43668	0.46010	+++++				0.43020	7.747
43 Freon 113	+++++	1.66116	1.75764	1.84846	1.81076	1.72301		
	1.78692	1.85367	1.72082				1.77031	3.803
44 1,1-Dichloroethene	+++++	1.13047	0.98158	1.08462	0.90481	0.98246		
	1.04403	1.08444	1.24812				1.05757	9.982
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
47 Acetone	+++++	+++++	0.71912	0.66713	0.55646	0.62462		
	0.66710	0.69799	+++++				0.65540	8.867
48 Carbon Disulfide	+++++	+++++	2.82595	2.99407	2.45111	2.66619		
	2.81912	2.96077	+++++				2.78620	7.233
49 Iodomethane	+++++	+++++	1.13057	1.12578	1.89275	2.20331		
	2.35282	2.40768	+++++				1.85215	31.782 <-
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	2.69785	2.66069	2.37669	2.59218	2.64148	5.564
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	0.46426	0.51422	0.48997	0.39775	0.44877	0.46546	7.851
55 Cyclopentene	2.17715	2.47822	2.46632	2.56699	2.14041	2.34707	2.39124	6.514
56 Methyl Acetate	2.75833	2.64156	2.95164	2.98908	2.39164	2.73802	2.79640	7.421
57 Acetonitrile	+++++	+++++	1.17773	1.29138	1.02662	1.19401	1.23114	10.326
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	1.66058	1.84335	1.45839	1.64567	1.70236	8.667

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
61 1,2-Dichloro-1-fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	3.20065	3.30496	2.90583	2.89744		
	3.04086	3.13252	+++++				3.08038	5.297
63 Methyl tert-butyl ether	+++++	3.20233	3.03539	3.11282	3.04059	2.95544		
	3.02504	3.11966	+++++				3.07018	2.627
64 trans-1,2-Dichloroethene	+++++	0.70368	0.71795	0.72086	0.61472	0.66913		
	0.70892	0.74337	0.77451				0.70664	6.798
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
66 Acrylonitrile	+++++	1.08486	1.02749	1.03009	0.83743	0.92318		
	0.97672	1.03119	0.95852				0.98368	7.902
67 Hexane	+++++	2.36995	2.44383	2.55815	2.23183	2.38896		
	2.51048	2.60764	2.59146				2.46279	5.242
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
71 1,1-Dichloroethane	+++++	2.12050	2.15298	2.31268	1.88443	2.09213		
	2.23176	2.32442	1.81878				2.11721	8.735
72 Isopropyl ether	+++++	+++++	5.59896	5.72998	5.66571	5.66877		
	5.76012	5.94316	+++++				5.72778	2.086
73 Vinyl Acetate	+++++	+++++	0.27670	0.27644	0.22773	0.26524		
	0.28486	0.30161	+++++				0.27210	9.135
74 Chloroprene	2.14359	2.03061	2.29463	2.44863	1.90092	2.21243		
	2.40069	2.43763	+++++				2.23364	8.953
75 1-Propanol	0.34779	0.37288	0.37461	0.33474	0.25627	0.30465		
	0.32597	0.32511	+++++				0.33025	11.608
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++



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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	4.83620	5.05574	4.88798	4.89187		
	4.97055	5.10638	+++++				4.95812	2.131
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
84 2,2-Dichloropropane	+++++	1.77964	1.81997	1.87272	1.91022	1.85607		
	1.92796	1.99401	+++++				1.88008	3.793
85 cis-1,2-Dichloroethene	+++++	0.63006	0.72053	0.77116	0.61241	0.72577		
	0.77548	0.80235	0.82883				0.73332	10.638
86 2-Butanone	+++++	+++++	0.58624	0.61354	0.46455	0.53642		
	0.58432	0.60531	+++++				0.56506	9.921

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
87 Ethyl Acetate	+++++	+++++	0.57084	0.59355	0.47870	0.54564		
	0.57818	0.60540	+++++				0.56205	8.124
88 Methyl Acrylate	3.17133	2.76269	2.95610	3.12287	2.41468	2.81782		
	3.08995	3.13777	+++++				2.93415	8.839
89 Tetrahydrofuran	+++++	1.93446	1.95308	2.03673	1.59091	1.83806		
	1.94537	2.03649	1.69916				1.87928	8.525
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
92 Chloroform	+++++	2.04196	2.15806	2.35426	1.86695	2.17101		
	2.31664	2.42886	2.06383				2.17519	8.546
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
94 Cyclohexane	+++++	1.43367	1.50722	1.58410	1.57245	1.53317		
	1.54570	1.61103	1.79345				1.57260	6.636
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
96 1,1,1-Trichloroethane	+++++	2.46156	2.42553	2.48444	2.36393	2.36921		
	2.42958	2.51331	2.61099				2.45732	3.291

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
97 Carbon Tetrachloride	+++++	2.25147	2.24440	2.22561	2.35635	2.31498		
	2.45306	2.54156	2.05010				2.30469	6.528
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	0.17378	0.17794	0.17658	0.15112	0.16544		
	0.17360	0.17276	+++++				0.17017	5.462
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	8.25963	8.27890	8.75173	8.57253	8.58971		
	8.69563	8.91957	8.41247				8.56002	2.709
102 Benzene	+++++	0.78550	0.87685	0.84553	0.74484	0.82677		
	0.84553	0.84637	0.82851				0.82499	5.017
103 Isobutanol	0.54457	0.28827	0.32257	0.35375	0.28589	0.33052		
	0.36043	0.34600	+++++				0.35400	23.128
105 tert-Amyl methyl ether	+++++	+++++	0.24796	0.22661	0.23645	0.23382		
	0.22848	0.22244	+++++				0.23262	3.884
106 1,2-Dichloroethane	+++++	0.41345	0.44525	0.47019	0.38312	0.44057		
	0.45058	0.44750	0.38354				0.42928	7.531

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
107 Heptane	+++++	0.30034	0.32485	0.33244	0.32365	0.33156		
	0.32821	0.32372	0.34983				0.32683	4.186
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	0.28572	0.30596	0.28104	0.30551		
	0.31292	0.30849	+++++				0.29994	4.393
111 Trichloroethene	+++++	0.38664	0.41237	0.41315	0.35498	0.40036		
	0.41626	0.41270	0.40610				0.40032	5.166
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	0.05846	0.06007	0.06293	0.05929	0.05058	0.05740		
	0.05605	0.05682	+++++				0.05770	6.225
114 1,2-Dichloropropane	+++++	0.43979	0.42737	0.42567	0.39065	0.41185		
	0.42060	0.42118	0.44647				0.42295	4.035
115 2-Pentanone	1.21904	1.27106	1.31222	1.33128	1.17591	1.27524		
	1.28236	1.28701	+++++				1.26926	3.934
116 Methyl Methacrylate	+++++	0.35343	0.34137	0.34552	0.32431	0.34108		
	0.34921	0.34961	+++++				0.34351	2.790

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
117 1,4-Dioxane	+++++	0.22595	0.23899	0.23631	0.21158	0.22036		
	0.22028	0.21996	+++++				0.22478	4.349
118 Dibromomethane	+++++	0.34506	0.39714	0.39205	0.34241	0.37852		
	0.39319	0.38886	0.33065				0.37098	7.285
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++					
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++					
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++					
122 Bromodichloromethane	+++++	0.58233	0.63649	0.64840	0.58270	0.62912		
	0.65408	0.65615	0.57631				0.62070	5.563
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++					
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++					
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++					

## US32TAR1

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 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
126 cis-1,3-Dichloropropene	+++++	0.50516	0.52561	0.54285	0.48751	0.51912		
	0.54679	0.54891	0.51913				0.52438	4.097
127 Methylcyclohexane	+++++	0.61465	0.55349	0.55932	0.59377	0.58677		
	0.57314	0.56161	0.59163				0.57930	3.623
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	0.44567	0.41535	0.42739	0.42024	0.41445		
	0.41323	0.40846	0.49125				0.42950	6.406
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	0.49928	0.45400	0.47320	0.49988	0.47864		
	0.47697	0.47146	0.52912				0.48532	4.775

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 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
137 Toluene	+++++	1.17435	1.15077	1.15598	1.08690	1.13273		
	1.13471	1.13158	1.13864				1.13821	2.227
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloropropene	+++++	0.47393	0.50610	0.49304	0.46856	0.50673		
	0.51882	0.51939	0.44922				0.49197	5.206
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	0.39429	0.40170	0.39839	0.38144	0.40439		
	0.41066	0.41457	0.44769				0.40664	4.784
142 Tetrachloroethene	+++++	0.60799	0.58444	0.57342	0.55590	0.57612		
	0.57841	0.58067	0.50122				0.56977	5.476
143 2-Hexanone	+++++	+++++	0.57709	0.59101	0.58032	0.57999		
	0.57982	0.57760	+++++				0.58097	0.877
144 1,3-Dichloropropane	+++++	0.50031	0.56980	0.56359	0.52057	0.55649		
	0.56248	0.55833	0.49258				0.54052	5.748
145 Butyl Acetate	0.62964	0.65442	0.64029	0.63612	0.60754	0.62559		
	0.62661	0.61750	+++++				0.62971	2.270

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
146 Dibromochloromethane	+++++	0.78306	0.76265	0.73963	0.72881	0.77388		
	0.79214	0.79892	0.69915				0.75978	4.551
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	0.66728	0.66954	0.65728	0.60433	0.66080		
	0.67392	0.67207	0.61234				0.65220	4.249
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	0.78697	0.80160	0.70538	0.77001		
	0.79910	0.79313	+++++				0.77603	4.691
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Chlorobenzene	+++++	0.98039	1.00297	1.00615	0.95318	0.98786		
	1.00429	1.00931	0.99753				0.99271	1.887
155 Ethyl Benzene	+++++	0.54541	0.51726	0.50090	0.51483	0.52055		
	0.51499	0.51317	0.52561				0.51909	2.460



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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
156 Nonane	+++++	1.38941	1.32633	1.28604	1.42437	1.31837		
	1.30797	1.29642	+++++				1.33556	3.856
157 1,1,1,2-Tetrachloroethane	0.61281	0.53381	0.51050	0.53112	0.56741	0.57195		
	0.55638	0.56243	+++++				0.55580	5.622
158 m,p-Xylene	+++++	0.67481	0.63902	0.63767	0.64445	0.64388		
	0.63345	0.63344	0.69432				0.65013	3.424
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
160 bis(chloromethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
163 2-Chloroethyl Vinyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
164 o-Xylene	+++++	0.62320	0.64348	0.61211	0.64029	0.61923		
	0.61359	0.61455	0.61674				0.62290	1.967

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
165 Styrene	+++++	1.11525	1.07016	1.03759	1.05319	1.04745		
	1.04414	1.04408	1.11034				1.06528	2.899
166 2-Heptanone	3.67167	3.65906	3.63687	3.79847	3.47203	3.63504		
	3.74717	3.74578	+++++				3.67076	2.721
167 Bromoform	+++++	0.73776	0.73139	0.72964	0.73975	0.76576		
	0.77834	0.78519	0.72346				0.74891	3.192
168 Cumene	+++++	2.00688	1.92184	1.93874	2.01036	1.95640		
	1.93477	1.91851	1.96634				1.95673	1.829
169 Cyclohexanone	+++++	0.76224	0.72554	0.66914	0.71016	0.68589		
	0.67623	0.66926	+++++				0.69978	4.981
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
172 D-Limonene	0.41095	0.35482	0.36589	0.34451	0.78397	0.78575		
	0.74309	0.72747	+++++				0.56456	37.333 <-
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
174 1-Chloro-2-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
175 1,1,2,2-Tetrachloroethane	+++++	0.98352	0.94583	0.93628	0.96719	0.95406		
	0.94385	0.94078	0.96890				0.95505	1.733
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	0.57508	0.60639	0.58293	0.59010	0.60294		
	0.60418	0.60421	+++++				0.59512	2.090
178 Propylbenzene	+++++	0.60804	0.57139	0.56757	0.59410	0.57645		
	0.57084	0.56325	0.58989				0.58019	2.677
179 1,2,3-Trichloropropane	+++++	0.31533	0.32131	0.28626	0.30096	0.29557		
	0.29066	0.28564	0.33945				0.30440	6.324
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-butene	+++++	0.19277	0.21017	0.19835	0.19195	0.20110		
	0.20192	0.20059	+++++				0.19955	3.082
182 Decane	+++++	1.79609	1.57143	1.44505	1.61070	1.49654		
	1.37373	1.36070	+++++				1.52203	10.036
183 4-Ethyltoluene	+++++	0.65033	0.64054	0.60196	0.63791	0.61418		
	0.60505	0.58832	0.70940				0.63096	6.073

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
184 2-Chlorotoluene	+++++	0.49984	0.49658	0.48311	0.50814	0.48663		
	0.47710	0.47426	0.52646				0.49401	3.541
185 1,3,5-Trimethylbenzene	+++++	0.88840	0.83919	0.85191	0.89900	0.86876		
	0.85974	0.86328	0.87938				0.86871	2.254
186 4-Chlorotoluene	0.50588	0.49708	0.52780	0.52855	0.50077	0.52139		
	0.50962	0.50476	+++++				0.51198	2.399
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
188 alpha Methyl Styrene	+++++	0.86535	0.87923	0.83462	0.89343	0.87794		
	0.86963	0.86867	0.81509				0.86300	2.969
189 tert-Butylbenzene	+++++	1.62733	1.62633	1.57945	1.65095	1.62250		
	1.63890	1.62816	+++++				1.62480	1.368
190 1,2,4-Trimethylbenzene	+++++	1.70877	1.62174	1.59089	1.69054	1.63659		
	1.62056	1.60514	1.64323				1.63968	2.487
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
192 sec-Butylbenzene	+++++	0.49560	0.50610	0.49423	0.52391	0.50675		
	0.50351	0.50154	0.50833				0.50500	1.821

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
193 bis(2-Chloroethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	2.30462	2.16921	2.12863	2.30933	2.22972		
	2.20755	2.18683	2.32036				2.23203	3.228
195 1,3-Dichlorobenzene	+++++	1.15658	1.15643	1.11720	1.11291	1.12849		
	1.10749	1.10683	1.09255				1.12231	2.086
196 1,4-Dichlorobenzene	+++++	1.16982	1.13485	1.12938	1.10992	1.14109		
	1.13566	1.13005	1.12236				1.13414	1.523
197 1,2,3-Trimethylbenzene	0.74930	0.74831	0.73294	0.73383	0.76340	0.76689		
	0.73531	0.73354	+++++				0.74544	1.857
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	1.51181	1.54888	1.53627	1.57168	1.58619		
	1.58130	1.57052	1.55269				1.55742	1.609
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	1.88866	1.82307	1.77843	1.79835	1.77435		
	1.69116	1.55266	+++++				1.75810	6.155

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
202 Butylbenzene	+++++	0.58573	0.58249	0.55423	0.58167	0.56357		
	0.53997	0.53683	0.59066				0.56690	3.760
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	1.10407	1.12539	1.09831	1.11450	1.09041		
	1.07307	1.07027	1.12778				1.10047	1.987
205 Hexachloroethane	0.25905	0.24933	0.20237	0.17807	0.37549	0.37170		
	0.35119	0.35730	+++++				0.29306	27.359
206 1,2-Dibromo-3-chloropropane	+++++	+++++	0.65994	0.64226	0.67551	0.68086		
	0.67149	0.66910	+++++				0.66653	2.068
207 Dodecane	+++++	1.08884	1.29307	1.39322	1.32012	1.47555		
	1.50880	1.50906	1.55944				1.39351	11.157
208 1,3,5-Trichlorobenzene	1.03535	1.05171	1.06253	1.06764	0.99487	1.06875		
	1.05551	1.04770	+++++				1.04801	2.304
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	0.88866	0.92999	0.95994	0.95225	1.08022	1.15606		
	1.13931	1.16647	+++++				1.03411	10.952

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	0.73365	0.82349	0.83826	0.78299	0.83257		
	0.83665	0.84391	+++++				0.81307	4.981
214 beta-Pinene	0.45942	0.49034	0.48541	0.49081	0.86434	0.92317		
	0.87191	0.83101	+++++				0.67705	31.130 <-
215 Hexachlorobutadiene	+++++	0.49305	0.57072	0.57784	0.56417	0.59160		
	0.59973	0.60841	+++++				0.57222	6.696
216 Naphthalene	+++++	2.17464	2.22406	2.02701	1.91757	2.04984		
	2.05935	2.09326	+++++				2.07796	4.828
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	0.63662	0.72700	0.71965	0.68156	0.74340	0.71877	6.351
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 234 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000 Level 2	0.80000 Level 3	2.000 Level 4	5.000 Level 5	20.000 Level 6	50.000 Level 7	RRF	% RSD
	100.000 Level 8	200.000 Level 9	0.50000 Level 10					
238 Total Volatile Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference MineralSpirits	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stoddard	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
247 TVOC reference to Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref C5 + C6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref Dodecan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,2,3-TMB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,4,5-TMB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	+++++	1.29421	1.33794	1.42747	1.32413	1.34572		
	1.44423	1.55619	1.30758				1.37968	6.488
\$ 133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 134 Toluene-d8	+++++	1.07349	1.09274	1.09966	1.07597	1.08471		
	1.09026	1.08938	1.07858				1.08560	0.834
\$ 170 4-Bromofluorobenzene	+++++	0.64219	0.64090	0.63876	0.63357	0.63698		
	0.64598	0.65756	0.63983				0.64197	1.133

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
End Cal Date : 20-MAY-2021 00:05  
Quant Method : ISTD  
Origin : Disabled  
Target Version : 3.60  
Integrator : HP RTE  
Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Cal Date : 20-May-2021 11:07 lk8g  
Curve Type : Average

Average %RSD Results.	
=====	
Calculated Average %RSD =	7.06874
Maximun Average %RSD =	30.00000
* Passed Average %RSD Test.	

Report Date: 20-May-2021 11:06

### Calibration History

Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Start Cal Date: 19-MAY-2021 14:02  
End Cal Date : 20-MAY-2021 00:05

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 0.40000		
19-MAY-2021 19:17	AT20spICAL	/chem/msdp.i/19MAY21.b/p051914.d
Cal Level: 3 , Cal Amount: 0.80000		
19-MAY-2021 19:45	AT20spICAL	/chem/msdp.i/19MAY21.b/p051915.d
19-MAY-2021 14:02	AT20_Level13	/chem/msdp.i/19MAY21.b/p051904.d
Cal Level: 4 , Cal Amount: 2.00000		
19-MAY-2021 20:13	AT20spICAL	/chem/msdp.i/19MAY21.b/p051916.d
19-MAY-2021 14:30	AT20ICAL	/chem/msdp.i/19MAY21.b/p051905.d
Cal Level: 5 , Cal Amount: 5.00000		
19-MAY-2021 20:43	AT20spICAL	/chem/msdp.i/19MAY21.b/p051917.d
19-MAY-2021 15:00	AT20ICAL	/chem/msdp.i/19MAY21.b/p051906.d
Cal Level: 6 , Cal Amount: 20.00000		
19-MAY-2021 21:10	AT20spICAL	/chem/msdp.i/19MAY21.b/p051918.d
19-MAY-2021 15:27	AT20ICAL	/chem/msdp.i/19MAY21.b/p051907.d
Cal Level: 7 , Cal Amount: 50.00000		
19-MAY-2021 21:38	AT20spICAL	/chem/msdp.i/19MAY21.b/p051919.d
19-MAY-2021 15:55	AT20ICAL	/chem/msdp.i/19MAY21.b/p051908.d
Cal Level: 8 , Cal Amount: 100.00000		
19-MAY-2021 22:07	AT20spICAL	/chem/msdp.i/19MAY21.b/p051920.d
19-MAY-2021 16:24	AT20ICAL	/chem/msdp.i/19MAY21.b/p051909.d

```

+-----+-----+-----+
| Cal Level: 9 , Cal Amount: 200.00000 |
+-----+-----+-----+
| 19-MAY-2021 22:39 | AT20spICAL | /chem/msdp.i/19MAY21.b/p051921.d |
| 19-MAY-2021 16:53 | AT20ICAL | /chem/msdp.i/19MAY21.b/p051910.d |
+-----+-----+-----+

```

```

+-----+-----+-----+
| Cal Level: 10, Cal Amount: 0.50000 |
+-----+-----+-----+
| 20-MAY-2021 00:05 | AT20_Level2 | /chem/msdp.i/19MAY21.b/p051924.d |
+-----+-----+-----+

```

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 7

```

+-----+-----+-----+
| Ccal Level: 7 , Ccal Amount: 50.000 |
+-----+-----+-----+
| 19-MAY-2021 15:55 | AT20ICAL | /chem/msdp.i/19MAY21.b/p051908.d |
+-----+-----+-----+
| Ccal Level: 7 , Ccal Amount: 50.000 |
+-----+-----+-----+
| 19-MAY-2021 21:38 | AT20spICAL | /chem/msdp.i/19MAY21.b/p051919.d |
+-----+-----+-----+

```



## Initial Calibration Narrative (Extended)

### P21Q0519a.m

A multi-point TO-15 initial calibration was analyzed on MSD-P on 05/19/21 and 05/20/21.

**ICAL:** 3 out. Iodomethane @ 32%, D-Limonene @ 37%, and beta-Pinene @ 31%  
Naph RSD @ 4.8%

**ICV:** 3 out; Trans-1, 4-dichloro-2-butene @ 146%, Dodecane @ 153%, and 1,2,3-Trichlorobenzene @ 133%  
File: P051925. Naph recovery: 117%

**DODQSM:** 3 out; Trans-1, 4-dichloro-2-butene @ 146%, Dodecane @ 153%, and 1,2,3-Trichlorobenzene @ 133% File: P051925a

**DOD4.2:** 0 (zero) out; File: P051925c

**RCP:** 0 (zero) RCP compounds out. 5 **Non-RCP** compounds outside 80-120%. File P051925d

**DODsp: (PID 23339):** 2 out; Trans-1, 4-dichloro-2-butene @ 146%, Dodecane @ 153% and 1,2,3-Trichlorobenzene @ 133 File: P051925e

The concentrations for Ethanol, Acrolein, 1,2,4-Trichlorobenzene, Naphthalene, 1,2,3-Trichlorobenzene, and Hexachlorobutadiene were adjusted in the ICV due to the certified concentration exceeding more than 15% of the nominal concentration.

An 8-point ICAL for AT20 supplemental compounds was analyzed on MSDP on 05/19/21-05/20/21.

An ICV was analyzed for the following AT20 supplemental compounds: 1,1,1,2-Tetrachloroethane.

**ICV:** 0 out; File: P051925

**RCP Compounds:** 0 RCP compounds out. File P051925d

**ICAL Levels 1 and 2 were not included due to poor peak quality.**

**\*\*\*Bottom of the curve is 0.5ppbv; no TA RLs.\*\*\***

**The RL for Isobutane was raised from 0.8ppbv to 2.0ppbv.**

The concentrations for Dodecane, 1,2,4-TCB, Hexachlorobutadiene, 1,2,3-TCB, and Naphthalene were adjusted in the calibration due to the certified concentration exceeding more than 15% of the nominal concentration.

-Dodecane was curved at 0.618ppbv → 247ppbv.

-1,2,4-TCB was curved at 1.01ppbv → 252ppbv

-Hexachlorobutadiene was curved at 1.03ppbv → 257ppbv

-1,2,3-TCB was curved at 1.06ppbv → 266ppbv

-Naphthalene was curved at 0.10ppbv → 25.4ppbv

BFB tune file:

1. P051901

The TO-15MDL study expires on 10/29/21.

Select specials MDL study expires 10/29/21.

## Initial Calibration Narrative (TO-15) P21Q0519a.m

A multi-point TO-15 initial calibration was analyzed on MSD-P on 05/19/21 and 05/20/21.

**ICAL: 0 out**  
Naph RSD @ 4.8%

**ICV: 0 (zero) out.** File: P051925

Naph recovery: 117%.

**DODQSM: 0 (zero) out.** File: P051925a

**DOD4.2: 0 (zero) out;** P051925c

**RCP: 0 (zero) RCP compounds out. 2 Non-RCP compounds outside 80-120%.** File P051925d

**DODsp: (PID 23339): 2 out;** Trans-1, 4-dichloro-2-butene @ 146%, Dodecane @ 153% and 1,2,3-Trichlorobenzene @ 133 File: P051925e

The concentrations for Ethanol, 1,2,4-Trichlorobenzene, Naphthalene and Hexachlorobutadiene were adjusted in the ICV due to the certified concentration exceeding more than 15% of the nominal concentration.

**ICAL Levels 1 and 2 were not included due to poor peak quality.**

**\*\*\*Bottom of the curve is 0.5ppbv; no TA RLs.\*\*\***

**The RL for Isobutane was raised from 0.8ppbv to 2.0ppbv.**

The concentrations for 1,2,4-TCB, Hexachlorobutadiene and Naphthalene were adjusted in the calibration due to the certified concentration exceeding more than 15% of the nominal concentration.

-1,2,4-TCB was curved at 1.01ppbv → 252ppbv

-Hexachlorobutadiene was curved at 1.03ppbv → 257ppbv

-Naphthalene was curved at 0.10ppbv → 25.4ppbv

BFB tune file:

1. P051901

The TO-15MDL study expires on 10/29/21.

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Please see Calibration History page(s)  
 for all the calibration files.

W 5/20/21  
 GH 5/20/21

Calibration File Names:

- Level 2: /chem/msdp.i/19MAY21.b/p051914.d
- Level 3: /chem/msdp.i/19MAY21.b/p051915.d
- Level 4: /chem/msdp.i/19MAY21.b/p051916.d
- Level 5: /chem/msdp.i/19MAY21.b/p051917.d
- Level 6: /chem/msdp.i/19MAY21.b/p051918.d
- Level 7: /chem/msdp.i/19MAY21.b/p051919.d
- Level 8: /chem/msdp.i/19MAY21.b/p051920.d
- Level 9: /chem/msdp.i/19MAY21.b/p051921.d
- Level 10: /chem/msdp.i/19MAY21.b/p051924.d

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	RRF	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7		
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	0.64347	0.55833	0.28699	0.48663	0.54132	0.48307	26.850
	0.53859	0.32618	+++++					
4 Freon 134a	+++++	0.77011	0.84089	0.78129	0.71828	0.77669	0.79126	5.405
	0.83041	0.82114	+++++					
5 Propylene	+++++	+++++	1.30044	1.16437	0.97808	1.08818	1.14402	9.390
	1.14258	1.19048	+++++					

MSDP

BBB Verification of 126/174 ratio: (142592/146432)*100=97.37%		Method TO-15/TO-14		SOP # 6		Vacuum: NA	
Item	Exp. Date:	Surrogate#	NA	Exp. Date:	Surrogate#	NA	Exp. Date:
BCM	3234-10	158,810		8/17/21			
1,4-DFB	597,103			8/17/21			
CP-45	587,747			8/17/21			
Please check all standards							
Verified CCV w/ ICAL mid-point (40%): LD		CCV SP2# 3018-1928		Exp. Date:	6/1/21	LCS SP2 #	Exp. Date:
Method: p2100519a.m		CCV SP3# 3018-2013		Exp. Date:	4/4/21	LCS SP3 #	Exp. Date:

Item	Exp./Scan Sample Use	Conduct	CVT Pct.	Pressure	Vol.	DF	Verify Used	Transfer Ink	Date Analyzed	Time	Review Ink	Comments	
V	P051901	BBB Tune Check	3234-10	4	36mg	200mL	1.00	LD	LD	5/19/2021	1139	LD	Exp. 8/17/21
X	P051902	ICAL Level 1	3018-2045	1	0.3ppbw (5.0ppbw)	12mL	1.00	LD	LD	5/19/2021	1224	LD	Exp. 8/17/21. Poor peak quality.
X	P051903	ICAL Level 2	3018-2045	1	0.4ppbw (5.0ppbw)	16mL	1.00	LD	LD	5/19/2021	1252	LD	Poor peak quality.
V	P051904	ICAL Level 3	3018-2045	1	0.8ppbw (5.0ppbw)	32mL	1.00	gh	LD	5/19/2021	1402	LD	
V	P051905	ICAL Level 4	3018-2045	1	2.0ppbw (5.0ppbw)	80mL	1.00	gh	LD	5/19/2021	1430	LD	
V	P051906	ICAL Level 5	3018-2045	1	5.0ppbw (5.0ppbw)	200mL	1.00	gh	LD	5/19/2021	1500	LD	
V	P051907	ICAL Level 6	3018-2034	13	20ppbw (200ppbw)	20mL	1.00	gh	LD	5/19/2021	1527	LD	Exp. 8/17/21
V	P051908	ICAL Level 7	3018-2034	13	50ppbw (200ppbw)	50mL	1.00	gh	LD	5/19/2021	1555	LD	
V	P051909	ICAL Level 8	3018-2034	13	100ppbw (200ppbw)	100mL	1.00	gh	LD	5/19/2021	1624	LD	
V	P051910	ICAL Level 9	3018-2034	13	200ppbw (200ppbw)	200mL	1.00	gh	LD	5/19/2021	1653	LD	
V	P051911	System Blank	35157	4	Humid	200mL	1.00	gh	LD	5/19/2021	1723	LD	
V	P051912	System Blank	35157	4	Humid	200mL	1.00	gh	LD	5/19/2021	1809	LD	
X	P051913	ICAL Level 2	3018-2045	1	0.4ppbw (5.0ppbw)	16mL	1.00	gh	LD	5/19/2021	1849	LD	Exp. 8/17/21. Poor peak quality.
V	P051914	ICAL Level 2	3018-1928	2	0.4ppbw (5.0ppbw)	16mL	1.00	gh	LD	5/19/2021	1917	LD	Exp. 6/1/21.
V	P051915	ICAL Level 3	3018-1928	2	0.8ppbw (5.0ppbw)	32mL	1.00	gh	LD	5/19/2021	1945	LD	
V	P051916	ICAL Level 4	3018-1928	2	2.0ppbw (5.0ppbw)	80mL	1.00	gh	LD	5/19/2021	2013	LD	
V	P051917	ICAL Level 5	3018-1928	2	5.0ppbw (5.0ppbw)	200mL	1.00	gh	LD	5/19/2021	2043	LD	
V	P051918	ICAL Level 6	3018-2013	3	20ppbw (200ppbw)	20mL	1.00	gh	LD	5/19/2021	2110	LD	Exp. 8/17/21
V	P051919	ICAL Level 7	3018-2013	3	50ppbw (200ppbw)	50mL	1.00	gh	LD	5/19/2021	2138	LD	
V	P051920	ICAL Level 8	3018-2013	3	100ppbw (200ppbw)	100mL	1.00	gh	LD	5/19/2021	2207	LD	
V	P051921	ICAL Level 9	3018-2013	3	200ppbw (200ppbw)	200mL	1.00	gh	LD	5/19/2021	2239	LD	
V	P051922	System Blank	35157	4	Humid	200mL	1.00	gh	LD	5/19/2021	2308	LD	
V	P051923	System Blank	35157	4	Humid	200mL	1.00	gh	LD	5/19/2021	2338	LD	
V	P051924	ICAL Level 10	3018-2045	1	0.5ppbw (5.0ppbw)	20mL	1.00	LD	LD	5/20/2021	0005	LD	Exp. 8/17/21
V	P051925	ICV	3018-2016	14	50ppbw (200ppbw)	50mL	1.00	LD	LD	5/20/2021	0033	LD	Exp. 8/5/21

MS 5/20/21

## IS and Associated Target Compounds and Surr. Instruction #: I1.20

Modified EPA Methods TO-14A/TO-15  
Internal Standard and Associated Target Compounds and Surrogates

Bromochloromethane*
<b>Target Compounds:</b>
Freon 12
Freon 114
Chloromethane
Vinyl Chloride
1,3-Butadiene
Bromomethane
Chloroethane
Freon 11
Ethanol
Freon 113
1,1-Dichloroethene
Acetone
2-Propanol
Carbon Disulfide
3-Chloropropene
Methylene Chloride
Methyl tert-butyl ether
trans-1,2-Dichloroethene
Hexane
1,1-Dichloroethane
2-Butanone (Methyl Ethyl Ketone)
cis-1,2-Dichloroethene
Tetrahydrofuran
Chloroform
1,1,1-Trichloroethane
Cyclohexane
Carbon Tetrachloride
2,2,4-Trimethylpentane
<b>Surrogates:</b>
1,2-Dichloroethane-d4

1,4-Difluorobenzene
<b>Target Compounds:</b>
Benzene
1,2-Dichloroethane
Heptane
Trichloroethene
1,2-Dichloropropane
1,4-Dioxane
Bromodichloromethane
cis-1,3-Dichloropropene
4-Methyl-2-pentanone
Toluene
<b>Surrogates:</b>
Toluene-d8

Chlorobenzene-d5
<b>Target Compounds:</b>
trans-1,3-Dichloropropene
1,1,2-Trichloroethane
Tetrachloroethene
2-Hexanone
Dibromochloromethane
1,2-Dibromoethane (EDB)
Chlorobenzene
Ethyl Benzene
m,p-Xylene
o-Xylene
Styrene
Bromoform
Cumene
1,1,2,2-Tetrachloroethane
Propylbenzene
4-Ethyltoluene
1,3,5-Trimethylbenzene
1,2,4-Trimethylbenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
alpha-Chlorotoluene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobutadiene
<b>Surrogates:</b>
Bromofluorobenzene

\*Note: If Bromochloromethane (BCM) is required as a target compound, the internal standard mix is blended without BCM. Compounds and surrogates assigned to BCM are re-assigned to 1,4-Difluorobenzene for calibration and subsequent quantitation.

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051914.d  
 Lab Smp Id: ICAL Level 2  
 Inj Date : 19-MAY-2021 19:17  
 Operator : gh Inst ID: msdp.i  
 Smp Info : 16mL 3018-1928  
 Misc Info : 0.4ppbv (5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:17 Cal File: p051914.d  
 Als bottle: 2 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.778	(1.000)	130	163890	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	127715			48.23- 108.23	77.93
5.771	5.778	(1.000)	49	296851			150.57- 210.57	181.13
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.659	(1.000)	114	600935	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	93335			0.00- 45.71	15.53
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	587965	25.0000		80.00- 120.00	100.00
9.453	9.460	(1.000)	82	324501			23.78- 83.78	55.19
-----								
6 Propane CAS #: 74-98-6								
1.675	1.674	(0.290)	43	941	0.40000	0.3085	80.00- 120.00	100.00(a)
1.675	1.674	(0.290)	39	1309			34.98- 94.98	139.11
1.689	1.674	(0.292)	41	861			25.22- 85.22	91.50
-----								
13 Freon 142b CAS #: 75-68-3								
1.884	1.884	(0.326)	65	7562	0.40000	0.4489	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
13 Freon 142b (continued)								
1.898	1.884	(0.329)	45	2247			0.00- 59.77	29.71
-----								
36 1-Pentene						CAS #: 109-67-1		
2.891	2.906	(0.500)	55	5405	0.40000	0.4946	80.00- 120.00	100.00(a)
2.899	2.906	(0.502)	42	6051			105.17- 165.17	111.95
-----								
40 Freon 123a						CAS #: 354-23-4		
3.378	3.385	(0.585)	117	4396	0.40000	0.4147	80.00- 120.00	100.00(a)
3.378	3.378	(0.585)	67	4936			104.69- 164.69	112.28
-----								
41 Freon 123						CAS #: 306-83-2		
3.464	3.479	(0.600)	83	5862	0.40000	0.3993	80.00- 120.00	100.00(a)
3.486	3.479	(0.603)	133	1216			0.00- 50.87	20.74
3.472	3.479	(0.601)	85	3801			36.08- 96.08	64.84
-----								
55 Cyclopentene						CAS #: 142-29-0		
4.073	4.073	(0.705)	67	5709	0.40000	0.3618	80.00- 120.00	100.00(a)
4.066	4.073	(0.704)	68	2522			6.76- 66.76	44.18
4.066	4.073	(0.704)	53	1675			0.00- 57.54	29.34
-----								
56 Methyl Acetate						CAS #: 79-20-9		
4.080	4.073	(0.706)	43	7233	0.40000	0.3918	80.00- 120.00	100.00(a)
4.080	4.073	(0.706)	74	768			0.00- 44.13	10.62
-----								
74 Chloroprene						CAS #: 126-99-8		
5.019	5.019	(0.869)	53	5621	0.40000	0.3852	80.00- 120.00	100.00(a)
5.019	5.019	(0.869)	88	2057			9.21- 69.21	36.59
5.012	5.019	(0.867)	50	1789			0.00- 54.25	31.83
-----								
75 1-Propanol						CAS #: 71-23-8		
5.098	5.083	(0.882)	59	912	0.40000	0.4010	80.00- 120.00	100.00(a)
5.098	5.083	(0.882)	42	931			63.23- 123.23	102.08
5.105	5.083	(0.883)	41	494			24.74- 84.74	54.17
-----								
88 Methyl Acrylate						CAS #: 96-33-3		
5.628	5.620	(0.974)	55	8316	0.40000	0.4277	80.00- 120.00	100.00(a)
5.621	5.620	(0.973)	85	1426			0.00- 41.28	17.15
5.628	5.620	(0.974)	58	1499			0.00- 38.22	18.03
-----								
103 Isobutanol						CAS #: 78-83-1		
6.244	6.244	(1.081)	39	1428	0.40000	0.5920	80.00- 120.00	100.00(a)
6.244	6.244	(1.081)	43	3902			448.18- 508.18	273.25
6.244	6.244	(1.081)	41	2603			299.99- 359.99	182.28
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
6.939	6.938	(0.733)	99	550	0.40000	0.3922	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
113 Ethyl acrylate (continued)								
6.939	6.938	(0.733)	45	1161			149.95- 209.95	211.09
6.939	6.938	(0.733)	55	9624			1849.07-1909.07	1749.82
-----								
115 2-Pentanone								
							CAS #: 107-87-9	
7.032	7.031	(0.743)	43	11468	0.40000	0.3804	80.00- 120.00	100.00(a)
7.039	7.031	(0.744)	58	1303			0.00- 37.44	11.36
7.032	7.031	(0.743)	86	1613			0.00- 42.78	14.07
-----								
145 Butyl Acetate								
							CAS #: 123-86-4	
8.665	8.665	(1.301)	56	6054	0.40000	0.3952	80.00- 120.00	100.00(a)
8.665	8.665	(1.301)	73	2892			0.00- 59.10	47.77
8.665	8.657	(1.301)	43	14727			215.30- 275.30	243.26
-----								
157 1,1,1,2-Tetrachloroethane								
							CAS #: 630-20-6	
9.596	9.596	(1.014)	131	5765	0.40000	0.4440	80.00- 120.00	100.00(a)
9.460	9.460	(1.000)	117	587965			57.42- 117.42	10198.87
9.596	9.596	(1.014)	95	2522			5.70- 65.70	43.75
-----								
166 2-Heptanone								
							CAS #: 110-43-0	
10.362	10.362	(1.793)	58	9628	0.40000	0.3991	80.00- 120.00	100.00(a)
10.362	10.362	(1.793)	43	17002			136.03- 196.03	176.59
-----								
172 D-Limonene								
							CAS #: 5989-27-5	
12.089	12.089	(1.278)	68	3866	0.40000	0.3634	80.00- 120.00	100.00(a)
12.089	12.089	(1.278)	93	2278			39.41- 99.41	58.92
-----								
186 4-Chlorotoluene								
							CAS #: 106-43-4	
11.444	11.444	(1.210)	126	4759	0.40000	0.3920	80.00- 120.00	100.00(a)
11.444	11.444	(1.210)	91	14696			295.02- 355.02	308.80
11.437	11.444	(1.209)	63	2158			11.82- 71.82	45.35
-----								
197 1,2,3-Trimethylbenzene								
							CAS #: 526-73-8	
12.318	12.318	(1.302)	120	7049	0.40000	0.4016	80.00- 120.00	100.00(a)
12.318	12.318	(1.302)	105	15461			192.40- 252.40	219.34
12.318	12.318	(1.302)	77	2242			0.00- 54.69	31.81
-----								
205 Hexachloroethane								
							CAS #: 67-72-1	
12.963	12.970	(1.370)	201	2437	0.40000	0.4110	80.00- 120.00	100.00(a)
12.963	12.970	(1.370)	117	3360			102.99- 162.99	137.87
-----								
208 1,3,5-Trichlorobenzene								
							CAS #: 108-70-3	
13.758	13.758	(1.454)	180	9740	0.40000	0.3917	80.00- 120.00	100.00(a)
13.758	13.758	(1.454)	182	8432			65.24- 125.24	86.57
-----								
210 alpha-Pinene								
							CAS #: 80-56-8	
10.599	10.599	(1.120)	93	8360	0.40000	0.3637	80.00- 120.00	100.00(a)



AMOUNTS									
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO	
				RESPONSE	( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
210 alpha-Pinene (continued)									
10.599	10.599	(1.120)	77	2517			0.00- 58.21	30.11	
-----									
214 beta-Pinene									
						CAS #: 127-91-3			
11.415	11.422	(1.207)	93	4322	0.40000	0.3225	80.00- 120.00	100.00(a)	
11.444	11.444	(1.210)	91	14696			153.57- 213.57	340.03	
-----									

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051914.d  
 Lab Smp Id: ICAL Level 2  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 0.4ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	163890	3.20
108 1,4-Difluorobenze	597103	358262	835944	600935	0.64
153 Chlorobenzene-d5	587747	352648	822846	587965	0.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 19:17

Client ID:

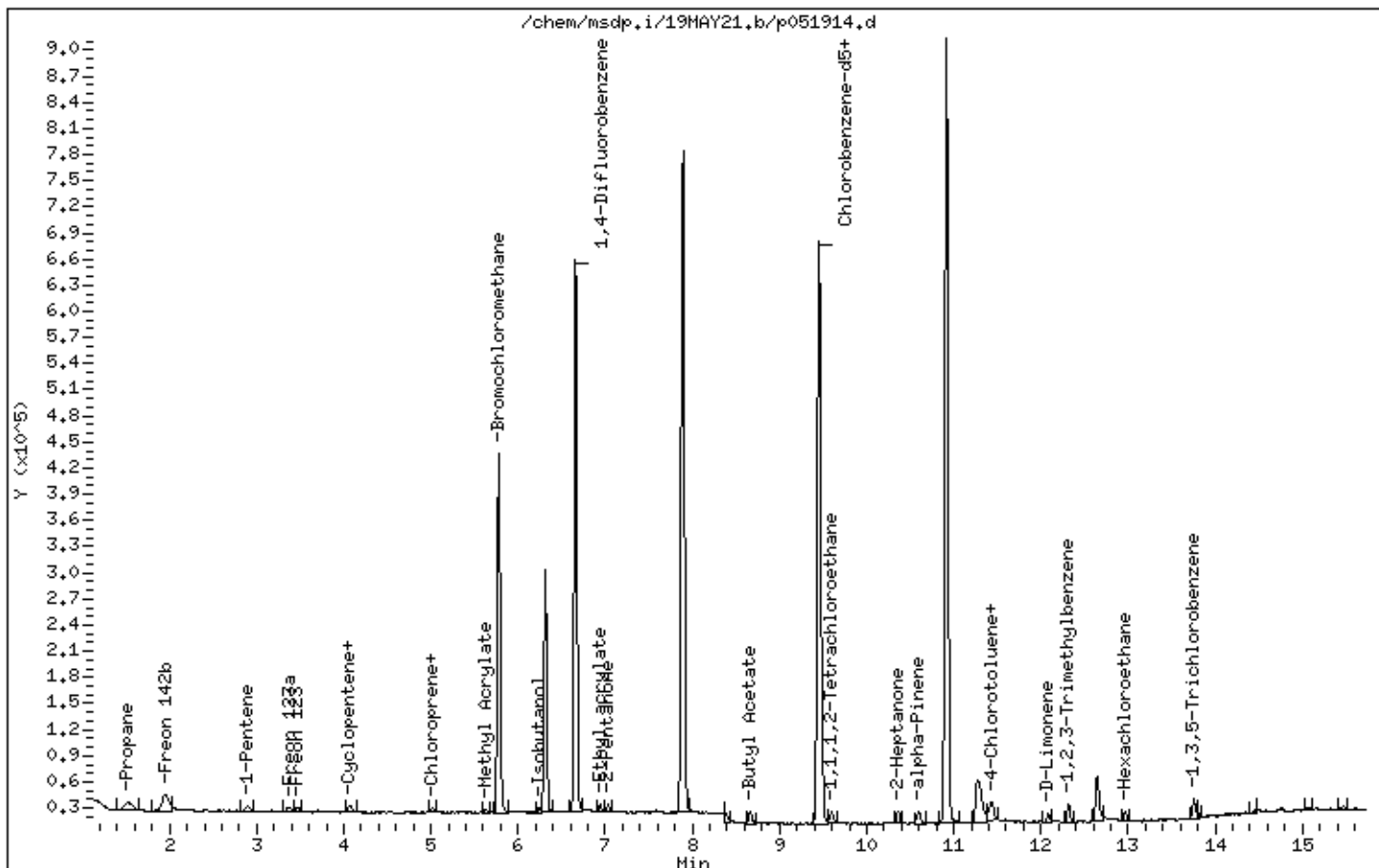
Instrument: msdp.i

Sample Info: 16mL 3018-1928

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051904.d  
 Lab Smp Id: ICAL Level 3  
 Inj Date : 19-MAY-2021 14:02  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 32mL 3018-2045  
 Misc Info : 0.8ppbv (5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 11:07 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 1 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20\_Level3.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a				CAS #: 811-97-2				
1.633	1.633	(0.283)	83	4069 0.80000	0.7786	80.00- 120.00	100.00(a)	
1.633	1.633	(0.283)	69	3525		59.44- 119.44	86.63	
1.744	1.745	(0.302)	51	16724		419.06- 479.06	411.01	
-----								
8 Freon 12				CAS #: 75-71-8				
1.717	1.717	(0.297)	85	10010 0.80000	0.6759	80.00- 120.00	100.00	
1.717	1.717	(0.297)	87	3731		2.37- 62.37	37.27	
-----								
9 Chlorodifluoromethane				CAS #: 75-45-6				
1.744	1.745	(0.302)	67	1006 0.80000	0.6877	80.00- 120.00	100.00	
1.744	1.745	(0.302)	51	16724		1501.01-1561.01	1662.43	
-----								
10 Freon 114				CAS #: 76-14-2				
1.842	1.856	(0.319)	135	11608 0.80000	0.7985	80.00- 120.00	100.00	
1.842	1.856	(0.319)	137	3024		2.30- 62.30	26.05	
-----								
19 Vinyl Chloride				CAS #: 75-01-4				
2.068	2.068	(0.358)	62	8652 0.80000	0.8371	80.00- 120.00	100.00	
2.060	2.068	(0.357)	64	2015		0.00- 59.69	23.29	
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
20 1,3-Butadiene						CAS #: 106-99-0		
2.089	2.089	(0.362)	54	6127	0.80000	0.7370	80.00- 120.00	100.00
2.082	2.089	(0.360)	39	6271			52.37- 112.37	102.35
-----								
32 Vinyl Bromide						CAS #: 593-60-2		
2.834	2.841	(0.490)	106	4730	0.80000	0.7700	80.00- 120.00	100.00
2.834	2.841	(0.490)	108	4577			69.27- 129.27	96.77
-----								
33 Freon 11						CAS #: 75-69-4		
2.884	2.884	(0.499)	101	12538	0.80000	0.7967	80.00- 120.00	100.00
2.884	2.884	(0.499)	103	8055			34.72- 94.72	64.24
-----								
34 Dichlorofluoromethane						CAS #: 75-43-4		
2.891	2.899	(0.500)	67	11113	0.80000	0.8193	80.00- 120.00	100.00(a)
2.891	2.899	(0.500)	69	4116			0.84- 60.84	37.04
-----								
35 Pentane						CAS #: 109-66-0		
2.963	2.970	(0.513)	43	15312	0.80000	0.8330	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	3948			0.00- 44.98	25.78
2.970	2.970	(0.514)	72	1224			0.00- 37.39	7.99
-----								
38 Ethyl Ether						CAS #: 60-29-7		
3.300	3.285	(0.571)	74	2195	0.80000	0.7078	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	5814			163.46- 223.46	264.87
3.278	3.285	(0.567)	45	7546			250.40- 310.40	343.78
-----								
43 Freon 113						CAS #: 76-13-1		
3.550	3.550	(0.614)	151	8777	0.80000	0.7507	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	5991			33.56- 93.56	68.26
3.550	3.550	(0.614)	101	10762			89.21- 149.21	122.62
-----								
44 1,1-Dichloroethene						CAS #: 75-35-4		
3.572	3.579	(0.618)	96	5973	0.80000	0.8551	80.00- 120.00	100.00
3.572	3.579	(0.618)	98	4228			34.02- 94.02	70.79
3.572	3.579	(0.618)	61	10403			168.77- 228.77	174.17
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.037	4.052	(0.699)	76	2453	0.80000	0.7979	80.00- 120.00	100.00
4.045	4.052	(0.700)	41	9150			396.19- 456.19	373.01
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.769)	73	16920	0.80000	0.8344	80.00- 120.00	100.00
4.453	4.446	(0.771)	57	5536			3.10- 63.10	32.72
4.446	4.446	(0.769)	41	6146			1.28- 61.28	36.32
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.474	4.482	(0.774)	98	3718	0.80000	0.7966	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
64 trans-1,2-Dichloroethene (continued)								
4.474	4.482	(0.774)	61	9389			255.84- 315.84	252.53
4.474	4.482	(0.774)	96	5939			127.59- 187.59	159.74
-----								
66 Acrylonitrile CAS #: 107-13-1								
4.553	4.560	(0.788)	52	5732	0.80000	0.8823	80.00- 120.00	100.00
4.553	4.560	(0.788)	53	5440			88.05- 148.05	94.91
-----								
67 Hexane CAS #: 110-54-3								
4.696	4.697	(0.813)	57	12522	0.80000	0.7698	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	8321			37.52- 97.52	66.45
4.696	4.697	(0.813)	86	1347			0.00- 41.48	10.76
-----								
71 1,1-Dichloroethane CAS #: 75-34-3								
4.962	4.962	(0.859)	63	11204	0.80000	0.8012	80.00- 120.00	100.00
4.962	4.962	(0.859)	65	3451			0.00- 59.70	30.80
-----								
84 2,2-Dichloropropane CAS #: 594-20-7								
5.506	5.506	(0.953)	77	9403	0.80000	0.7573	80.00- 120.00	100.00(a)
5.506	5.506	(0.953)	79	3306			2.28- 62.28	35.16
5.506	5.506	(0.953)	97	2804			0.00- 53.93	29.82
-----								
85 cis-1,2-Dichloroethene CAS #: 156-59-2								
5.542	5.549	(0.959)	98	3329	0.80000	0.6873	80.00- 120.00	100.00
5.542	5.549	(0.959)	96	6335			125.75- 185.75	190.30
5.542	5.549	(0.959)	61	13408			332.40- 392.40	402.76
-----								
89 Tetrahydrofuran CAS #: 109-99-9								
5.778	5.771	(1.000)	42	10221	0.80000	0.8235	80.00- 120.00	100.00
5.778	5.771	(1.000)	71	1918			0.00- 55.82	18.77
5.778	5.771	(1.000)	72	2670			0.00- 57.59	26.12
-----								
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.778	(1.000)	130	165114	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	125643			48.23- 108.23	76.09
5.771	5.778	(1.000)	49	294417			150.57- 210.57	178.31
-----								
92 Chloroform CAS #: 67-66-3								
5.835	5.835	(1.010)	83	10789	0.80000	0.7510	80.00- 120.00	100.00
5.835	5.835	(1.010)	85	7171			34.70- 94.70	66.47
-----								
94 Cyclohexane CAS #: 110-82-7								
5.957	5.957	(1.031)	84	7575	0.80000	0.7293	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	14971			142.57- 202.57	197.64
5.957	5.957	(1.031)	41	7502			62.09- 122.09	99.04
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.964	5.972	(1.032)	97	13006	0.80000	0.8014	80.00- 120.00	100.00
5.971	5.972	(1.033)	99	7613			34.02- 94.02	58.53
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.086	6.086	(1.053)	119	11896	0.80000	0.7815	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	10211			70.64- 130.64	85.84
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.115	6.115	(0.918)	110	3371	0.80000	0.8170	80.00- 120.00	100.00(a)
6.115	6.115	(0.918)	75	7643			226.85- 286.85	226.73
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.280	6.280	(1.087)	57	43641	0.80000	0.7719	80.00- 120.00	100.00
6.280	6.280	(1.087)	56	13299			2.24- 62.24	30.47
6.280	6.280	(1.087)	41	11333			0.00- 54.39	25.97
-----								
102 Benzene						CAS #: 71-43-2		
6.294	6.301	(0.945)	78	15237	0.80000	0.7617	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	4544			0.00- 52.90	29.82
-----								
§ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.308	6.308	(1.092)	65	213692	25.0000	23.451	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	105735			27.21- 87.21	49.48
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.958)	62	8020	0.80000	0.7705	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	2408			0.79- 60.79	30.02
-----								
107 Heptane						CAS #: 142-82-5		
6.444	6.444	(0.968)	71	5826	0.80000	0.7352	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	17276			226.53- 286.53	296.53
6.444	6.444	(0.968)	57	8717			100.85- 160.85	149.62
-----								
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	606184	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	94479			0.00- 45.71	15.59
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	7500	0.80000	0.7727	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	8249			76.29- 136.29	109.99
6.867	6.867	(1.031)	97	5319			33.63- 93.63	70.92
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.089	7.089	(1.065)	63	8531	0.80000	0.8318	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	5060			41.07- 101.07	59.31

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
114 1,2-Dichloropropane (continued)								
7.089	7.089	(1.065)	41	4367			22.53- 82.53	51.19
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.132	7.132	(0.754)	69	6670	0.80000	0.8231	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	13396			179.84- 239.84	200.84
7.139	7.139	(0.755)	100	2488			9.59- 69.59	37.30
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.182	7.175	(1.079)	88	4383	0.80000	0.8042	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	4085			68.28- 128.28	93.20
7.182	7.175	(1.079)	57	1304			2.68- 62.68	29.75
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.204	7.204	(0.761)	174	6512	0.80000	0.7441	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	7271			60.09- 120.09	111.66
7.204	7.204	(0.761)	95	5822			48.38- 108.38	89.40
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	11296	0.80000	0.7506	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	7568			35.24- 95.24	67.00
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.691	7.691	(1.155)	75	9799	0.80000	0.7707	80.00- 120.00	100.00
7.691	7.691	(1.155)	77	3081			2.42- 62.42	31.44
7.691	7.691	(1.155)	39	6857			37.16- 97.16	69.98
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	11923	0.80000	0.8488	80.00- 120.00	100.00(a)
6.974	6.974	(1.047)	98	4960			15.78- 75.78	41.60
6.974	6.974	(1.047)	55	14478			84.64- 144.64	121.43
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.798	7.791	(1.171)	58	8645	0.80000	0.8301	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	23117			242.35- 302.35	267.40
7.798	7.791	(1.171)	85	3561			3.24- 63.24	41.19
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.891	7.891	(1.185)	98	650730	25.0000	24.721	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	72936			0.00- 40.44	11.21
7.891	7.891	(1.185)	100	428196			34.95- 94.95	65.80
-----								
137 Toluene						CAS #: 108-88-3		
7.949	7.949	(1.194)	91	22780	0.80000	0.8254	80.00- 120.00	100.00
7.949	7.949	(1.194)	92	12614			28.38- 88.38	55.37
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
136 Octane						CAS #: 111-65-9		
7.941	7.949	(1.193)	57	9685	0.80000	0.8230	80.00- 120.00	100.00
7.941	7.949	(1.193)	85	8103			56.00- 116.00	83.67
7.941	7.949	(1.193)	43	24475			228.66- 288.66	252.71
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.214	8.214	(0.868)	75	8944	0.80000	0.7706	80.00- 120.00	100.00
8.214	8.214	(0.868)	77	3413			1.24- 61.24	38.16
8.214	8.214	(0.868)	39	5828			34.11- 94.11	65.16
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.400	8.400	(0.888)	97	7441	0.80000	0.7757	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	4988			31.96- 91.96	67.03
8.400	8.400	(0.888)	83	6109			52.93- 112.93	82.10
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	11474	0.80000	0.8537	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	9050			47.84- 107.84	78.87
8.464	8.464	(0.895)	131	8617			45.29- 105.29	75.10
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.288)	76	9705	0.80000	0.7405	80.00- 120.00	100.00(a)
8.579	8.579	(1.288)	41	15102			94.99- 154.99	155.61
8.579	8.579	(1.288)	78	4420			2.05- 62.05	45.54
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	14778	0.80000	0.8245	80.00- 120.00	100.00
8.794	8.801	(0.930)	127	11344			47.45- 107.45	76.76
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	12593	0.80000	0.8185	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	11731			64.21- 124.21	93.15
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	589752	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	320479			23.78- 83.78	54.34
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	18502	0.80000	0.7901	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	5822			1.74- 61.74	31.47
9.496	9.496	(1.004)	77	16247			25.04- 85.04	87.81
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	10293	0.80000	0.8406	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	30246			273.74- 333.74	293.85
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
156 Nonane						CAS #: 111-84-2		
9.596	9.596	(1.014)	43	26221	0.80000	0.8322	80.00- 120.00	100.00
9.596	9.603	(1.014)	57	21624			54.16- 114.16	82.47
9.603	9.603	(1.015)	85	6333			0.00- 53.90	24.15
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	12735	0.80000	0.8304	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	24959			163.73- 223.73	195.99
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	11761	0.80000	0.8004	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	25094			177.45- 237.45	213.37
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	21047	0.80000	0.8375	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	10991			17.88- 77.88	52.22
-----								
167 Bromoform						CAS #: 75-25-2		
10.542	10.542	(1.114)	173	13923	0.80000	0.7881	80.00- 120.00	100.00
10.542	10.542	(1.114)	171	7225			21.25- 81.25	51.89
-----								
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	37874	0.80000	0.8205	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	10437			0.00- 58.52	27.56
10.649	10.649	(1.126)	51	4962			0.00- 43.00	13.10
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.871	10.871	(1.149)	55	14385	0.80000	0.8714	80.00- 120.00	100.00(a)
10.878	10.871	(1.150)	98	5447			1.94- 61.94	37.87
10.871	10.871	(1.149)	42	10807			37.89- 97.89	75.13
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	378732	25.0000	25.008	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	481990			95.92- 155.92	127.26
10.921	10.921	(1.154)	176	365332			66.89- 126.89	96.46
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.107	11.100	(1.174)	83	18561	0.80000	0.8238	80.00- 120.00	100.00
11.100	11.100	(1.173)	85	11307			35.20- 95.20	60.92
-----								
177 Bromobenzene						CAS #: 108-86-1		
11.107	11.107	(1.174)	156	10853	0.80000	0.7731	80.00- 120.00	100.00(a)
11.107	11.107	(1.174)	158	10789			67.21- 127.21	99.41
11.179	11.179	(1.182)	77	6933			29.02- 89.02	63.88
-----								
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	11475	0.80000	0.8384	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
178 Propylbenzene (continued)								
11.150	11.150	(1.179)	91	43112			366.49- 426.49	375.70
11.143	11.150	(1.178)	105	2100			0.00- 44.85	18.30
-----								
179 1,2,3-Trichloropropane CAS #: 96-18-4								
11.179	11.179	(1.182)	110	5951	0.80000	0.8287	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	18371			280.55- 340.55	308.70
11.100	11.100	(1.173)	61	3117			15.49- 75.49	52.38
-----								
181 trans-1,4-Dichloro-2-butene CAS #: 110-57-6								
11.179	11.179	(1.182)	53	3638	0.80000	0.7728	80.00- 120.00	100.00(a)
11.179	11.179	(1.182)	89	2918			49.11- 109.11	80.21
11.179	11.179	(1.182)	75	18371			426.44- 486.44	504.98
-----								
182 Decane CAS #: 124-18-5								
11.251	11.251	(1.189)	57	33896	0.80000	0.9440	80.00- 120.00	100.00
11.258	11.251	(1.190)	71	9535			0.00- 57.66	28.13
11.258	11.258	(1.190)	142	1347			0.00- 34.09	3.97
-----								
183 4-Ethyltoluene CAS #: 622-96-8								
11.286	11.287	(1.193)	120	12273	0.80000	0.8246	80.00- 120.00	100.00
11.286	11.287	(1.193)	105	37727			284.55- 344.55	307.40
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
11.308	11.308	(1.195)	126	9433	0.80000	0.8094	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	32992			315.17- 375.17	349.75
11.308	11.301	(1.195)	65	4962			21.55- 81.55	52.60
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	16766	0.80000	0.8181	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	32345			164.93- 224.93	192.92
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.645	11.645	(1.231)	118	16331	0.80000	0.8022	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	9432			25.30- 85.30	57.76
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.738	11.738	(1.241)	119	30711	0.80000	0.8012	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	7000			0.00- 54.25	22.79
11.738	11.738	(1.241)	91	18642			31.27- 91.27	60.70
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.817	11.817	(1.249)	105	32248	0.80000	0.8337	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	16498			19.05- 79.05	51.16
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.996	11.996	(1.268)	134	9353	0.80000	0.7851	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
192 sec-Butylbenzene (continued)								
11.996	11.996	(1.268)	105	44701			437.55- 497.55	477.93
11.996	11.996	(1.268)	91	7110			40.76- 100.76	76.02
-----								
194 p-Cymene						CAS #: 99-87-6		
12.160	12.160	(1.285)	119	43493	0.80000	0.8260	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	10779			0.00- 55.54	24.78
12.153	12.153	(1.285)	91	9590			0.00- 51.48	22.05
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
12.196	12.196	(1.289)	146	21827	0.80000	0.8244	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	13524			33.21- 93.21	61.96
12.196	12.196	(1.289)	111	9335			11.31- 71.31	42.77
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
12.311	12.311	(1.301)	146	22077	0.80000	0.8252	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	13735			33.90- 93.90	62.21
12.311	12.311	(1.301)	111	9361			9.45- 69.45	42.40
-----								
199 alpha-Chlorotoluene						CAS #: 100-44-7		
12.461	12.461	(1.317)	91	28531	0.80000	0.7766	80.00- 120.00	100.00
12.461	12.461	(1.317)	126	7255			0.00- 53.26	25.43
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	35643	0.80000	0.8594	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	32820			58.12- 118.12	92.08
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	11054	0.80000	0.8266	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	36768			314.79- 374.79	332.62
12.626	12.626	(1.335)	92	18539			154.29- 214.29	167.71
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.733	12.741	(1.346)	146	20836	0.80000	0.8026	80.00- 120.00	100.00
12.733	12.741	(1.346)	148	14179			33.84- 93.84	68.05
12.733	12.741	(1.346)	111	9568			12.73- 72.73	45.92
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	25429	0.99000	0.7736	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	20311			52.87- 112.87	79.87
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	17480	1.01000	0.9113	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	17289			65.33- 125.33	98.91
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.582	(1.541)	225	11980	1.03000	0.8875	80.00- 120.00	100.00

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
215 Hexachlorobutadiene (continued)									
14.581	14.582	(1.541)	223	7605			33.17-	93.17	63.48
-----									
216 Naphthalene									
						CAS #: 91-20-3			
14.761	14.768	(1.560)	128	5130	0.10000	0.1046	80.00-	120.00	100.00(a)
14.761	14.768	(1.560)	127	1046			0.00-	42.88	20.39
-----									
222 1,2,3-Trichlorobenzene									
						CAS #: 87-61-6			
15.069	15.069	(1.593)	180	15919	1.06000	0.9388	80.00-	120.00	100.00
15.069	15.069	(1.593)	182	15376			65.75-	125.75	96.59
15.069	15.069	(1.593)	145	5239			5.23-	65.23	32.91
-----									

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051904.d  
 Lab Smp Id: ICAL Level 3  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 0.8ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	165114	3.97
108 1,4-Difluorobenze	597103	358262	835944	606184	1.52
153 Chlorobenzene-d5	587747	352648	822846	589752	0.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 14:02

Client ID:

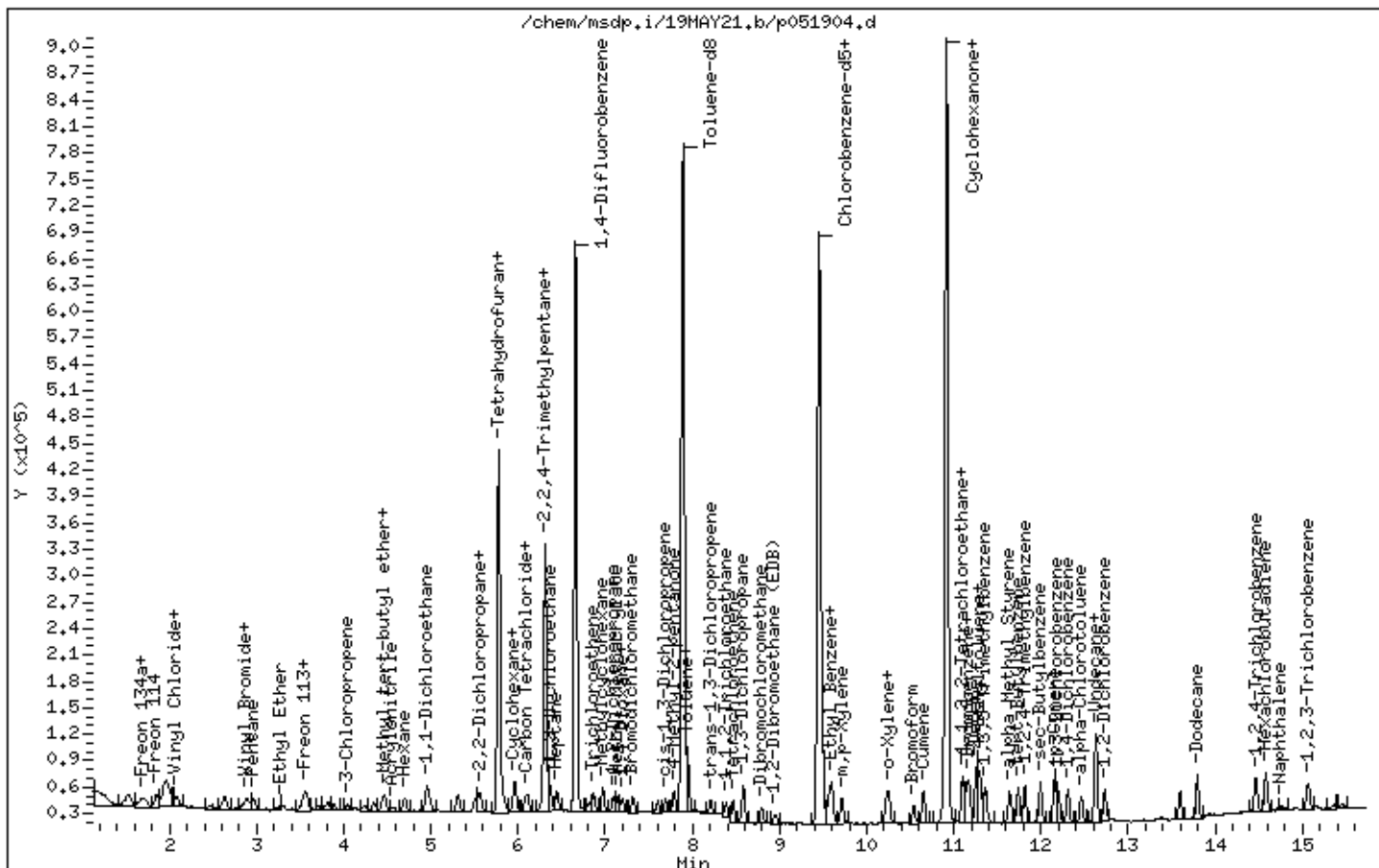
Instrument: msdp.i

Sample Info: 32mL 3018-2045

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051915.d  
Lab Smp Id: ICAL Level 3  
Inj Date : 19-MAY-2021 19:45  
Operator : gh Inst ID: msdp.i  
Smp Info : 32mL 3018-1928  
Misc Info : 0.8ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
Als bottle: 2 Calibration Sample, Level: 3  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.778	5.778	(1.000)	130	164344	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	125886			48.23- 108.23 76.60
5.778	5.778	(1.000)	49	290825			150.57- 210.57 176.96
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.659	6.659	(1.000)	114	606504	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	95686			0.00- 45.71 15.78
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.460	9.460	(1.000)	117	593084	25.0000		80.00- 120.00 100.00
9.453	9.460	(1.000)	82	324813			23.78- 83.78 54.77
-----							
3 Freon 143a CAS #: 420-46-2							
1.591	1.590	(0.275)	65	3384	0.80000	1.014	80.00- 120.00 100.00(a)
1.591	1.590	(0.275)	69	8253			243.50- 303.50 243.88
1.591	1.590	(0.275)	64	1419			0.00- 54.06 41.93
-----							
6 Propane CAS #: 74-98-6							
1.674	1.674	(0.290)	43	3721	0.80000	1.216	80.00- 120.00 100.00(a)



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.674	1.674	(0.290)	39	2558			34.98- 94.98	68.74
1.688	1.674	(0.292)	41	1187			25.22- 85.22	31.90
-----								
13 Freon 142b								
							CAS #: 75-68-3	
1.884	1.884	(0.326)	65	14331	0.80000	0.8483	80.00- 120.00	100.00(a)
1.884	1.884	(0.326)	45	4817			0.00- 59.77	33.61
-----								
36 1-Pentene								
							CAS #: 109-67-1	
2.898	2.906	(0.502)	55	8373	0.80000	0.7641	80.00- 120.00	100.00(a)
2.898	2.906	(0.502)	42	10665			105.17- 165.17	127.37
-----								
40 Freon 123a								
							CAS #: 354-23-4	
3.378	3.385	(0.585)	117	8954	0.80000	0.8423	80.00- 120.00	100.00(a)
3.378	3.378	(0.585)	67	10000			104.69- 164.69	111.68
-----								
41 Freon 123								
							CAS #: 306-83-2	
3.479	3.479	(0.602)	83	12043	0.80000	0.8181	80.00- 120.00	100.00(a)
3.486	3.479	(0.603)	133	2878			0.00- 50.87	23.90
3.472	3.479	(0.601)	85	7657			36.08- 96.08	63.58
-----								
55 Cyclopentene								
							CAS #: 142-29-0	
4.066	4.073	(0.704)	67	13033	0.80000	0.8236	80.00- 120.00	100.00(a)
4.073	4.073	(0.705)	68	5570			6.76- 66.76	42.74
4.073	4.073	(0.705)	53	4098			0.00- 57.54	31.44
-----								
56 Methyl Acetate								
							CAS #: 79-20-9	
4.080	4.073	(0.706)	43	13892	0.80000	0.7505	80.00- 120.00	100.00(a)
4.073	4.073	(0.705)	74	2356			0.00- 44.13	16.96
-----								
74 Chloroprene								
							CAS #: 126-99-8	
5.019	5.019	(0.869)	53	10679	0.80000	0.7298	80.00- 120.00	100.00(a)
5.019	5.019	(0.869)	88	4129			9.21- 69.21	38.66
5.019	5.019	(0.869)	50	3511			0.00- 54.25	32.88
-----								
75 1-Propanol								
							CAS #: 71-23-8	
5.090	5.083	(0.881)	59	1961	0.80000	0.8598	80.00- 120.00	100.00(a)
5.090	5.083	(0.881)	42	1356			63.23- 123.23	69.15
5.090	5.083	(0.881)	41	964			24.74- 84.74	49.16
-----								
88 Methyl Acrylate								
							CAS #: 96-33-3	
5.628	5.620	(0.974)	55	14529	0.80000	0.7451	80.00- 120.00	100.00(a)
5.620	5.620	(0.973)	85	2658			0.00- 41.28	18.29
5.620	5.620	(0.973)	58	1084			0.00- 38.22	7.46
-----								
103 Isobutanol								
							CAS #: 78-83-1	
6.244	6.244	(1.081)	39	1516	0.80000	0.6268	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.244	6.244	(1.081)	43	6586			448.18- 508.18	434.43
6.244	6.244	(1.081)	41	6296			299.99- 359.99	415.30
-----								
113 Ethyl acrylate								
							CAS #: 140-88-5	
6.938	6.938	(0.733)	99	1140	0.80000	0.8059	80.00- 120.00	100.00(a)
6.938	6.938	(0.733)	45	2310			149.95- 209.95	202.63
6.938	6.938	(0.733)	55	19701			1849.07-1909.07	1728.16
-----								
115 2-Pentanone								
							CAS #: 107-87-9	
7.032	7.031	(0.743)	43	24123	0.80000	0.7933	80.00- 120.00	100.00(a)
7.032	7.031	(0.743)	58	1837			0.00- 37.44	7.62
7.032	7.031	(0.743)	86	3321			0.00- 42.78	13.77
-----								
145 Butyl Acetate								
							CAS #: 123-86-4	
8.665	8.665	(1.301)	56	12701	0.80000	0.8216	80.00- 120.00	100.00(a)
8.665	8.665	(1.301)	73	3929			0.00- 59.10	30.93
8.665	8.657	(1.301)	43	29172			215.30- 275.30	229.68
-----								
157 1,1,1,2-Tetrachloroethane								
							CAS #: 630-20-6	
9.596	9.596	(1.014)	131	10131	0.80000	0.7736	80.00- 120.00	100.00(a)
9.460	9.460	(1.000)	117	593084			57.42- 117.42	5854.15
9.596	9.596	(1.014)	95	4021			5.70- 65.70	39.69
-----								
166 2-Heptanone								
							CAS #: 110-43-0	
10.362	10.362	(1.793)	58	19243	0.80000	0.7954	80.00- 120.00	100.00(a)
10.362	10.362	(1.793)	43	30387			136.03- 196.03	157.91
-----								
172 D-Limonene								
							CAS #: 5989-27-5	
12.089	12.089	(1.278)	68	6734	0.80000	0.6275	80.00- 120.00	100.00(a)
12.089	12.089	(1.278)	93	4720			39.41- 99.41	70.09
-----								
186 4-Chlorotoluene								
							CAS #: 106-43-4	
11.444	11.444	(1.210)	126	9434	0.80000	0.7705	80.00- 120.00	100.00(a)
11.444	11.444	(1.210)	91	29750			295.02- 355.02	315.35
11.437	11.444	(1.209)	63	4126			11.82- 71.82	43.74
-----								
197 1,2,3-Trimethylbenzene								
							CAS #: 526-73-8	
12.318	12.318	(1.302)	120	14202	0.80000	0.8022	80.00- 120.00	100.00(a)
12.318	12.318	(1.302)	105	30046			192.40- 252.40	211.56
12.318	12.318	(1.302)	77	4952			0.00- 54.69	34.87
-----								
205 Hexachloroethane								
							CAS #: 67-72-1	
12.970	12.970	(1.371)	201	4732	0.80000	0.7912	80.00- 120.00	100.00(a)
12.963	12.970	(1.370)	117	7064			102.99- 162.99	149.28
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	19960	0.80000	0.7958	80.00- 120.00	100.00(a)
13.758	13.758	(1.454)	182	18425			65.24- 125.24	92.31
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	17650	0.80000	0.7612	80.00- 120.00	100.00(a)
10.599	10.599	(1.120)	77	6081			0.00- 58.21	34.45
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.423	11.422	(1.207)	93	9306	0.80000	0.6884	80.00- 120.00	100.00(a)
11.444	11.444	(1.210)	91	29750			153.57- 213.57	319.69
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p051915.d  
Lab Smp Id: ICAL Level 3  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: gh  
Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
Misc Info: 0.8ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
Calibration Time: 15:55  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	164344	3.48
108 1,4-Difluorobenze	597103	358262	835944	606504	1.57
153 Chlorobenzene-d5	587747	352648	822846	593084	0.91

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 19:45

Client ID:

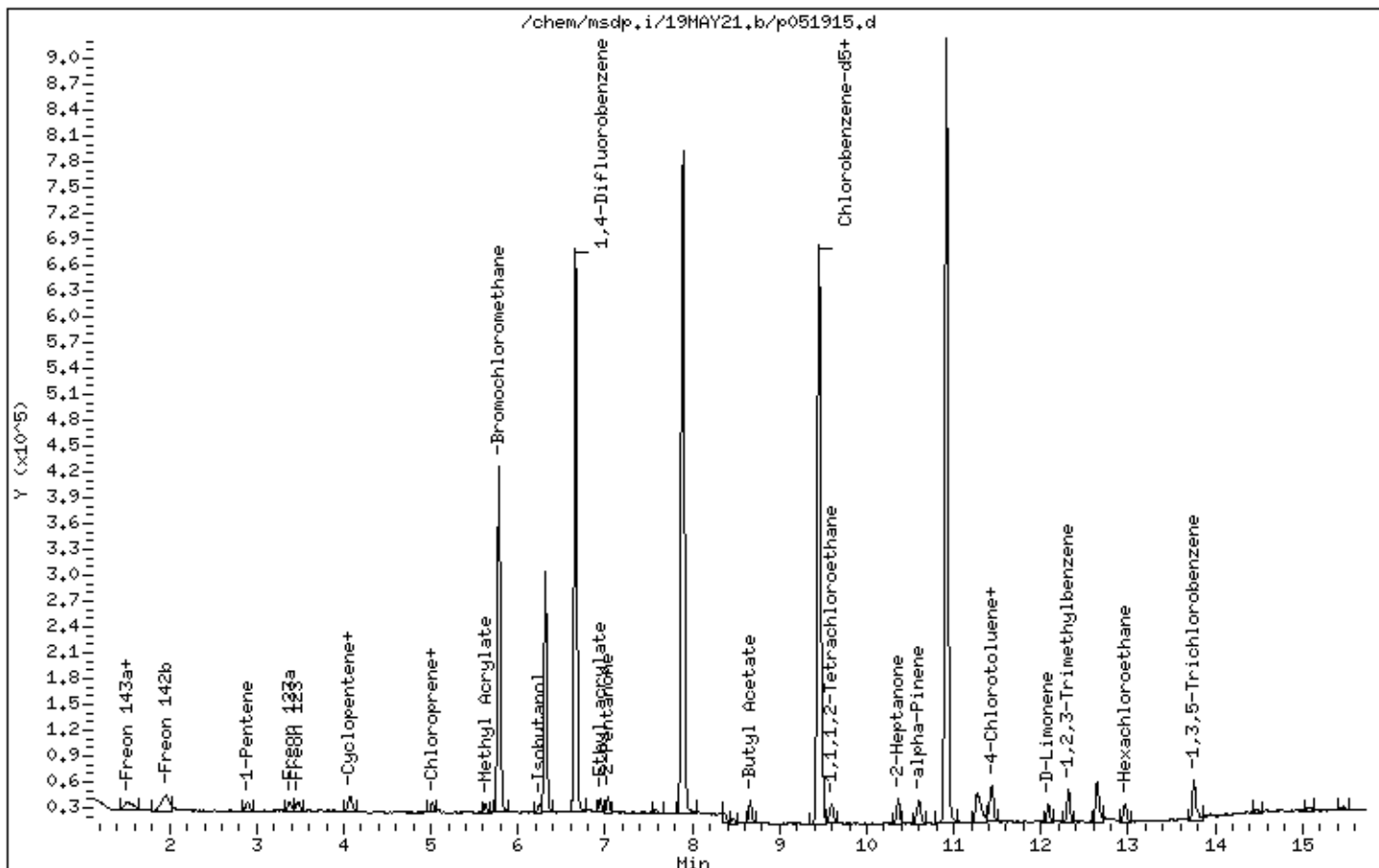
Instrument: msdp.i

Sample Info: 32mL 3018-1928

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051905.d  
 Lab Smp Id: ICAL Level 4  
 Inj Date : 19-MAY-2021 14:30  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 80mL 3018-2045  
 Misc Info : 2.0ppbv (5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 20:13 Cal File: p051916.d  
 Als bottle: 1 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.646	1.633	(0.285)	83	10752	2.00000	2.113	80.00- 120.00	100.00
1.646	1.633	(0.285)	69	9430			59.44- 119.44	87.70
1.744	1.745	(0.302)	51	44872			419.06- 479.06	417.34
-----								
5 Propylene CAS #: 115-07-1								
1.674	1.675	(0.290)	41	16628	2.00000	2.178	80.00- 120.00	100.00
1.674	1.675	(0.290)	42	9737			35.28- 95.28	58.56
1.674	1.675	(0.290)	39	9475			38.35- 98.35	56.98
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.702	1.703	(0.295)	65	9119	2.00000	2.248	80.00- 120.00	100.00
1.744	1.745	(0.302)	51	44872			597.63- 657.63	492.07
1.702	1.703	(0.295)	47	4376			33.72- 93.72	47.99
-----								
8 Freon 12 CAS #: 75-71-8								
1.716	1.717	(0.297)	85	28857	2.00000	2.119	80.00- 120.00	100.00
1.716	1.717	(0.297)	87	9809			2.37- 62.37	33.99
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.744	1.745	(0.302)	67	2775	2.00000	2.050	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.744	1.745	(0.302)	51	44872			1501.01-1561.01	1617.01
-----								
10 Freon 114 CAS #: 76-14-2								
1.856	1.856	(0.321)	135	30051	2.00000	2.103	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	10561			2.30- 62.30	35.14
-----								
12 Isobutane CAS #: 75-28-5								
1.870	1.870	(0.324)	43	37601	2.00000	2.238	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	10224			2.44- 62.44	27.19
1.870	1.856	(0.324)	58	1126			0.00- 33.36	2.99
-----								
15 Chloromethane CAS #: 74-87-3								
1.940	1.940	(0.336)	50	20795	2.00000	2.143	80.00- 120.00	100.00
1.940	1.940	(0.336)	52	6777			0.00- 56.26	32.59
-----								
18 Butane CAS #: 106-97-8								
2.025	2.025	(0.350)	58	4684	2.00000	2.428	80.00- 120.00	100.00
2.025	2.025	(0.350)	43	30160			823.29- 883.29	643.89
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.068	2.068	(0.358)	62	22935	2.00000	2.214	80.00- 120.00	100.00
2.075	2.068	(0.359)	64	4016			0.00- 59.69	17.51
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.089	2.089	(0.362)	54	14209	2.00000	1.851	80.00- 120.00	100.00
2.089	2.089	(0.362)	39	14860			52.37- 112.37	104.58
-----								
24 Bromomethane CAS #: 74-83-9								
2.483	2.483	(0.430)	94	15345	2.00000	2.288	80.00- 120.00	100.00
2.476	2.483	(0.428)	96	14452			64.07- 124.07	94.18
-----								
30 Chloroethane CAS #: 75-00-3								
2.612	2.612	(0.452)	64	7064	2.00000	2.048	80.00- 120.00	100.00
2.619	2.612	(0.453)	66	2424			0.04- 60.04	34.31
2.619	2.612	(0.453)	49	2630			4.54- 64.54	37.23
-----								
31 Isopentane CAS #: 78-78-4								
2.633	2.634	(0.456)	43	21473	2.00000	2.019	80.00- 120.00	100.00
2.633	2.634	(0.456)	57	14410			34.12- 94.12	67.11
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.848	2.841	(0.493)	106	12788	2.00000	2.173	80.00- 120.00	100.00
2.841	2.841	(0.492)	108	11825			69.27- 129.27	92.47
-----								
33 Freon 11 CAS #: 75-69-4								
2.884	2.884	(0.499)	101	29478	2.00000	1.982	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.884	2.884	(0.499)	103	21023			34.72- 94.72	71.32
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.898	2.899	(0.502)	67	26413	2.00000	2.016	80.00- 120.00	100.00
2.891	2.899	(0.500)	69	8532			0.84- 60.84	32.30
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.514)	43	36199	2.00000	2.019	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	5481			0.00- 44.98	15.14
2.970	2.970	(0.514)	72	2569			0.00- 37.39	7.10
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.292	3.285	(0.570)	74	6103	2.00000	2.113	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	11984			163.46- 223.46	196.36
3.285	3.285	(0.569)	45	17007			250.40- 310.40	278.67
-----								
39 Ethanol CAS #: 64-17-5								
3.249	3.242	(0.562)	46	3513	2.00000	2.141	80.00- 120.00	100.00
3.285	3.242	(0.569)	45	17032			511.19- 571.19	484.83
-----								
42 Acrolein CAS #: 107-02-8								
3.536	3.529	(0.612)	55	5593	2.00000	2.070	80.00- 120.00	100.00
3.529	3.529	(0.611)	56	9027			111.10- 171.10	161.40
-----								
43 Freon 113 CAS #: 76-13-1								
3.550	3.550	(0.614)	151	22474	2.00000	2.051	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	14485			33.56- 93.56	64.45
3.550	3.550	(0.614)	101	27010			89.21- 149.21	120.18
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.579	3.579	(0.619)	96	12551	2.00000	1.903	80.00- 120.00	100.00
3.579	3.579	(0.619)	98	8404			34.02- 94.02	66.96
3.579	3.579	(0.619)	61	26438			168.77- 228.77	210.64
-----								
47 Acetone CAS #: 67-64-1								
3.715	3.708	(0.643)	58	9195	2.00000	2.141	80.00- 120.00	100.00
3.715	3.708	(0.643)	43	30176			302.95- 362.95	328.18
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.822	3.823	(0.662)	76	36134	2.00000	2.058	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.794	3.794	(0.657)	142	14456	2.00000	1.356	80.00- 120.00	100.00(a)
3.794	3.794	(0.657)	127	6010			12.22- 72.22	41.57
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.894	3.887	(0.674)	45	34496	2.00000	2.040	80.00- 120.00	100.00
3.894	3.887	(0.674)	43	6922			0.00- 47.19	20.07
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.045	4.052	(0.700)	76	6575	2.00000	2.162	80.00- 120.00	100.00
4.045	4.052	(0.700)	41	25612			396.19- 456.19	389.54
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.131	4.123	(0.715)	41	15059	2.00000	1.986	80.00- 120.00	100.00
4.131	4.123	(0.715)	40	9224			20.95- 80.95	61.25
4.131	4.123	(0.715)	38	2726			0.00- 41.17	18.10
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.231	4.238	(0.732)	49	21233	2.00000	2.009	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	11130			22.03- 82.03	52.42
4.238	4.238	(0.733)	51	6579			0.18- 60.18	30.98
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.345	4.338	(0.752)	59	40925	2.00000	2.099	80.00- 120.00	100.00
4.345	4.338	(0.752)	41	8206			0.00- 51.11	20.05
4.338	4.338	(0.751)	57	4155			0.00- 40.49	10.15
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.453	4.446	(0.771)	73	38812	2.00000	1.981	80.00- 120.00	100.00
4.453	4.446	(0.771)	57	12311			3.10- 63.10	31.72
4.453	4.446	(0.771)	41	12889			1.28- 61.28	33.21
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.474	4.482	(0.774)	98	9180	2.00000	2.060	80.00- 120.00	100.00
4.474	4.482	(0.774)	61	24720			255.84- 315.84	269.28
4.474	4.482	(0.774)	96	14713			127.59- 187.59	160.27
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.560	4.560	(0.789)	52	13138	2.00000	2.031	80.00- 120.00	100.00
4.560	4.560	(0.789)	53	14824			88.05- 148.05	112.83
-----								
67 Hexane						CAS #: 110-54-3		
4.696	4.697	(0.813)	57	31248	2.00000	2.036	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	21924			37.52- 97.52	70.16
4.696	4.697	(0.813)	86	3562			0.00- 41.48	11.40
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.961	4.962	(0.859)	63	27529	2.00000	2.029	80.00- 120.00	100.00
4.961	4.962	(0.859)	65	8205			0.00- 59.70	29.80
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.954	4.954	(0.857)	45	71591	2.00000	1.988	80.00- 120.00	100.00(a)
4.954	4.954	(0.857)	87	13182			0.00- 48.18	18.41
4.954	4.954	(0.857)	59	8012			0.00- 40.15	11.19
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.865)	86	3538	2.00000	2.042	80.00- 120.00	100.00
4.997	4.997	(0.865)	43	83098			2432.48-2492.48	2348.73
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.312	5.305	(0.919)	59	61838	2.00000	1.988	80.00- 120.00	100.00(a)
5.312	5.305	(0.919)	87	18730			1.00- 61.00	30.29
5.312	5.305	(0.919)	41	11608			0.00- 48.73	18.77
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.953)	77	23271	2.00000	2.002	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	7682			2.28- 62.28	33.01
5.506	5.506	(0.953)	97	5978			0.00- 53.93	25.69
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.960)	98	9213	2.00000	2.082	80.00- 120.00	100.00
5.542	5.549	(0.959)	96	15160			125.75- 185.75	164.55
5.542	5.549	(0.959)	61	33574			332.40- 392.40	364.42
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.962)	72	7496	2.00000	2.089	80.00- 120.00	100.00
5.570	5.556	(0.964)	43	90870			1214.50-1274.50	1212.25
5.556	5.556	(0.962)	57	3054			14.68- 74.68	40.74
87 Ethyl Acetate						CAS #: 141-78-6		
5.577	5.570	(0.965)	45	7299	2.00000	2.045	80.00- 120.00	100.00
5.542	5.549	(0.959)	61	33574			452.04- 512.04	459.98
5.570	5.570	(0.964)	70	4007			22.77- 82.77	54.90
89 Tetrahydrofuran						CAS #: 109-99-9		
5.778	5.771	(1.000)	42	24973	2.00000	2.047	80.00- 120.00	100.00
5.778	5.771	(1.000)	71	6164			0.00- 55.82	24.68
5.778	5.771	(1.000)	72	6913			0.00- 57.59	27.68
* 90 Bromochloromethane						CAS #: 74-97-5		
5.778	5.778	(1.000)	130	159831	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	126227			48.23- 108.23	78.98
5.778	5.778	(1.000)	49	292527			150.57- 210.57	183.02
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	27594	2.00000	2.032	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.835	5.835	(1.010)	85	18631			34.70- 94.70	67.52
-----								
94 Cyclohexane								
5.957	5.957	(1.031)	84	19272	2.00000	2.021	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	34982			142.57- 202.57	181.52
5.957	5.957	(1.031)	41	20285			62.09- 122.09	105.26
-----								
96 1,1,1-Trichloroethane								
5.964	5.972	(1.032)	97	31014	2.00000	2.006	80.00- 120.00	100.00
5.971	5.972	(1.033)	99	19587			34.02- 94.02	63.16
-----								
97 Carbon Tetrachloride								
6.086	6.086	(1.053)	119	28698	2.00000	1.977	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	27861			70.64- 130.64	97.08
-----								
99 1,1-Dichloropropene								
6.115	6.115	(0.918)	110	8669	2.00000	2.064	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	21304			226.85- 286.85	245.75
-----								
101 2,2,4-Trimethylpentane								
6.287	6.280	(1.088)	57	105858	2.00000	1.977	80.00- 120.00	100.00
6.279	6.280	(1.087)	56	34121			2.24- 62.24	32.23
6.287	6.280	(1.088)	41	25646			0.00- 54.39	24.23
-----								
102 Benzene								
6.301	6.301	(0.946)	78	42719	2.00000	2.114	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	9426			0.00- 52.90	22.07
-----								
§ 104 1,2-Dichloroethane-d4								
6.308	6.308	(1.092)	65	213845	25.0000	25.226	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	109056			27.21- 87.21	51.00
-----								
105 tert-Amyl methyl ether								
6.358	6.358	(0.955)	87	12080	2.00000	2.059	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	45185			372.79- 432.79	374.05
6.358	6.358	(0.955)	55	15451			112.09- 172.09	127.91
-----								
106 1,2-Dichloroethane								
6.380	6.380	(0.958)	62	21692	2.00000	2.056	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	7191			0.79- 60.79	33.15
-----								
107 Heptane								
6.444	6.444	(0.968)	71	15826	2.00000	2.037	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	42456			226.53- 286.53	268.27
6.444	6.444	(0.968)	57	22790			100.85- 160.85	144.00
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	608981	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	97098			0.00- 45.71	15.94
-----								
110 n-Butanol						CAS #: 71-36-3		
6.817	6.810	(1.024)	56	13920	2.00000	1.933	80.00- 120.00	100.00
6.817	6.810	(1.024)	41	11206			40.99- 100.99	80.50
6.817	6.810	(1.024)	43	8308			27.38- 87.38	59.68
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	20090	2.00000	2.063	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	21639			76.29- 136.29	107.71
6.867	6.867	(1.031)	97	12122			33.63- 93.63	60.34
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.096	7.089	(1.066)	63	20821	2.00000	2.005	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	14576			41.07- 101.07	70.01
7.096	7.089	(1.066)	41	10584			22.53- 82.53	50.83
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.139	7.132	(0.755)	69	16454	2.00000	1.977	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	33345			179.84- 239.84	202.66
7.139	7.139	(0.755)	100	6482			9.59- 69.59	39.39
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.182	7.175	(1.079)	88	11643	2.00000	2.092	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	11397			68.28- 128.28	97.89
7.175	7.175	(1.077)	57	4191			2.68- 62.68	36.00
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.203	7.204	(0.761)	174	19142	2.00000	2.126	80.00- 120.00	100.00
7.203	7.204	(0.761)	93	16978			60.09- 120.09	88.70
7.203	7.204	(0.761)	95	14808			48.38- 108.38	77.36
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	31009	2.00000	2.066	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	19794			35.24- 95.24	63.83
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.691	7.691	(1.155)	75	25607	2.00000	2.035	80.00- 120.00	100.00
7.691	7.691	(1.155)	77	8122			2.42- 62.42	31.72
7.691	7.691	(1.155)	39	17386			37.16- 97.16	67.90
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	26965	2.00000	1.892	80.00- 120.00	100.00(a)
6.974	6.974	(1.047)	98	13600			15.78- 75.78	50.44

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.047)	55	34696			84.64- 144.64	128.67
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.798	7.791	(1.171)	58	20235	2.00000	1.954	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	55273			242.35- 302.35	273.16
7.798	7.791	(1.171)	85	7479			3.24- 63.24	36.96
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.891	7.891	(1.185)	98	665455	25.0000	25.210	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	77094			0.00- 40.44	11.59
7.891	7.891	(1.185)	100	431576			34.95- 94.95	64.85
-----								
137 Toluene						CAS #: 108-88-3		
7.948	7.949	(1.194)	91	56064	2.00000	1.997	80.00- 120.00	100.00
7.948	7.949	(1.194)	92	34906			28.38- 88.38	62.26
-----								
136 Octane						CAS #: 111-65-9		
7.948	7.949	(1.194)	57	22118	2.00000	1.902	80.00- 120.00	100.00
7.948	7.949	(1.194)	85	18563			56.00- 116.00	83.93
7.941	7.949	(1.193)	43	60251			228.66- 288.66	272.41
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.213	8.214	(0.868)	75	24394	2.00000	2.042	80.00- 120.00	100.00
8.213	8.214	(0.868)	77	8513			1.24- 61.24	34.90
8.213	8.214	(0.868)	39	16646			34.11- 94.11	68.24
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.400	8.400	(0.888)	97	19362	2.00000	2.008	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	12564			31.96- 91.96	64.89
8.400	8.400	(0.888)	83	17346			52.93- 112.93	89.59
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	28170	2.00000	1.983	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	21640			47.84- 107.84	76.82
8.464	8.464	(0.895)	131	20810			45.29- 105.29	73.87
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.586	8.586	(0.908)	58	27816	2.00000	1.995	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	55470			162.87- 222.87	199.42
8.586	8.586	(0.908)	100	4450			0.00- 45.94	16.00
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.288)	76	27760	2.00000	2.102	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	35478			94.99- 154.99	127.80
8.579	8.579	(1.288)	78	9229			2.05- 62.05	33.25
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	36760	2.00000	1.973	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	28370			47.45- 107.45	77.18
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	32272	2.00000	2.011	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	30370			64.21- 124.21	94.11
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	38340	2.00000	2.022	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	11961			0.00- 59.64	31.20
7.605	7.605	(1.142)	144	3836			0.00- 39.63	10.01
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	602501	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	328882			23.78- 83.78	54.59
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	48343	2.00000	2.025	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	15057			1.74- 61.74	31.15
9.496	9.496	(1.004)	77	32004			25.04- 85.04	66.20
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	24932	2.00000	1.960	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	76105			273.74- 333.74	305.25
-----								
156 Nonane						CAS #: 111-84-2		
9.596	9.596	(1.014)	43	63929	2.00000	1.973	80.00- 120.00	100.00
9.596	9.603	(1.014)	57	51732			54.16- 114.16	80.92
9.596	9.603	(1.014)	85	15047			0.00- 53.90	23.54
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	30801	2.00000	1.958	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	61907			163.73- 223.73	200.99
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	31016	2.00000	2.047	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	61477			177.45- 237.45	198.21
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	51582	2.00000	1.986	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	24588			17.88- 77.88	47.67
-----								
167 Bromoform						CAS #: 75-25-2		
10.541	10.542	(1.114)	173	35253	2.00000	1.964	80.00- 120.00	100.00
10.549	10.542	(1.115)	171	18187			21.25- 81.25	51.59
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	92633	2.00000	1.959	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	25468			0.00- 58.52	27.49
10.649	10.649	(1.126)	51	12337			0.00- 43.00	13.32
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.871	10.871	(1.149)	55	34971	2.00000	2.003	80.00- 120.00	100.00(a)
10.878	10.871	(1.150)	98	11080			1.94- 61.94	31.68
10.871	10.871	(1.149)	42	22417			37.89- 97.89	64.10
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	386143	25.0000	25.034	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	491927			95.92- 155.92	127.40
10.921	10.921	(1.154)	176	373529			66.89- 126.89	96.73
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.100	11.100	(1.173)	83	45589	2.00000	1.968	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	30225			35.20- 95.20	66.30
-----								
177 Bromobenzene						CAS #: 108-86-1		
11.107	11.107	(1.174)	156	29228	2.00000	2.039	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	27871			67.21- 127.21	95.36
11.179	11.179	(1.182)	77	16535			29.02- 89.02	56.57
-----								
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	27541	2.00000	1.952	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	110564			366.49- 426.49	401.45
11.150	11.150	(1.179)	105	4410			0.00- 44.85	16.01
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
11.179	11.179	(1.182)	110	15487	2.00000	2.068	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	44040			280.55- 340.55	284.37
11.100	11.100	(1.173)	61	6929			15.49- 75.49	44.74
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
11.179	11.179	(1.182)	53	10130	2.00000	2.088	80.00- 120.00	100.00
11.179	11.179	(1.182)	89	7740			49.11- 109.11	76.41
11.179	11.179	(1.182)	75	44040			426.44- 486.44	434.75
-----								
182 Decane						CAS #: 124-18-5		
11.251	11.251	(1.189)	57	75743	2.00000	1.938	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	21477			0.00- 57.66	28.36
11.258	11.258	(1.190)	142	2780			0.00- 34.09	3.67
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
11.286	11.287	(1.193)	120	30874	2.00000	2.017	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.286	11.287	(1.193)	105	94572			284.55- 344.55	306.32
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
11.308	11.308	(1.195)	126	23935	2.00000	2.009	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	81565			315.17- 375.17	340.78
11.301	11.301	(1.195)	65	12898			21.55- 81.55	53.89
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
11.365	11.365	(1.201)	120	40449	2.00000	1.939	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	83373			164.93- 224.93	206.12
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
11.645	11.645	(1.231)	118	42379	2.00000	2.012	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	23377			25.30- 85.30	55.16
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
11.738	11.738	(1.241)	119	78389	2.00000	2.001	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	18724			0.00- 54.25	23.89
11.738	11.738	(1.241)	91	46791			31.27- 91.27	59.69
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
11.816	11.817	(1.249)	105	78168	2.00000	1.959	80.00- 120.00	100.00
11.816	11.817	(1.249)	120	40414			19.05- 79.05	51.70
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
11.996	11.996	(1.268)	134	24394	2.00000	2.013	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	113600			437.55- 497.55	465.69
11.996	11.996	(1.268)	91	17621			40.76- 100.76	72.23
-----								
194 p-Cymene						CAS #: 99-87-6		
12.160	12.160	(1.285)	119	104556	2.00000	1.942	80.00- 120.00	100.00
12.153	12.160	(1.285)	134	27205			0.00- 55.54	26.02
12.153	12.153	(1.285)	91	22499			0.00- 51.48	21.52
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
12.196	12.196	(1.289)	146	55740	2.00000	2.016	80.00- 120.00	100.00
12.196	12.196	(1.289)	148	34699			33.21- 93.21	62.25
12.196	12.196	(1.289)	111	22480			11.31- 71.31	40.33
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
12.311	12.311	(1.301)	146	54700	2.00000	1.976	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	35545			33.90- 93.90	64.98
12.311	12.311	(1.301)	111	21710			9.45- 69.45	39.69
-----								
199 alpha-Chlorotoluene						CAS #: 100-44-7		
12.461	12.461	(1.317)	91	74656	2.00000	2.000	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	17192			0.00- 53.26	23.03
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	87872	2.00000	1.994	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	80279			58.12- 118.12	91.36
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	28076	2.00000	2.018	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	92470			314.79- 374.79	329.36
12.626	12.626	(1.335)	92	50010			154.29- 214.29	178.12
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.733	12.741	(1.346)	146	54244	2.00000	2.034	80.00- 120.00	100.00
12.733	12.741	(1.346)	148	33671			33.84- 93.84	62.07
12.733	12.741	(1.346)	111	23692			12.73- 72.73	43.68
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	31809	2.00000	1.969	80.00- 120.00	100.00(a)
13.600	13.600	(1.438)	75	26948			52.48- 112.48	84.72
13.600	13.600	(1.438)	155	24389			47.41- 107.41	76.67
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	76973	2.47000	2.484	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	66209			52.87- 112.87	86.02
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.460	14.467	(1.529)	180	50012	2.52000	2.605	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	47092			65.33- 125.33	94.16
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.582	(1.541)	225	35349	2.57000	2.658	80.00- 120.00	100.00
14.581	14.582	(1.541)	223	22934			33.17- 93.17	64.88
-----								
216 Naphthalene						CAS #: 91-20-3		
14.760	14.768	(1.560)	128	13400	0.25000	0.2587	80.00- 120.00	100.00(a)
14.768	14.768	(1.561)	127	2043			0.00- 42.88	15.25
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.068	15.069	(1.593)	180	46605	2.66000	2.753	80.00- 120.00	100.00
15.068	15.069	(1.593)	182	42985			65.75- 125.75	92.23
15.061	15.069	(1.592)	145	15683			5.23- 65.23	33.65
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051905.d  
 Lab Smp Id: ICAL Level 4  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 2.0ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	159831	0.64
108 1,4-Difluorobenze	597103	358262	835944	608981	1.99
153 Chlorobenzene-d5	587747	352648	822846	602501	2.51

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 14:30

Client ID:

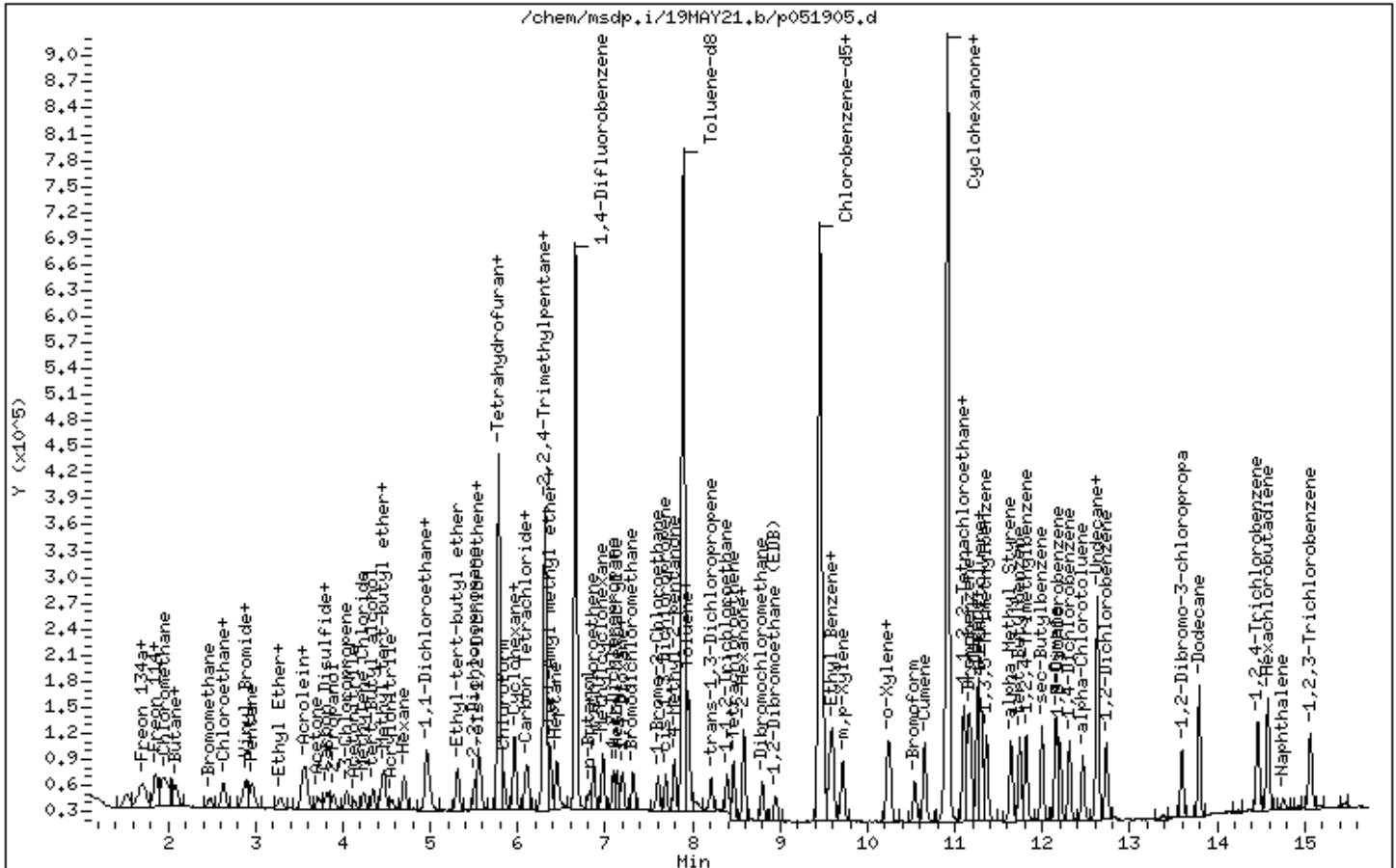
Instrument: msdp.i

Sample Info: 80mL 3018-2045

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051916.d  
Lab Smp Id: ICAL Level 4  
Inj Date : 19-MAY-2021 20:13  
Operator : gh Inst ID: msdp.i  
Smp Info : 80mL 3018-1928  
Misc Info : 2.0ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 20:13 Cal File: p051916.d  
Als bottle: 2 Calibration Sample, Level: 4  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.778	5.778	(1.000)	130	156828	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	122219			48.23- 108.23 77.93
5.778	5.778	(1.000)	49	287649			150.57- 210.57 183.42
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.659	6.659	(1.000)	114	605078	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	96791			0.00- 45.71 16.00
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.460	9.460	(1.000)	117	594880	25.0000		80.00- 120.00 100.00
9.460	9.460	(1.000)	82	325179			23.78- 83.78 54.66
-----							
3 Freon 143a CAS #: 420-46-2							
1.591	1.590	(0.275)	65	7005	2.00000	2.200	80.00- 120.00 100.00
1.591	1.590	(0.275)	69	17061			243.50- 303.50 243.55
1.591	1.590	(0.275)	64	2455			0.00- 54.06 35.05
-----							
6 Propane CAS #: 74-98-6							
1.675	1.674	(0.290)	43	5172	2.00000	1.772	80.00- 120.00 100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.675	1.674	(0.290)	39	4252			34.98- 94.98	82.21
1.675	1.674	(0.290)	41	3543			25.22- 85.22	68.50
-----								
13 Freon 142b						CAS #: 75-68-3		
1.898	1.884	(0.329)	65	31581	2.00000	1.959	80.00- 120.00	100.00(a)
1.884	1.884	(0.326)	45	11066			0.00- 59.77	35.04
-----								
36 1-Pentene						CAS #: 109-67-1		
2.906	2.906	(0.503)	55	19625	2.00000	1.877	80.00- 120.00	100.00(a)
2.906	2.906	(0.503)	42	27964			105.17- 165.17	142.49
-----								
40 Freon 123a						CAS #: 354-23-4		
3.378	3.385	(0.585)	117	19654	2.00000	1.937	80.00- 120.00	100.00(a)
3.386	3.378	(0.586)	67	26135			104.69- 164.69	132.98
-----								
41 Freon 123						CAS #: 306-83-2		
3.479	3.479	(0.602)	83	29140	2.00000	2.074	80.00- 120.00	100.00
3.479	3.479	(0.602)	133	6343			0.00- 50.87	21.77
3.479	3.479	(0.602)	85	20407			36.08- 96.08	70.03
-----								
55 Cyclopentene						CAS #: 142-29-0		
4.073	4.073	(0.705)	67	30943	2.00000	2.049	80.00- 120.00	100.00
4.073	4.073	(0.705)	68	11219			6.76- 66.76	36.26
4.073	4.073	(0.705)	53	8640			0.00- 57.54	27.92
-----								
56 Methyl Acetate						CAS #: 79-20-9		
4.080	4.073	(0.706)	43	37032	2.00000	2.096	80.00- 120.00	100.00(a)
4.080	4.073	(0.706)	74	5940			0.00- 44.13	16.04
-----								
74 Chloroprene						CAS #: 126-99-8		
5.019	5.019	(0.869)	53	28789	2.00000	2.062	80.00- 120.00	100.00
5.019	5.019	(0.869)	88	11054			9.21- 69.21	38.40
5.019	5.019	(0.869)	50	7722			0.00- 54.25	26.82
-----								
75 1-Propanol						CAS #: 71-23-8		
5.090	5.083	(0.881)	59	4700	2.00000	2.160	80.00- 120.00	100.00
5.090	5.083	(0.881)	42	3899			63.23- 123.23	82.96
5.090	5.083	(0.881)	41	2821			24.74- 84.74	60.02
-----								
88 Methyl Acrylate						CAS #: 96-33-3		
5.628	5.620	(0.974)	55	37088	2.00000	1.993	80.00- 120.00	100.00(a)
5.628	5.620	(0.974)	85	5500			0.00- 41.28	14.83
5.628	5.620	(0.974)	58	3509			0.00- 38.22	9.46
-----								
103 Isobutanol						CAS #: 78-83-1		
6.244	6.244	(1.081)	39	4047	2.00000	1.753	80.00- 120.00	100.00(a)

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO
				RESPONSE	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)							
6.244	6.244	(1.081)	43	20761		448.18- 508.18	513.00
6.244	6.244	(1.081)	41	13172		299.99- 359.99	325.48
-----							
113 Ethyl acrylate							
						CAS #: 140-88-5	
6.946	6.938	(0.734)	99	2995	2.00000	2.111 80.00- 120.00	100.00
6.946	6.938	(0.734)	45	5574		149.95- 209.95	186.11
6.939	6.938	(0.733)	55	50476		1849.07-1909.07	1685.34
-----							
115 2-Pentanone							
						CAS #: 107-87-9	
7.032	7.031	(0.743)	43	62449	2.00000	2.048 80.00- 120.00	100.00
7.032	7.031	(0.743)	58	4500		0.00- 37.44	7.21
7.032	7.031	(0.743)	86	7757		0.00- 42.78	12.42
-----							
145 Butyl Acetate							
						CAS #: 123-86-4	
8.665	8.665	(1.301)	56	30994	2.00000	2.010 80.00- 120.00	100.00(a)
8.665	8.665	(1.301)	73	9804		0.00- 59.10	31.63
8.665	8.657	(1.301)	43	73858		215.30- 275.30	238.30
-----							
157 1,1,1,2-Tetrachloroethane							
						CAS #: 630-20-6	
9.596	9.596	(1.014)	131	24295	2.00000	1.850 80.00- 120.00	100.00(a)
9.460	9.460	(1.000)	117	594880		57.42- 117.42	2448.57
9.603	9.596	(1.015)	95	9068		5.70- 65.70	37.32
-----							
166 2-Heptanone							
						CAS #: 110-43-0	
10.362	10.362	(1.793)	58	45629	2.00000	1.976 80.00- 120.00	100.00(a)
10.362	10.362	(1.793)	43	77430		136.03- 196.03	169.69
-----							
172 D-Limonene							
						CAS #: 5989-27-5	
12.089	12.089	(1.278)	68	17413	2.00000	1.618 80.00- 120.00	100.00(a)
12.089	12.089	(1.278)	93	11534		39.41- 99.41	66.24
-----							
186 4-Chlorotoluene							
						CAS #: 106-43-4	
11.444	11.444	(1.210)	126	25118	2.00000	2.045 80.00- 120.00	100.00
11.444	11.444	(1.210)	91	72648		295.02- 355.02	289.23
11.444	11.444	(1.210)	63	9860		11.82- 71.82	39.25
-----							
197 1,2,3-Trimethylbenzene							
						CAS #: 526-73-8	
12.318	12.318	(1.302)	120	34881	2.00000	1.964 80.00- 120.00	100.00(a)
12.318	12.318	(1.302)	105	77447		192.40- 252.40	222.03
12.311	12.318	(1.301)	77	8888		0.00- 54.69	25.48
-----							
205 Hexachloroethane							
						CAS #: 67-72-1	
12.963	12.970	(1.370)	201	9631	2.00000	1.605 80.00- 120.00	100.00(a)
12.963	12.970	(1.370)	117	13291		102.99- 162.99	138.00
-----							

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	50566	2.00000	2.010	80.00- 120.00	100.00
13.758	13.758	(1.454)	182	47208			65.24- 125.24	93.36
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	45684	2.00000	1.964	80.00- 120.00	100.00(a)
10.599	10.599	(1.120)	77	14355			0.00- 58.21	31.42
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.415	11.422	(1.207)	93	23101	2.00000	1.704	80.00- 120.00	100.00(a)
11.444	11.444	(1.210)	91	72648			153.57- 213.57	314.48
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051916.d  
 Lab Smp Id: ICAL Level 4  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 2.0ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	156828	-1.25
108 1,4-Difluorobenze	597103	358262	835944	605078	1.34
153 Chlorobenzene-d5	587747	352648	822846	594880	1.21

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 20:13

Client ID:

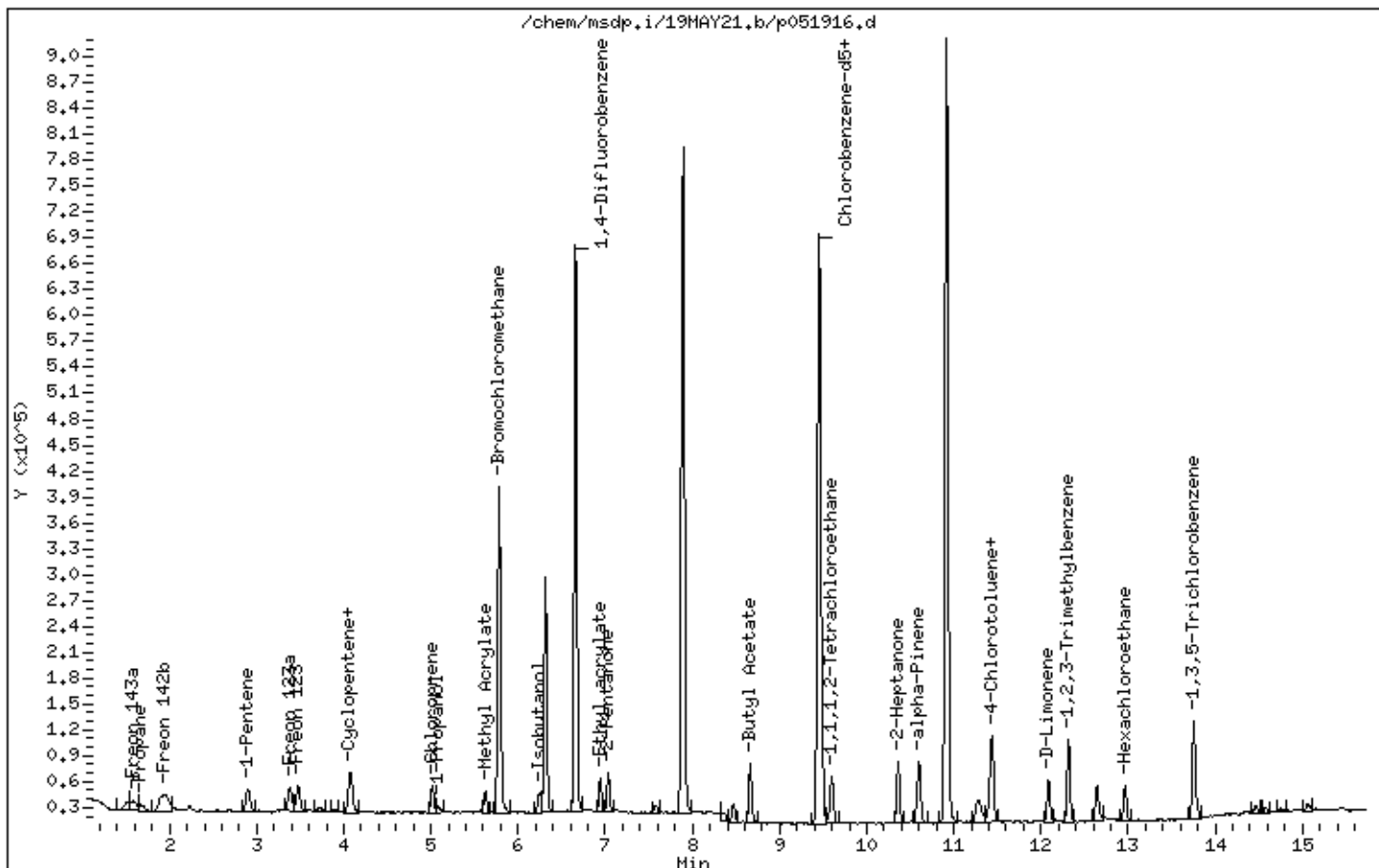
Instrument: msdp.i

Sample Info: 80mL 3018-1928

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051906.d  
 Lab Smp Id: ICAL Level 5  
 Inj Date : 19-MAY-2021 15:00  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 200mL 3018-2045  
 Misc Info : 5.0ppbv (5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 20:43 Cal File: p051917.d  
 Als bottle: 1 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT (REL RT)	MASS	RESPONSE ( PPBV)	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2							
1.661	1.633 (0.287)	83	23995 5.00000	4.931	80.00- 120.00	100.00	
1.661	1.633 (0.287)	69	22578		59.44- 119.44	94.09	
1.759	1.745 (0.304)	51	102230		419.06- 479.06	426.05	
-----							
5 Propylene CAS #: 115-07-1							
1.689	1.675 (0.292)	41	35760 5.00000	4.916	80.00- 120.00	100.00	
1.689	1.675 (0.292)	42	24631		35.28- 95.28	68.88	
1.689	1.675 (0.292)	39	23528		38.35- 98.35	65.79	
-----							
7 1,1-Difluoroethane CAS #: 75-37-6							
1.703	1.703 (0.294)	65	15753 5.00000	4.318	80.00- 120.00	100.00	
1.759	1.745 (0.304)	51	102230		597.63- 657.63	648.96	
1.717	1.703 (0.297)	47	10143		33.72- 93.72	64.39	
-----							
8 Freon 12 CAS #: 75-71-8							
1.717	1.717 (0.297)	85	74104 5.00000	5.482	80.00- 120.00	100.00	
1.717	1.717 (0.297)	87	24165		2.37- 62.37	32.61	
-----							
9 Chlorodifluoromethane CAS #: 75-45-6							
1.759	1.745 (0.304)	67	7019 5.00000	5.292	80.00- 120.00	100.00	

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.759	1.745	(0.304)	51	102230			1501.01-1561.01	1456.48
-----								
10 Freon 114 CAS #: 76-14-2								
1.857	1.856	(0.321)	135	74492	5.00000	5.312	80.00- 120.00	100.00
1.857	1.856	(0.321)	137	23699			2.30- 62.30	31.81
-----								
12 Isobutane CAS #: 75-28-5								
1.871	1.870	(0.323)	43	83131	5.00000	5.099	80.00- 120.00	100.00
1.871	1.870	(0.323)	42	28746			2.44- 62.44	34.58
1.871	1.856	(0.323)	58	3128			0.00- 33.36	3.76
-----								
15 Chloromethane CAS #: 74-87-3								
1.954	1.940	(0.338)	50	34644	5.00000	4.063	80.00- 120.00	100.00
1.954	1.940	(0.338)	52	9203			0.00- 56.26	26.56
-----								
18 Butane CAS #: 106-97-8								
2.032	2.025	(0.351)	58	10771	5.00000	5.513	80.00- 120.00	100.00
2.039	2.025	(0.352)	43	81676			823.29- 883.29	758.30
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.075	2.068	(0.359)	62	52333	5.00000	5.191	80.00- 120.00	100.00
2.075	2.068	(0.359)	64	16408			0.00- 59.69	31.35
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.104	2.089	(0.364)	54	34439	5.00000	4.748	80.00- 120.00	100.00
2.096	2.089	(0.362)	39	40510			52.37- 112.37	117.63
-----								
24 Bromomethane CAS #: 74-83-9								
2.483	2.483	(0.429)	94	37056	5.00000	5.477	80.00- 120.00	100.00
2.483	2.483	(0.429)	96	35000			64.07- 124.07	94.45
-----								
30 Chloroethane CAS #: 75-00-3								
2.619	2.612	(0.453)	64	20225	5.00000	5.684	80.00- 120.00	100.00
2.619	2.612	(0.453)	66	5966			0.04- 60.04	29.50
2.612	2.612	(0.452)	49	6111			4.54- 64.54	30.22
-----								
31 Isopentane CAS #: 78-78-4								
2.641	2.634	(0.456)	43	54200	5.00000	5.198	80.00- 120.00	100.00
2.641	2.634	(0.456)	57	34951			34.12- 94.12	64.49
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.849	2.841	(0.492)	106	30600	5.00000	5.302	80.00- 120.00	100.00
2.849	2.841	(0.492)	108	29476			69.27- 129.27	96.33
-----								
33 Freon 11 CAS #: 75-69-4								
2.891	2.884	(0.500)	101	77104	5.00000	5.291	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.891	2.884	(0.500)	103	50811			34.72- 94.72	65.90
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.906	2.899	(0.502)	67	65512	5.00000	5.152	80.00- 120.00	100.00
2.906	2.899	(0.502)	69	21322			0.84- 60.84	32.55
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.513)	43	87490	5.00000	5.059	80.00- 120.00	100.00
2.970	2.970	(0.513)	57	12542			0.00- 44.98	14.34
2.970	2.970	(0.513)	72	6373			0.00- 37.39	7.28
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.293	3.285	(0.569)	74	15538	5.00000	5.437	80.00- 120.00	100.00
3.293	3.285	(0.569)	59	30441			163.46- 223.46	195.91
3.285	3.285	(0.568)	45	42142			250.40- 310.40	271.22
-----								
39 Ethanol CAS #: 64-17-5								
3.250	3.242	(0.562)	46	7863	5.00000	4.992	80.00- 120.00	100.00
3.285	3.242	(0.568)	45	41557			511.19- 571.19	528.51
-----								
42 Acrolein CAS #: 107-02-8								
3.543	3.529	(0.612)	55	14233	5.00000	5.312	80.00- 120.00	100.00
3.543	3.529	(0.612)	56	18296			111.10- 171.10	128.55
-----								
43 Freon 113 CAS #: 76-13-1								
3.550	3.550	(0.614)	151	56770	5.00000	5.289	80.00- 120.00	100.00
3.558	3.550	(0.615)	153	35706			33.56- 93.56	62.90
3.550	3.550	(0.614)	101	68951			89.21- 149.21	121.46
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.586	3.579	(0.620)	96	33311	5.00000	5.191	80.00- 120.00	100.00
3.586	3.579	(0.620)	98	21526			34.02- 94.02	64.62
3.586	3.579	(0.620)	61	66191			168.77- 228.77	198.71
-----								
47 Acetone CAS #: 67-64-1								
3.722	3.708	(0.643)	58	20489	5.00000	4.976	80.00- 120.00	100.00
3.722	3.708	(0.643)	43	68525			302.95- 362.95	334.45
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.830	3.823	(0.662)	76	91954	5.00000	5.292	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.801	3.794	(0.657)	142	34575	5.00000	3.786	80.00- 120.00	100.00
3.801	3.794	(0.657)	127	14689			12.22- 72.22	42.48
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.894	3.887	(0.673)	45	81715	5.00000	5.020	80.00- 120.00	100.00
3.901	3.887	(0.674)	43	14133			0.00- 47.19	17.30
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.052	4.052	(0.700)	76	15048	5.00000	5.111	80.00- 120.00	100.00
4.052	4.052	(0.700)	41	60762			396.19- 456.19	403.79
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.131	4.123	(0.714)	41	39661	5.00000	5.288	80.00- 120.00	100.00
4.138	4.123	(0.715)	40	25399			20.95- 80.95	64.04
4.138	4.123	(0.715)	38	4002			0.00- 41.17	10.09
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.238	4.238	(0.733)	49	56613	5.00000	5.369	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	29850			22.03- 82.03	52.73
4.238	4.238	(0.733)	51	17301			0.18- 60.18	30.56
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.346	4.338	(0.751)	59	101502	5.00000	5.272	80.00- 120.00	100.00
4.346	4.338	(0.751)	41	20240			0.00- 51.11	19.94
4.346	4.338	(0.751)	57	10646			0.00- 40.49	10.49
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.453	4.446	(0.770)	73	95601	5.00000	5.059	80.00- 120.00	100.00
4.453	4.446	(0.770)	57	32712			3.10- 63.10	34.22
4.446	4.446	(0.768)	41	29468			1.28- 61.28	30.82
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.482	4.482	(0.775)	98	22139	5.00000	5.128	80.00- 120.00	100.00
4.482	4.482	(0.775)	61	65349			255.84- 315.84	295.18
4.482	4.482	(0.775)	96	35688			127.59- 187.59	161.20
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.568	4.560	(0.790)	52	31636	5.00000	5.067	80.00- 120.00	100.00
4.568	4.560	(0.790)	53	37230			88.05- 148.05	117.68
-----								
67 Hexane						CAS #: 110-54-3		
4.697	4.697	(0.812)	57	78566	5.00000	5.242	80.00- 120.00	100.00
4.697	4.697	(0.812)	43	52548			37.52- 97.52	66.88
4.697	4.697	(0.812)	86	8762			0.00- 41.48	11.15
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.969	4.962	(0.859)	63	71027	5.00000	5.330	80.00- 120.00	100.00
4.969	4.962	(0.859)	65	20959			0.00- 59.70	29.51
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.954	4.954	(0.856)	45	175979	5.00000	5.056	80.00- 120.00	100.00
4.954	4.954	(0.856)	87	32174			0.00- 48.18	18.28
4.954	4.954	(0.856)	59	19101			0.00- 40.15	10.85
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.864)	86	8490	5.00000	5.067	80.00- 120.00	100.00
4.997	4.997	(0.864)	43	210809			2432.48-2492.48	2483.03
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.917)	59	155272	5.00000	5.130	80.00- 120.00	100.00
5.313	5.305	(0.918)	87	47844			1.00- 61.00	30.81
5.305	5.305	(0.917)	41	29096			0.00- 48.73	18.74
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.952)	77	57515	5.00000	5.111	80.00- 120.00	100.00
5.506	5.506	(0.952)	79	19126			2.28- 62.28	33.25
5.513	5.506	(0.953)	97	14288			0.00- 53.93	24.84
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.959)	98	23684	5.00000	5.416	80.00- 120.00	100.00
5.549	5.549	(0.959)	96	37228			125.75- 185.75	157.19
5.549	5.549	(0.959)	61	88318			332.40- 392.40	372.90
86 2-Butanone						CAS #: 78-93-3		
5.563	5.556	(0.962)	72	18843	5.00000	5.301	80.00- 120.00	100.00
5.570	5.556	(0.963)	43	231029			1214.50-1274.50	1226.07
5.556	5.556	(0.960)	57	9599			14.68- 74.68	50.94
87 Ethyl Acetate						CAS #: 141-78-6		
5.578	5.570	(0.964)	45	18229	5.00000	5.206	80.00- 120.00	100.00
5.549	5.549	(0.959)	61	88318			452.04- 512.04	484.49
5.578	5.570	(0.964)	70	9745			22.77- 82.77	53.46
89 Tetrahydrofuran						CAS #: 109-99-9		
5.778	5.771	(0.999)	42	62552	5.00000	5.248	80.00- 120.00	100.00
5.778	5.771	(0.999)	71	16889			0.00- 55.82	27.00
5.778	5.771	(0.999)	72	17687			0.00- 57.59	28.28
* 90 Bromochloromethane						CAS #: 74-97-5		
5.785	5.778	(1.000)	130	153560	25.0000		80.00- 120.00	100.00
5.785	5.778	(1.000)	128	120740			48.23- 108.23	78.63
5.785	5.778	(1.000)	49	285150			150.57- 210.57	185.69
92 Chloroform						CAS #: 67-66-3		
5.843	5.835	(1.010)	83	72304	5.00000	5.396	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.835	5.835	(1.009)	85	48644			34.70- 94.70	67.28
-----								
94 Cyclohexane								
5.957	5.957	(1.030)	84	48651	5.00000	5.230	80.00- 120.00	100.00
5.957	5.957	(1.030)	56	84034			142.57- 202.57	172.73
5.957	5.957	(1.030)	41	47136			62.09- 122.09	96.89
-----								
96 1,1,1-Trichloroethane								
5.972	5.972	(1.032)	97	76302	5.00000	5.101	80.00- 120.00	100.00
5.972	5.972	(1.032)	99	48638			34.02- 94.02	63.74
-----								
97 Carbon Tetrachloride								
6.086	6.086	(1.052)	119	68353	5.00000	4.926	80.00- 120.00	100.00
6.086	6.086	(1.052)	117	69130			70.64- 130.64	101.14
-----								
99 1,1-Dichloropropene								
6.122	6.115	(0.918)	110	21692	5.00000	5.091	80.00- 120.00	100.00
6.115	6.115	(0.917)	75	54412			226.85- 286.85	250.84
-----								
101 2,2,4-Trimethylpentane								
6.280	6.280	(1.085)	57	268783	5.00000	5.166	80.00- 120.00	100.00
6.280	6.280	(1.085)	56	86771			2.24- 62.24	32.28
6.280	6.280	(1.085)	41	65018			0.00- 54.39	24.19
-----								
102 Benzene								
6.301	6.301	(0.945)	78	103868	5.00000	5.071	80.00- 120.00	100.00
6.301	6.301	(0.945)	77	24431			0.00- 52.90	23.52
-----								
§ 104 1,2-Dichloroethane-d4								
6.315	6.308	(1.092)	65	219202	25.0000	26.408	80.00- 120.00	100.00
6.315	6.308	(1.092)	67	110588			27.21- 87.21	50.45
-----								
105 tert-Amyl methyl ether								
6.358	6.358	(0.954)	87	27837	5.00000	4.798	80.00- 120.00	100.00
6.358	6.358	(0.954)	73	110361			372.79- 432.79	396.45
6.358	6.358	(0.954)	55	40445			112.09- 172.09	145.29
-----								
106 1,2-Dichloroethane								
6.380	6.380	(0.957)	62	57760	5.00000	5.314	80.00- 120.00	100.00
6.380	6.380	(0.957)	64	18494			0.79- 60.79	32.02
-----								
107 Heptane								
6.452	6.444	(0.968)	71	40838	5.00000	5.157	80.00- 120.00	100.00
6.452	6.444	(0.968)	43	109706			226.53- 286.53	268.64
6.452	6.444	(0.968)	57	53636			100.85- 160.85	131.34
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.666	6.659	(1.000)	114	614215	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	99192			0.00- 45.71	16.15
-----								
110 n-Butanol						CAS #: 71-36-3		
6.817	6.810	(1.023)	56	37585	5.00000	5.115	80.00- 120.00	100.00
6.817	6.810	(1.023)	41	25791			40.99- 100.99	68.62
6.817	6.810	(1.023)	43	19657			27.38- 87.38	52.30
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.030)	95	50753	5.00000	5.124	80.00- 120.00	100.00
6.867	6.867	(1.030)	130	55306			76.29- 136.29	108.97
6.867	6.867	(1.030)	97	33227			33.63- 93.63	65.47
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.096	7.089	(1.064)	63	52290	5.00000	4.994	80.00- 120.00	100.00
7.096	7.089	(1.064)	62	37275			41.07- 101.07	71.29
7.096	7.089	(1.064)	41	32092			22.53- 82.53	61.37
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.139	7.132	(0.755)	69	42786	5.00000	5.002	80.00- 120.00	100.00
7.139	7.132	(0.755)	41	84724			179.84- 239.84	198.02
7.139	7.139	(0.755)	100	16675			9.59- 69.59	38.97
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.182	7.175	(1.077)	88	29029	5.00000	5.128	80.00- 120.00	100.00
7.182	7.175	(1.077)	58	30676			68.28- 128.28	105.67
7.175	7.175	(1.076)	57	10403			2.68- 62.68	35.84
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.204	7.204	(0.761)	174	48548	5.00000	5.183	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	44155			60.09- 120.09	90.95
7.204	7.204	(0.761)	95	37033			48.38- 108.38	76.28
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.098)	83	79651	5.00000	5.195	80.00- 120.00	100.00
7.318	7.318	(1.098)	85	50267			35.24- 95.24	63.11
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.698	7.691	(1.155)	75	66685	5.00000	5.188	80.00- 120.00	100.00
7.691	7.691	(1.154)	77	20474			2.42- 62.42	30.70
7.698	7.691	(1.155)	39	45208			37.16- 97.16	67.79
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.046)	83	68708	5.00000	4.834	80.00- 120.00	100.00
6.974	6.974	(1.046)	98	32707			15.78- 75.78	47.60

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.046)	55	78753			84.64- 144.64	114.62
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.798	7.791	(1.170)	58	52502	5.00000	5.020	80.00- 120.00	100.00
7.798	7.791	(1.170)	43	142064			242.35- 302.35	270.59
7.798	7.791	(1.170)	85	17584			3.24- 63.24	33.49
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.891	7.891	(1.184)	98	675430	25.0000	25.276	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	73047			0.00- 40.44	10.81
7.891	7.891	(1.184)	100	435947			34.95- 94.95	64.54
-----								
137 Toluene						CAS #: 108-88-3		
7.956	7.949	(1.193)	91	142004	5.00000	5.011	80.00- 120.00	100.00
7.956	7.949	(1.193)	92	83371			28.38- 88.38	58.71
-----								
136 Octane						CAS #: 111-65-9		
7.949	7.949	(1.192)	57	58129	5.00000	4.968	80.00- 120.00	100.00
7.949	7.949	(1.192)	85	50245			56.00- 116.00	86.44
7.949	7.949	(1.192)	43	157708			228.66- 288.66	271.31
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.214	8.214	(0.868)	75	61054	5.00000	4.981	80.00- 120.00	100.00
8.214	8.214	(0.868)	77	20798			1.24- 61.24	34.06
8.214	8.214	(0.868)	39	41024			34.11- 94.11	67.19
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.400	8.400	(0.888)	97	49333	5.00000	4.984	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	30960			31.96- 91.96	62.76
8.400	8.400	(0.888)	83	42360			52.93- 112.93	85.87
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	71008	5.00000	4.897	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	56371			47.84- 107.84	79.39
8.464	8.464	(0.895)	131	53822			45.29- 105.29	75.80
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.586	8.586	(0.908)	58	73185	5.00000	5.071	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	139375			162.87- 222.87	190.44
8.586	8.586	(0.908)	100	11054			0.00- 45.94	15.10
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.287)	76	69233	5.00000	5.146	80.00- 120.00	100.00
8.579	8.579	(1.287)	41	91020			94.99- 154.99	131.47
8.579	8.579	(1.287)	78	23803			2.05- 62.05	34.38
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane								CAS #: 124-48-1
8.801	8.801	(0.930)	129	91590	5.00000	4.835	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	70825			47.45- 107.45	77.33
-----								
148 1,2-Dibromoethane (EDB)								CAS #: 106-93-4
8.951	8.951	(0.946)	107	81392	5.00000	4.951	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	77262			64.21- 124.21	94.93
-----								
151 1-Bromo-2-Chloroethane								CAS #: 107-04-0
7.605	7.605	(1.141)	63	98471	5.00000	5.098	80.00- 120.00	100.00
7.605	7.605	(1.141)	65	28839			0.00- 59.64	29.29
7.612	7.605	(1.142)	144	9784			0.00- 39.63	9.94
-----								
* 153 Chlorobenzene-d5								CAS #: 3114-55-4
9.460	9.460	(1.000)	117	619157	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	334026			23.78- 83.78	53.95
-----								
154 Chlorobenzene								CAS #: 108-90-7
9.496	9.496	(1.004)	112	124593	5.00000	5.059	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	38052			1.74- 61.74	30.54
9.496	9.496	(1.004)	77	71532			25.04- 85.04	57.41
-----								
155 Ethyl Benzene								CAS #: 100-41-4
9.567	9.567	(1.011)	106	62027	5.00000	4.807	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	188972			273.74- 333.74	304.66
-----								
156 Nonane								CAS #: 111-84-2
9.603	9.596	(1.015)	43	159252	5.00000	4.835	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	134249			54.16- 114.16	84.30
9.603	9.603	(1.015)	85	35745			0.00- 53.90	22.45
-----								
158 m,p-Xylene								CAS #: 108-38-3
9.718	9.718	(1.027)	106	78963	5.00000	4.914	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	153333			163.73- 223.73	194.18
-----								
164 o-Xylene								CAS #: 95-47-6
10.226	10.226	(1.081)	106	75798	5.00000	4.901	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	152985			177.45- 237.45	201.83
-----								
165 Styrene								CAS #: 100-42-5
10.255	10.255	(1.084)	104	128486	5.00000	4.859	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	63172			17.88- 77.88	49.17
-----								
167 Bromoform								CAS #: 75-25-2
10.549	10.542	(1.115)	173	90352	5.00000	4.922	80.00- 120.00	100.00
10.549	10.542	(1.115)	171	45856			21.25- 81.25	50.75
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	240077	5.00000	4.956	80.00- 120.00	100.00
10.656	10.649	(1.126)	120	66515			0.00- 58.52	27.71
10.649	10.649	(1.126)	51	32083			0.00- 43.00	13.36
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.871	10.871	(1.149)	55	82861	5.00000	4.708	80.00- 120.00	100.00(a)
10.871	10.871	(1.149)	98	26897			1.94- 61.94	32.46
10.871	10.871	(1.149)	42	53882			37.89- 97.89	65.03
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	395495	25.0000	24.963	80.00- 120.00	100.00
10.921	10.921	(1.154)	95	504864			95.92- 155.92	127.65
10.921	10.921	(1.154)	176	377124			66.89- 126.89	95.35
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.107	11.100	(1.174)	83	115941	5.00000	4.902	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	75106			35.20- 95.20	64.78
-----								
177 Bromobenzene						CAS #: 108-86-1		
11.107	11.107	(1.174)	156	72185	5.00000	4.925	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	70501			67.21- 127.21	97.67
11.179	11.179	(1.182)	77	42638			29.02- 89.02	59.07
-----								
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	70283	5.00000	4.886	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	273213			366.49- 426.49	388.73
11.150	11.150	(1.179)	105	11389			0.00- 44.85	16.20
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
11.179	11.179	(1.182)	110	35448	5.00000	4.699	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	108981			280.55- 340.55	307.44
11.100	11.100	(1.173)	61	16930			15.49- 75.49	47.76
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
11.179	11.179	(1.182)	53	24562	5.00000	4.944	80.00- 120.00	100.00
11.179	11.179	(1.182)	89	19278			49.11- 109.11	78.49
11.179	11.179	(1.182)	75	108981			426.44- 486.44	443.70
-----								
182 Decane						CAS #: 124-18-5		
11.251	11.251	(1.189)	57	178943	5.00000	4.581	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	50239			0.00- 57.66	28.08
11.258	11.258	(1.190)	142	7536			0.00- 34.09	4.21
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
11.287	11.287	(1.193)	120	74542	5.00000	4.802	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.287	11.287	(1.193)	105	236331			284.55- 344.55	317.04
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
11.308	11.308	(1.195)	126	59824	5.00000	4.914	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	202772			315.17- 375.17	338.95
11.301	11.301	(1.195)	65	31085			21.55- 81.55	51.96
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	105493	5.00000	4.941	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	204343			164.93- 224.93	193.70
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.645	11.645	(1.231)	118	103352	5.00000	4.828	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	55037			25.30- 85.30	53.25
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.738	11.738	(1.241)	119	195585	5.00000	4.893	80.00- 120.00	100.00
11.745	11.738	(1.242)	134	47923			0.00- 54.25	24.50
11.738	11.738	(1.241)	91	122078			31.27- 91.27	62.42
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.817	11.817	(1.249)	105	197002	5.00000	4.852	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	100446			19.05- 79.05	50.99
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.996	11.996	(1.268)	134	61201	5.00000	4.936	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	289294			437.55- 497.55	472.69
11.996	11.996	(1.268)	91	43669			40.76- 100.76	71.35
-----								
194 p-Cymene CAS #: 99-87-6								
12.160	12.160	(1.285)	119	263591	5.00000	4.820	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	69874			0.00- 55.54	26.51
12.160	12.153	(1.285)	91	57763			0.00- 51.48	21.91
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.203	12.196	(1.290)	146	138345	5.00000	4.901	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	88212			33.21- 93.21	63.76
12.196	12.196	(1.289)	111	57941			11.31- 71.31	41.88
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	139853	5.00000	4.937	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	90352			33.90- 93.90	64.60
12.311	12.311	(1.301)	111	54179			9.45- 69.45	38.74
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	190239	5.00000	4.969	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	42809			0.00- 53.26	22.50
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	220225	5.00000	4.896	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	195864			58.12- 118.12	88.94
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	68631	5.00000	4.849	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	231841			314.79- 374.79	337.81
12.626	12.626	(1.335)	92	123591			154.29- 214.29	180.08
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.741	12.741	(1.347)	146	136005	5.00000	4.972	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	85924			33.84- 93.84	63.18
12.733	12.741	(1.346)	111	58979			12.73- 72.73	43.37
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	79532	5.00000	4.858	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	66463			52.48- 112.48	83.57
13.600	13.600	(1.438)	155	62161			47.41- 107.41	78.16
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	213240	6.18000	6.559	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	173340			52.87- 112.87	81.29
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	130791	6.30000	6.544	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	126487			65.33- 125.33	96.71
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.582	14.582	(1.541)	225	92162	6.44000	6.665	80.00- 120.00	100.00
14.582	14.582	(1.541)	223	58371			33.17- 93.17	63.34
-----								
216 Naphthalene						CAS #: 91-20-3		
14.768	14.768	(1.561)	128	32129	0.64000	0.6122	80.00- 120.00	100.00
14.761	14.768	(1.560)	127	4372			0.00- 42.88	13.61
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.069	15.069	(1.593)	180	118701	6.66000	6.782	80.00- 120.00	100.00
15.069	15.069	(1.593)	182	113556			65.75- 125.75	95.67
15.069	15.069	(1.593)	145	41550			5.23- 65.23	35.00
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p051906.d  
Lab Smp Id: ICAL Level 5  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
Misc Info: 5.0ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
Calibration Time: 15:55  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	153560	-3.31
108 1,4-Difluorobenze	597103	358262	835944	614215	2.87
153 Chlorobenzene-d5	587747	352648	822846	619157	5.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.79	0.13
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.



Date : 19-MAY-2021 15:00

Client ID:

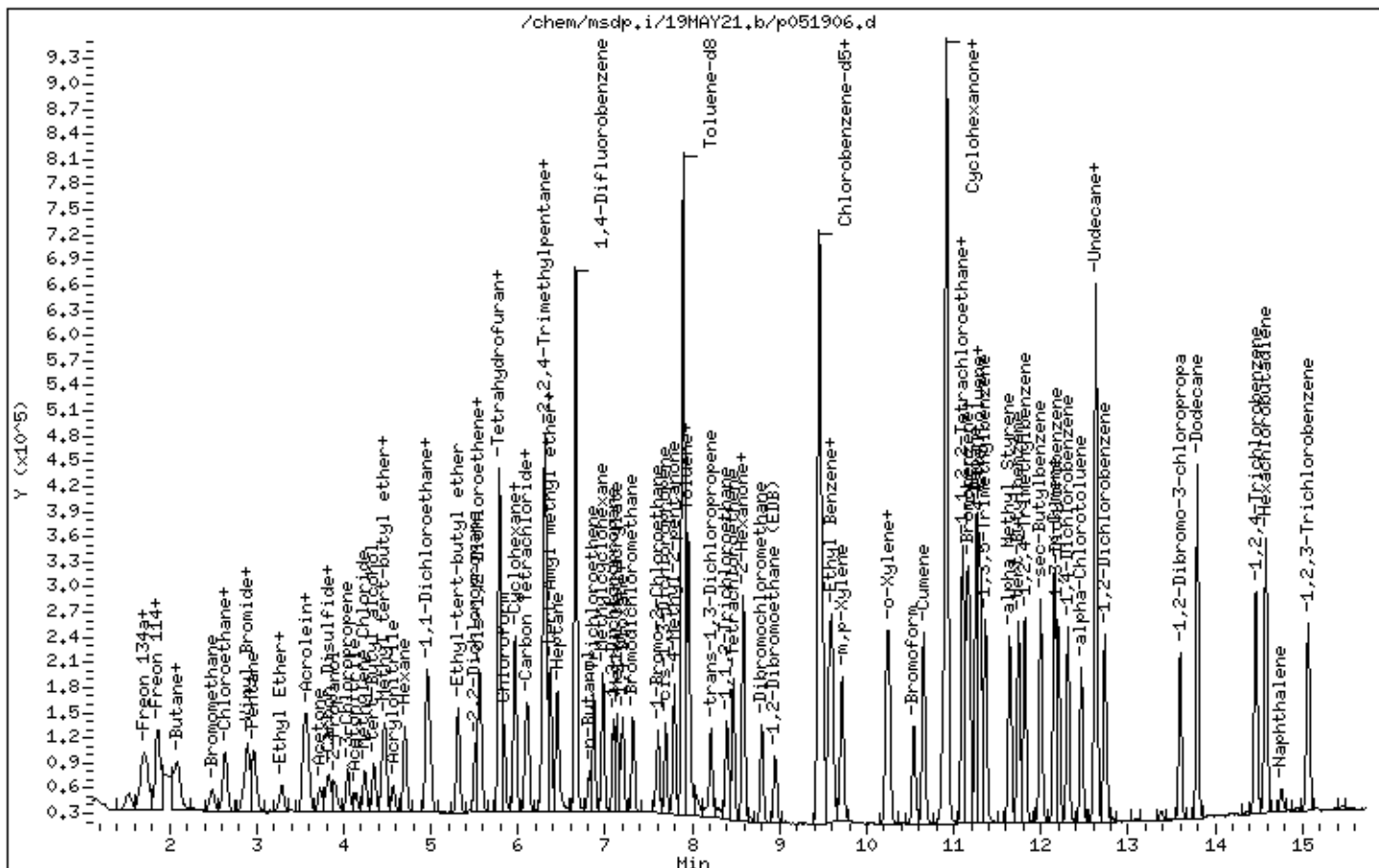
Instrument: msdp.i

Sample Info: 200mL 3018-2045

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051917.d  
Lab Smp Id: ICAL Level 5  
Inj Date : 19-MAY-2021 20:43  
Operator : gh Inst ID: msdp.i  
Smp Info : 200mL 3018-1928  
Misc Info : 5.0ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 20:43 Cal File: p051917.d  
Als bottle: 2 Calibration Sample, Level: 5  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.785	5.778	(1.000)	130	153596	25.0000		80.00- 120.00 100.00
5.785	5.778	(1.000)	128	120099			48.23- 108.23 78.19
5.785	5.778	(1.000)	49	277119			150.57- 210.57 180.42
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.659	6.659	(1.000)	114	607535	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	95316			0.00- 45.71 15.69
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.460	9.460	(1.000)	117	599728	25.0000		80.00- 120.00 100.00
9.460	9.460	(1.000)	82	327307			23.78- 83.78 54.58
-----							
3 Freon 143a CAS #: 420-46-2							
1.591	1.590	(0.275)	65	8816	5.00000	2.827	80.00- 120.00 100.00
1.605	1.590	(0.277)	69	21877			243.50- 303.50 248.15
1.605	1.590	(0.277)	64	2504			0.00- 54.06 28.40
-----							
6 Propane CAS #: 74-98-6							
1.688	1.674	(0.292)	43	14059	5.00000	4.918	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.688	1.674	(0.292)	39	9149			34.98- 94.98	65.08
1.688	1.674	(0.292)	41	8274			25.22- 85.22	58.85
-----								
13 Freon 142b						CAS #: 75-68-3		
1.898	1.884	(0.328)	65	77411	5.00000	4.903	80.00- 120.00	100.00
1.898	1.884	(0.328)	45	23408			0.00- 59.77	30.24
-----								
36 1-Pentene						CAS #: 109-67-1		
2.906	2.906	(0.502)	55	50218	5.00000	4.904	80.00- 120.00	100.00(a)
2.906	2.906	(0.502)	42	65836			105.17- 165.17	131.10
-----								
40 Freon 123a						CAS #: 354-23-4		
3.393	3.385	(0.586)	117	52612	5.00000	5.296	80.00- 120.00	100.00(a)
3.386	3.378	(0.585)	67	63816			104.69- 164.69	121.30
-----								
41 Freon 123						CAS #: 306-83-2		
3.486	3.479	(0.603)	83	68341	5.00000	4.967	80.00- 120.00	100.00
3.486	3.479	(0.603)	133	15880			0.00- 50.87	23.24
3.486	3.479	(0.603)	85	48933			36.08- 96.08	71.60
-----								
55 Cyclopentene						CAS #: 142-29-0		
4.073	4.073	(0.704)	67	78856	5.00000	5.332	80.00- 120.00	100.00
4.073	4.073	(0.704)	68	30336			6.76- 66.76	38.47
4.073	4.073	(0.704)	53	22763			0.00- 57.54	28.87
-----								
56 Methyl Acetate						CAS #: 79-20-9		
4.088	4.073	(0.707)	43	91822	5.00000	5.308	80.00- 120.00	100.00
4.088	4.073	(0.707)	74	13069			0.00- 44.13	14.23
-----								
74 Chloroprene						CAS #: 126-99-8		
5.019	5.019	(0.868)	53	75220	5.00000	5.500	80.00- 120.00	100.00
5.019	5.019	(0.868)	88	29151			9.21- 69.21	38.75
5.019	5.019	(0.868)	50	18461			0.00- 54.25	24.54
-----								
75 1-Propanol						CAS #: 71-23-8		
5.090	5.083	(0.880)	59	10283	5.00000	4.824	80.00- 120.00	100.00
5.090	5.083	(0.880)	42	8877			63.23- 123.23	86.33
5.090	5.083	(0.880)	41	5590			24.74- 84.74	54.36
-----								
88 Methyl Acrylate						CAS #: 96-33-3		
5.628	5.620	(0.973)	55	95932	5.00000	5.264	80.00- 120.00	100.00
5.628	5.620	(0.973)	85	11014			0.00- 41.28	11.48
5.628	5.620	(0.973)	58	7843			0.00- 38.22	8.18
-----								
103 Isobutanol						CAS #: 78-83-1		
6.244	6.244	(1.079)	39	10867	5.00000	4.807	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.244	6.244	(1.079)	43	49327			448.18- 508.18	453.92
6.244	6.244	(1.079)	41	33984			299.99- 359.99	312.73
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
6.946	6.938	(0.734)	99	7111 5.00000	4.971		80.00- 120.00	100.00
6.938	6.938	(0.733)	45	13011			149.95- 209.95	182.97
6.938	6.938	(0.733)	55	133152			1849.07-1909.07	1872.48
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.032	7.031	(0.743)	43	159681 5.00000	5.193		80.00- 120.00	100.00
7.032	7.031	(0.743)	58	12244			0.00- 37.44	7.67
7.032	7.031	(0.743)	86	19990			0.00- 42.78	12.52
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.665	8.665	(1.301)	56	77293 5.00000	4.991		80.00- 120.00	100.00(a)
8.665	8.665	(1.301)	73	23632			0.00- 59.10	30.57
8.665	8.657	(1.301)	43	188441			215.30- 275.30	243.80
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.596	9.596	(1.014)	131	63705 5.00000	4.810		80.00- 120.00	100.00
9.460	9.460	(1.000)	117	599728			57.42- 117.42	941.41
9.596	9.596	(1.014)	95	23461			5.70- 65.70	36.83
-----								
166 2-Heptanone						CAS #: 110-43-0		
10.362	10.362	(1.791)	58	116686 5.00000	5.161		80.00- 120.00	100.00
10.362	10.362	(1.791)	43	191827			136.03- 196.03	164.40
-----								
172 D-Limonene						CAS #: 5989-27-5		
12.089	12.089	(1.278)	68	41323 5.00000	3.808		80.00- 120.00	100.00
12.089	12.089	(1.278)	93	28530			39.41- 99.41	69.04
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
11.444	11.444	(1.210)	126	63397 5.00000	5.120		80.00- 120.00	100.00
11.444	11.444	(1.210)	91	187470			295.02- 355.02	295.71
11.444	11.444	(1.210)	63	25896			11.82- 71.82	40.85
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
12.318	12.318	(1.302)	120	88020 5.00000	4.917		80.00- 120.00	100.00(a)
12.318	12.318	(1.302)	105	198476			192.40- 252.40	225.49
12.318	12.318	(1.302)	77	22835			0.00- 54.69	25.94
-----								
205 Hexachloroethane						CAS #: 67-72-1		
12.970	12.970	(1.371)	201	21359 5.00000	3.532		80.00- 120.00	100.00
12.970	12.970	(1.371)	117	28923			102.99- 162.99	135.41
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	128059	5.00000	5.049	80.00- 120.00	100.00
13.758	13.758	(1.454)	182	121863			65.24- 125.24	95.16
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	114218	5.00000	4.871	80.00- 120.00	100.00
10.599	10.599	(1.120)	77	34098			0.00- 58.21	29.85
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.423	11.422	(1.207)	93	58870	5.00000	4.306	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	187470			153.57- 213.57	318.45
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051917.d  
 Lab Smp Id: ICAL Level 5  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 5.0ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	153596	-3.28
108 1,4-Difluorobenze	597103	358262	835944	607535	1.75
153 Chlorobenzene-d5	587747	352648	822846	599728	2.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.79	0.12
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 20:43

Client ID:

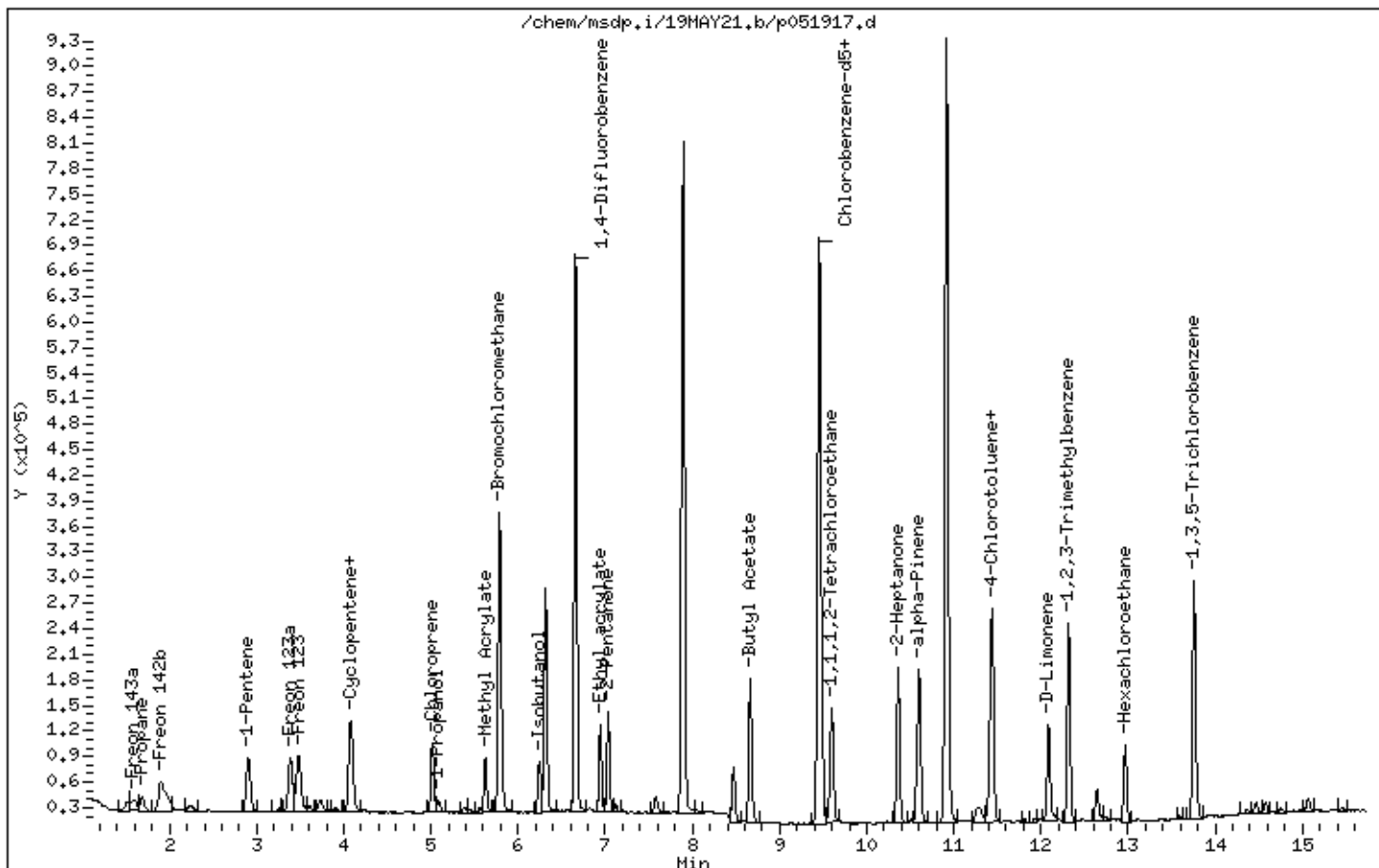
Instrument: msdp.i

Sample Info: 200mL 3018-1928

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051907.d  
 Lab Smp Id: ICAL Level 6  
 Inj Date : 19-MAY-2021 15:27  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 20mL 3018-2034  
 Misc Info : 20ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 15:27 Cal File: p051907.d  
 Als bottle: 13 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.633	1.633	(0.283)	83	93022 20.0000	18.478	80.00-	120.00	100.00
1.633	1.633	(0.283)	69	85552		59.44-	119.44	91.97
1.744	1.745	(0.302)	51	410469		419.06-	479.06	441.26
-----								
5 Propylene CAS #: 115-07-1								
1.675	1.675	(0.290)	41	126668 20.0000	17.269	80.00-	120.00	100.00
1.675	1.675	(0.290)	42	83011		35.28-	95.28	65.53
1.675	1.675	(0.290)	39	87777		38.35-	98.35	69.30
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.688	1.703	(0.292)	65	66510 20.0000	17.899	80.00-	120.00	100.00
1.744	1.745	(0.302)	51	410469		597.63-	657.63	617.15
1.688	1.703	(0.292)	47	42224		33.72-	93.72	63.49
-----								
8 Freon 12 CAS #: 75-71-8								
1.716	1.717	(0.297)	85	256819 20.0000	18.385	80.00-	120.00	100.00
1.716	1.717	(0.297)	87	83094		2.37-	62.37	32.36
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.744	1.745	(0.302)	67	27136 20.0000	19.522	80.00-	120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.744	1.745	(0.302)	51	410469			1501.01-1561.01	1512.64
-----								
10 Freon 114 CAS #: 76-14-2								
1.842	1.856	(0.319)	135	257544	20.0000	17.884	80.00- 120.00	100.00
1.842	1.856	(0.319)	137	84530			2.30- 62.30	32.82
-----								
12 Isobutane CAS #: 75-28-5								
1.856	1.870	(0.321)	43	276539	20.0000	16.916	80.00- 120.00	100.00
1.856	1.870	(0.321)	42	89198			2.44- 62.44	32.26
1.856	1.856	(0.321)	58	9258			0.00- 33.36	3.35
-----								
15 Chloromethane CAS #: 74-87-3								
1.940	1.940	(0.336)	50	175425	20.0000	19.636	80.00- 120.00	100.00
1.940	1.940	(0.336)	52	48487			0.00- 56.26	27.64
-----								
18 Butane CAS #: 106-97-8								
2.025	2.025	(0.350)	58	26908	20.0000	14.306	80.00- 120.00	100.00
2.025	2.025	(0.350)	43	210189			823.29- 883.29	781.14
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.068	2.068	(0.358)	62	167898	20.0000	16.491	80.00- 120.00	100.00
2.068	2.068	(0.358)	64	51574			0.00- 59.69	30.72
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.089	2.089	(0.362)	54	173027	20.0000	22.047	80.00- 120.00	100.00
2.089	2.089	(0.362)	39	131220			52.37- 112.37	75.84
-----								
24 Bromomethane CAS #: 74-83-9								
2.476	2.483	(0.428)	94	109467	20.0000	16.296	80.00- 120.00	100.00
2.476	2.483	(0.428)	96	101049			64.07- 124.07	92.31
-----								
30 Chloroethane CAS #: 75-00-3								
2.605	2.612	(0.451)	64	60984	20.0000	17.056	80.00- 120.00	100.00
2.605	2.612	(0.451)	66	18278			0.04- 60.04	29.97
2.605	2.612	(0.451)	49	19753			4.54- 64.54	32.39
-----								
31 Isopentane CAS #: 78-78-4								
2.634	2.634	(0.456)	43	221068	20.0000	20.084	80.00- 120.00	100.00
2.634	2.634	(0.456)	57	143195			34.12- 94.12	64.77
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.834	2.841	(0.490)	106	103992	20.0000	17.605	80.00- 120.00	100.00
2.834	2.841	(0.490)	108	100338			69.27- 129.27	96.49
-----								
33 Freon 11 CAS #: 75-69-4								
2.884	2.884	(0.499)	101	289208	20.0000	19.049	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.884	2.884	(0.499)	103	188691			34.72- 94.72	65.24
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.899	2.899	(0.502)	67	224049	20.0000	17.280	80.00- 120.00	100.00
2.899	2.899	(0.502)	69	67915			0.84- 60.84	30.31
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.514)	43	340845	20.0000	18.944	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	51294			0.00- 44.98	15.05
2.970	2.970	(0.514)	72	24256			0.00- 37.39	7.12
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.285	3.285	(0.569)	74	55504	20.0000	18.719	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	102072			163.46- 223.46	183.90
3.278	3.285	(0.567)	45	151025			250.40- 310.40	272.10
-----								
39 Ethanol CAS #: 64-17-5								
3.235	3.242	(0.560)	46	28012	20.0000	17.557	80.00- 120.00	100.00
3.278	3.242	(0.567)	45	150850			511.19- 571.19	538.52
-----								
42 Acrolein CAS #: 107-02-8								
3.522	3.529	(0.609)	55	48671	20.0000	17.849	80.00- 120.00	100.00
3.522	3.529	(0.609)	56	67406			111.10- 171.10	138.49
-----								
43 Freon 113 CAS #: 76-13-1								
3.550	3.550	(0.614)	151	234506	20.0000	20.574	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	150010			33.56- 93.56	63.97
3.550	3.550	(0.614)	101	277635			89.21- 149.21	118.39
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.579	3.579	(0.619)	96	117179	20.0000	17.797	80.00- 120.00	100.00
3.579	3.579	(0.619)	98	73665			34.02- 94.02	62.87
3.579	3.579	(0.619)	61	234280			168.77- 228.77	199.93
-----								
47 Acetone CAS #: 67-64-1								
3.708	3.708	(0.642)	58	72065	20.0000	17.340	80.00- 120.00	100.00
3.708	3.708	(0.642)	43	241838			302.95- 362.95	335.58
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.815	3.823	(0.660)	76	317436	20.0000	17.928	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.787	3.794	(0.655)	142	245125	20.0000	23.837	80.00- 120.00	100.00
3.787	3.794	(0.655)	127	102171			12.22- 72.22	41.68
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.880	3.887	(0.671)	45	307798	20.0000	18.411	80.00- 120.00	100.00
3.880	3.887	(0.671)	43	51379			0.00- 47.19	16.69
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.045	4.052	(0.700)	76	51511	20.0000	17.182	80.00- 120.00	100.00
4.045	4.052	(0.700)	41	225722			396.19- 456.19	438.20
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.123	4.123	(0.714)	41	132955	20.0000	17.513	80.00- 120.00	100.00
4.123	4.123	(0.714)	40	69875			20.95- 80.95	52.56
4.123	4.123	(0.714)	38	15334			0.00- 41.17	11.53
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.231	4.238	(0.732)	49	188872	20.0000	17.656	80.00- 120.00	100.00
4.231	4.238	(0.732)	84	97783			22.03- 82.03	51.77
4.231	4.238	(0.732)	51	56590			0.18- 60.18	29.96
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.338	4.338	(0.751)	59	376326	20.0000	18.886	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	79824			0.00- 51.11	21.21
4.338	4.338	(0.751)	57	39827			0.00- 40.49	10.58
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.769)	73	393778	20.0000	19.813	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	131571			3.10- 63.10	33.41
4.446	4.446	(0.769)	41	127804			1.28- 61.28	32.46
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.474	4.482	(0.774)	98	79611	20.0000	17.941	80.00- 120.00	100.00
4.474	4.482	(0.774)	61	222503			255.84- 315.84	279.49
4.474	4.482	(0.774)	96	121969			127.59- 187.59	153.21
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.553	4.560	(0.788)	52	108453	20.0000	17.080	80.00- 120.00	100.00
4.553	4.560	(0.788)	53	125300			88.05- 148.05	115.53
-----								
67 Hexane						CAS #: 110-54-3		
4.696	4.697	(0.813)	57	289038	20.0000	18.610	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	192159			37.52- 97.52	66.48
4.696	4.697	(0.813)	86	34504			0.00- 41.48	11.94
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.961	4.962	(0.859)	63	244047	20.0000	17.840	80.00- 120.00	100.00
4.961	4.962	(0.859)	65	72133			0.00- 59.70	29.56
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.947	4.954	(0.856)	45	733750	20.0000	19.999	80.00- 120.00	100.00
4.954	4.954	(0.857)	87	130937			0.00- 48.18	17.84
4.947	4.954	(0.856)	59	74206			0.00- 40.15	10.11
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.865)	86	29493	20.0000	17.415	80.00- 120.00	100.00
4.990	4.997	(0.864)	43	540307			2432.48-2492.48	1831.98
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.918)	59	633028	20.0000	19.878	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	196731			1.00- 61.00	31.08
5.305	5.305	(0.918)	41	121691			0.00- 48.73	19.22
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.953)	77	247387	20.0000	20.676	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	79013			2.28- 62.28	31.94
5.506	5.506	(0.953)	97	59214			0.00- 53.93	23.94
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.542	5.549	(0.959)	98	79311	20.0000	17.700	80.00- 120.00	100.00
5.542	5.549	(0.959)	96	126353			125.75- 185.75	159.31
5.542	5.549	(0.959)	61	301739			332.40- 392.40	380.45
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.962)	72	60163	20.0000	16.887	80.00- 120.00	100.00
5.563	5.556	(0.963)	43	755298			1214.50-1274.50	1255.42
5.556	5.556	(0.962)	57	27140			14.68- 74.68	45.11
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.964)	45	61995	20.0000	17.497	80.00- 120.00	100.00
5.542	5.549	(0.959)	61	301739			452.04- 512.04	486.72
5.570	5.570	(0.964)	70	32560			22.77- 82.77	52.52
89 Tetrahydrofuran						CAS #: 109-99-9		
5.771	5.771	(0.999)	42	206034	20.0000	17.009	80.00- 120.00	100.00
5.771	5.771	(0.999)	71	54220			0.00- 55.82	26.32
5.771	5.771	(0.999)	72	59914			0.00- 57.59	29.08
* 90 Bromochloromethane						CAS #: 74-97-5		
5.778	5.778	(1.000)	130	161884	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	125674			48.23- 108.23	77.63
5.771	5.778	(1.000)	49	290833			150.57- 210.57	179.66
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	241783	20.0000	17.626	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.835	5.835	(1.010)	85	158829			34.70- 94.70	65.69
-----								
94 Cyclohexane CAS #: 110-82-7								
5.957	5.957	(1.031)	84	203644	20.0000	20.607	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	346268			142.57- 202.57	170.04
5.957	5.957	(1.031)	41	187080			62.09- 122.09	91.87
-----								
96 1,1,1-Trichloroethane CAS #: 71-55-6								
5.964	5.972	(1.032)	97	306146	20.0000	19.529	80.00- 120.00	100.00
5.964	5.972	(1.032)	99	199684			34.02- 94.02	65.23
-----								
97 Carbon Tetrachloride CAS #: 56-23-5								
6.086	6.086	(1.053)	119	305164	20.0000	20.683	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	305319			70.64- 130.64	100.05
-----								
99 1,1-Dichloropropene CAS #: 563-58-6								
6.115	6.115	(0.918)	110	71487	20.0000	17.887	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	180986			226.85- 286.85	253.17
-----								
101 2,2,4-Trimethylpentane CAS #: 540-84-1								
6.279	6.280	(1.087)	57	1110205	20.0000	20.193	80.00- 120.00	100.00
6.279	6.280	(1.087)	56	359061			2.24- 62.24	32.34
6.279	6.280	(1.087)	41	278205			0.00- 54.39	25.06
-----								
102 Benzene CAS #: 71-43-2								
6.301	6.301	(0.946)	78	352350	20.0000	18.258	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	82919			0.00- 52.90	23.53
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.308	6.308	(1.092)	65	214356	25.0000	24.596	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	113737			27.21- 87.21	53.06
-----								
105 tert-Amyl methyl ether CAS #: 994-05-8								
6.358	6.358	(0.955)	87	111853	20.0000	20.020	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	458075			372.79- 432.79	409.53
6.358	6.358	(0.955)	55	161464			112.09- 172.09	144.35
-----								
106 1,2-Dichloroethane CAS #: 107-06-2								
6.380	6.380	(0.958)	62	181236	20.0000	17.798	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	57046			0.79- 60.79	31.48
-----								
107 Heptane CAS #: 142-82-5								
6.444	6.444	(0.968)	71	153106	20.0000	20.067	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	404624			226.53- 286.53	264.28
6.444	6.444	(0.968)	57	205765			100.85- 160.85	134.39
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	591321	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	94057			0.00- 45.71	15.91
-----								
110 n-Butanol						CAS #: 71-36-3		
6.810	6.810	(1.023)	56	132950	20.0000	19.082	80.00- 120.00	100.00
6.810	6.810	(1.023)	41	94545			40.99- 100.99	71.11
6.810	6.810	(1.023)	43	78634			27.38- 87.38	59.15
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	167926	20.0000	18.042	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	180875			76.29- 136.29	107.71
6.867	6.867	(1.031)	97	109619			33.63- 93.63	65.28
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.089	7.089	(1.065)	63	184802	20.0000	18.644	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	133840			41.07- 101.07	72.42
7.089	7.089	(1.065)	41	101498			22.53- 82.53	54.92
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.132	7.132	(0.754)	69	150281	20.0000	19.013	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	320687			179.84- 239.84	213.39
7.132	7.139	(0.754)	100	60103			9.59- 69.59	39.99
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.175	7.175	(1.077)	88	100090	20.0000	18.671	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	98658			68.28- 128.28	98.57
7.175	7.175	(1.077)	57	32744			2.68- 62.68	32.71
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.204	7.204	(0.761)	174	158665	20.0000	18.457	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	142936			60.09- 120.09	90.09
7.204	7.204	(0.761)	95	122464			48.38- 108.38	77.18
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	275648	20.0000	18.925	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	177537			35.24- 95.24	64.41
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.691	7.691	(1.155)	75	230619	20.0000	18.894	80.00- 120.00	100.00
7.691	7.691	(1.155)	77	72627			2.42- 62.42	31.49
7.691	7.691	(1.155)	39	154077			37.16- 97.16	66.81
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	280885	20.0000	20.418	80.00- 120.00	100.00
6.974	6.974	(1.047)	98	132474			15.78- 75.78	47.16

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.047)	55	326597			84.64- 144.64	116.27
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.791	7.791	(1.170)	58	198797	20.0000	19.794	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	542659			242.35- 302.35	272.97
7.791	7.791	(1.170)	85	66078			3.24- 63.24	33.24
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	636242	25.0000	24.785	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	65527			0.00- 40.44	10.30
7.891	7.891	(1.185)	100	416442			34.95- 94.95	65.45
-----								
137 Toluene CAS #: 108-88-3								
7.948	7.949	(1.194)	91	514167	20.0000	19.066	80.00- 120.00	100.00
7.948	7.949	(1.194)	92	307832			28.38- 88.38	59.87
-----								
136 Octane CAS #: 111-65-9								
7.941	7.949	(1.193)	57	236470	20.0000	20.785	80.00- 120.00	100.00
7.941	7.949	(1.193)	85	199342			56.00- 116.00	84.30
7.941	7.949	(1.193)	43	614834			228.66- 288.66	260.01
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
8.214	8.214	(0.868)	75	217123	20.0000	19.138	80.00- 120.00	100.00
8.214	8.214	(0.868)	77	68252			1.24- 61.24	31.43
8.214	8.214	(0.868)	39	141891			34.11- 94.11	65.35
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
8.400	8.400	(0.888)	97	176754	20.0000	19.263	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	111333			31.96- 91.96	62.99
8.400	8.400	(0.888)	83	150175			52.93- 112.93	84.96
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.464	8.464	(0.895)	166	257592	20.0000	19.183	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	201058			47.84- 107.84	78.05
8.464	8.464	(0.895)	131	191367			45.29- 105.29	74.29
-----								
143 2-Hexanone CAS #: 591-78-6								
8.586	8.586	(0.908)	58	268908	20.0000	19.939	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	517945			162.87- 222.87	192.61
8.586	8.586	(0.908)	100	41484			0.00- 45.94	15.43
-----								
144 1,3-Dichloropropane CAS #: 142-28-9								
8.579	8.579	(1.288)	76	246257	20.0000	19.204	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	314850			94.99- 154.99	127.85
8.579	8.579	(1.288)	78	78397			2.05- 62.05	31.84
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	337715	20.0000	19.240	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	263594			47.45- 107.45	78.05
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	280035	20.0000	18.542	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	267724			64.21- 124.21	95.60
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	333684	20.0000	18.417	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	97824			0.00- 59.64	29.32
7.605	7.605	(1.142)	144	32120			0.00- 39.63	9.63
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	579226	25.0000		80.00- 120.00	100.00
9.453	9.460	(1.000)	82	311215			23.78- 83.78	53.73
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	441684	20.0000	19.332	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	142490			1.74- 61.74	32.26
9.496	9.496	(1.004)	77	248503			25.04- 85.04	56.26
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	238564	20.0000	19.809	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	733130			273.74- 333.74	307.31
156 Nonane						CAS #: 111-84-2		
9.596	9.596	(1.014)	43	660026	20.0000	21.119	80.00- 120.00	100.00
9.596	9.603	(1.014)	57	552781			54.16- 114.16	83.75
9.596	9.603	(1.014)	85	158629			0.00- 53.90	24.03
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	298628	20.0000	19.892	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	589189			163.73- 223.73	197.30
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	296697	20.0000	20.402	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	604874			177.45- 237.45	203.87
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	488029	20.0000	19.783	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	228738			17.88- 77.88	46.87
167 Bromoform						CAS #: 75-25-2		
10.541	10.542	(1.114)	173	342784	20.0000	19.970	80.00- 120.00	100.00
10.541	10.542	(1.114)	171	175679			21.25- 81.25	51.25



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene			CAS #: 98-82-8					
10.649	10.649	(1.126)	105	931561	20.0000	20.442	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	266395			0.00- 58.52	28.60
10.649	10.649	(1.126)	51	122943			0.00- 43.00	13.20
169 Cyclohexanone			CAS #: 108-94-1					
10.871	10.871	(1.149)	55	329076	20.0000	19.988	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	105887			1.94- 61.94	32.18
10.871	10.871	(1.149)	42	225892			37.89- 97.89	68.64
§ 170 4-Bromofluorobenzene			CAS #: 460-00-4					
10.921	10.921	(1.154)	174	366979	25.0000	24.808	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	468117			95.92- 155.92	127.56
10.921	10.921	(1.154)	176	351685			66.89- 126.89	95.83
175 1,1,2,2-Tetrachloroethane			CAS #: 79-34-5					
11.107	11.100	(1.174)	83	448177	20.0000	20.205	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	290309			35.20- 95.20	64.78
177 Bromobenzene			CAS #: 108-86-1					
11.107	11.107	(1.174)	156	273442	20.0000	19.953	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	268738			67.21- 127.21	98.28
11.179	11.179	(1.182)	77	168602			29.02- 89.02	61.66
178 Propylbenzene			CAS #: 103-65-1					
11.150	11.150	(1.179)	120	275295	20.0000	20.363	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	1090818			366.49- 426.49	396.24
11.150	11.150	(1.179)	105	41933			0.00- 44.85	15.23
179 1,2,3-Trichloropropane			CAS #: 96-18-4					
11.179	11.179	(1.182)	110	139458	20.0000	19.807	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	427261			280.55- 340.55	306.37
11.100	11.100	(1.173)	61	62807			15.49- 75.49	45.04
181 trans-1,4-Dichloro-2-butene			CAS #: 110-57-6					
11.179	11.179	(1.182)	53	88946	20.0000	19.304	80.00- 120.00	100.00
11.172	11.179	(1.181)	89	71489			49.11- 109.11	80.37
11.179	11.179	(1.182)	75	427261			426.44- 486.44	480.36
182 Decane			CAS #: 124-18-5					
11.251	11.251	(1.189)	57	746366	20.0000	20.338	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	204118			0.00- 57.66	27.35
11.258	11.258	(1.190)	142	29608			0.00- 34.09	3.97
183 4-Ethyltoluene			CAS #: 622-96-8					
11.286	11.287	(1.193)	120	295596	20.0000	20.284	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.286	11.287	(1.193)	105	929331			284.55- 344.55	314.39
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184 2-Chlorotoluene CAS #: 95-49-8								
11.308	11.308	(1.195)	126	235462	20.0000	20.537	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	804535			315.17- 375.17	341.68
11.301	11.301	(1.195)	65	116734			21.55- 81.55	49.58
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	416581	20.0000	20.680	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	804831			164.93- 224.93	193.20
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.645	11.645	(1.231)	118	413999	20.0000	20.536	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	229936			25.30- 85.30	55.54
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.738	11.738	(1.241)	119	765020	20.0000	20.366	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	183021			0.00- 54.25	23.92
11.738	11.738	(1.241)	91	463050			31.27- 91.27	60.53
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.817	11.817	(1.249)	105	783363	20.0000	20.495	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	381421			19.05- 79.05	48.69
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.996	11.996	(1.268)	134	242771	20.0000	20.736	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	1145624			437.55- 497.55	471.89
11.996	11.996	(1.268)	91	174745			40.76- 100.76	71.98
-----								
194 p-Cymene CAS #: 99-87-6								
12.160	12.160	(1.285)	119	1070099	20.0000	20.727	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	276177			0.00- 55.54	25.81
12.153	12.153	(1.285)	91	231505			0.00- 51.48	21.63
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.196	12.196	(1.289)	146	515702	20.0000	19.622	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	331017			33.21- 93.21	64.19
12.196	12.196	(1.289)	111	214395			11.31- 71.31	41.57
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	514316	20.0000	19.523	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	333938			33.90- 93.90	64.93
12.311	12.311	(1.301)	111	204966			9.45- 69.45	39.85
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	728285	20.0000	20.267	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	167108			0.00- 53.26	22.95
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	833319	20.0000	19.843	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	748015			58.12- 118.12	89.76
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	269536	20.0000	20.284	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	921873			314.79- 374.79	342.02
12.626	12.626	(1.335)	92	496131			154.29- 214.29	184.07
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.741	12.741	(1.347)	146	516436	20.0000	20.144	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	324827			33.84- 93.84	62.90
12.733	12.741	(1.346)	111	222511			12.73- 72.73	43.09
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	313020	20.0000	20.327	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	265111			52.48- 112.48	84.69
13.600	13.600	(1.438)	155	243659			47.41- 107.41	77.84
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	755474	24.7000	24.812	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	627549			52.87- 112.87	83.07
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	457157	25.2000	24.597	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	438717			65.33- 125.33	95.97
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.582	(1.541)	225	335930	25.7000	25.915	80.00- 120.00	100.00
14.581	14.582	(1.541)	223	210653			33.17- 93.17	62.71
-----								
216 Naphthalene						CAS #: 91-20-3		
14.761	14.768	(1.560)	128	112848	2.54000	2.343	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	14592			0.00- 42.88	12.93
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.069	15.069	(1.593)	180	420041	26.6000	25.838	80.00- 120.00	100.00
15.069	15.069	(1.593)	182	398636			65.75- 125.75	94.90
15.069	15.069	(1.593)	145	147343			5.23- 65.23	35.08
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051907.d  
 Lab Smp Id: ICAL Level 6  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 20ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	161884	1.94
108 1,4-Difluorobenze	597103	358262	835944	591321	-0.97
153 Chlorobenzene-d5	587747	352648	822846	579226	-1.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 15:27

Client ID:

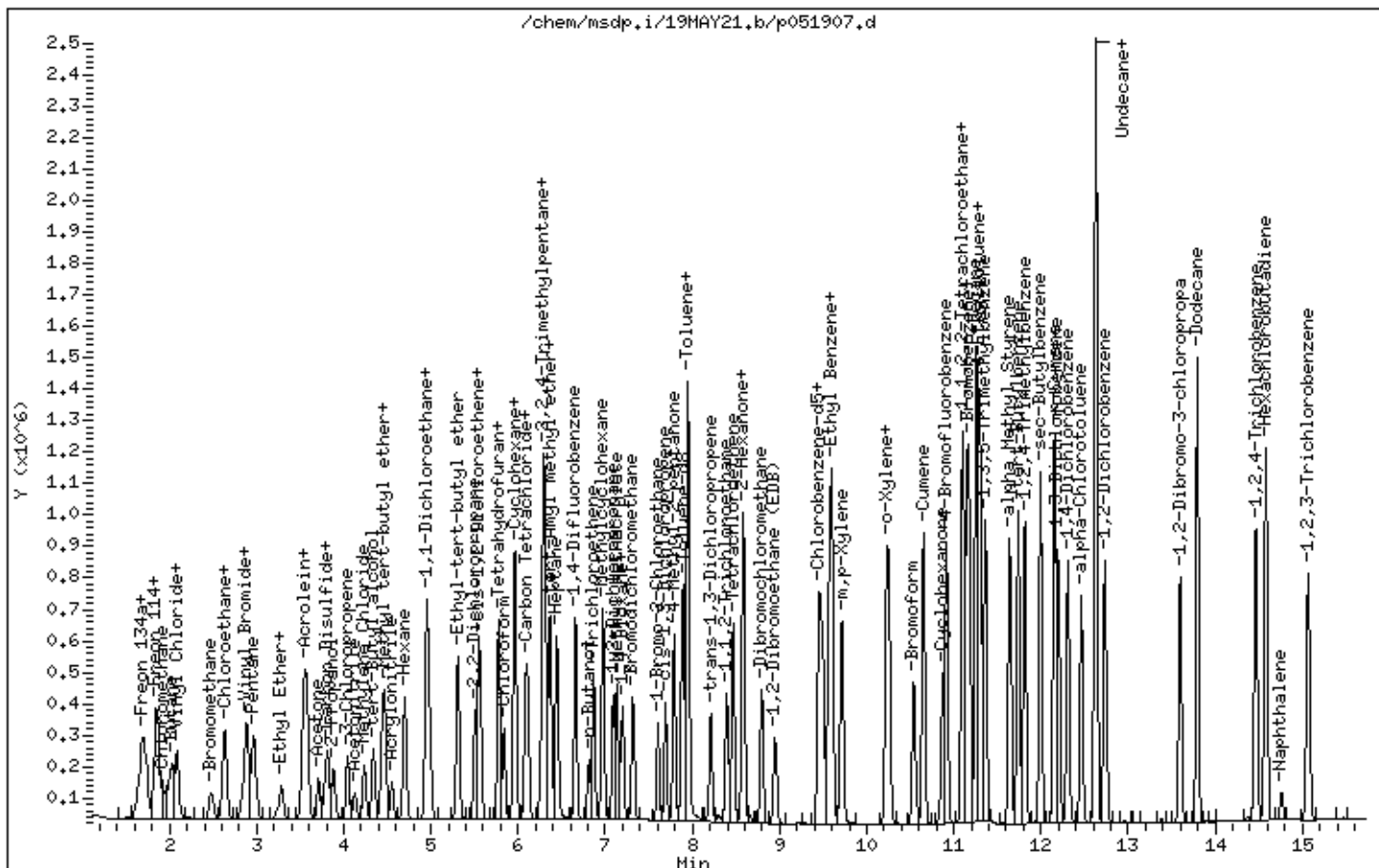
Instrument: msdp.i

Sample Info: 20mL 3018-2034

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051918.d  
Lab Smp Id: ICAL Level 6  
Inj Date : 19-MAY-2021 21:10  
Operator : gh Inst ID: msdp.i  
Smp Info : 20mL 3018-2013  
Misc Info : 20ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 21:10 Cal File: p051918.d  
Als bottle: 3 Calibration Sample, Level: 6  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.778	5.778	(1.000)	130	164276	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	126583			48.23- 108.23 77.06
5.771	5.778	(1.000)	49	292813			150.57- 210.57 178.24
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.659	6.659	(1.000)	114	594883	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	94502			0.00- 45.71 15.89
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.460	9.460	(1.000)	117	584012	25.0000		80.00- 120.00 100.00
9.453	9.460	(1.000)	82	316968			23.78- 83.78 54.27
-----							
3 Freon 143a CAS #: 420-46-2							
1.577	1.590	(0.273)	65	63953	20.0000	19.336	80.00- 120.00 100.00
1.591	1.590	(0.275)	69	170661			243.50- 303.50 266.85
1.591	1.590	(0.275)	64	16338			0.00- 54.06 25.55
-----							
6 Propane CAS #: 74-98-6							
1.674	1.674	(0.290)	43	46853	20.0000	15.945	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.674	1.674	(0.290)	39	29481			34.98- 94.98	62.92
1.674	1.674	(0.290)	41	25457			25.22- 85.22	54.33
-----								
13 Freon 142b CAS #: 75-68-3								
1.884	1.884	(0.326)	65	252531	20.0000	15.611	80.00- 120.00	100.00
1.884	1.884	(0.326)	45	76512			0.00- 59.77	30.30
-----								
36 1-Pentene CAS #: 109-67-1								
2.906	2.906	(0.503)	55	180760	20.0000	16.998	80.00- 120.00	100.00
2.906	2.906	(0.503)	42	247205			105.17- 165.17	136.76
-----								
40 Freon 123a CAS #: 354-23-4								
3.378	3.385	(0.585)	117	177874	20.0000	17.207	80.00- 120.00	100.00
3.378	3.378	(0.585)	67	248317			104.69- 164.69	139.60
-----								
41 Freon 123 CAS #: 306-83-2								
3.472	3.479	(0.601)	83	276366	20.0000	18.974	80.00- 120.00	100.00
3.479	3.479	(0.602)	133	56290			0.00- 50.87	20.37
3.472	3.479	(0.601)	85	179827			36.08- 96.08	65.07
-----								
55 Cyclopentene CAS #: 142-29-0								
4.073	4.073	(0.705)	67	281294	20.0000	18.118	80.00- 120.00	100.00
4.073	4.073	(0.705)	68	105999			6.76- 66.76	37.68
4.066	4.073	(0.704)	53	78449			0.00- 57.54	27.89
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.073	4.073	(0.705)	43	314311	20.0000	17.425	80.00- 120.00	100.00
4.073	4.073	(0.705)	74	43403			0.00- 44.13	13.81
-----								
74 Chloroprene CAS #: 126-99-8								
5.019	5.019	(0.869)	53	249821	20.0000	17.505	80.00- 120.00	100.00
5.019	5.019	(0.869)	88	97837			9.21- 69.21	39.16
5.019	5.019	(0.869)	50	60899			0.00- 54.25	24.38
-----								
75 1-Propanol CAS #: 71-23-8								
5.083	5.083	(0.880)	59	33679	20.0000	15.446	80.00- 120.00	100.00
5.083	5.083	(0.880)	42	32228			63.23- 123.23	95.69
5.083	5.083	(0.880)	41	20019			24.74- 84.74	59.44
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.620	5.620	(0.973)	55	317339	20.0000	16.802	80.00- 120.00	100.00
5.620	5.620	(0.973)	85	34842			0.00- 41.28	10.98
5.620	5.620	(0.973)	58	27405			0.00- 38.22	8.64
-----								
103 Isobutanol CAS #: 78-83-1								
6.244	6.244	(1.081)	39	37572	20.0000	16.140	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.244	6.244	(1.081)	43	188703			448.18- 508.18	502.24
6.244	6.244	(1.081)	41	131184			299.99- 359.99	349.15
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
6.938	6.938	(0.733)	99	23633	20.0000	17.406	80.00- 120.00	100.00
6.938	6.938	(0.733)	45	44798			149.95- 209.95	189.56
6.938	6.938	(0.733)	55	458959			1849.07-1909.07	1942.03
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.032	7.031	(0.743)	43	549397	20.0000	18.604	80.00- 120.00	100.00
7.032	7.031	(0.743)	58	42813			0.00- 37.44	7.79
7.032	7.031	(0.743)	86	69391			0.00- 42.78	12.63
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.658	8.665	(1.300)	56	289132	20.0000	19.218	80.00- 120.00	100.00
8.665	8.665	(1.301)	73	85224			0.00- 59.10	29.48
8.658	8.657	(1.300)	43	710835			215.30- 275.30	245.85
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.596	9.596	(1.014)	131	265099	20.0000	20.462	80.00- 120.00	100.00
9.460	9.460	(1.000)	117	584012			57.42- 117.42	220.30
9.596	9.596	(1.014)	95	96156			5.70- 65.70	36.27
-----								
166 2-Heptanone						CAS #: 110-43-0		
10.362	10.362	(1.793)	58	456297	20.0000	19.048	80.00- 120.00	100.00
10.362	10.362	(1.793)	43	750475			136.03- 196.03	164.47
-----								
172 D-Limonene						CAS #: 5989-27-5		
12.089	12.089	(1.278)	68	366276	20.0000	30.886	80.00- 120.00	100.00
12.089	12.089	(1.278)	93	252611			39.41- 99.41	68.97
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
11.444	11.444	(1.210)	126	233965	20.0000	19.501	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	762751			295.02- 355.02	326.01
11.444	11.444	(1.210)	63	101096			11.82- 71.82	43.21
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
12.318	12.318	(1.302)	120	356670	20.0000	20.382	80.00- 120.00	100.00
12.318	12.318	(1.302)	105	795713			192.40- 252.40	223.10
12.318	12.318	(1.302)	77	89457			0.00- 54.69	25.08
-----								
205 Hexachloroethane						CAS #: 67-72-1		
12.970	12.970	(1.371)	201	175433	20.0000	27.542	80.00- 120.00	100.00
12.970	12.970	(1.371)	117	236009			102.99- 162.99	134.53
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	464814	20.0000	19.008	80.00- 120.00	100.00
13.758	13.758	(1.454)	182	442074			65.24- 125.24	95.11
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	504688	20.0000	21.723	80.00- 120.00	100.00
10.599	10.599	(1.120)	77	146698			0.00- 58.21	29.07
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.423	11.422	(1.207)	93	403829	20.0000	27.931	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	762751			153.57- 213.57	188.88
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051918.d  
 Lab Smp Id: ICAL Level 6  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 20ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	164276	3.44
108 1,4-Difluorobenze	597103	358262	835944	594883	-0.37
153 Chlorobenzene-d5	587747	352648	822846	584012	-0.64

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 21:10

Client ID:

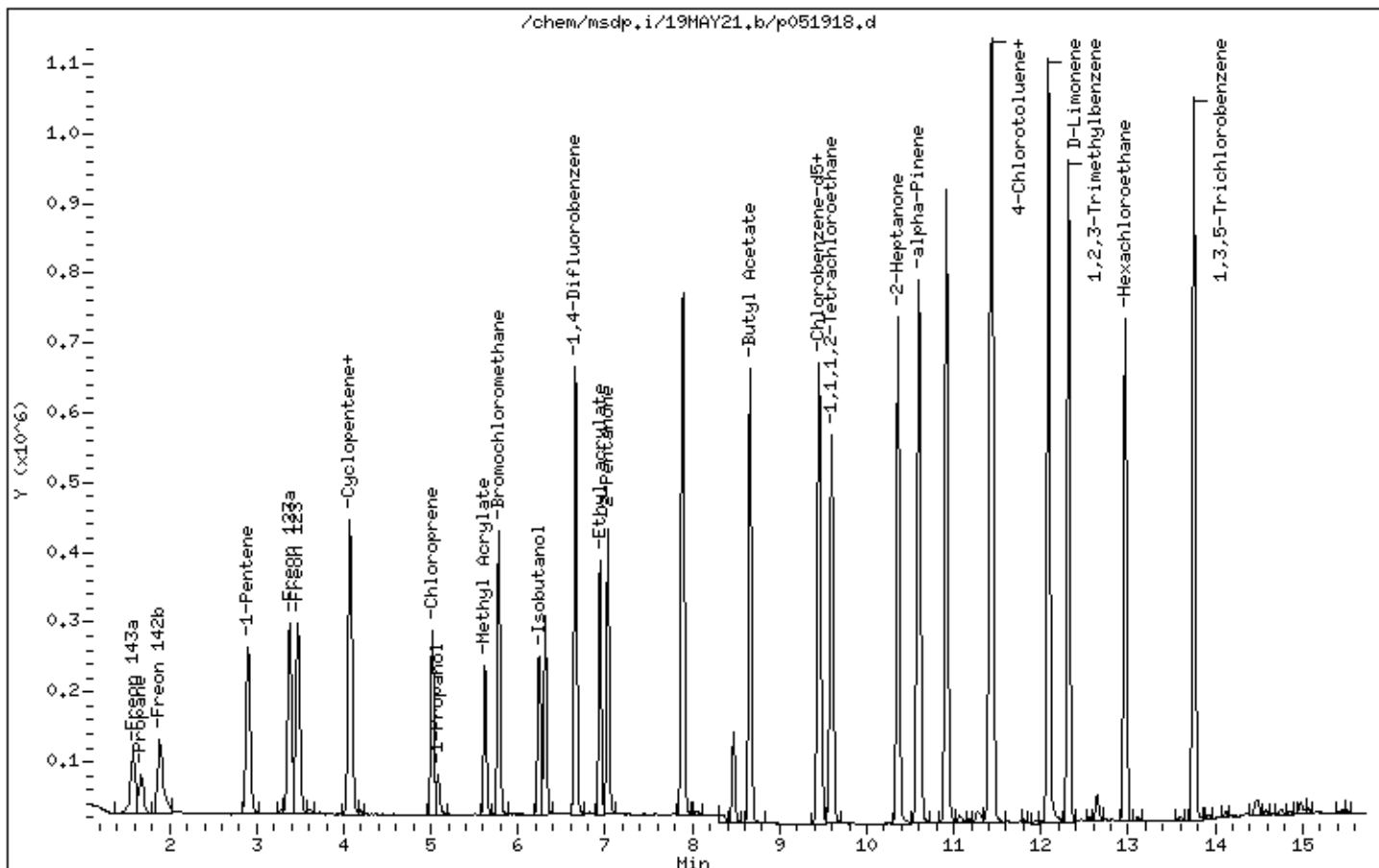
Instrument: msdp.i

Sample Info: 20mL 3018-2013

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051908.d  
Lab Smp Id: ICAL Level 7  
Inj Date : 19-MAY-2021 15:55  
Operator : LD Inst ID: msdp.i  
Smp Info : 50mL 3018-2034  
Misc Info : 50ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:49 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 21:38 Cal File: p051919.d  
Als bottle: 13 Calibration Sample, Level: 7  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.633	1.633	(0.283)	83	246691	50.0000	50.000	80.00- 120.00	100.00
1.633	1.633	(0.283)	69	220643			59.44- 119.44	89.44
1.745	1.745	(0.302)	51	1107781			419.06- 479.06	449.06
-----								
5 Propylene CAS #: 115-07-1								
1.675	1.675	(0.290)	41	345627	50.0000	50.000	80.00- 120.00	100.00
1.675	1.675	(0.290)	42	225623			35.28- 95.28	65.28
1.675	1.675	(0.290)	39	236222			38.35- 98.35	68.35
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.703	1.703	(0.295)	65	176502	50.0000	50.000	80.00- 120.00	100.00
1.745	1.745	(0.302)	51	1107781			597.63- 657.63	627.63
1.703	1.703	(0.295)	47	112469			33.72- 93.72	63.72
-----								
8 Freon 12 CAS #: 75-71-8								
1.717	1.717	(0.297)	85	711177	50.0000	50.000	80.00- 120.00	100.00
1.717	1.717	(0.297)	87	230217			2.37- 62.37	32.37
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.745	1.745	(0.302)	67	72356	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.745	1.745	(0.302)	51	1107781			1501.01-1561.01	1531.01
-----								
10 Freon 114 CAS #: 76-14-2								
1.856	1.856	(0.321)	135	685577	50.0000	50.000	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	221438			2.30- 62.30	32.30
-----								
12 Isobutane CAS #: 75-28-5								
1.870	1.870	(0.324)	43	735430	50.0000	50.000	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	238581			2.44- 62.44	32.44
1.856	1.856	(0.321)	58	24710			0.00- 33.36	3.36
-----								
15 Chloromethane CAS #: 74-87-3								
1.940	1.940	(0.336)	50	447790	50.0000	50.000	80.00- 120.00	100.00
1.940	1.940	(0.336)	52	117587			0.00- 56.26	26.26
-----								
18 Butane CAS #: 106-97-8								
2.025	2.025	(0.350)	58	75310	50.0000	50.000	80.00- 120.00	100.00
2.025	2.025	(0.350)	43	642610			823.29- 883.29	853.29
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.068	2.068	(0.358)	62	454203	50.0000	50.000	80.00- 120.00	100.00
2.068	2.068	(0.358)	64	134867			0.00- 59.69	29.69
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.089	2.089	(0.362)	54	422955	50.0000	50.000	80.00- 120.00	100.00
2.089	2.089	(0.362)	39	348369			52.37- 112.37	82.37
-----								
24 Bromomethane CAS #: 74-83-9								
2.483	2.483	(0.430)	94	285084	50.0000	50.000	80.00- 120.00	100.00
2.483	2.483	(0.430)	96	268184			64.07- 124.07	94.07
-----								
30 Chloroethane CAS #: 75-00-3								
2.612	2.612	(0.452)	64	167305	50.0000	50.000	80.00- 120.00	100.00
2.605	2.605	(0.451)	66	50256			0.04- 60.04	30.04
2.612	2.612	(0.452)	49	57784			4.54- 64.54	34.54
-----								
31 Isopentane CAS #: 78-78-4								
2.634	2.634	(0.456)	43	523495	50.0000	50.000	80.00- 120.00	100.00
2.641	2.641	(0.457)	57	335680			34.12- 94.12	64.12
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.841	2.841	(0.492)	106	275173	50.0000	50.000	80.00- 120.00	100.00
2.841	2.841	(0.492)	108	273159			69.27- 129.27	99.27
-----								
33 Freon 11 CAS #: 75-69-4								
2.884	2.884	(0.499)	101	730878	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.884	2.884	(0.499)	103	472992			34.72- 94.72	64.72
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.899	2.899	(0.502)	67	628672	50.0000	50.000	80.00- 120.00	100.00
2.899	2.899	(0.502)	69	193895			0.84- 60.84	30.84
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.514)	43	852276	50.0000	50.000	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	127691			0.00- 44.98	14.98
2.970	2.970	(0.514)	72	63019			0.00- 37.39	7.39
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.285	3.285	(0.569)	74	146830	50.0000	50.000	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	284064			163.46- 223.46	193.46
3.285	3.285	(0.569)	45	411715			250.40- 310.40	280.40
-----								
39 Ethanol CAS #: 64-17-5								
3.242	3.242	(0.561)	46	75752	50.0000	50.000	80.00- 120.00	100.00
3.285	3.285	(0.569)	45	409963			511.19- 571.19	541.19
-----								
42 Acrolein CAS #: 107-02-8								
3.529	3.529	(0.611)	55	129512	50.0000	50.000	80.00- 120.00	100.00
3.529	3.529	(0.611)	56	182747			111.10- 171.10	141.10
-----								
43 Freon 113 CAS #: 76-13-1								
3.550	3.550	(0.614)	151	547261	50.0000	50.000	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	347836			33.56- 93.56	63.56
3.550	3.550	(0.614)	101	652410			89.21- 149.21	119.21
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.579	3.579	(0.619)	96	312049	50.0000	50.000	80.00- 120.00	100.00
3.579	3.579	(0.619)	98	199778			34.02- 94.02	64.02
3.579	3.579	(0.619)	61	620248			168.77- 228.77	198.77
-----								
47 Acetone CAS #: 67-64-1								
3.708	3.708	(0.642)	58	198391	50.0000	50.000	80.00- 120.00	100.00
3.708	3.708	(0.642)	43	660552			302.95- 362.95	332.95
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.823	3.823	(0.662)	76	846836	50.0000	50.000	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.794	3.794	(0.657)	142	699816	50.0000	50.000	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	295430			12.22- 72.22	42.22
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.887	3.887	(0.673)	45	823329	50.0000	50.000	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	141505			0.00- 47.19	17.19
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.052	4.052	(0.701)	76	142539	50.0000	50.000	80.00- 120.00	100.00
4.045	4.045	(0.700)	41	607488			396.19- 456.19	426.19
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.123	4.123	(0.714)	41	379243	50.0000	50.000	80.00- 120.00	100.00
4.123	4.123	(0.714)	40	193207			20.95- 80.95	50.95
4.123	4.123	(0.714)	38	42379			0.00- 41.17	11.17
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.238	4.238	(0.733)	49	522699	50.0000	50.000	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	271957			22.03- 82.03	52.03
4.238	4.238	(0.733)	51	157735			0.18- 60.18	30.18
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.338	4.338	(0.751)	59	920285	50.0000	50.000	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	194304			0.00- 51.11	21.11
4.338	4.338	(0.751)	57	96551			0.00- 40.49	10.49
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.769)	73	938706	50.0000	50.000	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	310725			3.10- 63.10	33.10
4.446	4.446	(0.769)	41	293659			1.28- 61.28	31.28
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.482	4.482	(0.776)	98	212528	50.0000	50.000	80.00- 120.00	100.00
4.474	4.474	(0.774)	61	607494			255.84- 315.84	285.84
4.482	4.482	(0.776)	96	334925			127.59- 187.59	157.59
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.560	4.560	(0.789)	52	293221	50.0000	50.000	80.00- 120.00	100.00
4.560	4.560	(0.789)	53	346138			88.05- 148.05	118.05
-----								
67 Hexane						CAS #: 110-54-3		
4.697	4.697	(0.813)	57	758783	50.0000	50.000	80.00- 120.00	100.00
4.697	4.697	(0.813)	43	512299			37.52- 97.52	67.52
4.697	4.697	(0.813)	86	87084			0.00- 41.48	11.48
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.962	4.962	(0.859)	63	664501	50.0000	50.000	80.00- 120.00	100.00
4.962	4.962	(0.859)	65	197374			0.00- 59.70	29.70
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.954	4.954	(0.857)	45	1800515	50.0000	50.000	80.00- 120.00	100.00
4.954	4.954	(0.857)	87	327418			0.00- 48.18	18.18
4.954	4.954	(0.857)	59	182720			0.00- 40.15	10.15
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.865)	86	84247	50.0000	50.000	80.00- 120.00	100.00
4.990	4.990	(0.864)	43	2074564			2432.48-2492.48	2462.48
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.918)	59	1553756	50.0000	50.000	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	481611			1.00- 61.00	31.00
5.305	5.305	(0.918)	41	291010			0.00- 48.73	18.73
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.953)	77	589524	50.0000	50.000	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	190269			2.28- 62.28	32.28
5.506	5.506	(0.953)	97	141063			0.00- 53.93	23.93
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.960)	98	230520	50.0000	50.000	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	359034			125.75- 185.75	155.75
5.549	5.549	(0.960)	61	835407			332.40- 392.40	362.40
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.962)	72	170377	50.0000	50.000	80.00- 120.00	100.00
5.563	5.563	(0.963)	43	2120337			1214.50-1274.50	1244.50
5.556	5.556	(0.962)	57	76128			14.68- 74.68	44.68
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.964)	45	173307	50.0000	50.000	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	835407			452.04- 512.04	482.04
5.570	5.570	(0.964)	70	91460			22.77- 82.77	52.77
89 Tetrahydrofuran						CAS #: 109-99-9		
5.771	5.771	(0.999)	42	583804	50.0000	50.000	80.00- 120.00	100.00
5.771	5.771	(0.999)	71	150745			0.00- 55.82	25.82
5.771	5.771	(0.999)	72	161049			0.00- 57.59	27.59
* 90 Bromochloromethane						CAS #: 74-97-5		
5.778	5.778	(1.000)	130	158810	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	124237			48.23- 108.23	78.23
5.778	5.778	(1.000)	49	286765			150.57- 210.57	180.57
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	689555	50.0000	50.000	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.835	5.835	(1.010)	85	446160			34.70- 94.70	64.70
-----								
94 Cyclohexane								
							CAS #: 110-82-7	
5.957	5.957	(1.031)	84	486964	50.0000	50.000	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	840372			142.57- 202.57	172.57
5.957	5.957	(1.031)	41	448455			62.09- 122.09	92.09
-----								
96 1,1,1-Trichloroethane								
							CAS #: 71-55-6	
5.972	5.972	(1.033)	97	752510	50.0000	50.000	80.00- 120.00	100.00
5.972	5.972	(1.033)	99	481725			34.02- 94.02	64.02
-----								
97 Carbon Tetrachloride								
							CAS #: 56-23-5	
6.086	6.086	(1.053)	119	735285	50.0000	50.000	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	739982			70.64- 130.64	100.64
-----								
99 1,1-Dichloropropene								
							CAS #: 563-58-6	
6.115	6.115	(0.918)	110	197564	50.0000	50.000	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	507450			226.85- 286.85	256.85
-----								
101 2,2,4-Trimethylpentane								
							CAS #: 540-84-1	
6.280	6.280	(1.087)	57	2728265	50.0000	50.000	80.00- 120.00	100.00
6.280	6.280	(1.087)	56	879725			2.24- 62.24	32.24
6.280	6.280	(1.087)	41	665520			0.00- 54.39	24.39
-----								
102 Benzene								
							CAS #: 71-43-2	
6.301	6.301	(0.946)	78	987337	50.0000	50.000	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	226078			0.00- 52.90	22.90
-----								
§ 104 1,2-Dichloroethane-d4								
							CAS #: 17060-07-0	
6.308	6.308	(1.092)	65	213713	25.0000	25.000	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	122256			27.21- 87.21	57.21
-----								
105 tert-Amyl methyl ether								
							CAS #: 994-05-8	
6.358	6.358	(0.955)	87	279227	50.0000	50.000	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	1124694			372.79- 432.79	402.79
6.358	6.358	(0.955)	55	396758			112.09- 172.09	142.09
-----								
106 1,2-Dichloroethane								
							CAS #: 107-06-2	
6.380	6.380	(0.958)	62	526134	50.0000	50.000	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	162017			0.79- 60.79	30.79
-----								
107 Heptane								
							CAS #: 142-82-5	
6.444	6.444	(0.968)	71	395953	50.0000	50.000	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	1015753			226.53- 286.53	256.53
6.444	6.444	(0.968)	57	518123			100.85- 160.85	130.85
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	597103	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	93822			0.00- 45.71	15.71
-----								
110 n-Butanol						CAS #: 71-36-3		
6.810	6.810	(1.023)	56	364840	50.0000	50.000	80.00- 120.00	100.00
6.810	6.810	(1.023)	41	258986			40.99- 100.99	70.99
6.810	6.810	(1.023)	43	209354			27.38- 87.38	57.38
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	478111	50.0000	50.000	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	508207			76.29- 136.29	106.29
6.867	6.867	(1.031)	97	304245			33.63- 93.63	63.63
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.089	7.089	(1.065)	63	491834	50.0000	50.000	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	349523			41.07- 101.07	71.07
7.096	7.096	(1.066)	41	258375			22.53- 82.53	52.53
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.132	7.132	(0.754)	69	400937	50.0000	50.000	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	841331			179.84- 239.84	209.84
7.139	7.139	(0.755)	100	158742			9.59- 69.59	39.59
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.175	7.175	(1.077)	88	263150	50.0000	50.000	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	258613			68.28- 128.28	98.28
7.175	7.175	(1.077)	57	86007			2.68- 62.68	32.68
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.204	7.204	(0.761)	174	444945	50.0000	50.000	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	400838			60.09- 120.09	90.09
7.204	7.204	(0.761)	95	348769			48.38- 108.38	78.38
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	751298	50.0000	50.000	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	490118			35.24- 95.24	65.24
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.691	7.691	(1.155)	75	619937	50.0000	50.000	80.00- 120.00	100.00
7.691	7.691	(1.155)	77	200964			2.42- 62.42	32.42
7.691	7.691	(1.155)	39	416341			37.16- 97.16	67.16
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	700725	50.0000	50.000	80.00- 120.00	100.00
6.974	6.974	(1.047)	98	320784			15.78- 75.78	45.78

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.047)	55	803336			84.64- 144.64	114.64
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.791	7.791	(1.170)	58	494934	50.0000	50.000	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	1347937			242.35- 302.35	272.35
7.791	7.791	(1.170)	85	164527			3.24- 63.24	33.24
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	647681	25.0000	25.000	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	67618			0.00- 40.44	10.44
7.891	7.891	(1.185)	100	420696			34.95- 94.95	64.95
-----								
137 Toluene CAS #: 108-88-3								
7.949	7.949	(1.194)	91	1352715	50.0000	50.000	80.00- 120.00	100.00
7.949	7.949	(1.194)	92	789761			28.38- 88.38	58.38
-----								
136 Octane CAS #: 111-65-9								
7.949	7.949	(1.194)	57	571594	50.0000	50.000	80.00- 120.00	100.00
7.949	7.949	(1.194)	85	491595			56.00- 116.00	86.00
7.949	7.949	(1.194)	43	1478464			228.66- 288.66	258.66
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
8.214	8.214	(0.868)	75	595661	50.0000	50.000	80.00- 120.00	100.00
8.214	8.214	(0.868)	77	186109			1.24- 61.24	31.24
8.214	8.214	(0.868)	39	381886			34.11- 94.11	64.11
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
8.400	8.400	(0.888)	97	475355	50.0000	50.000	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	294547			31.96- 91.96	61.96
8.400	8.400	(0.888)	83	394203			52.93- 112.93	82.93
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.464	8.464	(0.895)	166	677222	50.0000	50.000	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	527121			47.84- 107.84	77.84
8.464	8.464	(0.895)	131	509856			45.29- 105.29	75.29
-----								
143 2-Hexanone CAS #: 591-78-6								
8.586	8.586	(0.908)	58	681778	50.0000	50.000	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	1314958			162.87- 222.87	192.87
8.586	8.586	(0.908)	100	108687			0.00- 45.94	15.94
-----								
144 1,3-Dichloropropane CAS #: 142-28-9								
8.579	8.579	(1.288)	76	664559	50.0000	50.000	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	830619			94.99- 154.99	124.99
8.579	8.579	(1.288)	78	212995			2.05- 62.05	32.05
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	909694	50.0000	50.000	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	704539			47.45- 107.45	77.45
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	776769	50.0000	50.000	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	731780			64.21- 124.21	94.21
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	919549	50.0000	50.000	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	272524			0.00- 59.64	29.64
7.605	7.605	(1.142)	144	88579			0.00- 39.63	9.63
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	587747	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	316106			23.78- 83.78	53.78
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	1161228	50.0000	50.000	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	368543			1.74- 61.74	31.74
9.496	9.496	(1.004)	77	639171			25.04- 85.04	55.04
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	611900	50.0000	50.000	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	1858590			273.74- 333.74	303.74
-----								
156 Nonane						CAS #: 111-84-2		
9.596	9.596	(1.014)	43	1549739	50.0000	50.000	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	1304255			54.16- 114.16	84.16
9.603	9.603	(1.015)	85	370362			0.00- 53.90	23.90
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	756872	50.0000	50.000	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	1466255			163.73- 223.73	193.73
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	727897	50.0000	50.000	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	1509987			177.45- 237.45	207.45
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	1231272	50.0000	50.000	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	589570			17.88- 77.88	47.88
-----								
167 Bromoform						CAS #: 75-25-2		
10.542	10.542	(1.114)	173	900150	50.0000	50.000	80.00- 120.00	100.00
10.542	10.542	(1.114)	171	461304			21.25- 81.25	51.25
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
168 Cumene			CAS #: 98-82-8					
10.649	10.649	(1.126)	105	2299741	50.0000	50.000	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	655786			0.00- 58.52	28.52
10.649	10.649	(1.126)	51	299021			0.00- 43.00	13.00
169 Cyclohexanone			CAS #: 108-94-1					
10.871	10.871	(1.149)	55	806258	50.0000	50.000	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	257503			1.94- 61.94	31.94
10.871	10.871	(1.149)	42	547332			37.89- 97.89	67.89
§ 170 4-Bromofluorobenzene			CAS #: 460-00-4					
10.921	10.921	(1.154)	174	374384	25.0000	25.000	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	471423			95.92- 155.92	125.92
10.921	10.921	(1.154)	176	362754			66.89- 126.89	96.89
175 1,1,2,2-Tetrachloroethane			CAS #: 79-34-5					
11.100	11.100	(1.173)	83	1121488	50.0000	50.000	80.00- 120.00	100.00
11.107	11.107	(1.174)	85	731261			35.20- 95.20	65.20
177 Bromobenzene			CAS #: 108-86-1					
11.107	11.107	(1.174)	156	708749	50.0000	50.000	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	689001			67.21- 127.21	97.21
11.179	11.179	(1.182)	77	418295			29.02- 89.02	59.02
178 Propylbenzene			CAS #: 103-65-1					
11.150	11.150	(1.179)	120	677615	50.0000	50.000	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	2686688			366.49- 426.49	396.49
11.150	11.150	(1.179)	105	100610			0.00- 44.85	14.85
179 1,2,3-Trichloropropane			CAS #: 96-18-4					
11.179	11.179	(1.182)	110	347438	50.0000	50.000	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	1078964			280.55- 340.55	310.55
11.100	11.100	(1.173)	61	158059			15.49- 75.49	45.49
181 trans-1,4-Dichloro-2-butene			CAS #: 110-57-6					
11.179	11.179	(1.182)	53	236389	50.0000	50.000	80.00- 120.00	100.00
11.179	11.179	(1.182)	89	187005			49.11- 109.11	79.11
11.179	11.179	(1.182)	75	1078964			426.44- 486.44	456.44
182 Decane			CAS #: 124-18-5					
11.251	11.251	(1.189)	57	1759170	50.0000	50.000	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	486507			0.00- 57.66	27.66
11.258	11.258	(1.190)	142	71926			0.00- 34.09	4.09
183 4-Ethyltoluene			CAS #: 622-96-8					
11.287	11.287	(1.193)	120	721963	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.287	11.287	(1.193)	105	2270938			284.55- 344.55	314.55
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
11.308	11.308	(1.195)	126	572035	50.0000	50.000	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1974474			315.17- 375.17	345.17
11.301	11.301	(1.195)	65	294904			21.55- 81.55	51.55
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	1021220	50.0000	50.000	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1990658			164.93- 224.93	194.93
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.645	11.645	(1.231)	118	1032008	50.0000	50.000	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	570738			25.30- 85.30	55.30
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.738	11.738	(1.241)	119	1907239	50.0000	50.000	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	462558			0.00- 54.25	24.25
11.738	11.738	(1.241)	91	1168575			31.27- 91.27	61.27
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.817	11.817	(1.249)	105	1923799	50.0000	50.000	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	943605			19.05- 79.05	49.05
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.996	11.996	(1.268)	134	595687	50.0000	50.000	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	2785108			437.55- 497.55	467.55
11.996	11.996	(1.268)	91	421521			40.76- 100.76	70.76
-----								
194 p-Cymene CAS #: 99-87-6								
12.160	12.160	(1.285)	119	2621026	50.0000	50.000	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	669378			0.00- 55.54	25.54
12.153	12.153	(1.285)	91	562900			0.00- 51.48	21.48
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.196	12.196	(1.289)	146	1326539	50.0000	50.000	80.00- 120.00	100.00
12.203	12.203	(1.290)	148	838543			33.21- 93.21	63.21
12.196	12.196	(1.289)	111	547931			11.31- 71.31	41.31
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	1341343	50.0000	50.000	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	857150			33.90- 93.90	63.90
12.311	12.311	(1.301)	111	529140			9.45- 69.45	39.45
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	1864560	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	433710			0.00- 53.26	23.26
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	2085733	50.0000	50.000	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1838043			58.12- 118.12	88.12
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	662478	50.0000	50.000	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	2284179			314.79- 374.79	344.79
12.626	12.626	(1.335)	92	1220868			154.29- 214.29	184.29
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.741	12.741	(1.347)	146	1281765	50.0000	50.000	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	818290			33.84- 93.84	63.84
12.733	12.733	(1.346)	111	547687			12.73- 72.73	42.73
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	800345	50.0000	50.000	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	660103			52.48- 112.48	82.48
13.600	13.600	(1.438)	155	619570			47.41- 107.41	77.41
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	2143839	61.8000	61.800	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	1776648			52.87- 112.87	82.87
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	1233138	63.0000	63.000	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	1175567			65.33- 125.33	95.33
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.582	14.582	(1.541)	225	895709	64.4000	64.400	80.00- 120.00	100.00
14.582	14.582	(1.541)	223	565855			33.17- 93.17	63.17
-----								
216 Naphthalene						CAS #: 91-20-3		
14.768	14.768	(1.561)	128	306016	6.35000	6.350	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	39402			0.00- 42.88	12.88
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.069	15.069	(1.593)	180	1163980	66.6000	66.600	80.00- 120.00	100.00
15.069	15.069	(1.593)	182	1114530			65.75- 125.75	95.75
15.069	15.069	(1.593)	145	410098			5.23- 65.23	35.23
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051908.d  
 Lab Smp Id: ICAL Level 7  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 50ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	158810	0.00
108 1,4-Difluorobenze	597103	358262	835944	597103	0.00
153 Chlorobenzene-d5	587747	352648	822846	587747	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.



Date : 19-MAY-2021 15:55

Client ID:

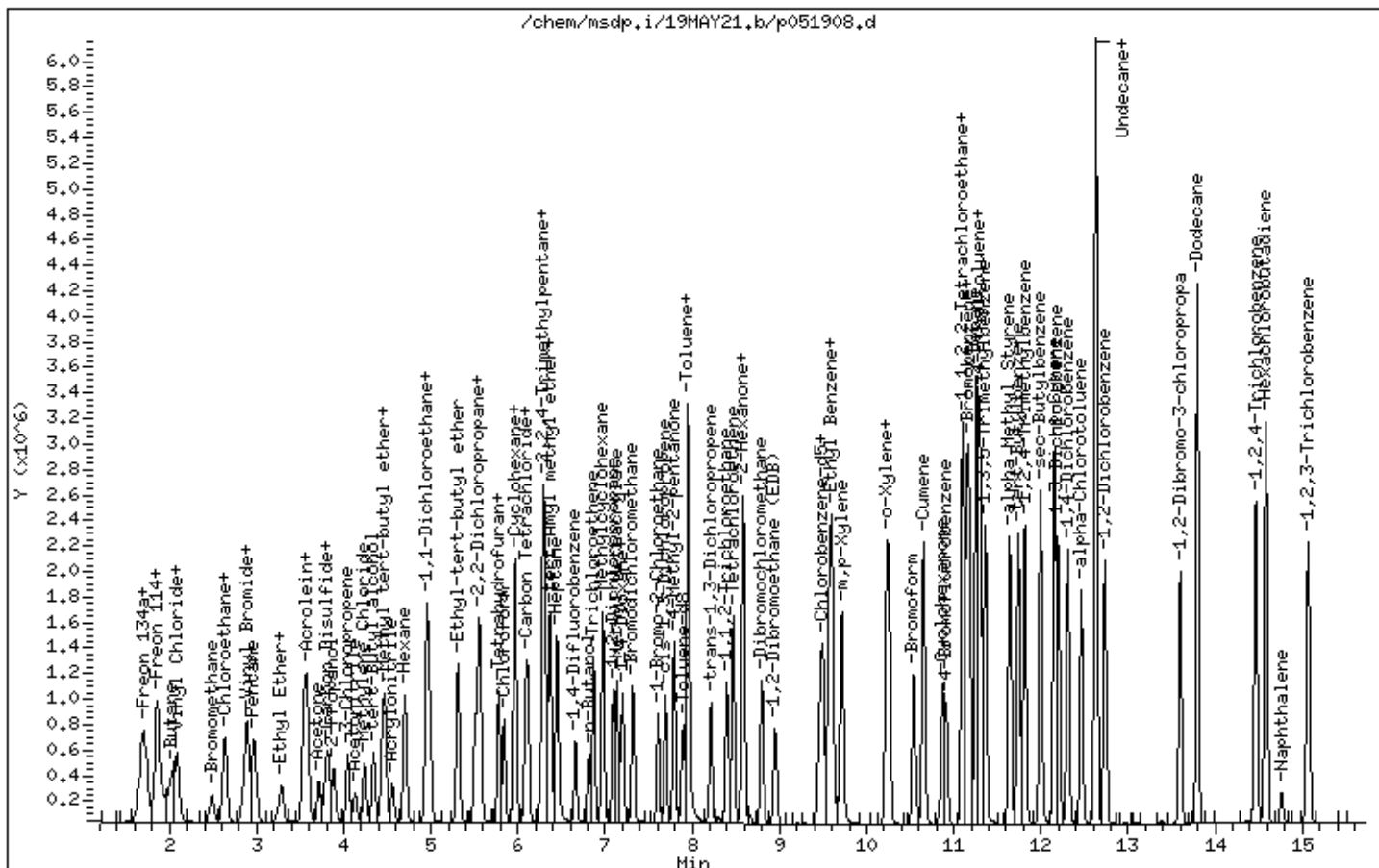
Instrument: msdp.i

Sample Info: 50mL 3018-2034

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051919.d  
Lab Smp Id: ICAL Level 7  
Inj Date : 19-MAY-2021 21:38  
Operator : gh Inst ID: msdp.i  
Smp Info : 50mL 3018-2013  
Misc Info : 50ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:48 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 21:38 Cal File: p051919.d  
Als bottle: 3 Calibration Sample, Level: 7  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.778	5.778	(1.000)	130	161689	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	124860			47.22- 107.22 77.22
5.778	5.778	(1.000)	49	289657			149.14- 209.14 179.14
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.659	6.659	(1.000)	114	604813	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	94059			0.00- 45.55 15.55
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.460	9.460	(1.000)	117	587682	25.0000		80.00- 120.00 100.00
9.460	9.460	(1.000)	82	320961			24.61- 84.61 54.61
-----							
3 Freon 143a CAS #: 420-46-2							
1.590	1.590	(0.275)	65	175050	50.0000	50.000	80.00- 120.00 100.00
1.590	1.590	(0.275)	69	478765			243.50- 303.50 273.50
1.590	1.590	(0.275)	64	42119			0.00- 54.06 24.06
-----							
6 Propane CAS #: 74-98-6							
1.674	1.674	(0.290)	43	126213	50.0000	50.000	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.674	1.674	(0.290)	39	82019			34.98- 94.98	64.98
1.674	1.674	(0.290)	41	69691			25.22- 85.22	55.22
-----								
13 Freon 142b						CAS #: 75-68-3		
1.884	1.884	(0.326)	65	712387	50.0000	50.000	80.00- 120.00	100.00
1.884	1.884	(0.326)	45	212071			0.00- 59.77	29.77
-----								
36 1-Pentene						CAS #: 109-67-1		
2.906	2.906	(0.503)	55	479291	50.0000	50.000	80.00- 120.00	100.00
2.906	2.906	(0.503)	42	647860			105.17- 165.17	135.17
-----								
40 Freon 123a						CAS #: 354-23-4		
3.385	3.385	(0.586)	117	461487	50.0000	50.000	80.00- 120.00	100.00
3.378	3.378	(0.585)	67	621572			104.69- 164.69	134.69
-----								
41 Freon 123						CAS #: 306-83-2		
3.479	3.479	(0.602)	83	686787	50.0000	50.000	80.00- 120.00	100.00
3.479	3.479	(0.602)	133	143333			0.00- 50.87	20.87
3.479	3.479	(0.602)	85	453806			36.08- 96.08	66.08
-----								
55 Cyclopentene						CAS #: 142-29-0		
4.073	4.073	(0.705)	67	758990	50.0000	50.000	80.00- 120.00	100.00
4.073	4.073	(0.705)	68	279019			6.76- 66.76	36.76
4.073	4.073	(0.705)	53	209054			0.00- 57.54	27.54
-----								
56 Methyl Acetate						CAS #: 79-20-9		
4.073	4.073	(0.705)	43	885414	50.0000	50.000	80.00- 120.00	100.00
4.073	4.073	(0.705)	74	125122			0.00- 44.13	14.13
-----								
74 Chloroprene						CAS #: 126-99-8		
5.019	5.019	(0.869)	53	715451	50.0000	50.000	80.00- 120.00	100.00
5.019	5.019	(0.869)	88	280509			9.21- 69.21	39.21
5.019	5.019	(0.869)	50	173487			0.00- 54.25	24.25
-----								
75 1-Propanol						CAS #: 71-23-8		
5.083	5.083	(0.880)	59	98517	50.0000	50.000	80.00- 120.00	100.00
5.083	5.083	(0.880)	42	91848			63.23- 123.23	93.23
5.083	5.083	(0.880)	41	53925			24.74- 84.74	54.74
-----								
88 Methyl Acrylate						CAS #: 96-33-3		
5.620	5.620	(0.973)	55	911220	50.0000	50.000	80.00- 120.00	100.00
5.620	5.620	(0.973)	85	102793			0.00- 41.28	11.28
5.620	5.620	(0.973)	58	74910			0.00- 38.22	8.22
-----								
103 Isobutanol						CAS #: 78-83-1		
6.244	6.244	(1.081)	39	106882	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.244	6.244	(1.081)	43	511089			448.18- 508.18	478.18
6.244	6.244	(1.081)	41	352703			299.99- 359.99	329.99
-----								
113 Ethyl acrylate					CAS #: 140-88-5			
6.938	6.938	(0.733)	99	67461	50.0000	50.000	80.00- 120.00	100.00
6.938	6.938	(0.733)	45	121394			149.95- 209.95	179.95
6.938	6.938	(0.733)	55	1267640			1849.07-1909.07	1879.07
-----								
115 2-Pentanone					CAS #: 107-87-9			
7.031	7.031	(0.743)	43	1498872	50.0000	50.000	80.00- 120.00	100.00
7.031	7.031	(0.743)	58	111516			0.00- 37.44	7.44
7.031	7.031	(0.743)	86	191499			0.00- 42.78	12.78
-----								
145 Butyl Acetate					CAS #: 123-86-4			
8.665	8.665	(1.301)	56	756724	50.0000	50.000	80.00- 120.00	100.00
8.665	8.665	(1.301)	73	220224			0.00- 59.10	29.10
8.657	8.657	(1.300)	43	1856227			215.30- 275.30	245.30
-----								
157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6			
9.596	9.596	(1.014)	131	672251	50.0000	50.000	80.00- 120.00	100.00
9.460	9.460	(1.000)	117	587682			57.42- 117.42	87.42
9.596	9.596	(1.014)	95	240014			5.70- 65.70	35.70
-----								
166 2-Heptanone					CAS #: 110-43-0			
10.362	10.362	(1.793)	58	1175492	50.0000	50.000	80.00- 120.00	100.00
10.362	10.362	(1.793)	43	1951662			136.03- 196.03	166.03
-----								
172 D-Limonene					CAS #: 5989-27-5			
12.089	12.089	(1.278)	68	923546	50.0000	50.000	80.00- 120.00	100.00
12.089	12.089	(1.278)	93	641066			39.41- 99.41	69.41
-----								
186 4-Chlorotoluene					CAS #: 106-43-4			
11.444	11.444	(1.210)	126	612826	50.0000	50.000	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	1991813			295.02- 355.02	325.02
11.444	11.444	(1.210)	63	256306			11.82- 71.82	41.82
-----								
197 1,2,3-Trimethylbenzene					CAS #: 526-73-8			
12.318	12.318	(1.302)	120	901378	50.0000	50.000	80.00- 120.00	100.00
12.318	12.318	(1.302)	105	2004624			192.40- 252.40	222.40
12.318	12.318	(1.302)	77	222560			0.00- 54.69	24.69
-----								
205 Hexachloroethane					CAS #: 67-72-1			
12.970	12.970	(1.371)	201	436881	50.0000	50.000	80.00- 120.00	100.00
12.970	12.970	(1.371)	117	581027			102.99- 162.99	132.99
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
-----								
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	1256168	50.0000	50.000	80.00- 120.00	100.00
13.758	13.758	(1.454)	182	1196432			65.24- 125.24	95.24
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	1358794	50.0000	50.000	80.00- 120.00	100.00
10.599	10.599	(1.120)	77	383320			0.00- 58.21	28.21
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.422	11.422	(1.207)	93	1085058	50.0000	50.000	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	1991813			153.57- 213.57	183.57
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051919.d  
 Lab Smp Id: ICAL Level 7  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 50ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 21:38  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	161689	97013	226365	161689	0.00
108 1,4-Difluorobenze	604813	362888	846738	604813	0.00
153 Chlorobenzene-d5	587682	352609	822755	587682	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Date : 19-MAY-2021 21:38

Client ID:

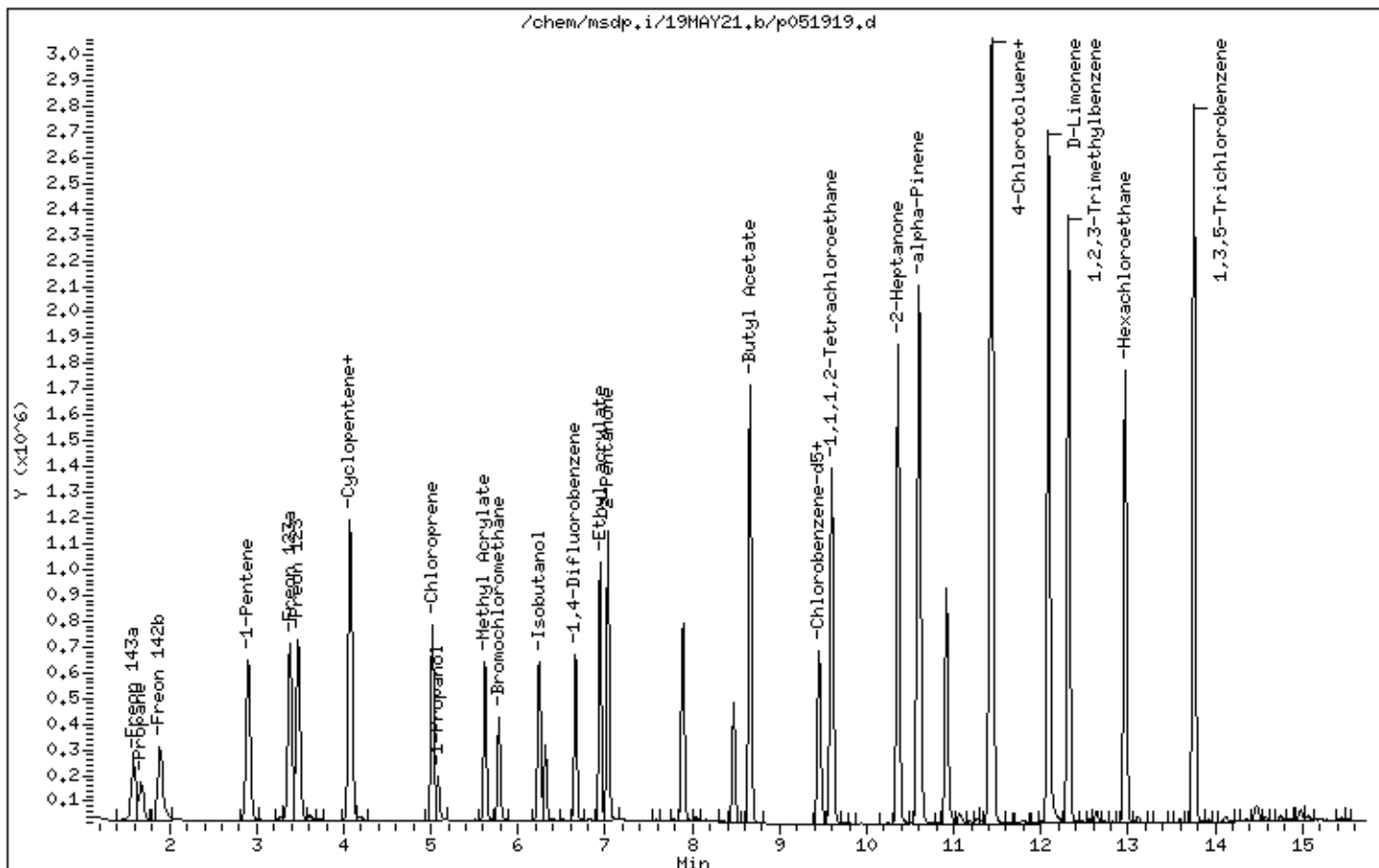
Instrument: msdp.i

Sample Info: 50mL 3018-2013

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051909.d  
 Lab Smp Id: ICAL Level 8  
 Inj Date : 19-MAY-2021 16:24  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 100mL 3018-2034  
 Misc Info : 100ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 16:24 Cal File: p051909.d  
 Als bottle: 13 Calibration Sample, Level: 8  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.646	1.633	(0.285)	83	507565	100.000	105.61	80.00- 120.00	100.00
1.646	1.633	(0.285)	69	455041			59.44- 119.44	89.65
1.744	1.745	(0.302)	51	2268262			419.06- 479.06	446.89
-----								
5 Propylene CAS #: 115-07-1								
1.674	1.675	(0.290)	41	698368	100.000	100.69	80.00- 120.00	100.00
1.674	1.675	(0.290)	42	460529			35.28- 95.28	65.94
1.674	1.675	(0.290)	39	475977			38.35- 98.35	68.16
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.702	1.703	(0.295)	65	357088	100.000	101.44	80.00- 120.00	100.00
1.744	1.745	(0.302)	51	2268262			597.63- 657.63	635.21
1.702	1.703	(0.295)	47	231703			33.72- 93.72	64.89
-----								
8 Freon 12 CAS #: 75-71-8								
1.716	1.717	(0.297)	85	1452922	100.000	108.35	80.00- 120.00	100.00
1.716	1.717	(0.297)	87	469974			2.37- 62.37	32.35
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.758	1.745	(0.304)	67	145754	100.000	109.07	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.744	1.745	(0.302)	51	2268262			1501.01-1561.01	1556.23
-----								
10 Freon 114 CAS #: 76-14-2								
1.856	1.856	(0.321)	135	1419953	100.000	103.69	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	456158			2.30- 62.30	32.12
-----								
12 Isobutane CAS #: 75-28-5								
1.870	1.870	(0.324)	43	1515676	100.000	98.575	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	485596			2.44- 62.44	32.04
1.870	1.856	(0.324)	58	50044			0.00- 33.36	3.30
-----								
15 Chloromethane CAS #: 74-87-3								
1.940	1.940	(0.336)	50	796816	100.000	95.542	80.00- 120.00	100.00
1.954	1.940	(0.338)	52	204373			0.00- 56.26	25.65
-----								
18 Butane CAS #: 106-97-8								
2.039	2.025	(0.353)	58	180663	100.000	101.40	80.00- 120.00	100.00
2.039	2.025	(0.353)	43	1466054			823.29- 883.29	811.49
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.075	2.068	(0.359)	62	918346	100.000	96.270	80.00- 120.00	100.00
2.075	2.068	(0.359)	64	270816			0.00- 59.69	29.49
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.096	2.089	(0.363)	54	850684	100.000	112.06	80.00- 120.00	100.00
2.096	2.089	(0.363)	39	739010			52.37- 112.37	86.87
-----								
24 Bromomethane CAS #: 74-83-9								
2.483	2.483	(0.430)	94	572011	100.000	92.015	80.00- 120.00	100.00
2.483	2.483	(0.430)	96	535822			64.07- 124.07	93.67
-----								
30 Chloroethane CAS #: 75-00-3								
2.612	2.612	(0.452)	64	349804	100.000	102.90	80.00- 120.00	100.00
2.612	2.612	(0.452)	66	100650			0.04- 60.04	28.77
2.612	2.612	(0.452)	49	117019			4.54- 64.54	33.45
-----								
31 Isopentane CAS #: 78-78-4								
2.641	2.634	(0.457)	43	1040896	100.000	100.15	80.00- 120.00	100.00
2.641	2.634	(0.457)	57	666459			34.12- 94.12	64.03
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.848	2.841	(0.493)	106	582384	100.000	103.68	80.00- 120.00	100.00
2.848	2.841	(0.493)	108	563942			69.27- 129.27	96.83
-----								
33 Freon 11 CAS #: 75-69-4								
2.891	2.884	(0.500)	101	1487386	100.000	103.14	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.891	2.884	(0.500)	103	967038			34.72- 94.72	65.02
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.898	2.899	(0.502)	67	1298135	100.000	105.01	80.00- 120.00	100.00
2.898	2.899	(0.502)	69	401988			0.84- 60.84	30.97
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.514)	43	1683232	100.000	99.258	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	245789			0.00- 44.98	14.60
2.970	2.970	(0.514)	72	121307			0.00- 37.39	7.21
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.285	3.285	(0.569)	74	298105	100.000	105.37	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	576501			163.46- 223.46	193.39
3.285	3.285	(0.569)	45	836034			250.40- 310.40	280.45
-----								
39 Ethanol CAS #: 64-17-5								
3.242	3.242	(0.561)	46	149584	100.000	99.460	80.00- 120.00	100.00
3.285	3.242	(0.569)	45	832557			511.19- 571.19	556.58
-----								
42 Acrolein CAS #: 107-02-8								
3.536	3.529	(0.612)	55	266909	100.000	102.94	80.00- 120.00	100.00
3.536	3.529	(0.612)	56	376803			111.10- 171.10	141.17
-----								
43 Freon 113 CAS #: 76-13-1								
3.550	3.550	(0.614)	151	1092200	100.000	101.26	80.00- 120.00	100.00
3.557	3.550	(0.616)	153	689565			33.56- 93.56	63.14
3.550	3.550	(0.614)	101	1295372			89.21- 149.21	118.60
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.586	3.579	(0.621)	96	638130	100.000	102.22	80.00- 120.00	100.00
3.586	3.579	(0.621)	98	399466			34.02- 94.02	62.60
3.586	3.579	(0.621)	61	1261088			168.77- 228.77	197.62
-----								
47 Acetone CAS #: 67-64-1								
3.715	3.708	(0.643)	58	407743	100.000	103.12	80.00- 120.00	100.00
3.715	3.708	(0.643)	43	1336506			302.95- 362.95	327.78
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.830	3.823	(0.663)	76	1723104	100.000	102.46	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.794	3.794	(0.657)	142	1438092	100.000	135.14	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	601035			12.22- 72.22	41.79
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.887	3.887	(0.673)	45	1661934	100.000	104.21	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	292411			0.00- 47.19	17.59
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.052	4.052	(0.701)	76	292429	100.000	102.76	80.00- 120.00	100.00
4.052	4.052	(0.701)	41	1196303			396.19- 456.19	409.09
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.123	4.123	(0.714)	41	798509	100.000	108.94	80.00- 120.00	100.00
4.123	4.123	(0.714)	40	401874			20.95- 80.95	50.33
4.123	4.123	(0.714)	38	88300			0.00- 41.17	11.06
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.238	4.238	(0.733)	49	1074098	100.000	105.04	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	556924			22.03- 82.03	51.85
4.238	4.238	(0.733)	51	323217			0.18- 60.18	30.09
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.338	4.338	(0.751)	59	1858636	100.000	99.052	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	385487			0.00- 51.11	20.74
4.338	4.338	(0.751)	57	191013			0.00- 40.49	10.28
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.769)	73	1848968	100.000	98.795	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	604553			3.10- 63.10	32.70
4.446	4.446	(0.769)	41	579143			1.28- 61.28	31.32
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.481	4.482	(0.776)	98	433306	100.000	102.86	80.00- 120.00	100.00
4.481	4.482	(0.776)	61	1236426			255.84- 315.84	285.35
4.481	4.482	(0.776)	96	693293			127.59- 187.59	160.00
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.560	4.560	(0.789)	52	596989	100.000	99.669	80.00- 120.00	100.00
4.560	4.560	(0.789)	53	715968			88.05- 148.05	119.93
-----								
67 Hexane						CAS #: 110-54-3		
4.696	4.697	(0.813)	57	1534457	100.000	103.86	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	1029510			37.52- 97.52	67.09
4.696	4.697	(0.813)	86	176385			0.00- 41.48	11.49
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.969	4.962	(0.860)	63	1364098	100.000	104.66	80.00- 120.00	100.00
4.969	4.962	(0.860)	65	405911			0.00- 59.70	29.76
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.947	4.954	(0.856)	45	3520699	100.000	101.33	80.00- 120.00	100.00
4.947	4.954	(0.856)	87	644730			0.00- 48.18	18.31
4.947	4.954	(0.856)	59	358329			0.00- 40.15	10.18
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.865)	86	174113	100.000	107.01	80.00- 120.00	100.00
4.990	4.997	(0.864)	43	3073069			2432.48-2492.48	1764.99
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.918)	59	3038101	100.000	100.85	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	938894			1.00- 61.00	30.90
5.305	5.305	(0.918)	41	568486			0.00- 48.73	18.71
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.953)	77	1178409	100.000	103.59	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	375834			2.28- 62.28	31.89
5.513	5.506	(0.954)	97	287766			0.00- 53.93	24.42
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.960)	98	473987	100.000	109.86	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	736483			125.75- 185.75	155.38
5.549	5.549	(0.960)	61	1694585			332.40- 392.40	357.52
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.962)	72	357150	100.000	104.90	80.00- 120.00	100.00
5.563	5.556	(0.963)	43	4378918			1214.50-1274.50	1226.07
5.556	5.556	(0.962)	57	154664			14.68- 74.68	43.31
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.964)	45	353395	100.000	104.48	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	1695217			452.04- 512.04	479.69
5.570	5.570	(0.964)	70	189420			22.77- 82.77	53.60
89 Tetrahydrofuran						CAS #: 109-99-9		
5.771	5.771	(0.999)	42	1189052	100.000	103.31	80.00- 120.00	100.00
5.771	5.771	(0.999)	71	309814			0.00- 55.82	26.06
5.771	5.771	(0.999)	72	335384			0.00- 57.59	28.21
* 90 Bromochloromethane						CAS #: 74-97-5		
5.778	5.778	(1.000)	130	152805	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	121664			48.23- 108.23	79.62
5.778	5.778	(1.000)	49	281698			150.57- 210.57	184.35
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	1415975	100.000	107.68	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.835	5.835	(1.010)	85	915346			34.70- 94.70	64.64
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.957	5.957	(1.031)	84	944762	100.000	101.07	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	1666010			142.57- 202.57	176.34
5.957	5.957	(1.031)	41	886450			62.09- 122.09	93.83
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.971	5.972	(1.033)	97	1485005	100.000	100.30	80.00- 120.00	100.00
5.971	5.972	(1.033)	99	948874			34.02- 94.02	63.90
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.086	6.086	(1.053)	119	1499358	100.000	106.30	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	1503563			70.64- 130.64	100.28
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.115	6.115	(0.918)	110	416114	100.000	102.27	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	1049030			226.85- 286.85	252.10
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.279	6.280	(1.087)	57	5314941	100.000	102.00	80.00- 120.00	100.00
6.279	6.280	(1.087)	56	1735895			2.24- 62.24	32.66
6.279	6.280	(1.087)	41	1349070			0.00- 54.39	25.38
-----								
102 Benzene						CAS #: 71-43-2		
6.301	6.301	(0.946)	78	2026776	100.000	103.01	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	474028			0.00- 52.90	23.39
-----								
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.308	6.308	(1.092)	65	220685	25.0000	26.504	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	141968			27.21- 87.21	64.33
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.358	6.358	(0.955)	87	547673	100.000	97.366	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	2227568			372.79- 432.79	406.73
6.358	6.358	(0.955)	55	768756			112.09- 172.09	140.37
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.958)	62	1080056	100.000	103.85	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	332034			0.79- 60.79	30.74
-----								
107 Heptane						CAS #: 142-82-5		
6.444	6.444	(0.968)	71	786728	100.000	101.45	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	2022288			226.53- 286.53	257.05
6.444	6.444	(0.968)	57	1020722			100.85- 160.85	129.74
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	599259	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	96032			0.00- 45.71	16.03
-----								
110 n-Butanol						CAS #: 71-36-3		
6.809	6.810	(1.023)	56	750083	100.000	104.92	80.00- 120.00	100.00
6.809	6.810	(1.023)	41	530236			40.99- 100.99	70.69
6.809	6.810	(1.023)	43	429051			27.38- 87.38	57.20
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	997780	100.000	104.77	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	1060416			76.29- 136.29	106.28
6.867	6.867	(1.031)	97	630792			33.63- 93.63	63.22
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.089	7.089	(1.065)	63	1008198	100.000	100.30	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	717137			41.07- 101.07	71.13
7.096	7.089	(1.066)	41	522377			22.53- 82.53	51.81
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.139	7.132	(0.755)	69	824440	100.000	101.96	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	1710649			179.84- 239.84	207.49
7.139	7.139	(0.755)	100	331918			9.59- 69.59	40.26
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.175	7.175	(1.077)	88	528029	100.000	97.653	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	524400			68.28- 128.28	99.31
7.175	7.175	(1.077)	57	177216			2.68- 62.68	33.56
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.203	7.204	(0.761)	174	928250	100.000	104.93	80.00- 120.00	100.00
7.203	7.204	(0.761)	93	831541			60.09- 120.09	89.58
7.203	7.204	(0.761)	95	722804			48.38- 108.38	77.87
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	1567843	100.000	105.12	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	1011256			35.24- 95.24	64.50
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.690	7.691	(1.155)	75	1310676	100.000	104.92	80.00- 120.00	100.00
7.690	7.691	(1.155)	77	416599			2.42- 62.42	31.79
7.690	7.691	(1.155)	39	879596			37.16- 97.16	67.11
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	1373843	100.000	98.785	80.00- 120.00	100.00
6.974	6.974	(1.047)	98	639936			15.78- 75.78	46.58

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.047)	55	1577222			84.64- 144.64	114.80
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.791	7.791	(1.170)	58	990523	100.000	97.755	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	2685952			242.35- 302.35	271.17
7.798	7.791	(1.171)	85	326227			3.24- 63.24	32.93
-----								
\$ 134 Toluene-d8						CAS #: 2037-26-5		
7.891	7.891	(1.185)	98	653351	25.0000	25.095	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	69659			0.00- 40.44	10.66
7.891	7.891	(1.185)	100	427970			34.95- 94.95	65.50
-----								
137 Toluene						CAS #: 108-88-3		
7.948	7.949	(1.194)	91	2719947	100.000	99.602	80.00- 120.00	100.00
7.948	7.949	(1.194)	92	1593607			28.38- 88.38	58.59
-----								
136 Octane						CAS #: 111-65-9		
7.948	7.949	(1.194)	57	1143310	100.000	99.301	80.00- 120.00	100.00
7.948	7.949	(1.194)	85	970463			56.00- 116.00	84.88
7.948	7.949	(1.194)	43	2966309			228.66- 288.66	259.45
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.213	8.214	(0.868)	75	1224849	100.000	104.91	80.00- 120.00	100.00
8.213	8.214	(0.868)	77	387990			1.24- 61.24	31.68
8.213	8.214	(0.868)	39	804536			34.11- 94.11	65.68
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.400	8.400	(0.888)	97	969495	100.000	103.06	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	600278			31.96- 91.96	61.92
8.400	8.400	(0.888)	83	805643			52.93- 112.93	83.10
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	1365527	100.000	99.832	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	1069381			47.84- 107.84	78.31
8.464	8.464	(0.895)	131	1033508			45.29- 105.29	75.69
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.586	8.586	(0.908)	58	1368856	100.000	99.686	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	2631318			162.87- 222.87	192.23
8.586	8.586	(0.908)	100	212248			0.00- 45.94	15.51
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.288)	76	1348288	100.000	103.10	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	1683093			94.99- 154.99	124.83
8.579	8.579	(1.288)	78	436936			2.05- 62.05	32.41
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	1870111	100.000	103.77	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	1452482			47.45- 107.45	77.67
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	1591018	100.000	102.80	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	1499795			64.21- 124.21	94.27
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	1915471	100.000	103.43	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	566303			0.00- 59.64	29.56
7.605	7.605	(1.142)	144	182840			0.00- 39.63	9.55
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	590210	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	323727			23.78- 83.78	54.85
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	2370958	100.000	101.53	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	756993			1.74- 61.74	31.93
9.496	9.496	(1.004)	77	1286889			25.04- 85.04	54.28
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	1215808	100.000	99.229	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	3709578			273.74- 333.74	305.11
-----								
156 Nonane						CAS #: 111-84-2		
9.603	9.596	(1.015)	43	3087905	100.000	97.458	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	2613991			54.16- 114.16	84.65
9.603	9.603	(1.015)	85	738081			0.00- 53.90	23.90
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	1495472	100.000	98.126	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	2934052			163.73- 223.73	196.20
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	1448581	100.000	98.124	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	2977601			177.45- 237.45	205.55
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	2465052	100.000	98.384	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	1179971			17.88- 77.88	47.87
-----								
167 Bromoform						CAS #: 75-25-2		
10.549	10.542	(1.115)	173	1837525	100.000	104.18	80.00- 120.00	100.00
10.541	10.542	(1.114)	171	942585			21.25- 81.25	51.30
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	4567679	100.000	98.637	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	1306308			0.00- 58.52	28.60
10.649	10.649	(1.126)	51	589542			0.00- 43.00	12.91
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.871	10.871	(1.149)	55	1596477	100.000	95.938	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	513572			1.94- 61.94	32.17
10.871	10.871	(1.149)	42	1073939			37.89- 97.89	67.27
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	381266	25.0000	25.244	80.00- 120.00	100.00
10.921	10.921	(1.154)	95	486727			95.92- 155.92	127.66
10.921	10.921	(1.154)	176	367158			66.89- 126.89	96.30
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.107	11.100	(1.174)	83	2228280	100.000	98.820	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	1439832			35.20- 95.20	64.62
-----								
177 Bromobenzene						CAS #: 108-86-1		
11.107	11.107	(1.174)	156	1426381	100.000	101.78	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	1394001			67.21- 127.21	97.73
11.179	11.179	(1.182)	77	841614			29.02- 89.02	59.00
-----								
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	1347671	100.000	98.184	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	5312611			366.49- 426.49	394.21
11.150	11.150	(1.179)	105	203289			0.00- 44.85	15.08
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
11.179	11.179	(1.182)	110	686203	100.000	96.347	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	2133287			280.55- 340.55	310.88
11.100	11.100	(1.173)	61	307567			15.49- 75.49	44.82
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
11.179	11.179	(1.182)	53	476707	100.000	101.28	80.00- 120.00	100.00
11.179	11.179	(1.182)	89	367391			49.11- 109.11	77.07
11.179	11.179	(1.182)	75	2133287			426.44- 486.44	447.50
-----								
182 Decane						CAS #: 124-18-5		
11.251	11.251	(1.189)	57	3243150	100.000	88.689	80.00- 120.00	100.00
11.258	11.251	(1.190)	71	905505			0.00- 57.66	27.92
11.258	11.258	(1.190)	142	133433			0.00- 34.09	4.11
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
11.286	11.287	(1.193)	120	1428430	100.000	96.809	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.286	11.287	(1.193)	105	4478546			284.55- 344.55	313.53
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
11.315	11.308	(1.196)	126	1126349	100.000	96.991	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	3926471			315.17- 375.17	348.60
11.301	11.301	(1.195)	65	571555			21.55- 81.55	50.74
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	2029709	100.000	99.067	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	3958269			164.93- 224.93	195.02
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.644	11.645	(1.231)	118	2053068	100.000	99.954	80.00- 120.00	100.00
11.644	11.645	(1.231)	103	1126967			25.30- 85.30	54.89
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.738	11.738	(1.241)	119	3869191	100.000	100.90	80.00- 120.00	100.00
11.745	11.738	(1.242)	134	937426			0.00- 54.25	24.23
11.738	11.738	(1.241)	91	2366627			31.27- 91.27	61.17
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.816	11.817	(1.249)	105	3825889	100.000	98.524	80.00- 120.00	100.00
11.816	11.817	(1.249)	120	1877483			19.05- 79.05	49.07
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.995	11.996	(1.268)	134	1188712	100.000	99.702	80.00- 120.00	100.00
11.995	11.996	(1.268)	105	5589774			437.55- 497.55	470.24
11.995	11.996	(1.268)	91	846180			40.76- 100.76	71.18
-----								
194 p-Cymene CAS #: 99-87-6								
12.160	12.160	(1.285)	119	5211679	100.000	99.223	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	1335569			0.00- 55.54	25.63
12.160	12.153	(1.285)	91	1113414			0.00- 51.48	21.36
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.203	12.196	(1.290)	146	2614617	100.000	98.021	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	1681191			33.21- 93.21	64.30
12.196	12.196	(1.289)	111	1089961			11.31- 71.31	41.69
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	2681111	100.000	99.901	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	1693939			33.90- 93.90	63.18
12.311	12.311	(1.301)	111	1052991			9.45- 69.45	39.27
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	3733206	100.000	101.62	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	855205			0.00- 53.26	22.91
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	3992563	100.000	94.355	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	3525819			58.12- 118.12	88.31
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	1274791	100.000	95.075	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	4476615			314.79- 374.79	351.16
12.626	12.626	(1.335)	92	2399035			154.29- 214.29	188.19
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.733	12.741	(1.346)	146	2533352	100.000	97.467	80.00- 120.00	100.00
12.733	12.741	(1.346)	148	1616747			33.84- 93.84	63.82
12.733	12.741	(1.346)	111	1075764			12.73- 72.73	42.46
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	1585272	100.000	100.82	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	1323143			52.48- 112.48	83.46
13.600	13.600	(1.438)	155	1237839			47.41- 107.41	78.08
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	4416932	124.000	138.94	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	3610956			52.87- 112.87	81.75
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	2488736	126.000	130.48	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	2388833			65.33- 125.33	95.99
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.582	(1.541)	225	1826473	129.000	136.64	80.00- 120.00	100.00
14.581	14.582	(1.541)	223	1154987			33.17- 93.17	63.24
-----								
216 Naphthalene						CAS #: 91-20-3		
14.768	14.768	(1.561)	128	617447	12.7000	12.602	80.00- 120.00	100.00
14.760	14.768	(1.560)	127	78355			0.00- 42.88	12.69
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.068	15.069	(1.593)	180	2380079	133.000	141.78	80.00- 120.00	100.00
15.068	15.069	(1.593)	182	2269705			65.75- 125.75	95.36
15.061	15.069	(1.592)	145	846452			5.23- 65.23	35.56
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p051909.d  
Lab Smp Id: ICAL Level 8  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD

Calibration Date: 19-MAY-2021  
Calibration Time: 15:55  
Level: LOW  
Sample Type: AIR

Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
Misc Info: 100ppbv (200ppbv)

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	152805	-3.78
108 1,4-Difluorobenze	597103	358262	835944	599259	0.36
153 Chlorobenzene-d5	587747	352648	822846	590210	0.42

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 16:24

Client ID:

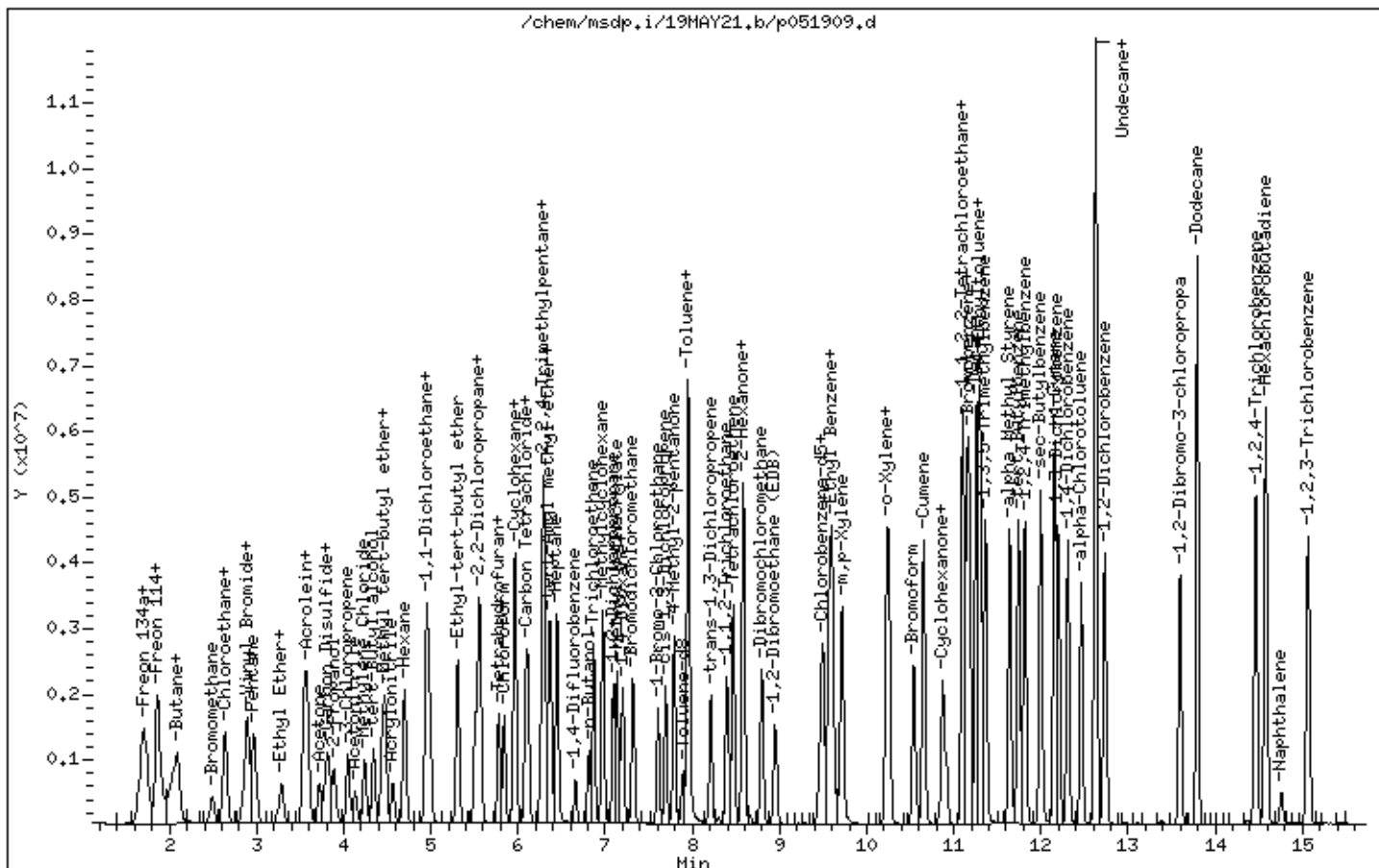
Instrument: msdp.i

Sample Info: 100mL 3018-2034

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051920.d  
Lab Smp Id: ICAL Level 8  
Inj Date : 19-MAY-2021 22:07  
Operator : gh Inst ID: msdp.i  
Smp Info : 100mL 3018-2013  
Misc Info : 100ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 22:07 Cal File: p051920.d  
Als bottle: 3 Calibration Sample, Level: 8  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane				CAS #: 74-97-5		
5.778	5.778	(1.000)	130	157260	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	127325			48.23- 108.23 80.96
5.778	5.778	(1.000)	49	290406			150.57- 210.57 184.67
-----							
* 108	1,4-Difluorobenzene				CAS #: 540-36-3		
6.659	6.659	(1.000)	114	611896	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	94534			0.00- 45.71 15.45
-----							
* 153	Chlorobenzene-d5				CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	605655	25.0000		80.00- 120.00 100.00
9.460	9.460	(1.000)	82	331071			23.78- 83.78 54.66
-----							
3	Freon 143a				CAS #: 420-46-2		
1.590	1.590	(0.275)	65	338792	100.000	105.77	80.00- 120.00 100.00
1.590	1.590	(0.275)	69	923313			243.50- 303.50 272.53
1.590	1.590	(0.275)	64	80203			0.00- 54.06 23.67
-----							
6	Propane				CAS #: 74-98-6		
1.674	1.674	(0.290)	43	269102	100.000	96.261	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.674	1.674	(0.290)	39	170552			34.98- 94.98	63.38
1.674	1.674	(0.290)	41	145053			25.22- 85.22	53.90
-----								
13 Freon 142b CAS #: 75-68-3								
1.884	1.884	(0.326)	65	1499593	100.000	97.279	80.00- 120.00	100.00
1.884	1.884	(0.326)	45	444419			0.00- 59.77	29.64
-----								
36 1-Pentene CAS #: 109-67-1								
2.906	2.906	(0.503)	55	966890	100.000	95.667	80.00- 120.00	100.00
2.906	2.906	(0.503)	42	1331259			105.17- 165.17	137.68
-----								
40 Freon 123a CAS #: 354-23-4								
3.386	3.385	(0.586)	117	933222	100.000	95.080	80.00- 120.00	100.00
3.386	3.378	(0.586)	67	1253615			104.69- 164.69	134.33
-----								
41 Freon 123 CAS #: 306-83-2								
3.479	3.479	(0.602)	83	1402358	100.000	100.49	80.00- 120.00	100.00
3.479	3.479	(0.602)	133	293086			0.00- 50.87	20.90
3.479	3.479	(0.602)	85	954375			36.08- 96.08	68.06
-----								
55 Cyclopentene CAS #: 142-29-0								
4.073	4.073	(0.705)	67	1549614	100.000	103.63	80.00- 120.00	100.00
4.073	4.073	(0.705)	68	574894			6.76- 66.76	37.10
4.073	4.073	(0.705)	53	430697			0.00- 57.54	27.79
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.073	4.073	(0.705)	43	1860322	100.000	106.56	80.00- 120.00	100.00
4.080	4.073	(0.706)	74	265330			0.00- 44.13	14.26
-----								
74 Chloroprene CAS #: 126-99-8								
5.019	5.019	(0.869)	53	1510132	100.000	108.90	80.00- 120.00	100.00
5.019	5.019	(0.869)	88	592673			9.21- 69.21	39.25
5.019	5.019	(0.869)	50	359244			0.00- 54.25	23.79
-----								
75 1-Propanol CAS #: 71-23-8								
5.083	5.083	(0.880)	59	205049	100.000	98.484	80.00- 120.00	100.00
5.083	5.083	(0.880)	42	189310			63.23- 123.23	92.32
5.083	5.083	(0.880)	41	113051			24.74- 84.74	55.13
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.620	5.620	(0.973)	55	1943701	100.000	106.36	80.00- 120.00	100.00
5.620	5.620	(0.973)	85	217090			0.00- 41.28	11.17
5.620	5.620	(0.973)	58	162912			0.00- 38.22	8.38
-----								
103 Isobutanol CAS #: 78-83-1								
6.236	6.244	(1.079)	39	226725	100.000	101.49	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.244	6.244	(1.081)	43	1059873			448.18- 508.18	467.47
6.244	6.244	(1.081)	41	745566			299.99- 359.99	328.84
-----								
113 Ethyl acrylate								
							CAS #: 140-88-5	
6.938	6.938	(0.733)	99	135799	100.000	96.936	80.00- 120.00	100.00
6.938	6.938	(0.733)	45	252316			149.95- 209.95	185.80
6.938	6.938	(0.733)	55	2635755			1849.07-1909.07	1940.92
-----								
115 2-Pentanone								
							CAS #: 107-87-9	
7.032	7.031	(0.743)	43	3106672	100.000	101.23	80.00- 120.00	100.00
7.032	7.031	(0.743)	58	227526			0.00- 37.44	7.32
7.032	7.031	(0.743)	86	400164			0.00- 42.78	12.88
-----								
145 Butyl Acetate								
							CAS #: 123-86-4	
8.665	8.665	(1.301)	56	1533686	100.000	99.232	80.00- 120.00	100.00
8.665	8.665	(1.301)	73	450207			0.00- 59.10	29.35
8.658	8.657	(1.300)	43	3763757			215.30- 275.30	245.41
-----								
157 1,1,1,2-Tetrachloroethane								
							CAS #: 630-20-6	
9.596	9.596	(1.014)	131	1347909	100.000	100.28	80.00- 120.00	100.00
9.460	9.460	(1.000)	117	605655			57.42- 117.42	44.93
9.596	9.596	(1.014)	95	485333			5.70- 65.70	36.01
-----								
166 2-Heptanone								
							CAS #: 110-43-0	
10.362	10.362	(1.793)	58	2357119	100.000	102.38	80.00- 120.00	100.00
10.362	10.362	(1.793)	43	3890207			136.03- 196.03	165.04
-----								
172 D-Limonene								
							CAS #: 5989-27-5	
12.089	12.089	(1.278)	68	1800213	100.000	137.28	80.00- 120.00	100.00
12.089	12.089	(1.278)	93	1238262			39.41- 99.41	68.78
-----								
186 4-Chlorotoluene								
							CAS #: 106-43-4	
11.444	11.444	(1.210)	126	1234609	100.000	99.338	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	3962866			295.02- 355.02	320.98
11.444	11.444	(1.210)	63	506526			11.82- 71.82	41.03
-----								
197 1,2,3-Trimethylbenzene								
							CAS #: 526-73-8	
12.318	12.318	(1.302)	120	1781367	100.000	98.416	80.00- 120.00	100.00
12.318	12.318	(1.302)	105	3973322			192.40- 252.40	223.05
12.318	12.318	(1.302)	77	442101			0.00- 54.69	24.82
-----								
205 Hexachloroethane								
							CAS #: 67-72-1	
12.977	12.970	(1.372)	201	850803	100.000	123.71	80.00- 120.00	100.00
12.977	12.970	(1.372)	117	1124452			102.99- 162.99	132.16
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.779	13.758	(1.457)	180	2557091	100.000	100.71	80.00- 120.00	100.00
13.779	13.758	(1.457)	182	2439083			65.24- 125.24	95.39
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	2760113	100.000	112.22	80.00- 120.00	100.00
10.599	10.599	(1.120)	77	796024			0.00- 58.21	28.84
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.422	11.422	(1.207)	93	2112301	100.000	133.10	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	3962866			153.57- 213.57	187.61
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051920.d  
 Lab Smp Id: ICAL Level 8  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 100ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	157260	-0.98
108 1,4-Difluorobenze	597103	358262	835944	611896	2.48
153 Chlorobenzene-d5	587747	352648	822846	605655	3.05

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 22:07

Client ID:

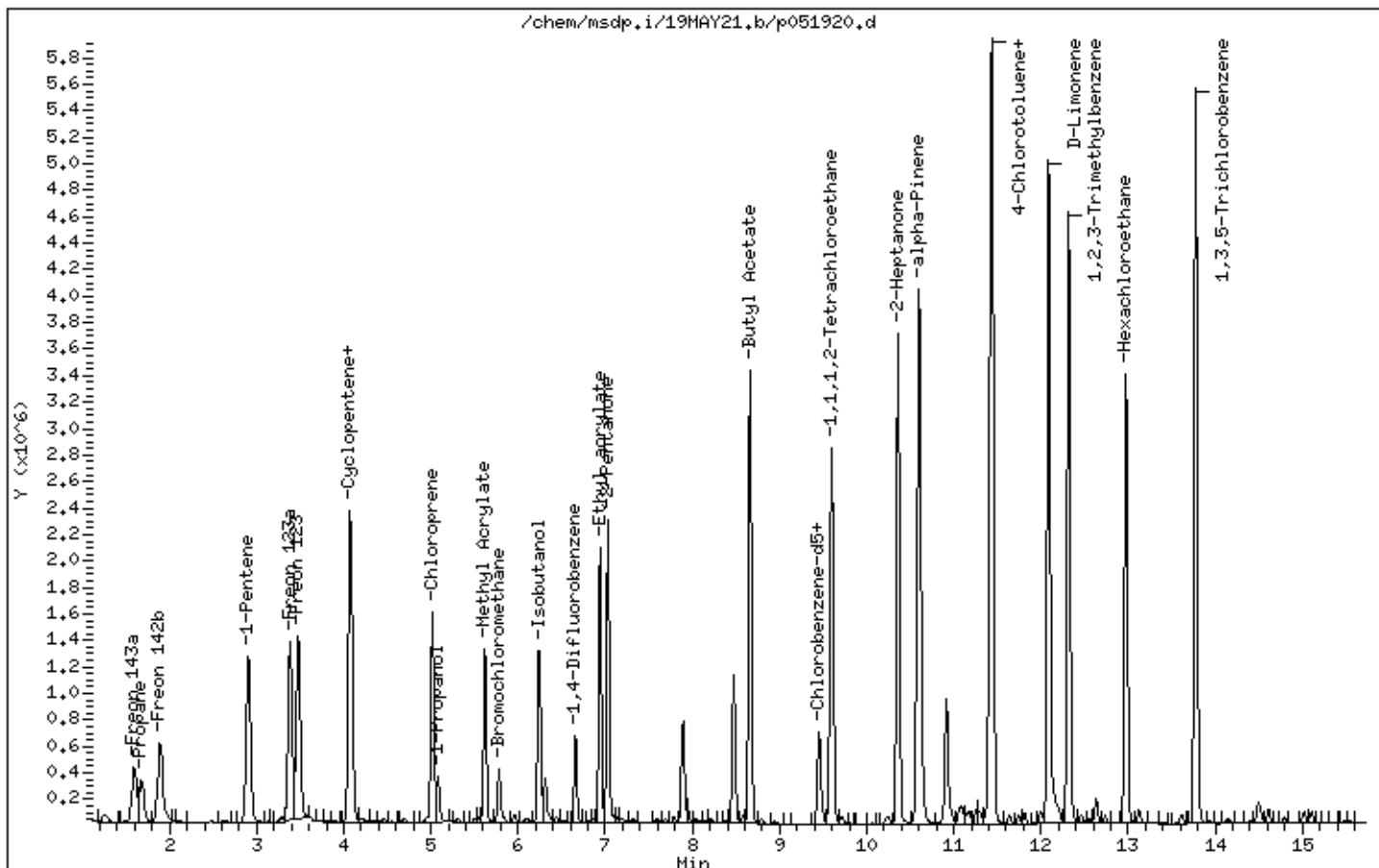
Instrument: msdp.i

Sample Info: 100mL 3018-2013

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051910.d  
 Lab Smp Id: ICAL Level 9  
 Inj Date : 19-MAY-2021 16:53  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 200mL 3018-2034  
 Misc Info : 200ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 16:53 Cal File: p051910.d  
 Als bottle: 13 Calibration Sample, Level: 9  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a				CAS #: 811-97-2				
1.660	1.633	(0.287)	83	963392	200.000	207.55	80.00- 120.00	100.00(A)
1.646	1.633	(0.285)	69	867624			59.44- 119.44	90.06
1.758	1.745	(0.304)	51	4138681			419.06- 479.06	429.59
-----								
5 Propylene				CAS #: 115-07-1				
1.688	1.675	(0.292)	41	1396714	200.000	208.12	80.00- 120.00	100.00(A)
1.688	1.675	(0.292)	42	925437			35.28- 95.28	66.26
1.688	1.675	(0.292)	39	960683			38.35- 98.35	68.78
-----								
7 1,1-Difluoroethane				CAS #: 75-37-6				
1.716	1.703	(0.297)	65	610604	200.000	183.68	80.00- 120.00	100.00
1.758	1.745	(0.304)	51	4138681			597.63- 657.63	677.80
1.716	1.703	(0.297)	47	402984			33.72- 93.72	66.00
-----								
8 Freon 12				CAS #: 75-71-8				
1.730	1.717	(0.299)	85	2956019	200.000	224.92	80.00- 120.00	100.00(A)
1.730	1.717	(0.299)	87	956315			2.37- 62.37	32.35
-----								
9 Chlorodifluoromethane				CAS #: 75-45-6				
1.758	1.745	(0.304)	67	279979	200.000	215.49	80.00- 120.00	100.00(A)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.758	1.745	(0.304)	51	4138681			1501.01-1561.01	1478.21
-----								
10 Freon 114 CAS #: 76-14-2								
1.856	1.856	(0.321)	135	2798238	200.000	210.96	80.00- 120.00	100.00(A)
1.856	1.856	(0.321)	137	896202			2.30- 62.30	32.03
-----								
12 Isobutane CAS #: 75-28-5								
1.870	1.870	(0.323)	43	3072142	200.000	206.77	80.00- 120.00	100.00(A)
1.870	1.870	(0.323)	42	980915			2.44- 62.44	31.93
1.870	1.856	(0.323)	58	99396			0.00- 33.36	3.24
-----								
15 Chloromethane CAS #: 74-87-3								
1.954	1.940	(0.338)	50	1152746	200.000	151.06	80.00- 120.00	100.00
1.954	1.940	(0.338)	52	283410			0.00- 56.26	24.59
-----								
18 Butane CAS #: 106-97-8								
2.053	2.025	(0.355)	58	411216	200.000	232.63	80.00- 120.00	100.00(A)
2.053	2.025	(0.355)	43	3342638			823.29- 883.29	812.87
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.075	2.068	(0.359)	62	1863332	200.000	203.01	80.00- 120.00	100.00(A)
2.075	2.068	(0.359)	64	541008			0.00- 59.69	29.03
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.111	2.089	(0.365)	54	1717595	200.000	229.88	80.00- 120.00	100.00(A)
2.111	2.089	(0.365)	39	2054933			52.37- 112.37	119.64
-----								
24 Bromomethane CAS #: 74-83-9								
2.490	2.483	(0.430)	94	1117043	200.000	189.24	80.00- 120.00	100.00
2.490	2.483	(0.430)	96	1045104			64.07- 124.07	93.56
-----								
30 Chloroethane CAS #: 75-00-3								
2.619	2.612	(0.453)	64	698592	200.000	211.62	80.00- 120.00	100.00(A)
2.619	2.612	(0.453)	66	205685			0.04- 60.04	29.44
2.619	2.612	(0.453)	49	231191			4.54- 64.54	33.09
-----								
31 Isopentane CAS #: 78-78-4								
2.641	2.634	(0.456)	43	2078373	200.000	206.91	80.00- 120.00	100.00(A)
2.641	2.634	(0.456)	57	1341657			34.12- 94.12	64.55
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.848	2.841	(0.492)	106	1169390	200.000	214.33	80.00- 120.00	100.00(A)
2.848	2.841	(0.492)	108	1149051			69.27- 129.27	98.26
-----								
33 Freon 11 CAS #: 75-69-4								
2.898	2.884	(0.501)	101	2990714	200.000	213.62	80.00- 120.00	100.00(A)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.898	2.884	(0.501)	103	1954067			34.72- 94.72	65.34
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.906	2.899	(0.502)	67	2628562	200.000	218.19	80.00- 120.00	100.00(A)
2.906	2.899	(0.502)	69	808198			0.84- 60.84	30.75
-----								
35 Pentane CAS #: 109-66-0								
2.977	2.970	(0.515)	43	3326896	200.000	203.77	80.00- 120.00	100.00(A)
2.977	2.970	(0.515)	57	497125			0.00- 44.98	14.94
2.977	2.970	(0.515)	72	250044			0.00- 37.39	7.52
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.292	3.285	(0.569)	74	597925	200.000	217.07	80.00- 120.00	100.00(A)
3.292	3.285	(0.569)	59	1144802			163.46- 223.46	191.46
3.285	3.285	(0.568)	45	1667751			250.40- 310.40	278.92
-----								
39 Ethanol CAS #: 64-17-5								
3.249	3.242	(0.562)	46	301814	200.000	207.52	80.00- 120.00	100.00(A)
3.285	3.242	(0.568)	45	1657457			511.19- 571.19	549.17
-----								
42 Acrolein CAS #: 107-02-8								
3.543	3.529	(0.612)	55	539808	200.000	213.90	80.00- 120.00	100.00(A)
3.543	3.529	(0.612)	56	750593			111.10- 171.10	139.05
-----								
43 Freon 113 CAS #: 76-13-1								
3.557	3.550	(0.615)	151	2174805	200.000	208.58	80.00- 120.00	100.00(A)
3.557	3.550	(0.615)	153	1392066			33.56- 93.56	64.01
3.557	3.550	(0.615)	101	2603153			89.21- 149.21	119.70
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.593	3.579	(0.621)	96	1272304	200.000	210.50	80.00- 120.00	100.00(A)
3.593	3.579	(0.621)	98	804446			34.02- 94.02	63.23
3.593	3.579	(0.621)	61	2540756			168.77- 228.77	199.70
-----								
47 Acetone CAS #: 67-64-1								
3.722	3.708	(0.643)	58	818913	200.000	213.00	80.00- 120.00	100.00(A)
3.722	3.708	(0.643)	43	2670673			302.95- 362.95	326.12
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.837	3.823	(0.663)	76	3473690	200.000	212.53	80.00- 120.00	100.00(A)
-----								
49 Iodomethane CAS #: 74-88-4								
3.794	3.794	(0.656)	142	2824784	200.000	259.99	80.00- 120.00	100.00(A)
3.794	3.794	(0.656)	127	1185970			12.22- 72.22	41.98
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.901	3.887	(0.674)	45	3287894	200.000	212.18	80.00- 120.00	100.00(A)
3.901	3.887	(0.674)	43	565170			0.00- 47.19	17.19
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.059	4.052	(0.702)	76	545365	200.000	199.73	80.00- 120.00	100.00
4.052	4.052	(0.700)	41	2224570			396.19- 456.19	407.90
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.131	4.123	(0.714)	41	1631593	200.000	225.92	80.00- 120.00	100.00(A)
4.131	4.123	(0.714)	40	829052			20.95- 80.95	50.81
4.131	4.123	(0.714)	38	182363			0.00- 41.17	11.18
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.238	4.238	(0.733)	49	2169168	200.000	217.21	80.00- 120.00	100.00(A)
4.238	4.238	(0.733)	84	1125402			22.03- 82.03	51.88
4.238	4.238	(0.733)	51	657885			0.18- 60.18	30.33
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.345	4.338	(0.751)	59	3675194	200.000	203.38	80.00- 120.00	100.00(A)
4.345	4.338	(0.751)	41	762931			0.00- 51.11	20.76
4.345	4.338	(0.751)	57	374274			0.00- 40.49	10.18
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.768)	73	3660106	200.000	203.22	80.00- 120.00	100.00(A)
4.446	4.446	(0.768)	57	1205080			3.10- 63.10	32.92
4.446	4.446	(0.768)	41	1137977			1.28- 61.28	31.09
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.482	4.482	(0.775)	98	872146	200.000	213.32	80.00- 120.00	100.00(A)
4.482	4.482	(0.775)	61	2471299			255.84- 315.84	283.36
4.482	4.482	(0.775)	96	1368568			127.59- 187.59	156.92
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.567	4.560	(0.789)	52	1209839	200.000	208.90	80.00- 120.00	100.00(A)
4.567	4.560	(0.789)	53	1441756			88.05- 148.05	119.17
-----								
67 Hexane						CAS #: 110-54-3		
4.696	4.697	(0.812)	57	3059384	200.000	213.36	80.00- 120.00	100.00(A)
4.696	4.697	(0.812)	43	2035499			37.52- 97.52	66.53
4.696	4.697	(0.812)	86	348023			0.00- 41.48	11.38
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.969	4.962	(0.859)	63	2727099	200.000	215.24	80.00- 120.00	100.00(A)
4.969	4.962	(0.859)	65	807144			0.00- 59.70	29.60
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.947	4.954	(0.855)	45	6972756	200.000	207.52	80.00- 120.00	100.00(A)
4.947	4.954	(0.855)	87	1261426			0.00- 48.18	18.09
4.947	4.954	(0.855)	59	707319			0.00- 40.15	10.14
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.864)	86	353856	200.000	221.69	80.00- 120.00	100.00(A)
4.997	4.997	(0.864)	43	6152688			2432.48-2492.48	1738.75
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.917)	59	5991015	200.000	205.98	80.00- 120.00	100.00(A)
5.305	5.305	(0.917)	87	1852036			1.00- 61.00	30.91
5.305	5.305	(0.917)	41	1108520			0.00- 48.73	18.50
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.513	5.506	(0.953)	77	2339456	200.000	212.12	80.00- 120.00	100.00(A)
5.513	5.506	(0.953)	79	759579			2.28- 62.28	32.47
5.513	5.506	(0.953)	97	577290			0.00- 53.93	24.68
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.959)	98	941351	200.000	222.97	80.00- 120.00	100.00(A)
5.549	5.549	(0.959)	96	1475590			125.75- 185.75	156.75
5.549	5.549	(0.959)	61	3406307			332.40- 392.40	361.85
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.960)	72	710177	200.000	214.24	80.00- 120.00	100.00(A)
5.563	5.556	(0.962)	43	8748765			1214.50-1274.50	1231.91
5.556	5.556	(0.960)	57	313614			14.68- 74.68	44.16
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.963)	45	710278	200.000	215.42	80.00- 120.00	100.00(A)
5.549	5.549	(0.959)	61	3406439			452.04- 512.04	479.59
5.570	5.570	(0.963)	70	376648			22.77- 82.77	53.03
89 Tetrahydrofuran						CAS #: 109-99-9		
5.778	5.771	(0.999)	42	2389288	200.000	213.80	80.00- 120.00	100.00(A)
5.778	5.771	(0.999)	71	621062			0.00- 55.82	25.99
5.778	5.771	(0.999)	72	679138			0.00- 57.59	28.42
* 90 Bromochloromethane						CAS #: 74-97-5		
5.785	5.778	(1.000)	130	146655	25.0000		80.00- 120.00	100.00
5.785	5.778	(1.000)	128	114483			48.23- 108.23	78.06
5.785	5.778	(1.000)	49	264310			150.57- 210.57	180.23
92 Chloroform						CAS #: 67-66-3		
5.842	5.835	(1.010)	83	2849633	200.000	221.70	80.00- 120.00	100.00(A)



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.842	5.835	(1.010)	85	1839274			34.70- 94.70	64.54
-----								
94 Cyclohexane								
							CAS #: 110-82-7	
5.957	5.957	(1.030)	84	1890120	200.000	209.08	80.00- 120.00	100.00(A)
5.957	5.957	(1.030)	56	3281786			142.57- 202.57	173.63
5.957	5.957	(1.030)	41	1740496			62.09- 122.09	92.08
-----								
96 1,1,1-Trichloroethane								
							CAS #: 71-55-6	
5.971	5.972	(1.032)	97	2948715	200.000	206.40	80.00- 120.00	100.00(A)
5.971	5.972	(1.032)	99	1896974			34.02- 94.02	64.33
-----								
97 Carbon Tetrachloride								
							CAS #: 56-23-5	
6.093	6.086	(1.053)	119	2981854	200.000	217.13	80.00- 120.00	100.00(A)
6.093	6.086	(1.053)	117	3007163			70.64- 130.64	100.85
-----								
99 1,1-Dichloropropene								
							CAS #: 563-58-6	
6.122	6.115	(0.919)	110	839217	200.000	203.04	80.00- 120.00	100.00(A)
6.115	6.115	(0.918)	75	2124877			226.85- 286.85	253.20
-----								
101 2,2,4-Trimethylpentane								
							CAS #: 540-84-1	
6.279	6.280	(1.085)	57	10464793	200.000	207.89	80.00- 120.00	100.00(A)
6.279	6.280	(1.085)	56	3399889			2.24- 62.24	32.49
6.279	6.280	(1.085)	41	2587604			0.00- 54.39	24.73
-----								
102 Benzene								
							CAS #: 71-43-2	
6.301	6.301	(0.946)	78	4111436	200.000	205.31	80.00- 120.00	100.00(A)
6.301	6.301	(0.946)	77	947596			0.00- 52.90	23.05
-----								
\$ 104 1,2-Dichloroethane-d4								
							CAS #: 17060-07-0	
6.315	6.308	(1.092)	65	228223	25.0000	27.989	80.00- 120.00	100.00
6.308	6.308	(1.090)	67	169168			27.21- 87.21	74.12
-----								
105 tert-Amyl methyl ether								
							CAS #: 994-05-8	
6.358	6.358	(0.955)	87	1080564	200.000	191.25	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	4364452			372.79- 432.79	403.90
6.358	6.358	(0.955)	55	1482176			112.09- 172.09	137.17
-----								
106 1,2-Dichloroethane								
							CAS #: 107-06-2	
6.380	6.380	(0.958)	62	2173814	200.000	205.36	80.00- 120.00	100.00(A)
6.380	6.380	(0.958)	64	662081			0.79- 60.79	30.46
-----								
107 Heptane								
							CAS #: 142-82-5	
6.444	6.444	(0.968)	71	1572559	200.000	200.11	80.00- 120.00	100.00(A)
6.444	6.444	(0.968)	43	4039565			226.53- 286.53	256.88
6.444	6.444	(0.968)	57	2057612			100.85- 160.85	130.84
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	607214	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	93970			0.00- 45.71	15.48
-----								
110 n-Butanol						CAS #: 71-36-3		
6.809	6.810	(1.023)	56	1498541	200.000	205.70	80.00- 120.00	100.00(A)
6.809	6.810	(1.023)	41	1046025			40.99- 100.99	69.80
6.809	6.810	(1.023)	43	852168			27.38- 87.38	56.87
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	2004771	200.000	206.61	80.00- 120.00	100.00(A)
6.867	6.867	(1.031)	130	2152958			76.29- 136.29	107.39
6.867	6.867	(1.031)	97	1282796			33.63- 93.63	63.99
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.096	7.089	(1.066)	63	2045978	200.000	200.76	80.00- 120.00	100.00(A)
7.096	7.089	(1.066)	62	1452463			41.07- 101.07	70.99
7.096	7.089	(1.066)	41	1025055			22.53- 82.53	50.10
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.139	7.132	(0.755)	69	1664410	200.000	203.56	80.00- 120.00	100.00(A)
7.139	7.132	(0.755)	41	3490137			179.84- 239.84	209.69
7.139	7.139	(0.755)	100	669735			9.59- 69.59	40.24
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.175	7.175	(1.077)	88	1068493	200.000	195.71	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	1054342			68.28- 128.28	98.68
7.175	7.175	(1.077)	57	357622			2.68- 62.68	33.47
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.211	7.204	(0.762)	174	1851234	200.000	206.43	80.00- 120.00	100.00(A)
7.203	7.204	(0.761)	93	1651072			60.09- 120.09	89.19
7.203	7.204	(0.761)	95	1434152			48.38- 108.38	77.47
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	3187397	200.000	209.29	80.00- 120.00	100.00(A)
7.318	7.318	(1.099)	85	2050718			35.24- 95.24	64.34
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.698	7.691	(1.156)	75	2666430	200.000	209.05	80.00- 120.00	100.00(A)
7.698	7.691	(1.156)	77	846283			2.42- 62.42	31.74
7.691	7.691	(1.155)	39	1760038			37.16- 97.16	66.01
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	2728123	200.000	194.48	80.00- 120.00	100.00
6.974	6.974	(1.047)	98	1272958			15.78- 75.78	46.66

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.047)	55	3109761			84.64- 144.64	113.99
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.791	7.791	(1.170)	58	1984175	200.000	194.19	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	5363252			242.35- 302.35	270.30
7.798	7.791	(1.171)	85	653050			3.24- 63.24	32.91
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	661488	25.0000	25.064	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	62867			0.00- 40.44	9.50
7.891	7.891	(1.185)	100	430214			34.95- 94.95	65.04
-----								
137 Toluene CAS #: 108-88-3								
7.956	7.949	(1.195)	91	5496866	200.000	198.84	80.00- 120.00	100.00
7.956	7.949	(1.195)	92	3223093			28.38- 88.38	58.64
-----								
136 Octane CAS #: 111-65-9								
7.948	7.949	(1.194)	57	2290202	200.000	196.83	80.00- 120.00	100.00
7.948	7.949	(1.194)	85	1946174			56.00- 116.00	84.98
7.948	7.949	(1.194)	43	5895371			228.66- 288.66	257.42
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
8.213	8.214	(0.868)	75	2472659	200.000	208.56	80.00- 120.00	100.00(A)
8.213	8.214	(0.868)	77	780505			1.24- 61.24	31.57
8.213	8.214	(0.868)	39	1616909			34.11- 94.11	65.39
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
8.400	8.400	(0.888)	97	1973653	200.000	206.88	80.00- 120.00	100.00(A)
8.400	8.400	(0.888)	99	1227648			31.96- 91.96	62.20
8.400	8.400	(0.888)	83	1639096			52.93- 112.93	83.05
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.464	8.464	(0.895)	166	2764412	200.000	200.38	80.00- 120.00	100.00(A)
8.464	8.464	(0.895)	129	2156828			47.84- 107.84	78.02
8.464	8.464	(0.895)	131	2092898			45.29- 105.29	75.71
-----								
143 2-Hexanone CAS #: 591-78-6								
8.586	8.586	(0.908)	58	2749799	200.000	198.84	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	5238084			162.87- 222.87	190.49
8.586	8.586	(0.908)	100	433880			0.00- 45.94	15.78
-----								
144 1,3-Dichloropropane CAS #: 142-28-9								
8.579	8.579	(1.288)	76	2712190	200.000	204.00	80.00- 120.00	100.00(A)
8.579	8.579	(1.288)	41	3365614			94.99- 154.99	124.09
8.579	8.579	(1.288)	78	882760			2.05- 62.05	32.55
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	3803420	200.000	207.93	80.00- 120.00	100.00(A)
8.801	8.801	(0.930)	127	2948441			47.45- 107.45	77.52
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	3199545	200.000	204.31	80.00- 120.00	100.00(A)
8.951	8.951	(0.946)	109	3015665			64.21- 124.21	94.25
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	3852793	200.000	204.41	80.00- 120.00	100.00(A)
7.605	7.605	(1.142)	65	1142924			0.00- 59.64	29.66
7.605	7.605	(1.142)	144	374076			0.00- 39.63	9.71
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	595090	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	322638			23.78- 83.78	54.22
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	4805022	200.000	203.48	80.00- 120.00	100.00(A)
9.496	9.496	(1.004)	114	1542900			1.74- 61.74	32.11
9.496	9.496	(1.004)	77	2584699			25.04- 85.04	53.79
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	2443043	200.000	198.07	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	7445132			273.74- 333.74	304.75
-----								
156 Nonane						CAS #: 111-84-2		
9.603	9.596	(1.015)	43	6171885	200.000	194.14	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	5253139			54.16- 114.16	85.11
9.603	9.603	(1.015)	85	1482943			0.00- 53.90	24.03
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	3015614	200.000	196.78	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	5869082			163.73- 223.73	194.62
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	2925715	200.000	197.04	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	5968076			177.45- 237.45	203.99
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	4970586	200.000	197.21	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	2372058			17.88- 77.88	47.72
-----								
167 Bromoform						CAS #: 75-25-2		
10.549	10.542	(1.115)	173	3738056	200.000	208.68	80.00- 120.00	100.00(A)
10.549	10.542	(1.115)	171	1919438			21.25- 81.25	51.35
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.656	10.649	(1.126)	105	9133490	200.000	196.23	80.00- 120.00	100.00
10.656	10.649	(1.126)	120	2612516			0.00- 58.52	28.60
10.649	10.649	(1.126)	51	1174655			0.00- 43.00	12.86
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.871	10.871	(1.149)	55	3186182	200.000	191.28	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	1023262			1.94- 61.94	32.12
10.871	10.871	(1.149)	42	2155068			37.89- 97.89	67.64
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	391305	25.0000	25.595	80.00- 120.00	100.00
10.921	10.921	(1.154)	95	492677			95.92- 155.92	125.91
10.921	10.921	(1.154)	176	379433			66.89- 126.89	96.97
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.107	11.100	(1.174)	83	4478778	200.000	197.42	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	2889301			35.20- 95.20	64.51
-----								
177 Bromobenzene						CAS #: 108-86-1		
11.107	11.107	(1.174)	156	2876488	200.000	203.06	80.00- 120.00	100.00(A)
11.107	11.107	(1.174)	158	2796126			67.21- 127.21	97.21
11.179	11.179	(1.182)	77	1690886			29.02- 89.02	58.78
-----								
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	2681478	200.000	194.62	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	10576237			366.49- 426.49	394.42
11.150	11.150	(1.179)	105	403848			0.00- 44.85	15.06
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
11.179	11.179	(1.182)	110	1359844	200.000	190.81	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	4281561			280.55- 340.55	314.86
11.107	11.100	(1.174)	61	607928			15.49- 75.49	44.71
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
11.179	11.179	(1.182)	53	954975	200.000	201.05	80.00- 120.00	100.00(A)
11.179	11.179	(1.182)	89	738088			49.11- 109.11	77.29
11.179	11.179	(1.182)	75	4281561			426.44- 486.44	448.34
-----								
182 Decane						CAS #: 124-18-5		
11.258	11.251	(1.190)	57	6477918	200.000	178.80	80.00- 120.00	100.00
11.258	11.251	(1.190)	71	1764517			0.00- 57.66	27.24
11.258	11.258	(1.190)	142	263248			0.00- 34.09	4.06
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
11.286	11.287	(1.193)	120	2800806	200.000	189.85	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT ( PPBV)	ON-COL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)							
11.286	11.287	(1.193)	105	9001865		284.55- 344.55	321.40
-----							
184 2-Chlorotoluene				CAS #: 95-49-8			
11.315	11.308	(1.196)	126	2257842	200.000	193.82 80.00- 120.00	100.00
11.308	11.308	(1.195)	91	7834055		315.17- 375.17	346.97
11.301	11.301	(1.195)	65	1128270		21.55- 81.55	49.97
-----							
185 1,3,5-Trimethylbenzene				CAS #: 108-67-8			
11.365	11.365	(1.201)	120	4109840	200.000	199.10 80.00- 120.00	100.00
11.365	11.365	(1.201)	105	7853670		164.93- 224.93	191.09
-----							
188 alpha Methyl Styrene				CAS #: 98-83-9			
11.645	11.645	(1.231)	118	4135477	200.000	199.73 80.00- 120.00	100.00
11.645	11.645	(1.231)	103	2280562		25.30- 85.30	55.15
-----							
189 tert-Butylbenzene				CAS #: 98-06-6			
11.745	11.738	(1.242)	119	7751216	200.000	200.41 80.00- 120.00	100.00(A)
11.745	11.738	(1.242)	134	1872880		0.00- 54.25	24.16
11.738	11.738	(1.241)	91	4741993		31.27- 91.27	61.18
-----							
190 1,2,4-Trimethylbenzene				CAS #: 95-63-6			
11.816	11.817	(1.249)	105	7641602	200.000	195.85 80.00- 120.00	100.00
11.816	11.817	(1.249)	120	3760947		19.05- 79.05	49.22
-----							
192 sec-Butylbenzene				CAS #: 135-98-8			
12.003	11.996	(1.269)	134	2387678	200.000	198.82 80.00- 120.00	100.00
12.003	11.996	(1.269)	105	11138250		437.55- 497.55	466.49
11.996	11.996	(1.268)	91	1685037		40.76- 100.76	70.57
-----							
194 p-Cymene				CAS #: 99-87-6			
12.160	12.160	(1.285)	119	10410880	200.000	197.06 80.00- 120.00	100.00
12.160	12.160	(1.285)	134	2680251		0.00- 55.54	25.74
12.160	12.153	(1.285)	91	2223506		0.00- 51.48	21.36
-----							
195 1,3-Dichlorobenzene				CAS #: 541-73-1			
12.203	12.196	(1.290)	146	5269323	200.000	196.50 80.00- 120.00	100.00
12.203	12.196	(1.290)	148	3364893		33.21- 93.21	63.86
12.196	12.196	(1.289)	111	2179310		11.31- 71.31	41.36
-----							
196 1,4-Dichlorobenzene				CAS #: 106-46-7			
12.311	12.311	(1.301)	146	5379837	200.000	198.98 80.00- 120.00	100.00
12.311	12.311	(1.301)	148	3443156		33.90- 93.90	64.00
12.311	12.311	(1.301)	111	2132840		9.45- 69.45	39.65
-----							
199 alpha-Chlorotoluene				CAS #: 100-44-7			
12.461	12.461	(1.317)	91	7476818	200.000	201.60 80.00- 120.00	100.00(A)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	1723549			0.00- 53.26	23.05
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	7391785	200.000	176.63	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	6481442			58.12- 118.12	87.68
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	2555712	200.000	190.54	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	8833770			314.79- 374.79	345.65
12.626	12.626	(1.335)	92	4753356			154.29- 214.29	185.99
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.733	12.741	(1.346)	146	5095250	200.000	195.20	80.00- 120.00	100.00
12.733	12.741	(1.346)	148	3245004			33.84- 93.84	63.69
12.733	12.741	(1.346)	111	2166463			12.73- 72.73	42.52
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	3185412	200.000	200.77	80.00- 120.00	100.00(A)
13.600	13.600	(1.438)	75	2632735			52.48- 112.48	82.65
13.600	13.600	(1.438)	155	2459698			47.41- 107.41	77.22
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	8872524	247.000	272.11	80.00- 120.00	100.00(A)
13.801	13.801	(1.459)	43	7239358			52.87- 112.87	81.59
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	5062178	252.000	261.56	80.00- 120.00	100.00(A)
14.467	14.467	(1.529)	182	4827276			65.33- 125.33	95.36
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.582	(1.541)	225	3721949	257.000	273.25	80.00- 120.00	100.00(A)
14.581	14.582	(1.541)	223	2342743			33.17- 93.17	62.94
-----								
216 Naphthalene						CAS #: 91-20-3		
14.768	14.768	(1.561)	128	1265607	25.4000	25.587	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	157387			0.00- 42.88	12.44
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.068	15.069	(1.593)	180	4844896	266.000	283.17	80.00- 120.00	100.00(A)
15.068	15.069	(1.593)	182	4630533			65.75- 125.75	95.58
15.068	15.069	(1.593)	145	1724268			5.23- 65.23	35.59
-----								

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051910.d  
 Lab Smp Id: ICAL Level 9  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 200ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	146655	-7.65
108 1,4-Difluorobenze	597103	358262	835944	607214	1.69
153 Chlorobenzene-d5	587747	352648	822846	595090	1.25

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.79	0.12
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 16:53

Client ID:

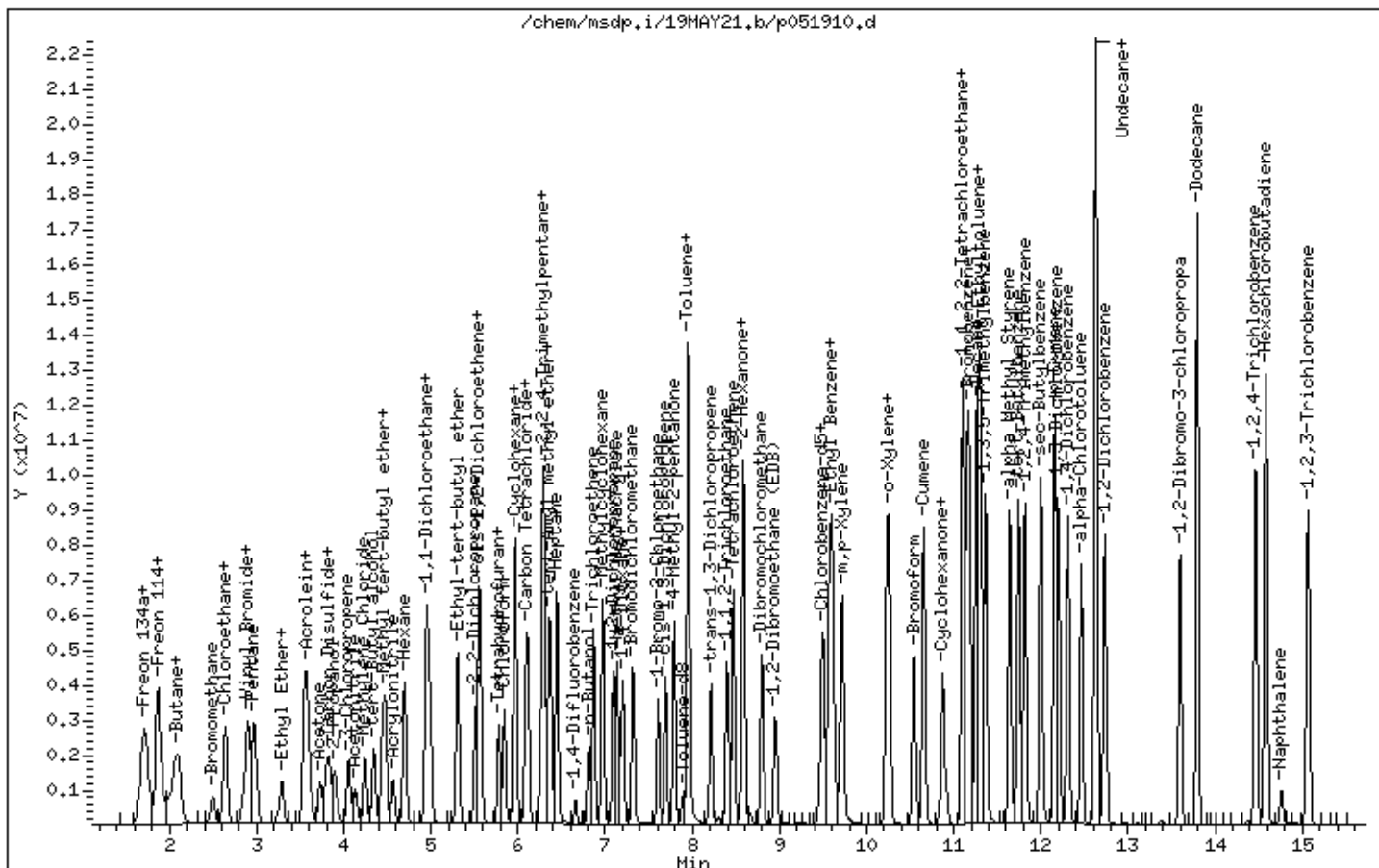
Instrument: msdp.i

Sample Info: 200mL 3018-2034

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051921.d  
 Lab Smp Id: ICAL Level 9  
 Inj Date : 19-MAY-2021 22:39  
 Operator : gh Inst ID: msdp.i  
 Smp Info : 200mL 3018-2013  
 Misc Info : 200ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 22:39 Cal File: p051921.d  
 Als bottle: 3 Calibration Sample, Level: 9  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.778	(1.000)	130	153421	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	119993			48.23- 108.23	78.21
5.778	5.778	(1.000)	49	281111			150.57- 210.57	183.23
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.659	(1.000)	114	611809	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	95212			0.00- 45.71	15.56
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	591968	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	325404			23.78- 83.78	54.97
-----								
3 Freon 143a CAS #: 420-46-2								
1.591	1.590	(0.275)	65	400344	200.000	135.04	80.00- 120.00	100.00
1.591	1.590	(0.275)	69	1105090			243.50- 303.50	276.04
1.591	1.590	(0.275)	64	95760			0.00- 54.06	23.92
-----								
6 Propane CAS #: 74-98-6								
1.675	1.674	(0.290)	43	527234	200.000	194.13	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.675	1.674	(0.290)	39	330737			34.98- 94.98	62.73
1.675	1.674	(0.290)	41	280905			25.22- 85.22	53.28
-----								
13 Freon 142b CAS #: 75-68-3								
1.884	1.884	(0.326)	65	2932126	200.000	195.58	80.00- 120.00	100.00
1.884	1.884	(0.326)	45	866027			0.00- 59.77	29.54
-----								
36 1-Pentene CAS #: 109-67-1								
2.906	2.906	(0.503)	55	1894226	200.000	193.06	80.00- 120.00	100.00
2.906	2.906	(0.503)	42	2580451			105.17- 165.17	136.23
-----								
40 Freon 123a CAS #: 354-23-4								
3.386	3.385	(0.586)	117	1952332	200.000	203.39	80.00- 120.00	100.00(A)
3.378	3.378	(0.585)	67	2434248			104.69- 164.69	124.68
-----								
41 Freon 123 CAS #: 306-83-2								
3.479	3.479	(0.602)	83	2762089	200.000	202.52	80.00- 120.00	100.00(A)
3.479	3.479	(0.602)	133	571513			0.00- 50.87	20.69
3.479	3.479	(0.602)	85	1881243			36.08- 96.08	68.11
-----								
55 Cyclopentene CAS #: 142-29-0								
4.073	4.073	(0.705)	67	3056516	200.000	208.28	80.00- 120.00	100.00(A)
4.073	4.073	(0.705)	68	1136453			6.76- 66.76	37.18
4.066	4.073	(0.704)	53	851928			0.00- 57.54	27.87
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.073	4.073	(0.705)	43	3612790	200.000	210.52	80.00- 120.00	100.00(A)
4.073	4.073	(0.705)	74	515897			0.00- 44.13	14.28
-----								
74 Chloroprene CAS #: 126-99-8								
5.012	5.019	(0.867)	53	2991875	200.000	218.26	80.00- 120.00	100.00(A)
5.019	5.019	(0.869)	88	1176445			9.21- 69.21	39.32
5.012	5.019	(0.867)	50	709040			0.00- 54.25	23.70
-----								
75 1-Propanol CAS #: 71-23-8								
5.083	5.083	(0.880)	59	399024	200.000	196.88	80.00- 120.00	100.00
5.083	5.083	(0.880)	42	379166			63.23- 123.23	95.02
5.083	5.083	(0.880)	41	223562			24.74- 84.74	56.03
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.621	5.620	(0.973)	55	3851199	200.000	213.88	80.00- 120.00	100.00(A)
5.621	5.620	(0.973)	85	434023			0.00- 41.28	11.27
5.621	5.620	(0.973)	58	316363			0.00- 38.22	8.21
-----								
103 Isobutanol CAS #: 78-83-1								
6.237	6.244	(1.079)	39	424672	200.000	195.48	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.237	6.244	(1.079)	43	2091776			448.18- 508.18	492.56
6.237	6.244	(1.079)	41	1430737			299.99- 359.99	336.90
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
6.939	6.938	(0.733)	99	269080	200.000	196.94	80.00- 120.00	100.00
6.939	6.938	(0.733)	45	496156			149.95- 209.95	184.39
6.939	6.938	(0.733)	55	5189842			1849.07-1909.07	1928.74
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.032	7.031	(0.743)	43	6094951	200.000	202.80	80.00- 120.00	100.00(A)
7.032	7.031	(0.743)	58	460764			0.00- 37.44	7.56
7.032	7.031	(0.743)	86	784528			0.00- 42.78	12.87
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.665	8.665	(1.301)	56	3022342	200.000	196.12	80.00- 120.00	100.00
8.665	8.665	(1.301)	73	883323			0.00- 59.10	29.23
8.665	8.657	(1.301)	43	7358553			215.30- 275.30	243.47
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.596	9.596	(1.014)	131	2663540	200.000	202.39	80.00- 120.00	100.00(A)
9.460	9.460	(1.000)	117	591968			57.42- 117.42	22.22
9.596	9.596	(1.014)	95	938731			5.70- 65.70	35.24
-----								
166 2-Heptanone						CAS #: 110-43-0		
10.362	10.362	(1.793)	58	4597454	200.000	204.09	80.00- 120.00	100.00(A)
10.362	10.362	(1.793)	43	7586394			136.03- 196.03	165.01
-----								
172 D-Limonene						CAS #: 5989-27-5		
12.089	12.089	(1.278)	68	3445097	200.000	257.71	80.00- 120.00	100.00(A)
12.089	12.089	(1.278)	93	2389612			39.41- 99.41	69.36
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
11.444	11.444	(1.210)	126	2390402	200.000	197.18	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	7653013			295.02- 355.02	320.16
11.444	11.444	(1.210)	63	988176			11.82- 71.82	41.34
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
12.318	12.318	(1.302)	120	3473836	200.000	196.80	80.00- 120.00	100.00
12.318	12.318	(1.302)	105	7726951			192.40- 252.40	222.43
12.318	12.318	(1.302)	77	848060			0.00- 54.69	24.41
-----								
205 Hexachloroethane						CAS #: 67-72-1		
12.970	12.970	(1.371)	201	1692084	200.000	243.84	80.00- 120.00	100.00(A)
12.963	12.970	(1.370)	117	2255610			102.99- 162.99	133.30
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	4961639	200.000	199.94	80.00- 120.00	100.00
13.758	13.758	(1.454)	182	4745365			65.24- 125.24	95.64
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	5524082	200.000	225.60	80.00- 120.00	100.00(A)
10.599	10.599	(1.120)	77	1558779			0.00- 58.21	28.22
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.423	11.422	(1.207)	93	3935444	200.000	245.48	80.00- 120.00	100.00(A)
11.444	11.444	(1.210)	91	7653013			153.57- 213.57	194.46
-----								

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p051921.d  
Lab Smp Id: ICAL Level 9  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: gh  
Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
Misc Info: 200ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
Calibration Time: 15:55  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	153421	-3.39
108 1,4-Difluorobenze	597103	358262	835944	611809	2.46
153 Chlorobenzene-d5	587747	352648	822846	591968	0.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 22:39

Client ID:

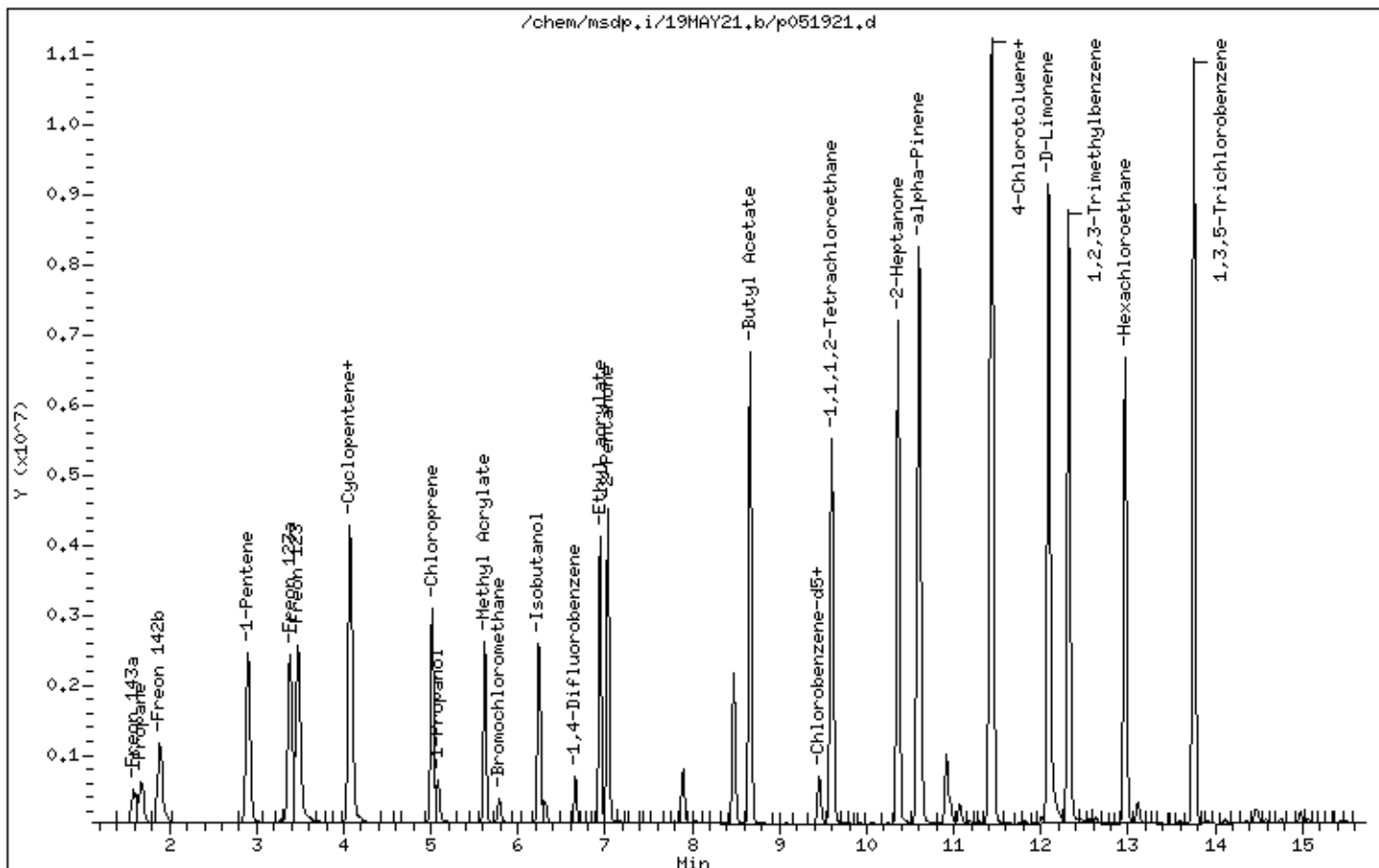
Instrument: msdp.i

Sample Info: 200mL 3018-2013

Operator: gh

Column phase: RTX-624

Column diameter: 0.25





US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051924.d  
Lab Smp Id: ICAL Level 10  
Inj Date : 20-MAY-2021 00:05  
Operator : gh Inst ID: msdp.i  
Smp Info : 20mL 3018-2045  
Misc Info : 0.5ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 20-MAY-2021 00:05 Cal File: p051924.d  
Als bottle: 1 Calibration Sample, Level: 10  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20\_Level12.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane				CAS #: 74-97-5		
5.778	5.778	(1.000)	130	163846	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	127369			48.23- 108.23 77.74
5.771	5.778	(1.000)	49	298690			150.57- 210.57 182.30
-----							
* 108	1,4-Difluorobenzene				CAS #: 540-36-3		
6.659	6.659	(1.000)	114	600718	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	95422			0.00- 45.71 15.88
-----							
* 153	Chlorobenzene-d5				CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	590361	25.0000		80.00- 120.00 100.00
9.460	9.460	(1.000)	82	322116			23.78- 83.78 54.56
-----							
\$ 104	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
6.308	6.308	(1.092)	65	214241	25.0000	23.693	80.00- 120.00 100.00
6.308	6.308	(1.092)	67	108928			27.21- 87.21 50.84
-----							
\$ 134	Toluene-d8				CAS #: 2037-26-5		
7.891	7.891	(1.185)	98	647924	25.0000	24.838	80.00- 120.00 100.00
7.891	7.891	(1.185)	70	71814			0.00- 40.44 11.08

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	419509			34.95- 94.95	64.75
-----								
§ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	377731	25.0000	24.917	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	484972			95.92- 155.92	128.39
10.921	10.921	(1.154)	176	368139			66.89- 126.89	97.46
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.716	1.717	(0.297)	85	7389	0.50000	0.5028	80.00- 120.00	100.00
1.716	1.717	(0.297)	87	2098			2.37- 62.37	28.39
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.842	1.856	(0.319)	135	5833	0.50000	0.4044	80.00- 120.00	100.00(a)
1.842	1.856	(0.319)	137	1678			2.30- 62.30	28.77
-----								
19 Vinyl Chloride								
						CAS #: 75-01-4		
2.068	2.068	(0.358)	62	5135	0.50000	0.5007	80.00- 120.00	100.00
2.053	2.068	(0.355)	64	2485			0.00- 59.69	48.39
-----								
20 1,3-Butadiene								
						CAS #: 106-99-0		
2.089	2.089	(0.362)	54	3780	0.50000	0.4582	80.00- 120.00	100.00(a)
2.082	2.089	(0.360)	39	3849			52.37- 112.37	101.83
-----								
33 Freon 11								
						CAS #: 75-69-4		
2.884	2.884	(0.499)	101	7721	0.50000	0.4944	80.00- 120.00	100.00(a)
2.877	2.884	(0.498)	103	5435			34.72- 94.72	70.39
-----								
43 Freon 113								
						CAS #: 76-13-1		
3.550	3.550	(0.614)	151	5639	0.50000	0.4860	80.00- 120.00	100.00(a)
3.550	3.550	(0.614)	153	3997			33.56- 93.56	70.88
3.543	3.550	(0.613)	101	6873			89.21- 149.21	121.88
-----								
44 1,1-Dichloroethene								
						CAS #: 75-35-4		
3.579	3.579	(0.619)	96	4090	0.50000	0.5901	80.00- 120.00	100.00
3.572	3.579	(0.618)	98	2595			34.02- 94.02	63.45
3.579	3.579	(0.619)	61	6008			168.77- 228.77	146.89
-----								
64 trans-1,2-Dichloroethene								
						CAS #: 156-60-5		
4.474	4.482	(0.774)	98	2538	0.50000	0.5480	80.00- 120.00	100.00
4.474	4.482	(0.774)	61	5211			255.84- 315.84	205.32
4.474	4.482	(0.774)	96	4298			127.59- 187.59	169.35
-----								
66 Acrylonitrile								
						CAS #: 107-13-1		
4.560	4.560	(0.789)	52	3141	0.50000	0.4872	80.00- 120.00	100.00(a)
4.553	4.560	(0.788)	53	3388			88.05- 148.05	107.86
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
67 Hexane						CAS #: 110-54-3		
4.689	4.697	(0.812)	57	8492	0.50000	0.5261	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	5530			37.52- 97.52	65.12
4.696	4.697	(0.813)	86	877			0.00- 41.48	10.33
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.961	4.962	(0.859)	63	5960	0.50000	0.4295	80.00- 120.00	100.00(a)
4.961	4.962	(0.859)	65	2369			0.00- 59.70	39.75
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.542	5.549	(0.959)	98	2716	0.50000	0.5651	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	3855			125.75- 185.75	141.94
5.542	5.549	(0.959)	61	7686			332.40- 392.40	282.99
89 Tetrahydrofuran						CAS #: 109-99-9		
5.778	5.771	(1.000)	42	5568	0.50000	0.4521	80.00- 120.00	100.00(a)
5.778	5.771	(1.000)	71	1335			0.00- 55.82	23.98
5.778	5.771	(1.000)	72	1481			0.00- 57.59	26.60
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	6763	0.50000	0.4744	80.00- 120.00	100.00(a)
5.835	5.835	(1.010)	85	4617			34.70- 94.70	68.27
94 Cyclohexane						CAS #: 110-82-7		
5.957	5.957	(1.031)	84	5877	0.50000	0.5702	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	9323			142.57- 202.57	158.64
5.957	5.957	(1.031)	41	5136			62.09- 122.09	87.39
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.964	5.972	(1.032)	97	8556	0.50000	0.5313	80.00- 120.00	100.00
5.964	5.972	(1.032)	99	5329			34.02- 94.02	62.28
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.086	6.086	(1.053)	119	6718	0.50000	0.4448	80.00- 120.00	100.00(a)
6.086	6.086	(1.053)	117	6855			70.64- 130.64	102.04
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.279	6.280	(1.087)	57	27567	0.50000	0.4914	80.00- 120.00	100.00(a)
6.279	6.280	(1.087)	56	8468			2.24- 62.24	30.72
6.279	6.280	(1.087)	41	9487			0.00- 54.39	34.41
102 Benzene						CAS #: 71-43-2		
6.294	6.301	(0.945)	78	9954	0.50000	0.5021	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	2384			0.00- 52.90	23.95
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.958)	62	4608	0.50000	0.4467	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
106 1,2-Dichloroethane (continued)								
6.380	6.380	(0.958)	64	1942			0.79- 60.79	42.14
-----								
107 Heptane CAS #: 142-82-5								
6.444	6.444	(0.968)	71	4203	0.50000	0.5352	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	9247			226.53- 286.53	220.01
6.444	6.444	(0.968)	57	5163			100.85- 160.85	122.84
-----								
111 Trichloroethene CAS #: 79-01-6								
6.867	6.867	(1.031)	95	4879	0.50000	0.5072	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	4525			76.29- 136.29	92.74
6.867	6.867	(1.031)	97	2893			33.63- 93.63	59.29
-----								
114 1,2-Dichloropropane CAS #: 78-87-5								
7.089	7.089	(1.065)	63	5364	0.50000	0.5278	80.00- 120.00	100.00
7.096	7.089	(1.066)	62	3356			41.07- 101.07	62.57
7.096	7.089	(1.066)	41	2982			22.53- 82.53	55.59
-----								
118 Dibromomethane CAS #: 74-95-3								
7.211	7.204	(0.762)	174	3904	0.50000	0.4456	80.00- 120.00	100.00(a)
7.204	7.204	(0.761)	93	4176			60.09- 120.09	106.97
7.204	7.204	(0.761)	95	4289			48.38- 108.38	109.86
-----								
122 Bromodichloromethane CAS #: 75-27-4								
7.318	7.318	(1.099)	83	6924	0.50000	0.4642	80.00- 120.00	100.00(a)
7.318	7.318	(1.099)	85	4799			35.24- 95.24	69.31
-----								
126 cis-1,3-Dichloropropene CAS #: 10061-01-5								
7.691	7.691	(1.155)	75	6237	0.50000	0.4950	80.00- 120.00	100.00(a)
7.691	7.691	(1.155)	77	2224			2.42- 62.42	35.66
7.698	7.691	(1.156)	39	4083			37.16- 97.16	65.46
-----								
127 Methylcyclohexane CAS #: 108-87-2								
6.974	6.974	(1.047)	83	7108	0.50000	0.5106	80.00- 120.00	100.00(a)
6.974	6.974	(1.047)	98	3734			15.78- 75.78	52.53
6.967	6.974	(1.046)	55	8514			84.64- 144.64	119.78
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.791	7.791	(1.170)	58	5902	0.50000	0.5719	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	15074			242.35- 302.35	255.40
7.798	7.791	(1.171)	85	2388			3.24- 63.24	40.46
-----								
137 Toluene CAS #: 108-88-3								
7.948	7.949	(1.194)	91	13680	0.50000	0.5002	80.00- 120.00	100.00
7.948	7.949	(1.194)	92	7825			28.38- 88.38	57.20
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
136 Octane						CAS #:	111-65-9	
7.941	7.949	(1.193)	57	6357	0.50000	0.5451	80.00- 120.00	100.00
7.941	7.949	(1.193)	85	5775			56.00- 116.00	90.84
7.941	7.949	(1.193)	43	15538			228.66- 288.66	244.42
-----								
139 trans-1,3-Dichloropropene						CAS #:	10061-02-6	
8.213	8.214	(0.868)	75	5304	0.50000	0.4565	80.00- 120.00	100.00(a)
8.213	8.214	(0.868)	77	3481			1.24- 61.24	65.63
8.213	8.214	(0.868)	39	3904			34.11- 94.11	73.60
-----								
141 1,1,2-Trichloroethane						CAS #:	79-00-5	
8.393	8.400	(0.887)	97	5286	0.50000	0.5505	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	2785			31.96- 91.96	52.69
8.400	8.400	(0.888)	83	4153			52.93- 112.93	78.57
-----								
142 Tetrachloroethene						CAS #:	127-18-4	
8.464	8.464	(0.895)	166	5918	0.50000	0.4398	80.00- 120.00	100.00(a)
8.464	8.464	(0.895)	129	5123			47.84- 107.84	86.57
8.464	8.464	(0.895)	131	4693			45.29- 105.29	79.30
-----								
144 1,3-Dichloropropane						CAS #:	142-28-9	
8.579	8.579	(1.288)	76	5918	0.50000	0.4556	80.00- 120.00	100.00(a)
8.579	8.579	(1.288)	41	8417			94.99- 154.99	142.23
8.579	8.579	(1.288)	78	2554			2.05- 62.05	43.16
-----								
146 Dibromochloromethane						CAS #:	124-48-1	
8.801	8.801	(0.930)	129	8255	0.50000	0.4601	80.00- 120.00	100.00(a)
8.794	8.801	(0.930)	127	6763			47.45- 107.45	81.93
-----								
148 1,2-Dibromoethane (EDB)						CAS #:	106-93-4	
8.951	8.951	(0.946)	107	7230	0.50000	0.4694	80.00- 120.00	100.00(a)
8.951	8.951	(0.946)	109	7175			64.21- 124.21	99.24
-----								
154 Chlorobenzene						CAS #:	108-90-7	
9.496	9.496	(1.004)	112	11778	0.50000	0.5024	80.00- 120.00	100.00
9.489	9.496	(1.003)	114	3810			1.74- 61.74	32.35
9.489	9.496	(1.003)	77	11483			25.04- 85.04	97.50
-----								
155 Ethyl Benzene						CAS #:	100-41-4	
9.567	9.567	(1.011)	106	6206	0.50000	0.5063	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	18714			273.74- 333.74	301.55
-----								
158 m,p-Xylene						CAS #:	108-38-3	
9.718	9.718	(1.027)	106	8198	0.50000	0.5340	80.00- 120.00	100.00
9.711	9.718	(1.026)	91	15993			163.73- 223.73	195.08
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	7282	0.50000	0.4950	80.00- 120.00	100.00(a)
10.226	10.226	(1.081)	91	15872			177.45- 237.45	217.96
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	13110	0.50000	0.5212	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	6253			17.88- 77.88	47.70
167 Bromoform						CAS #: 75-25-2		
10.549	10.542	(1.115)	173	8542	0.50000	0.4830	80.00- 120.00	100.00(a)
10.549	10.542	(1.115)	171	4517			21.25- 81.25	52.88
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	23217	0.50000	0.5024	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	6594			0.00- 58.52	28.40
10.649	10.649	(1.126)	51	3671			0.00- 43.00	15.81
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.107	11.100	(1.174)	83	11440	0.50000	0.5072	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	7316			35.20- 95.20	63.95
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	6965	0.50000	0.5084	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	26590			366.49- 426.49	381.77
11.150	11.150	(1.179)	105	910			0.00- 44.85	13.07
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
11.179	11.179	(1.182)	110	4008	0.50000	0.5576	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	11313			280.55- 340.55	282.26
11.100	11.100	(1.173)	61	1733			15.49- 75.49	43.24
183 4-Ethyltoluene						CAS #: 622-96-8		
11.286	11.287	(1.193)	120	8376	0.50000	0.5622	80.00- 120.00	100.00
11.286	11.287	(1.193)	105	23951			284.55- 344.55	285.95
184 2-Chlorotoluene						CAS #: 95-49-8		
11.308	11.308	(1.195)	126	6216	0.50000	0.5328	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	20231			315.17- 375.17	325.47
11.294	11.301	(1.194)	65	3746			21.55- 81.55	60.26
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
11.358	11.365	(1.201)	120	10383	0.50000	0.5061	80.00- 120.00	100.00
11.358	11.365	(1.201)	105	18974			164.93- 224.93	182.74
188 alpha Methyl Styrene						CAS #: 98-83-9		
11.645	11.645	(1.231)	118	9624	0.50000	0.4722	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
188 alpha Methyl Styrene (continued)								
11.645	11.645	(1.231)	103	5344			25.30- 85.30	55.53
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.816	11.817	(1.249)	105	19402	0.50000	0.5011	80.00- 120.00	100.00
11.816	11.817	(1.249)	120	9573			19.05- 79.05	49.34
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.996	11.996	(1.268)	134	6002	0.50000	0.5033	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	29055			437.55- 497.55	484.09
11.996	11.996	(1.268)	91	4721			40.76- 100.76	78.66
-----								
194 p-Cymene CAS #: 99-87-6								
12.153	12.160	(1.285)	119	27397	0.50000	0.5198	80.00- 120.00	100.00(a)
12.160	12.160	(1.285)	134	6978			0.00- 55.54	25.47
12.153	12.153	(1.285)	91	6676			0.00- 51.48	24.37
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.203	12.196	(1.290)	146	12900	0.50000	0.4867	80.00- 120.00	100.00(a)
12.203	12.196	(1.290)	148	8737			33.21- 93.21	67.73
12.203	12.196	(1.290)	111	5935			11.31- 71.31	46.01
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	13252	0.50000	0.4948	80.00- 120.00	100.00(a)
12.311	12.311	(1.301)	148	8912			33.90- 93.90	67.25
12.311	12.311	(1.301)	111	5613			9.45- 69.45	42.36
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	18333	0.50000	0.4985	80.00- 120.00	100.00(a)
12.461	12.461	(1.317)	126	4052			0.00- 53.26	22.10
-----								
202 Butylbenzene CAS #: 104-51-8								
12.626	12.626	(1.335)	134	6974	0.50000	0.5210	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	24024			314.79- 374.79	344.48
12.626	12.626	(1.335)	92	13531			154.29- 214.29	194.02
-----								
204 1,2-Dichlorobenzene CAS #: 95-50-1								
12.733	12.741	(1.346)	146	13316	0.50000	0.5124	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	8543			33.84- 93.84	64.16
12.733	12.741	(1.346)	111	6040			12.73- 72.73	45.36
-----								
207 Dodecane CAS #: 112-40-3								
13.801	13.801	(1.459)	57	22758	0.61800	0.6916	80.00- 120.00	100.00(a)
13.801	13.801	(1.459)	43	20608			52.87- 112.87	90.55
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051924.d  
 Lab Smp Id: ICAL Level 10  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 0.5ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	163846	3.17
108 1,4-Difluorobenze	597103	358262	835944	600718	0.61
153 Chlorobenzene-d5	587747	352648	822846	590361	0.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 20-MAY-2021 00:05

Client ID:

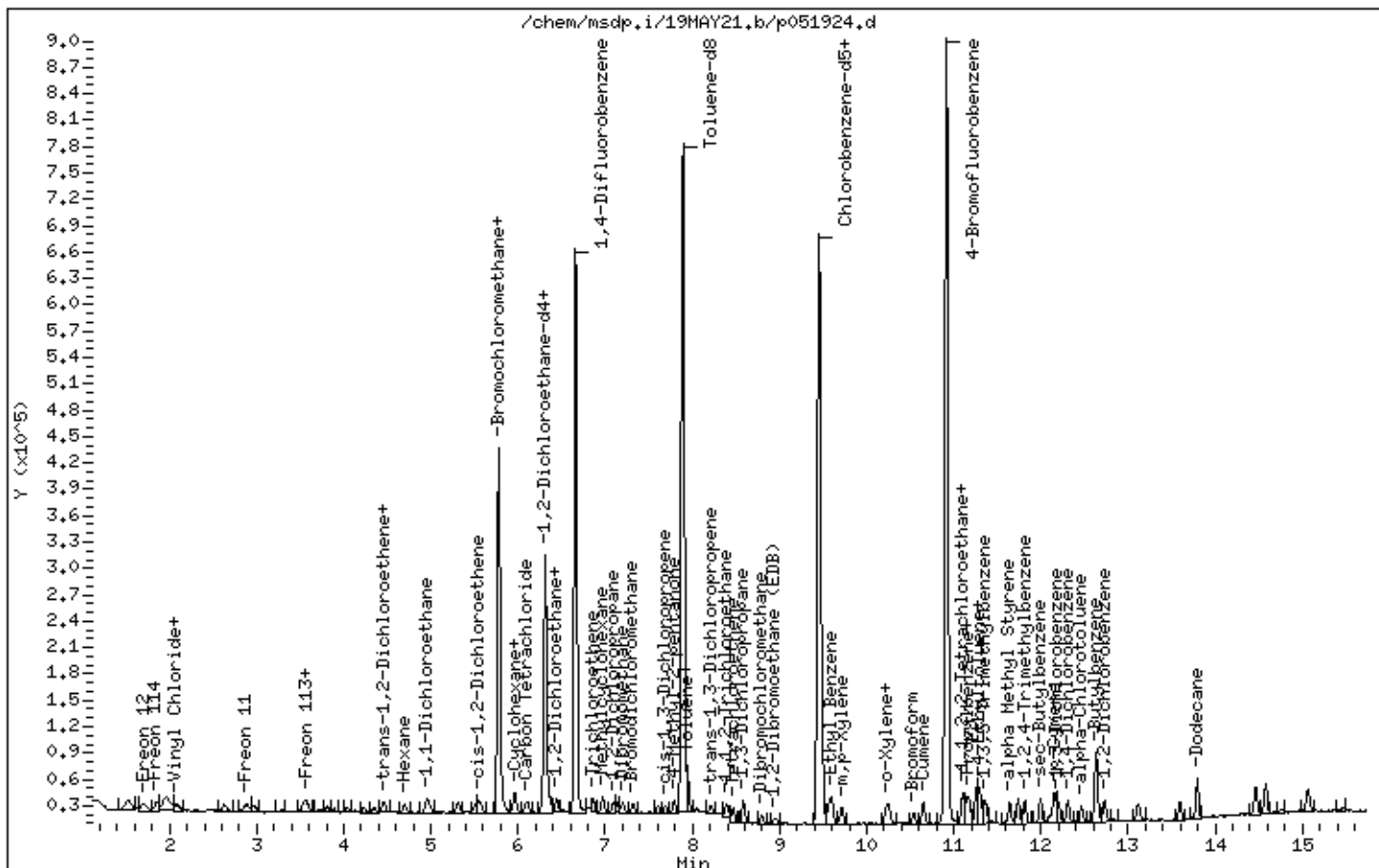
Instrument: msdp.i

Sample Info: 20mL 3018-2045

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051925.d  
 Lab Smp Id: ICV Client Smp ID: ICV  
 Inj Date : 20-MAY-2021 00:33  
 Operator : gh Inst ID: msdp.i  
 Smp Info : 50mL 3018-2016  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 11:31 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 14 QC Sample: ICV  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.778	(1.000)	130	159261	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	123314			48.23- 108.23	77.43
5.778	5.778	(1.000)	49	287112			150.57- 210.57	180.28
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.659	(1.000)	114	599327	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	93610			0.00- 45.71	15.62
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	583008	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	317926			23.78- 83.78	54.53
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.308	6.308	(1.092)	65	217297	24.7232	24.723	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	123853			27.21- 87.21	57.00
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	648333	24.9118	24.912	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	65745			0.00- 40.44	10.14

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)							
7.891	7.891	(1.185)	100	421967		34.95- 94.95	65.08
-----							
§ 170 4-Bromofluorobenzene							
						CAS #: 460-00-4	
10.921	10.921	(1.154)	174	376160	25.1259	25.126 80.00- 120.00	100.00
10.921	10.921	(1.154)	95	479143		95.92- 155.92	127.38
10.921	10.921	(1.154)	176	367133		66.89- 126.89	97.60
-----							
4 Freon 134a							
						CAS #: 811-97-2	
1.633	1.633	(0.283)	83	269381	53.4416	53.442 80.00- 120.00	100.00
1.633	1.633	(0.283)	69	238008		59.44- 119.44	88.35
1.745	1.745	(0.302)	51	1146080		419.06- 479.06	425.45
-----							
5 Propylene							
						CAS #: 115-07-1	
1.675	1.675	(0.290)	41	351150	48.1826	48.182 80.00- 120.00	100.00
1.675	1.675	(0.290)	42	231660		35.28- 95.28	65.97
1.675	1.675	(0.290)	39	239136		38.35- 98.35	68.10
-----							
7 1,1-Difluoroethane							
						CAS #: 75-37-6	
1.703	1.703	(0.295)	65	184945	51.2320	51.232 80.00- 120.00	100.00
1.745	1.745	(0.302)	51	1146080		597.63- 657.63	619.69
1.703	1.703	(0.295)	47	118519		33.72- 93.72	64.08
-----							
8 Freon 12							
						CAS #: 75-71-8	
1.717	1.717	(0.297)	85	729033	51.0385	51.038 80.00- 120.00	100.00
1.717	1.717	(0.297)	87	236858		2.37- 62.37	32.49
-----							
9 Chlorodifluoromethane							
						CAS #: 75-45-6	
1.745	1.745	(0.302)	67	72194	51.1662	51.166 80.00- 120.00	100.00
1.745	1.745	(0.302)	51	1146080		1501.01-1561.01	1587.50
-----							
10 Freon 114							
						CAS #: 76-14-2	
1.856	1.856	(0.321)	135	701038	49.9978	49.998 80.00- 120.00	100.00
1.856	1.856	(0.321)	137	225650		2.30- 62.30	32.19
-----							
12 Isobutane							
						CAS #: 75-28-5	
1.870	1.870	(0.324)	43	765128	47.4212	47.421 80.00- 120.00	100.00
1.870	1.870	(0.324)	42	246889		2.44- 62.44	32.27
1.856	1.856	(0.321)	58	25257		0.00- 33.36	3.30
-----							
15 Chloromethane							
						CAS #: 74-87-3	
1.940	1.940	(0.336)	50	437995	52.8545	52.854 80.00- 120.00	100.00
1.940	1.940	(0.336)	52	114348		0.00- 56.26	26.11
-----							
18 Butane							
						CAS #: 106-97-8	
2.025	2.025	(0.350)	58	80145	41.7506	41.751 80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
2.025	2.025	(0.350)	43	645591		823.29- 883.29	805.53		
-----									
19 Vinyl Chloride									
2.068	2.068	(0.358)	62	464010	46.5443	46.544	80.00- 120.00	100.00	CAS #: 75-01-4
2.068	2.068	(0.358)	64	139745		0.00- 59.69	30.12		
-----									
20 1,3-Butadiene									
2.089	2.089	(0.362)	54	446648	55.7047	55.705	80.00- 120.00	100.00	CAS #: 106-99-0
2.089	2.089	(0.362)	39	360563		52.37- 112.37	80.73		
-----									
24 Bromomethane									
2.483	2.483	(0.430)	94	297578	46.4227	46.423	80.00- 120.00	100.00	CAS #: 74-83-9
2.483	2.483	(0.430)	96	278799		64.07- 124.07	93.69		
-----									
30 Chloroethane									
2.612	2.612	(0.452)	64	171538	47.8510	47.851	80.00- 120.00	100.00	CAS #: 75-00-3
2.612	2.612	(0.452)	66	50751		0.04- 60.04	29.59		
2.612	2.612	(0.452)	49	59140		4.54- 64.54	34.48		
-----									
31 Isopentane									
2.634	2.634	(0.456)	43	529089	48.5043	48.504	80.00- 120.00	100.00	CAS #: 78-78-4
2.634	2.634	(0.456)	57	338228		34.12- 94.12	63.93		
-----									
32 Vinyl Bromide									
2.841	2.841	(0.492)	106	279438	47.1623	47.162	80.00- 120.00	100.00	CAS #: 593-60-2
2.841	2.841	(0.492)	108	273101		69.27- 129.27	97.73		
-----									
33 Freon 11									
2.884	2.884	(0.499)	101	742373	48.9075	48.908	80.00- 120.00	100.00	CAS #: 75-69-4
2.884	2.884	(0.499)	103	483442		34.72- 94.72	65.12		
-----									
34 Dichlorofluoromethane									
2.899	2.899	(0.502)	67	646344	49.4042	49.404	80.00- 120.00	100.00	CAS #: 75-43-4
2.899	2.899	(0.502)	69	195128		0.84- 60.84	30.19		
-----									
35 Pentane									
2.970	2.970	(0.514)	43	832217	46.9376	46.938	80.00- 120.00	100.00	CAS #: 109-66-0
2.970	2.970	(0.514)	57	122475		0.00- 44.98	14.72		
2.970	2.970	(0.514)	72	59490		0.00- 37.39	7.15		
-----									
38 Ethyl Ether									
3.285	3.285	(0.569)	74	152084	50.8427	50.843	80.00- 120.00	100.00	CAS #: 60-29-7
3.285	3.285	(0.569)	59	294053		163.46- 223.46	193.35		
3.285	3.285	(0.569)	45	421334		250.40- 310.40	277.04		
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.242	3.242	(0.561)	46	73066	46.2624	46.262	80.00- 120.00	100.00
3.285	3.242	(0.569)	45	419314			511.19- 571.19	573.88
42 Acrolein					CAS #: 107-02-8			
3.536	3.529	(0.612)	55	138287	50.4592	50.459	80.00- 120.00	100.00
3.536	3.529	(0.612)	56	194444			111.10- 171.10	140.61
43 Freon 113					CAS #: 76-13-1			
3.550	3.550	(0.614)	151	550653	48.8270	48.827	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	354592			33.56- 93.56	64.39
3.550	3.550	(0.614)	101	666533			89.21- 149.21	121.04
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.579	3.579	(0.619)	96	337843	50.1462	50.146	80.00- 120.00	100.00
3.579	3.579	(0.619)	98	214195			34.02- 94.02	63.40
3.579	3.579	(0.619)	61	675008			168.77- 228.77	199.80
47 Acetone					CAS #: 67-64-1			
3.715	3.708	(0.643)	58	199513	47.7852	47.785	80.00- 120.00	100.00
3.715	3.708	(0.643)	43	667100			302.95- 362.95	334.36
48 Carbon Disulfide					CAS #: 75-15-0			
3.823	3.823	(0.662)	76	862293	48.5817	48.582	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.794	3.794	(0.657)	142	700808	59.3954	59.395	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	293044			12.22- 72.22	41.82
52 2-Propanol					CAS #: 67-63-0			
3.887	3.887	(0.673)	45	849259	50.4689	50.469	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	140946			0.00- 47.19	16.60
54 3-Chloropropene					CAS #: 107-05-1			
4.045	4.052	(0.700)	76	145308	49.0044	49.004	80.00- 120.00	100.00
4.045	4.052	(0.700)	41	618664			396.19- 456.19	425.76
57 Acetonitrile					CAS #: 75-05-8			
4.123	4.123	(0.714)	41	381456	48.6371	48.637	80.00- 120.00	100.00
4.123	4.123	(0.714)	40	193635			20.95- 80.95	50.76
4.123	4.123	(0.714)	38	41374			0.00- 41.17	10.85
59 Methylene Chloride					CAS #: 75-09-2			
4.238	4.238	(0.733)	49	531632	49.0219	49.022	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	271047			22.03- 82.03	50.98
4.238	4.238	(0.733)	51	161032			0.18- 60.18	30.29

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
4.338	4.338	(0.751)	59	909661	46.3560	46.356	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	192086			0.00- 51.11	21.12
4.338	4.338	(0.751)	57	96676			0.00- 40.49	10.63
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
4.446	4.446	(0.769)	73	942632	48.1957	48.196	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	317705			3.10- 63.10	33.70
4.446	4.446	(0.769)	41	299560			1.28- 61.28	31.78
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
4.474	4.482	(0.774)	98	218803	48.6055	48.605	80.00- 120.00	100.00
4.474	4.482	(0.774)	61	620102			255.84- 315.84	283.41
4.474	4.482	(0.774)	96	343318			127.59- 187.59	156.91
66 Acrylonitrile					CAS #: 107-13-1			
4.560	4.560	(0.789)	52	303698	48.4637	48.464	80.00- 120.00	100.00
4.560	4.560	(0.789)	53	359381			88.05- 148.05	118.33
67 Hexane					CAS #: 110-54-3			
4.697	4.697	(0.813)	57	776348	49.4834	49.483	80.00- 120.00	100.00
4.697	4.697	(0.813)	43	525013			37.52- 97.52	67.63
4.697	4.697	(0.813)	86	88068			0.00- 41.48	11.34
71 1,1-Dichloroethane					CAS #: 75-34-3			
4.962	4.962	(0.859)	63	682714	50.6181	50.618	80.00- 120.00	100.00
4.962	4.962	(0.859)	65	199004			0.00- 59.70	29.15
72 Isopropyl ether					CAS #: 108-20-3			
4.947	4.954	(0.856)	45	1790476	49.0696	49.070	80.00- 120.00	100.00
4.954	4.954	(0.857)	87	321907			0.00- 48.18	17.98
4.954	4.954	(0.857)	59	180794			0.00- 40.15	10.10
73 Vinyl Acetate					CAS #: 108-05-4			
4.997	4.997	(0.865)	86	88227	50.8989	50.899	80.00- 120.00	100.00
4.990	4.997	(0.864)	43	2127436			2432.48-2492.48	2411.32
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
5.305	5.305	(0.918)	59	1542046	48.8215	48.821	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	471804			1.00- 61.00	30.60
5.305	5.305	(0.918)	41	285817			0.00- 48.73	18.53
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.506	5.506	(0.953)	77	590380	49.2930	49.293	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	190828			2.28- 62.28	32.32
5.513	5.506	(0.954)	97	143176			0.00- 53.93	24.25

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
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85 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.549	5.549	(0.960)	98	233240	49.9273	49.927	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	363999			125.75- 185.75	156.06
5.549	5.549	(0.960)	61	845213			332.40- 392.40	362.38
-----								
86 2-Butanone					CAS #: 78-93-3			
5.556	5.556	(0.962)	72	172909	48.0341	48.034	80.00- 120.00	100.00
5.563	5.556	(0.963)	43	2166913			1214.50-1274.50	1253.21
5.556	5.556	(0.962)	57	75659			14.68- 74.68	43.76
-----								
87 Ethyl Acetate					CAS #: 141-78-6			
5.570	5.570	(0.964)	45	177582	49.5968	49.597	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	845213			452.04- 512.04	475.96
5.570	5.570	(0.964)	70	92639			22.77- 82.77	52.17
-----								
89 Tetrahydrofuran					CAS #: 109-99-9			
5.771	5.771	(0.999)	42	596496	49.8249	49.825	80.00- 120.00	100.00
5.771	5.771	(0.999)	71	151172			0.00- 55.82	25.34
5.771	5.771	(0.999)	72	164276			0.00- 57.59	27.54
-----								
92 Chloroform					CAS #: 67-66-3			
5.835	5.835	(1.010)	83	698985	50.4429	50.443	80.00- 120.00	100.00
5.835	5.835	(1.010)	85	450734			34.70- 94.70	64.48
-----								
94 Cyclohexane					CAS #: 110-82-7			
5.957	5.957	(1.031)	84	484683	48.3805	48.380	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	852306			142.57- 202.57	175.85
5.957	5.957	(1.031)	41	457785			62.09- 122.09	94.45
-----								
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
5.972	5.972	(1.033)	97	760233	48.5642	48.564	80.00- 120.00	100.00
5.972	5.972	(1.033)	99	490526			34.02- 94.02	64.52
-----								
97 Carbon Tetrachloride					CAS #: 56-23-5			
6.086	6.086	(1.053)	119	745174	50.7546	50.755	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	752839			70.64- 130.64	101.03
-----								
99 1,1-Dichloropropene					CAS #: 563-58-6			
6.115	6.115	(0.918)	110	203160	49.7993	49.799	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	511996			226.85- 286.85	252.02
-----								
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
6.280	6.280	(1.087)	57	2687519	49.2841	49.284	80.00- 120.00	100.00
6.280	6.280	(1.087)	56	862052			2.24- 62.24	32.08
6.280	6.280	(1.087)	41	651161			0.00- 54.39	24.23
-----								



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
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102 Benzene					CAS #: 71-43-2			
6.301	6.301	(0.946)	78	1008062	50.9701	50.970	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	234415			0.00- 52.90	23.25
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.358	6.358	(0.955)	87	277129	49.6938	49.694	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	1123129			372.79- 432.79	405.27
6.358	6.358	(0.955)	55	386701			112.09- 172.09	139.54
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.380	6.380	(0.958)	62	539745	52.4480	52.448	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	168125			0.79- 60.79	31.15
-----								
107 Heptane					CAS #: 142-82-5			
6.444	6.444	(0.968)	71	404133	51.5803	51.580	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	1034181			226.53- 286.53	255.90
6.444	6.444	(0.968)	57	534196			100.85- 160.85	132.18
-----								
110 n-Butanol					CAS #: 71-36-3			
6.810	6.810	(1.023)	56	349325	48.5815	48.581	80.00- 120.00	100.00
6.810	6.810	(1.023)	41	250704			40.99- 100.99	71.77
6.810	6.810	(1.023)	43	202468			27.38- 87.38	57.96
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.867	6.867	(1.031)	95	487275	50.7743	50.774	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	525030			76.29- 136.29	107.75
6.867	6.867	(1.031)	97	316440			33.63- 93.63	64.94
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.089	7.089	(1.065)	63	501779	49.4882	49.488	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	357412			41.07- 101.07	71.23
7.096	7.089	(1.066)	41	260924			22.53- 82.53	52.00
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.139	7.132	(0.755)	69	396710	49.5227	49.523	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	847515			179.84- 239.84	213.64
7.139	7.139	(0.755)	100	159570			9.59- 69.59	40.22
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.175	7.175	(1.077)	88	259955	48.2421	48.242	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	255954			68.28- 128.28	98.46
7.175	7.175	(1.077)	57	86664			2.68- 62.68	33.34
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.204	7.204	(0.761)	174	458044	52.9443	52.944	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	407519			60.09- 120.09	88.97

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
7.204	7.204	(0.761)	95	354189		48.38- 108.38	77.33		
-----									
122 Bromodichloromethane CAS #: 75-27-4									
7.318	7.318	(1.099)	83	770056	51.7510	51.751	80.00- 120.00	100.00	
7.318	7.318	(1.099)	85	492807		35.24- 95.24	64.00		
-----									
126 cis-1,3-Dichloropropene CAS #: 10061-01-5									
7.691	7.691	(1.155)	75	636121	50.6019	50.602	80.00- 120.00	100.00	
7.691	7.691	(1.155)	77	200691		2.42- 62.42	31.55		
7.691	7.691	(1.155)	39	434030		37.16- 97.16	68.23		
-----									
127 Methylcyclohexane CAS #: 108-87-2									
6.974	6.974	(1.047)	83	691986	49.8280	49.828	80.00- 120.00	100.00	
6.974	6.974	(1.047)	98	322440		15.78- 75.78	46.60		
6.974	6.974	(1.047)	55	795373		84.64- 144.64	114.94		
-----									
131 4-Methyl-2-pentanone CAS #: 108-10-1									
7.791	7.791	(1.170)	58	480926	46.7077	46.708	80.00- 120.00	100.00	
7.791	7.791	(1.170)	43	1325477		242.35- 302.35	275.61		
7.798	7.791	(1.171)	85	161202		3.24- 63.24	33.52		
-----									
137 Toluene CAS #: 108-88-3									
7.949	7.949	(1.194)	91	1343637	49.2421	49.242	80.00- 120.00	100.00	
7.949	7.949	(1.194)	92	787609		28.38- 88.38	58.62		
-----									
136 Octane CAS #: 111-65-9									
7.949	7.949	(1.194)	57	566390	48.6818	48.682	80.00- 120.00	100.00	
7.949	7.949	(1.194)	85	479927		56.00- 116.00	84.73		
7.949	7.949	(1.194)	43	1456775		228.66- 288.66	257.20		
-----									
139 trans-1,3-Dichloropropene CAS #: 10061-02-6									
8.214	8.214	(0.868)	75	600175	52.3121	52.312	80.00- 120.00	100.00	
8.214	8.214	(0.868)	77	190922		1.24- 61.24	31.81		
8.214	8.214	(0.868)	39	389221		34.11- 94.11	64.85		
-----									
141 1,1,2-Trichloroethane CAS #: 79-00-5									
8.400	8.400	(0.888)	97	476355	50.2326	50.232	80.00- 120.00	100.00	
8.400	8.400	(0.888)	99	296859		31.96- 91.96	62.32		
8.400	8.400	(0.888)	83	396895		52.93- 112.93	83.32		
-----									
142 Tetrachloroethene CAS #: 127-18-4									
8.464	8.464	(0.895)	166	682961	51.3998	51.400	80.00- 120.00	100.00	
8.464	8.464	(0.895)	129	535513		47.84- 107.84	78.41		
8.464	8.464	(0.895)	131	516602		45.29- 105.29	75.64		
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6		
8.586	8.586	(0.908)	58	657966	48.5640	48.564	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	1278689			162.87- 222.87	194.34
8.586	8.586	(0.908)	100	102219			0.00- 45.94	15.54
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.288)	76	649887	50.1538	50.154	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	820466			94.99- 154.99	126.25
8.579	8.579	(1.288)	78	211986			2.05- 62.05	32.62
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	922140	52.0444	52.044	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	712882			47.45- 107.45	77.31
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	783569	51.5187	51.519	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	740572			64.21- 124.21	94.51
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	920567	49.4826	49.482	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	271612			0.00- 59.64	29.50
7.605	7.605	(1.142)	144	89030			0.00- 39.63	9.67
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	1170183	50.5473	50.547	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	376526			1.74- 61.74	32.18
9.496	9.496	(1.004)	77	640652			25.04- 85.04	54.75
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	610182	50.4060	50.406	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	1864363			273.74- 333.74	305.54
-----								
156 Nonane						CAS #: 111-84-2		
9.603	9.596	(1.015)	43	1509244	48.4576	48.458	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	1271714			54.16- 114.16	84.26
9.603	9.603	(1.015)	85	358055			0.00- 53.90	23.72
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.596	9.596	(1.014)	131	532758	41.1032	41.103	80.00- 120.00	100.00
9.460	9.460	(1.000)	117	583008			57.42- 117.42	109.43
9.596	9.596	(1.014)	95	192120			5.70- 65.70	36.06
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	760695	50.1737	50.174	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	1493758			163.73- 223.73	196.37

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	723870	49.8321	49.832	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	1494892			177.45- 237.45	206.51
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	1208123	48.6312	48.631	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	579213			17.88- 77.88	47.94
-----								
167 Bromoform						CAS #: 75-25-2		
10.542	10.542	(1.114)	173	906568	51.9083	51.908	80.00- 120.00	100.00
10.542	10.542	(1.114)	171	460931			21.25- 81.25	50.84
-----								
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	2265548	49.6487	49.649	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	647806			0.00- 58.52	28.59
10.649	10.649	(1.126)	51	293698			0.00- 43.00	12.96
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.871	10.871	(1.149)	55	751578	46.0550	46.055	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	241627			1.94- 61.94	32.15
10.871	10.871	(1.149)	42	519433			37.89- 97.89	69.11
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.107	11.100	(1.174)	83	1111439	49.9028	49.903	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	714222			35.20- 95.20	64.26
-----								
177 Bromobenzene						CAS #: 108-86-1		
11.107	11.107	(1.174)	156	712211	51.3180	51.318	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	694838			67.21- 127.21	97.56
11.179	11.179	(1.182)	77	448248			29.02- 89.02	62.94
-----								
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	673698	49.7919	49.792	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	2670473			366.49- 426.49	396.39
11.150	11.150	(1.179)	105	100975			0.00- 44.85	14.99
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
11.179	11.179	(1.182)	110	347282	48.9223	48.922	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	1167359			280.55- 340.55	336.14
11.100	11.100	(1.173)	61	156927			15.49- 75.49	45.19
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
11.179	11.179	(1.182)	53	340414	73.1510	73.151	80.00- 120.00	100.00(R)
11.179	11.179	(1.182)	89	238240			49.11- 109.11	69.99
11.179	11.179	(1.182)	75	1167359			426.44- 486.44	342.92
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RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane					CAS #: 124-18-5			
11.251	11.251	(1.189)	57	1694913	47.7517	47.752	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	465002			0.00- 57.66	27.44
11.258	11.258	(1.190)	142	69403			0.00- 34.09	4.09
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183 4-Ethyltoluene					CAS #: 622-96-8			
11.287	11.287	(1.193)	120	721474	49.0325	49.032	80.00- 120.00	100.00
11.287	11.287	(1.193)	105	2282704			284.55- 344.55	316.39
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184 2-Chlorotoluene					CAS #: 95-49-8			
11.308	11.308	(1.195)	126	570341	49.5063	49.506	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1973274			315.17- 375.17	345.98
11.301	11.301	(1.195)	65	288198			21.55- 81.55	50.53
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185 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
11.365	11.365	(1.201)	120	1019008	50.3002	50.300	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1992138			164.93- 224.93	195.50
-----					-----			
188 alpha Methyl Styrene					CAS #: 98-83-9			
11.645	11.645	(1.231)	118	1011075	50.2389	50.239	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	559661			25.30- 85.30	55.35
-----					-----			
189 tert-Butylbenzene					CAS #: 98-06-6			
11.738	11.738	(1.241)	119	1828423	48.2549	48.255	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	453008			0.00- 54.25	24.78
11.738	11.738	(1.241)	91	1113434			31.27- 91.27	60.90
-----					-----			
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
11.817	11.817	(1.249)	105	1940625	50.7513	50.751	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	961894			19.05- 79.05	49.57
-----					-----			
192 sec-Butylbenzene					CAS #: 135-98-8			
11.996	11.996	(1.268)	134	587147	49.8567	49.857	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	2755895			437.55- 497.55	469.37
11.996	11.996	(1.268)	91	411332			40.76- 100.76	70.06
-----					-----			
194 p-Cymene					CAS #: 99-87-6			
12.160	12.160	(1.285)	119	2592253	49.8015	49.802	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	667083			0.00- 55.54	25.73
12.160	12.153	(1.285)	91	550118			0.00- 51.48	21.22
-----					-----			
195 1,3-Dichlorobenzene					CAS #: 541-73-1			
12.203	12.196	(1.290)	146	1321489	50.4912	50.491	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	844750			33.21- 93.21	63.92
12.196	12.196	(1.289)	111	544933			11.31- 71.31	41.24
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RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
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196 1,4-Dichlorobenzene					CAS #: 106-46-7			
12.311	12.311	(1.301)	146	1351414	51.0959	51.096	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	860632			33.90- 93.90	63.68
12.311	12.311	(1.301)	111	545078			9.45- 69.45	40.33
-----					-----			
199 alpha-Chlorotoluene					CAS #: 100-44-7			
12.461	12.461	(1.317)	91	1867138	51.4087	51.409	80.00- 120.00	100.00
12.468	12.461	(1.318)	126	432223			0.00- 53.26	23.15
-----					-----			
201 Undecane					CAS #: 1120-21-4			
12.640	12.640	(1.336)	57	2141161	52.2242	52.224	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1903384			58.12- 118.12	88.89
-----					-----			
202 Butylbenzene					CAS #: 104-51-8			
12.626	12.626	(1.335)	134	659133	49.8581	49.858	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	2279398			314.79- 374.79	345.82
12.626	12.626	(1.335)	92	1217501			154.29- 214.29	184.71
-----					-----			
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
12.741	12.741	(1.347)	146	1280596	49.8997	49.900	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	810645			33.84- 93.84	63.30
12.741	12.741	(1.347)	111	542670			12.73- 72.73	42.38
-----					-----			
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
13.614	13.600	(1.439)	157	808811	52.0350	52.035	80.00- 120.00	100.00
13.614	13.600	(1.439)	75	667140			52.48- 112.48	82.48
13.614	13.600	(1.439)	155	627024			47.41- 107.41	77.52
-----					-----			
207 Dodecane					CAS #: 112-40-3			
13.822	13.801	(1.461)	57	2491393	76.6649	76.665	80.00- 120.00	100.00(R)
13.822	13.801	(1.461)	43	2053107			52.87- 112.87	82.41
-----					-----			
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
14.496	14.467	(1.532)	180	1351062	71.2544	71.254	80.00- 120.00	100.00
14.496	14.467	(1.532)	182	1288755			65.33- 125.33	95.39
-----					-----			
215 Hexachlorobutadiene					CAS #: 87-68-3			
14.617	14.582	(1.545)	225	961978	72.0891	72.089	80.00- 120.00	100.00
14.617	14.582	(1.545)	223	615317			33.17- 93.17	63.96
-----					-----			
216 Naphthalene					CAS #: 91-20-3			
14.796	14.768	(1.564)	128	329062	6.79056	6.790	80.00- 120.00	100.00
14.804	14.768	(1.565)	127	41782			0.00- 42.88	12.70
-----					-----			
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
15.104	15.069	(1.597)	180	1290198	76.9717	76.972	80.00- 120.00	100.00(R)

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
15.104	15.069	(1.597)	182	1235122			65.75- 125.75	95.73
15.104	15.069	(1.597)	145	454864			5.23- 65.23	35.26

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 19-MAY-2021
Lab File ID: p051925.d	Calibration Time: 15:55
Lab Smp Id: ICV	Client Smp ID: ICV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: gh	
Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	159261	0.28
108 1,4-Difluorobenze	597103	358262	835944	599327	0.37
153 Chlorobenzene-d5	587747	352648	822846	583008	-0.81

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.



Report Date: 20-May-2021 11:42

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 19MAY21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: ICV Client Smp ID: ICV  
 Level: LOW Operator: gh  
 Data Type: MS DATA SampleType: ICV  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AT20LCS\_new.sub  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	53.442	106.88	70-130
5 Propylene	50.000	48.182	96.37	70-130
7 1,1-Difluoroethan	50.000	51.232	102.46	70-130
8 Freon 12	50.000	51.038	102.08	70-130
9 Chlorodifluoromet	50.000	51.166	102.33	70-130
10 Freon 114	50.000	49.998	100.00	70-130
12 Isobutane	50.000	47.421	94.84	70-130
15 Chloromethane	50.000	52.854	105.71	70-130
18 Butane	50.000	41.751	83.50	70-130
19 Vinyl Chloride	50.000	46.544	93.09	70-130
20 1,3-Butadiene	50.000	55.705	111.41	70-130
24 Bromomethane	50.000	46.423	92.85	70-130
30 Chloroethane	50.000	47.851	95.70	70-130
31 Isopentane	50.000	48.504	97.01	70-130
32 Vinyl Bromide	50.000	47.162	94.32	70-130
33 Freon 11	50.000	48.908	97.82	70-130
34 Dichlorofluoromet	50.000	49.404	98.81	70-130
35 Pentane	50.000	46.938	93.88	70-130
38 Ethyl Ether	50.000	50.843	101.69	70-130
39 Ethanol	58.000	46.262	79.76	70-130
42 Acrolein	58.000	50.459	87.00	70-130
43 Freon 113	50.000	48.827	97.65	70-130
44 1,1-Dichloroethen	50.000	50.146	100.29	70-130
47 Acetone	50.000	47.785	95.57	70-130
48 Carbon Disulfide	50.000	48.582	97.16	70-130
49 Iodomethane	50.000	59.395	118.79	70-130
52 2-Propanol	50.000	50.469	100.94	70-130
54 3-Chloropropene	50.000	49.004	98.01	70-130
57 Acetonitrile	50.000	48.637	97.27	70-130
59 Methylene Chlorid	50.000	49.022	98.04	70-130
62 tert-Butyl alcoho	50.000	46.356	92.71	70-130
63 Methyl tert-butyl	50.000	48.196	96.39	70-130
64 trans-1,2-Dichlor	50.000	48.605	97.21	70-130

Report Date: 20-May-2021 11:42

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	48.464	96.93	70-130
67 Hexane	50.000	49.483	98.97	70-130
71 1,1-Dichloroethan	50.000	50.618	101.24	70-130
72 Isopropyl ether	50.000	49.070	98.14	70-130
73 Vinyl Acetate	50.000	50.899	101.80	70-130
79 Ethyl-tert-butyl	50.000	48.821	97.64	70-130
84 2,2-Dichloropropa	50.000	49.293	98.59	70-130
85 cis-1,2-Dichloroe	50.000	49.927	99.85	70-130
86 2-Butanone	50.000	48.034	96.07	70-130
87 Ethyl Acetate	50.000	49.597	99.19	70-130
89 Tetrahydrofuran	50.000	49.825	99.65	70-130
92 Chloroform	50.000	50.443	100.89	70-130
94 Cyclohexane	50.000	48.380	96.76	70-130
96 1,1,1-Trichloroet	50.000	48.564	97.13	70-130
99 1,1-Dichloroprop	50.000	49.799	99.60	70-130
97 Carbon Tetrachlor	50.000	50.755	101.51	70-130
101 2,2,4-Trimethylpe	50.000	49.284	98.57	70-130
102 Benzene	50.000	50.970	101.94	70-130
105 tert-Amyl methyl	50.000	49.694	99.39	70-130
106 1,2-Dichloroethan	50.000	52.448	104.90	70-130
107 Heptane	50.000	51.580	103.16	70-130
110 n-Butanol	50.000	48.581	97.16	70-130
111 Trichloroethene	50.000	50.774	101.55	70-130
118 Dibromomethane	50.000	52.944	105.89	70-130
127 Methylcyclohexane	50.000	49.828	99.66	70-130
114 1,2-Dichloropropa	50.000	49.488	98.98	70-130
116 Methyl Methacryla	50.000	49.523	99.05	70-130
117 1,4-Dioxane	50.000	48.242	96.48	70-130
122 Bromodichlorometh	50.000	51.751	103.50	70-130
126 cis-1,3-Dichlorop	50.000	50.602	101.20	70-130
131 4-Methyl-2-pentan	50.000	46.708	93.42	70-130
136 Octane	50.000	48.682	97.36	70-130
137 Toluene	50.000	49.242	98.48	70-130
139 trans-1,3-Dichlor	50.000	52.312	104.62	70-130
141 1,1,2-Trichloroet	50.000	50.232	100.47	70-130
142 Tetrachloroethene	50.000	51.400	102.80	70-130
143 2-Hexanone	50.000	48.564	97.13	70-130
144 1,3-Dichloropropa	50.000	50.154	100.31	70-130
146 Dibromochlorometh	50.000	52.044	104.09	70-130
148 1,2-Dibromoethane	50.000	51.519	103.04	70-130
151 1-Bromo-2-Chloroe	50.000	49.482	98.97	70-130
154 Chlorobenzene	50.000	50.547	101.09	70-130
155 Ethyl Benzene	50.000	50.406	100.81	70-130
156 Nonane	50.000	48.458	96.92	70-130
157 1,1,1,2-Tetrachlo	50.000	41.103	82.21	70-130
158 m,p-Xylene	50.000	50.174	100.35	70-130
164 o-Xylene	50.000	49.832	99.66	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	48.631	97.26	70-130
167 Bromoform	50.000	51.908	103.82	70-130
168 Cumene	50.000	49.649	99.30	70-130
169 Cyclohexanone	50.000	46.055	92.11	70-130
175 1,1,2,2-Tetrachlo	50.000	49.903	99.81	70-130
177 Bromobenzene	50.000	51.318	102.64	70-130
178 Propylbenzene	50.000	49.792	99.58	70-130
179 1,2,3-Trichloropr	50.000	48.922	97.84	70-130
181 trans-1,4-Dichlor	50.000	73.151	146.30*	70-130
182 Decane	50.000	47.752	95.50	70-130
183 4-Ethyltoluene	50.000	49.032	98.07	70-130
184 2-Chlorotoluene	50.000	49.506	99.01	70-130
185 1,3,5-Trimethylbe	50.000	50.300	100.60	70-130
188 alpha Methyl Styr	50.000	50.239	100.48	70-130
189 tert-Butylbenzene	50.000	48.255	96.51	70-130
190 1,2,4-Trimethylbe	50.000	50.751	101.50	70-130
192 sec-Butylbenzene	50.000	49.857	99.71	70-130
194 p-Cymene	50.000	49.802	99.60	70-130
195 1,3-Dichlorobenze	50.000	50.491	100.98	70-130
196 1,4-Dichlorobenze	50.000	51.096	102.19	70-130
199 alpha-Chlorotolue	50.000	51.409	102.82	70-130
201 Undecane	50.000	52.224	104.45	70-130
202 Butylbenzene	50.000	49.858	99.72	70-130
204 1,2-Dichlorobenze	50.000	49.900	99.80	70-130
206 1,2-Dibromo-3-chl	50.000	52.035	104.07	70-130
207 Dodecane	50.000	76.665	153.33*	70-130
213 1,2,4-Trichlorobe	58.000	71.254	122.85	70-130
215 Hexachlorobutadie	58.000	72.089	124.29	70-130
216 Naphthalene	5.800	6.790	117.08	60-140
222 1,2,3-Trichlorobe	58.000	76.972	132.71*	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.723	98.89	70-130
\$ 134 Toluene-d8	25.000	24.912	99.65	70-130
\$ 170 4-Bromofluorobenz	25.000	25.126	100.50	70-130

Date : 20-MAY-2021 00:33

Client ID: ICV

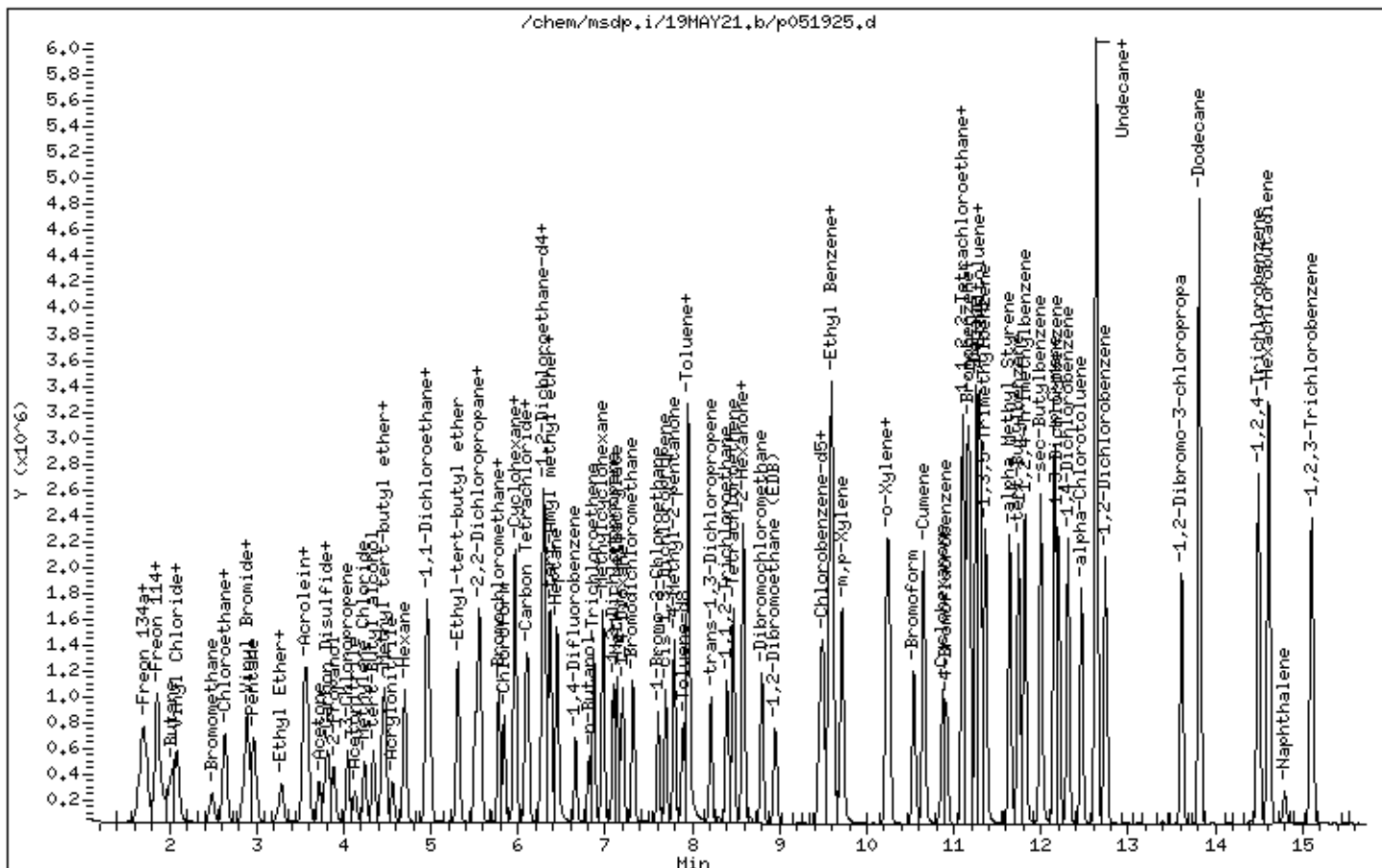
Instrument: msdp.i

Sample Info: 50mL 3018-2016

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



## MSD-P MDL Case Narrative

A Method Detection Limit study for TO-15 method was performed on 10/19/20-10/23/20,10/26/20-10/29/20 & 11/02/20,11/05/20,11/06/20.

The MDL was performed at:

- 0.3 ppbv (5.0ppbv->0.3ppbv) for the 0.3ppbv RL compounds; 12mL of #3018-1674
- 0.4 ppbv (5.0ppbv->0.4ppbv) for the 0.4ppbv RL compounds; 16mL of #3018-1674
- 0.8 ppbv (5.0ppbv->0.8ppbv) for 0.8ppbv RL compounds; 32ml of #3018-1674
- 1.0ppbv (5.0ppbv->1.0ppbv) for chloroethane & ethanol;40ml of 3018-1674 & 40ml of 3018-1682

A Method Detection Limit study for select TA TO-15 specials was performed on 11/27/20-11/29/20.

The MDL was performed at:

- 0.4ppbv(5.0ppbv->0.4ppbv) for 1,1,1,2-tetrachloroethane;16ml of #3018-1644

MDL verifications were analyzed on 11/03/20 & 11/10/20:

- P110313: (0.3ppbv & 0.4ppbv RL compounds). 5.0ppbv->0.25ppv; 10ml of #3018-1682.
- P110314: (0.8ppbv RL compounds). 5.0ppbv->0.6ppbv. 24ml of #3018-1682.
- P110315: (0.5 for naph only). 5.0->5.0ppbv; 200ml of #3018-1682.
- P110312: (for 1,1,1,2-PCA only). 5.0ppbv->0.25ppbv. 10ml of #3018-1644
- P111017: (for chloroethane, ethanol & vinyl acetate). 5.0ppbv->0.75ppbv. 30ml of 3018-1682.

Notes:

1. The MDL values for the following compounds were taken from the MDL blank:
  - a. Dibromomethane (0.07607ppbv)
  - b. Acetone (0.48647ppbv)
  - c. Iodomethane (0.06508ppbv)
  - d. Carbon disulfide (0.1958ppbv)
  - e. Decane (0.57314ppbv)
  - f. Undecane(0.1836ppbv)
  - g. Dodecane (0.71923ppbv)
  - h. Naphthalene (0.38524ppbv)
2. The ratio of the mean recovered concentration and the MDL value for naphthalene and dodecane recovered outside of 1-20.
3. The MDL verification for chloroethane and ethanol is less than 2X the mean MDL.

**MDL Expires 10/29/21**

0.3mdl.rp

Report Date : 28-Oct-2020 16:45

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

TO15 Quad MDL MSD-P  
Standard 3018-1674 (5.0ppbv)  
12mL load volume  
Spike concentration: 0.3ppbv  
Page 1

ID: MDL01 MDL02 MDL03 MDL04 MDL05 MDL06 MDL07 MDL08 MDL09  
FILENAME: P101908 P101909 P101910 P102008 P102009 P102010 P102107 P102108 P102109  
INJ.DATE: 19-OCT-2020 19-OCT-2020 19-OCT-2020 20-OCT-2020 20-OCT-2020 20-OCT-2020 21-OCT-2020 21-OCT-2020 21-OCT-2020  
INJ.TIME: 14:06 14:34 15:01 16:26 16:54 17:21 15:23 15:51 16:19

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1  Date: 10/30/20  
Reviewer 2  Date: 11/11/20

Ratio of the mean recovered concentration and the MDL value is between 1 & 20.

$\bar{x} = 70.54$   
 $2\bar{x} = 141.07$   
 $3\bar{x} = 211.62$   
 $4\bar{x} = 282.16$

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.1/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.1/19OCT20.b  
Inst ID: msdp.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-Fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
64 trans-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	217.02	219.07	292.15	253.35	258.29	195.74	292.58	280.15	220.83	247.69	36.00	104.26
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 cis-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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MDL 05500

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US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
87 Ethyl Acetate	201.00	285.05	246.94	220.66	323.49	229.31	299.26	256.43	286.92	261.01	40.42	117.05
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 90 Bromochloromethane	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	242.52	244.52	264.08	247.68	239.93	283.26	261.71	270.85	264.59	257.68	14.79	42.84
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	292.64	289.12	314.87	273.07	292.46	311.97	284.37	293.95	306.68	295.46	13.50	39.11
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	23662.67	23877.71	24079.59	23563.77	24206.96	24182.62	23963.20	24552.71	24218.03	24034.14	305.26	884.02
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 108 1,4-Difluorobenzene	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	248.45	319.45	282.47	291.32	274.66	272.30	278.78	242.30	239.06	272.09	25.76	74.60
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetoneitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	24585.67	24787.41	24622.65	24917.45	24550.68	25002.95	24999.39	25581.69	24685.96	24859.31	321.49	931.02

DPTV  
246ppm  
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US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
154 Chlorobenzene	274.66	274.06	286.73	307.61	281.73	317.24	284.89	304.85	280.24	290.22	15.66	45.36
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis(chloromethyl) Ethel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromodichlorobenzene	24680.65	24394.98	24458.85	24972.60	24217.99	24821.47	24904.35	25061.39	25327.68	24760.00	354.77	1027.42
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

0.4.mdl.rpt

Report Date : 28-Oct-2020 18:51

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

ID	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	436.271	459.071	358.711	365.971	442.84	407.04	328.83	315.33	395.64	389.971	51.11	148.021
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	368.051	362.51	350.901	422.39	382.44	336.13	389.94	336.87	366.98	368.47	27.28	79.01
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	402.191	319.34	374.64	343.74	334.54	363.82	297.84	361.33	350.45	349.77	30.80	89.201
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_ Date: 10/30/20  
Reviewer 2 \_\_\_\_\_ Date: 11/11/20

TO15 Quad MDL - MSD-P  
Standard 3015-1074 (5.0ppbv)  
1uml load volume  
spike concentration: 0.4ppbv  
Page 1

MDL09 p102608 26-OCT-2020 12:51  
MDL p102607 26-OCT-2020 12:23  
MDL p102606 26-OCT-2020 11:55  
MDL08 p102607 26-OCT-2020 12:23  
MDL07 p102606 26-OCT-2020 11:55  
MDL06 p102309 23-OCT-2020 15:28  
MDL05 p102308 23-OCT-2020 15:01  
MDL04 p102307 23-OCT-2020 14:33  
MDL03 p102209 22-OCT-2020 17:35  
MDL02 p102208 22-OCT-2020 17:08  
MDL01 p102207 22-OCT-2020 17:08

The ratio of the mean recovered concentration  
to the MDL value is b/w 1 & 20.

$\bar{x} = 93.579$   
 $2\bar{x} = 187.16$   
 $3\bar{x} = 280.74$   
 $4\bar{x} = 374.32$

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	238.72	286.52	271.11	333.74	362.201	338.001	255.391	295.79	250.02	292.39	43.60	126.26
20 1,3-Butadiene	312.68	378.591	382.051	250.04	280.91	275.231	257.721	279.89	265.49	298.071	49.87	144.41
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Freon 11	457.24	407.10	435.951	369.751	393.31	349.161	378.671	348.371	383.631	391.461	36.91	106.881
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PtV (LLPPM) SP(ALLPPM) Blank

500 400

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	426.15	433.79	441.55	364.87	456.53	443.18	409.02	415.07	401.94	421.35	27.52	79.69
44 1,1-Dichloroethene	411.86	277.89	289.34	245.03	323.41	408.62	342.89	361.09	322.12	331.36	56.67	164.11
45 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	372.76	312.97	335.71	286.43	401.04	334.94	335.25	305.15	310.05	332.70	35.53	102.89
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PP4V      2L(PP4V)      5PP4L(PP4V)      Blank

5000

400

60.72

500

400

500

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPTV	PLPPTV	SPPLPPTV	BLANK
64 trans-1,2-Dichloroethane	313.591	405.501	314.931	359.931	369.921	296.051	382.071	269.641	318.201	336.651	44.631	129.251	500	400		
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
66 Acrylonitrile	340.641	301.351	399.891	330.731	361.111	300.841	267.261	315.861	273.741	321.271	42.211	122.241	2000	800		
67 Hexane	284.591	274.851	274.181	282.131	331.111	344.691	341.121	289.671	342.621	307.221	31.561	91.391	500	800		
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
85 cis-1,2-Dichloroethane	364.421	423.151	261.261	309.141	261.641	232.811	264.661	260.961	254.081	292.461	62.511	181.021	500	400		
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	300.421	300.831	294.381	309.821	323.071	338.591	237.001	237.361	280.141	291.291	34.921	101.131
* 90 Bromochloromethane	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	500
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	333.631	372.371	338.121	334.851	386.701	337.431	317.341	337.971	288.471	338.541	28.421	82.291
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	351.081	365.901	423.661	373.131	342.961	305.441	373.841	266.921	317.121	346.671	45.691	132.321
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	355.691	333.151	292.381	297.051	306.331	311.831	333.391	309.711	308.791	316.481	20.281	58.721
102 Benzene	398.551	338.761	371.151	328.611	335.511	376.931	394.841	330.431	306.371	353.461	32.621	94.471
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	25538.41	125119.18	24972.96	25310.46	26037.22	25493.94	22898.21	23988.75	24315.92	24852.78	963.98	2791.69
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 1,2-Dichloroethane	368.161	305.971	383.281	351.011	378.611	339.201	327.181	311.281	361.641	347.371	28.301	81.94
107 Heptane	377.001	338.491	321.631	237.391	335.691	324.801	348.251	362.211	369.781	335.031	41.401	119.90
* 108 1,4-Difluorobenzene	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	500
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPV 2L(PPM) SP2L(PPV) Blank

81.94  
500  
500  
500  
10.4

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPM	RL(PPM)	SP(PPM)	BLANK
111 Trichloroethene	359.98	366.80	369.81	368.75	381.97	420.18	406.91	394.92	420.70	386.67	24.88	72.05	500	400	—	—
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
114 1,2-Dichloropropane	367.27	387.51	438.23	349.97	414.12	402.30	315.92	374.28	442.15	387.97	41.24	119.42	500	400	—	—
115 2-Pentanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
118 Dibromomethane	363.07	396.21	400.70	375.65	381.51	404.00	384.97	366.62	423.18	388.43	19.37	56.11	2000	400	—	316.07
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
124 Chloroacetoneitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
126 cis-1,3-Dichloropropen	280.09	346.41	399.61	350.41	326.89	332.36	325.16	374.56	344.71	342.24	33.38	96.67	500	400	—	—
127 Methylcyclohexane	421.60	402.15	396.00	283.94	356.13	415.49	365.32	368.56	344.41	372.62	42.80	123.96	2000	400	—	—
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
131 4-Methyl-2-pentanone	349.17	342.85	324.09	329.39	448.82	363.24	372.47	304.65	357.29	354.66	41.09	118.99	500	400	—	—
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400	—	—
134 Toluene-d8	124608.41	24757.16	24060.47	24358.97	24799.49	24544.21	24420.57	24318.45	25304.67	24574.71	356.92	1033.64	500	400	—	—

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
135 1-Methoxy-2-propanol	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
136 Octane	391.51	314.58	349.24	392.86	398.27	317.52	435.75	346.46	343.20	365.49	41.01	118.76
137 Toluene	393.31	369.84	335.47	374.46	391.89	378.56	364.69	361.01	383.40	372.52	17.82	51.60
138 1-Heptene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
139 trans-1,3-Dichloroprop	332.51	308.98	399.68	312.19	350.76	343.89	326.55	353.48	301.43	336.61	30.06	87.07
140 2,3-Dichloro-1-propene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
141 1,1,2-Trichloroethane	359.42	310.37	399.03	326.09	345.12	374.12	325.48	333.64	335.86	345.46	27.67	80.13
142 Tetrachloroethane	368.16	376.49	362.62	383.34	406.92	446.83	425.80	406.87	406.85	398.21	27.87	80.71
143 2-Hexanone	337.34	364.76	359.28	356.16	308.83	350.55	345.40	353.88	353.41	347.73	16.58	48.02
144 1,3-Dichloropropane	379.58	319.29	400.88	326.89	349.89	313.18	370.24	372.04	373.71	356.19	30.43	88.14
145 Butyl Acetate	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
146 Dibromochloromethane	399.15	402.43	371.98	328.44	351.93	404.39	388.88	370.10	331.22	372.06	29.51	85.45
147 Bromodichloroethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
148 1,2-Dibromoethane (EDB)	337.27	380.78	399.90	344.59	425.77	356.23	338.97	345.95	323.51	361.44	33.67	97.51
149 2-Methylheptane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
150 3-Methylheptane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
151 1-Bromo-2-Chloroethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
152 Diethyl Ketone	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
* 153 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
154 Chlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
155 Ethyl Benzene	350.04	307.75	414.55	382.37	341.21	376.01	421.98	290.14	387.24	363.48	45.10	130.60
156 Nonane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
157 1,1,1,2-Tetrachloroeth	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
158 m,p-Xylene	381.11	385.02	373.70	279.50	328.49	371.80	390.58	345.71	301.63	350.84	39.78	115.22

Pptv DL (ppm) SPRL (ppm) Blank

500 500 500 500 500 500 500 500 500 500 500 500 500

400 400 400 400 400 400 400 400 400 400 400 400 400

19.2<sup>9</sup>  
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9 11 11/1/20



US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	360.35	388.65	360.30	402.22	263.00	381.05	393.85	328.05	343.58	357.89	43.09	400
165 Styrene	363.22	358.96	355.97	332.09	332.19	352.82	322.68	355.25	294.72	340.88	22.41	400
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	400
167 Bromoform	384.81	405.27	406.78	365.38	370.81	375.07	374.03	369.63	351.46	378.14	18.12	500
168 Cumene	358.73	319.23	373.24	314.45	325.75	332.23	371.15	349.17	341.49	342.83	21.76	800
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromofluorobenzene	25111.07	24795.31	25807.35	25214.38	25273.17	25304.26	25170.01	25431.80	25249.38	25261.86	269.17	779.51
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	394.75	382.23	361.14	364.24	388.23	395.06	358.67	355.71	362.71	373.64	16.20	500
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	358.34	343.23	365.47	348.41	315.89	358.02	401.15	335.02	403.17	358.74	28.65	500
179 1,2,3-Trichloropropane	396.36	433.62	361.53	369.60	355.73	433.59	394.94	293.12	372.73	378.80	43.25	2000
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PAH  
P4(PH)  
SP P4(PH)  
BIANT

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
 Batch File: /chem/msdp.i/22OCT20.b  
 Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPTV	RL(PPTV)	SP(PL(PPTV))	BUMWK
183 4-Ethyltoluene	328.35	323.51	409.88	350.59	394.94	309.53	348.09	311.33	343.67	346.65	35.09	101.62	500	400	—	—
184 2-Chlorotoluene	367.12	437.45	399.61	324.10	337.68	379.55	388.66	368.97	399.59	378.08	34.12	98.81	2000	400	—	—
185 1,3,5-Trimethylbenzene	361.70	382.59	305.37	322.46	290.91	333.22	399.63	316.81	339.41	339.12	35.94	104.09	500	400	11.91	—
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	340.84	346.95	357.65	316.13	311.83	307.88	324.63	323.57	342.20	330.19	17.32	50.16	1000	400	—	—
189 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	351.77	366.19	384.29	326.05	339.25	336.74	376.07	351.72	372.74	356.09	19.91	57.67	500	500	40.41	—
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	326.70	387.27	334.38	303.10	357.00	376.71	377.82	357.98	334.64	350.62	27.86	80.67	2000	400	—	—
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	329.01	291.99	322.26	303.61	342.86	308.30	363.77	346.10	361.19	329.90	25.52	53.91	2000	500	49.1	—
195 1,3-Dichlorobenzene	396.73	395.68	406.80	347.34	383.69	416.48	403.45	401.34	390.46	393.55	19.74	57.16	500	400	6.61	—
196 1,4-Dichlorobenzene	397.02	396.80	373.82	336.65	380.96	372.10	379.74	387.84	407.73	381.41	20.51	59.40	500	400	10.61	—
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	355.07	348.38	383.67	358.47	379.84	352.56	372.19	361.56	392.68	367.16	15.53	44.97	500	500	—	—
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	358.91	342.67	328.13	333.54	305.09	329.53	365.04	339.04	387.15	343.23	24.06	69.69	2000	400	45.09	—
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	405.81	403.04	358.55	356.29	398.25	390.07	392.01	401.55	406.90	390.27	19.48	56.41	500	400	26.05	—
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

This Quad MDL MSP-P  
Standard 308-1674 (5.0ppbv)  
3mL load volume  
Spike concentration: 0.8 ppbv  
Naph @ 0.08 ppbv

Report Date : 30-Oct-2020 15:35

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

ID: MDL01 MDL02 MDL03 MDL04 MDL05 MDL06 MDL07 MDL08 MDL09  
FILENAME: P102713 P102714 P102715 P102812 P102813 P102814 P102913 P102914 P102915  
INJ DATE: 27-OCT-2020 27-OCT-2020 27-OCT-2020 28-OCT-2020 28-OCT-2020 28-OCT-2020 29-OCT-2020 29-OCT-2020 29-OCT-2020  
INJ TIME: 16:13 16:41 17:09 16:20 16:48 17:16 16:09 16:37 17:05

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	782.35	724.881	886.81	836.87	782.13	915.12	890.85	977.30	953.51	861.09	85.21	246.77
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	828.20	1034.35	526.55	766.58	681.54	895.20	701.39	694.22	904.48	781.39	151.42	438.51
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	854.60	805.17	642.55	827.65	687.63	812.52	1041.61	928.38	684.55	809.41	126.85	367.37
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	719.04	711.25	707.49	729.52	689.89	671.33	801.41	778.78	804.87	734.84	48.61	140.77
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	882.85	931.18	918.86	751.25	728.44	745.41	1061.42	972.38	1001.77	888.17	121.18	350.93
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_ Date: 10/30/20  
Reviewer 2 \_\_\_\_\_ Date: 11/11/20

MDL 11/03/20

~~X̄ = 253.78~~ 254.04 243.95  
2x̄ = 507.56 508.08 487.90  
3x̄ = 761.34 762.12 731.85  
4x̄ = 1015.12 1016.40 985.80

The ratio of the mean recovered concentration to the MDL value is b/w 1-20 for all compounds except dodecane and Naphthalene.

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPTN	BLPPTN	SPBLPPTN	BLANK
18 Butane	898.47	689.60	606.50	714.19	994.52	733.80	751.23	938.98	1233.61	840.10	194.99	564.68	1000		800	
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
24 Bromomethane	834.50	796.28	852.48	898.11	761.37	815.39	846.32	919.26	1012.42	859.57	74.89	216.88	5000		800	
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
31 Isopentane	655.87	662.86	650.61	734.81	705.95	701.65	727.87	655.13	699.75	688.28	32.73	94.78	1000		1000	
32 Vinyl Bromide	737.71	813.81	758.98	757.93	700.24	661.88	709.79	675.94	746.89	729.24	47.22	136.75	1000		800	
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
34 Dichlorofluoromethane	778.66	732.59	744.21	814.55	761.68	702.11	748.89	790.16	735.31	756.46	33.93	98.25	1000		800	
35 Pentane	639.53	701.46	729.10	649.67	678.40	698.89	670.06	598.35	821.94	687.49	63.44	183.72	1000		800	
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
38 Ethyl Ether	564.60	615.24	558.00	800.06	654.88	660.41	744.34	741.00	309.41	627.55	145.03	420.00	1000		800	
39 Ethanol	569.54	328.33	497.33	644.08	1150.40	721.07	599.91	403.71	443.84	586.13	244.55	708.23	1000		1000	

\* Ethanol MDL included in COPPER spike

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPTN	RL(PPTN)	SPR(PPM)	Blank
40 Freon 133a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
42 Acrolein	699.46	712.62	502.97	856.57	794.32	807.25	756.02	655.40	696.07	720.08	103.32	299.22	2000	2000	2000	—
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
44 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
47 Acetone	848.22	800.39	727.29	836.77	676.13	837.53	907.31	713.75	735.23	786.96	76.92	222.76	5000	5000	5000	147.4
48 Carbon Disulfide	808.80	840.34	749.99	777.80	747.78	684.04	761.31	799.80	776.40	771.81	44.40	128.59	2000	2000	2000	145.8
49 Iodomethane	457.35	451.01	440.43	437.13	459.33	452.25	478.66	430.79	399.77	445.19	22.11	64.22	2000	2000	2000	141.8
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
52 2-Propanol	666.68	704.84	695.32	785.79	731.69	795.25	734.79	809.37	796.47	746.69	51.78	149.96	2000	2000	2000	137.2
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
54 3-Chloropropene	852.23	979.94	823.74	485.40	620.09	771.94	735.72	607.16	820.37	744.06	150.57	436.06	2000	2000	2000	—
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
57 Acetonitrile	731.86	716.27	660.84	656.65	700.17	610.38	801.87	579.31	812.61	696.66	79.25	229.52	2000	2000	2000	—
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
61 1,2-Dichloro-1-fluoro-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000	2000	—
62 tert-Butyl alcohol	740.42	784.24	698.11	749.56	863.98	769.73	738.29	787.50	724.28	761.79	47.82	138.48	2000	2000	2000	—
63 Methyl tert-butyl ethe	732.79	675.63	767.02	757.40	730.51	793.25	764.89	693.44	732.19	738.57	37.05	107.30	2000	2000	2000	—



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL				
64 trans-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
72 Isopropyl ether	682.23	642.03	666.75	695.31	656.63	696.37	661.77	656.86	696.19	672.68	20.37	58.98	2000	800	-	
73 Vinyl Acetate	379.16	510.38	679.89	456.28	594.69	817.23	865.96	319.67	628.92	583.57	186.68	540.62	2000	800	-	
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
79 Ethyl-tert-butyl ether	732.15	735.05	698.72	703.42	678.14	735.97	721.12	633.77	751.04	709.93	36.40	105.41	2000	800	-	
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
84 2,2-Dichloropropane	856.50	766.31	748.03	737.62	810.23	833.08	893.06	935.10	891.13	830.12	69.98	202.65	2000	800	-	
85 cis-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	PPM	2000	800	-
86 2-Butanone	494.27	680.84	630.20	636.77	695.03	636.19	496.57	833.87	704.79	645.39	104.97	303.98	2000	800	-	

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 90 Bromochloromethane	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.001	0.001
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	691.47	788.20	695.94	788.42	758.83	619.78	822.02	955.67	776.77	766.35	94.95	274.96
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	26542.98	25336.38	25035.81	26773.65	27060.55	27089.31	28110.69	28004.75	27657.60	26845.75	1081.60	3132.31
105 tert-Amyl methyl ether	672.84	754.03	800.25	749.08	911.69	801.21	750.86	870.59	838.98	794.39	72.44	209.80
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 108 1,4-Difluorobenzene	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.001	0.001
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	818.67	808.84	787.27	836.16	856.22	901.90	852.85	807.79	844.38	834.98	34.16	98.92

PPTV DL(PPTV) 50 DL(PPTV) Blank

98.92 2000 800 2000 68.07

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	757.871	628.931	710.271	777.161	558.681	667.001	648.501	874.391	750.661	708.161	93.911	271.961
117 1,4-Dioxane	765.971	849.411	952.341	642.091	797.151	771.611	800.611	642.991	673.241	766.161	101.841	294.931
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetoneitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	24078.61	24335.63	24036.51	23516.55	23802.94	23773.37	23590.02	23613.19	24343.15	23898.89	313.751	908.621

PPTN  
PULPND  
SPULPND  
BLANK

1000  
800  
2000  
500

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.1/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.1/27OCT20.b  
Inst ID: msdp.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
135 1-Methoxy-2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-Propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	657.71	773.71	721.48	656.34	733.70	677.29	720.22	717.61	692.34	705.60	38.30	110.92
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
154 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	649.99	615.89	662.19	649.94	671.72	581.89	713.24	665.35	674.53	653.86	37.29	108.00
157 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ppm  
 PL (ppm)  
 SPEL (ppm)  
 BLANK

108.00

800

46.24

800

-

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	ppm	ELC(PPM)	SP(PPM)	Blank
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
160 bis(chloromethyl) EtHe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
169 Cyclohexanone	848.24	767.43	798.03	808.84	844.16	792.72	752.74	812.64	890.64	812.83	42.72	123.73	2000			
170 4-BromoFluorobenzene	26008.20	26019.99	26097.96	26091.99	26069.47	25566.33	25848.37	26700.26	25817.70	26024.47	306.72	888.26	500			
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
177 Bromobenzene	806.33	851.30	818.09	815.14	762.80	818.62	765.09	884.18	735.55	806.35	46.17	133.72	2000			
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
181 trans-1,4-Dichloro-2-b	696.47	780.58	811.00	821.84	756.32	754.81	776.59	738.59	930.39	785.18	66.13	191.51	2000			
182 Decane	665.03	678.56	590.12	632.67	602.85	585.50	637.99	632.02	612.73	626.39	31.92	92.43	2000			

573.14

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPM	SPR (PPM)	Blank
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
185 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
189 tert-Butylbenzene	777.35	746.78	784.01	732.15	775.27	697.75	724.53	721.59	728.65	743.12	29.77	86.20	2000	300	32.20
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
201 Undecane	543.26	526.15	549.31	522.63	565.63	525.07	573.32	541.49	521.46	540.92	19.10	55.32	2000	800	183.60
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PRN	EL(PRN)	SPR(ELPRN)	BLANK
206 1,2-Dibromo-3-chloropr	776.96	766.33	816.70	748.77	742.97	795.65	764.63	775.37	776.17	773.73	22.51	65.19	1000	800	719.23	
207 Dodecane	669.70	747.33	708.32	688.30	749.03	735.59	633.57	674.71	655.94	695.83	41.64	120.59	1000	800		
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
210 alpha-pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
213 1,2,4-Trichlorobenzene	1024.36	1024.97	1115.91	982.45	1070.32	954.95	934.25	1004.44	1088.59	1022.25	60.90	176.36	1000	2000	65.15	
214 Beta-pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
215 Hexachlorobutadiene	1087.27	1049.68	989.99	1016.98	1194.77	1118.77	1104.49	1141.26	1112.79	1090.67	63.37	183.51	1000	2000	36.16	
216 Naphthalene	96.82	117.03	115.70	96.98	95.10	96.49	94.23	93.62	93.19	99.91	9.44	27.33	1000	800	38.5	
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
222 1,2,3-Trichlorobenzene	1001.11	1201.96	1141.79	1103.14	1149.53	1158.53	1177.05	1141.75	1245.42	1146.70	68.02	196.98	1000	800	129.49	
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.1/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.1/27OCT20.b  
Inst ID: msdp.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

1.0.mnd1.rp

Chloroethane B Ethanol only

THIS QUAD MDL MSD-P  
STANDARDS: 3018-1074 & 3018-1052

Report Date : 12-NOV-2020 16:23

Page 1

40mL load volume  
spike concentration: 1.0ppbv  
(5.0ppbv)

US32TAR1  
SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Spiked ID(s) Spiked Vol(s)

Method File: /chem/msdp.i/06NOV20.b/p20q1012a.m  
Batch File: /chem/msdp.i/06NOV20.b  
Instrument Names: msdp.i  
Student T 2.896 for 9 Replicates with 99% Confidence

ID: MDL01 MDL02 MDL03 MDL04 MDL05 MDL06 MDL07 MDL08 MDL09  
FILENAME: p110206 p110207 p110208 p110513 p110514 p110515 p110609 p110610 p110611  
INJ. DATE: 02-NOV-2020 02-NOV-2020 02-NOV-2020 05-NOV-2020 05-NOV-2020 05-NOV-2020 06-NOV-2020 06-NOV-2020 06-NOV-2020  
INJ. TIME: 14:13 14:41 15:09 20:32 21:00 21:28 14:11 14:39 15:06

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
1 Chloroethane	949.12	1022.70	806.30	825.92	1224.10	964.54	1180.50	905.28	1303.10	1020.17	177.54	0.000000	2.00	1.98	514.16
2 Ethanol	794.28	1176.80	541.34	587.68	928.34	802.22	478.16	696.21	766.27	752.37	213.76	0.000000	2.00	1.22	619.05
* 3 Bromochloromethane	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000
\$ 4 1,2-Dichloroethane-d4	27635.00	26462.00	27301.00	26650.00	26719.00	27118.00	27404.00	26779.00	27199.00	27029.67	394.08	0.000000	0.400	23.68	1141.26
* 5 1,4-Difluorobenzene	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000
\$ 6 Toluene-d8	24478.00	23898.00	24046.00	24964.00	25032.00	24902.00	24547.00	25074.00	25358.00	24699.89	492.08	0.000000	0.400	17.33	1425.08
* 7 Chlorobenzene-d5	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000
\$ 8 4-Bromofluorobenzene	126376.00	26376.00	125359.00	123859.00	24195.00	23898.00	24336.00	24526.00	24254.00	24797.67	995.84	0.000000	0.400	8.60	2883.95

ppbv  
RL  
Blur

Reviewer 1  Date: 11/12/20  
Reviewer 2  Date: 11/12/20

The ratio of the mean recovered concentration to the MDL is b/w 1-20.

$\bar{X} = 566.60$   
 $s\bar{X} = 1133.21$

1112PCA-MDL.RP

TO15 Quad MDL MSD-P  
Standard 3018-1044 (5.0ppbv)

1,1,1,2-Tetrachloroethane only 10ml load volume

Spike concentration 0.4ppbv

Report Date : 10-NOV-2020 15:36

US32TARI

Page 1

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Spiked ID(s) Spiked Vol(s)

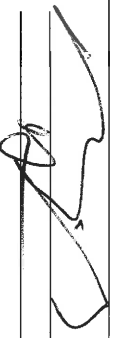

Method File: /chem/msdp.i/29OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/29OCT20.b  
Instrument Names: msdp.i

Student T 2.896 for 9 Replicates with 99% Confidence

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09
FILENAME:	P102710	P102711	P102712	P102809	P102810	P102811	P102910	P102911	P102912
INJ.DATE:	27-OCT-2020	27-OCT-2020	27-OCT-2020	28-OCT-2020	28-OCT-2020	28-OCT-2020	29-OCT-2020	29-OCT-2020	29-OCT-2020
INJ.TIME:	14:49	15:17	15:45	14:57	15:25	15:53	14:46	15:14	15:42

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
* 1 Bromochloromethane	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	2.00	1.00	0.000000
\$ 2 1,2-Dichloroethane-d4	24573.00	24807.00	24616.00	25011.00	26208.00	26456.00	27161.00	26313.00	27385.00	25836.67	1102.74	0.000000	2.00	8.09	3193.55
* 3 1,4-Difluorobenzene	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	2.00	1.00	0.000000
\$ 4 Toluene-d8	24075.00	24304.00	24661.00	24305.00	23479.00	23880.00	24032.00	24417.00	23597.00	24083.33	385.46	0.000000	2.00	21.57	1116.30
* 5 Chlorobenzene-d5	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	2.00	1.00	0.000000
\$ 6 1,1,1,2-Tetrachloroethane	379.06	447.57	427.78	423.52	384.11	446.89	435.94	349.79	387.48	409.13	34.82	0.000000	2.00	4.06	100.83
\$ 7 4-Bromofluorobenzene	125482.00	125724.00	125783.00	126216.00	125959.00	125799.00	126068.00	125824.00	125833.00	125854.22	209.93	0.000000	2.00	42.53	607.95

PPV PL Blank

Reviewer 1  Date: 11/10/20  
Reviewer 2  Date: 11/12/20

The ratio of the mean recovered concentration  
to the MDL is b/w 1-20.

$\bar{X} = 100.83$

$2\bar{X} = 201.66$

$3\bar{X} = 302.49$

$4\bar{X} = 403.32$

blank.mdi.rp

WSD-P Blank MDL  
CWN #s 33665 & 497

Report Date : 03-NOV-2020 17:44

Page 1

US32TARI  
SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/29OCT20.b/p20q1012a.m

Spiked ID(s) Spiked Vol(s)

Batch File: /chem/msdp.i/29OCT20.b

Instrument Names: msdp.i

Student T 2.896 for 9 Replicates with 9% Confidence

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09
FILENAME:	p102707EPALB	p102708EPALB	p102709EPALB	p102806EPALB	p102807EPALB	p102808EPALB	p102907EPALB	p102908EPALB	p102909EPALB
INJ DATE:	27-OCT-2020	27-OCT-2020	27-OCT-2020	28-OCT-2020	28-OCT-2020	28-OCT-2020	29-OCT-2020	29-OCT-2020	29-OCT-2020
INJ TIME:	13:05	13:52	14:22	12:51	14:00	14:29	12:51	13:49	14:18

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SEK AMT	RL	RATIO	MDL
1 Freon 134a	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
2 Propylene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
3 1,1-Difluoroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
4 Freon 12	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
5 Chlorodifluoromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
6 Freon 114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
7 Isobutane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
8 Chloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
9 Butane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
10 Vinyl Chloride	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
11 1,3-Butadiene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
12 Bromomethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
13 Chloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
14 Isopentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
15 Vinyl Bromide	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
16 Freon 11	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
17 Dichlorofluoromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
18 Pentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
19 Ethanol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
20 Ethyl Ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
21 Acrolein	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000

Reviewer 1 \_\_\_\_\_ Date: 11/03/20

Reviewer 2 \_\_\_\_\_ Date: 11/11/20

US321ARI1

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/290CT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/290CT20.b  
Instrument Names: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
22 Freon 113	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
23 1,1-Dichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
24 Acetone <i>442.49</i>	331.00	354.71	246.63	201.44	376.96	233.77	173.33	355.39	249.83	288.34	74.98	0.000000	0.400	1.29	217.15
25 Toluene <i>65.08</i>	65.08	27.98	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	10.34	22.52	0.000000	2.00	0.159	65.21
26 Carbon Disulfide <i>145.78</i>	151.31	148.10	133.40	158.96	153.20	166.49	113.13	146.20	117.68	143.16	18.17	0.000000	0.400	2.72	52.62
27 2-Propanol <i>137.20</i>	69.67	88.64	14.84	42.56	56.13	41.38	31.21	93.32	82.38	57.79	27.42	0.000000	0.400	0.728	79.41
28 3-Chloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
29 Acetonitrile	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
30 Methylene Chloride <i>60.72</i>	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	60.72	20.24	0.000000	0.400	0.115	58.61
31 tert-Butyl alcohol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
32 Methyl tert-butyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
33 trans-1,2-dichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
34 Acrylonitrile	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
35 Hexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
36 Isopropyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
37 1,1-Dichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
38 Vinyl Acetate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
39 Ethyl-tert-butyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
40 2,2-Dichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
41 cis-1,2-Dichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
42 2-Butanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
43 Ethyl Acetate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
* 44 Bromochloromethane	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000
45 Tetrahydrofuran	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
46 Chloroform	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
47 Cyclohexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
48 1,1,1-Trichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
49 Carbon Tetrachloride	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

US32TARI

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/29OCT20.b/p20q1012a.m

Batch File: /chem/msdp.i/29OCT20.b

Instrument Names: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
50 1,1-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
51 2,2,4-Trimethylpentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
52 Benzene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
53 1,2-Dichloroethane-44	25449.00	26875.00	26033.00	28600.00	27056.00	27244.00	27238.00	27582.00	27588.00	27073.89	913.17	0.000000	0.400	10.24	2644.53
54 tert-Amyl methyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
55 1,2-Dichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.16	0.400	0.115	10.04
56 Heptane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
* 57 1,4-Difluorobenzene	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000
58 n-Butanol	52.43	0.000000	39.24	68.07	0.000000	0.000000	38.26	54.00	0.000000	28.00	27.94	0.000000	0.400	0.346	80.92
59 Trichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
60 Methylcyclohexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
61 1,2-Dichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
62 Methyl Methacrylate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
63 1,4-Dioxane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
64 Dibromomethane	0.000000	0.000000	50.85	30.83	0.000000	0.000000	76.07	28.33	20.27	22.93	26.94	0.000000	0.400	0.294	78.01
65 Bromodichloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
66 1-Bromo-2-Chloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
67 cis-1,3-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
68 4-Methyl-2-pentanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
\$ 69 Toluene-d8	24332.00	24851.00	24110.00	24640.00	24909.00	24437.00	24430.00	24025.00	23792.00	24391.78	374.29	0.000000	0.400	22.50	1083.95
70 Octane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
71 Toluene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
72 trans-1,3-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
73 1,1,2-Trichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
74 Tetrachloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.115	6.85
75 1,3-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
76 2-Hexanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
77 Dibromochloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
78 1,2-Dibromoethane (EDB)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
* 79 Chlorobenzene-d5	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000

80 Chlorobenzene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
81 Ethyl Benzene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
82 Nonane 46.24	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
83 1,1,1,2-Tetrachloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.115	44.64 Ratio 1 t	
84 m,p-Xylene 19.24	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
85 o-Xylene 8.96	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.115	8.65 Ratio 1 t	
86 Styrene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
87 Bromoform	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
88 Cumene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
89 Cyclohexanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.00	1.00	0.000000	
90 4-Bromofluorobenzene	26249.00	125487.00	125699.00	125494.00	125682.00	125924.00	126381.00	125900.00	126007.00	125869.22	312.25	0.000000	0.400	28.61	904.27	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
91 1,1,2,2-Tetrachloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
92 Bromobenzene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000	
93 Propylbenzene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
94 1,2,3-Trichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
95 trans-1,4-Dichloro-2-butene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000	
96 4-Ethyltoluene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
97 Decane 573.14	491.02	405.05	339.69	573.14	403.12	0.000000	563.04	396.70	325.06	388.54	170.65	0.000000	0.400	0.786	494.19	Ratio 1	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
98 2-Chlorotoluene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
99 1,3,5-Trimethylbenzene 11.91	7.14	11.91	0.000000	0.000000	0.000000	0.000000	10.79	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.223	14.85	Ratio 1	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
100 alpha Methyl Styrene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
101 tert-Butylbenzene 32.20	32.20	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.115	31.09	Ratio 1
102 1,2,4-Trimethylbenzene 40.41	0.000000	11.59	3.17	40.41	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.207	40.37	Ratio 1	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
103 sec-Butylbenzene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
104 p-Cymene 4.91	4.91	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.115	4.74	Ratio 1	0.000000	0.000000	0.000000	0.400	0.115	6.38	Ratio 1
105 1,3-Dichlorobenzene 6.61	0.000000	6.61	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.115	6.38	Ratio 1	0.000000	0.000000	0.000000	0.400	0.115	6.38	Ratio 1
106 1,4-Dichlorobenzene 10.61	0.000000	10.61	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.115	10.25	Ratio 1	0.000000	0.000000	0.000000	0.400	0.115	10.25	Ratio 1
107 alpha-Chlorotoluene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000	
108 Undecane 183.60	0.000000	0.000000	106.80	130.26	91.15	137.17	174.19	146.33	183.60	107.72	67.57	0.000000	0.400	0.551	195.68	Ratio 1	0.000000	0.000000	0.000000	0.400	0.551	195.68	Ratio 1
109 Butylbenzene 45.09	26.38	12.90	0.000000	45.09	0.000000	0.000000	14.12	0.000000	0.000000	10.94	15.88	0.000000	0.400	0.238	45.98	Ratio 1	0.000000	0.000000	0.000000	0.400	0.238	45.98	Ratio 1
110 1,2-Dichlorobenzene 14.05	26.05	0.000000	0.000000	13.71	0.000000	0.000000	0.000000	0.000000	0.000000	4.42	9.29	0.000000	0.400	0.164	26.91	Ratio 1	0.000000	0.000000	0.000000	0.400	0.164	26.91	Ratio 1
111 1,2-Dibromo-3-chloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.300	615.27	Ratio 1
112 Dodecane 719.23	0.000000	66.26	60.12	719.23	236.24	131.75	184.35	143.99	116.87	184.31	212.46	0.000000	0.400	0.300	615.27	Ratio 1	0.000000	0.000000	0.000000	0.400	0.300	615.27	Ratio 1
113 1,2,4-Trichlorobenzene 15.18	65.18	48.80	15.77	46.15	24.18	0.000000	13.22	59.47	0.000000	30.31	25.09	0.000000	0.400	0.417	72.67	Ratio 1	0.000000	0.000000	0.000000	0.400	0.417	72.67	Ratio 1
114 Hexachlorobutadiene 35.61	0.000000	0.000000	0.000000	38.61	0.000000	0.000000	0.000000	0.000000	0.000000	4.29	12.87	0.000000	0.400	0.115	37.27	Ratio 1	0.000000	0.000000	0.000000	0.400	0.115	37.27	Ratio 1
115 Naphthalene 355.84	42.99	32.63	22.36	385.24	178.02	96.40	0.000000	0.000000	0.000000	34.33	88.00	0.000000	0.400	0.244	360.98	Ratio 1	0.000000	0.000000	0.000000	0.400	0.244	360.98	Ratio 1
116 1,2,3-Trichlorobenzene 129.49	129.49	0.000000	0.000000	74.71	47.26	0.000000	0.000000	0.000000	0.000000	27.94	46.85	0.000000	0.400	0.206	135.67	Ratio 1	0.000000	0.000000	0.000000	0.400	0.206	135.67	Ratio 1

Reviewer 1 \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_



Date: 11/03/20  
Date: \_\_\_\_\_



Client Sample ID: CCV

Lab ID#: 2108390-28A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/20/21 11:13 AM

Compound	%Recovery
1,1,1,2-Tetrachloroethane	106
1,1,1-Trichloroethane	106
1,1,2,2-Tetrachloroethane	103
1,1,2-Trichloroethane	108
1,1-Dichloroethane	105
1,1-Dichloroethene	90
1,1-Difluoroethane	90
1,2,3-Trichloropropane	107
1,2,4-Trichlorobenzene	105
1,2,4-Trimethylbenzene	104
1,2-Dibromo-3-chloropropane	110
1,2-Dibromoethane (EDB)	110
1,2-Dichlorobenzene	110
1,2-Dichloroethane	126
1,2-Dichloropropane	104
1,3,5-Trimethylbenzene	106
1,3-Butadiene	118
1,3-Dichlorobenzene	111
1,4-Dichlorobenzene	110
1,4-Dioxane	100
2,2,4-Trimethylpentane	103
2-Butanone (Methyl Ethyl Ketone)	90
2-Hexanone	112
2-Propanol	113
3-Chloropropene	79
4-Ethyltoluene	104
4-Methyl-2-pentanone	107
Acetone	102
Acrolein	106
Acrylonitrile	118
alpha-Chlorotoluene	96
Benzene	100
Bromodichloromethane	116
Bromoform	114
Bromomethane	96
Carbon Disulfide	89
Carbon Tetrachloride	116
Chlorobenzene	104
Chloroethane	89
Chloroform	109
Chloromethane	107
cis-1,2-Dichloroethene	99

Client Sample ID: CCV

Lab ID#: 2108390-28A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082002	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/20/21 11:13 AM

Compound	%Recovery
cis-1,3-Dichloropropene	102
Cumene	99
Cyclohexane	88
Dibromochloromethane	116
Dibromomethane	117
Ethanol	107
Ethyl Acetate	128
Ethyl Benzene	100
Ethyl-tert-butyl ether	95
Freon 11	115
Freon 12	115
Freon 113	100
Freon 114	110
Freon 134a	119
Heptane	94
Hexachlorobutadiene	115
Hexachloroethane	119
Hexane	99
Iodomethane	102
Isopropyl ether	116
m,p-Xylene	99
Methyl tert-butyl ether	88
Methylene Chloride	129
Naphthalene	91
o-Xylene	99
Propylbenzene	105
Propylene	116
Styrene	98
tert-Amyl methyl ether	95
tert-Butyl alcohol	95
Tetrachloroethene	112
Tetrahydrofuran	122
Toluene	102
TPH ref. to Gasoline (MW=100)	100
trans-1,2-Dichloroethene	93
trans-1,3-Dichloropropene	105
Trichloroethene	107
Vinyl Acetate	91
Vinyl Bromide	93
Vinyl Chloride	93

Container Type: NA - Not Applicable

Client Sample ID: CCV

Lab ID#: 2108390-28A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082002	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/20/21 11:13 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	112	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082002.d  
 Lab Smp Id: CCV Client Smp ID: CCV  
 Inj Date : 20-AUG-2021 11:13  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 100mL 3018-2125A  
 Misc Info : 50ppbv (100ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5f1 Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 13 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	109375	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	86987			48.23- 108.23	79.53
5.778	5.778	(1.000)	49	252556			150.57- 210.57	230.91
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.659	(1.000)	114	406799	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	58621			0.00- 45.71	14.41
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	400841	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	200890			23.78- 83.78	50.12
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	164746	25.0000	27.293	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	92918			27.21- 87.21	56.40
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	441939	25.0000	25.018	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	49000			0.00- 40.44	11.09

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	288216			34.95- 94.95	65.22
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	287575	25.0000	27.938	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	337062			95.92- 155.92	117.21
10.921	10.921	(1.154)	176	276251			66.89- 126.89	96.06
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.647	1.647	(0.285)	83	205639	50.0000	59.403	80.00- 120.00	100.00
1.647	1.647	(0.285)	69	149435			59.44- 119.44	72.67
1.759	1.759	(0.304)	51	971960			419.06- 479.06	472.65
-----								
5 Propylene								
						CAS #: 115-07-1		
1.689	1.689	(0.292)	41	290070	50.0000	57.955	80.00- 120.00	100.00
1.689	1.689	(0.292)	42	191402			35.28- 95.28	65.98
1.689	1.689	(0.292)	39	198863			38.35- 98.35	68.56
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.703	1.703	(0.294)	65	112267	50.0000	45.284	80.00- 120.00	100.00
1.759	1.759	(0.304)	51	971960			597.63- 657.63	865.76
1.717	1.717	(0.297)	47	105458			33.72- 93.72	93.93
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.717	1.717	(0.297)	85	566393	50.0000	57.738	80.00- 120.00	100.00
1.717	1.717	(0.297)	87	181544			2.37- 62.37	32.05
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.759	1.759	(0.304)	67	60692	50.0000	62.633	80.00- 120.00	100.00
1.759	1.759	(0.304)	51	971960			1501.01-1561.01	1601.46
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.856	1.856	(0.321)	135	528385	50.0000	54.872	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	164884			2.30- 62.30	31.21
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.870	1.870	(0.323)	43	628866	50.0000	56.753	80.00- 120.00	100.00
1.870	1.870	(0.323)	42	212436			2.44- 62.44	33.78
1.870	1.870	(0.323)	58	16674			0.00- 33.36	2.65
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.954	1.954	(0.338)	50	303729	50.0000	53.369	80.00- 120.00	100.00
1.954	1.954	(0.338)	52	71000			0.00- 56.26	23.38
-----								
18 Butane								
						CAS #: 106-97-8		
2.039	2.039	(0.352)	58	69923	50.0000	53.039	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
18 Butane (continued)								
2.039	2.039	(0.352)	43	637115			823.29- 883.29	911.17
-----								
19 Vinyl Chloride						CAS #: 75-01-4		
2.075	2.075	(0.359)	62	318962	50.0000	46.588	80.00- 120.00	100.00
2.075	2.075	(0.359)	64	93780			0.00- 59.69	29.40
-----								
20 1,3-Butadiene						CAS #: 106-99-0		
2.103	2.103	(0.364)	54	323911	50.0000	58.822	80.00- 120.00	100.00
2.103	2.103	(0.364)	39	420874			52.37- 112.37	129.94
-----								
24 Bromomethane						CAS #: 74-83-9		
2.490	2.490	(0.430)	94	210322	50.0000	47.776	80.00- 120.00	100.00
2.490	2.490	(0.430)	96	197243			64.07- 124.07	93.78
-----								
30 Chloroethane						CAS #: 75-00-3		
2.612	2.612	(0.452)	64	110075	50.0000	44.711	80.00- 120.00	100.00
2.612	2.612	(0.452)	66	31039			0.04- 60.04	28.20
2.612	2.612	(0.452)	49	49866			4.54- 64.54	45.30
-----								
31 Isopentane						CAS #: 78-78-4		
2.641	2.641	(0.456)	43	418638	50.0000	55.883	80.00- 120.00	100.00
2.641	2.641	(0.456)	57	231726			34.12- 94.12	55.35
-----								
32 Vinyl Bromide						CAS #: 593-60-2		
2.848	2.848	(0.492)	106	188868	50.0000	46.415	80.00- 120.00	100.00
2.848	2.848	(0.492)	108	186803			69.27- 129.27	98.91
-----								
33 Freon 11						CAS #: 75-69-4		
2.891	2.891	(0.500)	101	597856	50.0000	57.351	80.00- 120.00	100.00
2.891	2.891	(0.500)	103	389714			34.72- 94.72	65.19
-----								
34 Dichlorofluoromethane						CAS #: 75-43-4		
2.906	2.906	(0.502)	67	442378	50.0000	49.236	80.00- 120.00	100.00
2.906	2.906	(0.502)	69	136287			0.84- 60.84	30.81
-----								
35 Pentane						CAS #: 109-66-0		
2.970	2.970	(0.513)	43	674407	50.0000	55.386	80.00- 120.00	100.00
2.970	2.970	(0.513)	57	85605			0.00- 44.98	12.69
2.970	2.970	(0.513)	72	34815			0.00- 37.39	5.16
-----								
38 Ethyl Ether						CAS #: 60-29-7		
3.285	3.285	(0.568)	74	86411	50.0000	42.064	80.00- 120.00	100.00
3.285	3.285	(0.568)	59	190530			163.46- 223.46	220.49
3.285	3.285	(0.568)	45	335861			250.40- 310.40	388.68
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol						CAS #: 64-17-5		
3.242	3.242	(0.560)	46	58231	50.0000	53.686	80.00- 120.00	100.00
3.285	3.285	(0.568)	45	333512			511.19- 571.19	572.74
-----								
42 Acrolein						CAS #: 107-02-8		
3.543	3.543	(0.612)	55	99914	50.0000	53.086	80.00- 120.00	100.00
3.543	3.543	(0.612)	56	131651			111.10- 171.10	131.76
-----								
43 Freon 113						CAS #: 76-13-1		
3.550	3.550	(0.614)	151	385554	50.0000	49.780	80.00- 120.00	100.00
3.558	3.558	(0.615)	153	246682			33.56- 93.56	63.98
3.550	3.550	(0.614)	101	456853			89.21- 149.21	118.49
-----								
44 1,1-Dichloroethene						CAS #: 75-35-4		
3.586	3.586	(0.620)	96	208468	50.0000	45.056	80.00- 120.00	100.00
3.586	3.586	(0.620)	98	130381			34.02- 94.02	62.54
3.586	3.586	(0.620)	61	463995			168.77- 228.77	222.57
-----								
47 Acetone						CAS #: 67-64-1		
3.722	3.722	(0.643)	58	146545	50.0000	51.108	80.00- 120.00	100.00
3.722	3.722	(0.643)	43	573053			302.95- 362.95	391.04
-----								
48 Carbon Disulfide						CAS #: 75-15-0		
3.830	3.830	(0.662)	76	543465	50.0000	44.584	80.00- 120.00	100.00
-----								
49 Iodomethane						CAS #: 74-88-4		
3.794	3.794	(0.656)	142	412457	50.0000	50.901	80.00- 120.00	100.00
3.794	3.794	(0.656)	127	207639			12.22- 72.22	50.34
-----								
52 2-Propanol						CAS #: 67-63-0		
3.894	3.894	(0.673)	45	652579	50.0000	56.469	80.00- 120.00	100.00
3.894	3.894	(0.673)	43	131288			0.00- 47.19	20.12
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.052	4.052	(0.700)	76	80783	50.0000	39.670	80.00- 120.00	100.00
4.052	4.052	(0.700)	41	456403			396.19- 456.19	564.97
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.131	4.131	(0.714)	41	324525	50.0000	60.251	80.00- 120.00	100.00
4.131	4.131	(0.714)	40	168037			20.95- 80.95	51.78
4.131	4.131	(0.714)	38	38243			0.00- 41.17	11.78
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.238	4.238	(0.733)	49	479396	50.0000	64.367	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	179062			22.03- 82.03	37.35
4.238	4.238	(0.733)	51	140119			0.18- 60.18	29.23
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.346	4.346	(0.751)	59	641541	50.0000	47.604	80.00- 120.00	100.00
4.338	4.338	(0.750)	41	168473			0.00- 51.11	26.26
4.346	4.346	(0.751)	57	73147			0.00- 40.49	11.40
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.768)	73	589697	50.0000	43.902	80.00- 120.00	100.00
4.446	4.446	(0.768)	57	219653			3.10- 63.10	37.25
4.446	4.446	(0.768)	41	246675			1.28- 61.28	41.83
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.482	4.482	(0.775)	98	144053	50.0000	46.596	80.00- 120.00	100.00
4.482	4.482	(0.775)	61	441821			255.84- 315.84	306.71
4.482	4.482	(0.775)	96	230690			127.59- 187.59	160.14
66 Acrylonitrile						CAS #: 107-13-1		
4.568	4.568	(0.789)	52	254916	50.0000	59.233	80.00- 120.00	100.00
4.568	4.568	(0.789)	53	286886			88.05- 148.05	112.54
67 Hexane						CAS #: 110-54-3		
4.697	4.697	(0.812)	57	534648	50.0000	49.621	80.00- 120.00	100.00
4.697	4.697	(0.812)	43	417579			37.52- 97.52	78.10
4.697	4.697	(0.812)	86	54838			0.00- 41.48	10.26
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.969	4.969	(0.859)	63	485977	50.0000	52.466	80.00- 120.00	100.00
4.969	4.969	(0.859)	65	138946			0.00- 59.70	28.59
72 Isopropyl ether						CAS #: 108-20-3		
4.947	4.947	(0.855)	45	1455137	50.0000	58.068	80.00- 120.00	100.00
4.954	4.954	(0.856)	87	198385			0.00- 48.18	13.63
4.947	4.947	(0.855)	59	127115			0.00- 40.15	8.74
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.864)	86	54268	50.0000	45.587	80.00- 120.00	100.00
4.997	4.997	(0.864)	43	1291152			2432.48-2492.48	2379.21
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.917)	59	1032355	50.0000	47.592	80.00- 120.00	100.00
5.305	5.305	(0.917)	87	299760			1.00- 61.00	29.04
5.305	5.305	(0.917)	41	257987			0.00- 48.73	24.99
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.513	5.513	(0.953)	77	425016	50.0000	51.671	80.00- 120.00	100.00
5.513	5.513	(0.953)	79	135932			2.28- 62.28	31.98
5.513	5.513	(0.953)	97	97746			0.00- 53.93	23.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.959)	98	158882	50.0000	49.522	80.00- 120.00	100.00
5.549	5.549	(0.959)	96	249139			125.75- 185.75	156.81
5.549	5.549	(0.959)	61	612954			332.40- 392.40	385.79
-----								
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.960)	72	111173	50.0000	44.970	80.00- 120.00	100.00
5.563	5.563	(0.962)	43	1929367			1214.50-1274.50	1735.46
5.556	5.556	(0.960)	57	57820			14.68- 74.68	52.01
-----								
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.963)	45	156777	50.0000	63.757	80.00- 120.00	100.00
5.549	5.549	(0.959)	61	612954			452.04- 512.04	390.97
5.578	5.578	(0.964)	70	54021			22.77- 82.77	34.46
-----								
89 Tetrahydrofuran						CAS #: 109-99-9		
5.778	5.778	(0.999)	42	501226	50.0000	60.963	80.00- 120.00	100.00
5.778	5.778	(0.999)	71	93093			0.00- 55.82	18.57
5.778	5.778	(0.999)	72	103816			0.00- 57.59	20.71
-----								
92 Chloroform						CAS #: 67-66-3		
5.843	5.843	(1.010)	83	517838	50.0000	54.415	80.00- 120.00	100.00
5.843	5.843	(1.010)	85	339688			34.70- 94.70	65.60
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.957	5.957	(1.030)	84	303951	50.0000	44.178	80.00- 120.00	100.00
5.957	5.957	(1.030)	56	602903			142.57- 202.57	198.36
5.957	5.957	(1.030)	41	372874			62.09- 122.09	122.68
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.972	5.972	(1.032)	97	571609	50.0000	53.169	80.00- 120.00	100.00
5.972	5.972	(1.032)	99	366042			34.02- 94.02	64.04
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.093	6.093	(1.053)	119	586036	50.0000	58.121	80.00- 120.00	100.00
6.093	6.093	(1.053)	117	581420			70.64- 130.64	99.21
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.122	6.122	(0.919)	110	142136	50.0000	51.330	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	349980			226.85- 286.85	246.23
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.280	6.280	(1.085)	57	1931685	50.0000	51.580	80.00- 120.00	100.00
6.280	6.280	(1.085)	56	657559			2.24- 62.24	34.04
6.280	6.280	(1.085)	41	559512			0.00- 54.39	28.96
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene						CAS #: 71-43-2		
6.301	6.301	(0.946)	78	667890	50.0000	49.753	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	156309			0.00- 52.90	23.40
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.358	6.358	(0.955)	87	179504	50.0000	47.422	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	711799			372.79- 432.79	396.54
6.358	6.358	(0.955)	55	309781			112.09- 172.09	172.58
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.958)	62	440728	50.0000	63.095	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	132991			0.79- 60.79	30.18
-----								
107 Heptane						CAS #: 142-82-5		
6.444	6.444	(0.968)	71	248885	50.0000	46.800	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	855208			226.53- 286.53	343.62
6.444	6.444	(0.968)	57	384982			100.85- 160.85	154.68
-----								
110 n-Butanol						CAS #: 71-36-3		
6.810	6.810	(1.023)	56	268446	50.0000	55.002	80.00- 120.00	100.00
6.810	6.810	(1.023)	41	217204			40.99- 100.99	80.91
6.810	6.810	(1.023)	43	180832			27.38- 87.38	67.36
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	348776	50.0000	53.543	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	388899			76.29- 136.29	111.50
6.867	6.867	(1.031)	97	224689			33.63- 93.63	64.42
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.096	7.096	(1.066)	63	359667	50.0000	52.260	80.00- 120.00	100.00
7.096	7.096	(1.066)	62	255797			41.07- 101.07	71.12
7.096	7.096	(1.066)	41	272350			22.53- 82.53	75.72
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.139	7.139	(0.755)	69	263944	50.0000	47.923	80.00- 120.00	100.00
7.139	7.139	(0.755)	41	679907			179.84- 239.84	257.60
7.139	7.139	(0.755)	100	105186			9.59- 69.59	39.85
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.175	7.175	(1.077)	88	182061	50.0000	49.777	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	201440			68.28- 128.28	110.64
7.175	7.175	(1.077)	57	72282			2.68- 62.68	39.70
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.211	7.211	(0.762)	174	348011	50.0000	58.507	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	313162			60.09- 120.09	89.99

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
7.204	7.204	(0.761)	95	275784			48.38- 108.38	79.25
-----								
122 Bromodichloromethane CAS #: 75-27-4								
7.318	7.318	(1.099)	83	587332	50.0000	58.152	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	378598			35.24- 95.24	64.46
-----								
126 cis-1,3-Dichloropropene CAS #: 10061-01-5								
7.698	7.698	(1.156)	75	433135	50.0000	50.761	80.00- 120.00	100.00
7.698	7.698	(1.156)	77	138822			2.42- 62.42	32.05
7.698	7.698	(1.156)	39	356356			37.16- 97.16	82.27
-----								
127 Methylcyclohexane CAS #: 108-87-2								
6.974	6.974	(1.047)	83	445644	50.0000	47.277	80.00- 120.00	100.00
6.974	6.974	(1.047)	98	210406			15.78- 75.78	47.21
6.974	6.974	(1.047)	55	596444			84.64- 144.64	133.84
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.798	7.798	(1.171)	58	375179	50.0000	53.682	80.00- 120.00	100.00
7.798	7.798	(1.171)	43	1203318			242.35- 302.35	320.73
7.798	7.798	(1.171)	85	109576			3.24- 63.24	29.21
-----								
137 Toluene CAS #: 108-88-3								
7.956	7.956	(1.195)	91	948657	50.0000	51.221	80.00- 120.00	100.00
7.956	7.956	(1.195)	92	552175			28.38- 88.38	58.21
-----								
136 Octane CAS #: 111-65-9								
7.949	7.949	(1.194)	57	424917	50.0000	53.807	80.00- 120.00	100.00
7.949	7.949	(1.194)	85	310037			56.00- 116.00	72.96
7.949	7.949	(1.194)	43	1279586			228.66- 288.66	301.14
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
8.214	8.214	(0.868)	75	414597	50.0000	52.560	80.00- 120.00	100.00
8.214	8.214	(0.868)	77	130781			1.24- 61.24	31.54
8.214	8.214	(0.868)	39	325656			34.11- 94.11	78.55
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
8.400	8.400	(0.888)	97	352554	50.0000	54.073	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	215064			31.96- 91.96	61.00
8.400	8.400	(0.888)	83	288974			52.93- 112.93	81.97
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.464	8.464	(0.895)	166	509859	50.0000	55.811	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	391628			47.84- 107.84	76.81
8.464	8.464	(0.895)	131	378378			45.29- 105.29	74.21
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6		
8.586	8.586	(0.908)	58	523118	50.0000	56.158	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	1185008			162.87- 222.87	226.53
8.586	8.586	(0.908)	100	71086			0.00- 45.94	13.59
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.288)	76	465711	50.0000	52.950	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	728850			94.99- 154.99	156.50
8.579	8.579	(1.288)	78	150350			2.05- 62.05	32.28
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	706663	50.0000	58.008	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	543885			47.45- 107.45	76.97
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	573806	50.0000	54.872	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	540358			64.21- 124.21	94.17
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	683808	50.0000	54.152	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	196527			0.00- 59.64	28.74
7.612	7.612	(1.143)	144	69520			0.00- 39.63	10.17
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	826004	50.0000	51.895	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	261169			1.74- 61.74	31.62
9.496	9.496	(1.004)	77	422219			25.04- 85.04	51.12
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	414753	50.0000	49.833	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	1238770			273.74- 333.74	298.68
-----								
156 Nonane						CAS #: 111-84-2		
9.603	9.603	(1.015)	43	1306912	50.0000	61.031	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	927448			54.16- 114.16	70.96
9.603	9.603	(1.015)	85	231975			0.00- 53.90	17.75
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	515263	50.0000	49.431	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	980094			163.73- 223.73	190.21
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	493243	50.0000	49.387	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	987647			177.45- 237.45	200.24
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	832769	50.0000	48.756	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
165 Styrene (continued)								
10.255	10.255	(1.084)	78	384992			17.88- 77.88	46.23
-----								
167 Bromoform CAS #: 75-25-2								
10.549	10.549	(1.115)	173	686381	50.0000	57.162	80.00- 120.00	100.00
10.542	10.542	(1.114)	171	353703			21.25- 81.25	51.53
-----								
168 Cumene CAS #: 98-82-8								
10.649	10.649	(1.126)	105	1557370	50.0000	49.640	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	458329			0.00- 58.52	29.43
10.649	10.649	(1.126)	51	261700			0.00- 43.00	16.80
-----								
169 Cyclohexanone CAS #: 108-94-1								
10.871	10.871	(1.149)	55	613248	50.0000	54.656	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	166440			1.94- 61.94	27.14
10.871	10.871	(1.149)	42	445849			37.89- 97.89	72.70
-----								
175 1,1,2,2-Tetrachloroethane CAS #: 79-34-5								
11.107	11.107	(1.174)	83	787367	50.0000	51.418	80.00- 120.00	100.00
11.107	11.107	(1.174)	85	504093			35.20- 95.20	64.02
-----								
177 Bromobenzene CAS #: 108-86-1								
11.107	11.107	(1.174)	156	530697	50.0000	55.617	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	511033			67.21- 127.21	96.29
11.179	11.179	(1.182)	77	267421			29.02- 89.02	50.39
-----								
178 Propylbenzene CAS #: 103-65-1								
11.150	11.150	(1.179)	120	486821	50.0000	52.332	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	1837861			366.49- 426.49	377.52
11.150	11.150	(1.179)	105	69655			0.00- 44.85	14.31
-----								
179 1,2,3-Trichloropropane CAS #: 96-18-4								
11.179	11.179	(1.182)	110	261764	50.0000	53.634	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	662348			280.55- 340.55	253.03
11.100	11.100	(1.173)	61	133264			15.49- 75.49	50.91
-----								
181 trans-1,4-Dichloro-2-butene CAS #: 110-57-6								
11.179	11.179	(1.182)	53	95540	50.0000	29.861	80.00- 120.00	100.00
11.158	11.158	(1.179)	89	87752			49.11- 109.11	91.85
11.179	11.179	(1.182)	75	662348			426.44- 486.44	693.27
-----								
182 Decane CAS #: 124-18-5								
11.251	11.251	(1.189)	57	1199996	50.0000	49.173	80.00- 120.00	100.00
11.258	11.258	(1.190)	71	285765			0.00- 57.66	23.81
11.258	11.258	(1.190)	142	44628			0.00- 34.09	3.72
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene						CAS #: 622-96-8		
11.287	11.287	(1.193)	120	524555	50.0000	51.851	80.00- 120.00	100.00
11.287	11.287	(1.193)	105	1588372			284.55- 344.55	302.80
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
11.308	11.308	(1.195)	126	424088	50.0000	53.541	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1412304			315.17- 375.17	333.02
11.301	11.301	(1.195)	65	216716			21.55- 81.55	51.10
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
11.365	11.365	(1.201)	120	742036	50.0000	53.274	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1392084			164.93- 224.93	187.60
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
11.645	11.645	(1.231)	118	663136	50.0000	47.925	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	363065			25.30- 85.30	54.75
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
11.745	11.745	(1.242)	119	1459032	50.0000	56.006	80.00- 120.00	100.00
11.745	11.745	(1.242)	134	349894			0.00- 54.25	23.98
11.745	11.745	(1.242)	91	844966			31.27- 91.27	57.91
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
11.817	11.817	(1.249)	105	1362118	50.0000	51.811	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	692345			19.05- 79.05	50.83
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
12.003	12.003	(1.269)	134	444165	50.0000	54.856	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	1991674			437.55- 497.55	448.41
11.996	11.996	(1.268)	91	306329			40.76- 100.76	68.97
-----								
194 p-Cymene						CAS #: 99-87-6		
12.160	12.160	(1.285)	119	1890739	50.0000	52.832	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	494094			0.00- 55.54	26.13
12.160	12.160	(1.285)	91	399333			0.00- 51.48	21.12
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
12.203	12.203	(1.290)	146	998808	50.0000	55.506	80.00- 120.00	100.00
12.203	12.203	(1.290)	148	634468			33.21- 93.21	63.52
12.196	12.196	(1.289)	111	395337			11.31- 71.31	39.58
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
12.311	12.311	(1.301)	146	1005192	50.0000	55.278	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	644258			33.90- 93.90	64.09
12.311	12.311	(1.301)	111	377476			9.45- 69.45	37.55
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene						CAS #: 100-44-7		
12.461	12.461	(1.317)	91	1198510	50.0000	47.996	80.00- 120.00	100.00
12.461	12.461	(1.317)	126	284260			0.00- 53.26	23.72
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	1538189	50.0000	54.568	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1573824			58.12- 118.12	102.32
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	484909	50.0000	53.349	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	1607263			314.79- 374.79	331.46
12.626	12.626	(1.335)	92	847208			154.29- 214.29	174.71
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.733	12.733	(1.346)	146	975107	50.0000	55.264	80.00- 120.00	100.00
12.733	12.733	(1.346)	148	610904			33.84- 93.84	62.65
12.733	12.733	(1.346)	111	394999			12.73- 72.73	40.51
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	585539	50.0000	54.791	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	474950			52.48- 112.48	81.11
13.600	13.600	(1.438)	155	455261			47.41- 107.41	77.75
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	1500038	61.8000	67.136	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	1426632			52.87- 112.87	95.11
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	865848	63.0000	66.417	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	828954			65.33- 125.33	95.74
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.582	14.582	(1.541)	225	678543	64.4000	73.958	80.00- 120.00	100.00
14.582	14.582	(1.541)	223	427014			33.17- 93.17	62.93
-----								
216 Naphthalene						CAS #: 91-20-3		
14.768	14.768	(1.561)	128	192737	6.35000	5.785	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	24529			0.00- 42.88	12.73
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.069	15.069	(1.593)	180	809599	66.6000	70.250	80.00- 120.00	100.00
15.069	15.069	(1.593)	182	778662			65.75- 125.75	96.18
15.069	15.069	(1.593)	145	271731			5.23- 65.23	33.56
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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                      Injection Date: 20-AUG-2021 11:13  
 Lab File ID: p082002.d                  Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                        Init. Cal. Times: 14:02                      00:05  
 Lab Sample ID: CCV                        Quant Type:    ISTD  
 Method: /chem/msdp.i/20AUG21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
\$ 104 1,2-Dichloroethane-d4	1.37968	1.50625	0.010	-9.17360	30.00000	Averaged	
\$ 134 Toluene-d8	1.08560	1.08638	0.010	-0.07216	30.00000	Averaged	
\$ 170 4-Bromofluorobenzene	0.64197	0.71743	0.010	-11.75404	30.00000	Averaged	
4 Freon 134a	0.79126	0.94006	0.010	-18.80629	30.00000	Averaged	
5 Propylene	1.14402	1.32603	0.010	-15.91018	30.00000	Averaged	
7 1,1-Difluoroethane	0.56667	0.51322	0.010	9.43246	30.00000	Averaged	
8 Freon 12	2.24223	2.58923	0.010	-15.47545	30.00000	Averaged	
9 Chlorodifluoromethane	0.22149	0.27745	0.010	-25.26660	30.00000	Averaged	
10 Freon 114	2.20100	2.41547	0.010	-9.74418	30.00000	Averaged	
12 Isobutane	2.53275	2.87482	0.010	-13.50571	30.00000	Averaged	
15 Chloromethane	1.30082	1.38848	0.010	-6.73843	30.00000	Averaged	
18 Butane	0.30133	0.31965	0.010	-6.07861	30.00000	Averaged	
19 Vinyl Chloride	1.56492	1.45811	0.010	6.82499	30.00000	Averaged	
20 1,3-Butadiene	1.25865	1.48074	0.010	-17.64502	30.00000	Averaged	
24 Bromomethane	1.00624	0.96147	0.010	4.44893	30.00000	Averaged	
30 Chloroethane	0.56273	0.50320	0.010	10.57871	30.00000	Averaged	
31 Isopentane	1.71230	1.91377	0.010	-11.76658	30.00000	Averaged	
32 Vinyl Bromide	0.93008	0.86340	0.010	7.16978	30.00000	Averaged	
33 Freon 11	2.38274	2.73306	0.010	-14.70212	30.00000	Averaged	
34 Dichlorofluoromethane	2.05367	2.02230	0.010	1.52755	30.00000	Averaged	
35 Pentane	2.78321	3.08300	0.010	-10.77146	30.00000	Averaged	
38 Ethyl Ether	0.46955	0.39502	0.010	15.87297	30.00000	Averaged	
39 Ethanol	0.24792	0.26620	0.010	-7.37135	30.00000	Averaged	
42 Acrolein	0.43020	0.45675	0.010	-6.17120	30.00000	Averaged	
43 Freon 113	1.77031	1.76253	0.010	0.43905	30.00000	Averaged	
44 1,1-Dichloroethene	1.05757	0.95300	0.010	9.88777	30.00000	Averaged	
47 Acetone	0.65540	0.66992	0.010	-2.21505	30.00000	Averaged	
48 Carbon Disulfide	2.78620	2.48441	0.010	10.83163	30.00000	Averaged	
49 Iodomethane	1.85215	1.88552	0.010	-1.80143	30.00000	Averaged	
52 2-Propanol	2.64148	2.98322	0.010	-12.93756	30.00000	Averaged	
54 3-Chloropropene	0.46546	0.36929	0.010	20.66094	30.00000	Averaged	
57 Acetonitrile	1.23114	1.48354	0.010	-20.50153	30.00000	Averaged	
59 Methylene Chloride	1.70236	2.19152	0.010	-28.73438	30.00000	Averaged	
62 tert-Butyl alcohol	3.08038	2.93276	0.010	4.79219	30.00000	Averaged	
63 Methyl tert-butyl ether	3.07018	2.69576	0.010	12.19551	30.00000	Averaged	



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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                      Injection Date: 20-AUG-2021 11:13  
 Lab File ID: p082002.d                    Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                         Init. Cal. Times: 14:02 00:05  
 Lab Sample ID: CCV                         Quant Type: ISTD  
 Method: /chem/msdp.i/20AUG21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
64 trans-1,2-Dichloroethene	0.70664	0.65853	0.010	6.80867	30.00000	Averaged	
66 Acrylonitrile	0.98368	1.16533	0.010	-18.46583	30.00000	Averaged	
67 Hexane	2.46279	2.44411	0.010	0.75863	30.00000	Averaged	
71 1,1-Dichloroethane	2.11721	2.22161	0.010	-4.93100	30.00000	Averaged	
72 Isopropyl ether	5.72778	6.65205	0.010	-16.13665	30.00000	Averaged	
73 Vinyl Acetate	0.27210	0.24808	0.010	8.82580	30.00000	Averaged	
79 Ethyl-tert-butyl ether	4.95812	4.71934	0.010	4.81602	30.00000	Averaged	
84 2,2-Dichloropropane	1.88008	1.94293	0.010	-3.34271	30.00000	Averaged	
85 cis-1,2-Dichloroethene	0.73332	0.72632	0.010	0.95526	30.00000	Averaged	
86 2-Butanone	0.56506	0.50822	0.010	10.06000	30.00000	Averaged	
87 Ethyl Acetate	0.56205	0.71669	0.010	-27.51428	30.00000	Averaged	
89 Tetrahydrofuran	1.87928	2.29132	0.010	-21.92528	30.00000	Averaged	
92 Chloroform	2.17519	2.36726	0.010	-8.82978	30.00000	Averaged	
94 Cyclohexane	1.57260	1.38949	0.010	11.64365	30.00000	Averaged	
96 1,1,1-Trichloroethane	2.45732	2.61307	0.010	-6.33829	30.00000	Averaged	
97 Carbon Tetrachloride	2.30469	2.67902	0.010	-16.24212	30.00000	Averaged	
99 1,1-Dichloropropene	0.17017	0.17470	0.010	-2.66036	30.00000	Averaged	
101 2,2,4-Trimethylpentane	8.56002	8.83056	0.010	-3.16048	30.00000	Averaged	
102 Benzene	0.82499	0.82091	0.010	0.49453	30.00000	Averaged	
105 tert-Amyl methyl ether	0.23262	0.22063	0.010	5.15638	30.00000	Averaged	
106 1,2-Dichloroethane	0.42928	0.54170	0.010	-26.19007	30.00000	Averaged	
107 Heptane	0.32683	0.30591	0.010	6.40074	30.00000	Averaged	
110 n-Butanol	0.29994	0.32995	0.010	-10.00483	30.00000	Averaged	
111 Trichloroethene	0.40032	0.42868	0.010	-7.08540	30.00000	Averaged	
114 1,2-Dichloropropane	0.42295	0.44207	0.010	-4.52106	30.00000	Averaged	
116 Methyl Methacrylate	0.34351	0.32924	0.010	4.15366	30.00000	Averaged	
117 1,4-Dioxane	0.22478	0.22377	0.010	0.44603	30.00000	Averaged	
118 Dibromomethane	0.37098	0.43410	0.010	-17.01397	30.00000	Averaged	
122 Bromodichloromethane	0.62070	0.72189	0.010	-16.30390	30.00000	Averaged	
126 cis-1,3-Dichloropropene	0.52438	0.53237	0.010	-1.52290	30.00000	Averaged	
127 Methylcyclohexane	0.57930	0.54774	0.010	5.44647	30.00000	Averaged	
131 4-Methyl-2-pentanone	0.42950	0.46114	0.010	-7.36501	30.00000	Averaged	
137 Toluene	1.13821	1.16600	0.010	-2.44186	30.00000	Averaged	
136 Octane	0.48532	0.52227	0.010	-7.61408	30.00000	Averaged	
139 trans-1,3-Dichloropropene	0.49197	0.51716	0.010	-5.11930	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                    Injection Date: 20-AUG-2021 11:13  
 Lab File ID: p082002.d                Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                    Init. Cal. Times: 14:02 00:05  
 Lab Sample ID: CCV                    Quant Type: ISTD  
 Method: /chem/msdp.i/20AUG21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
141 1,1,2-Trichloroethane	0.40664	0.43977	0.010	-8.14652	30.00000	Averaged	
142 Tetrachloroethene	0.56977	0.63599	0.010	-11.62156	30.00000	Averaged	
143 2-Hexanone	0.58097	0.65253	0.010	-12.31628	30.00000	Averaged	
144 1,3-Dichloropropane	0.54052	0.57241	0.010	-5.90016	30.00000	Averaged	
146 Dibromochloromethane	0.75978	0.88148	0.010	-16.01713	30.00000	Averaged	
148 1,2-Dibromoethane (EDB)	0.65220	0.71575	0.010	-9.74503	30.00000	Averaged	
151 1-Bromo-2-Chloroethane	0.77603	0.84047	0.010	-8.30417	30.00000	Averaged	
154 Chlorobenzene	0.99271	1.03034	0.010	-3.79071	30.00000	Averaged	
155 Ethyl Benzene	0.51909	0.51735	0.010	0.33444	30.00000	Averaged	
156 Nonane	1.33556	1.63021	0.010	-22.06231	30.00000	Averaged	
158 m,p-Xylene	0.65013	0.64273	0.010	1.13850	30.00000	Averaged	
164 o-Xylene	0.62290	0.61526	0.010	1.22615	30.00000	Averaged	
165 Styrene	1.06528	1.03878	0.010	2.48746	30.00000	Averaged	
167 Bromoform	0.74891	0.85618	0.010	-14.32316	30.00000	Averaged	
168 Cumene	1.95673	1.94263	0.010	0.72072	30.00000	Averaged	
169 Cyclohexanone	0.69978	0.76495	0.010	-9.31297	30.00000	Averaged	
175 1,1,2,2-Tetrachloroethane	0.95505	0.98214	0.010	-2.83691	30.00000	Averaged	
177 Bromobenzene	0.59512	0.66198	0.010	-11.23469	30.00000	Averaged	
178 Propylbenzene	0.58019	0.60725	0.010	-4.66344	30.00000	Averaged	
179 1,2,3-Trichloropropane	0.30440	0.32652	0.010	-7.26723	30.00000	Averaged	
181 trans-1,4-Dichloro-2-butene	0.19955	0.11917	0.010	40.27852	30.00000	Averaged <-	
182 Decane	1.52203	1.49685	0.010	1.65477	30.00000	Averaged	
183 4-Ethyltoluene	0.63096	0.65432	0.010	-3.70194	30.00000	Averaged	
184 2-Chlorotoluene	0.49401	0.52900	0.010	-7.08143	30.00000	Averaged	
185 1,3,5-Trimethylbenzene	0.86871	0.92560	0.010	-6.54896	30.00000	Averaged	
188 alpha Methyl Styrene	0.86300	0.82718	0.010	4.15005	30.00000	Averaged	
189 tert-Butylbenzene	1.62480	1.81996	0.010	-12.01139	30.00000	Averaged	
190 1,2,4-Trimethylbenzene	1.63968	1.69908	0.010	-3.62225	30.00000	Averaged	
192 sec-Butylbenzene	0.50500	0.55404	0.010	-9.71179	30.00000	Averaged	
194 p-Cymene	2.23203	2.35847	0.010	-5.66450	30.00000	Averaged	
195 1,3-Dichlorobenzene	1.12231	1.24589	0.010	-11.01105	30.00000	Averaged	
196 1,4-Dichlorobenzene	1.13414	1.25385	0.010	-10.55522	30.00000	Averaged	
199 alpha-Chlorotoluene	1.55742	1.49499	0.010	4.00823	30.00000	Averaged	
201 Undecane	1.75810	1.91870	0.010	-9.13522	30.00000	Averaged	
202 Butylbenzene	0.56690	0.60486	0.010	-6.69779	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                    Injection Date: 20-AUG-2021 11:13  
 Lab File ID: p082002.d                Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                     Init. Cal. Times: 14:02 00:05  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msdp.i/20AUG21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
204 1,2-Dichlorobenzene	1.10047	1.21633	0.010	-10.52749	30.00000	Averaged	
206 1,2-Dibromo-3-chloropropane	0.66653	0.73039	0.010	-9.58127	30.00000	Averaged	
207 Dodecane	1.39351	1.51385	0.010	-8.63515	30.00000	Averaged	
213 1,2,4-Trichlorobenzene	0.81307	0.85717	0.010	-5.42406	30.00000	Averaged	
215 Hexachlorobutadiene	0.57222	0.65714	0.010	-14.84142	30.00000	Averaged	
216 Naphthalene	2.07796	1.89304	0.010	8.89932	30.00000	Averaged	
222 1,2,3-Trichlorobenzene	0.71877	0.75816	0.010	-5.48066	30.00000	Averaged	

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 20-AUG-2021
Lab File ID: p082002.d	Calibration Time: 12:36
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m	
Misc Info: 50ppbv (100ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	124196	74518	173874	109375	-11.93
108 1,4-Difluorobenze	450560	270336	630784	406799	-9.71
153 Chlorobenzene-d5	439287	263572	615002	400841	-8.75

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.79	0.12
108 1,4-Difluorobenze	6.67	6.34	7.00	6.66	-0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Date : 20-AUG-2021 11:13

Client ID: CCV

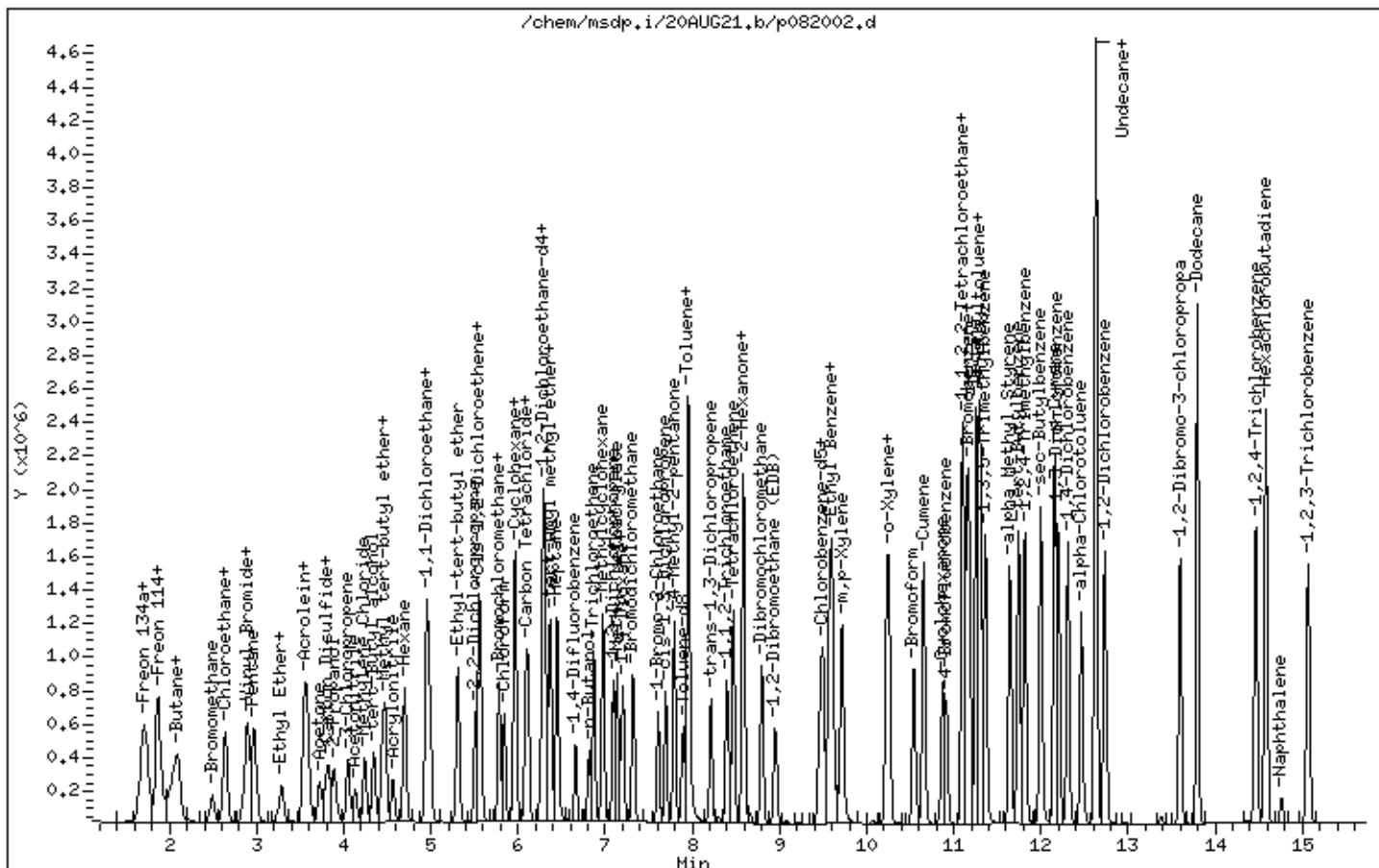
Instrument: msdp.i

Sample Info: 100mL 3018-2125A

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Client Sample ID: CCV

Lab ID#: 2108390-28B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/21/21 09:37 AM

Compound	%Recovery
1,1,1,2-Tetrachloroethane	108
1,1,1-Trichloroethane	109
1,1,2,2-Tetrachloroethane	102
1,1,2-Trichloroethane	107
1,1-Dichloroethane	107
1,1-Dichloroethene	90
1,1-Difluoroethane	92
1,2,3-Trichloropropane	108
1,2,4-Trichlorobenzene	106
1,2,4-Trimethylbenzene	103
1,2-Dibromo-3-chloropropane	109
1,2-Dibromoethane (EDB)	109
1,2-Dichlorobenzene	111
1,2-Dichloroethane	129
1,2-Dichloropropane	105
1,3,5-Trimethylbenzene	107
1,3-Butadiene	120
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	110
1,4-Dioxane	98
2,2,4-Trimethylpentane	104
2-Butanone (Methyl Ethyl Ketone)	93
2-Hexanone	110
2-Propanol	116
3-Chloropropene	83
4-Ethyltoluene	104
4-Methyl-2-pentanone	108
Acetone	100
Acrolein	105
Acrylonitrile	115
alpha-Chlorotoluene	95
Benzene	98
Bromodichloromethane	116
Bromoform	113
Bromomethane	96
Carbon Disulfide	90
Carbon Tetrachloride	119
Chlorobenzene	103
Chloroethane	91
Chloroform	111
Chloromethane	106
cis-1,2-Dichloroethene	99

Client Sample ID: CCV

Lab ID#: 2108390-28B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/21/21 09:37 AM

Compound	%Recovery
cis-1,3-Dichloropropene	101
Cumene	99
Cyclohexane	89
Dibromochloromethane	117
Dibromomethane	117
Ethanol	108
Ethyl Acetate	131
Ethyl Benzene	99
Ethyl-tert-butyl ether	98
Freon 11	118
Freon 12	117
Freon 113	101
Freon 114	105
Freon 134a	122
Heptane	93
Hexachlorobutadiene	115
Hexachloroethane	118
Hexane	100
Iodomethane	104
Isopropyl ether	117
m,p-Xylene	98
Methyl tert-butyl ether	89
Methylene Chloride	131 Q
Naphthalene	92
o-Xylene	96
Propylbenzene	104
Propylene	116
Styrene	97
tert-Amyl methyl ether	97
tert-Butyl alcohol	97
Tetrachloroethene	111
Tetrahydrofuran	125
Toluene	103
TPH ref. to Gasoline (MW=100)	100
trans-1,2-Dichloroethene	95
trans-1,3-Dichloropropene	105
Trichloroethene	108
Vinyl Acetate	92
Vinyl Bromide	93
Vinyl Chloride	92



Air Toxics

Client Sample ID: CCV

Lab ID#: 2108390-28B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/21/21 09:37 AM

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	115	70-130
4-Bromofluorobenzene	111	70-130



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EPA TO-15/MODIFIED TO14A

Data file : /chem1/msdp.i/21AUG21.b/p082102.d  
 Lab Smp Id: CCV Client Smp ID: CCV  
 Inj Date : 21-AUG-2021 09:37  
 Operator : mb Inst ID: msdp.i  
 Smp Info : 100mL 3018-2125A  
 Misc Info : 50ppbv (100ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Meth Date : 21-Aug-2021 13:27 x8uy Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 13 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.785	(1.000)	130	102894	25.0000		80.00- 120.00	100.00
5.785	5.785	(1.000)	128	82157			48.23- 108.23	79.85
5.778	5.778	(1.000)	49	238915			150.57- 210.57	232.20
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.666	(1.000)	114	387356	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	56497			0.00- 45.71	14.59
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	386134	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	193773			23.78- 83.78	50.18
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.092)	65	162727	25.0000	28.657	80.00- 120.00	100.00
6.315	6.315	(1.092)	67	88166			27.21- 87.21	54.18
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	426417	25.0000	25.351	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	45251			0.00- 40.44	10.61

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	273927			34.95- 94.95	64.24
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	275584	25.0000	27.793	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	321842			95.92- 155.92	116.79
10.921	10.921	(1.154)	176	262828			66.89- 126.89	95.37
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.647	1.647	(0.285)	83	199605	50.0000	61.292	80.00- 120.00	100.00
1.647	1.647	(0.285)	69	143721			59.44- 119.44	72.00
1.759	1.759	(0.304)	51	938013			419.06- 479.06	469.93
-----								
5 Propylene								
						CAS #: 115-07-1		
1.689	1.689	(0.292)	41	272831	50.0000	57.944	80.00- 120.00	100.00
1.689	1.689	(0.292)	42	182178			35.28- 95.28	66.77
1.689	1.689	(0.292)	39	192594			38.35- 98.35	70.59
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.703	1.703	(0.294)	65	107612	50.0000	46.140	80.00- 120.00	100.00
1.759	1.759	(0.304)	51	938013			597.63- 657.63	871.66
1.717	1.717	(0.297)	47	101011			33.72- 93.72	93.87
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.717	1.717	(0.297)	85	539299	50.0000	58.438	80.00- 120.00	100.00
1.717	1.717	(0.297)	87	175279			2.37- 62.37	32.50
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.759	1.759	(0.304)	67	57943	50.0000	63.563	80.00- 120.00	100.00
1.759	1.759	(0.304)	51	938013			1501.01-1561.01	1618.85
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.857	1.857	(0.321)	135	474761	50.0000	52.409	80.00- 120.00	100.00
1.857	1.857	(0.321)	137	154227			2.30- 62.30	32.49
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.870	1.870	(0.323)	43	603092	50.0000	57.855	80.00- 120.00	100.00
1.870	1.870	(0.323)	42	200874			2.44- 62.44	33.31
1.870	1.870	(0.323)	58	15748			0.00- 33.36	2.61
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.954	1.954	(0.338)	50	284782	50.0000	53.192	80.00- 120.00	100.00
1.954	1.954	(0.338)	52	68899			0.00- 56.26	24.19
-----								
18 Butane								
						CAS #: 106-97-8		
2.046	2.046	(0.354)	58	64607	50.0000	52.094	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)								
2.039	2.039	(0.352)	43	605710			823.29- 883.29	937.53
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.075	2.075	(0.359)	62	298006	50.0000	46.268	80.00- 120.00	100.00
2.075	2.075	(0.359)	64	88161			0.00- 59.69	29.58
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.104	2.104	(0.364)	54	312189	50.0000	60.265	80.00- 120.00	100.00
2.096	2.096	(0.362)	39	406842			52.37- 112.37	130.32
-----								
24 Bromomethane CAS #: 74-83-9								
2.490	2.490	(0.430)	94	198004	50.0000	47.810	80.00- 120.00	100.00
2.490	2.490	(0.430)	96	189462			64.07- 124.07	95.69
-----								
30 Chloroethane CAS #: 75-00-3								
2.612	2.612	(0.452)	64	105577	50.0000	45.585	80.00- 120.00	100.00
2.619	2.619	(0.453)	66	29632			0.04- 60.04	28.07
2.619	2.619	(0.453)	49	49090			4.54- 64.54	46.50
-----								
31 Isopentane CAS #: 78-78-4								
2.641	2.641	(0.456)	43	403516	50.0000	57.257	80.00- 120.00	100.00
2.641	2.641	(0.456)	57	220837			34.12- 94.12	54.73
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.848	2.848	(0.492)	106	178449	50.0000	46.617	80.00- 120.00	100.00
2.848	2.848	(0.492)	108	176438			69.27- 129.27	98.87
-----								
33 Freon 11 CAS #: 75-69-4								
2.891	2.891	(0.500)	101	577543	50.0000	58.892	80.00- 120.00	100.00
2.891	2.891	(0.500)	103	375184			34.72- 94.72	64.96
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.906	2.906	(0.502)	67	421114	50.0000	49.822	80.00- 120.00	100.00
2.906	2.906	(0.502)	69	127330			0.84- 60.84	30.24
-----								
35 Pentane CAS #: 109-66-0								
2.977	2.977	(0.515)	43	643908	50.0000	56.212	80.00- 120.00	100.00
2.977	2.977	(0.515)	57	81403			0.00- 44.98	12.64
2.970	2.970	(0.513)	72	34045			0.00- 37.39	5.29
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.293	3.293	(0.569)	74	82063	50.0000	42.463	80.00- 120.00	100.00
3.293	3.293	(0.569)	59	182071			163.46- 223.46	221.87
3.285	3.285	(0.568)	45	318920			250.40- 310.40	388.63
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol			CAS #: 64-17-5					
3.250	3.250	(0.562)	46	55131	50.0000	54.029	80.00- 120.00	100.00
3.285	3.285	(0.568)	45	318556			511.19- 571.19	577.82
-----								
42 Acrolein			CAS #: 107-02-8					
3.543	3.543	(0.612)	55	92658	50.0000	52.331	80.00- 120.00	100.00
3.543	3.543	(0.612)	56	125390			111.10- 171.10	135.33
-----								
43 Freon 113			CAS #: 76-13-1					
3.558	3.558	(0.615)	151	369743	50.0000	50.746	80.00- 120.00	100.00
3.558	3.558	(0.615)	153	233025			33.56- 93.56	63.02
3.550	3.550	(0.614)	101	432760			89.21- 149.21	117.04
-----								
44 1,1-Dichloroethene			CAS #: 75-35-4					
3.586	3.586	(0.620)	96	196383	50.0000	45.118	80.00- 120.00	100.00
3.586	3.586	(0.620)	98	122845			34.02- 94.02	62.55
3.586	3.586	(0.620)	61	443036			168.77- 228.77	225.60
-----								
47 Acetone			CAS #: 67-64-1					
3.722	3.722	(0.643)	58	135190	50.0000	50.117	80.00- 120.00	100.00
3.722	3.722	(0.643)	43	555671			302.95- 362.95	411.03
-----								
48 Carbon Disulfide			CAS #: 75-15-0					
3.830	3.830	(0.662)	76	515544	50.0000	44.958	80.00- 120.00	100.00
-----								
49 Iodomethane			CAS #: 74-88-4					
3.794	3.794	(0.656)	142	397671	50.0000	52.167	80.00- 120.00	100.00
3.794	3.794	(0.656)	127	198437			12.22- 72.22	49.90
-----								
52 2-Propanol			CAS #: 67-63-0					
3.894	3.894	(0.673)	45	627960	50.0000	57.761	80.00- 120.00	100.00
3.887	3.887	(0.672)	43	124851			0.00- 47.19	19.88
-----								
54 3-Chloropropene			CAS #: 107-05-1					
4.052	4.052	(0.700)	76	79656	50.0000	41.580	80.00- 120.00	100.00
4.052	4.052	(0.700)	41	436476			396.19- 456.19	547.95
-----								
57 Acetonitrile			CAS #: 75-05-8					
4.131	4.131	(0.714)	41	312657	50.0000	61.704	80.00- 120.00	100.00
4.131	4.131	(0.714)	40	166677			20.95- 80.95	53.31
4.131	4.131	(0.714)	38	34883			0.00- 41.17	11.16
-----								
59 Methylene Chloride			CAS #: 75-09-2					
4.238	4.238	(0.733)	49	459024	50.0000	65.514	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	172252			22.03- 82.03	37.53
4.238	4.238	(0.733)	51	133610			0.18- 60.18	29.11
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.346	4.346	(0.751)	59	616645	50.0000	48.639	80.00- 120.00	100.00
4.338	4.338	(0.750)	41	162683			0.00- 51.11	26.38
4.338	4.338	(0.750)	57	68892			0.00- 40.49	11.17
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.768)	73	561070	50.0000	44.402	80.00- 120.00	100.00
4.446	4.446	(0.768)	57	212191			3.10- 63.10	37.82
4.446	4.446	(0.768)	41	243993			1.28- 61.28	43.49
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.482	4.482	(0.775)	98	137831	50.0000	47.391	80.00- 120.00	100.00
4.482	4.482	(0.775)	61	418767			255.84- 315.84	303.83
4.482	4.482	(0.775)	96	219287			127.59- 187.59	159.10
66 Acrylonitrile						CAS #: 107-13-1		
4.568	4.568	(0.789)	52	233127	50.0000	57.582	80.00- 120.00	100.00
4.568	4.568	(0.789)	53	270464			88.05- 148.05	116.02
67 Hexane						CAS #: 110-54-3		
4.697	4.697	(0.812)	57	508645	50.0000	50.181	80.00- 120.00	100.00
4.697	4.697	(0.812)	43	401801			37.52- 97.52	78.99
4.697	4.697	(0.812)	86	50393			0.00- 41.48	9.91
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.969	4.969	(0.859)	63	467737	50.0000	53.677	80.00- 120.00	100.00
4.969	4.969	(0.859)	65	130991			0.00- 59.70	28.01
72 Isopropyl ether						CAS #: 108-20-3		
4.947	4.947	(0.855)	45	1384797	50.0000	58.742	80.00- 120.00	100.00
4.954	4.954	(0.856)	87	186589			0.00- 48.18	13.47
4.954	4.954	(0.856)	59	121441			0.00- 40.15	8.77
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.864)	86	51591	50.0000	46.068	80.00- 120.00	100.00
4.997	4.997	(0.864)	43	1248256			2432.48-2492.48	2419.52
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.917)	59	1000788	50.0000	49.043	80.00- 120.00	100.00
5.305	5.305	(0.917)	87	281955			1.00- 61.00	28.17
5.305	5.305	(0.917)	41	244228			0.00- 48.73	24.40
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.513	5.513	(0.953)	77	410385	50.0000	53.035	80.00- 120.00	100.00
5.513	5.513	(0.953)	79	132157			2.28- 62.28	32.20
5.513	5.513	(0.953)	97	94105			0.00- 53.93	22.93

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.959)	98	149746	50.0000	49.615	80.00- 120.00	100.00
5.549	5.549	(0.959)	96	234272			125.75- 185.75	156.45
5.549	5.549	(0.959)	61	588756			332.40- 392.40	393.17
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.960)	72	107902	50.0000	46.396	80.00- 120.00	100.00
5.563	5.563	(0.962)	43	1876891			1214.50-1274.50	1739.44
5.556	5.556	(0.960)	57	57022			14.68- 74.68	52.85
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.963)	45	151125	50.0000	65.330	80.00- 120.00	100.00
5.549	5.549	(0.959)	61	588756			452.04- 512.04	389.58
5.570	5.570	(0.963)	70	53573			22.77- 82.77	35.45
89 Tetrahydrofuran						CAS #: 109-99-9		
5.778	5.778	(0.999)	42	482496	50.0000	62.381	80.00- 120.00	100.00
5.778	5.778	(0.999)	71	90264			0.00- 55.82	18.71
5.778	5.778	(0.999)	72	97919			0.00- 57.59	20.29
92 Chloroform						CAS #: 67-66-3		
5.843	5.843	(1.010)	83	498862	50.0000	55.723	80.00- 120.00	100.00
5.843	5.843	(1.010)	85	324401			34.70- 94.70	65.03
94 Cyclohexane						CAS #: 110-82-7		
5.957	5.957	(1.030)	84	289512	50.0000	44.730	80.00- 120.00	100.00
5.957	5.957	(1.030)	56	582645			142.57- 202.57	201.25
5.957	5.957	(1.030)	41	354876			62.09- 122.09	122.58
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.972	5.972	(1.032)	97	552010	50.0000	54.580	80.00- 120.00	100.00
5.972	5.972	(1.032)	99	353828			34.02- 94.02	64.10
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.093	6.093	(1.053)	119	566348	50.0000	59.706	80.00- 120.00	100.00
6.093	6.093	(1.053)	117	567652			70.64- 130.64	100.23
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.122	6.122	(0.918)	110	135233	50.0000	51.289	80.00- 120.00	100.00
6.122	6.122	(0.918)	75	334015			226.85- 286.85	246.99
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.280	6.280	(1.085)	57	1838974	50.0000	52.198	80.00- 120.00	100.00
6.280	6.280	(1.085)	56	623103			2.24- 62.24	33.88
6.280	6.280	(1.085)	41	538778			0.00- 54.39	29.30

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene						CAS #: 71-43-2		
6.301	6.301	(0.945)	78	628269	50.0000	49.150	80.00- 120.00	100.00
6.301	6.301	(0.945)	77	150135			0.00- 52.90	23.90
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.358	6.358	(0.954)	87	175069	50.0000	48.572	80.00- 120.00	100.00
6.358	6.358	(0.954)	73	679330			372.79- 432.79	388.04
6.358	6.358	(0.954)	55	298902			112.09- 172.09	170.73
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.957)	62	429989	50.0000	64.647	80.00- 120.00	100.00
6.380	6.380	(0.957)	64	125728			0.79- 60.79	29.24
-----								
107 Heptane						CAS #: 142-82-5		
6.451	6.451	(0.968)	71	234787	50.0000	46.365	80.00- 120.00	100.00
6.444	6.444	(0.967)	43	823086			226.53- 286.53	350.57
6.444	6.444	(0.967)	57	364123			100.85- 160.85	155.09
-----								
110 n-Butanol						CAS #: 71-36-3		
6.810	6.810	(1.021)	56	257741	50.0000	55.460	80.00- 120.00	100.00
6.810	6.810	(1.021)	41	217458			40.99- 100.99	84.37
6.810	6.810	(1.021)	43	172356			27.38- 87.38	66.87
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.030)	95	335447	50.0000	54.081	80.00- 120.00	100.00
6.867	6.867	(1.030)	130	368483			76.29- 136.29	109.85
6.867	6.867	(1.030)	97	219516			33.63- 93.63	65.44
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.096	7.096	(1.064)	63	344283	50.0000	52.536	80.00- 120.00	100.00
7.096	7.096	(1.064)	62	243885			41.07- 101.07	70.84
7.096	7.096	(1.064)	41	261911			22.53- 82.53	76.07
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.139	7.139	(0.755)	69	254015	50.0000	47.877	80.00- 120.00	100.00
7.139	7.139	(0.755)	41	659270			179.84- 239.84	259.54
7.139	7.139	(0.755)	100	101891			9.59- 69.59	40.11
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.175	7.175	(1.076)	88	170887	50.0000	49.067	80.00- 120.00	100.00
7.175	7.175	(1.076)	58	194711			68.28- 128.28	113.94
7.175	7.175	(1.076)	57	69370			2.68- 62.68	40.59
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.211	7.211	(0.762)	174	335131	50.0000	58.488	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	300515			60.09- 120.09	89.67

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
7.204	7.204	(0.761)	95	267074			48.38- 108.38	79.69
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.098)	83	559142	50.0000	58.140	80.00- 120.00	100.00
7.318	7.318	(1.098)	85	365555			35.24- 95.24	65.38
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.698	7.698	(1.155)	75	412035	50.0000	50.712	80.00- 120.00	100.00
7.698	7.698	(1.155)	77	130247			2.42- 62.42	31.61
7.691	7.691	(1.154)	39	347425			37.16- 97.16	84.32
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.046)	83	420030	50.0000	46.796	80.00- 120.00	100.00
6.974	6.974	(1.046)	98	205518			15.78- 75.78	48.93
6.974	6.974	(1.046)	55	575815			84.64- 144.64	137.09
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.798	7.798	(1.170)	58	359263	50.0000	53.985	80.00- 120.00	100.00
7.798	7.798	(1.170)	43	1171306			242.35- 302.35	326.03
7.798	7.798	(1.170)	85	101077			3.24- 63.24	28.13
-----								
137 Toluene						CAS #: 108-88-3		
7.956	7.956	(1.193)	91	905541	50.0000	51.347	80.00- 120.00	100.00
7.956	7.956	(1.193)	92	525364			28.38- 88.38	58.02
-----								
136 Octane						CAS #: 111-65-9		
7.949	7.949	(1.192)	57	411466	50.0000	54.719	80.00- 120.00	100.00
7.949	7.949	(1.192)	85	296702			56.00- 116.00	72.11
7.949	7.949	(1.192)	43	1231106			228.66- 288.66	299.20
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.214	8.214	(0.868)	75	397870	50.0000	52.360	80.00- 120.00	100.00
8.214	8.214	(0.868)	77	124935			1.24- 61.24	31.40
8.214	8.214	(0.868)	39	314302			34.11- 94.11	79.00
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.400	8.400	(0.888)	97	335068	50.0000	53.349	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	210160			31.96- 91.96	62.72
8.400	8.400	(0.888)	83	278345			52.93- 112.93	83.07
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	489311	50.0000	55.602	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	378842			47.84- 107.84	77.42
8.464	8.464	(0.895)	131	358630			45.29- 105.29	73.29
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone								CAS #: 591-78-6
8.586	8.586	(0.908)	58	495541	50.0000	55.224	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	1148161			162.87- 222.87	231.70
8.586	8.586	(0.908)	100	69010			0.00- 45.94	13.93
-----								
144 1,3-Dichloropropane								CAS #: 142-28-9
8.579	8.579	(1.287)	76	447591	50.0000	53.444	80.00- 120.00	100.00
8.579	8.579	(1.287)	41	705914			94.99- 154.99	157.71
8.579	8.579	(1.287)	78	141876			2.05- 62.05	31.70
-----								
146 Dibromochloromethane								CAS #: 124-48-1
8.801	8.801	(0.930)	129	686026	50.0000	58.459	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	530417			47.45- 107.45	77.32
-----								
148 1,2-Dibromoethane (EDB)								CAS #: 106-93-4
8.951	8.951	(0.946)	107	549901	50.0000	54.589	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	517211			64.21- 124.21	94.06
-----								
151 1-Bromo-2-Chloroethane								CAS #: 107-04-0
7.605	7.605	(1.141)	63	666139	50.0000	55.401	80.00- 120.00	100.00
7.605	7.605	(1.141)	65	187961			0.00- 59.64	28.22
7.605	7.605	(1.141)	144	65542			0.00- 39.63	9.84
-----								
154 Chlorobenzene								CAS #: 108-90-7
9.496	9.496	(1.004)	112	791530	50.0000	51.624	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	252703			1.74- 61.74	31.93
9.496	9.496	(1.004)	77	401677			25.04- 85.04	50.75
-----								
155 Ethyl Benzene								CAS #: 100-41-4
9.567	9.567	(1.011)	106	396084	50.0000	49.402	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	1192151			273.74- 333.74	300.98
-----								
156 Nonane								CAS #: 111-84-2
9.603	9.603	(1.015)	43	1262261	50.0000	61.191	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	894151			54.16- 114.16	70.84
9.603	9.603	(1.015)	85	220920			0.00- 53.90	17.50
-----								
158 m,p-Xylene								CAS #: 108-38-3
9.718	9.718	(1.027)	106	493911	50.0000	49.187	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	942839			163.73- 223.73	190.89
-----								
164 o-Xylene								CAS #: 95-47-6
10.226	10.226	(1.081)	106	464633	50.0000	48.294	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	942446			177.45- 237.45	202.84
-----								
165 Styrene								CAS #: 100-42-5
10.255	10.255	(1.084)	104	797255	50.0000	48.455	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
165 Styrene (continued)								
10.255	10.255	(1.084)	78	379091			17.88- 77.88	47.55
-----								
167 Bromoform CAS #: 75-25-2								
10.542	10.542	(1.114)	173	655881	50.0000	56.702	80.00- 120.00	100.00
10.542	10.542	(1.114)	171	338469			21.25- 81.25	51.61
-----								
168 Cumene CAS #: 98-82-8								
10.649	10.649	(1.126)	105	1496174	50.0000	49.505	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	443168			0.00- 58.52	29.62
10.649	10.649	(1.126)	51	243658			0.00- 43.00	16.29
-----								
169 Cyclohexanone CAS #: 108-94-1								
10.871	10.871	(1.149)	55	591145	50.0000	54.693	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	157668			1.94- 61.94	26.67
10.871	10.871	(1.149)	42	425763			37.89- 97.89	72.02
-----								
175 1,1,2,2-Tetrachloroethane CAS #: 79-34-5								
11.100	11.100	(1.173)	83	755054	50.0000	51.186	80.00- 120.00	100.00
11.100	11.100	(1.173)	85	494872			35.20- 95.20	65.54
-----								
177 Bromobenzene CAS #: 108-86-1								
11.107	11.107	(1.174)	156	506757	50.0000	55.131	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	498621			67.21- 127.21	98.39
11.172	11.172	(1.181)	77	256414			29.02- 89.02	50.60
-----								
178 Propylbenzene CAS #: 103-65-1								
11.150	11.150	(1.179)	120	466725	50.0000	52.082	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	1779173			366.49- 426.49	381.20
11.150	11.150	(1.179)	105	69976			0.00- 44.85	14.99
-----								
179 1,2,3-Trichloropropane CAS #: 96-18-4								
11.179	11.179	(1.182)	110	253488	50.0000	53.916	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	646913			280.55- 340.55	255.20
11.100	11.100	(1.173)	61	127811			15.49- 75.49	50.42
-----								
181 trans-1,4-Dichloro-2-butene CAS #: 110-57-6								
11.179	11.179	(1.182)	53	93409	50.0000	30.307	80.00- 120.00	100.00
11.158	11.158	(1.179)	89	83365			49.11- 109.11	89.25
11.179	11.179	(1.182)	75	646913			426.44- 486.44	692.56
-----								
182 Decane CAS #: 124-18-5								
11.251	11.251	(1.189)	57	1162261	50.0000	49.440	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	275613			0.00- 57.66	23.71
11.258	11.258	(1.190)	142	44568			0.00- 34.09	3.83
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
183 4-Ethyltoluene						CAS #: 622-96-8		
11.287	11.287	(1.193)	120	507458	50.0000	52.071	80.00- 120.00	100.00
11.287	11.287	(1.193)	105	1536944			284.55- 344.55	302.87
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
11.308	11.308	(1.195)	126	417625	50.0000	54.733	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1353773			315.17- 375.17	324.16
11.301	11.301	(1.195)	65	198198			21.55- 81.55	47.46
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
11.365	11.365	(1.201)	120	717827	50.0000	53.499	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1345900			164.93- 224.93	187.50
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
11.645	11.645	(1.231)	118	634771	50.0000	47.622	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	342150			25.30- 85.30	53.90
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
11.745	11.745	(1.242)	119	1363672	50.0000	54.339	80.00- 120.00	100.00
11.745	11.745	(1.242)	134	335029			0.00- 54.25	24.57
11.738	11.738	(1.241)	91	808130			31.27- 91.27	59.26
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
11.817	11.817	(1.249)	105	1306116	50.0000	51.573	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	663926			19.05- 79.05	50.83
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
11.996	11.996	(1.268)	134	422984	50.0000	54.230	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	1924517			437.55- 497.55	454.99
11.996	11.996	(1.268)	91	296004			40.76- 100.76	69.98
-----								
194 p-Cymene						CAS #: 99-87-6		
12.160	12.160	(1.285)	119	1841694	50.0000	53.422	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	474991			0.00- 55.54	25.79
12.160	12.160	(1.285)	91	384251			0.00- 51.48	20.86
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
12.203	12.203	(1.290)	146	971027	50.0000	56.017	80.00- 120.00	100.00
12.203	12.203	(1.290)	148	624131			33.21- 93.21	64.28
12.196	12.196	(1.289)	111	382154			11.31- 71.31	39.36
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
12.311	12.311	(1.301)	146	967606	50.0000	55.237	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	617282			33.90- 93.90	63.79
12.311	12.311	(1.301)	111	369369			9.45- 69.45	38.17
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene						CAS #: 100-44-7		
12.461	12.461	(1.317)	91	1146898	50.0000	47.678	80.00- 120.00	100.00
12.461	12.461	(1.317)	126	270606			0.00- 53.26	23.59
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	1495339	50.0000	55.068	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1537773			58.12- 118.12	102.84
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	468449	50.0000	53.501	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	1564767			314.79- 374.79	334.03
12.626	12.626	(1.335)	92	818645			154.29- 214.29	174.76
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.741	12.741	(1.347)	146	943816	50.0000	55.528	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	603629			33.84- 93.84	63.96
12.733	12.733	(1.346)	111	382149			12.73- 72.73	40.49
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	561200	50.0000	54.513	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	461537			52.48- 112.48	82.24
13.600	13.600	(1.438)	155	436972			47.41- 107.41	77.86
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	1474667	61.8000	68.515	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	1410378			52.87- 112.87	95.64
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	839177	63.0000	66.823	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	807232			65.33- 125.33	96.19
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.582	14.582	(1.541)	225	654719	64.4000	74.079	80.00- 120.00	100.00
14.582	14.582	(1.541)	223	414108			33.17- 93.17	63.25
-----								
216 Naphthalene						CAS #: 91-20-3		
14.768	14.768	(1.561)	128	187637	6.35000	5.846	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	22844			0.00- 42.88	12.17
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.069	15.069	(1.593)	180	787916	66.6000	70.973	80.00- 120.00	100.00
15.069	15.069	(1.593)	182	747229			65.75- 125.75	94.84
15.069	15.069	(1.593)	145	267206			5.23- 65.23	33.91
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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                    Injection Date: 21-AUG-2021 09:37  
 Lab File ID: p082102.d                Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                     Init. Cal. Times: 14:02 00:05  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msdp.i/21AUG21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
\$ 104 1,2-Dichloroethane-d4	1.37968	1.58150	0.010	-14.62791	30.00000	Averaged	
\$ 134 Toluene-d8	1.08560	1.10084	0.010	-1.40399	30.00000	Averaged	
\$ 170 4-Bromofluorobenzene	0.64197	0.71370	0.010	-11.17322	30.00000	Averaged	
4 Freon 134a	0.79126	0.96995	0.010	-22.58389	30.00000	Averaged	
5 Propylene	1.14402	1.32579	0.010	-15.88854	30.00000	Averaged	
7 1,1-Difluoroethane	0.56667	0.52293	0.010	7.71966	30.00000	Averaged	
8 Freon 12	2.24223	2.62065	0.010	-16.87710	30.00000	Averaged	
9 Chlorodifluoromethane	0.22149	0.28157	0.010	-27.12554	30.00000	Averaged	
10 Freon 114	2.20100	2.30704	0.010	-4.81757	30.00000	Averaged	
12 Isobutane	2.53275	2.93065	0.010	-15.71008	30.00000	Averaged	
15 Chloromethane	1.30082	1.38386	0.010	-6.38370	30.00000	Averaged	
18 Butane	0.30133	0.31395	0.010	-4.18744	30.00000	Averaged	
19 Vinyl Chloride	1.56492	1.44812	0.010	7.46341	30.00000	Averaged	
20 1,3-Butadiene	1.25865	1.51704	0.010	-20.52953	30.00000	Averaged	
24 Bromomethane	1.00624	0.96217	0.010	4.37910	30.00000	Averaged	
30 Chloroethane	0.56273	0.51304	0.010	8.83050	30.00000	Averaged	
31 Isopentane	1.71230	1.96083	0.010	-14.51492	30.00000	Averaged	
32 Vinyl Bromide	0.93008	0.86715	0.010	6.76625	30.00000	Averaged	
33 Freon 11	2.38274	2.80650	0.010	-17.78424	30.00000	Averaged	
34 Dichlorofluoromethane	2.05367	2.04635	0.010	0.35652	30.00000	Averaged	
35 Pentane	2.78321	3.12899	0.010	-12.42364	30.00000	Averaged	
38 Ethyl Ether	0.46955	0.39877	0.010	15.07376	30.00000	Averaged	
39 Ethanol	0.24792	0.26790	0.010	-8.05828	30.00000	Averaged	
42 Acrolein	0.43020	0.45026	0.010	-4.66255	30.00000	Averaged	
43 Freon 113	1.77031	1.79672	0.010	-1.49199	30.00000	Averaged	
44 1,1-Dichloroethene	1.05757	0.95430	0.010	9.76475	30.00000	Averaged	
47 Acetone	0.65540	0.65694	0.010	-0.23431	30.00000	Averaged	
48 Carbon Disulfide	2.78620	2.50522	0.010	10.08483	30.00000	Averaged	
49 Iodomethane	1.85215	1.93243	0.010	-4.33431	30.00000	Averaged	
52 2-Propanol	2.64148	3.05149	0.010	-15.52216	30.00000	Averaged	
54 3-Chloropropene	0.46546	0.38708	0.010	16.84018	30.00000	Averaged	
57 Acetonitrile	1.23114	1.51932	0.010	-23.40723	30.00000	Averaged	
59 Methylene Chloride	1.70236	2.23057	0.010	-31.02783	30.00000	Averaged	
62 tert-Butyl alcohol	3.08038	2.99651	0.010	2.72273	30.00000	Averaged	
63 Methyl tert-butyl ether	3.07018	2.72645	0.010	11.19593	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                    Injection Date: 21-AUG-2021 09:37  
 Lab File ID: p082102.d                Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                     Init. Cal. Times: 14:02 00:05  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msdp.i/21AUG21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
64 trans-1,2-Dichloroethene	0.70664	0.66977	0.010	5.21751	30.00000	Averaged	
66 Acrylonitrile	0.98368	1.13285	0.010	-15.16396	30.00000	Averaged	
67 Hexane	2.46279	2.47169	0.010	-0.36160	30.00000	Averaged	
71 1,1-Dichloroethane	2.11721	2.27291	0.010	-7.35391	30.00000	Averaged	
72 Isopropyl ether	5.72778	6.72924	0.010	-17.48422	30.00000	Averaged	
73 Vinyl Acetate	0.27210	0.25070	0.010	7.86384	30.00000	Averaged	
79 Ethyl-tert-butyl ether	4.95812	4.86320	0.010	1.91448	30.00000	Averaged	
84 2,2-Dichloropropane	1.88008	1.99421	0.010	-6.07036	30.00000	Averaged	
85 cis-1,2-Dichloroethene	0.73332	0.72767	0.010	0.77069	30.00000	Averaged	
86 2-Butanone	0.56506	0.52434	0.010	7.20789	30.00000	Averaged	
87 Ethyl Acetate	0.56205	0.73437	0.010	-30.65944	30.00000	Averaged <-	
89 Tetrahydrofuran	1.87928	2.34463	0.010	-24.76188	30.00000	Averaged	
92 Chloroform	2.17519	2.42415	0.010	-11.44544	30.00000	Averaged	
94 Cyclohexane	1.57260	1.40685	0.010	10.54003	30.00000	Averaged	
96 1,1,1-Trichloroethane	2.45732	2.68242	0.010	-9.16052	30.00000	Averaged	
97 Carbon Tetrachloride	2.30469	2.75209	0.010	-19.41272	30.00000	Averaged	
99 1,1-Dichloropropene	0.17017	0.17456	0.010	-2.57723	30.00000	Averaged	
101 2,2,4-Trimethylpentane	8.56002	8.93625	0.010	-4.39523	30.00000	Averaged	
102 Benzene	0.82499	0.81097	0.010	1.69916	30.00000	Averaged	
105 tert-Amyl methyl ether	0.23262	0.22598	0.010	2.85670	30.00000	Averaged	
106 1,2-Dichloroethane	0.42928	0.55503	0.010	-29.29492	30.00000	Averaged	
107 Heptane	0.32683	0.30306	0.010	7.27062	30.00000	Averaged	
110 n-Butanol	0.29994	0.33269	0.010	-10.91951	30.00000	Averaged	
111 Trichloroethene	0.40032	0.43300	0.010	-8.16261	30.00000	Averaged	
114 1,2-Dichloropropane	0.42295	0.44440	0.010	-5.07234	30.00000	Averaged	
116 Methyl Methacrylate	0.34351	0.32892	0.010	4.24594	30.00000	Averaged	
117 1,4-Dioxane	0.22478	0.22058	0.010	1.86583	30.00000	Averaged	
118 Dibromomethane	0.37098	0.43396	0.010	-16.97510	30.00000	Averaged	
122 Bromodichloromethane	0.62070	0.72174	0.010	-16.27928	30.00000	Averaged	
126 cis-1,3-Dichloropropene	0.52438	0.53186	0.010	-1.42487	30.00000	Averaged	
127 Methylcyclohexane	0.57930	0.54218	0.010	6.40781	30.00000	Averaged	
131 4-Methyl-2-pentanone	0.42950	0.46374	0.010	-7.97081	30.00000	Averaged	
137 Toluene	1.13821	1.16887	0.010	-2.69421	30.00000	Averaged	
136 Octane	0.48532	0.53112	0.010	-9.43810	30.00000	Averaged	
139 trans-1,3-Dichloropropene	0.49197	0.51520	0.010	-4.72047	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                    Injection Date: 21-AUG-2021 09:37  
 Lab File ID: p082102.d                Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                     Init. Cal. Times: 14:02 00:05  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msdp.i/21AUG21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
141 1,1,2-Trichloroethane	0.40664	0.43388	0.010	-6.69742	30.00000	Averaged	
142 Tetrachloroethene	0.56977	0.63360	0.010	-11.20314	30.00000	Averaged	
143 2-Hexanone	0.58097	0.64167	0.010	-10.44772	30.00000	Averaged	
144 1,3-Dichloropropane	0.54052	0.57775	0.010	-6.88852	30.00000	Averaged	
146 Dibromochloromethane	0.75978	0.88833	0.010	-16.91882	30.00000	Averaged	
148 1,2-Dibromoethane (EDB)	0.65220	0.71206	0.010	-9.17882	30.00000	Averaged	
151 1-Bromo-2-Chloroethane	0.77603	0.85985	0.010	-10.80145	30.00000	Averaged	
154 Chlorobenzene	0.99271	1.02494	0.010	-3.24709	30.00000	Averaged	
155 Ethyl Benzene	0.51909	0.51288	0.010	1.19544	30.00000	Averaged	
156 Nonane	1.33556	1.63449	0.010	-22.38227	30.00000	Averaged	
158 m,p-Xylene	0.65013	0.63956	0.010	1.62585	30.00000	Averaged	
164 o-Xylene	0.62290	0.60165	0.010	3.41155	30.00000	Averaged	
165 Styrene	1.06528	1.03236	0.010	3.09029	30.00000	Averaged	
167 Bromoform	0.74891	0.84929	0.010	-13.40393	30.00000	Averaged	
168 Cumene	1.95673	1.93738	0.010	0.98910	30.00000	Averaged	
169 Cyclohexanone	0.69978	0.76547	0.010	-9.38648	30.00000	Averaged	
175 1,1,2,2-Tetrachloroethane	0.95505	0.97771	0.010	-2.37264	30.00000	Averaged	
177 Bromobenzene	0.59512	0.65619	0.010	-10.26240	30.00000	Averaged	
178 Propylbenzene	0.58019	0.60436	0.010	-4.16477	30.00000	Averaged	
179 1,2,3-Trichloropropane	0.30440	0.32824	0.010	-7.83224	30.00000	Averaged	
181 trans-1,4-Dichloro-2-butene	0.19955	0.12095	0.010	39.38667	30.00000	Averaged <-	
182 Decane	1.52203	1.50500	0.010	1.11936	30.00000	Averaged	
183 4-Ethyltoluene	0.63096	0.65710	0.010	-4.14300	30.00000	Averaged	
184 2-Chlorotoluene	0.49401	0.54078	0.010	-9.46588	30.00000	Averaged	
185 1,3,5-Trimethylbenzene	0.86871	0.92951	0.010	-6.99860	30.00000	Averaged	
188 alpha Methyl Styrene	0.86300	0.82196	0.010	4.75538	30.00000	Averaged	
189 tert-Butylbenzene	1.62480	1.76580	0.010	-8.67794	30.00000	Averaged	
190 1,2,4-Trimethylbenzene	1.63968	1.69127	0.010	-3.14641	30.00000	Averaged	
192 sec-Butylbenzene	0.50500	0.54772	0.010	-8.45935	30.00000	Averaged	
194 p-Cymene	2.23203	2.38479	0.010	-6.84374	30.00000	Averaged	
195 1,3-Dichlorobenzene	1.12231	1.25737	0.010	-12.03393	30.00000	Averaged	
196 1,4-Dichlorobenzene	1.13414	1.25294	0.010	-10.47471	30.00000	Averaged	
199 alpha-Chlorotoluene	1.55742	1.48510	0.010	4.64329	30.00000	Averaged	
201 Undecane	1.75810	1.93630	0.010	-10.13592	30.00000	Averaged	
202 Butylbenzene	0.56690	0.60659	0.010	-7.00193	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                    Injection Date: 21-AUG-2021 09:37  
Lab File ID: p082102.d                Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
Analysis Type: AIR                    Init. Cal. Times: 14:02                00:05  
Lab Sample ID: CCV                    Quant Type: ISTD  
Method: /chem/msdp.i/21AUG21.b/p21q0519a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
204 1,2-Dichlorobenzene	1.10047	1.22214	0.010	-11.05535	30.00000	Averaged
206 1,2-Dibromo-3-chloropropane	0.66653	0.72669	0.010	-9.02655	30.00000	Averaged
207 Dodecane	1.39351	1.54493	0.010	-10.86543	30.00000	Averaged
213 1,2,4-Trichlorobenzene	0.81307	0.86241	0.010	-6.06833	30.00000	Averaged
215 Hexachlorobutadiene	0.57222	0.65822	0.010	-15.02976	30.00000	Averaged
216 Naphthalene	2.07796	1.91314	0.010	7.93192	30.00000	Averaged
222 1,2,3-Trichlorobenzene	0.71877	0.76596	0.010	-6.56556	30.00000	Averaged



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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 21-AUG-2021
Lab File ID: p082102.d	Calibration Time: 12:59
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: mb	
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m	
Misc Info: 50ppbv (100ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	114978	68987	160969	102894	-10.51
108 1,4-Difluorobenze	408965	245379	572551	387356	-5.28
153 Chlorobenzene-d5	404180	242508	565852	386134	-4.46

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.79	0.13
108 1,4-Difluorobenze	6.67	6.34	7.00	6.67	0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Date : 21-AUG-2021 09:37

Client ID: CCV

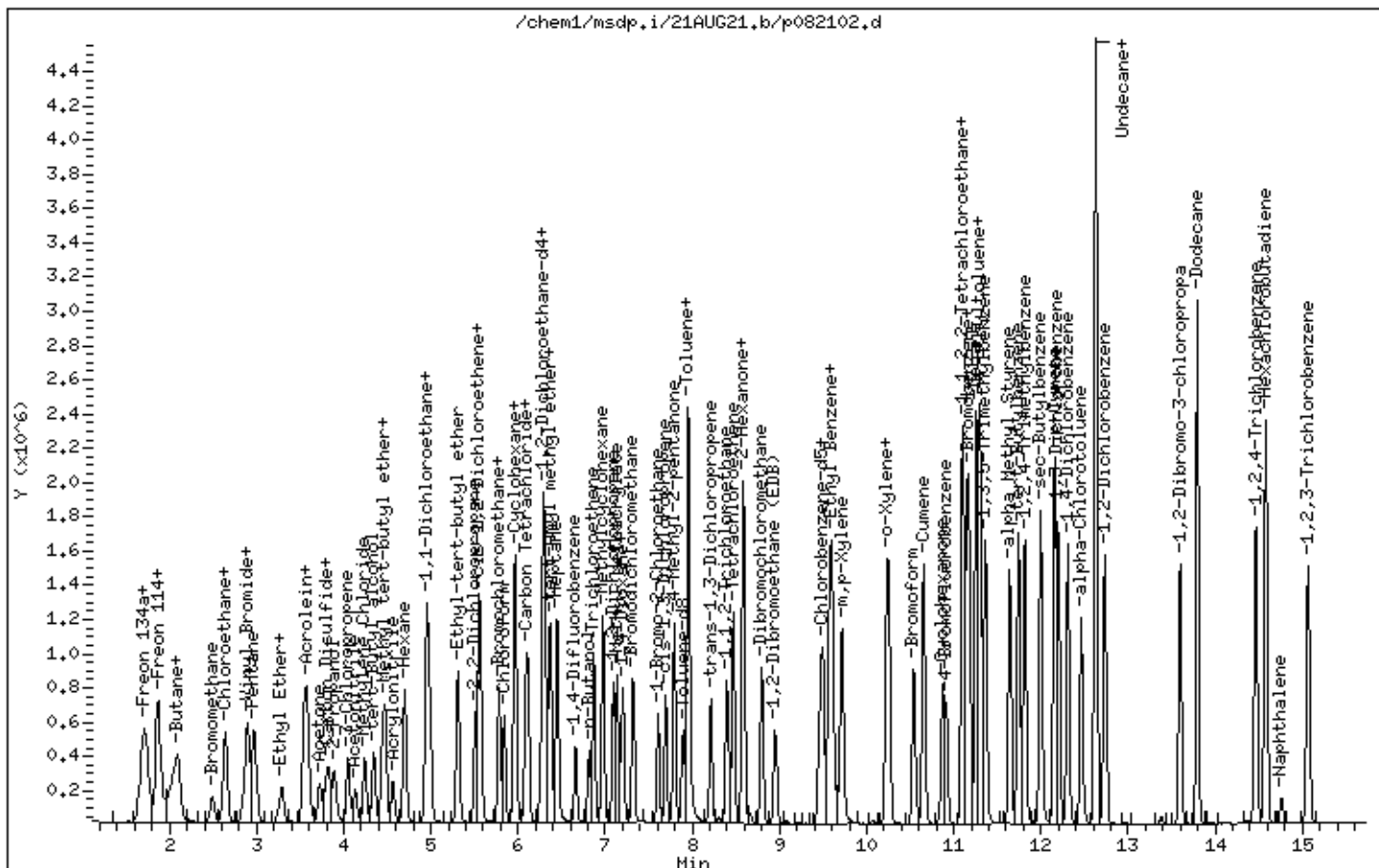
Instrument: msdp.i

Sample Info: 100mL 3018-2125A

Operator: mb

Column phase: RTX-624

Column diameter: 0.25



Client Sample ID: LCS

Lab ID#: 2108390-29A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/20/21 11:40 AM

Compound	%Recovery	Method Limits
1,1,1-Trichloroethane	104	70-130
1,1,2,2-Tetrachloroethane	102	70-130
1,1,2-Trichloroethane	103	70-130
1,1-Dichloroethane	95	70-130
1,1-Dichloroethene	86	70-130
1,2,4-Trichlorobenzene	117	70-130
1,2,4-Trimethylbenzene	106	70-130
1,2-Dibromoethane (EDB)	107	70-130
1,2-Dichlorobenzene	111	70-130
1,2-Dichloroethane	121	70-130
1,2-Dichloropropane	100	70-130
1,3,5-Trimethylbenzene	105	70-130
1,3-Butadiene	109	70-130
1,3-Dichlorobenzene	112	70-130
1,4-Dichlorobenzene	112	70-130
1,4-Dioxane	92	70-130
2,2,4-Trimethylpentane	100	70-130
2-Butanone (Methyl Ethyl Ketone)	81	70-130
2-Hexanone	108	70-130
2-Propanol	111	70-130
3-Chloropropene	82	70-130
4-Ethyltoluene	105	70-130
4-Methyl-2-pentanone	104	70-130
Acetone	96	70-130
alpha-Chlorotoluene	106	70-130
Benzene	94	70-130
Bromodichloromethane	110	70-130
Bromoform	114	70-130
Bromomethane	84	70-130
Carbon Disulfide	84	70-130
Carbon Tetrachloride	116	70-130
Chlorobenzene	102	70-130
Chloroethane	86	70-130
Chloroform	101	70-130
Chloromethane	123	70-130
cis-1,2-Dichloroethene	94	70-130
cis-1,3-Dichloropropene	97	70-130
Cumene	99	70-130
Cyclohexane	86	70-130
Dibromochloromethane	113	70-130
Ethanol	90	70-130
Ethyl Benzene	100	70-130

Client Sample ID: LCS

Lab ID#: 2108390-29A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/20/21 11:40 AM

Compound	%Recovery	Method Limits
Freon 11	109	70-130
Freon 12	106	70-130
Freon 113	99	70-130
Freon 114	102	70-130
Heptane	89	70-130
Hexachlorobutadiene	125	70-130
Hexane	96	70-130
m,p-Xylene	100	70-130
Methyl tert-butyl ether	87	70-130
Methylene Chloride	116	70-130
Naphthalene	104	60-140
o-Xylene	99	70-130
Propylbenzene	104	70-130
Propylene	106	60-140
Styrene	95	70-130
Tetrachloroethene	107	70-130
Tetrahydrofuran	111	70-130
Toluene	95	70-130
trans-1,2-Dichloroethene	88	70-130
trans-1,3-Dichloropropene	104	70-130
Trichloroethene	103	70-130
Vinyl Acetate	84	70-130
Vinyl Chloride	93	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	111	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082003.d  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Inj Date : 20-AUG-2021 11:40  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 50mL 3018-2173  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 12:59 p5fl Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 14 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.785	(1.000)	130	115405	25.0000		80.00- 120.00	100.00
5.778	5.785	(1.000)	128	91691			48.23- 108.23	79.45
5.778	5.778	(1.000)	49	257490			150.57- 210.57	223.12
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.659	(1.000)	114	421276	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	64535			0.00- 45.71	15.32
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	408672	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	212867			23.78- 83.78	52.09
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.308	6.315	(1.092)	65	177227	27.8270	27.827	80.00- 120.00	100.00
6.308	6.315	(1.092)	67	93203			27.21- 87.21	52.59
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	445572	24.3569	24.357	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	45848			0.00- 40.44	10.29

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	297373			34.95- 94.95	66.74
-----								
§ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	290281	27.6610	27.661	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	340858			95.92- 155.92	117.42
10.921	10.921	(1.154)	176	270987			66.89- 126.89	93.35
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.646	1.647	(0.285)	83	218876	59.9233	59.923	80.00- 120.00	100.00
1.633	1.647	(0.283)	69	157730			59.44- 119.44	72.06
1.744	1.759	(0.302)	51	951309			419.06- 479.06	434.63
-----								
5 Propylene								
						CAS #: 115-07-1		
1.674	1.689	(0.290)	41	280443	53.1040	53.104	80.00- 120.00	100.00
1.674	1.689	(0.290)	42	188635			35.28- 95.28	67.26
1.674	1.689	(0.290)	39	195785			38.35- 98.35	69.81
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.702	1.703	(0.295)	65	122190	46.7110	46.711	80.00- 120.00	100.00
1.744	1.759	(0.302)	51	951309			597.63- 657.63	778.55
1.702	1.717	(0.295)	47	107690			33.72- 93.72	88.13
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.716	1.717	(0.297)	85	549549	53.0935	53.094	80.00- 120.00	100.00
1.716	1.717	(0.297)	87	181563			2.37- 62.37	33.04
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.744	1.759	(0.302)	67	57646	56.3815	56.381	80.00- 120.00	100.00
1.744	1.759	(0.302)	51	951309			1501.01-1561.01	1650.26
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.856	1.856	(0.321)	135	516373	50.8227	50.823	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	162827			2.30- 62.30	31.53
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.870	1.870	(0.324)	43	608013	52.0039	52.004	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	201112			2.44- 62.44	33.08
1.870	1.870	(0.324)	58	16429			0.00- 33.36	2.70
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.940	1.954	(0.336)	50	369114	61.4693	61.469	80.00- 120.00	100.00
1.940	1.954	(0.336)	52	94124			0.00- 56.26	25.50
-----								
18 Butane								
						CAS #: 106-97-8		
2.032	2.039	(0.352)	58	59880	43.0480	43.048	80.00- 120.00	100.00

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)								
2.032	2.039	(0.352)	43	571140		823.29- 883.29	953.81	
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.068	2.075	(0.358)	62	335686	46.4683	46.468	80.00- 120.00	100.00
2.068	2.075	(0.358)	64	93563			0.00- 59.69	27.87
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.096	2.103	(0.363)	54	317882	54.7113	54.711	80.00- 120.00	100.00
2.089	2.103	(0.362)	39	295312			52.37- 112.37	92.90
-----								
24 Bromomethane CAS #: 74-83-9								
2.483	2.490	(0.430)	94	195386	42.0637	42.064	80.00- 120.00	100.00
2.483	2.490	(0.430)	96	182922			64.07- 124.07	93.62
-----								
30 Chloroethane CAS #: 75-00-3								
2.612	2.612	(0.452)	64	111196	42.8060	42.806	80.00- 120.00	100.00
2.612	2.612	(0.452)	66	31025			0.04- 60.04	27.90
2.612	2.612	(0.452)	49	50241			4.54- 64.54	45.18
-----								
31 Isopentane CAS #: 78-78-4								
2.633	2.641	(0.456)	43	423135	53.5323	53.532	80.00- 120.00	100.00
2.641	2.641	(0.457)	57	242706			34.12- 94.12	57.36
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.848	2.848	(0.493)	106	178070	41.4749	41.475	80.00- 120.00	100.00
2.841	2.848	(0.492)	108	178860			69.27- 129.27	100.44
-----								
33 Freon 11 CAS #: 75-69-4								
2.891	2.891	(0.500)	101	598948	54.4537	54.454	80.00- 120.00	100.00
2.891	2.891	(0.500)	103	392127			34.72- 94.72	65.47
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.898	2.906	(0.502)	67	424864	44.8162	44.816	80.00- 120.00	100.00
2.898	2.906	(0.502)	69	133904			0.84- 60.84	31.52
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.514)	43	658058	51.2193	51.219	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	84539			0.00- 44.98	12.85
2.970	2.970	(0.514)	72	36001			0.00- 37.39	5.47
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.285	3.285	(0.569)	74	87219	40.2384	40.238	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	194500			163.46- 223.46	223.00
3.285	3.285	(0.569)	45	341061			250.40- 310.40	391.04
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.242	3.242	(0.561)	46	59528	52.0138	52.014	80.00- 120.00	100.00
3.285	3.285	(0.569)	45	339109			511.19- 571.19	569.66
42 Acrolein					CAS #: 107-02-8			
3.536	3.543	(0.612)	55	89578	45.1071	45.107	80.00- 120.00	100.00
3.536	3.543	(0.612)	56	124621			111.10- 171.10	139.12
43 Freon 113					CAS #: 76-13-1			
3.550	3.550	(0.614)	151	403562	49.3830	49.383	80.00- 120.00	100.00
3.550	3.558	(0.614)	153	257467			33.56- 93.56	63.80
3.550	3.550	(0.614)	101	477049			89.21- 149.21	118.21
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.579	3.586	(0.619)	96	211189	43.2593	43.259	80.00- 120.00	100.00
3.579	3.586	(0.619)	98	132753			34.02- 94.02	62.86
3.579	3.586	(0.619)	61	471855			168.77- 228.77	223.43
47 Acetone					CAS #: 67-64-1			
3.715	3.722	(0.643)	58	145185	47.9876	47.988	80.00- 120.00	100.00
3.715	3.722	(0.643)	43	572251			302.95- 362.95	394.15
48 Carbon Disulfide					CAS #: 75-15-0			
3.823	3.830	(0.662)	76	537462	41.7879	41.788	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.794	3.794	(0.657)	142	492724	57.6292	57.629	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	244277			12.22- 72.22	49.58
52 2-Propanol					CAS #: 67-63-0			
3.887	3.894	(0.673)	45	678473	55.6418	55.642	80.00- 120.00	100.00
3.887	3.894	(0.673)	43	131639			0.00- 47.19	19.40
54 3-Chloropropene					CAS #: 107-05-1			
4.052	4.052	(0.701)	76	87930	40.9230	40.923	80.00- 120.00	100.00
4.052	4.052	(0.701)	41	472551			396.19- 456.19	537.42
57 Acetonitrile					CAS #: 75-05-8			
4.123	4.131	(0.714)	41	321387	56.5505	56.550	80.00- 120.00	100.00
4.123	4.131	(0.714)	40	160682			20.95- 80.95	50.00
4.123	4.131	(0.714)	38	34357			0.00- 41.17	10.69
59 Methylene Chloride					CAS #: 75-09-2			
4.238	4.238	(0.733)	49	456202	58.0525	58.052	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	176325			22.03- 82.03	38.65
4.238	4.238	(0.733)	51	133001			0.18- 60.18	29.15



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
4.338	4.346	(0.751)	59	657987	46.2731	46.273	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	165235			0.00- 51.11	25.11
4.345	4.346	(0.752)	57	76042			0.00- 40.49	11.56
-----					-----			
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
4.446	4.446	(0.769)	73	615238	43.4105	43.410	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	227498			3.10- 63.10	36.98
4.446	4.446	(0.769)	41	251455			1.28- 61.28	40.87
-----					-----			
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
4.482	4.482	(0.776)	98	144346	44.2508	44.251	80.00- 120.00	100.00
4.482	4.482	(0.776)	61	441216			255.84- 315.84	305.67
4.482	4.482	(0.776)	96	228531			127.59- 187.59	158.32
-----					-----			
66 Acrylonitrile					CAS #: 107-13-1			
4.560	4.568	(0.789)	52	245585	54.0831	54.083	80.00- 120.00	100.00
4.560	4.568	(0.789)	53	286733			88.05- 148.05	116.76
-----					-----			
67 Hexane					CAS #: 110-54-3			
4.696	4.697	(0.813)	57	547652	48.1718	48.172	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	420088			37.52- 97.52	76.71
4.696	4.697	(0.813)	86	55605			0.00- 41.48	10.15
-----					-----			
71 1,1-Dichloroethane					CAS #: 75-34-3			
4.969	4.969	(0.860)	63	466469	47.7281	47.728	80.00- 120.00	100.00
4.969	4.969	(0.860)	65	134806			0.00- 59.70	28.90
-----					-----			
72 Isopropyl ether					CAS #: 108-20-3			
4.947	4.947	(0.856)	45	1472221	55.6803	55.680	80.00- 120.00	100.00
4.947	4.954	(0.856)	87	200243			0.00- 48.18	13.60
4.947	4.947	(0.856)	59	130172			0.00- 40.15	8.84
-----					-----			
73 Vinyl Acetate					CAS #: 108-05-4			
4.997	4.997	(0.865)	86	52778	42.0189	42.019	80.00- 120.00	100.00
4.990	4.997	(0.864)	43	1259608			2432.48-2492.48	2386.62
-----					-----			
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
5.305	5.305	(0.918)	59	1083503	47.3400	47.340	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	309492			1.00- 61.00	28.56
5.305	5.305	(0.918)	41	254959			0.00- 48.73	23.53
-----					-----			
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.513	5.513	(0.954)	77	437288	50.3855	50.385	80.00- 120.00	100.00
5.513	5.513	(0.954)	79	138292			2.28- 62.28	31.62
5.513	5.513	(0.954)	97	101081			0.00- 53.93	23.12
-----					-----			

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	
85 cis-1,2-Dichloroethene				CAS #: 156-59-2				
5.549	5.549	(0.960)	98	158606	46.8533	46.853	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	237816			125.75- 185.75	149.94
5.549	5.549	(0.960)	61	598482			332.40- 392.40	377.34
86 2-Butanone				CAS #: 78-93-3				
5.556	5.556	(0.962)	72	105653	40.5041	40.504	80.00- 120.00	100.00
5.563	5.563	(0.963)	43	1853265			1214.50-1274.50	1754.11
5.556	5.556	(0.962)	57	58075			14.68- 74.68	54.97
87 Ethyl Acetate				CAS #: 141-78-6				
5.570	5.570	(0.964)	45	150050	57.8330	57.833	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	598482			452.04- 512.04	398.86
5.577	5.578	(0.965)	70	52935			22.77- 82.77	35.28
89 Tetrahydrofuran				CAS #: 109-99-9				
5.778	5.778	(1.000)	42	481041	55.4505	55.450	80.00- 120.00	100.00
5.778	5.778	(1.000)	71	91647			0.00- 55.82	19.05
5.778	5.778	(1.000)	72	102655			0.00- 57.59	21.34
92 Chloroform				CAS #: 67-66-3				
5.843	5.843	(1.011)	83	506683	50.4607	50.461	80.00- 120.00	100.00
5.843	5.843	(1.011)	85	325195			34.70- 94.70	64.18
94 Cyclohexane				CAS #: 110-82-7				
5.957	5.957	(1.031)	84	310997	42.8404	42.840	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	616373			142.57- 202.57	198.19
5.957	5.957	(1.031)	41	380970			62.09- 122.09	122.50
96 1,1,1-Trichloroethane				CAS #: 71-55-6				
5.971	5.972	(1.033)	97	590455	52.0524	52.052	80.00- 120.00	100.00
5.971	5.972	(1.033)	99	377354			34.02- 94.02	63.91
97 Carbon Tetrachloride				CAS #: 56-23-5				
6.093	6.093	(1.055)	119	617003	57.9949	57.995	80.00- 120.00	100.00
6.093	6.093	(1.055)	117	616097			70.64- 130.64	99.85
99 1,1-Dichloropropene				CAS #: 563-58-6				
6.122	6.122	(0.919)	110	135675	47.3131	47.313	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	344269			226.85- 286.85	253.75
101 2,2,4-Trimethylpentane				CAS #: 540-84-1				
6.279	6.280	(1.087)	57	1971142	49.8837	49.884	80.00- 120.00	100.00
6.279	6.280	(1.087)	56	670583			2.24- 62.24	34.02
6.279	6.280	(1.087)	41	569044			0.00- 54.39	28.87

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
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102 Benzene					CAS #: 71-43-2			
6.301	6.301	(0.946)	78	651006	46.8285	46.828	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	149874			0.00- 52.90	23.02
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.358	6.358	(0.955)	87	189248	48.2779	48.278	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	738201			372.79- 432.79	390.07
6.358	6.358	(0.955)	55	312603			112.09- 172.09	165.18
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.380	6.380	(0.958)	62	436648	60.3628	60.363	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	131371			0.79- 60.79	30.09
-----								
107 Heptane					CAS #: 142-82-5			
6.444	6.444	(0.968)	71	246188	44.7017	44.702	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	853101			226.53- 286.53	346.52
6.444	6.444	(0.968)	57	388045			100.85- 160.85	157.62
-----								
110 n-Butanol					CAS #: 71-36-3			
6.810	6.810	(1.023)	56	289326	57.2434	57.243	80.00- 120.00	100.00
6.810	6.810	(1.023)	41	230757			40.99- 100.99	79.76
6.810	6.810	(1.023)	43	188927			27.38- 87.38	65.30
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.867	6.867	(1.031)	95	346687	51.3931	51.393	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	381170			76.29- 136.29	109.95
6.867	6.867	(1.031)	97	219049			33.63- 93.63	63.18
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.096	7.096	(1.066)	63	356282	49.9897	49.990	80.00- 120.00	100.00
7.096	7.096	(1.066)	62	258296			41.07- 101.07	72.50
7.096	7.096	(1.066)	41	220014			22.53- 82.53	61.75
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.139	7.139	(0.755)	69	258702	46.0713	46.071	80.00- 120.00	100.00
7.139	7.139	(0.755)	41	700310			179.84- 239.84	270.70
7.139	7.139	(0.755)	100	106810			9.59- 69.59	41.29
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.175	7.175	(1.077)	88	174550	46.0834	46.083	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	192670			68.28- 128.28	110.38
7.175	7.175	(1.077)	57	69578			2.68- 62.68	39.86
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.211	7.211	(0.762)	174	339032	55.9053	55.905	80.00- 120.00	100.00
7.203	7.204	(0.761)	93	308923			60.09- 120.09	91.12

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
7.203	7.204	(0.761)	95	265718		48.38- 108.38	78.38		
-----									
122 Bromodichloromethane CAS #: 75-27-4									
7.318	7.318	(1.099)	83	573864	54.8659	54.866	80.00- 120.00	100.00	
7.318	7.318	(1.099)	85	370819		35.24- 95.24	64.62		
-----									
126 cis-1,3-Dichloropropene CAS #: 10061-01-5									
7.698	7.698	(1.156)	75	429940	48.6555	48.655	80.00- 120.00	100.00	
7.698	7.698	(1.156)	77	135432		2.42- 62.42	31.50		
7.691	7.698	(1.155)	39	356283		37.16- 97.16	82.87		
-----									
127 Methylcyclohexane CAS #: 108-87-2									
6.974	6.974	(1.047)	83	450938	46.1944	46.194	80.00- 120.00	100.00	
6.974	6.974	(1.047)	98	217565		15.78- 75.78	48.25		
6.974	6.974	(1.047)	55	598153		84.64- 144.64	132.65		
-----									
131 4-Methyl-2-pentanone CAS #: 108-10-1									
7.798	7.798	(1.171)	58	375981	51.9485	51.948	80.00- 120.00	100.00	
7.798	7.798	(1.171)	43	1192097		242.35- 302.35	317.06		
7.798	7.798	(1.171)	85	108238		3.24- 63.24	28.79		
-----									
137 Toluene CAS #: 108-88-3									
7.948	7.956	(1.194)	91	913130	47.6084	47.608	80.00- 120.00	100.00	
7.948	7.956	(1.194)	92	533619		28.38- 88.38	58.44		
-----									
136 Octane CAS #: 111-65-9									
7.948	7.949	(1.194)	57	429628	52.5340	52.534	80.00- 120.00	100.00	
7.948	7.949	(1.194)	85	314182		56.00- 116.00	73.13		
7.948	7.949	(1.194)	43	1281758		228.66- 288.66	298.34		
-----									
139 trans-1,3-Dichloropropene CAS #: 10061-02-6									
8.213	8.214	(0.868)	75	417943	51.9686	51.968	80.00- 120.00	100.00	
8.213	8.214	(0.868)	77	132132		1.24- 61.24	31.61		
8.213	8.214	(0.868)	39	327731		34.11- 94.11	78.42		
-----									
141 1,1,2-Trichloroethane CAS #: 79-00-5									
8.400	8.400	(0.888)	97	342305	51.4953	51.495	80.00- 120.00	100.00	
8.400	8.400	(0.888)	99	210689		31.96- 91.96	61.55		
8.400	8.400	(0.888)	83	283720		52.93- 112.93	82.89		
-----									
142 Tetrachloroethene CAS #: 127-18-4									
8.464	8.464	(0.895)	166	497777	53.4441	53.444	80.00- 120.00	100.00	
8.464	8.464	(0.895)	129	388759		47.84- 107.84	78.10		
8.464	8.464	(0.895)	131	375889		45.29- 105.29	75.51		
-----									

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
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143 2-Hexanone					CAS #: 591-78-6				
8.586	8.586	(0.908)	58	511443	53.8527	53.853	80.00- 120.00	100.00	
8.586	8.586	(0.908)	43	1156054			162.87- 222.87	226.04	
8.586	8.586	(0.908)	100	69942			0.00- 45.94	13.68	
-----									
144 1,3-Dichloropropane					CAS #: 142-28-9				
8.579	8.579	(1.288)	76	445581	48.9204	48.920	80.00- 120.00	100.00	
8.579	8.579	(1.288)	41	697145			94.99- 154.99	156.46	
8.579	8.579	(1.288)	78	144126			2.05- 62.05	32.35	
-----									
146 Dibromochloromethane					CAS #: 124-48-1				
8.801	8.801	(0.930)	129	700077	56.3667	56.367	80.00- 120.00	100.00	
8.801	8.801	(0.930)	127	547291			47.45- 107.45	78.18	
-----									
148 1,2-Dibromoethane (EDB)					CAS #: 106-93-4				
8.951	8.951	(0.946)	107	568528	53.3260	53.326	80.00- 120.00	100.00	
8.951	8.951	(0.946)	109	533931			64.21- 124.21	93.91	
-----									
151 1-Bromo-2-Chloroethane					CAS #: 107-04-0				
7.605	7.605	(1.142)	63	655200	50.1035	50.103	80.00- 120.00	100.00	
7.605	7.605	(1.142)	65	187652			0.00- 59.64	28.64	
7.605	7.612	(1.142)	144	65474			0.00- 39.63	9.99	
-----									
154 Chlorobenzene					CAS #: 108-90-7				
9.496	9.496	(1.004)	112	825133	50.8473	50.847	80.00- 120.00	100.00	
9.496	9.496	(1.004)	114	266769			1.74- 61.74	32.33	
9.496	9.496	(1.004)	77	425313			25.04- 85.04	51.54	
-----									
155 Ethyl Benzene					CAS #: 100-41-4				
9.567	9.567	(1.011)	106	424486	50.0249	50.025	80.00- 120.00	100.00	
9.567	9.567	(1.011)	91	1246276			273.74- 333.74	293.60	
-----									
156 Nonane					CAS #: 111-84-2				
9.596	9.603	(1.014)	43	1357734	62.1895	62.190	80.00- 120.00	100.00	
9.603	9.603	(1.015)	57	982407			54.16- 114.16	72.36	
9.603	9.603	(1.015)	85	248518			0.00- 53.90	18.30	
-----									
157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6				
9.596	9.596	(1.014)	131	421084	46.3461	46.346	80.00- 120.00	100.00	
9.460	9.460	(1.000)	117	408672			57.42- 117.42	97.05	
9.596	9.596	(1.014)	95	151820			5.70- 65.70	36.05	
-----									
158 m,p-Xylene					CAS #: 108-38-3				
9.718	9.718	(1.027)	106	529796	49.8510	49.851	80.00- 120.00	100.00	
9.718	9.718	(1.027)	91	1012132			163.73- 223.73	191.04	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
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164 o-Xylene					CAS #: 95-47-6			
10.226	10.226	(1.081)	106	502055	49.3060	49.306	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	1004006			177.45- 237.45	199.98
-----								
165 Styrene					CAS #: 100-42-5			
10.255	10.255	(1.084)	104	830312	47.6809	47.681	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	394301			17.88- 77.88	47.49
-----								
167 Bromoform					CAS #: 75-25-2			
10.541	10.549	(1.114)	173	697803	56.9992	56.999	80.00- 120.00	100.00
10.541	10.542	(1.114)	171	357168			21.25- 81.25	51.18
-----								
168 Cumene					CAS #: 98-82-8			
10.649	10.649	(1.126)	105	1580991	49.4269	49.427	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	464736			0.00- 58.52	29.40
10.649	10.649	(1.126)	51	257536			0.00- 43.00	16.29
-----								
169 Cyclohexanone					CAS #: 108-94-1			
10.871	10.871	(1.149)	55	678151	59.2829	59.283	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	185394			1.94- 61.94	27.34
10.871	10.871	(1.149)	42	478995			37.89- 97.89	70.63
-----								
175 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
11.100	11.107	(1.173)	83	795520	50.9554	50.955	80.00- 120.00	100.00
11.100	11.107	(1.173)	85	516415			35.20- 95.20	64.92
-----								
177 Bromobenzene					CAS #: 108-86-1			
11.107	11.107	(1.174)	156	534640	54.9569	54.957	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	519589			67.21- 127.21	97.18
11.179	11.179	(1.182)	77	317261			29.02- 89.02	59.34
-----								
178 Propylbenzene					CAS #: 103-65-1			
11.150	11.150	(1.179)	120	494688	52.1584	52.158	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	1899244			366.49- 426.49	383.93
11.150	11.150	(1.179)	105	71929			0.00- 44.85	14.54
-----								
179 1,2,3-Trichloropropane					CAS #: 96-18-4			
11.179	11.179	(1.182)	110	268817	54.0233	54.023	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	828113			280.55- 340.55	308.06
11.100	11.100	(1.173)	61	132558			15.49- 75.49	49.31
-----								
181 trans-1,4-Dichloro-2-butene					CAS #: 110-57-6			
11.179	11.179	(1.182)	53	286102	87.7068	87.707	80.00- 120.00	100.00(R)
11.179	11.158	(1.182)	89	173508			49.11- 109.11	60.65
11.179	11.179	(1.182)	75	828113			426.44- 486.44	289.45
-----								

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane					CAS #: 124-18-5			
11.251	11.251	(1.189)	57	1363509	54.8023	54.802	80.00- 120.00	100.00
11.251	11.258	(1.189)	71	324360			0.00- 57.66	23.79
11.258	11.258	(1.190)	142	51881			0.00- 34.09	3.80
-----								
183 4-Ethyltoluene					CAS #: 622-96-8			
11.286	11.287	(1.193)	120	539623	52.3183	52.318	80.00- 120.00	100.00
11.286	11.287	(1.193)	105	1660952			284.55- 344.55	307.80
-----								
184 2-Chlorotoluene					CAS #: 95-49-8			
11.308	11.308	(1.195)	126	435300	53.9031	53.903	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1420743			315.17- 375.17	326.38
11.301	11.301	(1.195)	65	211858			21.55- 81.55	48.67
-----								
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
11.365	11.365	(1.201)	120	748411	52.7026	52.702	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1418980			164.93- 224.93	189.60
-----								
188 alpha Methyl Styrene					CAS #: 98-83-9			
11.645	11.645	(1.231)	118	732809	51.9454	51.945	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	402360			25.30- 85.30	54.91
-----								
189 tert-Butylbenzene					CAS #: 98-06-6			
11.738	11.745	(1.241)	119	1434490	54.0085	54.008	80.00- 120.00	100.00
11.738	11.745	(1.241)	134	352363			0.00- 54.25	24.56
11.738	11.745	(1.241)	91	856654			31.27- 91.27	59.72
-----								
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
11.816	11.817	(1.249)	105	1415816	52.8217	52.822	80.00- 120.00	100.00
11.816	11.817	(1.249)	120	714726			19.05- 79.05	50.48
-----								
192 sec-Butylbenzene					CAS #: 135-98-8			
11.996	12.003	(1.268)	134	459812	55.7002	55.700	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	2063003			437.55- 497.55	448.66
11.996	11.996	(1.268)	91	315573			40.76- 100.76	68.63
-----								
194 p-Cymene					CAS #: 99-87-6			
12.160	12.160	(1.285)	119	1979182	54.2438	54.244	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	515699			0.00- 55.54	26.06
12.160	12.160	(1.285)	91	414931			0.00- 51.48	20.96
-----								
195 1,3-Dichlorobenzene					CAS #: 541-73-1			
12.203	12.203	(1.290)	146	1027939	56.0298	56.030	80.00- 120.00	100.00
12.203	12.203	(1.290)	148	658822			33.21- 93.21	64.09
12.196	12.196	(1.289)	111	403040			11.31- 71.31	39.21

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
12.311	12.311	(1.301)	146	1040296	56.1118	56.112	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	659374			33.90- 93.90	63.38
12.311	12.311	(1.301)	111	395570			9.45- 69.45	38.02
-----								
199 alpha-Chlorotoluene					CAS #: 100-44-7			
12.461	12.461	(1.317)	91	1350693	53.0538	53.054	80.00- 120.00	100.00
12.461	12.461	(1.317)	126	329792			0.00- 53.26	24.42
-----								
201 Undecane					CAS #: 1120-21-4			
12.640	12.640	(1.336)	57	1639192	57.0364	57.036	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1667684			58.12- 118.12	101.74
-----								
202 Butylbenzene					CAS #: 104-51-8			
12.626	12.626	(1.335)	134	499860	53.9400	53.940	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	1669899			314.79- 374.79	334.07
12.626	12.626	(1.335)	92	884408			154.29- 214.29	176.93
-----								
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
12.741	12.733	(1.347)	146	995782	55.3541	55.354	80.00- 120.00	100.00
12.741	12.733	(1.347)	148	634411			33.84- 93.84	63.71
12.733	12.733	(1.346)	111	410503			12.73- 72.73	41.22
-----								
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
13.600	13.600	(1.438)	157	610249	56.0086	56.009	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	499488			52.48- 112.48	81.85
13.600	13.600	(1.438)	155	472482			47.41- 107.41	77.42
-----								
207 Dodecane					CAS #: 112-40-3			
13.801	13.801	(1.459)	57	1486749	65.2667	65.267	80.00- 120.00	100.00(R)
13.801	13.801	(1.459)	43	1412968			52.87- 112.87	95.04
-----								
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
14.467	14.467	(1.529)	180	901466	67.8243	67.824	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	869155			65.33- 125.33	96.42
-----								
215 Hexachlorobutadiene					CAS #: 87-68-3			
14.581	14.582	(1.541)	225	677419	72.4205	72.420	80.00- 120.00	100.00
14.581	14.582	(1.541)	223	428042			33.17- 93.17	63.19
-----								
216 Naphthalene					CAS #: 91-20-3			
14.768	14.768	(1.561)	128	205587	6.05234	6.052	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	26770			0.00- 42.88	13.02
-----								
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
15.069	15.069	(1.593)	180	817105	69.5428	69.543	80.00- 120.00	100.00



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
15.069	15.069	(1.593)	182	774163			65.75- 125.75	94.74
15.069	15.069	(1.593)	145	277557			5.23- 65.23	33.97

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 20-AUG-2021
Lab File ID: p082003.d	Calibration Time: 11:13
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	115405	5.51
108 1,4-Difluorobenze	406799	244079	569519	421276	3.56
153 Chlorobenzene-d5	400841	240505	561177	408672	1.95

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.78	-0.13
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Report Date: 20-Aug-2021 14:44

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: LCS  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AT20LCS\_new.sub  
 Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	59.923	119.85	70-130
5 Propylene	50.000	53.104	106.21	70-130
7 1,1-Difluoroethan	50.000	46.711	93.42	70-130
8 Freon 12	50.000	53.094	106.19	70-130
9 Chlorodifluoromet	50.000	56.381	112.76	70-130
10 Freon 114	50.000	50.823	101.65	70-130
12 Isobutane	50.000	52.004	104.01	70-130
15 Chloromethane	50.000	61.469	122.94	70-130
18 Butane	50.000	43.048	86.10	70-130
19 Vinyl Chloride	50.000	46.468	92.94	70-130
20 1,3-Butadiene	50.000	54.711	109.42	70-130
24 Bromomethane	50.000	42.064	84.13	70-130
30 Chloroethane	50.000	42.806	85.61	70-130
31 Isopentane	50.000	53.532	107.06	70-130
32 Vinyl Bromide	50.000	41.475	82.95	70-130
33 Freon 11	50.000	54.454	108.91	70-130
34 Dichlorofluoromet	50.000	44.816	89.63	70-130
35 Pentane	50.000	51.219	102.44	70-130
38 Ethyl Ether	50.000	40.238	80.48	70-130
39 Ethanol	58.000	52.014	89.68	70-130
42 Acrolein	58.000	45.107	77.77	70-130
43 Freon 113	50.000	49.383	98.77	70-130
44 1,1-Dichloroethen	50.000	43.259	86.52	70-130
47 Acetone	50.000	47.988	95.98	70-130
48 Carbon Disulfide	50.000	41.788	83.58	70-130
49 Iodomethane	50.000	57.629	115.26	70-130
52 2-Propanol	50.000	55.642	111.28	70-130
54 3-Chloropropene	50.000	40.923	81.85	70-130
57 Acetonitrile	50.000	56.550	113.10	70-130
59 Methylene Chlorid	50.000	58.052	116.10	70-130
62 tert-Butyl alcoho	50.000	46.273	92.55	70-130
63 Methyl tert-butyl	50.000	43.410	86.82	70-130
64 trans-1,2-Dichlor	50.000	44.251	88.50	70-130

Report Date: 20-Aug-2021 14:44

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	54.083	108.17	70-130
67 Hexane	50.000	48.172	96.34	70-130
71 1,1-Dichloroethan	50.000	47.728	95.46	70-130
72 Isopropyl ether	50.000	55.680	111.36	70-130
73 Vinyl Acetate	50.000	42.019	84.04	70-130
79 Ethyl-tert-butyl	50.000	47.340	94.68	70-130
84 2,2-Dichloropropa	50.000	50.385	100.77	70-130
85 cis-1,2-Dichloroe	50.000	46.853	93.71	70-130
86 2-Butanone	50.000	40.504	81.01	70-130
87 Ethyl Acetate	50.000	57.833	115.67	70-130
89 Tetrahydrofuran	50.000	55.450	110.90	70-130
92 Chloroform	50.000	50.461	100.92	70-130
94 Cyclohexane	50.000	42.840	85.68	70-130
96 1,1,1-Trichloroet	50.000	52.052	104.10	70-130
99 1,1-Dichloroprop	50.000	47.313	94.63	70-130
97 Carbon Tetrachlor	50.000	57.995	115.99	70-130
101 2,2,4-Trimethylpe	50.000	49.884	99.77	70-130
102 Benzene	50.000	46.828	93.66	70-130
105 tert-Amyl methyl	50.000	48.278	96.56	70-130
106 1,2-Dichloroethan	50.000	60.363	120.73	70-130
107 Heptane	50.000	44.702	89.40	70-130
110 n-Butanol	50.000	57.243	114.49	70-130
111 Trichloroethene	50.000	51.393	102.79	70-130
118 Dibromomethane	50.000	55.905	111.81	70-130
127 Methylcyclohexane	50.000	46.194	92.39	70-130
114 1,2-Dichloropropa	50.000	49.990	99.98	70-130
116 Methyl Methacryla	50.000	46.071	92.14	70-130
117 1,4-Dioxane	50.000	46.083	92.17	70-130
122 Bromodichlorometh	50.000	54.866	109.73	70-130
126 cis-1,3-Dichlorop	50.000	48.655	97.31	70-130
131 4-Methyl-2-pentan	50.000	51.948	103.90	70-130
136 Octane	50.000	52.534	105.07	70-130
137 Toluene	50.000	47.608	95.22	70-130
139 trans-1,3-Dichlor	50.000	51.968	103.94	70-130
141 1,1,2-Trichloroet	50.000	51.495	102.99	70-130
142 Tetrachloroethene	50.000	53.444	106.89	70-130
143 2-Hexanone	50.000	53.853	107.71	70-130
144 1,3-Dichloropropa	50.000	48.920	97.84	70-130
146 Dibromochlorometh	50.000	56.367	112.73	70-130
148 1,2-Dibromoethane	50.000	53.326	106.65	70-130
151 1-Bromo-2-Chloroe	50.000	50.103	100.21	70-130
154 Chlorobenzene	50.000	50.847	101.69	70-130
155 Ethyl Benzene	50.000	50.025	100.05	70-130
156 Nonane	50.000	62.190	124.38	70-130
157 1,1,1,2-Tetrachlo	50.000	46.346	92.69	70-130
158 m,p-Xylene	50.000	49.851	99.70	70-130
164 o-Xylene	50.000	49.306	98.61	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	47.681	95.36	70-130
167 Bromoform	50.000	56.999	114.00	70-130
168 Cumene	50.000	49.427	98.85	70-130
169 Cyclohexanone	50.000	59.283	118.57	70-130
175 1,1,2,2-Tetrachlo	50.000	50.955	101.91	70-130
177 Bromobenzene	50.000	54.957	109.91	70-130
178 Propylbenzene	50.000	52.158	104.32	70-130
179 1,2,3-Trichloropr	50.000	54.023	108.05	70-130
181 trans-1,4-Dichlor	50.000	87.707	175.41*	70-130
182 Decane	50.000	54.802	109.60	70-130
183 4-Ethyltoluene	50.000	52.318	104.64	70-130
184 2-Chlorotoluene	50.000	53.903	107.81	70-130
185 1,3,5-Trimethylbe	50.000	52.702	105.41	70-130
188 alpha Methyl Styr	50.000	51.945	103.89	70-130
189 tert-Butylbenzene	50.000	54.008	108.02	70-130
190 1,2,4-Trimethylbe	50.000	52.822	105.64	70-130
192 sec-Butylbenzene	50.000	55.700	111.40	70-130
194 p-Cymene	50.000	54.244	108.49	70-130
195 1,3-Dichlorobenze	50.000	56.030	112.06	70-130
196 1,4-Dichlorobenze	50.000	56.112	112.22	70-130
199 alpha-Chlorotolue	50.000	53.054	106.11	70-130
201 Undecane	50.000	57.036	114.07	70-130
202 Butylbenzene	50.000	53.940	107.88	70-130
204 1,2-Dichlorobenze	50.000	55.354	110.71	70-130
206 1,2-Dibromo-3-chl	50.000	56.009	112.02	70-130
207 Dodecane	50.000	65.267	130.53*	70-130
213 1,2,4-Trichlorobe	58.000	67.824	116.94	70-130
215 Hexachlorobutadie	58.000	72.420	124.86	70-130
216 Naphthalene	5.800	6.052	104.35	60-140
222 1,2,3-Trichlorobe	58.000	69.543	119.90	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.827	111.31	70-130
\$ 134 Toluene-d8	25.000	24.357	97.43	70-130
\$ 170 4-Bromofluorobenz	25.000	27.661	110.64	70-130

Date : 20-AUG-2021 11:40

Client ID: LCS

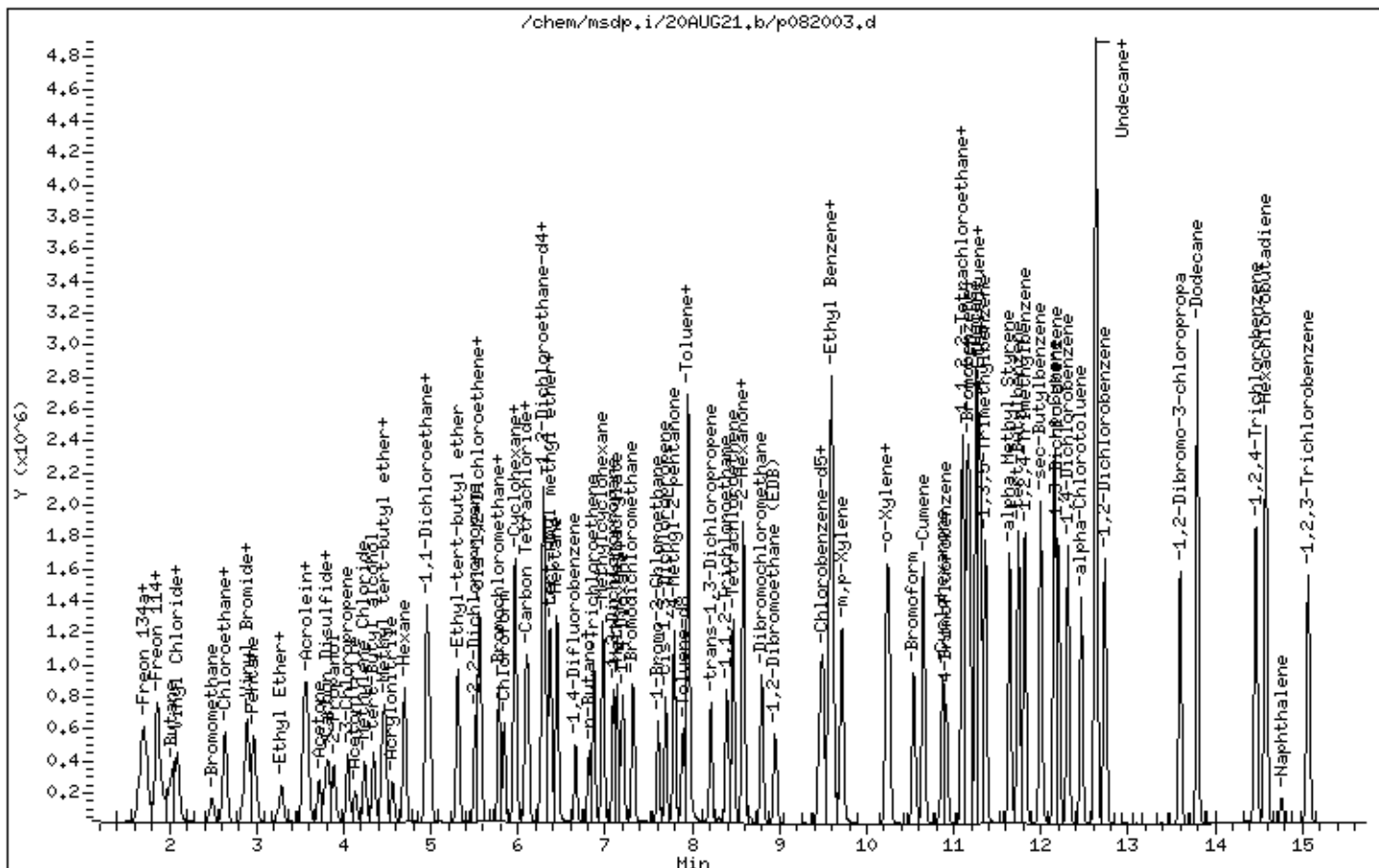
Instrument: msdp.i

Sample Info: 50mL 3018-2173

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Client Sample ID: LCSD

Lab ID#: 2108390-29AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/20/21 12:08 PM

Compound	%Recovery	Method Limits
1,1,1-Trichloroethane	100	70-130
1,1,2,2-Tetrachloroethane	102	70-130
1,1,2-Trichloroethane	102	70-130
1,1-Dichloroethane	95	70-130
1,1-Dichloroethene	87	70-130
1,2,4-Trichlorobenzene	130	70-130
1,2,4-Trimethylbenzene	106	70-130
1,2-Dibromoethane (EDB)	106	70-130
1,2-Dichlorobenzene	110	70-130
1,2-Dichloroethane	118	70-130
1,2-Dichloropropane	98	70-130
1,3,5-Trimethylbenzene	106	70-130
1,3-Butadiene	110	70-130
1,3-Dichlorobenzene	111	70-130
1,4-Dichlorobenzene	111	70-130
1,4-Dioxane	94	70-130
2,2,4-Trimethylpentane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	82	70-130
2-Hexanone	108	70-130
2-Propanol	108	70-130
3-Chloropropene	83	70-130
4-Ethyltoluene	105	70-130
4-Methyl-2-pentanone	102	70-130
Acetone	94	70-130
alpha-Chlorotoluene	106	70-130
Benzene	93	70-130
Bromodichloromethane	109	70-130
Bromoform	114	70-130
Bromomethane	80	70-130
Carbon Disulfide	82	70-130
Carbon Tetrachloride	112	70-130
Chlorobenzene	101	70-130
Chloroethane	85	70-130
Chloroform	100	70-130
Chloromethane	119	70-130
cis-1,2-Dichloroethene	90	70-130
cis-1,3-Dichloropropene	97	70-130
Cumene	99	70-130
Cyclohexane	86	70-130
Dibromochloromethane	112	70-130
Ethanol	86	70-130
Ethyl Benzene	100	70-130

Client Sample ID: LCSD

Lab ID#: 2108390-29AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/20/21 12:08 PM

Compound	%Recovery	Method Limits
Freon 11	106	70-130
Freon 12	104	70-130
Freon 113	95	70-130
Freon 114	100	70-130
Heptane	90	70-130
Hexachlorobutadiene	136 Q	70-130
Hexane	94	70-130
m,p-Xylene	100	70-130
Methyl tert-butyl ether	85	70-130
Methylene Chloride	112	70-130
Naphthalene	116	60-140
o-Xylene	99	70-130
Propylbenzene	104	70-130
Propylene	103	60-140
Styrene	97	70-130
Tetrachloroethene	107	70-130
Tetrahydrofuran	108	70-130
Toluene	96	70-130
trans-1,2-Dichloroethene	88	70-130
trans-1,3-Dichloropropene	103	70-130
Trichloroethene	102	70-130
Vinyl Acetate	85	70-130
Vinyl Chloride	87	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	110	70-130



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/20AUG21.b/p082004.d  
 Lab Smp Id: LCSD Client Smp ID: LCSD  
 Inj Date : 20-AUG-2021 12:08  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 50mL 3018-2173  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/20AUG21.b/p21q0519a.m  
 Meth Date : 20-Aug-2021 11:52 p5f1 Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 14 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.785	(1.000)	130	121146	25.0000		80.00- 120.00	100.00
5.778	5.785	(1.000)	128	92519			48.23- 108.23	76.37
5.778	5.778	(1.000)	49	263765			150.57- 210.57	217.72
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	435127	25.0000		80.00- 120.00	100.00
6.666	6.659	(1.000)	88	63213			0.00- 45.71	14.53
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	424998	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	217172			23.78- 83.78	51.10
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.315	(1.093)	65	179947	26.9151	26.915	80.00- 120.00	100.00
6.315	6.315	(1.093)	67	97740			27.21- 87.21	54.32
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	477391	25.2656	25.266	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	50400			0.00- 40.44	10.56

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)							
7.891	7.891	(1.184)	100	301818		34.95- 94.95	63.22
-----							
\$ 170 4-Bromofluorobenzene							
						CAS #: 460-00-4	
10.921	10.921	(1.154)	174	299515	27.4446	27.444 80.00- 120.00	100.00
10.914	10.914	(1.154)	95	348253		95.92- 155.92	116.27
10.921	10.921	(1.154)	176	285131		66.89- 126.89	95.20
-----							
4 Freon 134a							
						CAS #: 811-97-2	
1.646	1.647	(0.285)	83	224148	58.4584	58.458 80.00- 120.00	100.00
1.646	1.647	(0.285)	69	160164		59.44- 119.44	71.45
1.744	1.759	(0.302)	51	959932		419.06- 479.06	428.26
-----							
5 Propylene							
						CAS #: 115-07-1	
1.674	1.689	(0.290)	41	285451	51.4906	51.490 80.00- 120.00	100.00
1.674	1.689	(0.290)	42	188219		35.28- 95.28	65.94
1.674	1.689	(0.290)	39	199683		38.35- 98.35	69.95
-----							
7 1,1-Difluoroethane							
						CAS #: 75-37-6	
1.702	1.703	(0.295)	65	125720	45.7831	45.783 80.00- 120.00	100.00
1.744	1.759	(0.302)	51	959932		597.63- 657.63	763.54
1.702	1.717	(0.295)	47	108660		33.72- 93.72	86.43
-----							
8 Freon 12							
						CAS #: 75-71-8	
1.716	1.717	(0.297)	85	562871	51.8033	51.803 80.00- 120.00	100.00
1.716	1.717	(0.297)	87	181541		2.37- 62.37	32.25
-----							
9 Chlorodifluoromethane							
						CAS #: 75-45-6	
1.744	1.759	(0.302)	67	59628	55.5568	55.557 80.00- 120.00	100.00
1.744	1.759	(0.302)	51	959932		1501.01-1561.01	1609.85
-----							
10 Freon 114							
						CAS #: 76-14-2	
1.856	1.856	(0.321)	135	535087	50.1686	50.169 80.00- 120.00	100.00
1.856	1.856	(0.321)	137	166820		2.30- 62.30	31.18
-----							
12 Isobutane							
						CAS #: 75-28-5	
1.870	1.870	(0.324)	43	620505	50.5571	50.557 80.00- 120.00	100.00
1.870	1.870	(0.324)	42	202895		2.44- 62.44	32.70
1.870	1.870	(0.324)	58	17199		0.00- 33.36	2.77
-----							
15 Chloromethane							
						CAS #: 74-87-3	
1.940	1.954	(0.336)	50	374825	59.4622	59.462 80.00- 120.00	100.00
1.940	1.954	(0.336)	52	95005		0.00- 56.26	25.35
-----							
18 Butane							
						CAS #: 106-97-8	
2.032	2.039	(0.352)	58	63461	43.4606	43.461 80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
2.032	2.039	(0.352)	43	573422		823.29- 883.29	903.57		
-----									
19 Vinyl Chloride									
						CAS #: 75-01-4			
2.068	2.075	(0.358)	62	330972	43.6445	43.644	80.00- 120.00	100.00	
2.068	2.075	(0.358)	64	98131			0.00- 59.69	29.65	
-----									
20 1,3-Butadiene									
						CAS #: 106-99-0			
2.096	2.103	(0.363)	54	336160	55.1151	55.115	80.00- 120.00	100.00	
2.096	2.103	(0.363)	39	298654			52.37- 112.37	88.84	
-----									
24 Bromomethane									
						CAS #: 74-83-9			
2.483	2.490	(0.430)	94	194826	39.9554	39.955	80.00- 120.00	100.00	
2.483	2.490	(0.430)	96	181846			64.07- 124.07	93.34	
-----									
30 Chloroethane									
						CAS #: 75-00-3			
2.612	2.612	(0.452)	64	116545	42.7390	42.739	80.00- 120.00	100.00	
2.612	2.612	(0.452)	66	32633			0.04- 60.04	28.00	
2.612	2.612	(0.452)	49	50928			4.54- 64.54	43.70	
-----									
31 Isopentane									
						CAS #: 78-78-4			
2.641	2.641	(0.457)	43	431262	51.9747	51.975	80.00- 120.00	100.00	
2.641	2.641	(0.457)	57	242770			34.12- 94.12	56.29	
-----									
32 Vinyl Bromide									
						CAS #: 593-60-2			
2.848	2.848	(0.493)	106	187394	41.5782	41.578	80.00- 120.00	100.00	
2.841	2.848	(0.492)	108	188195			69.27- 129.27	100.43	
-----									
33 Freon 11									
						CAS #: 75-69-4			
2.891	2.891	(0.500)	101	611392	52.9507	52.951	80.00- 120.00	100.00	
2.891	2.891	(0.500)	103	398465			34.72- 94.72	65.17	
-----									
34 Dichlorofluoromethane									
						CAS #: 75-43-4			
2.906	2.906	(0.503)	67	439019	44.1145	44.114	80.00- 120.00	100.00	
2.906	2.906	(0.503)	69	135953			0.84- 60.84	30.97	
-----									
35 Pentane									
						CAS #: 109-66-0			
2.970	2.970	(0.514)	43	672454	49.8592	49.859	80.00- 120.00	100.00	
2.970	2.970	(0.514)	57	88620			0.00- 44.98	13.18	
2.977	2.970	(0.515)	72	35452			0.00- 37.39	5.27	
-----									
38 Ethyl Ether									
						CAS #: 60-29-7			
3.285	3.285	(0.569)	74	90647	39.8382	39.838	80.00- 120.00	100.00	
3.285	3.285	(0.569)	59	201830			163.46- 223.46	222.65	
3.285	3.285	(0.569)	45	344809			250.40- 310.40	380.38	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.242	3.242	(0.561)	46	60300	50.1913	50.191	80.00- 120.00	100.00
3.285	3.285	(0.569)	45	342935			511.19- 571.19	568.72
42 Acrolein					CAS #: 107-02-8			
3.536	3.543	(0.612)	55	91839	44.0539	44.054	80.00- 120.00	100.00
3.536	3.543	(0.612)	56	128999			111.10- 171.10	140.46
43 Freon 113					CAS #: 76-13-1			
3.557	3.550	(0.616)	151	406748	47.4140	47.414	80.00- 120.00	100.00
3.550	3.558	(0.614)	153	261607			33.56- 93.56	64.32
3.550	3.550	(0.614)	101	480558			89.21- 149.21	118.15
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.586	3.586	(0.621)	96	222210	43.3596	43.360	80.00- 120.00	100.00
3.586	3.586	(0.621)	98	141277			34.02- 94.02	63.58
3.586	3.586	(0.621)	61	489369			168.77- 228.77	220.23
47 Acetone					CAS #: 67-64-1			
3.715	3.722	(0.643)	58	150014	47.2339	47.234	80.00- 120.00	100.00
3.715	3.722	(0.643)	43	579522			302.95- 362.95	386.31
48 Carbon Disulfide					CAS #: 75-15-0			
3.822	3.830	(0.662)	76	552973	40.9563	40.956	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.794	3.794	(0.657)	142	520255	57.9654	57.965	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	251370			12.22- 72.22	48.32
52 2-Propanol					CAS #: 67-63-0			
3.887	3.894	(0.673)	45	692271	54.0827	54.083	80.00- 120.00	100.00
3.887	3.894	(0.673)	43	131143			0.00- 47.19	18.94
54 3-Chloropropene					CAS #: 107-05-1			
4.052	4.052	(0.701)	76	93642	41.5161	41.516	80.00- 120.00	100.00
4.052	4.052	(0.701)	41	485232			396.19- 456.19	518.18
57 Acetonitrile					CAS #: 75-05-8			
4.123	4.131	(0.714)	41	327096	54.8273	54.827	80.00- 120.00	100.00
4.123	4.131	(0.714)	40	168432			20.95- 80.95	51.49
4.130	4.131	(0.715)	38	33815			0.00- 41.17	10.34
59 Methylene Chloride					CAS #: 75-09-2			
4.238	4.238	(0.733)	49	460083	55.7716	55.772	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	178044			22.03- 82.03	38.70
4.238	4.238	(0.733)	51	137893			0.18- 60.18	29.97

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.338	4.346	(0.751)	59	682644	45.7319	45.732	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	167160			0.00- 51.11	24.49
4.345	4.346	(0.752)	57	74436			0.00- 40.49	10.90
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.769)	73	634701	42.6613	42.661	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	234674			3.10- 63.10	36.97
4.446	4.446	(0.769)	41	255018			1.28- 61.28	40.18
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.481	4.482	(0.776)	98	150544	43.9639	43.964	80.00- 120.00	100.00
4.481	4.482	(0.776)	61	449842			255.84- 315.84	298.81
4.481	4.482	(0.776)	96	233875			127.59- 187.59	155.35
66 Acrylonitrile						CAS #: 107-13-1		
4.560	4.568	(0.789)	52	250444	52.5393	52.539	80.00- 120.00	100.00
4.560	4.568	(0.789)	53	292890			88.05- 148.05	116.95
67 Hexane						CAS #: 110-54-3		
4.696	4.697	(0.813)	57	562133	47.1022	47.102	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	430215			37.52- 97.52	76.53
4.696	4.697	(0.813)	86	56710			0.00- 41.48	10.09
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.969	4.969	(0.860)	63	486407	47.4095	47.409	80.00- 120.00	100.00
4.969	4.969	(0.860)	65	138943			0.00- 59.70	28.57
72 Isopropyl ether						CAS #: 108-20-3		
4.954	4.947	(0.857)	45	1501484	54.0957	54.096	80.00- 120.00	100.00
4.954	4.954	(0.857)	87	207424			0.00- 48.18	13.81
4.954	4.947	(0.857)	59	134090			0.00- 40.15	8.93
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.865)	86	55794	42.3150	42.315	80.00- 120.00	100.00
4.997	4.997	(0.865)	43	1333499			2432.48-2492.48	2390.03
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.918)	59	1129457	47.0090	47.009	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	322548			1.00- 61.00	28.56
5.305	5.305	(0.918)	41	259572			0.00- 48.73	22.98
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.513	5.513	(0.954)	77	451596	49.5680	49.568	80.00- 120.00	100.00
5.513	5.513	(0.954)	79	146365			2.28- 62.28	32.41
5.513	5.513	(0.954)	97	104824			0.00- 53.93	23.21

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.549	5.549	(0.960)	98	160262	45.0987	45.099	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	251732			125.75- 185.75	157.08
5.549	5.549	(0.960)	61	627518			332.40- 392.40	391.56
86 2-Butanone					CAS #: 78-93-3			
5.556	5.556	(0.962)	72	112308	41.0149	41.015	80.00- 120.00	100.00
5.563	5.563	(0.963)	43	1897482			1214.50-1274.50	1689.53
5.556	5.556	(0.962)	57	60037			14.68- 74.68	53.46
87 Ethyl Acetate					CAS #: 141-78-6			
5.577	5.570	(0.965)	45	153457	56.3431	56.343	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	627518			452.04- 512.04	408.92
5.577	5.578	(0.965)	70	54711			22.77- 82.77	35.65
89 Tetrahydrofuran					CAS #: 109-99-9			
5.778	5.778	(1.000)	42	493800	54.2235	54.224	80.00- 120.00	100.00
5.778	5.778	(1.000)	71	96927			0.00- 55.82	19.63
5.778	5.778	(1.000)	72	104674			0.00- 57.59	21.20
92 Chloroform					CAS #: 67-66-3			
5.842	5.843	(1.011)	83	525751	49.8782	49.878	80.00- 120.00	100.00
5.842	5.843	(1.011)	85	336971			34.70- 94.70	64.09
94 Cyclohexane					CAS #: 110-82-7			
5.964	5.957	(1.032)	84	327257	42.9438	42.944	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	636741			142.57- 202.57	194.57
5.957	5.957	(1.031)	41	384446			62.09- 122.09	117.48
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
5.971	5.972	(1.033)	97	598663	50.2747	50.275	80.00- 120.00	100.00
5.971	5.972	(1.033)	99	385835			34.02- 94.02	64.45
97 Carbon Tetrachloride					CAS #: 56-23-5			
6.093	6.093	(1.055)	119	628232	56.2518	56.252	80.00- 120.00	100.00
6.093	6.093	(1.055)	117	627451			70.64- 130.64	99.88
99 1,1-Dichloropropene					CAS #: 563-58-6			
6.122	6.122	(0.918)	110	144223	48.6931	48.693	80.00- 120.00	100.00
6.122	6.115	(0.918)	75	351572			226.85- 286.85	243.77
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
6.287	6.280	(1.088)	57	2041340	49.2118	49.212	80.00- 120.00	100.00
6.287	6.280	(1.088)	56	688666			2.24- 62.24	33.74
6.287	6.280	(1.088)	41	574242			0.00- 54.39	28.13

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
6.301	6.301	(0.945)	78	666325	46.4047	46.405	80.00- 120.00	100.00
6.301	6.301	(0.945)	77	156833			0.00- 52.90	23.54
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.358	6.358	(0.954)	87	195344	48.2468	48.247	80.00- 120.00	100.00
6.358	6.358	(0.954)	73	765316			372.79- 432.79	391.78
6.358	6.358	(0.954)	55	319038			112.09- 172.09	163.32
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.380	6.380	(0.957)	62	440994	59.0230	59.023	80.00- 120.00	100.00
6.380	6.380	(0.957)	64	133472			0.79- 60.79	30.27
-----								
107 Heptane					CAS #: 142-82-5			
6.451	6.444	(0.968)	71	255781	44.9652	44.965	80.00- 120.00	100.00
6.451	6.444	(0.968)	43	875758			226.53- 286.53	342.38
6.451	6.444	(0.968)	57	402276			100.85- 160.85	157.27
-----								
110 n-Butanol					CAS #: 71-36-3			
6.817	6.810	(1.023)	56	300557	57.5726	57.573	80.00- 120.00	100.00
6.817	6.810	(1.023)	41	234946			40.99- 100.99	78.17
6.809	6.810	(1.021)	43	190065			27.38- 87.38	63.24
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.867	6.867	(1.030)	95	356856	51.2166	51.216	80.00- 120.00	100.00
6.867	6.867	(1.030)	130	387560			76.29- 136.29	108.60
6.867	6.867	(1.030)	97	234532			33.63- 93.63	65.72
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.096	7.096	(1.064)	63	362788	49.2821	49.282	80.00- 120.00	100.00
7.096	7.096	(1.064)	62	261301			41.07- 101.07	72.03
7.096	7.096	(1.064)	41	267326			22.53- 82.53	73.69
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.139	7.139	(0.755)	69	268763	46.0244	46.024	80.00- 120.00	100.00
7.139	7.139	(0.755)	41	680785			179.84- 239.84	253.30
7.139	7.139	(0.755)	100	109457			9.59- 69.59	40.73
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.175	7.175	(1.076)	88	183384	46.8747	46.875	80.00- 120.00	100.00
7.175	7.175	(1.076)	58	196840			68.28- 128.28	107.34
7.175	7.175	(1.076)	57	70367			2.68- 62.68	38.37
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.211	7.211	(0.762)	174	348080	55.1924	55.192	80.00- 120.00	100.00
7.203	7.204	(0.761)	93	313719			60.09- 120.09	90.13

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
7.203	7.204	(0.761)	95	273572				48.38- 108.38	78.59
-----									
122 Bromodichloromethane CAS #: 75-27-4									
7.318	7.318	(1.098)	83	588245	54.4506	54.451		80.00- 120.00	100.00
7.318	7.318	(1.098)	85	377921				35.24- 95.24	64.25
-----									
126 cis-1,3-Dichloropropene CAS #: 10061-01-5									
7.698	7.698	(1.155)	75	444361	48.6868	48.687		80.00- 120.00	100.00
7.698	7.698	(1.155)	77	137988				2.42- 62.42	31.05
7.698	7.698	(1.155)	39	355303				37.16- 97.16	79.96
-----									
127 Methylcyclohexane CAS #: 108-87-2									
6.974	6.974	(1.046)	83	473284	46.9402	46.940		80.00- 120.00	100.00
6.974	6.974	(1.046)	98	226185				15.78- 75.78	47.79
6.974	6.974	(1.046)	55	621507				84.64- 144.64	131.32
-----									
131 4-Methyl-2-pentanone CAS #: 108-10-1									
7.798	7.798	(1.170)	58	381199	50.9929	50.993		80.00- 120.00	100.00
7.798	7.798	(1.170)	43	1210998				242.35- 302.35	317.68
7.798	7.798	(1.170)	85	111223				3.24- 63.24	29.18
-----									
137 Toluene CAS #: 108-88-3									
7.956	7.956	(1.193)	91	952170	48.0636	48.064		80.00- 120.00	100.00
7.956	7.956	(1.193)	92	553885				28.38- 88.38	58.17
-----									
136 Octane CAS #: 111-65-9									
7.948	7.949	(1.192)	57	444834	52.6620	52.662		80.00- 120.00	100.00
7.948	7.949	(1.192)	85	326067				56.00- 116.00	73.30
7.948	7.949	(1.192)	43	1310759				228.66- 288.66	294.66
-----									
139 trans-1,3-Dichloropropene CAS #: 10061-02-6									
8.213	8.214	(0.868)	75	431393	51.5804	51.580		80.00- 120.00	100.00
8.213	8.214	(0.868)	77	136900				1.24- 61.24	31.73
8.213	8.214	(0.868)	39	325481				34.11- 94.11	75.45
-----									
141 1,1,2-Trichloroethane CAS #: 79-00-5									
8.400	8.400	(0.888)	97	351559	50.8557	50.856		80.00- 120.00	100.00
8.400	8.400	(0.888)	99	217299				31.96- 91.96	61.81
8.400	8.400	(0.888)	83	289777				52.93- 112.93	82.43
-----									
142 Tetrachloroethene CAS #: 127-18-4									
8.464	8.464	(0.895)	166	518723	53.5535	53.554		80.00- 120.00	100.00
8.464	8.464	(0.895)	129	402371				47.84- 107.84	77.57
8.464	8.464	(0.895)	131	382880				45.29- 105.29	73.81
-----									



CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone					CAS #: 591-78-6				
8.586	8.586	(0.908)	58	531945	53.8598	53.860	80.00- 120.00	100.00	
8.586	8.586	(0.908)	43	1186439			162.87- 222.87	223.04	
8.586	8.586	(0.908)	100	75993			0.00- 45.94	14.29	
-----									
144 1,3-Dichloropropane					CAS #: 142-28-9				
8.579	8.579	(1.287)	76	458621	48.7493	48.749	80.00- 120.00	100.00	
8.579	8.579	(1.287)	41	711963			94.99- 154.99	155.24	
8.579	8.579	(1.287)	78	146333			2.05- 62.05	31.91	
-----									
146 Dibromochloromethane					CAS #: 124-48-1				
8.801	8.801	(0.930)	129	721921	55.8926	55.892	80.00- 120.00	100.00	
8.801	8.801	(0.930)	127	561528			47.45- 107.45	77.78	
-----									
148 1,2-Dibromoethane (EDB)					CAS #: 106-93-4				
8.951	8.951	(0.946)	107	586388	52.8883	52.888	80.00- 120.00	100.00	
8.951	8.951	(0.946)	109	555077			64.21- 124.21	94.66	
-----									
151 1-Bromo-2-Chloroethane					CAS #: 107-04-0				
7.605	7.605	(1.141)	63	678276	50.2170	50.217	80.00- 120.00	100.00	
7.605	7.605	(1.141)	65	194125			0.00- 59.64	28.62	
7.612	7.612	(1.142)	144	69224			0.00- 39.63	10.21	
-----									
154 Chlorobenzene					CAS #: 108-90-7				
9.496	9.496	(1.004)	112	855246	50.6783	50.678	80.00- 120.00	100.00	
9.496	9.496	(1.004)	114	271873			1.74- 61.74	31.79	
9.496	9.496	(1.004)	77	440885			25.04- 85.04	51.55	
-----									
155 Ethyl Benzene					CAS #: 100-41-4				
9.567	9.567	(1.011)	106	441426	50.0228	50.023	80.00- 120.00	100.00	
9.567	9.567	(1.011)	91	1310630			273.74- 333.74	296.91	
-----									
156 Nonane					CAS #: 111-84-2				
9.596	9.603	(1.014)	43	1372781	60.4632	60.463	80.00- 120.00	100.00	
9.603	9.603	(1.015)	57	1006615			54.16- 114.16	73.33	
9.603	9.603	(1.015)	85	256071			0.00- 53.90	18.65	
-----									
157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6				
9.596	9.603	(1.014)	131	429625	45.4697	45.470	80.00- 120.00	100.00	
9.460	9.460	(1.000)	117	424998			57.42- 117.42	98.92	
9.596	9.589	(1.014)	95	155979			5.70- 65.70	36.31	
-----									
158 m,p-Xylene					CAS #: 108-38-3				
9.718	9.718	(1.027)	106	550686	49.8261	49.826	80.00- 120.00	100.00	
9.718	9.718	(1.027)	91	1048876			163.73- 223.73	190.47	
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	525093	49.5875	49.587	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	1047453			177.45- 237.45	199.48
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	878121	48.4892	48.489	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	409145			17.88- 77.88	46.59
-----								
167 Bromoform						CAS #: 75-25-2		
10.549	10.549	(1.115)	173	724635	56.9172	56.917	80.00- 120.00	100.00
10.541	10.542	(1.114)	171	369199			21.25- 81.25	50.95
-----								
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	1642119	49.3658	49.366	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	480635			0.00- 58.52	29.27
10.649	10.649	(1.126)	51	266027			0.00- 43.00	16.20
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.871	10.871	(1.149)	55	699727	58.8192	58.819	80.00- 120.00	100.00
10.878	10.871	(1.150)	98	193600			1.94- 61.94	27.67
10.871	10.871	(1.149)	42	492989			37.89- 97.89	70.45
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.107	11.107	(1.174)	83	831355	51.2051	51.205	80.00- 120.00	100.00
11.107	11.107	(1.174)	85	531728			35.20- 95.20	63.96
-----								
177 Bromobenzene						CAS #: 108-86-1		
11.107	11.107	(1.174)	156	555944	54.9515	54.951	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	539308			67.21- 127.21	97.01
11.179	11.179	(1.182)	77	330225			29.02- 89.02	59.40
-----								
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	513761	52.0885	52.088	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	1994300			366.49- 426.49	388.18
11.150	11.150	(1.179)	105	74636			0.00- 44.85	14.53
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
11.179	11.179	(1.182)	110	274479	53.0423	53.042	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	859089			280.55- 340.55	312.99
11.100	11.100	(1.173)	61	134536			15.49- 75.49	49.01
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
11.179	11.179	(1.182)	53	291439	85.9108	85.911	80.00- 120.00	100.00(R)
11.179	11.158	(1.182)	89	176614			49.11- 109.11	60.60
11.179	11.179	(1.182)	75	859089			426.44- 486.44	294.77
-----								

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane					CAS #: 124-18-5				
11.251	11.251	(1.189)	57	1411605	54.5558	54.556	80.00- 120.00	100.00	
11.258	11.258	(1.190)	71	340402			0.00- 57.66	24.11	
11.258	11.258	(1.190)	142	51751			0.00- 34.09	3.67	
-----					-----				
183 4-Ethyltoluene					CAS #: 622-96-8				
11.286	11.287	(1.193)	120	565139	52.6873	52.687	80.00- 120.00	100.00	
11.286	11.287	(1.193)	105	1723132			284.55- 344.55	304.90	
-----					-----				
184 2-Chlorotoluene					CAS #: 95-49-8				
11.308	11.308	(1.195)	126	445933	53.0986	53.099	80.00- 120.00	100.00	
11.308	11.308	(1.195)	91	1486334			315.17- 375.17	333.31	
11.301	11.301	(1.195)	65	229973			21.55- 81.55	51.57	
-----					-----				
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8				
11.365	11.365	(1.201)	120	782036	52.9549	52.955	80.00- 120.00	100.00	
11.365	11.365	(1.201)	105	1469928			164.93- 224.93	187.96	
-----					-----				
188 alpha Methyl Styrene					CAS #: 98-83-9				
11.645	11.645	(1.231)	118	764787	52.1296	52.130	80.00- 120.00	100.00	
11.645	11.645	(1.231)	103	422410			25.30- 85.30	55.23	
-----					-----				
189 tert-Butylbenzene					CAS #: 98-06-6				
11.738	11.745	(1.241)	119	1471660	53.2794	53.279	80.00- 120.00	100.00	
11.745	11.745	(1.242)	134	357355			0.00- 54.25	24.28	
11.738	11.745	(1.241)	91	878535			31.27- 91.27	59.70	
-----					-----				
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6				
11.816	11.817	(1.249)	105	1476952	52.9858	52.986	80.00- 120.00	100.00	
11.816	11.817	(1.249)	120	750332			19.05- 79.05	50.80	
-----					-----				
192 sec-Butylbenzene					CAS #: 135-98-8				
11.995	12.003	(1.268)	134	467857	54.4976	54.498	80.00- 120.00	100.00	
11.995	11.996	(1.268)	105	2138443			437.55- 497.55	457.07	
11.995	11.996	(1.268)	91	319634			40.76- 100.76	68.32	
-----					-----				
194 p-Cymene					CAS #: 99-87-6				
12.160	12.160	(1.285)	119	2041238	53.7955	53.795	80.00- 120.00	100.00	
12.160	12.160	(1.285)	134	531081			0.00- 55.54	26.02	
12.160	12.160	(1.285)	91	430099			0.00- 51.48	21.07	
-----					-----				
195 1,3-Dichlorobenzene					CAS #: 541-73-1				
12.203	12.203	(1.290)	146	1063211	55.7261	55.726	80.00- 120.00	100.00	
12.203	12.203	(1.290)	148	676464			33.21- 93.21	63.62	
12.196	12.196	(1.289)	111	423297			11.31- 71.31	39.81	
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RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
12.311	12.311	(1.301)	146	1067044	55.3436	55.344	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	682690			33.90- 93.90	63.98
12.311	12.311	(1.301)	111	404833			9.45- 69.45	37.94
-----					-----			
199 alpha-Chlorotoluene					CAS #: 100-44-7			
12.461	12.461	(1.317)	91	1399859	52.8727	52.873	80.00- 120.00	100.00
12.461	12.461	(1.317)	126	336322			0.00- 53.26	24.03
-----					-----			
201 Undecane					CAS #: 1120-21-4			
12.640	12.640	(1.336)	57	1741856	58.2804	58.280	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1755606			58.12- 118.12	100.79
-----					-----			
202 Butylbenzene					CAS #: 104-51-8			
12.626	12.626	(1.335)	134	522187	54.1846	54.185	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	1754557			314.79- 374.79	336.00
12.626	12.626	(1.335)	92	918452			154.29- 214.29	175.89
-----					-----			
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
12.740	12.733	(1.347)	146	1029723	55.0419	55.042	80.00- 120.00	100.00
12.740	12.733	(1.347)	148	655051			33.84- 93.84	63.61
12.733	12.733	(1.346)	111	419142			12.73- 72.73	40.70
-----					-----			
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
13.600	13.600	(1.438)	157	646469	57.0536	57.054	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	516279			52.48- 112.48	79.86
13.600	13.600	(1.438)	155	500245			47.41- 107.41	77.38
-----					-----			
207 Dodecane					CAS #: 112-40-3			
13.801	13.801	(1.459)	57	1848892	78.0464	78.046	80.00- 120.00	100.00(R)
13.801	13.801	(1.459)	43	1727375			52.87- 112.87	93.43
-----					-----			
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
14.467	14.467	(1.529)	180	1045199	75.6175	75.617	80.00- 120.00	100.00(R)
14.467	14.467	(1.529)	182	1002442			65.33- 125.33	95.91
-----					-----			
215 Hexachlorobutadiene					CAS #: 87-68-3			
14.581	14.582	(1.541)	225	770092	79.1653	79.165	80.00- 120.00	100.00(R)
14.581	14.582	(1.541)	223	486296			33.17- 93.17	63.15
-----					-----			
216 Naphthalene					CAS #: 91-20-3			
14.768	14.768	(1.561)	128	237717	6.72941	6.729	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	30072			0.00- 42.88	12.65
-----					-----			
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
15.068	15.069	(1.593)	180	984246	80.5500	80.550	80.00- 120.00	100.00(R)

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
15.068	15.069	(1.593)	182	951677			65.75- 125.75	96.69
15.068	15.069	(1.593)	145	334220			5.23- 65.23	33.96

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 20-AUG-2021
Lab File ID: p082004.d	Calibration Time: 11:13
Lab Smp Id: LCSD	Client Smp ID: LCSD
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	109375	65625	153125	121146	10.76
108 1,4-Difluorobenze	406799	244079	569519	435127	6.96
153 Chlorobenzene-d5	400841	240505	561177	424998	6.03

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.78	-0.13
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Report Date: 20-Aug-2021 12:45

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 20AUG21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: LCSD Client Smp ID: LCSD  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: LCSD  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AT20LCS\_new.sub  
Method File: /chem/msdp.i/20AUG21.b/p21q0519a.m  
Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	58.458	116.92	70-130
5 Propylene	50.000	51.490	102.98	70-130
7 1,1-Difluoroethan	50.000	45.783	91.57	70-130
8 Freon 12	50.000	51.803	103.61	70-130
9 Chlorodifluoromet	50.000	55.557	111.11	70-130
10 Freon 114	50.000	50.169	100.34	70-130
12 Isobutane	50.000	50.557	101.11	70-130
15 Chloromethane	50.000	59.462	118.92	70-130
18 Butane	50.000	43.461	86.92	70-130
19 Vinyl Chloride	50.000	43.644	87.29	70-130
20 1,3-Butadiene	50.000	55.115	110.23	70-130
24 Bromomethane	50.000	39.955	79.91	70-130
30 Chloroethane	50.000	42.739	85.48	70-130
31 Isopentane	50.000	51.975	103.95	70-130
32 Vinyl Bromide	50.000	41.578	83.16	70-130
33 Freon 11	50.000	52.951	105.90	70-130
34 Dichlorofluoromet	50.000	44.114	88.23	70-130
35 Pentane	50.000	49.859	99.72	70-130
38 Ethyl Ether	50.000	39.838	79.68	70-130
39 Ethanol	58.000	50.191	86.54	70-130
42 Acrolein	58.000	44.054	75.95	70-130
43 Freon 113	50.000	47.414	94.83	70-130
44 1,1-Dichloroethen	50.000	43.360	86.72	70-130
47 Acetone	50.000	47.234	94.47	70-130
48 Carbon Disulfide	50.000	40.956	81.91	70-130
49 Iodomethane	50.000	57.965	115.93	70-130
52 2-Propanol	50.000	54.083	108.17	70-130
54 3-Chloropropene	50.000	41.516	83.03	70-130
57 Acetonitrile	50.000	54.827	109.65	70-130
59 Methylene Chlorid	50.000	55.772	111.54	70-130
62 tert-Butyl alcoho	50.000	45.732	91.46	70-130
63 Methyl tert-butyl	50.000	42.661	85.32	70-130
64 trans-1,2-Dichlor	50.000	43.964	87.93	70-130

Report Date: 20-Aug-2021 12:45

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	52.539	105.08	70-130
67 Hexane	50.000	47.102	94.20	70-130
71 1,1-Dichloroethan	50.000	47.409	94.82	70-130
72 Isopropyl ether	50.000	54.096	108.19	70-130
73 Vinyl Acetate	50.000	42.315	84.63	70-130
79 Ethyl-tert-butyl	50.000	47.009	94.02	70-130
84 2,2-Dichloropropa	50.000	49.568	99.14	70-130
85 cis-1,2-Dichloroe	50.000	45.099	90.20	70-130
86 2-Butanone	50.000	41.015	82.03	70-130
87 Ethyl Acetate	50.000	56.343	112.69	70-130
89 Tetrahydrofuran	50.000	54.224	108.45	70-130
92 Chloroform	50.000	49.878	99.76	70-130
94 Cyclohexane	50.000	42.944	85.89	70-130
96 1,1,1-Trichloroet	50.000	50.275	100.55	70-130
99 1,1-Dichloropropo	50.000	48.693	97.39	70-130
97 Carbon Tetrachlor	50.000	56.252	112.50	70-130
101 2,2,4-Trimethylpe	50.000	49.212	98.42	70-130
102 Benzene	50.000	46.405	92.81	70-130
105 tert-Amyl methyl	50.000	48.247	96.49	70-130
106 1,2-Dichloroethan	50.000	59.023	118.05	70-130
107 Heptane	50.000	44.965	89.93	70-130
110 n-Butanol	50.000	57.573	115.15	70-130
111 Trichloroethene	50.000	51.216	102.43	70-130
118 Dibromomethane	50.000	55.192	110.38	70-130
127 Methylcyclohexane	50.000	46.940	93.88	70-130
114 1,2-Dichloropropa	50.000	49.282	98.56	70-130
116 Methyl Methacryla	50.000	46.024	92.05	70-130
117 1,4-Dioxane	50.000	46.875	93.75	70-130
122 Bromodichlorometh	50.000	54.451	108.90	70-130
126 cis-1,3-Dichlorop	50.000	48.687	97.37	70-130
131 4-Methyl-2-pentan	50.000	50.993	101.99	70-130
136 Octane	50.000	52.662	105.32	70-130
137 Toluene	50.000	48.064	96.13	70-130
139 trans-1,3-Dichlor	50.000	51.580	103.16	70-130
141 1,1,2-Trichloroet	50.000	50.856	101.71	70-130
142 Tetrachloroethene	50.000	53.554	107.11	70-130
143 2-Hexanone	50.000	53.860	107.72	70-130
144 1,3-Dichloropropa	50.000	48.749	97.50	70-130
146 Dibromochlorometh	50.000	55.892	111.79	70-130
148 1,2-Dibromoethane	50.000	52.888	105.78	70-130
151 1-Bromo-2-Chloroe	50.000	50.217	100.43	70-130
154 Chlorobenzene	50.000	50.678	101.36	70-130
155 Ethyl Benzene	50.000	50.023	100.05	70-130
156 Nonane	50.000	60.463	120.93	70-130
157 1,1,1,2-Tetrachlo	50.000	45.470	90.94	70-130
158 m,p-Xylene	50.000	49.826	99.65	70-130
164 o-Xylene	50.000	49.587	99.17	70-130



SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	48.489	96.98	70-130
167 Bromoform	50.000	56.917	113.83	70-130
168 Cumene	50.000	49.366	98.73	70-130
169 Cyclohexanone	50.000	58.819	117.64	70-130
175 1,1,2,2-Tetrachlo	50.000	51.205	102.41	70-130
177 Bromobenzene	50.000	54.951	109.90	70-130
178 Propylbenzene	50.000	52.088	104.18	70-130
179 1,2,3-Trichloropr	50.000	53.042	106.08	70-130
181 trans-1,4-Dichlor	50.000	85.911	171.82*	70-130
182 Decane	50.000	54.556	109.11	70-130
183 4-Ethyltoluene	50.000	52.687	105.37	70-130
184 2-Chlorotoluene	50.000	53.099	106.20	70-130
185 1,3,5-Trimethylbe	50.000	52.955	105.91	70-130
188 alpha Methyl Styr	50.000	52.130	104.26	70-130
189 tert-Butylbenzene	50.000	53.279	106.56	70-130
190 1,2,4-Trimethylbe	50.000	52.986	105.97	70-130
192 sec-Butylbenzene	50.000	54.498	109.00	70-130
194 p-Cymene	50.000	53.795	107.59	70-130
195 1,3-Dichlorobenze	50.000	55.726	111.45	70-130
196 1,4-Dichlorobenze	50.000	55.344	110.69	70-130
199 alpha-Chlorotolue	50.000	52.873	105.75	70-130
201 Undecane	50.000	58.280	116.56	70-130
202 Butylbenzene	50.000	54.185	108.37	70-130
204 1,2-Dichlorobenze	50.000	55.042	110.08	70-130
206 1,2-Dibromo-3-chl	50.000	57.054	114.11	70-130
207 Dodecane	50.000	78.046	156.09*	70-130
213 1,2,4-Trichlorobe	58.000	75.617	130.37*	70-130
215 Hexachlorobutadie	58.000	79.165	136.49*	70-130
216 Naphthalene	5.800	6.729	116.02	60-140
222 1,2,3-Trichlorobe	58.000	80.550	138.88*	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	26.915	107.66	70-130
\$ 134 Toluene-d8	25.000	25.266	101.06	70-130
\$ 170 4-Bromofluorobenz	25.000	27.444	109.78	70-130

Date : 20-AUG-2021 12:08

Client ID: LCSD

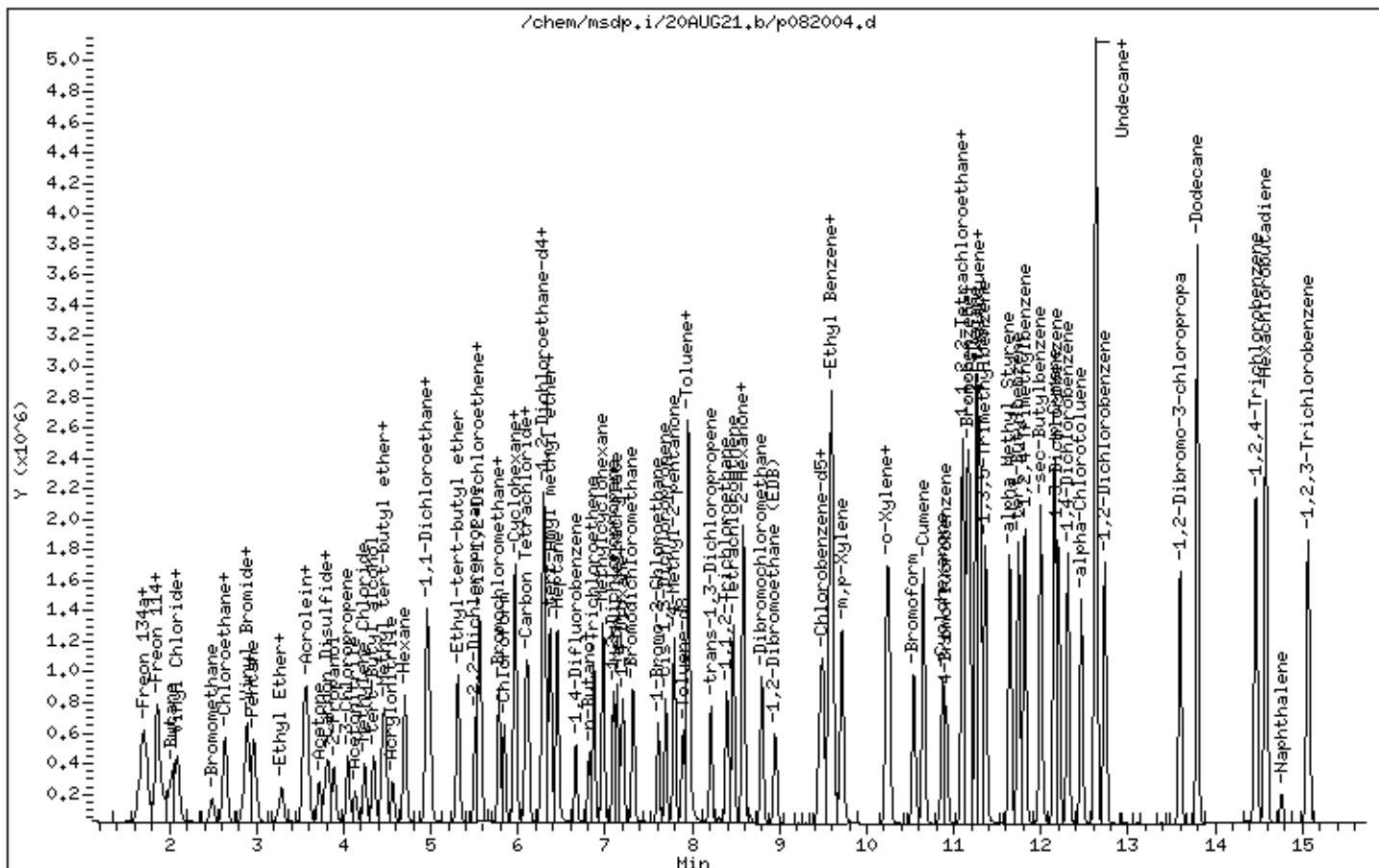
Instrument: msdp.i

Sample Info: 50mL 3018-2173

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Client Sample ID: LCS

Lab ID#: 2108390-29B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/21/21 10:04 AM

Compound	%Recovery	Method Limits
1,1,1-Trichloroethane	102	70-130
1,1,2,2-Tetrachloroethane	103	70-130
1,1,2-Trichloroethane	105	70-130
1,1-Dichloroethane	95	70-130
1,1-Dichloroethene	88	70-130
1,2,4-Trichlorobenzene	118	70-130
1,2,4-Trimethylbenzene	108	70-130
1,2-Dibromoethane (EDB)	108	70-130
1,2-Dichlorobenzene	112	70-130
1,2-Dichloroethane	122	70-130
1,2-Dichloropropane	99	70-130
1,3,5-Trimethylbenzene	107	70-130
1,3-Butadiene	110	70-130
1,3-Dichlorobenzene	113	70-130
1,4-Dichlorobenzene	114	70-130
1,4-Dioxane	92	70-130
2,2,4-Trimethylpentane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	82	70-130
2-Hexanone	110	70-130
2-Propanol	110	70-130
3-Chloropropene	80	70-130
4-Ethyltoluene	108	70-130
4-Methyl-2-pentanone	103	70-130
Acetone	96	70-130
alpha-Chlorotoluene	107	70-130
Benzene	95	70-130
Bromodichloromethane	110	70-130
Bromoform	116	70-130
Bromomethane	82	70-130
Carbon Disulfide	82	70-130
Carbon Tetrachloride	114	70-130
Chlorobenzene	102	70-130
Chloroethane	83	70-130
Chloroform	97	70-130
Chloromethane	121	70-130
cis-1,2-Dichloroethene	91	70-130
cis-1,3-Dichloropropene	98	70-130
Cumene	100	70-130
Cyclohexane	84	70-130
Dibromochloromethane	115	70-130
Ethanol	91	70-130
Ethyl Benzene	101	70-130

Client Sample ID: LCS

Lab ID#: 2108390-29B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/21/21 10:04 AM

Compound	%Recovery	Method Limits
Freon 11	107	70-130
Freon 12	106	70-130
Freon 113	95	70-130
Freon 114	99	70-130
Heptane	90	70-130
Hexachlorobutadiene	126	70-130
Hexane	95	70-130
m,p-Xylene	101	70-130
Methyl tert-butyl ether	85	70-130
Methylene Chloride	115	70-130
Naphthalene	103	60-140
o-Xylene	99	70-130
Propylbenzene	106	70-130
Propylene	106	60-140
Styrene	98	70-130
Tetrachloroethene	110	70-130
Tetrahydrofuran	110	70-130
Toluene	96	70-130
trans-1,2-Dichloroethene	88	70-130
trans-1,3-Dichloropropene	105	70-130
Trichloroethene	104	70-130
Vinyl Acetate	84	70-130
Vinyl Chloride	91	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	112	70-130

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem1/msdp.i/21AUG21.b/p082103.d  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Inj Date : 21-AUG-2021 10:04  
 Operator : mb Inst ID: msdp.i  
 Smp Info : 50mL 3018-2173  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Meth Date : 21-Aug-2021 12:16 x8uy Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 14 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.785	(1.000)	130	113059	25.0000		80.00- 120.00	100.00
5.778	5.785	(1.000)	128	86136			48.23- 108.23	76.19
5.778	5.778	(1.000)	49	249397			150.57- 210.57	220.59
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.666	(1.000)	114	401051	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	58522			0.00- 45.71	14.59
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	391175	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	204073			23.78- 83.78	52.17
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.308	6.315	(1.092)	65	169007	27.0870	27.087	80.00- 120.00	100.00
6.308	6.315	(1.092)	67	93988			27.21- 87.21	55.61
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	436639	25.0723	25.072	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	43110			0.00- 40.44	9.87

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	280300			34.95- 94.95	64.19
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	280517	27.9262	27.926	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	326477			95.92- 155.92	116.38
10.921	10.921	(1.154)	176	271239			66.89- 126.89	96.69
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.633	1.647	(0.283)	83	209242	58.4744	58.474	80.00- 120.00	100.00
1.633	1.647	(0.283)	69	150044			59.44- 119.44	71.71
1.745	1.759	(0.302)	51	951252			419.06- 479.06	454.62
-----								
5 Propylene								
						CAS #: 115-07-1		
1.675	1.689	(0.290)	41	273668	52.8964	52.896	80.00- 120.00	100.00
1.675	1.689	(0.290)	42	183835			35.28- 95.28	67.17
1.675	1.689	(0.290)	39	187751			38.35- 98.35	68.61
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.703	1.703	(0.295)	65	117934	46.0196	46.020	80.00- 120.00	100.00
1.745	1.759	(0.302)	51	951252			597.63- 657.63	806.60
1.703	1.717	(0.295)	47	105480			33.72- 93.72	89.44
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.717	1.717	(0.297)	85	537309	52.9882	52.988	80.00- 120.00	100.00
1.717	1.717	(0.297)	87	172718			2.37- 62.37	32.15
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.745	1.759	(0.302)	67	57265	57.1710	57.171	80.00- 120.00	100.00
1.745	1.759	(0.302)	51	951252			1501.01-1561.01	1661.14
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.857	1.857	(0.321)	135	495193	49.7495	49.749	80.00- 120.00	100.00
1.857	1.857	(0.321)	137	157320			2.30- 62.30	31.77
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.871	1.870	(0.324)	43	581098	50.7332	50.733	80.00- 120.00	100.00
1.871	1.870	(0.324)	42	196260			2.44- 62.44	33.77
1.871	1.870	(0.324)	58	16621			0.00- 33.36	2.86
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.940	1.954	(0.336)	50	356747	60.6426	60.643	80.00- 120.00	100.00
1.940	1.954	(0.336)	52	91416			0.00- 56.26	25.62
-----								
18 Butane								
						CAS #: 106-97-8		
2.032	2.046	(0.352)	58	58775	43.1304	43.130	80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
2.032	2.039	(0.352)	43	526855		823.29- 883.29	896.39		
-----									
19 Vinyl Chloride CAS #: 75-01-4									
2.068	2.075	(0.358)	62	320795	45.3285	45.328 80.00- 120.00	100.00		
2.068	2.075	(0.358)	64	90396		0.00- 59.69	28.18		
-----									
20 1,3-Butadiene CAS #: 106-99-0									
2.089	2.104	(0.362)	54	313496	55.0761	55.076 80.00- 120.00	100.00		
2.089	2.096	(0.362)	39	278637		52.37- 112.37	88.88		
-----									
24 Bromomethane CAS #: 74-83-9									
2.483	2.490	(0.430)	94	187103	41.1163	41.116 80.00- 120.00	100.00		
2.483	2.490	(0.430)	96	174842		64.07- 124.07	93.45		
-----									
30 Chloroethane CAS #: 75-00-3									
2.612	2.612	(0.452)	64	105751	41.5547	41.555 80.00- 120.00	100.00		
2.612	2.619	(0.452)	66	27977		0.04- 60.04	26.46		
2.612	2.619	(0.452)	49	47246		4.54- 64.54	44.68		
-----									
31 Isopentane CAS #: 78-78-4									
2.634	2.641	(0.456)	43	408316	52.7294	52.729 80.00- 120.00	100.00		
2.634	2.641	(0.456)	57	228462		34.12- 94.12	55.95		
-----									
32 Vinyl Bromide CAS #: 593-60-2									
2.841	2.848	(0.492)	106	174004	41.3688	41.369 80.00- 120.00	100.00		
2.841	2.848	(0.492)	108	175136		69.27- 129.27	100.65		
-----									
33 Freon 11 CAS #: 75-69-4									
2.891	2.891	(0.500)	101	575951	53.4495	53.449 80.00- 120.00	100.00		
2.891	2.891	(0.500)	103	377632		34.72- 94.72	65.57		
-----									
34 Dichlorofluoromethane CAS #: 75-43-4									
2.899	2.906	(0.502)	67	417177	44.9184	44.918 80.00- 120.00	100.00		
2.906	2.906	(0.503)	69	127051		0.84- 60.84	30.45		
-----									
35 Pentane CAS #: 109-66-0									
2.970	2.977	(0.514)	43	639283	50.7904	50.790 80.00- 120.00	100.00		
2.970	2.977	(0.514)	57	79032		0.00- 44.98	12.36		
2.970	2.970	(0.514)	72	33869		0.00- 37.39	5.30		
-----									
38 Ethyl Ether CAS #: 60-29-7									
3.285	3.293	(0.569)	74	83975	39.5457	39.546 80.00- 120.00	100.00		
3.285	3.293	(0.569)	59	188426		163.46- 223.46	224.38		
3.285	3.285	(0.569)	45	321506		250.40- 310.40	382.86		
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.242	3.250	(0.561)	46	59103	52.7141	52.714	80.00- 120.00	100.00
3.285	3.285	(0.569)	45	321506			511.19- 571.19	543.98
42 Acrolein					CAS #: 107-02-8			
3.536	3.543	(0.612)	55	90575	46.5556	46.556	80.00- 120.00	100.00
3.536	3.543	(0.612)	56	117701			111.10- 171.10	129.95
43 Freon 113					CAS #: 76-13-1			
3.550	3.558	(0.614)	151	379058	47.3470	47.347	80.00- 120.00	100.00
3.550	3.558	(0.614)	153	241359			33.56- 93.56	63.67
3.550	3.550	(0.614)	101	449050			89.21- 149.21	118.46
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.586	3.586	(0.621)	96	211208	44.1609	44.161	80.00- 120.00	100.00
3.586	3.586	(0.621)	98	130684			34.02- 94.02	61.87
3.579	3.586	(0.619)	61	461339			168.77- 228.77	218.43
47 Acetone					CAS #: 67-64-1			
3.715	3.722	(0.643)	58	142558	48.0970	48.097	80.00- 120.00	100.00
3.715	3.722	(0.643)	43	555800			302.95- 362.95	389.88
48 Carbon Disulfide					CAS #: 75-15-0			
3.823	3.830	(0.662)	76	514962	40.8693	40.869	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.794	3.794	(0.657)	142	459899	54.9061	54.906	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	231418			12.22- 72.22	50.32
52 2-Propanol					CAS #: 67-63-0			
3.887	3.894	(0.673)	45	655787	54.8973	54.897	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	125696			0.00- 47.19	19.17
54 3-Chloropropene					CAS #: 107-05-1			
4.052	4.052	(0.701)	76	84417	40.1033	40.103	80.00- 120.00	100.00
4.045	4.052	(0.700)	41	464766			396.19- 456.19	550.56
57 Acetonitrile					CAS #: 75-05-8			
4.124	4.131	(0.714)	41	308171	55.3502	55.350	80.00- 120.00	100.00
4.124	4.131	(0.714)	40	158492			20.95- 80.95	51.43
4.124	4.131	(0.714)	38	33973			0.00- 41.17	11.02
59 Methylene Chloride					CAS #: 75-09-2			
4.238	4.238	(0.733)	49	442012	57.4139	57.414	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	169229			22.03- 82.03	38.29
4.238	4.238	(0.733)	51	130738			0.18- 60.18	29.58



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
4.338	4.346	(0.751)	59	631034	45.2985	45.298	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	163834			0.00- 51.11	25.96
4.338	4.338	(0.751)	57	71999			0.00- 40.49	11.41
-----					-----			
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
4.446	4.446	(0.769)	73	590389	42.5215	42.522	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	220604			3.10- 63.10	37.37
4.446	4.446	(0.769)	41	241661			1.28- 61.28	40.93
-----					-----			
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
4.482	4.482	(0.776)	98	140124	43.8479	43.848	80.00- 120.00	100.00
4.482	4.482	(0.776)	61	411274			255.84- 315.84	293.51
4.482	4.482	(0.776)	96	216339			127.59- 187.59	154.39
-----					-----			
66 Acrylonitrile					CAS #: 107-13-1			
4.560	4.568	(0.789)	52	235788	53.0030	53.003	80.00- 120.00	100.00
4.560	4.568	(0.789)	53	272634			88.05- 148.05	115.63
-----					-----			
67 Hexane					CAS #: 110-54-3			
4.697	4.697	(0.813)	57	527920	47.3997	47.400	80.00- 120.00	100.00
4.697	4.697	(0.813)	43	411152			37.52- 97.52	77.88
4.697	4.697	(0.813)	86	52970			0.00- 41.48	10.03
-----					-----			
71 1,1-Dichloroethane					CAS #: 75-34-3			
4.962	4.969	(0.859)	63	454449	47.4631	47.463	80.00- 120.00	100.00
4.969	4.969	(0.860)	65	126074			0.00- 59.70	27.74
-----					-----			
72 Isopropyl ether					CAS #: 108-20-3			
4.947	4.947	(0.856)	45	1422921	54.9325	54.932	80.00- 120.00	100.00
4.954	4.954	(0.857)	87	194686			0.00- 48.18	13.68
4.947	4.954	(0.856)	59	122340			0.00- 40.15	8.60
-----					-----			
73 Vinyl Acetate					CAS #: 108-05-4			
4.997	4.997	(0.865)	86	52045	42.2951	42.295	80.00- 120.00	100.00
4.990	4.997	(0.864)	43	1236960			2432.48-2492.48	2376.71
-----					-----			
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
5.305	5.305	(0.918)	59	1036586	46.2299	46.230	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	293368			1.00- 61.00	28.30
5.305	5.305	(0.918)	41	246435			0.00- 48.73	23.77
-----					-----			
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.506	5.513	(0.953)	77	417047	49.0504	49.050	80.00- 120.00	100.00
5.506	5.513	(0.953)	79	137093			2.28- 62.28	32.87
5.513	5.513	(0.954)	97	95531			0.00- 53.93	22.91
-----					-----			

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
-----									
85	cis-1,2-Dichloroethene				CAS #: 156-59-2				
5.549	5.549	(0.960)	98	151667	45.7331	45.733	80.00- 120.00	100.00	
5.549	5.549	(0.960)	96	230118			125.75- 185.75	151.73	
5.549	5.549	(0.960)	61	589309			332.40- 392.40	388.55	
-----									
86	2-Butanone				CAS #: 78-93-3				
5.556	5.556	(0.962)	72	104657	40.9548	40.955	80.00- 120.00	100.00	
5.563	5.563	(0.963)	43	1815203			1214.50-1274.50	1734.43	
5.556	5.556	(0.962)	57	55434			14.68- 74.68	52.97	
-----									
87	Ethyl Acetate				CAS #: 141-78-6				
5.570	5.570	(0.964)	45	142866	56.2067	56.207	80.00- 120.00	100.00	
5.549	5.549	(0.960)	61	589309			452.04- 512.04	412.49	
5.570	5.570	(0.964)	70	51570			22.77- 82.77	36.10	
-----									
89	Tetrahydrofuran				CAS #: 109-99-9				
5.778	5.778	(1.000)	42	469434	55.2354	55.235	80.00- 120.00	100.00	
5.778	5.778	(1.000)	71	89556			0.00- 55.82	19.08	
5.778	5.778	(1.000)	72	94915			0.00- 57.59	20.22	
-----									
92	Chloroform				CAS #: 67-66-3				
5.835	5.843	(1.010)	83	477343	48.5252	48.525	80.00- 120.00	100.00	
5.843	5.843	(1.011)	85	313555			34.70- 94.70	65.69	
-----									
94	Cyclohexane				CAS #: 110-82-7				
5.957	5.957	(1.031)	84	298964	42.0374	42.037	80.00- 120.00	100.00	
5.957	5.957	(1.031)	56	597929			142.57- 202.57	200.00	
5.957	5.957	(1.031)	41	365766			62.09- 122.09	122.34	
-----									
96	1,1,1-Trichloroethane				CAS #: 71-55-6				
5.972	5.972	(1.033)	97	569740	51.2685	51.268	80.00- 120.00	100.00	
5.972	5.972	(1.033)	99	362670			34.02- 94.02	63.66	
-----									
97	Carbon Tetrachloride				CAS #: 56-23-5				
6.093	6.093	(1.055)	119	593890	56.9808	56.981	80.00- 120.00	100.00	
6.086	6.093	(1.053)	117	595536			70.64- 130.64	100.28	
-----									
99	1,1-Dichloropropene				CAS #: 563-58-6				
6.115	6.122	(0.918)	110	131280	48.0892	48.089	80.00- 120.00	100.00	
6.115	6.122	(0.918)	75	325403			226.85- 286.85	247.87	
-----									
101	2,2,4-Trimethylpentane				CAS #: 540-84-1				
6.280	6.280	(1.087)	57	1908444	49.2991	49.299	80.00- 120.00	100.00	
6.280	6.280	(1.087)	56	645683			2.24- 62.24	33.83	
6.280	6.280	(1.087)	41	553056			0.00- 54.39	28.98	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
6.301	6.301	(0.946)	78	626613	47.3469	47.347	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	146500			0.00- 52.90	23.38
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.358	6.358	(0.955)	87	180057	48.2497	48.250	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	703123			372.79- 432.79	390.50
6.358	6.358	(0.955)	55	304757			112.09- 172.09	169.26
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.380	6.380	(0.958)	62	419831	60.9648	60.965	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	123588			0.79- 60.79	29.44
-----								
107 Heptane					CAS #: 142-82-5			
6.444	6.451	(0.968)	71	236160	45.0433	45.043	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	821052			226.53- 286.53	347.67
6.444	6.444	(0.968)	57	367023			100.85- 160.85	155.41
-----								
110 n-Butanol					CAS #: 71-36-3			
6.810	6.810	(1.023)	56	276052	57.3715	57.371	80.00- 120.00	100.00
6.810	6.810	(1.023)	41	220484			40.99- 100.99	79.87
6.810	6.810	(1.023)	43	179802			27.38- 87.38	65.13
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.867	6.867	(1.031)	95	332437	51.7658	51.766	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	364735			76.29- 136.29	109.72
6.867	6.867	(1.031)	97	218182			33.63- 93.63	65.63
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.096	7.096	(1.066)	63	337506	49.7433	49.743	80.00- 120.00	100.00
7.096	7.096	(1.066)	62	248042			41.07- 101.07	73.49
7.096	7.096	(1.066)	41	217685			22.53- 82.53	64.50
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.139	7.139	(0.755)	69	251330	46.7605	46.760	80.00- 120.00	100.00
7.139	7.139	(0.755)	41	684164			179.84- 239.84	272.22
7.139	7.139	(0.755)	100	100984			9.59- 69.59	40.18
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.175	7.175	(1.077)	88	166802	46.2587	46.259	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	184108			68.28- 128.28	110.38
7.175	7.175	(1.077)	57	68238			2.68- 62.68	40.91
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.204	7.211	(0.761)	174	329360	56.7396	56.740	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	298577			60.09- 120.09	90.65

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
7.204	7.204	(0.761)	95	261384				48.38- 108.38	79.36
-----									
122 Bromodichloromethane						CAS #: 75-27-4			
7.318	7.318	(1.099)	83	546835	54.9183	54.918		80.00- 120.00	100.00
7.318	7.318	(1.099)	85	359382				35.24- 95.24	65.72
-----									
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5			
7.698	7.698	(1.156)	75	414368	49.2581	49.258		80.00- 120.00	100.00
7.698	7.698	(1.156)	77	126910				2.42- 62.42	30.63
7.691	7.691	(1.155)	39	340999				37.16- 97.16	82.29
-----									
127 Methylcyclohexane						CAS #: 108-87-2			
6.974	6.974	(1.047)	83	432931	46.5863	46.586		80.00- 120.00	100.00
6.974	6.974	(1.047)	98	208807				15.78- 75.78	48.23
6.974	6.974	(1.047)	55	584559				84.64- 144.64	135.02
-----									
131 4-Methyl-2-pentanone						CAS #: 108-10-1			
7.798	7.798	(1.171)	58	355057	51.5315	51.531		80.00- 120.00	100.00
7.798	7.798	(1.171)	43	1156089				242.35- 302.35	325.61
7.798	7.798	(1.171)	85	104742				3.24- 63.24	29.50
-----									
137 Toluene						CAS #: 108-88-3			
7.949	7.956	(1.194)	91	881183	48.2597	48.260		80.00- 120.00	100.00
7.949	7.956	(1.194)	92	518556				28.38- 88.38	58.85
-----									
136 Octane						CAS #: 111-65-9			
7.949	7.949	(1.194)	57	417220	53.5896	53.590		80.00- 120.00	100.00
7.949	7.949	(1.194)	85	303554				56.00- 116.00	72.76
7.949	7.949	(1.194)	43	1240605				228.66- 288.66	297.35
-----									
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6			
8.214	8.214	(0.868)	75	405892	52.7276	52.728		80.00- 120.00	100.00
8.214	8.214	(0.868)	77	126798				1.24- 61.24	31.24
8.214	8.214	(0.868)	39	318856				34.11- 94.11	78.56
-----									
141 1,1,2-Trichloroethane						CAS #: 79-00-5			
8.400	8.400	(0.888)	97	333144	52.3588	52.359		80.00- 120.00	100.00
8.400	8.400	(0.888)	99	204758				31.96- 91.96	61.46
8.400	8.400	(0.888)	83	269594				52.93- 112.93	80.92
-----									
142 Tetrachloroethene						CAS #: 127-18-4			
8.464	8.464	(0.895)	166	488336	54.7757	54.776		80.00- 120.00	100.00
8.464	8.464	(0.895)	129	377594				47.84- 107.84	77.32
8.464	8.464	(0.895)	131	365908				45.29- 105.29	74.93
-----									

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6			
8.586	8.586	(0.908)	58	498693	54.8589	54.859	80.00- 120.00	100.00	
8.586	8.586	(0.908)	43	1128317			162.87- 222.87	226.25	
8.586	8.586	(0.908)	100	68163			0.00- 45.94	13.67	
-----									
144 1,3-Dichloropropane						CAS #: 142-28-9			
8.579	8.579	(1.288)	76	437610	50.4682	50.468	80.00- 120.00	100.00	
8.579	8.579	(1.288)	41	682007			94.99- 154.99	155.85	
8.579	8.579	(1.288)	78	141407			2.05- 62.05	32.31	
-----									
146 Dibromochloromethane						CAS #: 124-48-1			
8.801	8.801	(0.930)	129	681454	57.3215	57.321	80.00- 120.00	100.00	
8.801	8.801	(0.930)	127	528569			47.45- 107.45	77.56	
-----									
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4			
8.951	8.951	(0.946)	107	553204	54.2096	54.210	80.00- 120.00	100.00	
8.951	8.951	(0.946)	109	515696			64.21- 124.21	93.22	
-----									
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0			
7.605	7.605	(1.142)	63	632887	50.8379	50.838	80.00- 120.00	100.00	
7.605	7.605	(1.142)	65	177329			0.00- 59.64	28.02	
7.605	7.605	(1.142)	144	63577			0.00- 39.63	10.05	
-----									
154 Chlorobenzene						CAS #: 108-90-7			
9.496	9.496	(1.004)	112	791315	50.9444	50.944	80.00- 120.00	100.00	
9.496	9.496	(1.004)	114	255184			1.74- 61.74	32.25	
9.496	9.496	(1.004)	77	410139			25.04- 85.04	51.83	
-----									
155 Ethyl Benzene						CAS #: 100-41-4			
9.567	9.567	(1.011)	106	409746	50.4477	50.448	80.00- 120.00	100.00	
9.567	9.567	(1.011)	91	1203196			273.74- 333.74	293.64	
-----									
156 Nonane						CAS #: 111-84-2			
9.596	9.603	(1.014)	43	1327970	63.5469	63.547	80.00- 120.00	100.00	
9.596	9.603	(1.014)	57	940624			54.16- 114.16	70.83	
9.603	9.603	(1.015)	85	227278			0.00- 53.90	17.11	
-----									
158 m,p-Xylene						CAS #: 108-38-3			
9.718	9.718	(1.027)	106	515817	50.7067	50.707	80.00- 120.00	100.00	
9.718	9.718	(1.027)	91	970591			163.73- 223.73	188.17	
-----									
164 o-Xylene						CAS #: 95-47-6			
10.226	10.226	(1.081)	106	484262	49.6858	49.686	80.00- 120.00	100.00	
10.226	10.226	(1.081)	91	963474			177.45- 237.45	198.96	
-----									
165 Styrene						CAS #: 100-42-5			
10.255	10.255	(1.084)	104	813368	48.7971	48.797	80.00- 120.00	100.00	

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
165 Styrene (continued)									
10.255	10.255	(1.084)	78	388493		17.88- 77.88	47.76		
-----									
167 Bromoform CAS #: 75-25-2									
10.542	10.542	(1.114)	173	678543	57.9052	57.905	80.00- 120.00	100.00	
10.542	10.542	(1.114)	171	348731		21.25- 81.25	51.39		
-----									
168 Cumene CAS #: 98-82-8									
10.649	10.649	(1.126)	105	1528795	49.9329	49.933	80.00- 120.00	100.00	
10.649	10.649	(1.126)	120	448376		0.00- 58.52	29.33		
10.649	10.649	(1.126)	51	244192		0.00- 43.00	15.97		
-----									
169 Cyclohexanone CAS #: 108-94-1									
10.871	10.871	(1.149)	55	659671	60.2468	60.247	80.00- 120.00	100.00	
10.871	10.871	(1.149)	98	175053		1.94- 61.94	26.54		
10.871	10.871	(1.149)	42	467584		37.89- 97.89	70.88		
-----									
175 1,1,2,2-Tetrachloroethane CAS #: 79-34-5									
11.100	11.100	(1.173)	83	769441	51.4894	51.489	80.00- 120.00	100.00	
11.100	11.100	(1.173)	85	492369		35.20- 95.20	63.99		
-----									
177 Bromobenzene CAS #: 108-86-1									
11.107	11.107	(1.174)	156	524798	56.3582	56.358	80.00- 120.00	100.00	
11.107	11.107	(1.174)	158	507089		67.21- 127.21	96.63		
11.179	11.172	(1.182)	77	306194		29.02- 89.02	58.35		
-----									
178 Propylbenzene CAS #: 103-65-1									
11.150	11.150	(1.179)	120	480755	52.9567	52.957	80.00- 120.00	100.00	
11.150	11.150	(1.179)	91	1851681		366.49- 426.49	385.16		
11.150	11.150	(1.179)	105	71433		0.00- 44.85	14.86		
-----									
179 1,2,3-Trichloropropane CAS #: 96-18-4									
11.179	11.179	(1.182)	110	257493	54.0622	54.062	80.00- 120.00	100.00	
11.179	11.179	(1.182)	75	795528		280.55- 340.55	308.95		
11.100	11.100	(1.173)	61	131551		15.49- 75.49	51.09		
-----									
181 trans-1,4-Dichloro-2-butene CAS #: 110-57-6									
11.179	11.179	(1.182)	53	278808	89.2939	89.294	80.00- 120.00	100.00(R)	
11.172	11.158	(1.181)	89	170006		49.11- 109.11	60.98		
11.179	11.179	(1.182)	75	795528		426.44- 486.44	285.33		
-----									
182 Decane CAS #: 124-18-5									
11.251	11.251	(1.189)	57	1320217	55.4357	55.436	80.00- 120.00	100.00	
11.251	11.251	(1.189)	71	310429		0.00- 57.66	23.51		
11.258	11.258	(1.190)	142	47641		0.00- 34.09	3.61		
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
11.287	11.287	(1.193)	120	533014	53.9890	53.989	80.00- 120.00	100.00
11.287	11.287	(1.193)	105	1614560			284.55- 344.55	302.91
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
11.308	11.308	(1.195)	126	424635	54.9345	54.934	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1388379			315.17- 375.17	326.96
11.301	11.301	(1.195)	65	205562			21.55- 81.55	48.41
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
11.365	11.365	(1.201)	120	724990	53.3368	53.337	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1383832			164.93- 224.93	190.88
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
11.645	11.645	(1.231)	118	717310	53.1211	53.121	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	394164			25.30- 85.30	54.95
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
11.738	11.745	(1.241)	119	1402398	55.1620	55.162	80.00- 120.00	100.00
11.738	11.745	(1.241)	134	335893			0.00- 54.25	23.95
11.738	11.738	(1.241)	91	819743			31.27- 91.27	58.45
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
11.817	11.817	(1.249)	105	1392061	54.2585	54.258	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	702064			19.05- 79.05	50.43
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
11.996	11.996	(1.268)	134	441768	55.9080	55.908	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	2007091			437.55- 497.55	454.33
11.996	11.996	(1.268)	91	304156			40.76- 100.76	68.85
-----								
194 p-Cymene						CAS #: 99-87-6		
12.160	12.160	(1.285)	119	1908528	54.6471	54.647	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	501197			0.00- 55.54	26.26
12.160	12.160	(1.285)	91	401441			0.00- 51.48	21.03
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
12.196	12.203	(1.289)	146	991741	56.4746	56.475	80.00- 120.00	100.00
12.196	12.203	(1.289)	148	639741			33.21- 93.21	64.51
12.196	12.196	(1.289)	111	400246			11.31- 71.31	40.36
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
12.311	12.311	(1.301)	146	1009825	56.9046	56.905	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	644734			33.90- 93.90	63.85
12.311	12.311	(1.301)	111	379402			9.45- 69.45	37.57
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene					CAS #: 100-44-7			
12.461	12.461	(1.317)	91	1301846	53.4224	53.422	80.00- 120.00	100.00
12.461	12.461	(1.317)	126	318472			0.00- 53.26	24.46
-----								
201 Undecane					CAS #: 1120-21-4			
12.640	12.640	(1.336)	57	1594263	57.9544	57.954	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1632328			58.12- 118.12	102.39
-----								
202 Butylbenzene					CAS #: 104-51-8			
12.626	12.626	(1.335)	134	488277	55.0469	55.047	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	1625657			314.79- 374.79	332.94
12.626	12.626	(1.335)	92	854478			154.29- 214.29	175.00
-----								
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
12.733	12.741	(1.346)	146	960173	55.7620	55.762	80.00- 120.00	100.00
12.733	12.741	(1.346)	148	616338			33.84- 93.84	64.19
12.733	12.733	(1.346)	111	391970			12.73- 72.73	40.82
-----								
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
13.600	13.600	(1.438)	157	589238	56.4992	56.499	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	484414			52.48- 112.48	82.21
13.600	13.600	(1.438)	155	459907			47.41- 107.41	78.05
-----								
207 Dodecane					CAS #: 112-40-3			
13.801	13.801	(1.459)	57	1426202	65.4092	65.409	80.00- 120.00	100.00(R)
13.801	13.801	(1.459)	43	1353262			52.87- 112.87	94.89
-----								
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
14.467	14.467	(1.529)	180	874670	68.7518	68.752	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	836669			65.33- 125.33	95.66
-----								
215 Hexachlorobutadiene					CAS #: 87-68-3			
14.582	14.582	(1.541)	225	653804	73.0223	73.022	80.00- 120.00	100.00
14.582	14.582	(1.541)	223	415773			33.17- 93.17	63.59
-----								
216 Naphthalene					CAS #: 91-20-3			
14.761	14.768	(1.560)	128	195075	5.99975	6.000	80.00- 120.00	100.00
14.761	14.768	(1.560)	127	25071			0.00- 42.88	12.85
-----								
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
15.069	15.069	(1.593)	180	786773	69.9564	69.956	80.00- 120.00	100.00
15.069	15.069	(1.593)	182	745467			65.75- 125.75	94.75
15.061	15.069	(1.592)	145	262273			5.23- 65.23	33.34
-----								



QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 21-AUG-2021
Lab File ID: p082103.d	Calibration Time: 09:37
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: mb	
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	102894	61736	144052	113059	9.88
108 1,4-Difluorobenze	387356	232414	542298	401051	3.54
153 Chlorobenzene-d5	386134	231680	540588	391175	1.31

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.78	-0.12
108 1,4-Difluorobenze	6.67	6.34	7.00	6.66	-0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 21AUG21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Level: LOW Operator: mb  
 Data Type: MS DATA SampleType: LCS  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AT20\_new.sub  
 Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	58.474	116.95	70-130
5 Propylene	50.000	52.896	105.79	70-130
7 1,1-Difluoroethan	50.000	46.020	92.04	70-130
8 Freon 12	50.000	52.988	105.98	70-130
9 Chlorodifluoromet	50.000	57.171	114.34	70-130
10 Freon 114	50.000	49.749	99.50	70-130
12 Isobutane	50.000	50.733	101.47	70-130
15 Chloromethane	50.000	60.643	121.29	70-130
18 Butane	50.000	43.130	86.26	70-130
19 Vinyl Chloride	50.000	45.328	90.66	70-130
20 1,3-Butadiene	50.000	55.076	110.15	70-130
24 Bromomethane	50.000	41.116	82.23	70-130
30 Chloroethane	50.000	41.555	83.11	70-130
31 Isopentane	50.000	52.729	105.46	70-130
32 Vinyl Bromide	50.000	41.369	82.74	70-130
33 Freon 11	50.000	53.449	106.90	70-130
34 Dichlorofluoromet	50.000	44.918	89.84	70-130
35 Pentane	50.000	50.790	101.58	70-130
38 Ethyl Ether	50.000	39.546	79.09	70-130
39 Ethanol	58.000	52.714	90.89	70-130
42 Acrolein	58.000	46.556	80.27	70-130
43 Freon 113	50.000	47.347	94.69	70-130
44 1,1-Dichloroethen	50.000	44.161	88.32	70-130
47 Acetone	50.000	48.097	96.19	70-130
48 Carbon Disulfide	50.000	40.869	81.74	70-130
49 Iodomethane	50.000	54.906	109.81	70-130
52 2-Propanol	50.000	54.897	109.79	70-130
54 3-Chloropropene	50.000	40.103	80.21	70-130
57 Acetonitrile	50.000	55.350	110.70	70-130
59 Methylene Chlorid	50.000	57.414	114.83	70-130
62 tert-Butyl alcoho	50.000	45.298	90.60	70-130
63 Methyl tert-butyl	50.000	42.522	85.04	70-130
64 trans-1,2-Dichlor	50.000	43.848	87.70	70-130

Report Date: 21-Aug-2021 12:16

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	53.003	106.01	70-130
67 Hexane	50.000	47.400	94.80	70-130
71 1,1-Dichloroethan	50.000	47.463	94.93	70-130
72 Isopropyl ether	50.000	54.932	109.86	70-130
73 Vinyl Acetate	50.000	42.295	84.59	70-130
79 Ethyl-tert-butyl	50.000	46.230	92.46	70-130
84 2,2-Dichloropropa	50.000	49.050	98.10	70-130
85 cis-1,2-Dichloroe	50.000	45.733	91.47	70-130
86 2-Butanone	50.000	40.955	81.91	70-130
87 Ethyl Acetate	50.000	56.207	112.41	70-130
89 Tetrahydrofuran	50.000	55.235	110.47	70-130
92 Chloroform	50.000	48.525	97.05	70-130
94 Cyclohexane	50.000	42.037	84.07	70-130
96 1,1,1-Trichloroet	50.000	51.268	102.54	70-130
99 1,1-Dichloroprop	50.000	48.089	96.18	70-130
97 Carbon Tetrachlor	50.000	56.981	113.96	70-130
101 2,2,4-Trimethylpe	50.000	49.299	98.60	70-130
102 Benzene	50.000	47.347	94.69	70-130
105 tert-Amyl methyl	50.000	48.250	96.50	70-130
106 1,2-Dichloroethan	50.000	60.965	121.93	70-130
107 Heptane	50.000	45.043	90.09	70-130
110 n-Butanol	50.000	57.371	114.74	70-130
111 Trichloroethene	50.000	51.766	103.53	70-130
118 Dibromomethane	50.000	56.740	113.48	70-130
127 Methylcyclohexane	50.000	46.586	93.17	70-130
114 1,2-Dichloropropa	50.000	49.743	99.49	70-130
116 Methyl Methacryla	50.000	46.760	93.52	70-130
117 1,4-Dioxane	50.000	46.259	92.52	70-130
122 Bromodichlorometh	50.000	54.918	109.84	70-130
126 cis-1,3-Dichlorop	50.000	49.258	98.52	70-130
131 4-Methyl-2-pentan	50.000	51.531	103.06	70-130
136 Octane	50.000	53.590	107.18	70-130
137 Toluene	50.000	48.260	96.52	70-130
139 trans-1,3-Dichlor	50.000	52.728	105.46	70-130
141 1,1,2-Trichloroet	50.000	52.359	104.72	70-130
142 Tetrachloroethene	50.000	54.776	109.55	70-130
143 2-Hexanone	50.000	54.859	109.72	70-130
144 1,3-Dichloropropa	50.000	50.468	100.94	70-130
146 Dibromochlorometh	50.000	57.321	114.64	70-130
148 1,2-Dibromoethane	50.000	54.210	108.42	70-130
151 1-Bromo-2-Chloroe	50.000	50.838	101.68	70-130
154 Chlorobenzene	50.000	50.944	101.89	70-130
155 Ethyl Benzene	50.000	50.448	100.90	70-130
156 Nonane	50.000	63.547	127.09	70-130
157 1,1,1,2-Tetrachlo	50.000	0.000	*	70-130
158 m,p-Xylene	50.000	50.707	101.41	70-130
164 o-Xylene	50.000	49.686	99.37	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	48.797	97.59	70-130
167 Bromoform	50.000	57.905	115.81	70-130
168 Cumene	50.000	49.933	99.87	70-130
169 Cyclohexanone	50.000	60.247	120.49	70-130
175 1,1,2,2-Tetrachlo	50.000	51.489	102.98	70-130
177 Bromobenzene	50.000	56.358	112.72	70-130
178 Propylbenzene	50.000	52.957	105.91	70-130
179 1,2,3-Trichloropr	50.000	54.062	108.12	70-130
181 trans-1,4-Dichlor	50.000	89.294	178.59*	70-130
182 Decane	50.000	55.436	110.87	70-130
183 4-Ethyltoluene	50.000	53.989	107.98	70-130
184 2-Chlorotoluene	50.000	54.934	109.87	70-130
185 1,3,5-Trimethylbe	50.000	53.337	106.67	70-130
188 alpha Methyl Styr	50.000	53.121	106.24	70-130
189 tert-Butylbenzene	50.000	55.162	110.32	70-130
190 1,2,4-Trimethylbe	50.000	54.258	108.52	70-130
192 sec-Butylbenzene	50.000	55.908	111.82	70-130
194 p-Cymene	50.000	54.647	109.29	70-130
195 1,3-Dichlorobenze	50.000	56.475	112.95	70-130
196 1,4-Dichlorobenze	50.000	56.905	113.81	70-130
199 alpha-Chlorotolue	50.000	53.422	106.84	70-130
201 Undecane	50.000	57.954	115.91	70-130
202 Butylbenzene	50.000	55.047	110.09	70-130
204 1,2-Dichlorobenze	50.000	55.762	111.52	70-130
206 1,2-Dibromo-3-chl	50.000	56.499	113.00	70-130
207 Dodecane	50.000	65.409	130.82*	70-130
213 1,2,4-Trichlorobe	58.000	68.752	118.54	70-130
215 Hexachlorobutadie	58.000	73.022	125.90	70-130
216 Naphthalene	5.800	6.000	103.44	60-140
222 1,2,3-Trichlorobe	58.000	69.956	120.61	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	27.087	108.35	70-130
\$ 134 Toluene-d8	25.000	25.072	100.29	70-130
\$ 170 4-Bromofluorobenz	25.000	27.926	111.70	70-130



Client Sample ID: LCSD

Lab ID#: 2108390-29BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/21/21 10:32 AM

Compound	%Recovery	Method Limits
1,1,1-Trichloroethane	102	70-130
1,1,2,2-Tetrachloroethane	102	70-130
1,1,2-Trichloroethane	104	70-130
1,1-Dichloroethane	94	70-130
1,1-Dichloroethene	88	70-130
1,2,4-Trichlorobenzene	130	70-130
1,2,4-Trimethylbenzene	107	70-130
1,2-Dibromoethane (EDB)	106	70-130
1,2-Dichlorobenzene	112	70-130
1,2-Dichloroethane	118	70-130
1,2-Dichloropropane	98	70-130
1,3,5-Trimethylbenzene	106	70-130
1,3-Butadiene	114	70-130
1,3-Dichlorobenzene	113	70-130
1,4-Dichlorobenzene	113	70-130
1,4-Dioxane	93	70-130
2,2,4-Trimethylpentane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	81	70-130
2-Hexanone	109	70-130
2-Propanol	109	70-130
3-Chloropropene	82	70-130
4-Ethyltoluene	106	70-130
4-Methyl-2-pentanone	104	70-130
Acetone	95	70-130
alpha-Chlorotoluene	108	70-130
Benzene	93	70-130
Bromodichloromethane	110	70-130
Bromoform	114	70-130
Bromomethane	80	70-130
Carbon Disulfide	82	70-130
Carbon Tetrachloride	113	70-130
Chlorobenzene	102	70-130
Chloroethane	84	70-130
Chloroform	98	70-130
Chloromethane	118	70-130
cis-1,2-Dichloroethene	91	70-130
cis-1,3-Dichloropropene	97	70-130
Cumene	99	70-130
Cyclohexane	85	70-130
Dibromochloromethane	113	70-130
Ethanol	87	70-130
Ethyl Benzene	100	70-130

Client Sample ID: LCSD

Lab ID#: 2108390-29BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p082104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/21/21 10:32 AM

Compound	%Recovery	Method Limits
Freon 11	108	70-130
Freon 12	105	70-130
Freon 113	95	70-130
Freon 114	100	70-130
Heptane	89	70-130
Hexachlorobutadiene	137 Q	70-130
Hexane	94	70-130
m,p-Xylene	100	70-130
Methyl tert-butyl ether	85	70-130
Methylene Chloride	113	70-130
Naphthalene	116	60-140
o-Xylene	98	70-130
Propylbenzene	105	70-130
Propylene	105	60-140
Styrene	97	70-130
Tetrachloroethene	107	70-130
Tetrahydrofuran	111	70-130
Toluene	96	70-130
trans-1,2-Dichloroethene	89	70-130
trans-1,3-Dichloropropene	104	70-130
Trichloroethene	103	70-130
Vinyl Acetate	84	70-130
Vinyl Chloride	87	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	110	70-130



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem1/msdp.i/21AUG21.b/p082104.d  
 Lab Smp Id: LCSD Client Smp ID: LCSD  
 Inj Date : 21-AUG-2021 10:32  
 Operator : mb Inst ID: msdp.i  
 Smp Info : 50mL 3018-2173  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Meth Date : 21-Aug-2021 12:16 x8uy Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 14 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.785	(1.000)	130	116975	25.0000		80.00- 120.00	100.00
5.778	5.785	(1.000)	128	90332			48.23- 108.23	77.22
5.778	5.778	(1.000)	49	255982			150.57- 210.57	218.83
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.666	(1.000)	114	422374	25.0000		80.00- 120.00	100.00
6.666	6.659	(1.000)	88	60493			0.00- 45.71	14.32
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	408689	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	212172			23.78- 83.78	51.92
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.308	6.315	(1.092)	65	173576	26.8879	26.888	80.00- 120.00	100.00
6.308	6.315	(1.092)	67	92413			27.21- 87.21	53.24
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	458350	24.9903	24.990	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	46421			0.00- 40.44	10.13

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	293210			34.95- 94.95	63.97
-----								
§ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	289441	27.5798	27.580	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	338040			95.92- 155.92	116.79
10.921	10.921	(1.154)	176	278187			66.89- 126.89	96.11
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.647	1.647	(0.285)	83	216009	58.3446	58.345	80.00- 120.00	100.00
1.633	1.647	(0.283)	69	155531			59.44- 119.44	72.00
1.745	1.759	(0.302)	51	963048			419.06- 479.06	445.84
-----								
5 Propylene								
						CAS #: 115-07-1		
1.675	1.689	(0.290)	41	281214	52.5352	52.535	80.00- 120.00	100.00
1.675	1.689	(0.290)	42	190776			35.28- 95.28	67.84
1.675	1.689	(0.290)	39	193295			38.35- 98.35	68.74
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.703	1.703	(0.295)	65	122673	46.2663	46.266	80.00- 120.00	100.00
1.745	1.759	(0.302)	51	963048			597.63- 657.63	785.05
1.703	1.717	(0.295)	47	106803			33.72- 93.72	87.06
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.717	1.717	(0.297)	85	551772	52.5928	52.593	80.00- 120.00	100.00
1.717	1.717	(0.297)	87	180591			2.37- 62.37	32.73
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.745	1.759	(0.302)	67	59200	57.1243	57.124	80.00- 120.00	100.00
1.745	1.759	(0.302)	51	963048			1501.01-1561.01	1626.77
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.856	1.857	(0.321)	135	512395	49.7543	49.754	80.00- 120.00	100.00
1.856	1.857	(0.321)	137	167024			2.30- 62.30	32.60
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.870	1.870	(0.324)	43	603592	50.9329	50.933	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	199291			2.44- 62.44	33.02
1.870	1.870	(0.324)	58	16976			0.00- 33.36	2.81
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.940	1.954	(0.336)	50	359901	59.1306	59.131	80.00- 120.00	100.00
1.940	1.954	(0.336)	52	92023			0.00- 56.26	25.57
-----								
18 Butane								
						CAS #: 106-97-8		
2.032	2.046	(0.352)	58	62349	44.2214	44.221	80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
2.032	2.039	(0.352)	43	546628		823.29- 883.29	876.72		
-----									
19 Vinyl Chloride CAS #: 75-01-4									
2.068	2.075	(0.358)	62	318063	43.4379	43.438	80.00- 120.00	100.00	
2.075	2.075	(0.359)	64	90247			0.00- 59.69	28.37	
-----									
20 1,3-Butadiene CAS #: 106-99-0									
2.096	2.104	(0.363)	54	337309	57.2758	57.276	80.00- 120.00	100.00	
2.089	2.096	(0.362)	39	284317			52.37- 112.37	84.29	
-----									
24 Bromomethane CAS #: 74-83-9									
2.483	2.490	(0.430)	94	189204	40.1861	40.186	80.00- 120.00	100.00	
2.483	2.490	(0.430)	96	183772			64.07- 124.07	97.13	
-----									
30 Chloroethane CAS #: 75-00-3									
2.612	2.612	(0.452)	64	110082	41.8084	41.808	80.00- 120.00	100.00	
2.612	2.619	(0.452)	66	31367			0.04- 60.04	28.49	
2.612	2.619	(0.452)	49	49693			4.54- 64.54	45.14	
-----									
31 Isopentane CAS #: 78-78-4									
2.634	2.641	(0.456)	43	412911	51.5377	51.538	80.00- 120.00	100.00	
2.634	2.641	(0.456)	57	234085			34.12- 94.12	56.69	
-----									
32 Vinyl Bromide CAS #: 593-60-2									
2.848	2.848	(0.493)	106	181708	41.7542	41.754	80.00- 120.00	100.00	
2.841	2.848	(0.492)	108	179727			69.27- 129.27	98.91	
-----									
33 Freon 11 CAS #: 75-69-4									
2.891	2.891	(0.500)	101	600233	53.8381	53.838	80.00- 120.00	100.00	
2.891	2.891	(0.500)	103	388625			34.72- 94.72	64.75	
-----									
34 Dichlorofluoromethane CAS #: 75-43-4									
2.899	2.906	(0.502)	67	428293	44.5715	44.571	80.00- 120.00	100.00	
2.899	2.906	(0.502)	69	130456			0.84- 60.84	30.46	
-----									
35 Pentane CAS #: 109-66-0									
2.970	2.977	(0.514)	43	650023	49.9148	49.915	80.00- 120.00	100.00	
2.970	2.977	(0.514)	57	84727			0.00- 44.98	13.03	
2.970	2.970	(0.514)	72	33585			0.00- 37.39	5.17	
-----									
38 Ethyl Ether CAS #: 60-29-7									
3.285	3.293	(0.569)	74	88032	40.0684	40.068	80.00- 120.00	100.00	
3.285	3.293	(0.569)	59	197236			163.46- 223.46	224.05	
3.285	3.285	(0.569)	45	336913			250.40- 310.40	382.72	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.242	3.250	(0.561)	46	58512	50.4399	50.440	80.00- 120.00	100.00
3.285	3.285	(0.569)	45	335418			511.19- 571.19	573.25
42 Acrolein					CAS #: 107-02-8			
3.536	3.543	(0.612)	55	89111	44.2697	44.270	80.00- 120.00	100.00
3.536	3.543	(0.612)	56	126615			111.10- 171.10	142.09
43 Freon 113					CAS #: 76-13-1			
3.550	3.558	(0.614)	151	393712	47.5311	47.531	80.00- 120.00	100.00
3.550	3.558	(0.614)	153	254671			33.56- 93.56	64.68
3.550	3.550	(0.614)	101	464980			89.21- 149.21	118.10
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.586	3.586	(0.621)	96	217144	43.8821	43.882	80.00- 120.00	100.00
3.586	3.586	(0.621)	98	137650			34.02- 94.02	63.39
3.586	3.586	(0.621)	61	481151			168.77- 228.77	221.58
47 Acetone					CAS #: 67-64-1			
3.715	3.722	(0.643)	58	145603	47.4798	47.480	80.00- 120.00	100.00
3.715	3.722	(0.643)	43	568832			302.95- 362.95	390.67
48 Carbon Disulfide					CAS #: 75-15-0			
3.823	3.830	(0.662)	76	533331	40.9102	40.910	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.794	3.794	(0.657)	142	503078	58.0504	58.050	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	246282			12.22- 72.22	48.96
52 2-Propanol					CAS #: 67-63-0			
3.887	3.894	(0.673)	45	676487	54.7343	54.734	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	128684			0.00- 47.19	19.02
54 3-Chloropropene					CAS #: 107-05-1			
4.052	4.052	(0.701)	76	89251	40.9803	40.980	80.00- 120.00	100.00
4.052	4.052	(0.701)	41	477358			396.19- 456.19	534.85
57 Acetonitrile					CAS #: 75-05-8			
4.131	4.131	(0.715)	41	317535	55.1228	55.123	80.00- 120.00	100.00
4.123	4.131	(0.714)	40	164912			20.95- 80.95	51.94
4.123	4.131	(0.714)	38	36447			0.00- 41.17	11.48
59 Methylene Chloride					CAS #: 75-09-2			
4.238	4.238	(0.733)	49	451289	56.6565	56.656	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	170140			22.03- 82.03	37.70
4.238	4.238	(0.733)	51	133507			0.18- 60.18	29.58

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
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62 tert-Butyl alcohol					CAS #: 75-65-0				
4.338	4.346	(0.751)	59	652677	45.2837	45.284	80.00- 120.00	100.00	
4.338	4.338	(0.751)	41	164736			0.00- 51.11	25.24	
4.346	4.338	(0.752)	57	71870			0.00- 40.49	11.01	
-----									
63 Methyl tert-butyl ether					CAS #: 1634-04-4				
4.446	4.446	(0.769)	73	612172	42.6144	42.614	80.00- 120.00	100.00	
4.446	4.446	(0.769)	57	229262			3.10- 63.10	37.45	
4.446	4.446	(0.769)	41	246762			1.28- 61.28	40.31	
-----									
64 trans-1,2-Dichloroethene					CAS #: 156-60-5				
4.482	4.482	(0.776)	98	146693	44.3667	44.367	80.00- 120.00	100.00	
4.482	4.482	(0.776)	61	438475			255.84- 315.84	298.91	
4.482	4.482	(0.776)	96	225632			127.59- 187.59	153.81	
-----									
66 Acrylonitrile					CAS #: 107-13-1				
4.560	4.568	(0.789)	52	240018	52.1477	52.148	80.00- 120.00	100.00	
4.560	4.568	(0.789)	53	288921			88.05- 148.05	120.37	
-----									
67 Hexane					CAS #: 110-54-3				
4.697	4.697	(0.813)	57	544819	47.2794	47.279	80.00- 120.00	100.00	
4.697	4.697	(0.813)	43	424386			37.52- 97.52	77.89	
4.697	4.697	(0.813)	86	55612			0.00- 41.48	10.21	
-----									
71 1,1-Dichloroethane					CAS #: 75-34-3				
4.969	4.969	(0.860)	63	468007	47.2428	47.243	80.00- 120.00	100.00	
4.969	4.969	(0.860)	65	137113			0.00- 59.70	29.30	
-----									
72 Isopropyl ether					CAS #: 108-20-3				
4.954	4.947	(0.857)	45	1459310	54.4513	54.451	80.00- 120.00	100.00	
4.954	4.954	(0.857)	87	205035			0.00- 48.18	14.05	
4.954	4.954	(0.857)	59	126715			0.00- 40.15	8.68	
-----									
73 Vinyl Acetate					CAS #: 108-05-4				
4.997	4.997	(0.865)	86	53231	41.8107	41.811	80.00- 120.00	100.00	
4.990	4.997	(0.864)	43	1292481			2432.48-2492.48	2428.06	
-----									
79 Ethyl-tert-butyl ether					CAS #: 637-92-3				
5.305	5.305	(0.918)	59	1084624	46.7529	46.753	80.00- 120.00	100.00	
5.305	5.305	(0.918)	87	309783			1.00- 61.00	28.56	
5.305	5.305	(0.918)	41	248264			0.00- 48.73	22.89	
-----									
84 2,2-Dichloropropane					CAS #: 594-20-7				
5.513	5.513	(0.954)	77	438596	49.8579	49.858	80.00- 120.00	100.00	
5.513	5.513	(0.954)	79	140095			2.28- 62.28	31.94	
5.513	5.513	(0.954)	97	98624			0.00- 53.93	22.49	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
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85 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.549	5.549	(0.960)	98	156521	45.6168	45.617	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	238422			125.75- 185.75	152.33
5.549	5.549	(0.960)	61	600054			332.40- 392.40	383.37
86 2-Butanone					CAS #: 78-93-3			
5.556	5.556	(0.962)	72	107396	40.6197	40.620	80.00- 120.00	100.00
5.563	5.563	(0.963)	43	1854512			1214.50-1274.50	1726.80
5.556	5.556	(0.962)	57	59338			14.68- 74.68	55.25
87 Ethyl Acetate					CAS #: 141-78-6			
5.578	5.570	(0.965)	45	147770	56.1898	56.190	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	600054			452.04- 512.04	406.07
5.578	5.570	(0.965)	70	54094			22.77- 82.77	36.61
89 Tetrahydrofuran					CAS #: 109-99-9			
5.778	5.778	(1.000)	42	488191	55.5194	55.519	80.00- 120.00	100.00
5.778	5.778	(1.000)	71	93442			0.00- 55.82	19.14
5.778	5.778	(1.000)	72	100205			0.00- 57.59	20.53
92 Chloroform					CAS #: 67-66-3			
5.843	5.843	(1.011)	83	500466	49.1726	49.173	80.00- 120.00	100.00
5.843	5.843	(1.011)	85	329611			34.70- 94.70	65.86
94 Cyclohexane					CAS #: 110-82-7			
5.957	5.957	(1.031)	84	313027	42.5413	42.541	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	620035			142.57- 202.57	198.08
5.957	5.957	(1.031)	41	378679			62.09- 122.09	120.97
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
5.972	5.972	(1.033)	97	584116	50.8025	50.802	80.00- 120.00	100.00
5.972	5.972	(1.033)	99	377031			34.02- 94.02	64.55
97 Carbon Tetrachloride					CAS #: 56-23-5			
6.093	6.093	(1.055)	119	607892	56.3716	56.372	80.00- 120.00	100.00
6.093	6.093	(1.055)	117	606036			70.64- 130.64	99.69
99 1,1-Dichloropropene					CAS #: 563-58-6			
6.122	6.122	(0.918)	110	138804	48.2785	48.278	80.00- 120.00	100.00
6.122	6.122	(0.918)	75	336115			226.85- 286.85	242.15
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
6.280	6.280	(1.087)	57	1982554	49.4991	49.499	80.00- 120.00	100.00
6.280	6.280	(1.087)	56	674431			2.24- 62.24	34.02
6.280	6.280	(1.087)	41	559933			0.00- 54.39	28.24

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
6.301	6.301	(0.945)	78	649254	46.5811	46.581	80.00- 120.00	100.00
6.301	6.301	(0.945)	77	151904			0.00- 52.90	23.40
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.358	6.358	(0.954)	87	190746	48.5336	48.534	80.00- 120.00	100.00
6.358	6.358	(0.954)	73	741263			372.79- 432.79	388.61
6.358	6.358	(0.954)	55	312024			112.09- 172.09	163.58
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.380	6.380	(0.957)	62	429132	59.1695	59.170	80.00- 120.00	100.00
6.380	6.380	(0.957)	64	132985			0.79- 60.79	30.99
-----								
107 Heptane					CAS #: 142-82-5			
6.451	6.451	(0.968)	71	245626	44.4837	44.484	80.00- 120.00	100.00
6.444	6.444	(0.967)	43	858436			226.53- 286.53	349.49
6.444	6.444	(0.967)	57	389665			100.85- 160.85	158.64
-----								
110 n-Butanol					CAS #: 71-36-3			
6.810	6.810	(1.021)	56	289918	57.2114	57.211	80.00- 120.00	100.00
6.810	6.810	(1.021)	41	227867			40.99- 100.99	78.60
6.810	6.810	(1.021)	43	187151			27.38- 87.38	64.55
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.867	6.867	(1.030)	95	348274	51.4941	51.494	80.00- 120.00	100.00
6.867	6.867	(1.030)	130	381745			76.29- 136.29	109.61
6.867	6.867	(1.030)	97	223802			33.63- 93.63	64.26
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.096	7.096	(1.064)	63	349007	48.8416	48.842	80.00- 120.00	100.00
7.096	7.096	(1.064)	62	251760			41.07- 101.07	72.14
7.096	7.096	(1.064)	41	262704			22.53- 82.53	75.27
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.139	7.139	(0.755)	69	262315	46.7128	46.713	80.00- 120.00	100.00
7.139	7.139	(0.755)	41	664702			179.84- 239.84	253.40
7.139	7.139	(0.755)	100	103474			9.59- 69.59	39.45
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.175	7.175	(1.076)	88	175835	46.3020	46.302	80.00- 120.00	100.00
7.175	7.175	(1.076)	58	196692			68.28- 128.28	111.86
7.175	7.175	(1.076)	57	68054			2.68- 62.68	38.70
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.211	7.211	(0.762)	174	336842	55.5418	55.542	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	306263			60.09- 120.09	90.92

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
7.204	7.204	(0.761)	95	268177		48.38- 108.38	79.62		
-----									
122 Bromodichloromethane CAS #: 75-27-4									
7.318	7.318	(1.098)	83	577290	55.0500	55.050	80.00- 120.00	100.00	
7.318	7.318	(1.098)	85	372764		35.24- 95.24	64.57		
-----									
126 cis-1,3-Dichloropropene CAS #: 10061-01-5									
7.698	7.698	(1.155)	75	429963	48.5316	48.532	80.00- 120.00	100.00	
7.698	7.698	(1.155)	77	135510		2.42- 62.42	31.52		
7.698	7.691	(1.155)	39	351728		37.16- 97.16	81.80		
-----									
127 Methylcyclohexane CAS #: 108-87-2									
6.974	6.974	(1.046)	83	450838	46.0641	46.064	80.00- 120.00	100.00	
6.974	6.974	(1.046)	98	219242		15.78- 75.78	48.63		
6.974	6.974	(1.046)	55	603196		84.64- 144.64	133.79		
-----									
131 4-Methyl-2-pentanone CAS #: 108-10-1									
7.798	7.798	(1.170)	58	376536	51.8900	51.890	80.00- 120.00	100.00	
7.798	7.798	(1.170)	43	1189284		242.35- 302.35	315.85		
7.798	7.798	(1.170)	85	108058		3.24- 63.24	28.70		
-----									
137 Toluene CAS #: 108-88-3									
7.956	7.956	(1.193)	91	925900	48.1488	48.149	80.00- 120.00	100.00	
7.956	7.956	(1.193)	92	535486		28.38- 88.38	57.83		
-----									
136 Octane CAS #: 111-65-9									
7.949	7.949	(1.192)	57	427466	52.1338	52.134	80.00- 120.00	100.00	
7.949	7.949	(1.192)	85	311871		56.00- 116.00	72.96		
7.949	7.949	(1.192)	43	1267487		228.66- 288.66	296.51		
-----									
139 trans-1,3-Dichloropropene CAS #: 10061-02-6									
8.214	8.214	(0.868)	75	419882	52.2075	52.207	80.00- 120.00	100.00	
8.214	8.214	(0.868)	77	131614		1.24- 61.24	31.35		
8.214	8.214	(0.868)	39	326159		34.11- 94.11	77.68		
-----									
141 1,1,2-Trichloroethane CAS #: 79-00-5									
8.400	8.400	(0.888)	97	344102	51.7635	51.763	80.00- 120.00	100.00	
8.400	8.400	(0.888)	99	211688		31.96- 91.96	61.52		
8.400	8.400	(0.888)	83	288527		52.93- 112.93	83.85		
-----									
142 Tetrachloroethene CAS #: 127-18-4									
8.464	8.464	(0.895)	166	500458	53.7297	53.730	80.00- 120.00	100.00	
8.464	8.464	(0.895)	129	389817		47.84- 107.84	77.89		
8.464	8.464	(0.895)	131	377597		45.29- 105.29	75.45		
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CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6			
8.586	8.586	(0.908)	58	518404	54.5834	54.583	80.00- 120.00	100.00	
8.586	8.586	(0.908)	43	1147131			162.87- 222.87	221.28	
8.586	8.586	(0.908)	100	70980			0.00- 45.94	13.69	
-----									
144 1,3-Dichloropropane						CAS #: 142-28-9			
8.579	8.579	(1.287)	76	445608	48.7962	48.796	80.00- 120.00	100.00	
8.579	8.579	(1.287)	41	692466			94.99- 154.99	155.40	
8.579	8.579	(1.287)	78	144556			2.05- 62.05	32.44	
-----									
146 Dibromochloromethane						CAS #: 124-48-1			
8.801	8.801	(0.930)	129	704360	56.7092	56.709	80.00- 120.00	100.00	
8.801	8.801	(0.930)	127	544717			47.45- 107.45	77.34	
-----									
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4			
8.951	8.951	(0.946)	107	568067	53.2805	53.280	80.00- 120.00	100.00	
8.951	8.951	(0.946)	109	539396			64.21- 124.21	94.95	
-----									
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0			
7.605	7.605	(1.141)	63	653325	49.8302	49.830	80.00- 120.00	100.00	
7.605	7.605	(1.141)	65	186077			0.00- 59.64	28.48	
7.605	7.605	(1.141)	144	65011			0.00- 39.63	9.95	
-----									
154 Chlorobenzene						CAS #: 108-90-7			
9.496	9.496	(1.004)	112	824575	50.8108	50.811	80.00- 120.00	100.00	
9.496	9.496	(1.004)	114	261378			1.74- 61.74	31.70	
9.496	9.496	(1.004)	77	426861			25.04- 85.04	51.77	
-----									
155 Ethyl Benzene						CAS #: 100-41-4			
9.567	9.567	(1.011)	106	422546	49.7942	49.794	80.00- 120.00	100.00	
9.567	9.567	(1.011)	91	1263638			273.74- 333.74	299.05	
-----									
156 Nonane						CAS #: 111-84-2			
9.603	9.603	(1.015)	43	1338142	61.2896	61.290	80.00- 120.00	100.00	
9.603	9.603	(1.015)	57	963974			54.16- 114.16	72.04	
9.603	9.603	(1.015)	85	244651			0.00- 53.90	18.28	
-----									
158 m,p-Xylene						CAS #: 108-38-3			
9.718	9.718	(1.027)	106	530873	49.9503	49.950	80.00- 120.00	100.00	
9.718	9.718	(1.027)	91	1014322			163.73- 223.73	191.07	
-----									
164 o-Xylene						CAS #: 95-47-6			
10.226	10.226	(1.081)	106	498639	48.9685	48.968	80.00- 120.00	100.00	
10.226	10.226	(1.081)	91	1004416			177.45- 237.45	201.43	
-----									
165 Styrene						CAS #: 100-42-5			
10.255	10.255	(1.084)	104	845223	48.5352	48.535	80.00- 120.00	100.00	

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
165 Styrene (continued)									
10.255	10.255	(1.084)	78	395156		17.88-	77.88	46.75	
-----									
167 Bromoform									
									CAS #: 75-25-2
10.542	10.542	(1.114)	173	699890	57.1673	57.167	80.00-	120.00	100.00
10.542	10.542	(1.114)	171	359806		21.25-	81.25	51.41	
-----									
168 Cumene									
									CAS #: 98-82-8
10.649	10.649	(1.126)	105	1583799	49.5126	49.513	80.00-	120.00	100.00
10.649	10.649	(1.126)	120	460987			0.00-	58.52	29.11
10.649	10.649	(1.126)	51	256106			0.00-	43.00	16.17
-----									
169 Cyclohexanone									
									CAS #: 108-94-1
10.871	10.871	(1.149)	55	680995	59.5290	59.529	80.00-	120.00	100.00
10.871	10.871	(1.149)	98	183857			1.94-	61.94	27.00
10.871	10.871	(1.149)	42	471282			37.89-	97.89	69.20
-----									
175 1,1,2,2-Tetrachloroethane									
									CAS #: 79-34-5
11.100	11.100	(1.173)	83	793897	50.8493	50.849	80.00-	120.00	100.00
11.100	11.100	(1.173)	85	513710			35.20-	95.20	64.71
-----									
177 Bromobenzene									
									CAS #: 108-86-1
11.107	11.107	(1.174)	156	534607	54.9512	54.951	80.00-	120.00	100.00
11.107	11.107	(1.174)	158	521814			67.21-	127.21	97.61
11.179	11.172	(1.182)	77	317364			29.02-	89.02	59.36
-----									
178 Propylbenzene									
									CAS #: 103-65-1
11.150	11.150	(1.179)	120	496474	52.3445	52.344	80.00-	120.00	100.00
11.150	11.150	(1.179)	91	1908718			366.49-	426.49	384.45
11.150	11.150	(1.179)	105	70682			0.00-	44.85	14.24
-----									
179 1,2,3-Trichloropropane									
									CAS #: 96-18-4
11.179	11.179	(1.182)	110	261554	52.5615	52.561	80.00-	120.00	100.00
11.179	11.179	(1.182)	75	829768			280.55-	340.55	317.25
11.100	11.100	(1.173)	61	132615			15.49-	75.49	50.70
-----									
181 trans-1,4-Dichloro-2-butene									
									CAS #: 110-57-6
11.179	11.179	(1.182)	53	282638	86.6413	86.641	80.00-	120.00	100.00(R)
11.179	11.158	(1.182)	89	175297			49.11-	109.11	62.02
11.179	11.179	(1.182)	75	829768			426.44-	486.44	293.58
-----									
182 Decane									
									CAS #: 124-18-5
11.251	11.251	(1.189)	57	1340836	53.8888	53.889	80.00-	120.00	100.00
11.251	11.251	(1.189)	71	326734			0.00-	57.66	24.37
11.258	11.258	(1.190)	142	50844			0.00-	34.09	3.79
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
11.287	11.287	(1.193)	120	547341	53.0644	53.064	80.00- 120.00	100.00
11.287	11.287	(1.193)	105	1662614			284.55- 344.55	303.76
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
11.308	11.308	(1.195)	126	440234	54.5119	54.512	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1435113			315.17- 375.17	325.99
11.301	11.301	(1.195)	65	216619			21.55- 81.55	49.21
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
11.365	11.365	(1.201)	120	753594	53.0653	53.065	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1419287			164.93- 224.93	188.34
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
11.645	11.645	(1.231)	118	733657	52.0034	52.003	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	403839			25.30- 85.30	55.04
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
11.738	11.745	(1.241)	119	1437834	54.1322	54.132	80.00- 120.00	100.00
11.745	11.745	(1.242)	134	352636			0.00- 54.25	24.53
11.738	11.738	(1.241)	91	841324			31.27- 91.27	58.51
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
11.817	11.817	(1.249)	105	1435243	53.5443	53.544	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	729140			19.05- 79.05	50.80
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
11.996	11.996	(1.268)	134	458156	55.4973	55.497	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	2069303			437.55- 497.55	451.66
11.996	11.996	(1.268)	91	313914			40.76- 100.76	68.52
-----								
194 p-Cymene						CAS #: 99-87-6		
12.160	12.160	(1.285)	119	1974780	54.1210	54.121	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	515667			0.00- 55.54	26.11
12.160	12.160	(1.285)	91	416731			0.00- 51.48	21.10
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
12.203	12.203	(1.290)	146	1040083	56.6893	56.689	80.00- 120.00	100.00
12.203	12.203	(1.290)	148	659926			33.21- 93.21	63.45
12.196	12.196	(1.289)	111	402882			11.31- 71.31	38.74
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
12.311	12.311	(1.301)	146	1045207	56.3744	56.374	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	661013			33.90- 93.90	63.24
12.311	12.311	(1.301)	111	394684			9.45- 69.45	37.76
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene					CAS #: 100-44-7			
12.468	12.461	(1.318)	91	1369117	53.7752	53.775	80.00- 120.00	100.00
12.468	12.461	(1.318)	126	326444			0.00- 53.26	23.84
-----								
201 Undecane					CAS #: 1120-21-4			
12.640	12.640	(1.336)	57	1677972	58.3834	58.383	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1709217			58.12- 118.12	101.86
-----								
202 Butylbenzene					CAS #: 104-51-8			
12.626	12.626	(1.335)	134	505105	54.5037	54.504	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	1707893			314.79- 374.79	338.13
12.626	12.626	(1.335)	92	886168			154.29- 214.29	175.44
-----								
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
12.741	12.741	(1.347)	146	1007075	55.9795	55.980	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	640743			33.84- 93.84	63.62
12.741	12.733	(1.347)	111	411811			12.73- 72.73	40.89
-----								
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
13.614	13.600	(1.439)	157	623462	57.2189	57.219	80.00- 120.00	100.00
13.614	13.600	(1.439)	75	508537			52.48- 112.48	81.57
13.614	13.600	(1.439)	155	492299			47.41- 107.41	78.96
-----								
207 Dodecane					CAS #: 112-40-3			
13.822	13.801	(1.461)	57	1779455	78.1129	78.113	80.00- 120.00	100.00(R)
13.822	13.801	(1.461)	43	1670681			52.87- 112.87	93.89
-----								
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
14.496	14.467	(1.532)	180	1006728	75.7408	75.741	80.00- 120.00	100.00(R)
14.496	14.467	(1.532)	182	964268			65.33- 125.33	95.78
-----								
215 Hexachlorobutadiene					CAS #: 87-68-3			
14.617	14.582	(1.545)	225	744708	79.6108	79.611	80.00- 120.00	100.00(R)
14.617	14.582	(1.545)	223	467646			33.17- 93.17	62.80
-----								
216 Naphthalene					CAS #: 91-20-3			
14.804	14.768	(1.565)	128	228617	6.73004	6.730	80.00- 120.00	100.00
14.796	14.768	(1.564)	127	29929			0.00- 42.88	13.09
-----								
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
15.104	15.069	(1.597)	180	957768	81.5111	81.511	80.00- 120.00	100.00(R)
15.104	15.069	(1.597)	182	910874			65.75- 125.75	95.10
15.104	15.069	(1.597)	145	323068			5.23- 65.23	33.73
-----								

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 21-AUG-2021
Lab File ID: p082104.d	Calibration Time: 09:37
Lab Smp Id: LCSD	Client Smp ID: LCSD
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: mb	
Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	102894	61736	144052	116975	13.68
108 1,4-Difluorobenze	387356	232414	542298	422374	9.04
153 Chlorobenzene-d5	386134	231680	540588	408689	5.84

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.79	5.46	6.12	5.78	-0.12
108 1,4-Difluorobenze	6.67	6.34	7.00	6.67	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 21AUG21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCSD Client Smp ID: LCSD  
 Level: LOW Operator: mb  
 Data Type: MS DATA SampleType: LCSD  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AT20\_new.sub  
 Method File: /chem/msdp.i/21AUG21.b/p21q0519a.m  
 Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	58.345	116.69	70-130
5 Propylene	50.000	52.535	105.07	70-130
7 1,1-Difluoroethan	50.000	46.266	92.53	70-130
8 Freon 12	50.000	52.593	105.19	70-130
9 Chlorodifluoromet	50.000	57.124	114.25	70-130
10 Freon 114	50.000	49.754	99.51	70-130
12 Isobutane	50.000	50.933	101.87	70-130
15 Chloromethane	50.000	59.131	118.26	70-130
18 Butane	50.000	44.221	88.44	70-130
19 Vinyl Chloride	50.000	43.438	86.88	70-130
20 1,3-Butadiene	50.000	57.276	114.55	70-130
24 Bromomethane	50.000	40.186	80.37	70-130
30 Chloroethane	50.000	41.808	83.62	70-130
31 Isopentane	50.000	51.538	103.08	70-130
32 Vinyl Bromide	50.000	41.754	83.51	70-130
33 Freon 11	50.000	53.838	107.68	70-130
34 Dichlorofluoromet	50.000	44.571	89.14	70-130
35 Pentane	50.000	49.915	99.83	70-130
38 Ethyl Ether	50.000	40.068	80.14	70-130
39 Ethanol	58.000	50.440	86.97	70-130
42 Acrolein	58.000	44.270	76.33	70-130
43 Freon 113	50.000	47.531	95.06	70-130
44 1,1-Dichloroethen	50.000	43.882	87.76	70-130
47 Acetone	50.000	47.480	94.96	70-130
48 Carbon Disulfide	50.000	40.910	81.82	70-130
49 Iodomethane	50.000	58.050	116.10	70-130
52 2-Propanol	50.000	54.734	109.47	70-130
54 3-Chloropropene	50.000	40.980	81.96	70-130
57 Acetonitrile	50.000	55.123	110.25	70-130
59 Methylene Chlorid	50.000	56.656	113.31	70-130
62 tert-Butyl alcoho	50.000	45.284	90.57	70-130
63 Methyl tert-butyl	50.000	42.614	85.23	70-130
64 trans-1,2-Dichlor	50.000	44.367	88.73	70-130

Report Date: 21-Aug-2021 12:16

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	52.148	104.30	70-130
67 Hexane	50.000	47.279	94.56	70-130
71 1,1-Dichloroethan	50.000	47.243	94.49	70-130
72 Isopropyl ether	50.000	54.451	108.90	70-130
73 Vinyl Acetate	50.000	41.811	83.62	70-130
79 Ethyl-tert-butyl	50.000	46.753	93.51	70-130
84 2,2-Dichloropropa	50.000	49.858	99.72	70-130
85 cis-1,2-Dichloroe	50.000	45.617	91.23	70-130
86 2-Butanone	50.000	40.620	81.24	70-130
87 Ethyl Acetate	50.000	56.190	112.38	70-130
89 Tetrahydrofuran	50.000	55.519	111.04	70-130
92 Chloroform	50.000	49.173	98.35	70-130
94 Cyclohexane	50.000	42.541	85.08	70-130
96 1,1,1-Trichloroet	50.000	50.802	101.60	70-130
99 1,1-Dichloroprop	50.000	48.278	96.56	70-130
97 Carbon Tetrachlor	50.000	56.372	112.74	70-130
101 2,2,4-Trimethylpe	50.000	49.499	99.00	70-130
102 Benzene	50.000	46.581	93.16	70-130
105 tert-Amyl methyl	50.000	48.534	97.07	70-130
106 1,2-Dichloroethan	50.000	59.170	118.34	70-130
107 Heptane	50.000	44.484	88.97	70-130
110 n-Butanol	50.000	57.211	114.42	70-130
111 Trichloroethene	50.000	51.494	102.99	70-130
118 Dibromomethane	50.000	55.542	111.08	70-130
127 Methylcyclohexane	50.000	46.064	92.13	70-130
114 1,2-Dichloropropa	50.000	48.842	97.68	70-130
116 Methyl Methacryla	50.000	46.713	93.43	70-130
117 1,4-Dioxane	50.000	46.302	92.60	70-130
122 Bromodichlorometh	50.000	55.050	110.10	70-130
126 cis-1,3-Dichlorop	50.000	48.532	97.06	70-130
131 4-Methyl-2-pentan	50.000	51.890	103.78	70-130
136 Octane	50.000	52.134	104.27	70-130
137 Toluene	50.000	48.149	96.30	70-130
139 trans-1,3-Dichlor	50.000	52.207	104.41	70-130
141 1,1,2-Trichloroet	50.000	51.763	103.53	70-130
142 Tetrachloroethene	50.000	53.730	107.46	70-130
143 2-Hexanone	50.000	54.583	109.17	70-130
144 1,3-Dichloropropa	50.000	48.796	97.59	70-130
146 Dibromochlorometh	50.000	56.709	113.42	70-130
148 1,2-Dibromoethane	50.000	53.280	106.56	70-130
151 1-Bromo-2-Chloroe	50.000	49.830	99.66	70-130
154 Chlorobenzene	50.000	50.811	101.62	70-130
155 Ethyl Benzene	50.000	49.794	99.59	70-130
156 Nonane	50.000	61.290	122.58	70-130
157 1,1,1,2-Tetrachlo	50.000	0.000	*	70-130
158 m,p-Xylene	50.000	49.950	99.90	70-130
164 o-Xylene	50.000	48.968	97.94	70-130



SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	48.535	97.07	70-130
167 Bromoform	50.000	57.167	114.33	70-130
168 Cumene	50.000	49.513	99.03	70-130
169 Cyclohexanone	50.000	59.529	119.06	70-130
175 1,1,2,2-Tetrachlo	50.000	50.849	101.70	70-130
177 Bromobenzene	50.000	54.951	109.90	70-130
178 Propylbenzene	50.000	52.344	104.69	70-130
179 1,2,3-Trichloropr	50.000	52.561	105.12	70-130
181 trans-1,4-Dichlor	50.000	86.641	173.28*	70-130
182 Decane	50.000	53.889	107.78	70-130
183 4-Ethyltoluene	50.000	53.064	106.13	70-130
184 2-Chlorotoluene	50.000	54.512	109.02	70-130
185 1,3,5-Trimethylbe	50.000	53.065	106.13	70-130
188 alpha Methyl Styr	50.000	52.003	104.01	70-130
189 tert-Butylbenzene	50.000	54.132	108.26	70-130
190 1,2,4-Trimethylbe	50.000	53.544	107.09	70-130
192 sec-Butylbenzene	50.000	55.497	110.99	70-130
194 p-Cymene	50.000	54.121	108.24	70-130
195 1,3-Dichlorobenze	50.000	56.689	113.38	70-130
196 1,4-Dichlorobenze	50.000	56.374	112.75	70-130
199 alpha-Chlorotolue	50.000	53.775	107.55	70-130
201 Undecane	50.000	58.383	116.77	70-130
202 Butylbenzene	50.000	54.504	109.01	70-130
204 1,2-Dichlorobenze	50.000	55.980	111.96	70-130
206 1,2-Dibromo-3-chl	50.000	57.219	114.44	70-130
207 Dodecane	50.000	78.113	156.23*	70-130
213 1,2,4-Trichlorobe	58.000	75.741	130.59*	70-130
215 Hexachlorobutadie	58.000	79.611	137.26*	70-130
216 Naphthalene	5.800	6.730	116.04	60-140
222 1,2,3-Trichlorobe	58.000	81.511	140.54*	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	26.888	107.55	70-130
\$ 134 Toluene-d8	25.000	24.990	99.96	70-130
\$ 170 4-Bromofluorobenz	25.000	27.580	110.32	70-130

Date : 21-AUG-2021 10:32

Client ID: LCSD

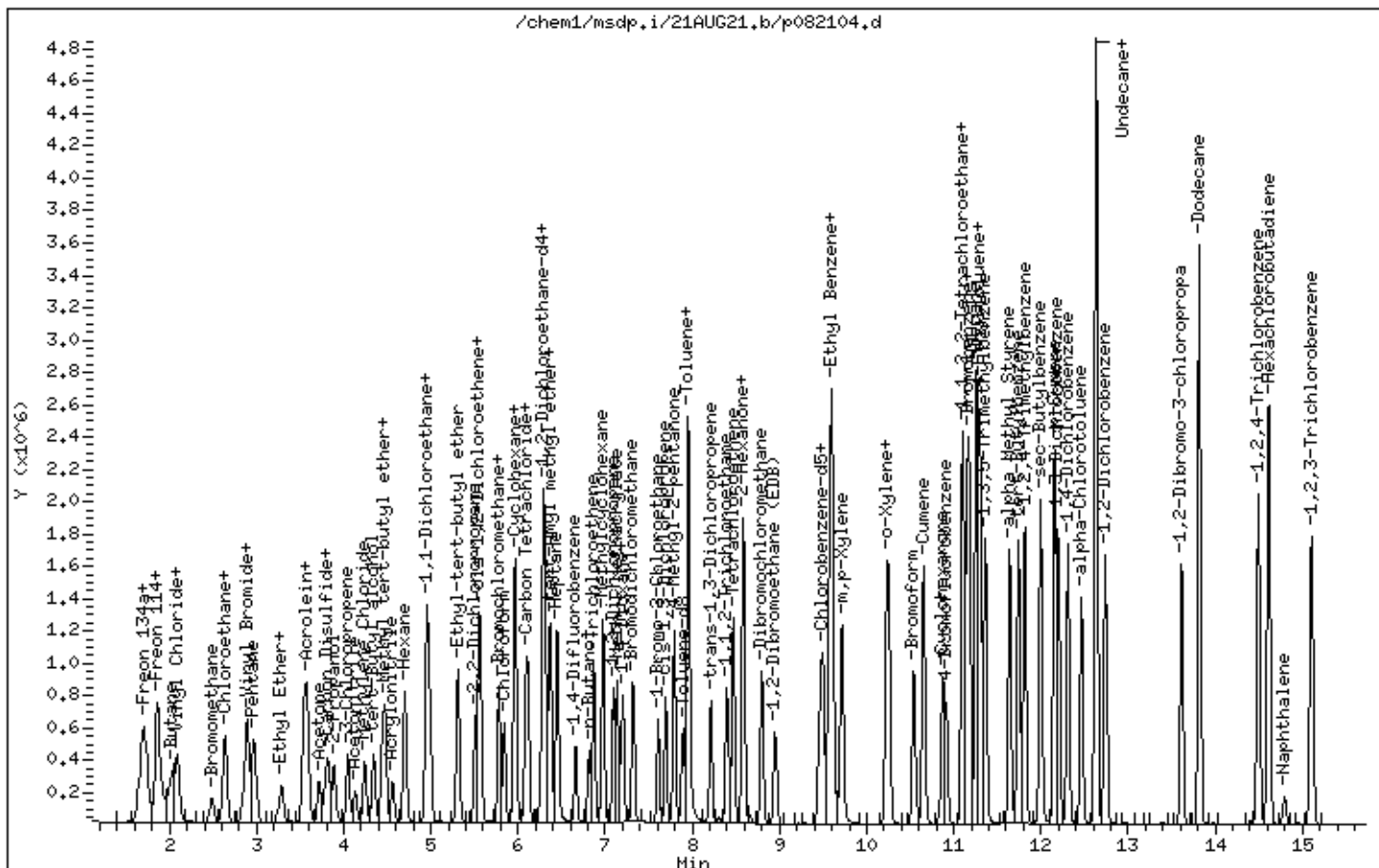
Instrument: msdp.i

Sample Info: 50mL 3018-2173

Operator: mb

Column phase: RTX-624

Column diameter: 0.25



MSPD

File #	Enter/Scan Sample ID#	Container#	Cart Pos.	Pressure	mL	DP	Verify Used	Loaded Int	Date Analyzed	Time	Review Int	Comments
368FB Verification of 176/174 ratio: (77832/83688)*100%=93.0%												
SO# 6												
Method TO-15/TO-14												
3234-67 Exp. Date: 11/4/21 Vacuum: NA												
102,894												
Please check all standards												
BCM		387,356										
1A-DFB		386,134										
CB-d5												
Verified CCV vs ICL mid point (40%): mb												
Method: p21q0519a.m												
V	P082101	B19 Tune Check	3234-67	36hg	50ml	1.00	mb	mb	8/21/2021	0908	mb	Exp. 11/4/21. Apex+1, scan: 1305
V	P082102	CCV	3018-2125A	50ppbv (100ppbv)	100ml	1.00	mb	mb	8/21/2021	0937	mb	Exp. 9/28/21; out, 2 outside 70-130
V	P082103	LCS	3018-2173	50ppbv (200ppbv)	50ml	1.00	mb	mb	8/21/2021	1004	mb	Exp. 10/28/21, 1 out
V	P082104	LCS D	3018-2173	50ppbv (200ppbv)	50ml	1.00	mb	mb	8/21/2021	1032	mb	Exp. 10/28/21, 3 out, RPD: 0 out
X	P082105	CCVsp	3018-2127	50ppbv (200ppbv)	50ml	1.00	mb	mb	8/21/2021	1200	mb	Exp. 9/26/21, leak test high error, not loaded
V	P082106	TPHg Callb	3234-27	500ppbv(1250ppbv)	80ml	1.00	mb	mb	8/21/2021	1224	mb	Exp. 9/3/21
V	P082107	CCVsp	3018-2127	50ppbv (200ppbv)	50ml	1.00	mb	mb	8/21/2021	1259	mb	Exp. 9/26/21, 0 out
V	P082108	Lab Blank	35157	humid	200ml	1.00	mb	mb	8/21/2021	1348	mb	leg validation
V	P082109	2108390-21A	N1957	5.5 Hg->10 psi	200ml	2.06	mb	mb	8/21/2021	1535	LD	
V	P082110	2108390-20A	N5602	5.5 Hg->10 psi	200ml	2.06	LD	mb	8/21/2021	1617	LD	
V	P082111	2108390-22A	111647	4.5 Hg->10.6 psi	200ml	2.02	LD	mb	8/21/2021	1646	LD	
V	P082112	2108390-23A	113941	5.5 Hg->10 psi	200ml	2.06	LD	mb	8/21/2021	1716	LD	
V	P082113	2108390-24A	111751	6.5 Hg->10 psi	200ml	2.14	LD	mb	8/21/2021	1745	LD	
V	P082114	2108390-25A	N2042	5.5 Hg->10 psi	200ml	2.06	LD	mb	8/21/2021	1815	LD	
V	P082115	2108390-26A	00246	6.0 Hg->10 psi	200ml	2.10	LD	mb	8/21/2021	1844	LD	
X	P082116	2108447-01A	N2728	6.7 Hg->9 psi	15ml	28.7	LD	mb	8/21/2021	1912	LD	overdillute, rr @ 40ml
X	P082117	2108447-03A	129	5.1 Hg->9 psi	20ml	20.2	LD	mb	8/21/2021	1939	LD	overdillute, rr @ 200ml
X	P082118	2108447-04A	01076	5.5 Hg->9 psi	20ml	20.5	LD	mb	8/21/2021	2007	LD	overdillute, rr @ 200ml
V	P082119	2108447-06A	00785	3.3 Hg->9 psi	200ml	1.88	LD	mb	8/21/2021	2037	LD	
V	P082120	2108447-07A	B2376	6.9 Hg->10 psi	200ml	2.18	LD	mb	8/21/2021	2106	LD	
X	P082121	2108447-08A	N1956	5.9 Hg->9 psi	80ml	5.21	LD	mb	8/21/2021	2134	LD	overdillute, rr @ 200ml

gr 8/24/21

MSDP

368FB Verification of 176/174 ratio: (89888/96352)*100%=93.29%		Exp. Date: 11/4/21		Method TO-15/TO-14	
3234-67	Exp. Date: 109.375	3234-67	Exp. Date: 11/4/21	SCPP 6	NA
BCM	406.799	400.841	406.799	Vacuum:	NA
Please check all standards					
1,4-DFB	400.841	Surr # 3234-67	Exp. Date: 11/4/21	Surrogate#	NA
CB-d5		CCV: 3018-2125A	Exp. Date: 9/28/21	LCS: 3018-2173	10/28/21
		CCV sp1#	Exp. Date:	LCS sp1 #	
		CCV sp2#	Exp. Date:	LCS sp2 #	
		CCV sp3#	Exp. Date:	LCS sp3 #	
Verified CCV vs TGA mid-point (40%): mjb					
Method: p21q0519a.m					

File #	Enter/Scan Sample ID	Centers	Cart Pos.	Pressure	mL	DF	Verify Load	Loaded Int	Date Analyzed	Time	Review Int	Comments
✓	P082001	BFB Tune Check	3234-67	36mg	200ml	1.00	LD	LD	8/20/2021	1034	LD	Exp. 11/4/21, leg validation
✓	P082002	CCV	3018-2125A	50ppbv (100ppbv)	100ml	1.00	mjb	LD	8/20/2021	1113	mjb	Exp. 9/28/21; AT12.0 out AT20.1 out
✓	P082003	LCS	3018-2173	50ppbv (200ppbv)	50ml	1.00	mjb	LD	8/20/2021	1140	mjb	Exp. 10/28/21, AT12.0 out AT20.2 out
✓	P082004	LCSO	3018-2173	50ppbv (200ppbv)	50ml	1.00	mjb	LD	8/20/2021	1208	mjb	Exp. 10/28/21, AT12.1 out AT20.4 out RPD OK
✓	P082005	CCVsp	3018-2127	50ppbv (200ppbv)	50ml	1.00	mjb	LD	8/20/2021	1236	mjb	Exp. 9/26/21, 0 out
✓	P082006	THg Calib	3234-27	500ppbv(1250ppbv)	80ml	1.00	mjb	LD	8/20/2021	1305	mjb	Exp. 9/9/21
✓	P082007	Lab Blank	35157	humid	200ml	1.00	mjb	mjb	8/20/2021	1417	mjb	
✓	P082008	2108390-01A	N3129	6.0 Hg->10 psi	200ml	2.10	KK	mjb	8/20/2021	1557	KK	"E" Hexane > 400ppbv
✓	P082009	2108390-02A	1040	6.5 Hg->10 psi	200ml	2.14	KK	mjb	8/20/2021	1627	KK	"E" chlorodifl (NTC) < 400ppbv, Hexane < 5SRU, no impact on data
✓	P082010	2108390-03A	11614	5.0 Hg->10 psi	200ml	2.02	KK	mjb	8/20/2021	1656	KK	"E" chlorodifl (NTC) < 400ppbv, "E" Hexane < 400ppbv
X	P082011	2108390-04A	11367	7.0 Hg->10 psi	100ml	4.38	KK	mjb	8/20/2021	1725	KK	overdil
✓	P082012	2108390-05A	11582	5.5 Hg->10 psi	200ml	2.06	KK	mjb	8/20/2021	1754	KK	
✓	P082013	2108390-06A	00255	6.0 Hg->10 psi	200ml	2.10	KK	mjb	8/20/2021	1824	KK	
✓	P082014	2108390-07A	11569	5.0 Hg->10 psi	200ml	2.02	KK	mjb	8/20/2021	1853	KK	
X	P082015	2108390-08A	00818	7.0 Hg->10 psi	100ml	4.38	KK	mjb	8/20/2021	1922	KK	overdil
✓	P082016	2108390-09A	112710	6.0 Hg->10 psi	200ml	2.10	KK	mjb	8/20/2021	1951	KK	
✓	P082017	2108390-10A	11646	6.0 Hg->10 psi	200ml	2.10	KK	KK	8/20/2021	2024	KK	
✓	P082018	System Blank	35157	humid	200ml	1.00	KK	KK	8/20/2021	2108	KK	leg validation
✓	P082019	2108390-14A	01022	4.0 Hg->10 psi	200ml	1.94	mb	KK	8/20/2021	2316	mb	Green dot: 7.8->4.8 (psi)
✓	P082020	2108390-11A	111754	6.0 Hg->10 psi	200ml	2.10	mb	KK	8/20/2021	2345	mb	confirmation needed
✓	P082021	2108390-12A	111913	5.0 Hg->10 psi	200ml	2.02	mb	KK	8/21/2021	0015	mb	
✓	P082022	2108390-04A	113967	7.0 Hg->10 psi	200ml	2.19	mb	KK	8/21/2021	0044	mb	
✓	P082023	2108390-13A	3033	4.5 Hg->10 psi	200ml	1.98	mb	KK	8/21/2021	0114	mb	
✓	P082024	2108390-15A	34000236	5.0 Hg->10 psi	200ml	2.02	mb	KK	8/21/2021	0144	mb	
✓	P082025	2108390-16A	NS638	6.5 Hg->10 psi	200ml	2.14	mb	KK	8/21/2021	0214	mb	

8/21/21

File #	Enter/Scan Sample ID	Carteur	Cart Pos.	Pressure	ml	Df	Verify Load	Loaded Int	Date Analyzed	Time	Review Int	Comments
✓	P082026 2108390-08A	00818	8	7.0 Hg->10 psi	200ml	2.19	mb	kk	8/21/2021	0243	mb	
✓	P082027 2108390-17A	11678	9	5.5 Hg->10 psi	200ml	2.06	mb	kk	8/21/2021	0312	mb	
✓	P082028 2108390-18A	00239	10	5.0 Hg->10 psi	200ml	2.02	mb	kk	8/21/2021	0342	mb	
✓	P082029 2108390-19A	11817	11	6.0 Hg->10 psi	200ml	2.10	mb	kk	8/21/2021	0411	mb	

8/21/21

US32TAR1

Data file : /chem/msdp.i/19MAY21.b/p051901.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 19-MAY-2021 11:39  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 200ml #3234-10;BFB;BFB  
 Misc Info : 36ng  
 Comment :  
 Method : /chem/msdp.i/19MAY21.b/bfb30.m  
 Meth Date : 18-Nov-2019 14:14 ushn Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 4 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
		ON-COL		FINAL		TARGET RANGE		RATIO	
RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)			
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb					CAS #: 460-00-4				
10.921	10.993	-0.072	95	186911			100.00- 100.00		100.00
10.921	10.993	-0.072	50	42709			8.00- 40.00		22.85
10.921	10.993	-0.072	75	81216			30.00- 66.00		43.45
10.921	10.993	-0.072	96	12084			5.00- 9.00		6.47
10.921	10.993	-0.072	173	1196			0.00- 1.99		0.82
10.921	10.993	-0.072	174	146453			50.01- 120.00		78.35
10.921	10.993	-0.072	175	10521			4.00- 9.00		7.18
10.921	10.993	-0.072	176	142592			93.00- 101.00		97.36
10.921	10.993	-0.072	177	9138			5.00- 9.00		6.41

Date : 19-MAY-2021 11:39

Client ID: BFB

Instrument: msdp.i

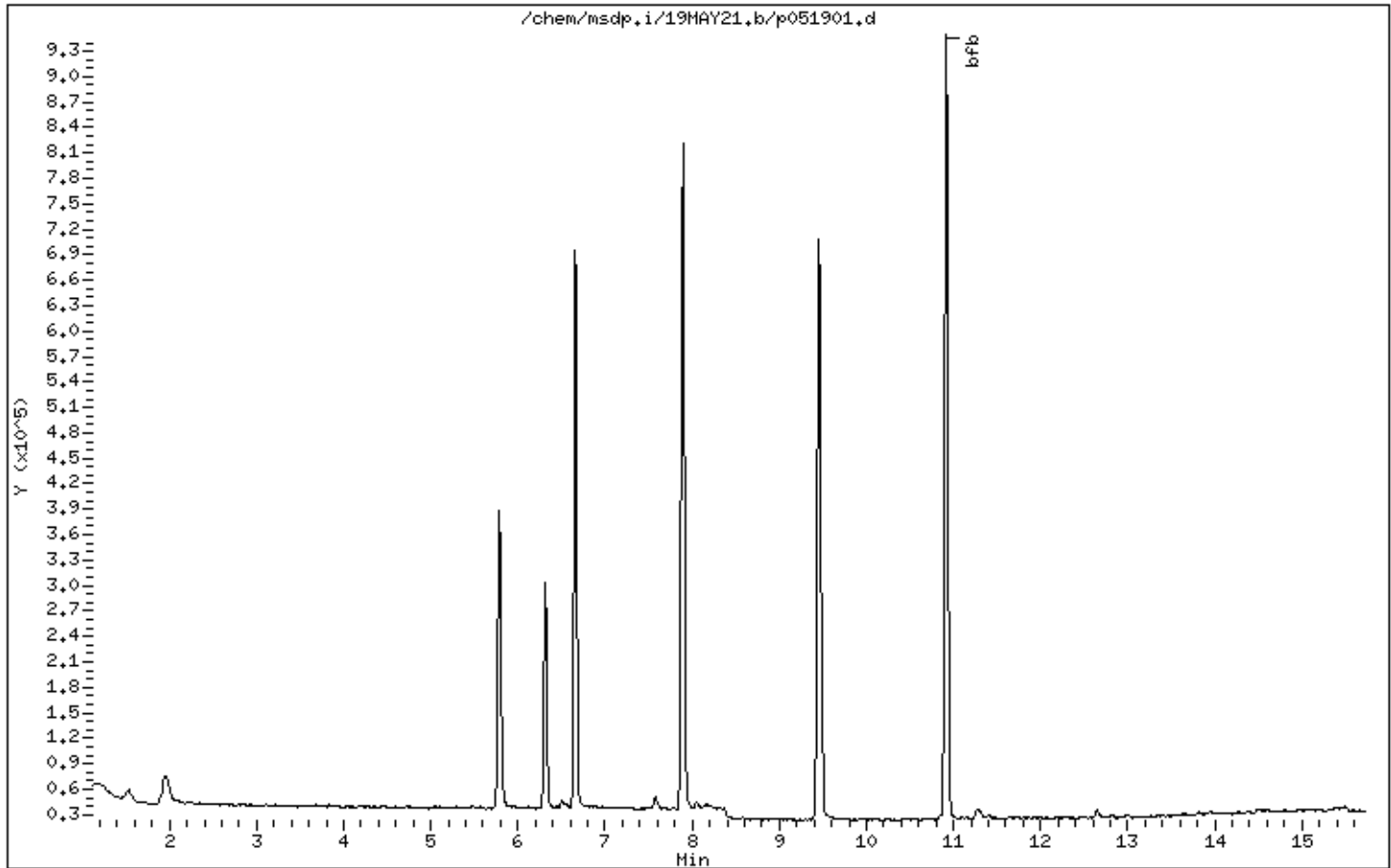
Sample Info: 200ml #3234-10;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00



Date : 19-MAY-2021 11:39

Client ID: BFB

Instrument: msdp.i

Sample Info: 200ml #3234-10;BFB;BFB

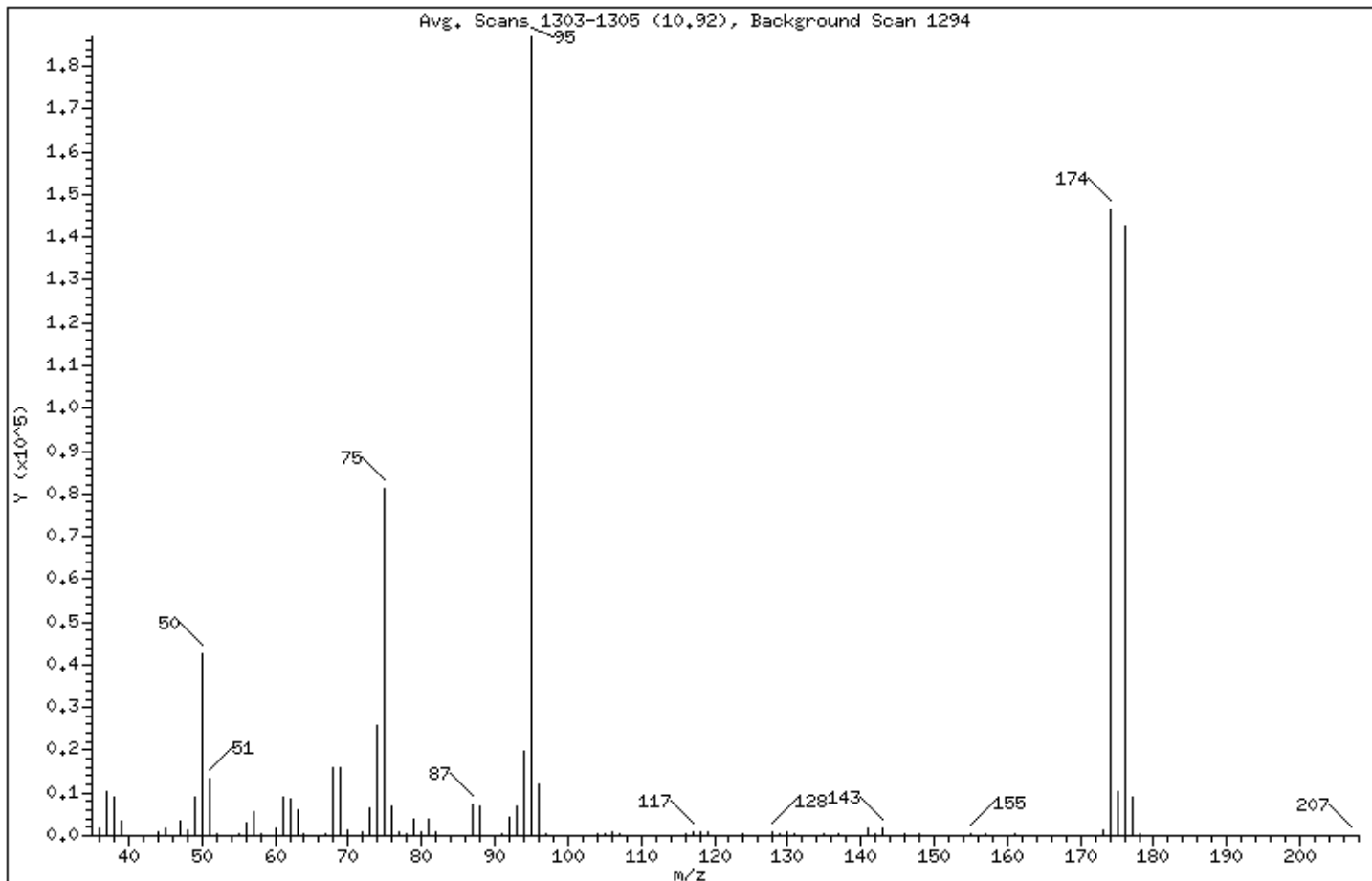
Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	22.85
75	30.00 - 66.00% of mass 95	43.45
96	5.00 - 9.00% of mass 95	6.47
173	Less than 1.99% of mass 174	0.64 ( 0.82)
174	50.01 - 120.00% of mass 95	78.35
175	4.00 - 9.00% of mass 174	5.63 ( 7.18)
176	93.00 - 101.00% of mass 174	76.29 ( 97.36)
177	5.00 - 9.00% of mass 176	4.89 ( 6.41)



Date : 19-MAY-2021 11:39

Client ID: BFB

Instrument: msdp.i

Sample Info: 200ml #3234-10;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

Data File: p051901.d

Spectrum: Avg. Scans 1303-1305 (10.92), Background Scan 1294

Location of Maximum: 95.00

Number of points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1868	70.00	1283	104.00	572	144.00	34
37.00	10229	71.00	45	105.00	269	145.00	194
38.00	8812	72.00	868	106.00	645	146.00	291
39.00	3495	73.00	6642	107.00	260	147.00	74
40.00	164	74.00	25736	110.00	56	148.00	464
44.00	917	75.00	81216	111.00	52	149.00	159
45.00	1818	76.00	7007	112.00	153	150.00	194
46.00	106	77.00	923	113.00	102	152.00	130
47.00	3380	78.00	552	115.00	151	153.00	181
48.00	1430	79.00	3744	116.00	557	154.00	159
49.00	9200	80.00	918	117.00	965	155.00	433
50.00	42704	81.00	3849	118.00	686	157.00	324
51.00	13167	82.00	684	119.00	932	159.00	214
52.00	589	83.00	51	123.00	100	161.00	241
55.00	241	85.00	29	124.00	227	165.00	33
56.00	2844	86.00	166	126.00	88	172.00	143
57.00	5428	87.00	7358	127.00	87	173.00	1196
58.00	256	88.00	6801	128.00	774	174.00	146432
59.00	71	91.00	377	129.00	295	175.00	10521
60.00	1820	92.00	4204	130.00	668	176.00	142592
61.00	9042	93.00	6703	131.00	353	177.00	9138
62.00	8617	94.00	19944	135.00	237	178.00	285
63.00	5849	95.00	186880	137.00	246	207.00	79
64.00	483	96.00	12084	140.00	173		
67.00	360	97.00	281	141.00	1745		
68.00	16023	98.00	26	142.00	230		
69.00	15790	103.00	189	143.00	1755		

US32TAR1

Data file : /chem/msdp.i/20AUG21.b/p082001.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 20-AUG-2021 10:34  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 200ml #3234-67;BFB;BFB  
 Misc Info : 36ng  
 Comment :  
 Method : /chem/msdp.i/20AUG21.b/bfb30.m  
 Meth Date : 18-Nov-2019 14:14 ushn Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 10 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS

ON-COL FINAL

RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
1	bfb						CAS #: 460-00-4	
10.921	10.993	-0.072	95	111210			100.00- 100.00	100.00
10.921	10.993	-0.072	50	33202			8.00- 40.00	29.86
10.921	10.993	-0.072	75	52490			30.00- 66.00	47.20
10.921	10.993	-0.072	96	7121			5.00- 9.00	6.40
10.921	10.993	-0.072	173	992			0.00- 1.99	1.03
10.921	10.993	-0.072	174	96354			50.01- 120.00	86.64
10.921	10.993	-0.072	175	6957			4.00- 9.00	7.22
10.921	10.993	-0.072	176	89888			93.00- 101.00	93.29
10.921	10.993	-0.072	177	6075			5.00- 9.00	6.76

Date : 20-AUG-2021 10:34

Client ID: BFB

Instrument: msdp.i

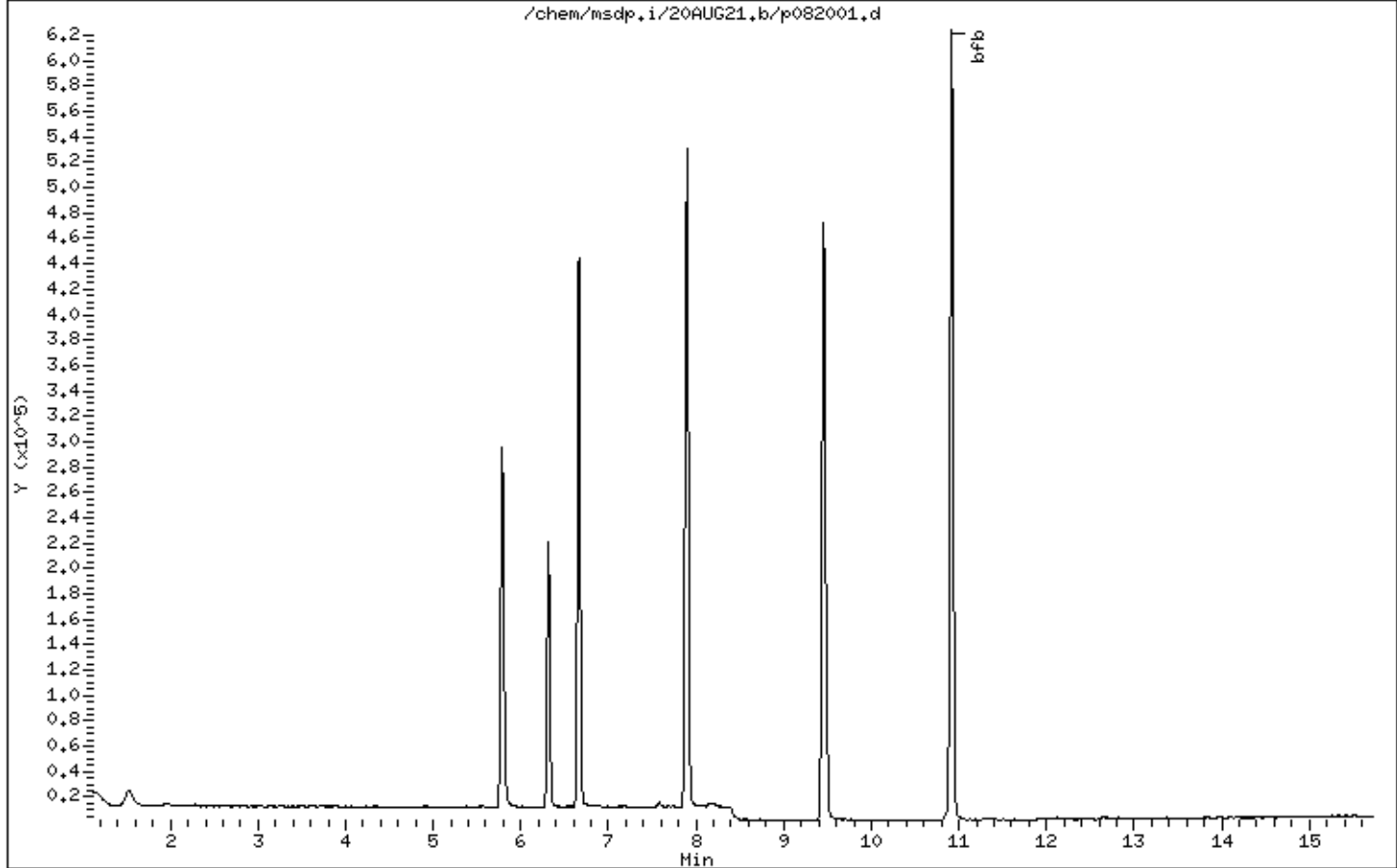
Sample Info: 200ml #3234-67;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00



Date : 20-AUG-2021 10:34

Client ID: BFB

Instrument: msdp.i

Sample Info: 200ml #3234-67;BFB;BFB

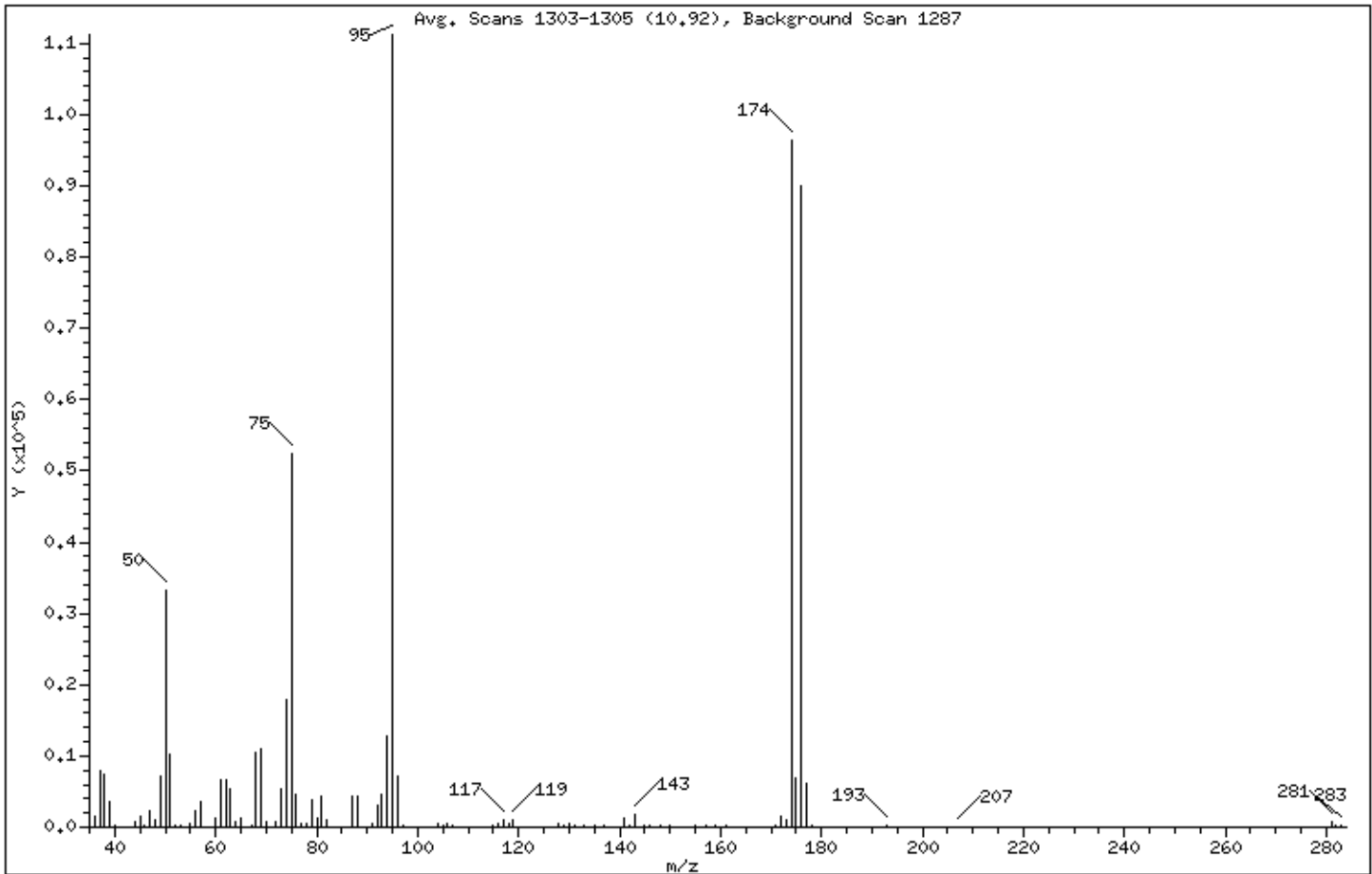
Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	29.86
75	30.00 - 66.00% of mass 95	47.20
96	5.00 - 9.00% of mass 95	6.40
173	Less than 1.99% of mass 174	0.89 ( 1.03)
174	50.01 - 120.00% of mass 95	86.64
175	4.00 - 9.00% of mass 174	6.26 ( 7.22)
176	93.00 - 101.00% of mass 174	80.83 ( 93.29)
177	5.00 - 9.00% of mass 176	5.46 ( 6.76)

Date : 20-AUG-2021 10:34

Client ID: BFB

Instrument: msdp.i

Sample Info: 200ml #3234-67;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

Data File: p082001.d

Spectrum: Avg. Scans 1303-1305 (10.92), Background Scan 1287

Location of Maximum: 95.00

Number of points: 98

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1566	65.00	1219	96.00	7121	145.00	373
37.00	7896	66.00	81	97.00	165	146.00	170
38.00	7303	67.00	309	104.00	587	147.00	34
39.00	3474	68.00	10499	105.00	162	148.00	320
40.00	219	69.00	10988	106.00	588	150.00	131
41.00	111	70.00	826	107.00	160	153.00	81
44.00	723	72.00	668	111.00	34	155.00	234
45.00	1599	73.00	5420	112.00	97	157.00	222
46.00	282	74.00	17776	115.00	143	159.00	147
47.00	2211	75.00	52488	116.00	445	161.00	154
48.00	1071	76.00	4591	117.00	1036	171.00	145
49.00	7045	77.00	562	118.00	464	172.00	1539
50.00	33200	78.00	473	119.00	951	173.00	992
51.00	10183	79.00	3900	128.00	479	174.00	96352
52.00	354	80.00	1299	129.00	179	175.00	6957
53.00	246	81.00	4224	130.00	493	176.00	89888
55.00	570	82.00	1053	131.00	229	177.00	6075
56.00	2274	83.00	35	133.00	185	178.00	190
57.00	3703	87.00	4315	135.00	232	193.00	155
58.00	116	88.00	4297	137.00	239	207.00	100
60.00	1241	91.00	423	140.00	81	281.00	864
61.00	6554	92.00	3159	141.00	1300	282.00	265
62.00	6599	93.00	4699	142.00	184	283.00	160
63.00	5441	94.00	12819	143.00	1718		
64.00	680	95.00	111208	144.00	33		

US32TAR1

Data file : /chem1/msdp.i/21AUG21.b/p082101.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 21-AUG-2021 09:08  
 Operator : mb Inst ID: msdp.i  
 Smp Info : 200ml 3234-67;BFB Tune Check  
 Misc Info : 36ng  
 Comment :  
 Method : /chem1/msdp.i/21AUG21.b/bfb30.m  
 Meth Date : 18-Nov-2019 14:14 ushn Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 10 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS

ON-COL FINAL

RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====

1 bfb

CAS #: 460-00-4

10.921	10.993	-0.072	95	88704			100.00- 100.00	100.00
10.921	10.993	-0.072	50	26896			8.00- 40.00	30.32
10.921	10.993	-0.072	75	42280			30.00- 66.00	47.66
10.921	10.993	-0.072	96	5772			5.00- 9.00	6.51
10.921	10.993	-0.072	173	999			0.00- 1.99	1.19
10.921	10.993	-0.072	174	83688			50.01- 120.00	94.35
10.921	10.993	-0.072	175	5448			4.00- 9.00	6.51
10.921	10.993	-0.072	176	77832			93.00- 101.00	93.00
10.921	10.993	-0.072	177	5113			5.00- 9.00	6.57

Date : 21-AUG-2021 09:08

Client ID: BFB

Instrument: msdp.i

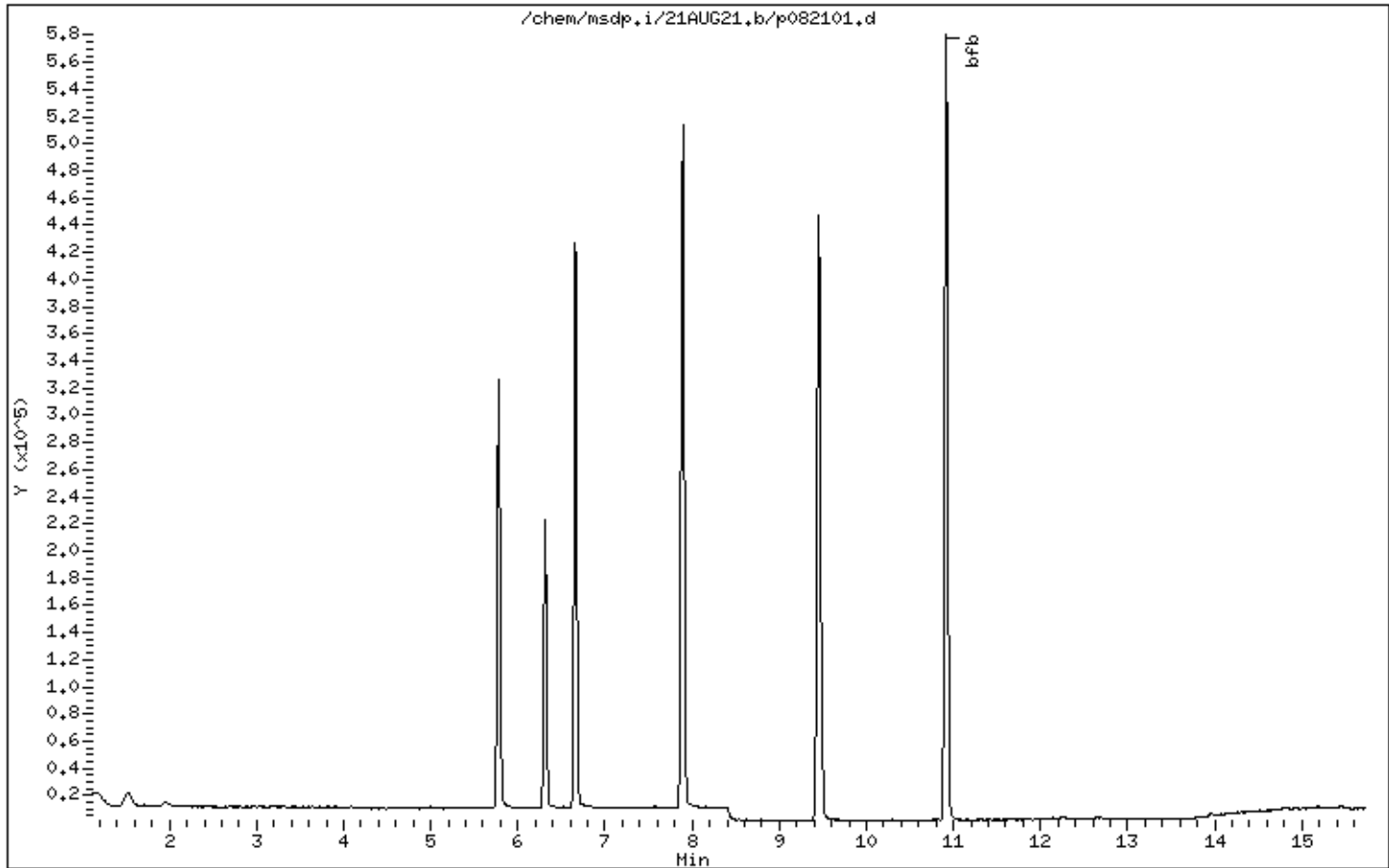
Sample Info: 200ml 3234-67;BFB Tune Check

Volume Injected (uL): 1.0

Operator: mb

Column phase:

Column diameter: 2.00



Date : 21-AUG-2021 09:08

Client ID: BFB

Instrument: msdp.i

Sample Info: 200ml 3234-67;BFB Tune Check

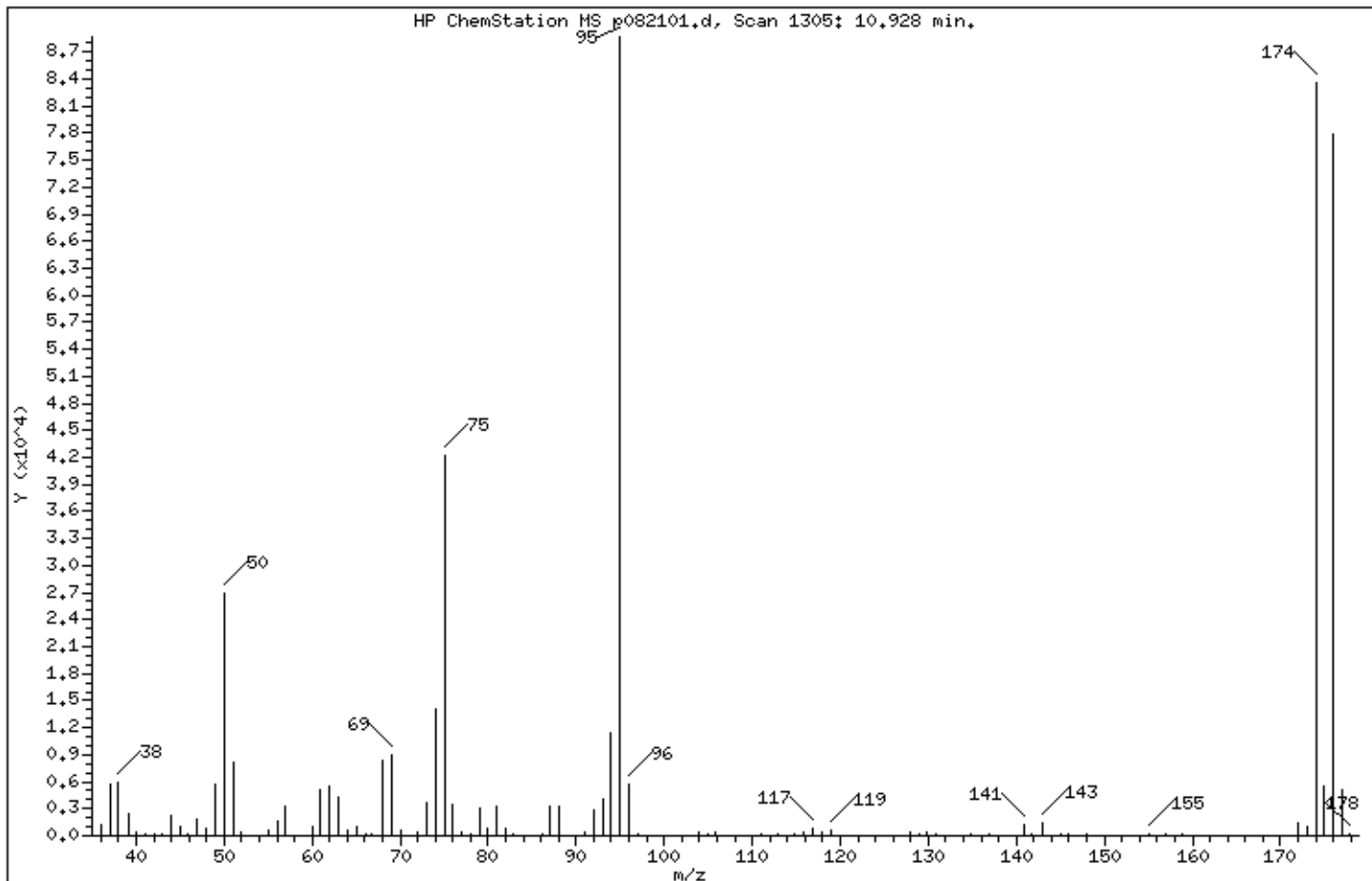
Volume Injected (uL): 1.0

Operator: mb

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	30.32
75	30.00 - 66.00% of mass 95	47.66
96	5.00 - 9.00% of mass 95	6.51
173	Less than 1.99% of mass 174	1.13 ( 1.19)
174	50.01 - 120.00% of mass 95	94.35
175	4.00 - 9.00% of mass 174	6.14 ( 6.51)
176	93.00 - 101.00% of mass 174	87.74 ( 93.00)
177	5.00 - 9.00% of mass 176	5.76 ( 6.57)



Date : 21-AUG-2021 09:08

Client ID: BFB

Instrument: msdp.i

Sample Info: 200ml 3234-67;BFB Tune Check

Volume Injected (uL): 1.0

Operator: mb

Column phase:

Column diameter: 2.00

Data File: p082101.d

Spectrum: HP ChemStation MS p082101.d, Scan 1305: 10.928 min.

Location of Maximum: 95.00

Number of points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36,00	1133	61,00	5038	86,10	121	129,90	400
37,00	5637	62,00	5508	87,00	3292	130,90	124
38,00	5825	63,00	4239	88,00	3324	134,90	233
39,10	2371	64,00	594	90,90	336	137,00	131
40,00	486	65,00	1041	92,00	2838	140,90	1156
41,10	124	66,10	120	93,00	4051	141,80	113
42,00	110	66,80	300	94,00	11417	142,90	1392
43,00	167	68,00	8403	95,00	88704	145,00	290
44,00	2294	69,00	8971	96,00	5772	145,90	132
45,00	1083	70,00	681	97,00	259	148,00	258
45,90	164	72,00	419	103,90	379	155,00	269
47,00	1889	73,00	3706	104,90	276	156,90	257
48,00	913	74,00	13993	105,90	465	158,80	107
49,00	5672	75,00	42280	111,00	117	172,00	1496
50,00	26896	76,00	3381	112,90	145	173,00	999
51,00	8095	76,90	425	114,80	153	174,00	83688
52,00	342	78,00	283	115,90	364	175,00	5448
55,00	522	79,00	3156	116,90	755	176,00	77832
56,00	1673	79,90	822	117,90	438	177,00	5113
57,00	3183	80,90	3348	118,90	643	177,90	108
58,00	100	81,90	795	127,90	358		
60,00	1093	82,80	118	128,90	210		

## **Shipping/Receiving Documents**

## **Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page**

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Discrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Air Toxics, Ltd. at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

**Please note** : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**

**Hours 6:30 A.M to 5:30 P.M. PST**



Air Toxics

Analysis Request/Canister Chain of Custody

Revised 8-19-24

180 Blue Ravine Rd. Suite B, Folsom, CA 95630  
Phone (800) 985-5955; Fax (916) 351-8279

PID: \_\_\_\_\_

For Laboratory Use Only  
Workorder #: 2108390

page 1 of 2

Client: AECOM  
Project Name: SMUD 59th ST.  
Project Manager: April Shepherd  
Sampler: Trevor Lohley  
Site Name: \_\_\_\_\_

Special Instructions/Notes:  
Inventory to: Level IV Inventory  
E-MAIL: Kevin Em. 1711  
Robert.Kohlhansl@accom.com

Turnaround Time (Rush surcharges may apply)  
Standard \_\_\_\_\_ Rush 5 Day (specify)  
Canister Vacuum/Pressure \_\_\_\_\_ Requested Analytes \_\_\_\_\_  
Lab Use Only \_\_\_\_\_

Lab ID	Field Sample Identification (Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (In Hg)	Final (In Hg)	Receipt	Final (psig) Gas: N <sub>2</sub> / He	Requested Analytes
				Date	Time	Date	Time					
01A	SG-VW36A-03	LC3031	249222	8/11/21	0857	8/11/21	0901	-25	-5			X
02A	SG-VW49A-12	LC1833	234223	8/11/21	0947	8/11/21	0953	-25	-5			X
03A	SG-VW17A-03	LC1614	244998	8/11/21	1026	8/11/21	1031	-26	-5			X
04A	SG-VW53A-02	LC3467	244902	8/11/21	1107	8/11/21	1113	-29	-5			X
05A	SG-VW59A-02	LC1582	232219	8/11/21	1132	8/11/21	1138	-27	-5			X
06A	SG-VW60B-02	LC2762	232711	8/11/21	1203	8/11/21	1208	-28	-5			X
07A	SG-VW60A-02	LC1569	240712	8/11/21	1247	8/11/21	1253	-28	-5			X
08A	SG-VW61A-02	LC4961	240338	8/11/21	1321	8/11/21	1326	-27	-5			X
09A	SG-VW62A-02	LC2710	240035	8/11/21	1435	8/11/21	1442	-26	-5			X
10A	SG-VW63B-02	LC1646	232200	8/11/21	1508	8/11/21	1518	-27	-5			X
11A	SG-VW65B-03	LC1754	232200	8/11/21	1508	8/11/21	1518	-27	-5			X
12A	SG-VW65A-03	LC1913	232256	8/11/21	0628	8/11/21	0634	-26	-5			X
13A	SG-VW620A-03	3033	232751	8/11/21	0702	8/11/21	0707	-25	-5			X
14A	SG-VW21A-04	LC2505	240057	8/11/21	0736	8/11/21	0749	-29	-5			X
15A	SG-VW129A-03 (23490)	3400230	234410	8/11/21	0840	8/11/21	0825	-25	-5			X
16A	SG-VW129A-03	LC3028	240445	8/11/21	0857	8/11/21	0904	-26	-5			X
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			
				8/11/21	1443	AM 2411		08/12/21	1443			
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			

Shipper Name: AVR Custody Seals Intact? Yes No None

Sample Transport/Relinquish: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and International laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T Hotline (800) 467-4922



Air Toxics

# Analysis Request / Canister Chain of Custody

180 Blue Ravine Rd. Suite B, Folsom, CA 95630  
Phone (800) 985-5955; Fax (916) 351-8279

For Laboratory Use Only  
PID: \_\_\_\_\_ Workorder #: **2108330**

page 1 of 2

Client: **AECOM**  
Project Name: **SMUD 69th ST**  
Project Manager: **Andy Shepard**  
Sampler: **Trevor Dealey**  
Site Name: \_\_\_\_\_

Special Instructions/Notes:  
**Invoicing To: Level IV Reporting**  
**SMP Green**  
**Report Email To: Robert.Kohlhardt@aecom.com**

Turnaround Time (Rush surcharges may apply)  
Standard \_\_\_\_\_ Rush **5 Day** (specify)  
Canister Vacuum/Pressure \_\_\_\_\_  
Lab Use Only  
Receipt  
Final (psig) Gas: N<sub>2</sub> / He  
Requested Analyses

Lab ID	Field Sample Identification (Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N <sub>2</sub> / He	Requested Analyses
				Date	Time	Date	Time					
01A	SG-VW35A-03	LC3031	24222	8/16/21	0855	8/16/21	0901	-25	-5			X
02A	SG-VW94A-03	LC1833	23428	8/16/21	0947	8/16/21	0953	-25	-5			X
03A	SG-VW17A-03	LC1614	24498	8/16/21	1026	8/16/21	1031	-26	-5			X
04A	SG-VW58A-02	LC3967	24402	8/16/21	1107	8/16/21	1113	-29	-5			X
05A	SG-VW58B-02	LC1582	23219	8/16/21	1132	8/16/21	1138	-27	-5			X
06A	SG-VW60B-02	LC2762	23771	8/16/21	1203	8/16/21	1209	-28	-5			X
07A	SG-VW60A-02	LC1569	24722	8/16/21	1247	8/16/21	1253	-28	-5			X
08A	SG-VW61A-02	LC2461	24038	8/16/21	1321	8/16/21	1326	-27	-5			X
09A	SG-VW63A-02	LC2710	24033	8/16/21	1436	8/16/21	1442	-26	-5			X
10A	SG-VW63B-02	LC1646	23200	8/16/21	1508	8/16/21	1518	-27	-5			X
11A	SG-VW63B-03	LC1754	23200	8/16/21	1508	8/16/21	1518	-27	-5			X
12A	SG-VW55A-03	LC1913	23256	8/17/21	0628	8/18/21	0634	-26	-5			X
13A	SG-VW20A-03	LC033	23751	8/16/21	0702	8/17/21	0707	-25	-5			X
14A	SG-VW21A-04	LC2505	24007	8/16/21	0736	8/17/21	0749	-29	-5			X
15A	SG-VW21A-05	LC000236	23470	8/17/21	0820	8/17/21	0825	-25	-5			X
16A	SG-VW29A-03	LC3228	24045	8/17/21	0857	8/17/21	0904	-26	-5			X
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			
				8/17/21	1443			08/17/21	1443			
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			

Shipper Name: **AV** Custody Seals Intact? **Yes**  No  None

Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922



Air Toxics

# Analysis Request /Canister Chain of Custody

180 Blue Ravine Rd. Suite B, Folsom, CA 95630  
Phone (800) 985-5955; Fax (916) 351-8279

For Laboratory Use Only  
PID: \_\_\_\_\_  
Worker Order #: 2108390

Page 2 of 2

Client: AECOM  
 Project Name: SMUD 59th St  
 Project Manager: Andy Shepard  
 Sampler: Trent Dealey  
 Site Name: \_\_\_\_\_

Special Instructions/Notes:  
Investing To: Level IV Reporting  
Suppaben Report To:  
Robert.Vohlhardt@aecom.com

Turnaround Time (Rush surcharges may apply)  
 Standard \_\_\_\_\_  
 Rush 5 Day (specify)  
 Canister Vacuum/Pressure \_\_\_\_\_  
 Lab Use Only \_\_\_\_\_  
 Requested Analyses \_\_\_\_\_

Lab ID	Field Sample Identification (Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N <sub>2</sub> / He	Requested Analyses
				Date	Time	Date	Time					
17A	SG-VU04A-02	111678	22968	8/17/12	0933	8/17/12	0938	-26	-5			X
18A	SG-VU59A-02	112796	24841	8/17/12	1009	8/17/12	1016	-28	-5			X
19A	SG-VU59B-02	111817	23144	8/17/12	1038	8/17/12	1043	-28	-5			X
20A	SSV-E5501-02	113373	25332	8/17/12	1110	8/17/12	1122	-26	-5			X
21A	SSV-E5501-03	112588	25332	8/17/12	1110	8/17/12	1122	-26	-5			X
22A	SSV-F5502-02	111647	24851	8/17/12	1135	8/17/12	1140	-26	-5			X
23A	SSV-G5501-02	113941	25212	8/17/12	1218	8/17/12	1223	-25	-5			X
24A	SSV-G5502-02	111751	24153	8/17/12	1245	8/17/12	1250	-24	-5			X
25A	SSV-HM5501-02	112598	25233	8/17/12	1317	8/17/12	1322	-25	-5			X
26A	SSV-J5501-02	112786	23316	8/17/12	1340	8/17/12	1345	-25	-5			X
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			
				8/17/12	1443			08/17/12	1443			
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date	Time			

Shipper Name: HP Custody Seals Intact?  Yes  No  Non

Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples. D.O.T Hotline (800) 467-4922

## SAMPLE RECEIPT SUMMARY

### WORKORDER 2108390

**Client**

Mr. Robert Kohlhardt  
AECOM  
2020 L Street, Suite 400  
Sacramento, CA 95811

**Phone**

916-679-2000

**Fax**

916-679-2900

**Date Promised:** 08/24/21 5:00 pm

**Date Completed:**

**Date Received:** 8/17/21

**PO#:**

**Project#:** 60632793.6 SMUD 59th ST.

**Total \$:** \$ 5,689.00

**Logged By:** CH

**Sales Rep:** DaV

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
01A	SG-VW35A-03	TO-15	8/16/2021	\$172.50
02A	SG-VW44A-03	TO-15	8/16/2021	\$172.50
03A	SG-VW17A-03	TO-15	8/16/2021	\$172.50
04A	SG-VW58A-02	TO-15	8/16/2021	\$172.50
05A	SG-VW58B-02	TO-15	8/16/2021	\$172.50
06A	SG-VW60B-02	TO-15	8/16/2021	\$172.50
07A	SG-VW60A-02	TO-15	8/16/2021	\$172.50
08A	SG-VW61A-02	TO-15	8/16/2021	\$172.50
09A	SG-VW63A-02	TO-15	8/16/2021	\$172.50
10A	SG-VW63B-02	TO-15	8/16/2021	\$172.50
11A	SG-VW63B-03	TO-15	8/16/2021	\$172.50
12A	SG-VW55A-03	TO-15	8/17/2021	\$172.50
13A	SG-VW20A-03	TO-15	8/17/2021	\$172.50
14A	SG-VW21A-04	TO-15	8/17/2021	\$172.50
15A	SG-VW24A-05	TO-15	8/17/2021	\$172.50
16A	SG-VW29A-03	TO-15	8/17/2021	\$172.50
17A	SG-VW64A-02	TO-15	8/17/2021	\$172.50
18A	SG-VW59A-02	TO-15	8/17/2021	\$172.50
19A	SG-VW59B-02	TO-15	8/17/2021	\$172.50
20A	SSV-FSS01-02	TO-15	8/17/2021	\$172.50

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.  
Atlas Project Name/Profile#: SMUD 59th Street Corporation Yard/25677

**BILL TO:** Mr. Jerry Montgomery  
SWPPQueen  
7202 Gloria Drive #25  
Sacramento, CA 95831

Analysis Code: TO-14A

**REMARKS:** A 15% surcharge is applied for a 5 day turnaround time.

**TERMS:**

Reporting Method: TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**SAMPLE RECEIPT SUMMARY Continued**

<b>Client</b>	<b>Phone</b>	<b>Date Promised:</b> 08/24/21 5:00 pm
Mr. Robert Kohlhardt	916-679-2000	<b>Date Completed:</b>
AECOM		<b>Date Received:</b> 8/17/21
2020 L Street, Suite 400	<b>Fax</b>	<b>PO#:</b>
Sacramento, CA 95811	916-679-2900	<b>Project#:</b> 60632793.6 SMUD 59th ST.
<b>Sales Rep:</b> DaV		<b>Total \$:</b> \$ 5,689.00
		<b>Logged By:</b> CH

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
21A	SSV-FSS01-03	TO-15	8/17/2021	\$172.50
22A	SSV-FSS02-02	TO-15	8/17/2021	\$172.50
23A	SSV-GSS01-02	TO-15	8/17/2021	\$172.50
24A	SSV-GSS02-02	TO-15	8/17/2021	\$172.50
25A	SSV-HMBSS01-02	TO-15	8/17/2021	\$172.50
26A	SSV-JSS01-02	TO-15	8/17/2021	\$172.50

Misc. Charges 1 Liter Summa Canister (15) @ \$20.00 each., Shipment 140637	\$300.00
1 Liter Summa Canister (15) @ \$20.00 each., Shipment 140638	\$300.00
EATL Flow controller (14) @ \$15.00 each., Shipment 140637	\$210.00
EATL Flow controller (12) @ \$15.00 each., Shipment 140638	\$180.00
eCVP (26) @ \$3.00 each.	\$78.00
Fitting w/ Pink Ferrule (30) @ \$4.00 each.	\$120.00
Duplicate Sampling T (2) @ \$8.00 each.	\$16.00

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.  
Atlas Project Name/Profile#: SMUD 59th Street Corporation Yard/25677

**BILL TO:** Mr. Jerry Montgomery  
SWPPQueen  
7202 Gloria Drive #25  
Sacramento, CA 95831  
Analysis Code: TO-14A

**REMARKS:** A 15% surcharge is applied for a 5 day turnaround time.

**TERMS:**

Reporting Method: TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)  
180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



## **Other Records**

*Air Toxics Ltd.*

Curve Response Factors  
p082006.d

Compound	Ave. RF	% RSD
TPH	47642	0.00047

mjb 08/20/21

# Air Toxics Ltd.

## List of Selected Compounds

Data File: p082006.d  
 Sample #: 3234-27  
 Client ID: Calib  
 Spike Level: 500  
 Dilution Factor: 1

	Compounds	% Area	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 1.5344	0.20	1.534	64393	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Butane	0.57	2.032	186686	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.2394	0.10	2.239	32149	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Isopentane	3.27	2.633	1068254	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.9700	1.11	2.970	363859	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.1706	0.16	3.171	50970	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Ethanol	1.46	3.242	477187	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.3855	0.34	3.386	110053	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.5359	0.13	3.536	42554	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.0803	1.56	4.080	510444	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.1161	1.19	4.116	389519	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.1806	0.18	4.181	59259	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.3955	0.67	4.396	219216	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.6175	0.09	4.618	28577	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Hexane	0.72	4.696	235163	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.8181	0.07	4.818	21738	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.8825	0.07	4.883	22857	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.9255	0.11	4.926	34381	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.0115	0.05	5.012	16055	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.0831	0.05	5.083	17841	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.2264	1.38	5.226	451813	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.3267	0.55	5.327	181462	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.384	0.12	5.384	39680	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	2.61	5.785	854078	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Tetrahydrofuran	0.66	5.893	216629	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Cyclohexane	1.54	5.957	503557	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.0573	0.68	6.057	222739	<input type="checkbox"/>
<input type="checkbox"/>	2,2,4-Trimethylpentane	6.51	6.279	2129031	<input type="checkbox"/>
<input type="checkbox"/>	Benzene	0.08	6.301	24558	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	16.45	6.308	5379978	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Heptane	0.79	6.451	256987	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.5945	0.26	6.595	86146	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	3.62	6.666	1183188	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.7807	0.14	6.781	44950	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.8237	0.10	6.824	31140	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.9383	1.44	6.938	470944	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Methylcyclohexane	2.21	6.974	723542	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.0529	0.87	7.053	284932	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.1246	0.19	7.125	61649	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.1747	0.12	7.175	38366	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.3037	4.69	7.304	1534593	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromodichloromethane	7.12	7.411	2329143	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.5758	0.92	7.576	300945	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.7048	1.92	7.705	627050	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.7979	0.31	7.798	102751	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	4.34	7.891	1418726	<input type="checkbox"/>
<input type="checkbox"/>	4-Methyl-2-pentanone	0.02	7.891	6604	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene	4.19	7.956	1370913	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.0271	0.27	8.027	87595	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.1561	0.39	8.156	125939	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.2420	0.76	8.242	249103	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.3996	0.19	8.400	61462	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: p082006.d  
 Sample #: 3234-27  
 Client ID: Calib  
 Spike Level: 500  
 Dilution Factor: 1

Compounds	% Area	RT	Peak Area	10
Unknown Peak 8.5214	0.11	8.521	34814	
Unknown Peak 8.7219	0.06	8.722	20372	
Unknown Peak 8.8938	0.04	8.894	12911	
Unknown Peak 8.9726	0.15	8.973	49683	
Unknown Peak 9.1231	0.07	9.123	24506	
Unknown Peak 9.2305	0.07	9.231	22114	
Unknown Peak 9.3738	0.09	9.374	30609	
Chlorobenzene-d5	4.45	9.460	1454056	
Ethyl Benzene	0.81	9.567	263477	
m,p-Xylene	2.57	9.718	839690	
Unknown Peak 9.9611	0.06	9.961	18577	
Unknown Peak 10.054	0.05	10.054	15908	
o-Xylene	0.90	10.226	295058	
Cumene	0.24	10.649	79406	
Unknown Peak 10.734	0.38	10.735	124768	
Unknown Peak 10.835	0.20	10.835	63847	
4-Bromofluorobenzene	5.76	10.921	1884085	
Propylbenzene	0.19	11.150	61108	
4-Ethyltoluene	1.28	11.258	419502	
1,3,5-Trimethylbenzene	0.41	11.365	132606	
Unknown Peak 11.630	0.55	11.630	179043	
1,2,4-Trimethylbenzene	1.01	11.816	328990	
Unknown Peak 11.945	0.44	11.945	142834	
Unknown Peak 12.117	0.18	12.117	60292	
Unknown Peak 12.239	0.52	12.239	170922	
Unknown Peak 12.317	0.23	12.318	76081	
Unknown Peak 12.482	0.19	12.483	62796	
Unknown Peak 12.547	0.20	12.547	63850	
Unknown Peak 12.597	0.22	12.597	70849	
Unknown Peak 12.647	0.16	12.647	50843	
Unknown Peak 12.740	0.07	12.740	21307	
Unknown Peak 12.819	0.04	12.819	14204	
Unknown Peak 12.919	0.08	12.920	24610	
Unknown Peak 12.955	0.09	12.955	30374	
Unknown Peak 13.034	0.10	13.034	33584	
Unknown Peak 13.184	0.07	13.185	24034	
Unknown Peak 13.377	0.05	13.378	17765	
Unknown Peak 13.521	0.21	13.521	69597	
Unknown Peak 13.836	0.06	13.836	20599	
Unknown Peak 14.015	0.10	14.015	32292	
Unknown Peak 14.796	0.04	14.796	12917	

*Air Toxics Ltd.*

Curve Response Factors  
p082106.d

Compound	Ave. RF	% RSD
TPH	43591	0.00041

# Air Toxics Ltd.

## List of Selected Compounds

Data File: p082106.d  
 Sample #: 3234-27  
 Client ID: Calib  
 Spike Level: 500  
 Dilution Factor: 1

Compounds	% Area	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 1.5206	0.21	1.521	63930	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.8704	0.07	1.870	20108	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0318	0.65	2.032	195078	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.2395	0.07	2.240	20663	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6406	3.38	2.641	1018442	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9701	1.18	2.970	355166	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.1707	0.16	3.171	49503	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethanol	1.49	3.242	448683	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.3927	0.36	3.393	109114	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.5432	0.14	3.543	42415	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.0804	1.54	4.080	464950	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1162	1.41	4.116	423832	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4027	0.67	4.403	202805	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.6176	0.09	4.618	25991	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	0.76	4.696	227595	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.8182	0.06	4.818	18155	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.8827	0.11	4.883	33893	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9256	0.11	4.926	33388	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0044	0.06	5.004	19046	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0832	0.08	5.083	25323	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.2265	1.37	5.227	413608	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3268	0.57	5.327	170404	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3841	0.11	5.384	32671	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	2.63	5.785	793265	<input type="checkbox"/>
<input checked="" type="checkbox"/> Tetrahydrofuran	0.63	5.893	190497	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclohexane	1.51	5.964	455468	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0574	0.66	6.057	199517	<input type="checkbox"/>
<input type="checkbox"/> 2,2,4-Trimethylpentane	6.55	6.287	1974685	<input type="checkbox"/>
<input type="checkbox"/> Benzene	0.08	6.301	23073	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	16.73	6.308	5043110	<input type="checkbox"/>
<input checked="" type="checkbox"/> Heptane	0.68	6.451	205809	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.5946	0.15	6.595	46324	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	3.47	6.666	1045887	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8238	0.06	6.824	17570	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9384	1.34	6.938	403199	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9814	2.21	6.981	667217	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.0531	0.86	7.053	259645	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1247	0.16	7.125	49178	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1748	0.09	7.175	27147	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3038	4.71	7.304	1418612	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromodichloromethane	7.17	7.404	2162244	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.576	0.88	7.576	266129	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7121	1.86	7.712	559775	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7980	0.31	7.798	94867	<input type="checkbox"/>
<input type="checkbox"/> 4-Methyl-2-pentanone	0.02	7.891	5987	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	4.47	7.891	1346264	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	4.22	7.956	1270457	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0344	0.25	8.034	75630	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1562	0.34	8.156	102632	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2421	0.72	8.242	215635	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3925	0.18	8.393	55644	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.5215	0.13	8.522	37792	<input type="checkbox"/>

# Air Toxics Ltd.

## File Response Factors

Data File: p082106.d  
Sample #: 3234-27  
Client ID: Calib  
Spike Level: 500  
Dilution Factor: 1

Compound	RF	RT
TPH	43591.177158340	

# Air Toxics Ltd.

## File Results

Data File: File Information: p082008.d  
Sample #: 2108390-01A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	1900	(48986378.6635614 - 6725147.5565133 / 47642)



# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082008.d

Sample #: 2108390-01A

Client ID:

Spike Level: 0

Dilution Factor: 2.1

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.5064	1.506	20382705	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.8702	1.870	139814	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0388	2.039	29165	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2537	2.254	52706	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6477	2.648	30582	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9700	2.970	11085	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2637	3.264	23522	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.7293	3.729	61126	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.9084	3.908	20507	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1233	4.123	2412172	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3954	4.395	4637334	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	26548137	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.1189	5.119	31786	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.2264	5.226	16612	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3266	5.327	6016875	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4771	5.477	60465	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	925016	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclohexane	5.957	193300	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	514531	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.5157	6.516	15351	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	1071898	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 6.8166	6.817	12214	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.0386	7.039	11622	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.1246	7.125	17394	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5758	7.576	52744	<input type="checkbox"/>
<input type="checkbox"/> 4-Methyl-2-pentanone	7.798	31618	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1322287	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	65202	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.0414	8.041	84322	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1560	8.156	299100	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2850	8.285	162485	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	1725006	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6646	8.665	263636	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9082	8.908	10441	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1412370	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	126022	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	388822	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	145523	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.598	10.599	53343	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1806007	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	16450	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	142867	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.408	11.408	18960	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.623	11.623	40867	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.816	69618	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.952	11.953	83309	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.081	12.081	24482	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.239	12.239	38613	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.317	12.318	14494	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.453	12.454	82629	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	37868	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.819	12.819	16612	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082008.d  
Sample #: 2108390-01A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

	Compounds	RT	Peak Area	10
<input type="checkbox"/>	Unknown Peak 12.983	12.984	35171	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 13.306	13.306	10276	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.363	13.364	39560	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.514	13.514	15244	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.642	13.643	29132	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.800	13.801	27850	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 14.917	14.918	17716	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082009.d  
Sample #: 2108390-02A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.14

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	460	(16892933.8518196 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082009.d

Sample #: 2108390-02A

Client ID:

Spike Level: 0

Dilution Factor: 2.14

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.5064	1.506	7610305	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.716	5203322	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2393	2.239	40804	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6405	2.641	22433	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2637	3.264	14593	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7293	3.729	90680	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.9012	3.901	22787	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1232	4.123	543298	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3954	4.395	1015860	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	5547578	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3266	5.327	1100806	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4770	5.477	32019	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5630	5.563	16555	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	858347	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chloroform	5.842	33115	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclohexane	5.957	35964	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	516376	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 6.5157	6.516	13137	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	1033002	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8165	6.817	21107	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.1245	7.125	19027	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3036	7.304	14806	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4111	7.411	12208	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5758	7.576	47856	<input type="checkbox"/>
<input type="checkbox"/> 4-Methyl-2-pentanone	7.798	43404	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1275657	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.955	57145	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.0486	8.049	23077	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1560	8.156	79802	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.3064	8.306	125712	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	54460	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6646	8.665	301665	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1386797	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	134256	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	426955	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.075	10.076	15397	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	157990	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.362	10.362	11194	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.505	10.506	11805	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.598	10.599	49665	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1773114	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	21876	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	11.250	149434	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.408	11.408	22490	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.622	11.623	60816	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.816	82030	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.945	11.945	102847	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.074	12.074	59213	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.238	12.239	61447	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.317	12.318	27339	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.453	12.454	144308	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.632	12.633	36189	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082009.d  
Sample #: 2108390-02A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.14

	Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 12.812	12.812	14608	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 12.976	12.977	48535	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.363	13.364	61686	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.506	13.507	29417	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.642	13.643	37350	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.800	13.801	34912	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.950	13.951	14479	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 14.910	14.911	17653	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082010.d  
Sample #: 2108390-03A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	1000	(31004953.8609334 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082010.d

Sample #: 2108390-03A

Client ID:

Spike Level: 0

Dilution Factor: 2.02

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.5066	1.507	7219556	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.717	3238190	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.8984	1.898	630581	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2467	2.247	39909	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6406	2.641	41680	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9773	2.977	27232	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.2925	3.293	75820	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7294	3.729	69565	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.901	39529	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1234	4.123	1762715	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3956	4.396	3142637	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	14907220	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.1334	5.133	16808	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3268	5.327	2975702	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4772	5.477	46148	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5632	5.563	10924	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	719913	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.843	632126	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclohexane	5.964	94150	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0861	6.086	13266	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	490537	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	1031359	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8167	6.817	19328	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.1247	7.125	11894	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4112	7.411	14360	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5760	7.576	44962	<input type="checkbox"/>
<input type="checkbox"/> 4-Methyl-2-pentanone	7.798	36566	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1260516	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	45894	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1419	8.142	14516	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3066	8.307	19391	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3782	8.378	19842	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	465216	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6648	8.665	283510	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9011	8.901	14748	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2163	9.216	17456	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1367780	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	102467	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.711	300153	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	118058	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.505	10.506	12620	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.842	10.842	18746	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1692517	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	12350	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	11.251	151800	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.365	11.365	38810	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.615	11.616	52258	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.817	72190	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.945	11.945	73068	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.067	12.067	26002	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.110	12.110	13063	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.239	12.239	25554	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082010.d

Sample #: 2108390-03A

Client ID:

Spike Level: 0

Dilution Factor: 2.02

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 12.317	12.318	34159	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.454	12.454	172722	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	31872	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.819	12.819	16335	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.976	12.977	49969	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.306	13.306	10546	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 13.363	13.364	67148	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.528	13.528	26456	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.643	13.643	39055	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.800	13.801	39584	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.958	13.958	13129	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.509	14.510	13650	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.918	14.918	21990	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.462	15.463	13836	<input type="checkbox"/>



# Air Toxics Ltd.

## File Results

Data File: File Information: p082022.d  
Sample #: 2108390-04A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.19

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	300	(13310265.1419446 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082022.d  
 Sample #: 2108390-04A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.19

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2547	1.255	53325	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5065	1.507	628641	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.730	59449	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0246	2.025	31005	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2394	2.239	35268	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.729	88597	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9084	3.908	28660	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1233	4.123	325930	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4027	4.403	619798	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.704	4117779	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3267	5.327	745689	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4771	5.477	48563	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5631	5.563	11654	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.792	749265	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9571	5.957	46841	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0573	6.057	11935	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	514670	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	958660	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 6.8166	6.817	22911	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.1246	7.125	14234	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3037	7.304	12185	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4183	7.418	11786	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5759	7.576	24279	<input type="checkbox"/>
<input type="checkbox"/> 4-Methyl-2-pentanone	7.798	28812	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.898	1195347	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	71109	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0487	8.049	15655	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.149	8.149	12208	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	620210	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6647	8.665	175128	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1315907	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	70872	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	177243	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	73775	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.605	10.606	11912	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.849	10.849	16917	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1609773	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	13733	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	73298	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.630	11.630	25555	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.816	46363	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.938	11.938	49816	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.067	12.067	24263	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.117	12.117	13558	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.239	12.239	11215	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.317	12.318	21604	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.453	12.454	153496	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.633	12.633	51301	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.804	12.805	11725	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.984	12.984	54158	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	58372	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.521	13.521	30363	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082022.d

Sample #: 2108390-04A

Client ID:

Spike Level: 0

Dilution Factor: 2.19

	Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 13.643	13.643	42516	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.800	13.801	67055	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.958	13.958	10103	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 14.516	14.517	17291	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 14.731	14.732	32298	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 14.910	14.911	28894	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 15.261	15.262	12542	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 15.469	15.470	48020	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082012.d  
Sample #: 2108390-05A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.06

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	190	(11181970.7279114 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082012.d  
Sample #: 2108390-05A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.06

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2406	1.241	64992	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5065	1.507	4466526	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.730	208418	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0317	2.032	37043	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2466	2.247	33679	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6405	2.641	29778	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9700	2.970	71240	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2709	3.271	11672	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7293	3.729	75414	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.908	67234	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1233	4.123	224913	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4026	4.403	431346	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	2472036	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3267	5.327	569252	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4771	5.477	21527	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	749307	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chloroform	5.842	5237	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9642	5.964	29143	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	488159	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	992178	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8238	6.824	14399	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5759	7.576	25522	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.7979	7.798	17671	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1237597	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.0486	8.049	19344	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.3137	8.314	25252	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	1534993	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6647	8.665	121093	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1344727	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5672	9.567	46232	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	112194	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	44459	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.605	10.606	12356	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1685580	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	10422	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	70582	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.630	11.630	32042	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.816	32731	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.945	11.945	56033	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.067	12.067	17000	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.117	12.117	20315	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.246	12.246	45847	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.453	12.454	143385	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	31596	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.812	12.812	18026	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.955	12.955	16955	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.976	12.977	20673	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	50255	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.492	13.493	15915	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.643	13.643	37046	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.800	13.801	39994	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.509	14.510	13337	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082012.d

Sample #: 2108390-05A

Client ID:

Spike Level: 0

Dilution Factor: 2.06

	Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 14.731	14.732	21878	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 14.910	14.911	11616	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 15.462	15.462	28886	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082013.d  
Sample #: 2108390-06A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	160	(10307019.1963862 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082013.d  
Sample #: 2108390-06A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2547	1.255	49905	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5066	1.507	3828020	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.730	190232	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2466	2.247	44363	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.8985	2.899	10029	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7294	3.729	64228	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9013	3.901	27275	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1234	4.123	128074	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3956	4.396	242907	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	1921120	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3268	5.327	291527	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4772	5.477	56859	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5703	5.570	12396	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	744673	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chloroform	5.843	5003	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9571	5.957	16574	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	488336	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.5158	6.516	12073	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	981297	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.1247	7.125	13966	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5759	7.576	29897	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7980	7.798	17676	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1216951	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	63278	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0487	8.049	16044	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1490	8.149	22546	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.3639	8.364	15734	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	788230	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.6647	8.665	92434	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1340733	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5601	9.560	39959	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.711	76613	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.226	10.226	34950	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.598	10.599	15685	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.756	10.756	60207	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.842	10.842	36939	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1707352	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	14185	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.250	11.251	54724	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.630	11.630	12798	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.809	11.809	31907	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.938	11.938	48850	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.117	12.117	46772	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.246	12.246	14593	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.317	12.318	12409	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.454	12.454	158175	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	52946	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.690	12.690	22422	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.812	12.812	28462	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.984	12.984	59609	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	52923	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.506	13.507	27128	<input type="checkbox"/>



# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082013.d  
Sample #: 2108390-06A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

	Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 13.643	13.643	43412	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.800	13.801	56888	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.951	13.951	14053	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 14.516	14.517	12963	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 14.731	14.732	44816	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 14.910	14.911	41165	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 15.140	15.140	13465	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 15.261	15.262	20633	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 15.462	15.463	107839	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082014.d  
Sample #: 2108390-07A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	230	(12067895.3246179 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082014.d

Sample #: 2108390-07A

Client ID:

Spike Level: 0

Dilution Factor: 2.02

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2547	1.255	57914	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5066	1.507	2222016	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.730	100773	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0246	2.025	25181	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2395	2.240	37503	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7294	3.729	73639	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9085	3.909	25158	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1234	4.123	209270	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3956	4.396	430681	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	2730251	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3268	5.327	641833	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4772	5.477	62574	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	742273	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9571	5.957	35139	<input type="checkbox"/>
<input checked="" type="checkbox"/> Benzene	6.301	9288	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	501794	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.5158	6.516	14011	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	982268	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8167	6.817	20675	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.1247	7.125	14486	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4112	7.411	11870	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5760	7.576	30820	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7980	7.798	14750	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1217239	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	54440	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3066	8.307	62230	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	402717	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.6648	8.665	105792	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1330391	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5673	9.567	36992	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.711	79057	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.233	39224	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.505	10.506	11518	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.598	10.599	30065	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.756	10.756	25482	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.849	10.850	93447	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1704866	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	54583	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.415	11.415	14569	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.637	11.637	23407	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.817	34856	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.945	11.945	66006	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.074	12.074	31594	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.117	12.117	51472	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.196	12.196	25010	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.239	12.239	47301	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.310	12.311	15870	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.454	12.454	196552	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	55909	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.690	12.690	25590	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.819	12.819	56701	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.984	12.984	77614	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082014.d  
Sample #: 2108390-07A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	71341	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.521	13.521	39851	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.643	13.643	62024	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.800	13.801	61504	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.958	13.958	12837	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.352	14.352	10307	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.509	14.510	19247	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.731	14.732	56215	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.910	14.911	35236	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.147	15.147	13546	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.261	15.262	25299	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.469	15.470	121105	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082026.d  
Sample #: 2108390-08A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.19

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	210	(11207462.7628249 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082026.d  
 Sample #: 2108390-08A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.19

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2548	1.255	49469	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5066	1.507	799355	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.717	90105	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.731	5581	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0318	2.032	40852	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2467	2.247	28632	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6335	2.634	15469	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.729	118417	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9157	3.916	20663	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1234	4.123	169526	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3956	4.396	319489	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.697	1841430	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3268	5.327	341159	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4844	5.484	56088	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5632	5.563	15123	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	685687	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.843	692657	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9643	5.964	28676	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	510118	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	945150	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9743	6.974	22487	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1319	7.132	24338	<input type="checkbox"/>
<input type="checkbox"/> Bromodichloromethane	7.318	70923	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4112	7.411	59374	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5760	7.576	30294	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7121	7.712	28055	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7980	7.798	29328	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1194310	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	83803	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0488	8.049	21787	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1490	8.149	36883	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2422	8.242	32174	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	419997	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6648	8.665	61789	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.7006	8.701	45047	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.7722	8.772	39027	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9012	8.901	10561	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.0373	9.037	21644	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.1160	9.116	44577	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1317049	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	83398	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	186366	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.075	10.076	56475	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.234	67167	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.383	10.384	38203	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.498	10.499	21552	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.598	10.599	33587	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.849	10.850	37378	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1630568	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.014	11.014	35581	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.143	11.143	17487	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	96737	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082026.d  
Sample #: 2108390-08A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.19

Compounds	RT	Peak Area	10
Unknown Peak 11.401	11.401	16206	
Unknown Peak 11.623	11.623	34184	
Unknown Peak 11.816	11.817	48998	
Unknown Peak 11.945	11.945	54830	
Unknown Peak 12.067	12.067	22982	
Unknown Peak 12.110	12.110	21496	
Unknown Peak 12.246	12.246	10594	
Unknown Peak 12.317	12.318	37867	
Unknown Peak 12.454	12.454	303433	
Unknown Peak 12.633	12.633	44315	
Unknown Peak 12.690	12.690	22578	
Unknown Peak 12.819	12.819	25031	
Unknown Peak 12.984	12.984	58378	
Unknown Peak 13.306	13.306	11333	
Unknown Peak 13.363	13.364	79195	
Unknown Peak 13.528	13.529	34377	
Unknown Peak 13.643	13.643	45216	
Unknown Peak 13.800	13.801	87069	
Unknown Peak 13.951	13.951	16033	
Unknown Peak 14.509	14.510	25222	
Unknown Peak 14.602	14.603	11266	
Unknown Peak 14.731	14.732	59617	
Unknown Peak 14.918	14.918	57345	
Unknown Peak 15.140	15.140	18216	
Unknown Peak 15.261	15.262	28060	
Unknown Peak 15.469	15.470	154478	

# Air Toxics Ltd.

## File Results

Data File: File Information: p082016.d  
Sample #: 2108390-09A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	140	(9983083.13111931 - 6725147.5565133 / 47642)



# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082016.d  
Sample #: 2108390-09A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 14.080	14.080	12016	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.416	14.417	27777	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.538	14.539	35681	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.638	14.639	36264	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.760	14.761	119577	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.954	14.954	95298	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.176	15.176	29017	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.305	15.305	46946	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.512	15.513	234393	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082016.d

Sample #: 2108390-09A

Client ID:

Spike Level: 0

Dilution Factor: 2.1

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2548	1.255	52150	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5067	1.507	406240	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.731	62815	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2396	2.240	35194	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2639	3.264	14951	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.730	105774	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.8370	3.837	39651	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.909	90887	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1235	4.124	94923	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3957	4.396	171258	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.697	1183894	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3269	5.327	225281	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4773	5.477	42099	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5633	5.563	11616	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	755567	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chloroform	5.843	11315	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.2509	6.251	23626	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	469978	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	965131	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8168	6.817	23171	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5761	7.576	28318	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1226934	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1563	8.156	35409	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3783	8.378	18903	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	59808	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6649	8.665	47481	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1311629	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5602	9.560	30178	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.711	46180	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.226	10.226	25366	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.598	10.599	83678	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.849	10.850	31515	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1650465	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.250	11.251	157487	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.415	11.415	25611	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.630	11.630	21016	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.817	29241	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.945	11.946	61498	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.110	12.110	99959	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.239	12.239	53548	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.454	12.454	231565	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	142078	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.697	12.698	50268	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.855	12.855	16084	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.991	12.991	81387	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.184	13.185	14349	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.328	13.328	25260	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.378	13.378	77361	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.521	13.521	60968	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.664	13.665	35529	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.822	13.822	212535	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.972	13.973	47541	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082017.d  
Sample #: 2108390-10A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	240	(12239863.4882989 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082017.d  
Sample #: 2108390-10A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2408	1.241	57273	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5066	1.507	5148887	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.731	189393	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0247	2.025	19729	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2467	2.247	49239	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7366	3.737	64148	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9014	3.901	29830	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1234	4.123	215848	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4028	4.403	390789	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.697	3315398	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3268	5.327	501107	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4844	5.484	29187	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5560	5.556	13871	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	719604	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.843	523881	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9572	5.957	19365	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.2508	6.251	15969	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	473082	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	979608	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8167	6.817	15201	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.1247	7.125	41017	<input type="checkbox"/>
<input type="checkbox"/> Bromodichloromethane	7.318	26699	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5760	7.576	24993	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7981	7.798	13187	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1227273	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.0488	8.049	71483	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1562	8.156	192467	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.3066	8.307	105442	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	494671	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.6648	8.665	40875	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1315911	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5673	9.567	18347	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.7178	9.718	26528	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.226	10.226	16873	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.505	10.506	13609	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.598	10.599	36160	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.763	10.764	13257	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1678753	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 11.250	11.251	117001	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.401	11.401	16933	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.817	19360	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.931	11.931	26923	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.981	11.981	27994	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.117	12.117	122634	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.189	12.189	43284	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.239	12.239	40831	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.468	12.468	52883	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	117746	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.697	12.698	40234	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.762	12.762	10322	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.998	12.998	65270	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.320	13.321	19566	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082017.d

Sample #: 2108390-10A

Client ID:

Spike Level: 0

Dilution Factor: 2.1

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 13.378	13.378	76043	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.514	13.514	41185	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.657	13.657	19828	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.764	13.765	26479	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 13.822	13.822	123856	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.972	13.973	30521	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.545	14.546	30327	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.631	14.632	11820	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.760	14.761	48849	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.953	14.954	42178	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.197	15.198	18309	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.297	15.298	22502	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.512	15.513	158309	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082020.d  
Sample #: 2108390-11A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	110	(9268730.47571984 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082020.d

Sample #: 2108390-11A

Client ID:

Spike Level: 0

Dilution Factor: 2.1

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2406	1.241	48919	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5065	1.507	5109067	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.730	282838	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0245	2.025	21355	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2322	2.232	25483	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7293	3.729	28741	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9084	3.908	12549	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1233	4.123	75644	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3955	4.396	132693	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	1220704	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3267	5.327	172878	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4771	5.477	32247	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	692656	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.842	481353	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9499	5.950	15539	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.2507	6.251	12678	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	473878	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.659	966065	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8166	6.817	14735	<input type="checkbox"/>
<input type="checkbox"/> Bromodichloromethane	7.318	28370	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5759	7.576	23343	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1187826	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0415	8.041	16302	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1704	8.170	14397	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.3208	8.321	58251	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	477637	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6646	8.665	50388	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1313021	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5815	9.582	24829	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.7104	9.710	25764	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.226	10.226	14083	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.598	10.599	32968	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1649167	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	10042	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.250	11.251	107007	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.415	11.415	12898	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.630	11.630	14528	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.809	11.809	19892	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.938	11.938	23857	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.110	12.110	91228	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.188	12.189	15852	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.282	12.282	25472	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.453	12.454	200330	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	130987	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.690	12.690	49622	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.754	12.755	11129	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.840	12.841	13875	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.955	12.955	18802	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.984	12.984	33997	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.306	13.306	21192	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	78078	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.499	13.500	36075	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082020.d

Sample #: 2108390-11A

Client ID:

Spike Level: 0

Dilution Factor: 2.1

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 13.643	13.643	30121	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 13.800	13.801	137707	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.951	13.951	30928	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.115	14.116	11096	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.373	14.374	11786	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.516	14.517	31213	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.602	14.603	13399	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.731	14.732	62413	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.910	14.911	56112	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.140	15.140	19443	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.261	15.262	28319	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 15.462	15.462	182181	<input type="checkbox"/>



# Air Toxics Ltd.

## File Results

Data File: File Information: p082021.d  
Sample #: 2108390-12A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	320	(14318221.3958596 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082021.d

Sample #: 2108390-12A

Client ID:

Spike Level: 0

Dilution Factor: 2.02

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2407	1.241	55740	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5066	1.507	1167695	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.7304	1.730	21881	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2395	2.240	22450	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6406	2.641	63733	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9773	2.977	34391	<input type="checkbox"/>
<input type="checkbox"/> Ethanol	3.257	34179	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7294	3.729	44752	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9085	3.909	18879	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1234	4.123	305379	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4027	4.403	548672	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	4196340	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3268	5.327	1015205	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4772	5.477	16969	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	732202	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.8926	5.893	38011	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclohexane	5.964	79849	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0574	6.057	27055	<input type="checkbox"/>
<input checked="" type="checkbox"/> Benzene	6.301	6339	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	551305	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.4514	6.451	25401	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	969602	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8167	6.817	20792	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9743	6.974	45290	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1247	7.125	14470	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3038	7.304	23586	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4184	7.418	31183	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4470	7.447	29612	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.576	7.576	42904	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7049	7.705	23602	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1210325	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	236062	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0487	8.049	14156	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1562	8.156	10975	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2421	8.242	10893	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3926	8.393	22042	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6647	8.665	60537	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9799	8.980	21111	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.1232	9.123	10848	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1309456	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	105150	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	309159	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	105066	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1632870	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	21830	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	11.251	116095	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.365	11.365	35028	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.615	11.616	37177	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.817	86216	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.952	11.953	20851	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.074	12.074	14222	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.317	12.318	22545	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082021.d

Sample #: 2108390-12A

Client ID:

Spike Level: 0

Dilution Factor: 2.02

	Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 12.454	12.454	57846	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.597	12.597	22236	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.363	13.364	30662	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.643	13.643	14258	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.800	13.801	16554	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 14.581	14.581	25602	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082023.d  
Sample #: 2108390-13A  
Client ID:  
Spike Level: 0  
Dilution Factor: 1.98

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	180	(11032098.3640819 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082023.d  
 Sample #: 2108390-13A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 1.98

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.1567	1.157	191774	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5065	1.507	13504311	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.7724	1.772	549767	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.2466	2.247	10084	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6406	2.641	36801	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9772	2.977	19688	<input type="checkbox"/>
<input type="checkbox"/> Ethanol	3.257	25375	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7293	3.729	28227	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9084	3.908	15170	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1233	4.123	175570	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4027	4.403	322454	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	2328978	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.2193	5.219	11175	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3267	5.327	609705	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	736259	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.8783	5.878	41432	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclohexane	5.957	63736	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0573	6.057	30126	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	503570	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.4441	6.444	16655	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	960897	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8166	6.817	10390	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9742	6.974	19141	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1318	7.132	13019	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3037	7.304	16462	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4183	7.418	22177	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.447	7.447	18096	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.5759	7.576	36888	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7048	7.705	16905	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1187815	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	156012	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1561	8.156	12765	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	166663	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6647	8.665	46383	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9799	8.980	16204	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1284194	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	78028	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	222796	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	75741	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.842	10.842	15112	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1602941	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.157	11.157	19411	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	11.258	83945	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.365	11.365	23464	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.615	11.616	24152	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.816	64810	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.938	11.938	20126	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.067	12.067	10681	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.246	12.246	13364	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.310	12.311	13950	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.453	12.454	34943	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.948	12.948	13441	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds









Data File: File Information: p082023.d

Sample #: 2108390-13A

Client ID:

Spike Level: 0

Dilution Factor: 1.98

	Compounds	RT	Peak Area	10
	Unknown Peak 13.378	13.378	23837	
	Unknown Peak 13.664	13.665	15083	
	Unknown Peak 13.822	13.822	19601	
	Unknown Peak 15.483	15.484	14417	

# Air Toxics Ltd.

## File Results

Data File: File Information: p082019.d  
Sample #: 2108390-14A  
Client ID:  
Spike Level: 0  
Dilution Factor: 1.94

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	470	(18308586.9013257 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082019.d

Sample #: 2108390-14A

Client ID:

Spike Level: 0

Dilution Factor: 1.94

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2548	1.255	59546	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5067	1.507	2062144	<input type="checkbox"/>
<input type="checkbox"/> Propylene	1.689	2628799	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.717	106800	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0319	2.032	86347	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2396	2.240	65725	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6407	2.641	73368	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9774	2.977	53430	<input type="checkbox"/>
<input type="checkbox"/> Ethanol	3.250	80255	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.5289	3.529	11052	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.722	185247	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.901	59949	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1235	4.123	405008	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3957	4.396	747240	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.697	5061165	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9186	4.919	14323	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0905	5.091	16555	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3268	5.327	1413159	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4773	5.477	45736	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5632	5.563	21313	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	811787	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.835	8915	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.8927	5.893	69911	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclohexane	5.957	155259	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,1,1-Trichloroethane	5.964	5780	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0575	6.058	51665	<input type="checkbox"/>
<input checked="" type="checkbox"/> 2,2,4-Trimethylpentane	6.280	23759	<input type="checkbox"/>
<input checked="" type="checkbox"/> Benzene	6.301	12023	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.308	601585	<input type="checkbox"/>
<input checked="" type="checkbox"/> Heptane	6.451	32095	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.659	987284	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8168	6.817	20648	<input type="checkbox"/>
<input type="checkbox"/> Trichloroethene	6.867	70200	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9743	6.974	71141	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.0388	7.039	24880	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1248	7.125	29100	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3038	7.304	41832	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4113	7.411	109987	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5760	7.576	82151	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7050	7.705	62040	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7981	7.798	57961	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1274333	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	476191	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0416	8.042	46357	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1419	8.142	59094	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2422	8.242	71266	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3067	8.307	47978	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3855	8.386	22080	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	412128	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6648	8.665	141383	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.7579	8.758	28969	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9012	8.901	20947	<input type="checkbox"/>



# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082019.d  
Sample #: 2108390-14A  
Client ID:  
Spike Level: 0  
Dilution Factor: 1.94

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 8.9728	8.973	14347	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.1161	9.116	14811	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2164	9.216	12212	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1346028	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	188047	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	576128	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.068	10.069	23732	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	186312	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.376	10.377	15728	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.498	10.499	21157	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.598	10.599	59206	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.842	10.842	27490	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1697370	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	31899	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	11.251	205511	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,3,5-Trimethylbenzene	11.365	53963	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.408	11.408	24382	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.616	11.616	65081	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.817	154878	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.945	11.946	52582	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.067	12.067	55692	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.117	12.117	33242	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.246	12.246	27420	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.310	12.311	34147	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.454	12.454	114580	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.604	12.605	16153	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.633	12.633	20613	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.812	12.812	13739	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.912	12.913	13041	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.984	12.984	45906	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.177	13.178	11748	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	73788	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.507	13.507	16360	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.528	13.529	12697	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.643	13.643	35587	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.800	13.801	28055	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.509	14.510	15250	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082024.d  
Sample #: 2108390-15A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	160	(10491734.3962413 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082024.d

Sample #: 2108390-15A

Client ID:

Spike Level: 0

Dilution Factor: 2.02

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2408	1.241	52688	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5067	1.507	2639848	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.717	156467	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.731	7368	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.9124	1.912	50530	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2396	2.240	56414	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6407	2.641	29581	<input type="checkbox"/>
<input type="checkbox"/> Ethanol	3.250	22810	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.730	83753	<input type="checkbox"/>
<input type="checkbox"/> Carbon Disulfide	3.837	41742	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.901	57012	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1235	4.124	141889	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4028	4.403	289052	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.697	1717974	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.1048	5.105	13415	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3269	5.327	509562	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4773	5.477	14000	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5633	5.563	16613	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	737823	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.8856	5.886	40217	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclohexane	5.964	55786	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0575	6.058	19828	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	552032	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.4515	6.452	13124	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	964006	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8168	6.817	12950	<input type="checkbox"/>
<input type="checkbox"/> Trichloroethene	6.867	33054	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9744	6.974	23242	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.1248	7.125	13116	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1821	7.182	14002	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3039	7.304	20459	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4113	7.411	43804	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5761	7.576	48963	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7122	7.712	19958	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7981	7.798	11503	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1195254	<input type="checkbox"/>
<input type="checkbox"/> Toluene	7.956	133714	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0488	8.049	22881	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1563	8.156	30184	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2279	8.228	13581	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	1072410	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6648	8.665	79623	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.8941	8.894	15526	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9729	8.973	13586	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2236	9.224	20897	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1304437	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	68414	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	191269	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.8682	9.868	33890	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	72788	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.763	10.764	20055	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1596814	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082024.d  
Sample #: 2108390-15A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	33577	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	11.258	89472	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.365	11.365	35128	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.616	11.616	27424	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.817	60874	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.945	11.946	29782	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.067	12.067	10786	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.239	12.239	10856	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.318	12.318	15549	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.454	12.454	42099	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.005	13.006	12865	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	38246	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.643	13.643	12599	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.800	13.801	17681	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.517	14.517	10162	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082025.d  
Sample #: 2108390-16A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.14

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOOC (Ref. to Gasolin	120	(9522023.71486853 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082025.d  
 Sample #: 2108390-16A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.14

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2408	1.241	42331	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5067	1.507	1729037	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.731	92405	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2396	2.240	14831	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6407	2.641	26735	<input type="checkbox"/>
<input type="checkbox"/> Ethanol	3.250	34083	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7367	3.737	44337	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.909	52617	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1235	4.124	124283	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4028	4.403	243233	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.704	1498424	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3269	5.327	438098	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4773	5.477	24133	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	732050	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9644	5.964	33691	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0575	6.058	11997	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	495976	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	959936	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8168	6.817	16992	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 6.9744	6.974	28111	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3039	7.304	18155	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4113	7.411	34741	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5832	7.583	32854	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7122	7.712	11873	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1181008	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	90513	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0488	8.049	13227	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1491	8.149	14346	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	519926	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6648	8.665	55057	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.1089	9.109	10868	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1299994	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	63471	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	158713	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	60010	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.756	10.756	11948	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1574458	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	13664	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	11.258	68232	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.365	11.365	11468	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.616	11.616	23364	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.817	63163	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.952	11.953	13757	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.081	12.082	12896	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.318	12.318	17978	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.454	12.454	51928	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.819	12.819	19333	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	28554	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.521	13.521	12391	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.643	13.643	17058	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.800	13.801	19362	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082027.d  
Sample #: 2108390-17A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.06

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	140	(10054374.8092988 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082027.d  
 Sample #: 2108390-17A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.06

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2268	1.227	55415	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.4926	1.493	2762549	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.703	197138	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0246	2.025	29845	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2252	2.225	28891	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6120	2.612	14995	<input type="checkbox"/>
<input type="checkbox"/> Ethanol	3.250	22291	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7151	3.715	60024	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.8154	3.815	36723	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.894	38144	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1091	4.109	87051	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3884	4.388	178578	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.689	1098650	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3196	5.320	301423	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4700	5.470	22655	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	684028	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.835	705022	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9571	5.957	42552	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0574	6.057	15434	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.308	552167	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.659	943156	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8167	6.817	13856	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9743	6.974	11437	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.0316	7.032	11427	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1247	7.125	11813	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromodichloromethane	7.318	57126	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4041	7.404	54717	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5760	7.576	28558	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7049	7.705	16819	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7980	7.798	13203	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1163299	<input type="checkbox"/>
<input type="checkbox"/> Toluene	7.949	115736	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.0487	8.049	26679	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1490	8.149	24972	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2350	8.235	12825	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	1180951	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6648	8.665	47756	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1282349	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	58773	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	150789	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.226	64753	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.369	10.370	10637	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.498	10.499	11194	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.605	10.606	18574	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.656	10.656	17183	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.734	10.735	20089	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1637529	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	58132	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	11.265	96816	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.365	11.365	12334	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.623	11.623	31614	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.817	54231	<input type="checkbox"/>



# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082027.d  
Sample #: 2108390-17A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.06

Compounds	RT	Peak Area	10
Unknown Peak 11.952	11.953	63360	
Unknown Peak 12.074	12.074	19950	
Unknown Peak 12.110	12.110	29230	
Unknown Peak 12.239	12.239	20130	
Unknown Peak 12.317	12.318	15286	
Unknown Peak 12.454	12.454	145438	
Unknown Peak 12.554	12.554	45183	
Unknown Peak 12.633	12.633	61509	
Unknown Peak 12.690	12.690	18057	
Unknown Peak 12.819	12.819	20010	
Unknown Peak 13.012	13.013	46913	
Unknown Peak 13.177	13.178	28028	
Unknown Peak 13.313	13.314	14685	
Unknown Peak 13.363	13.364	54737	
Unknown Peak 13.464	13.464	17139	
Unknown Peak 13.521	13.521	22667	
Unknown Peak 13.643	13.643	36348	
Unknown Peak 13.800	13.801	63668	
Unknown Peak 13.958	13.958	30964	
Unknown Peak 13.986	13.987	20227	
Unknown Peak 14.373	14.374	32606	
Unknown Peak 14.509	14.510	51855	
Unknown Peak 14.610	14.610	27862	
Unknown Peak 14.739	14.739	56109	
Unknown Peak 14.760	14.761	39570	
Unknown Peak 14.910	14.911	45102	
Unknown Peak 15.154	15.155	21199	
Unknown Peak 15.254	15.255	21995	
Unknown Peak 15.469	15.470	111805	
Unknown Peak 15.562	15.563	15420	

# Air Toxics Ltd.

## File Results

Data File: File Information: p082028.d  
Sample #: 2108390-18A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	82	(8650619.07821094 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082028.d  
Sample #: 2108390-18A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2546	1.255	59263	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5064	1.506	1475468	<input type="checkbox"/>
<input type="checkbox"/> Freon 12	1.730	66305	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.9542	1.954	17325	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2465	2.247	26445	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6405	2.641	11186	<input type="checkbox"/>
<input type="checkbox"/> Ethanol	3.271	28930	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7364	3.736	51226	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9012	3.901	15841	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1232	4.123	94251	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4026	4.403	186556	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	971747	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0974	5.097	10050	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3266	5.327	335917	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4771	5.477	15165	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	717587	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9641	5.964	34850	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0573	6.057	16806	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	509456	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.4512	6.451	11849	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	952451	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8165	6.817	12878	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9741	6.974	20216	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1246	7.125	10048	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3036	7.304	22332	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4111	7.411	34486	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5758	7.576	32304	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7119	7.712	17799	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.7979	7.798	11536	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1158132	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	113967	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.0486	8.049	19544	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1560	8.156	29036	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2348	8.235	12187	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3494	8.349	19981	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	428147	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6646	8.665	55488	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9798	8.980	12812	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1277639	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	52938	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	120315	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.233	49495	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1582224	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	49457	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.615	11.616	11675	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.816	42761	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.938	11.938	17702	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.246	12.246	13780	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.453	12.454	34253	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	23160	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.642	13.643	13747	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.800	13.801	23261	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082028.d  
Sample #: 2108390-18A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

	Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 13.965	13.965	11477	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 15.469	15.470	11918	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082029.d  
Sample #: 2108390-19A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	64	(8185967.32033578 - 6725147.5565133 / 47642)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082029.d

Sample #: 2108390-19A

Client ID:

Spike Level: 0

Dilution Factor: 2.1

Compounds	RT	Peak Area	10
Unknown Peak 1.2406	1.241	52534	
Unknown Peak 1.5064	1.506	4321489	
Freon 12	1.730	264707	
Unknown Peak 2.2537	2.254	21269	
Ethanol	3.257	36889	
Unknown Peak 3.7293	3.729	34194	
Unknown Peak 3.8367	3.837	34075	
Unknown Peak 3.9012	3.901	25774	
Unknown Peak 4.1232	4.123	87501	
Unknown Peak 4.4026	4.403	164422	
Hexane	4.696	811592	
Unknown Peak 5.0974	5.097	11519	
Unknown Peak 5.3266	5.327	284410	
Unknown Peak 5.4771	5.477	15112	
Bromochloromethane	5.785	729896	
Unknown Peak 5.9641	5.964	27394	
Unknown Peak 6.0573	6.057	17417	
1,2-Dichloroethane-d4	6.315	490133	
Unknown Peak 6.5157	6.516	18416	
1,4-Difluorobenzene	6.666	955187	
Unknown Peak 6.8165	6.817	23500	
Unknown Peak 6.9741	6.974	11225	
Unknown Peak 7.3036	7.304	14170	
Unknown Peak 7.4111	7.411	22026	
Unknown Peak 7.5758	7.576	24644	
Unknown Peak 7.7048	7.705	12695	
Unknown Peak 7.7979	7.798	16460	
Toluene-d8	7.891	1161111	
Toluene	7.956	54694	
Unknown Peak 8.1489	8.149	11777	
Tetrachloroethene	8.471	1166563	
Unknown Peak 8.6646	8.665	47738	
Chlorobenzene-d5	9.460	1275547	
Unknown Peak 9.5743	9.574	42097	
m,p-Xylene	9.718	87988	
o-Xylene	10.226	36759	
Unknown Peak 10.577	10.577	12472	
Unknown Peak 10.842	10.842	13808	
4-Bromofluorobenzene	10.921	1577897	
Unknown Peak 11.150	11.150	12373	
Unknown Peak 11.257	11.258	54036	
Unknown Peak 11.365	11.365	21009	
Unknown Peak 11.615	11.616	12964	
Unknown Peak 11.816	11.816	37571	
Unknown Peak 11.945	11.945	22338	
Unknown Peak 12.461	12.461	35466	
Unknown Peak 13.385	13.385	21302	
Unknown Peak 13.664	13.664	12108	
Unknown Peak 13.779	13.779	28541	

# Air Toxics Ltd.

## File Results

Data File: File Information: p082110.d  
Sample #: 2108390-20A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.06

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	74	(7905117.15799388 - 6337571.80473585 / 43591

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082110.d  
 Sample #: 2108390-20A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.06

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2548	1.255	55109	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5067	1.507	456277	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2396	2.240	28121	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6335	2.634	15740	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2639	3.264	17008	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7295	3.730	48076	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9014	3.901	24186	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1235	4.123	54354	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3957	4.396	99126	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.697	503815	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3268	5.327	148425	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4773	5.477	44854	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	699217	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9715	5.972	19692	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.0575	6.058	12251	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	475959	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	962706	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8168	6.817	17058	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3038	7.304	10565	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5760	7.576	30852	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1189402	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0488	8.049	10286	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1562	8.156	53540	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3855	8.386	16136	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	44322	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6648	8.665	25131	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1287968	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5674	9.567	26205	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	48251	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.226	10.226	18684	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.849	10.850	1251921	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	2009993	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	45122	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.623	11.623	15796	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.817	23512	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.938	11.938	11273	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.067	12.067	11348	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.246	12.246	12573	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.454	12.454	32401	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	14740	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.984	12.984	84061	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	24738	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.643	13.643	10062	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 13.965	13.966	10959	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.911	14.911	15854	<input type="checkbox"/>



# Air Toxics Ltd.

## File Results

Data File: File Information: p082109.d  
Sample #: 2108390-21A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.06

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	69	(7791800.87408457 - 6337571.80473585 / 43591

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082109.d

Sample #: 2108390-21A

Client ID:

Spike Level: 0

Dilution Factor: 2.06

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2547	1.255	59008	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5066	1.507	461440	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2395	2.240	21845	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2638	3.264	12770	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7294	3.729	24084	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9013	3.901	14349	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1162	4.116	35308	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3956	4.396	63764	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	366403	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3196	5.320	124951	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4772	5.477	40809	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	715979	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9643	5.964	11047	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	493381	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.659	967374	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8167	6.817	14210	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4040	7.404	12200	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.576	7.576	38191	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1215237	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1562	8.156	122351	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.235	8.235	45185	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2923	8.292	54992	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3782	8.378	23017	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	43107	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6719	8.672	25978	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1315991	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5673	9.567	20892	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	43245	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.226	10.226	16392	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.849	10.850	1273249	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	2038343	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	14153	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	59888	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.623	11.623	10271	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.817	23435	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.067	12.067	10410	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.246	12.246	12011	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.461	12.461	24066	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.647	12.647	17058	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.998	12.998	75832	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.378	13.378	17529	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.946	14.947	12296	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082111.d  
Sample #: 2108390-22A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	130	(9246741.86489549 - 6337571.80473585 / 4359

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082111.d  
 Sample #: 2108390-22A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.02

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2546	1.255	46548	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5065	1.507	274807	<input type="checkbox"/>
<input checked="" type="checkbox"/> Propylene	1.688	52720	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0317	2.032	90800	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2394	2.239	34347	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6406	2.641	22425	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9056	2.906	14210	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9629	2.963	31402	<input type="checkbox"/>
<input type="checkbox"/> Ethanol	3.257	30794	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7293	3.729	64255	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.9012	3.901	18436	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1233	4.123	72084	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4027	4.403	154830	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.704	666477	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0831	5.083	13146	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3267	5.327	239497	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4771	5.477	128039	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5631	5.563	26113	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	705676	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9642	5.964	39045	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 6.1146	6.115	94682	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	510825	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	950131	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8166	6.817	23832	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9742	6.974	31817	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.0387	7.039	12857	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1318	7.132	15700	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3037	7.304	21532	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4111	7.411	44827	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5759	7.576	39430	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7263	7.726	17882	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7979	7.798	11119	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1183752	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.956	63110	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1489	8.149	94194	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2492	8.249	14952	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3710	8.371	22718	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	259877	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6647	8.665	68317	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9727	8.973	11797	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1294089	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5672	9.567	56003	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	125308	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.082	10.083	14919	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.233	60210	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.362	10.362	11451	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.505	10.506	13967	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.849	10.849	220328	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1721350	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.999	11.000	34818	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	23991	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	11.251	158525	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082111.d  
Sample #: 2108390-22A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.02

Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 11.358	11.358	50316	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.608	11.609	66663	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.816	92462	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.938	11.938	24646	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.002	12.003	20296	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.074	12.074	24086	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.174	12.175	12136	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.239	12.239	10369	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.317	12.318	34087	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.453	12.454	101520	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.640	12.640	142535	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.804	12.805	10487	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.905	12.905	24572	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.991	12.991	112555	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.170	13.170	18973	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.313	13.314	20270	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	70518	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.456	13.457	14178	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.521	13.521	35700	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.643	13.643	29409	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.800	13.801	23833	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.958	13.958	16802	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.516	14.517	19732	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.910	14.911	28863	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082112.d  
Sample #: 2108390-23A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.06

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	51	(7414873.41123566 - 6337571.80473585 / 43591

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082112.d

Sample #: 2108390-23A

Client ID:

Spike Level: 0

Dilution Factor: 2.06

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2546	1.255	52624	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5064	1.506	744222	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.7583	1.758	31598	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2537	2.254	19670	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.2565	3.257	22577	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7293	3.729	41099	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.9083	3.908	25670	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1161	4.116	34263	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4026	4.403	69206	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	328551	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3266	5.327	129510	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4770	5.477	31229	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	713486	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9641	5.964	16395	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	465533	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	944082	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8165	6.817	18175	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5758	7.576	30640	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1203376	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0486	8.049	28545	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1560	8.156	394635	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.6646	8.665	30105	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1268460	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5671	9.567	25730	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.710	47206	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.226	10.226	18611	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.849	10.849	1059919	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1932696	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	31069	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.816	14519	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.246	12.246	10717	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.453	12.454	35795	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	15936	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.983	12.984	42892	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	10329	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082113.d  
Sample #: 2108390-24A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.14

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	120	(8855024.53656307 - 6337571.80473585 / 43591



# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082113.d  
 Sample #: 2108390-24A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.14

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2546	1.255	47158	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5064	1.506	815155	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.7723	1.772	53601	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2465	2.247	21953	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6333	2.633	23398	<input type="checkbox"/>
<input type="checkbox"/> Ethanol	3.264	33173	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7293	3.729	60878	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.901	98371	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1232	4.123	64828	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4026	4.403	120505	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	486506	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3266	5.327	202538	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4770	5.477	39747	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.5630	5.563	16671	<input type="checkbox"/>
<input checked="" type="checkbox"/> Tetrahydrofuran	5.785	5693	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	712022	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9641	5.964	30281	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	475716	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	950957	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8165	6.817	29396	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8667	6.867	18328	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3036	7.304	12695	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4111	7.411	29992	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5758	7.576	37423	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7191	7.719	11530	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1866507	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.955	8964	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.1560	8.156	164884	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3279	8.328	97607	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	1110152	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6646	8.665	26167	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.6932	8.693	21594	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1291813	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5600	9.560	30970	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.710	59352	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.226	10.226	24521	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.505	10.506	13891	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.849	10.849	974431	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1964633	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	10674	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	35539	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.809	11.809	23175	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.938	11.938	13264	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.253	12.253	11301	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.453	12.454	42767	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	14685	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.776	12.776	40308	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.983	12.984	98011	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	24934	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.642	13.643	15627	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.800	13.801	25272	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 14.910	14.911	29594	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082114.d  
Sample #: 2108390-25A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.06

Compound	Amount (ppbv)	(Area - Blank Area) / RF * DF
TNMOC (Ref. to Gasolin	50	(7395504.86096124 - 6337571.80473585 / 43591

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082114.d  
Sample #: 2108390-25A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.06

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.5067	1.507	12553856	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.7585	1.759	127102	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.2496	3.250	19765	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7295	3.730	41682	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.909	40375	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1235	4.123	41485	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4028	4.403	98516	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.697	371909	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3269	5.327	157201	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4773	5.477	18721	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	718557	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9644	5.964	21008	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	474558	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	939379	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8311	6.831	41472	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4113	7.411	14160	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.5832	7.583	26547	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1172228	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0488	8.049	22124	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1563	8.156	20887	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	292176	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6648	8.665	36945	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1273530	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5674	9.567	26542	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	56883	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.226	10.226	22750	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1633768	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	11630	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	32330	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.623	11.623	10580	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.817	25355	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.945	11.946	10725	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.974	11.974	14227	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.081	12.082	17224	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.246	12.246	16057	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.454	12.454	48057	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.640	12.640	16446	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.984	12.984	22289	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	21969	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.499	13.500	10738	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.643	13.643	15385	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.800	13.801	18323	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: p082115.d  
Sample #: 2108390-26A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.1

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	120	(8833829.61404226 - 6337571.80473585 / 43591

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082115.d

Sample #: 2108390-26A

Client ID:

Spike Level: 0

Dilution Factor: 2.1

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2546	1.255	52233	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5064	1.506	690826	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5904	1.590	103131	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2465	2.247	29392	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.6333	2.633	12755	<input type="checkbox"/>
<input type="checkbox"/> Ethanol	3.257	50661	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 3.7293	3.729	47549	<input type="checkbox"/>
<input type="checkbox"/> Carbon Disulfide	3.837	90864	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.908	83952	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1232	4.123	77832	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4026	4.403	148452	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	774181	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0974	5.097	12113	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3266	5.327	247815	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 5.4770	5.477	230139	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	711940	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.9641	5.964	33298	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	487955	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.666	943826	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8165	6.817	20429	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9956	6.996	24859	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1317	7.132	10487	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3036	7.304	18713	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4111	7.411	17204	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 7.5758	7.576	31315	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7119	7.712	12480	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1188752	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.955	10886	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0486	8.049	16869	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1560	8.156	62249	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3781	8.378	17118	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.471	97808	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 8.6646	8.665	70277	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1271475	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5671	9.567	31832	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.718	72437	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.233	10.233	35758	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.763	10.763	31936	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 10.849	10.849	2783864	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	2269280	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.150	11.150	19485	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.257	11.258	50302	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.608	11.609	13945	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.816	11.816	40757	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.938	11.938	14267	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.067	12.067	17484	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.453	12.454	68622	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.819	12.819	13355	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 12.991	12.991	119469	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.363	13.364	38101	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.521	13.521	10992	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.642	13.643	23028	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p082115.d

Sample #: 2108390-26A

Client ID:

Spike Level: 0

Dilution Factor: 2.1

	Compounds	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 13.800	13.801	18813	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 14.910	14.911	10367	<input type="checkbox"/>

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure ("Hg)} * (14.7\text{psi}/30\text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
0.0	1.14	1.34	1.68	2.02
0.2	1.14	1.35	1.69	2.03
0.4	1.15	1.36	1.70	2.05
0.5	1.16	1.36	1.71	2.05
0.6	1.16	1.37	1.71	2.06
0.8	1.17	1.38	1.73	2.08
1.0	1.18	1.39	1.74	2.09
1.2	1.18	1.40	1.75	2.10
1.4	1.19	1.40	1.76	2.12
1.5	1.20	1.41	1.77	2.13
1.6	1.20	1.42	1.77	2.13
1.8	1.21	1.42	1.79	2.15
2.0	1.22	1.44	1.80	2.16
2.2	1.23	1.45	1.81	2.18
2.4	1.23	1.46	1.83	2.20
2.5	1.24	1.46	1.83	2.20
2.6	1.24	1.47	1.84	2.21
2.8	1.25	1.48	1.85	2.23
3.0	1.26	1.49	1.87	2.24
3.2	1.27	1.50	1.88	2.26
3.4	1.28	1.51	1.90	2.28
3.5	1.29	1.52	1.90	2.29
3.6	1.29	1.52	1.91	2.30
3.8	1.30	1.53	1.92	2.31
4.0	1.31	1.55	1.94	2.33
4.2	1.32	1.56	1.95	2.35
4.4	1.33	1.57	1.97	2.37
4.5	1.34	1.58	1.98	2.38
4.6	1.34	1.58	1.98	2.39
4.8	1.35	1.60	2.00	2.40
5.0	1.36	1.61	2.02	2.42
5.2	1.37	1.62	2.03	2.44
5.4	1.39	1.63	2.05	2.46
5.5	1.39	1.64	2.06	2.47
5.6	1.40	1.65	2.07	2.48
5.8	1.41	1.66	2.08	2.50
6.0	1.42	1.68	2.10	2.52
6.2	1.43	1.69	2.12	2.55
6.4	1.44	1.70	2.14	2.57
6.5	1.45	1.71	2.15	2.58
6.6	1.46	1.72	2.15	2.59
6.8	1.47	1.73	2.17	2.61
7.0	1.48	1.75	2.19	2.64
7.2	1.49	1.76	2.21	2.66
7.4	1.51	1.78	2.23	2.68
7.5	1.51	1.79	2.24	2.69
7.6	1.52	1.79	2.25	2.70

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
7.7	1.53	1.80	2.26	2.72
7.8	1.54	1.81	2.27	2.73
8.0	1.55	1.83	2.29	2.76
8.2	1.56	1.84	2.31	2.78
8.4	1.58	1.86	2.33	2.81
8.5	1.59	1.87	2.34	2.82
8.6	1.59	1.88	2.36	2.83
8.8	1.61	1.90	2.38	2.86
9.0	1.62	1.91	2.40	2.89
9.2	1.64	1.93	2.42	2.91
9.4	1.65	1.95	2.45	2.94
9.5	1.66	1.96	2.46	2.96
9.6	1.67	1.97	2.47	2.97
9.8	1.69	1.99	2.50	3.00
10.0	1.70	2.01	2.52	3.03
10.2	1.72	2.03	2.55	3.06
10.4	1.74	2.05	2.57	3.09
10.5	1.75	2.06	2.59	3.11
10.6	1.76	2.07	2.60	3.12
10.8	1.78	2.09	2.63	3.16
11.0	1.79	2.12	2.65	3.19
11.2	1.81	2.14	2.68	3.22
11.4	1.83	2.16	2.71	3.26
11.5	1.84	2.17	2.72	3.28
11.6	1.85	2.18	2.74	3.29
11.8	1.87	2.21	2.77	3.33
12.0	1.89	2.23	2.80	3.37
12.2	1.91	2.26	2.83	3.40
12.4	1.94	2.28	2.86	3.44
12.5	1.95	2.30	2.88	3.46
12.6	1.96	2.31	2.90	3.48
12.8	1.98	2.34	2.93	3.52
13.0	2.00	2.36	2.97	3.56
13.2	2.03	2.39	3.00	3.61
13.4	2.05	2.42	3.04	3.65
13.5	2.07	2.44	3.06	3.67
13.6	2.08	2.45	3.07	3.70
13.8	2.10	2.48	3.11	3.74
14.0	2.13	2.51	3.15	3.79
14.2	2.16	2.54	3.19	3.84
14.4	2.18	2.58	3.23	3.88
14.5	2.20	2.59	3.25	3.91
14.6	2.21	2.61	3.27	3.94
14.8	2.24	2.64	3.32	3.99
15.0	2.27	2.68	3.36	4.04
15.2	2.30	2.72	3.41	4.10
15.4	2.33	2.75	3.45	4.15

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
15.5	<b>2.35</b>	2.77	<b>3.48</b>	4.18
15.6	<b>2.37</b>	2.79	<b>3.50</b>	4.21
15.8	<b>2.40</b>	2.83	<b>3.55</b>	4.27
16.0	<b>2.43</b>	2.87	<b>3.60</b>	4.33
16.2	<b>2.47</b>	2.91	<b>3.65</b>	4.39
16.4	<b>2.51</b>	2.96	<b>3.71</b>	4.46
16.5	<b>2.52</b>	2.98	<b>3.73</b>	4.49
16.6	<b>2.54</b>	3.00	<b>3.76</b>	4.52
16.8	<b>2.58</b>	3.05	<b>3.82</b>	4.59
17.0	<b>2.62</b>	3.09	<b>3.88</b>	4.66
17.2	<b>2.66</b>	3.14	<b>3.94</b>	4.74
17.4	<b>2.70</b>	3.19	<b>4.00</b>	4.81
17.5	<b>2.73</b>	3.22	<b>4.03</b>	4.85
17.6	<b>2.75</b>	3.24	<b>4.07</b>	4.89
17.8	<b>2.79</b>	3.30	<b>4.13</b>	4.97
18.0	<b>2.84</b>	3.35	<b>4.20</b>	5.05
18.2	<b>2.89</b>	3.41	<b>4.27</b>	5.14
18.4	<b>2.94</b>	3.47	<b>4.35</b>	5.22
18.5	<b>2.96</b>	3.50	<b>4.38</b>	5.27
18.6	<b>2.99</b>	3.53	<b>4.42</b>	5.32
18.8	<b>3.04</b>	3.59	<b>4.50</b>	5.41
19.0	<b>3.10</b>	3.65	<b>4.58</b>	5.51
19.2	<b>3.16</b>	3.72	<b>4.67</b>	5.61
19.4	<b>3.22</b>	3.79	<b>4.76</b>	5.72
19.5	<b>3.25</b>	3.83	<b>4.80</b>	5.77
19.6	<b>3.28</b>	3.87	<b>4.85</b>	5.83
19.8	<b>3.34</b>	3.94	<b>4.94</b>	5.94
20.0	<b>3.41</b>	4.02	<b>5.04</b>	6.06
20.2	<b>3.48</b>	4.10	<b>5.14</b>	6.18
20.4	<b>3.55</b>	4.19	<b>5.25</b>	6.31
20.5	<b>3.59</b>	4.23	<b>5.31</b>	6.38
20.6	<b>3.63</b>	4.28	<b>5.36</b>	6.45
20.8	<b>3.70</b>	4.37	<b>5.48</b>	6.59
21.0	<b>3.79</b>	4.47	<b>5.60</b>	6.73
21.2	<b>3.87</b>	4.57	<b>5.73</b>	6.89
21.4	<b>3.96</b>	4.67	<b>5.86</b>	7.05
21.5	<b>4.01</b>	4.73	<b>5.93</b>	7.13
21.6	<b>4.06</b>	4.79	<b>6.00</b>	7.22
21.8	<b>4.16</b>	4.90	<b>6.15</b>	7.39
22.0	<b>4.26</b>	5.03	<b>6.30</b>	7.58
22.4	<b>4.48</b>	5.29	<b>6.63</b>	7.98

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
22.5	<b>4.54</b>	5.36	<b>6.72</b>	8.08
22.6	<b>4.61</b>	5.43	<b>6.81</b>	8.19
22.8	<b>4.73</b>	5.58	<b>7.00</b>	8.42
23.0	<b>4.87</b>	5.74	<b>7.20</b>	8.66
23.2	<b>5.01</b>	5.91	<b>7.41</b>	8.91
23.4	<b>5.16</b>	6.09	<b>7.64</b>	9.18
23.5	<b>5.24</b>	6.19	<b>7.76</b>	9.32
23.6	<b>5.33</b>	6.28	<b>7.88</b>	9.47
23.8	<b>5.50</b>	6.48	<b>8.13</b>	9.78
24.0	<b>5.68</b>	6.70	<b>8.40</b>	10.10
24.2	<b>5.88</b>	6.93	<b>8.69</b>	10.45
24.4	<b>6.09</b>	7.18	<b>9.00</b>	10.82
24.5	<b>6.20</b>	7.31	<b>9.17</b>	11.02
24.6	<b>6.31</b>	7.45	<b>9.33</b>	11.22
24.8	<b>6.55</b>	7.73	<b>9.69</b>	11.66
25.0	<b>6.82</b>	8.04	<b>10.08</b>	12.12
25.2	<b>7.10</b>	8.38	<b>10.50</b>	12.63
25.4	<b>7.41</b>	8.74	<b>10.96</b>	13.18
25.5	<b>7.57</b>	8.93	<b>11.20</b>	13.47
25.6	<b>7.75</b>	9.14	<b>11.46</b>	13.78
25.8	<b>8.11</b>	9.57	<b>12.00</b>	14.43
26.0	<b>8.52</b>	10.05	<b>12.60</b>	15.15
26.2	<b>8.97</b>	10.58	<b>13.27</b>	15.95
26.4	<b>9.47</b>	11.17	<b>14.00</b>	16.84
26.5	<b>9.74</b>	11.49	<b>14.40</b>	17.32
26.6	<b>10.02</b>	11.82	<b>14.83</b>	17.83
26.8	<b>10.65</b>	12.56	<b>15.75</b>	18.94
27.0	<b>11.36</b>	13.40	<b>16.80</b>	20.20
27.2	<b>12.17</b>	14.36	<b>18.00</b>	21.65
27.4	<b>13.11</b>	15.46	<b>19.39</b>	23.31
27.5	<b>13.63</b>	16.08	<b>20.16</b>	24.24
27.6	<b>14.20</b>	16.75	<b>21.00</b>	25.26
27.8	<b>15.49</b>	18.27	<b>22.91</b>	27.55
28.0	<b>17.04</b>	20.10	<b>25.20</b>	30.31
28.2	<b>18.93</b>	22.34	<b>28.00</b>	33.67
28.4	<b>21.30</b>	25.13	<b>31.51</b>	37.88
28.5	<b>22.72</b>	26.80	<b>33.61</b>	40.41
28.6	<b>24.34</b>	28.72	<b>36.01</b>	43.29
28.8	<b>28.40</b>	33.50	<b>42.01</b>	50.51
29.0	<b>34.08</b>	40.20	<b>50.41</b>	60.61



**Method:TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)**

<b>CAS Number</b>	<b>Compound</b>	<b>Rpt. Limit(ppbv)</b>
630-20-6	1,1,1,2-Tetrachloroethane	2.0
71-55-6	1,1,1-Trichloroethane	0.5
79-34-5	1,1,2,2-Tetrachloroethane	0.5
79-00-5	1,1,2-Trichloroethane	0.5
75-34-3	1,1-Dichloroethane	0.5
75-35-4	1,1-Dichloroethene	0.5
75-37-6	1,1-Difluoroethane	2.0
96-18-4	1,2,3-Trichloropropane	2.0
120-82-1	1,2,4-Trichlorobenzene	2.0
95-63-6	1,2,4-Trimethylbenzene	0.5
96-12-8	1,2-Dibromo-3-chloropropane	2.0
106-93-4	1,2-Dibromoethane (EDB)	0.5
95-50-1	1,2-Dichlorobenzene	0.5
107-06-2	1,2-Dichloroethane	0.5
78-87-5	1,2-Dichloropropane	0.5
108-67-8	1,3,5-Trimethylbenzene	0.5
106-99-0	1,3-Butadiene	0.5
541-73-1	1,3-Dichlorobenzene	0.5
106-46-7	1,4-Dichlorobenzene	0.5
123-91-1	1,4-Dioxane	2.0
540-84-1	2,2,4-Trimethylpentane	0.5
78-93-3	2-Butanone (Methyl Ethyl Ketone)	2.0
591-78-6	2-Hexanone	2.0
67-63-0	2-Propanol	2.0
107-05-1	3-Chloropropene	2.0
622-96-8	4-Ethyltoluene	0.5
108-10-1	4-Methyl-2-pentanone	0.5
67-64-1	Acetone	5.0
107-02-8	Acrolein	2.0
107-13-1	Acrylonitrile	2.0
100-44-7	alpha-Chlorotoluene	0.5
71-43-2	Benzene	0.5

75-27-4 Bromodichloromethane 0.5  
 Method:TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)

CAS Number	Compound	Rpt. Limit(ppbv)
75-25-2	Bromoform	0.5
74-83-9	Bromomethane	5.0
75-15-0	Carbon Disulfide	2.0
56-23-5	Carbon Tetrachloride	0.5
108-90-7	Chlorobenzene	0.5
75-00-3	Chloroethane	2.0
67-66-3	Chloroform	0.5
74-87-3	Chloromethane	5.0
156-59-2	cis-1,2-Dichloroethene	0.5
10061-01-5	cis-1,3-Dichloropropene	0.5
98-82-8	Cumene	0.5
110-82-7	Cyclohexane	0.5
124-48-1	Dibromochloromethane	0.5
74-95-3	Dibromomethane	2.0
64-17-5	Ethanol	5.0
141-78-6	Ethyl Acetate	2.0
100-41-4	Ethyl Benzene	0.5
637-92-3	Ethyl-tert-butyl ether	2.0
75-69-4	Freon 11	0.5
76-13-1	Freon 113	0.5
76-14-2	Freon 114	0.5
75-71-8	Freon 12	0.5
811-97-2	Freon 134a	2.0
142-82-5	Heptane	0.5
87-68-3	Hexachlorobutadiene	2.0
67-72-1	Hexachloroethane	2.0
110-54-3	Hexane	0.5
74-88-4	Iodomethane	5.0
108-20-3	Isopropyl ether	2.0
108-38-3	m,p-Xylene	0.5
1634-04-4	Methyl tert-butyl ether	2.0
75-09-2	Methylene Chloride	5.0
91-20-3	Naphthalene	1.0
95-47-6	o-Xylene	0.5
103-65-1	Propylbenzene	0.5

115-07-1	Propylene	2.0
100-42-5	Styrene	0.5
994-05-8	tert-Amyl methyl ether	2.0
75-65-0	tert-Butyl alcohol	2.0
127-18-4	Tetrachloroethene	0.5
109-99-9	Tetrahydrofuran	0.5
108-88-3	Toluene	0.5
9999-9999-038	TPH ref. to Gasoline (MW=100)	50.0
156-60-5	trans-1,2-Dichloroethene	0.5
10061-02-6	trans-1,3-Dichloropropene	0.5
79-01-6	Trichloroethene	0.5
108-05-4	Vinyl Acetate	2.0
593-60-2	Vinyl Bromide	2.0
75-01-4	Vinyl Chloride	0.5

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	Surrogate	Method Limits
17060-07-0	1,2-Dichloroethane-d4	70-130
460-00-4	4-Bromofluorobenzene	70-130
2037-26-5	Toluene-d8	70-130

Eurofins Air Toxics	Data Review Checklist			Release Date: 10/22/19
	Form F1.27	Revision #17	Revision Date: 10/22/19	Page 1 of 2

Workorder # 2108390

S	S	S	S	D	Section 1 - Spec Out
1	2	3	4		Initials/Instrument/Date
					S1: MSDP mjs 08/20/21
					S2: MSD-P mm 08/21/21
					S3:
					S4:
✓	✓	✓	✓	✓	Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria
✓	✓	✓	✓	✓	Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder
NA	NA	NA	NA	NA	Manual Integrations included and approved
✓	✓	✓	✓	✓	Chain of Custody verified for special comments/notes and analyses requested (add comments below)
✓	✓	✓	✓	✓	Non-standard Target sublist verified (MDL, LOD, RL, control limits, etc.)
✓	✓	✓	✓	✓	Verified standard expiration dates

Profile, analyses, reporting, special notes and unusual circumstances: S1: COV: Dat. LCS: Dat. LCSD: Dat. SpCOV: Dat.  
 RPD OK. S2: QC: 1 out COV, 1 out LES, 1 out LCSD, SpCOV, TPHg

A	A	A	A	D	Section 2 - Sample Analysis
1	2	3	4		Initials/Date
					A1: vu 8/20/21
					A2: mm 08/21/21
					A3: id 8/23/21
					A4:
✓	✓	✓	✓	✓	IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, Canister #s Verified and dilution ranges are met per SOP (ex. Over-ranged/overdiluted)
NA	NA	NA	NA	NA	a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument
✓	✓	✓	✓	✓	Manual Integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply)
✓	✓	✓	✓	✓	12/24 Hr clock time & Hold Time met for all samples
✓	✓	✓	✓	✓	Re-analysis of sample(s) has been evaluated for comparability and/or sample(s) has/have been checked for trends (Inf/Eff), field dups/trip blanks, samples following bad loads on auto samplers have been verified (system blks, confirmation runs)
✓	✓	✓	✓	✓	All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)

Analytical and special notes: A1: 01A-03A, 05A-07A full load, 10A full load  
 A2: 04A, 08A, 11A-19A full loads, 10A, 11A: failing FDs confirmation: Not needed, Screens confirm.  
 A3: 20A-26A - Full loads, 20A, 21A possible FDs - Don't dup for Hexane but <40%.

D	D	D	D	T	3	Section 3 - Target	Technical Review Needed?	T:
1	2	3	4			Data Reduction	Circle one: Yes/No	
						Initials/Instrument/Date	D1: GJL 8/24/21	D2:
						D3:	D4:	
NA	NA	NA	NA	NA	NA	CAR #	(if applicable)	
✓	✓	✓	✓	✓	✓	Spectra Verified (documentation of spectral defense included if applicable)		
✓	✓	✓	✓	✓	✓	TICs resemble reference spectra/ TICs between sample dups. are consistent (if applicable)		
✓	✓	✓	✓	✓	✓	Lab Narrative is correct		
✓	✓	✓	✓	✓	✓	TPH/NMOC calculations complete and included in folder		

Special notes:

A	3	Section 4 - Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
T		Initials/Date:	3 <sup>rd</sup> Tier:	
		GJL 8/24/21	(needed only for DOD or per client request)	
NA	NA	Sample Discrepancy Report (SDR) complete and approved (if applicable)		
✓	✓	Manually entered results are checked		
✓	✓	At least one result per sample is verified against Target quant sheets		
✓	✓	Appropriate data qualifier flags are applied		
✓	✓	Final Invoice is correct/ Final PDF report, COC and EDD reviewed and correct		

Special Notes:

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply  
 Note (2) 3<sup>rd</sup> Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Eurofins Air Toxics  Reissued	Data Review Checklist			Release Date: 10/22/19
	Form F1.27	Revision #17	Revision Date: 10/22/19	Page 2 of 2

<b>Workorder # :</b>				<b>Reason for Reissue:</b>
<b>W</b>	<b>T</b>	<b>3T</b>	<b>Q</b>	
				Reissue Request form Present
				Client or QA or Lab contact present with reason for reissue
				Review all affected data
				Report header has correct R1, R2 etc
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)
				Date for Reissue in Report Header matches date in Lab Narrative
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)
				Corrective Action issued - #
				The reissued workorder has been approved by QA Manager or a Technical Director
<b>Additional Comments:</b>				
<b>Write Up</b> (Initials/Date)		<b>Tech Review</b> (Initials/Date)		<b>*3<sup>rd</sup> Tier Review</b> <i>* 3<sup>rd</sup> Tier Report Review is for DoD &amp; Client Specific projects only</i> (Initials/Date)
				<b>QA Review</b> (Initials/Date)

<b>Workorder # :</b>				<b>Reason for Reissue:</b>
<b>W</b>	<b>T</b>	<b>3T</b>	<b>Q</b>	
				Reissue Request form Present
				Client or QA or Lab contact present with reason for reissue
				Review all affected data
				Report header has correct R1, R2 etc
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)
				Date for Reissue in Report Header matches date in Lab Narrative
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)
				Corrective Action issued - #
				The reissued workorder has been approved by QA Manager or a Technical Director
<b>Additional Comments:</b>				
<b>Write Up</b> (Initials/Date)		<b>Tech Review</b> (Initials/Date)		<b>*3<sup>rd</sup> Tier Review</b> <i>* 3<sup>rd</sup> Tier Report Review is for DoD &amp; Client Specific projects only</i> (Initials/Date)
				<b>QA Review</b> (Initials/Date)

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply  
Note (2) 3<sup>rd</sup> Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

**Not Applicable**



eurofins

Air Toxics

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# Electronic Comprehensive Validation Package (eCVP)

*Vera Belitsky*

Vera Belitsky

09-08-2021

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**WORK ORDER #: 2108676A**

Work Order Summary

<b>CLIENT:</b>	Mr. Robert Kohlhardt AECOM 2020 L Street, Suite 400 Sacramento, CA 95811	<b>BILL TO:</b>	Mr. Jerry Montgomery SWPPQueen 7202 Gloria Drive #25 Sacramento, CA 95831
<b>PHONE:</b>	916-679-2000	<b>P.O. #</b>	
<b>FAX:</b>	916-679-2900	<b>PROJECT #</b>	60132793.6 SMUD 59th St
<b>DATE RECEIVED:</b>	08/30/2021	<b>CONTACT:</b>	Monica Tran
<b>DATE COMPLETED:</b>	09/07/2021		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SG-VW21A-05	TO-15	7.0 "Hg	10 psi
02A	Lab Blank	TO-15	NA	NA
03A	CCV	TO-15	NA	NA
04A	LCS	TO-15	NA	NA
04AA	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 09/07/21

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**AECOM**  
**Workorder# 2108676A**

One 1 Liter Summa Canister sample was received on August 30, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

The US EPA released a document on December 17, 2010 outlining possible data quality concerns for Acrolein measured by EPA Method TO-15. As a result, Acrolein is reported as estimated. Please refer to EPA document titled "Data Quality Evaluation Guidelines for Ambient Air Acrolein Measurements December 17, 2010" located on-line at [www.epa.gov/ttn/amtic/airtox.html](http://www.epa.gov/ttn/amtic/airtox.html) for complete details.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

As per client project requirements, the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

**Definition of Data Qualifying Flags**

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

<b>Table 1</b>								
Client	Lab	Date	Date	Date	Sample	Date	Sample Extract	
Sample ID	Sample ID	Collected	Received	Extracted	Holding	Analyzed	Holding	Sample
					Time		Time	Condition
					(Days)		(Days)	
SG-VW21A-05	2108676A-01A	08/30/2021	08/30/2021	NA	3	09/02/2021	NA	GOOD
Lab Blank	2108676A-02A	NA	NA	NA	NA	09/02/2021	NA	GOOD
CCV	2108676A-03A	NA	NA	NA	NA	09/02/2021	NA	GOOD
LCS	2108676A-04A	NA	NA	NA	NA	09/02/2021	NA	GOOD
LCSD	2108676A-04AA	NA	NA	NA	NA	09/02/2021	NA	GOOD

## **Sample Results and Raw Data**

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	SG-VW21A-05	<b>Date/Time Analyzed:</b>	9/2/21 10:59 PM
<b>Lab ID:</b>	2108676A-01A	<b>Dilution Factor:</b>	2.19
<b>Date/Time Collected:</b>	8/30/21 10:59 AM	<b>Instrument/Filename:</b>	msdp.i / p090222
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	630-20-6	1.5	D	30	Not Detected
1,1,1-Trichloroethane	71-55-6	0.47	3.0	6.0	6.0
1,1,2,2-Tetrachloroethane	79-34-5	0.70	3.8	7.5	Not Detected
1,1,2-Trichloroethane	79-00-5	0.96	3.0	6.0	Not Detected
1,1-Dichloroethane	75-34-3	0.92	2.2	4.4	Not Detected
1,1-Dichloroethene	75-35-4	1.4	2.2	4.3	Not Detected
1,1-Difluoroethane	75-37-6	2.6	D	12	49
1,2,3-Trichloropropane	96-18-4	1.6	D	26	Not Detected
1,2,4-Trichlorobenzene	120-82-1	2.9	9.8	32	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.62	2.7	5.4	8.5
1,2-Dibromo-3-chloropropane	96-12-8	1.4	D	42	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	1.6	4.2	8.4	Not Detected
1,2-Dichlorobenzene	95-50-1	0.74	3.3	6.6	Not Detected
1,2-Dichloroethane	107-06-2	0.73	2.2	4.4	Not Detected
1,2-Dichloropropane	78-87-5	1.2	2.5	5.1	Not Detected
1,3,5-Trimethylbenzene	108-67-8	1.1	2.7	5.4	3.8 J
1,3-Butadiene	106-99-0	0.70	1.2	2.4	Not Detected
1,3-Dichlorobenzene	541-73-1	0.75	3.3	6.6	Not Detected
1,4-Dichlorobenzene	106-46-7	0.78	3.3	6.6	Not Detected
1,4-Dioxane	123-91-1	2.3	4.7	16	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.60	2.6	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	2.0	3.9	13	7.6 J
2-Hexanone	591-78-6	0.43	2.2	18	0.72 J
2-Propanol	67-63-0	0.81	3.2	11	16

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	SG-VW21A-05	<b>Date/Time Analyzed:</b>	9/2/21 10:59 PM
<b>Lab ID:</b>	2108676A-01A	<b>Dilution Factor:</b>	2.19
<b>Date/Time Collected:</b>	8/30/21 10:59 AM	<b>Instrument/Filename:</b>	msdp.i / p090222
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
3-Chloropropene	107-05-1	3.0	4.1	14	Not Detected
4-Ethyltoluene	622-96-8	1.1	2.7	5.4	7.2
4-Methyl-2-pentanone	108-10-1	1.1	2.2	4.5	Not Detected
Acetone	67-64-1	2.6	3.1	26	32
Acrolein	107-02-8	1.5	D	10	Not Detected
Acrylonitrile	107-13-1	0.58	D	9.5	Not Detected
alpha-Chlorotoluene	100-44-7	0.51	2.8	5.7	Not Detected
Benzene	71-43-2	0.66	1.7	3.5	3.1 J
Bromodichloromethane	75-27-4	1.1	3.7	7.3	Not Detected
Bromoform	75-25-2	1.2	5.7	11	Not Detected
Bromomethane	74-83-9	1.8	5.1	42	Not Detected
Carbon Disulfide	75-15-0	1.3	4.1	14	2.9 J
Carbon Tetrachloride	56-23-5	1.8	3.4	6.9	Not Detected
Chlorobenzene	108-90-7	0.46	2.5	5.0	Not Detected
Chloroethane	75-00-3	3.0	4.3	12	Not Detected
Chloroform	67-66-3	0.46	2.7	5.3	9.1
Chloromethane	74-87-3	1.6	2.7	23	Not Detected
cis-1,2-Dichloroethene	156-59-2	1.6	2.2	4.3	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.96	2.5	5.0	Not Detected
Cumene	98-82-8	0.68	2.7	5.4	Not Detected
Cyclohexane	110-82-7	0.62	1.9	3.8	Not Detected
Dibromochloromethane	124-48-1	1.6	4.7	9.3	Not Detected
Dibromomethane	74-95-3	1.2	D	31	Not Detected
Ethanol	64-17-5	2.6	3.1	21	7.1 J

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	SG-VW21A-05	<b>Date/Time Analyzed:</b>	9/2/21 10:59 PM
<b>Lab ID:</b>	2108676A-01A	<b>Dilution Factor:</b>	2.19
<b>Date/Time Collected:</b>	8/30/21 10:59 AM	<b>Instrument/Filename:</b>	msdp.i / p090222
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Acetate	141-78-6	0.92	D	16	Not Detected
Ethyl Benzene	100-41-4	1.2	2.4	4.8	2.4 J
Ethyl-tert-butyl ether	637-92-3	0.96	D	18	Not Detected
Freon 11	75-69-4	1.3	3.1	6.2	1.8 J
Freon 113	76-13-1	1.3	4.2	8.4	Not Detected
Freon 114	76-14-2	1.4	3.8	7.6	Not Detected
Freon 12	75-71-8	0.86	2.7	5.4	Not Detected
Freon 134a	811-97-2	2.2	D	18	Not Detected
Heptane	142-82-5	1.1	2.2	4.5	Not Detected
Hexachlorobutadiene	87-68-3	4.3	14	47	Not Detected
Hexachloroethane	67-72-1	NA	D	42	Not Detected
Hexane	110-54-3	0.70	1.9	3.8	52
Iodomethane	74-88-4	0.83	D	64	Not Detected
Isopropyl ether	108-20-3	0.54	D	18	Not Detected
m,p-Xylene	108-38-3	1.1	2.4	4.8	6.5
Methyl tert-butyl ether	1634-04-4	0.85	4.7	16	Not Detected
Methylene Chloride	75-09-2	0.78	1.9	38	Not Detected
Naphthalene	91-20-3	4.4	5.7	11	Not Detected
o-Xylene	95-47-6	1.2	2.4	4.8	3.1 J
Propylbenzene	103-65-1	0.89	2.7	5.4	1.5 J
Propylene	115-07-1	0.56	0.94	7.5	Not Detected
Styrene	100-42-5	0.60	2.3	4.7	Not Detected
tert-Amyl methyl ether	994-05-8	1.9	D	18	Not Detected
tert-Butyl alcohol	75-65-0	0.92	4.0	13	Not Detected



EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	SG-VW21A-05	<b>Date/Time Analyzed:</b>	9/2/21 10:59 PM
<b>Lab ID:</b>	2108676A-01A	<b>Dilution Factor:</b>	2.19
<b>Date/Time Collected:</b>	8/30/21 10:59 AM	<b>Instrument/Filename:</b>	msdp.i / p090222
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	1.2	3.7	7.4	170
Tetrahydrofuran	109-99-9	0.65	1.6	3.2	1.6 J
Toluene	108-88-3	0.42	2.1	4.1	13
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	450	Not Detected
trans-1,2-Dichloroethene	156-60-5	1.1	2.2	4.3	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.86	2.5	5.0	Not Detected
Trichloroethene	79-01-6	0.85	2.9	5.9	23
Vinyl Acetate	108-05-4	4.2	5.8	15	Not Detected
Vinyl Bromide	593-60-2	1.3	D	19	Not Detected
Vinyl Chloride	75-01-4	0.71	1.4	2.8	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	112
4-Bromofluorobenzene	460-00-4	70-130	104
Toluene-d8	2037-26-5	70-130	100

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/02SEP21.b/p090222.d  
Lab Smp Id: 2108676A-01A  
Inj Date : 02-SEP-2021 22:59  
Operator : gh Inst ID: msdp.i  
Smp Info : 200ml 1L2704  
Misc Info : 7.0 Hg->10 psi  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/02SEP21.b/p21q0519a.m  
Meth Date : 03-Sep-2021 10:14 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
Als bottle: 2  
Dil Factor: 2.19000  
Integrator: HP RTE Compound Sublist: AEC25677.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5		
5.785	5.778	(1.000)	130	119538	25.0000	80.00- 120.00	100.00	
5.785	5.778	(1.000)	128	94822		48.23- 108.23	79.32	
5.785	5.778	(1.000)	49	275106		150.57- 210.57	230.14	
-----								
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0		
6.315	6.308	(1.092)	65	185651	28.1418	28.142 80.00- 120.00	100.00	
6.315	6.308	(1.092)	67	85699		27.21- 87.21	46.16	
-----								
* 108	1,4-Difluorobenzene					CAS #: 540-36-3		
6.659	6.659	(1.000)	114	406854	25.0000	80.00- 120.00	100.00	
6.659	6.659	(1.000)	88	59065		0.00- 45.71	14.52	
-----								
\$ 134	Toluene-d8					CAS #: 2037-26-5		
7.891	7.891	(1.185)	98	441480	24.9887	24.989 80.00- 120.00	100.00	
7.891	7.891	(1.185)	70	48578		0.00- 40.44	11.00	
7.891	7.891	(1.185)	100	290391		34.95- 94.95	65.78	
-----								
* 153	Chlorobenzene-d5					CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	415198	25.0000	80.00- 120.00	100.00	

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 153 Chlorobenzene-d5 (continued)								
9.460	9.460	(1.000)	82	214014			23.78- 83.78	51.55
-----								
§ 170 4-Bromofluorobenzene					CAS #: 460-00-4			
10.921	10.921	(1.154)	174	278462	26.1177	26.118	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	325339			95.92- 155.92	116.83
10.921	10.921	(1.154)	176	269371			66.89- 126.89	96.74
-----								
7 1,1-Difluoroethane					CAS #: 75-37-6			
1.716	1.702	(0.297)	65	22427	8.27701	18.127	80.00- 120.00	100.00
1.772	1.744	(0.306)	51	1410249			597.63- 657.63	6288.05
1.758	1.702	(0.304)	47	43734			33.72- 93.72	195.01
-----								
33 Freon 11					CAS #: 75-69-4			
2.891	2.891	(0.500)	101	1666	0.14623	0.3202	80.00- 120.00	100.00(a)
2.891	2.891	(0.500)	103	689			34.72- 94.72	41.39
-----								
39 Ethanol					CAS #: 64-17-5			
3.250	3.242	(0.562)	46	2045	1.72508	3.778	80.00- 120.00	100.00(a)
3.278	3.242	(0.567)	45	6448			511.19- 571.19	315.29
-----								
47 Acetone					CAS #: 67-64-1			
3.729	3.715	(0.645)	58	19084	6.08969	13.336	80.00- 120.00	100.00
3.729	3.715	(0.645)	43	86384			302.95- 362.95	452.65
-----								
48 Carbon Disulfide					CAS #: 75-15-0			
3.837	3.822	(0.663)	76	5603	0.42057	0.9210	80.00- 120.00	100.00(a)
-----								
52 2-Propanol					CAS #: 67-63-0			
3.901	3.887	(0.674)	45	38215	3.02567	6.626	80.00- 120.00	100.00
3.901	3.887	(0.674)	43	9385			0.00- 47.19	24.56
-----								
67 Hexane					CAS #: 110-54-3			
4.696	4.696	(0.812)	57	79255	6.73029	14.739	80.00- 120.00	100.00
4.696	4.696	(0.812)	43	69327			37.52- 97.52	87.47
4.696	4.696	(0.812)	86	8762			0.00- 41.48	11.06
-----								
86 2-Butanone					CAS #: 78-93-3			
5.563	5.556	(0.962)	72	3203	1.18548	2.596	80.00- 120.00	100.00(a)
5.563	5.556	(0.962)	43	26359			1214.50-1274.50	822.73
5.563	5.556	(0.962)	57	1799			14.68- 74.68	56.17
-----								
89 Tetrahydrofuran					CAS #: 109-99-9			
5.785	5.771	(1.000)	42	2250	0.25039	0.5484	80.00- 120.00	100.00(a)
5.778	5.771	(0.999)	71	155			0.00- 55.82	6.89
5.785	5.771	(1.000)	72	117			0.00- 57.59	5.23
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform					CAS #: 67-66-3			
5.843	5.835	(1.010)	83	8890	0.85475	1.872	80.00- 120.00	100.00
5.835	5.835	(1.009)	85	6693			34.70- 94.70	75.29
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
5.971	5.971	(1.032)	97	5940	0.50554	1.107	80.00- 120.00	100.00
5.964	5.971	(1.031)	99	3777			34.02- 94.02	63.60
102 Benzene					CAS #: 71-43-2			
6.301	6.301	(0.946)	78	5952	0.44332	0.9709	80.00- 120.00	100.00(a)
6.294	6.301	(0.945)	77	1695			0.00- 52.90	28.47
111 Trichloroethene					CAS #: 79-01-6			
6.867	6.867	(1.031)	95	12761	1.95875	4.290	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	13663			76.29- 136.29	107.06
6.867	6.867	(1.031)	97	8659			33.63- 93.63	67.85
137 Toluene					CAS #: 108-88-3			
7.948	7.948	(1.194)	91	30029	1.62114	3.550	80.00- 120.00	100.00
7.948	7.948	(1.194)	92	17026			28.38- 88.38	56.70
142 Tetrachloroethene					CAS #: 127-18-4			
8.464	8.464	(0.895)	166	109315	11.5522	25.299	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	82790			47.84- 107.84	75.74
8.464	8.464	(0.895)	131	80581			45.29- 105.29	73.71
143 2-Hexanone					CAS #: 591-78-6			
8.586	8.586	(0.908)	58	774	0.08022	0.1757	80.00- 120.00	100.00(a)
8.586	8.586	(0.908)	43	2372			162.87- 222.87	306.33
8.522	8.586	(0.901)	100	477			0.00- 45.94	61.67
155 Ethyl Benzene					CAS #: 100-41-4			
9.567	9.567	(1.011)	106	2131	0.24719	0.5413	80.00- 120.00	100.00(a)
9.567	9.567	(1.011)	91	5965			273.74- 333.74	279.81
158 m,p-Xylene					CAS #: 108-38-3			
9.711	9.718	(1.026)	106	7400	0.68536	1.501	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	15142			163.73- 223.73	204.60
164 o-Xylene					CAS #: 95-47-6			
10.233	10.226	(1.082)	106	3410	0.32963	0.7219	80.00- 120.00	100.00(a)
10.219	10.226	(1.080)	91	7302			177.45- 237.45	214.15
178 Propylbenzene					CAS #: 103-65-1			
11.150	11.150	(1.179)	120	1309	0.13585	0.2975	80.00- 120.00	100.00(a)
11.150	11.150	(1.179)	91	5490			366.49- 426.49	419.28

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
178 Propylbenzene (continued)								
11.251	11.150	(1.189)	105	21119			0.00- 44.85	1612.88
-----								
183 4-Ethyltoluene					CAS #: 622-96-8			
11.251	11.286	(1.189)	120	6963	0.66448	1.455	80.00- 120.00	100.00
11.251	11.286	(1.189)	105	21119			284.55- 344.55	303.27
-----								
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
11.358	11.365	(1.201)	120	5157	0.35744	0.7828	80.00- 120.00	100.00(a)
11.358	11.365	(1.201)	105	9256			164.93- 224.93	179.47
-----								
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
11.817	11.816	(1.249)	105	21540	0.79099	1.732	80.00- 120.00	100.00
11.817	11.816	(1.249)	120	10662			19.05- 79.05	49.50
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p090222.d  
Lab Smp Id: 2108676A-01A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: gh  
Method File: /chem/msdp.i/02SEP21.b/p21q0519a.m  
Misc Info: 7.0 Hg->10 psi

Calibration Date: 02-SEP-2021  
Calibration Time: 09:55  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	111368	66821	155915	119538	7.34
108 1,4-Difluorobenze	392899	235739	550059	406854	3.55
153 Chlorobenzene-d5	382253	229352	535154	415198	8.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.79	0.13
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 02SEP21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108676A-01A  
Level: LOW Operator: gh  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/02SEP21.b/p21q0519a.m  
Misc Info: 7.0 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	28.142	112.57	70-130
\$ 134 Toluene-d8	25.000	24.989	99.95	70-130
\$ 170 4-Bromofluorobenz	25.000	26.118	104.47	70-130

Date : 02-SEP-2021 22:59

Client ID:

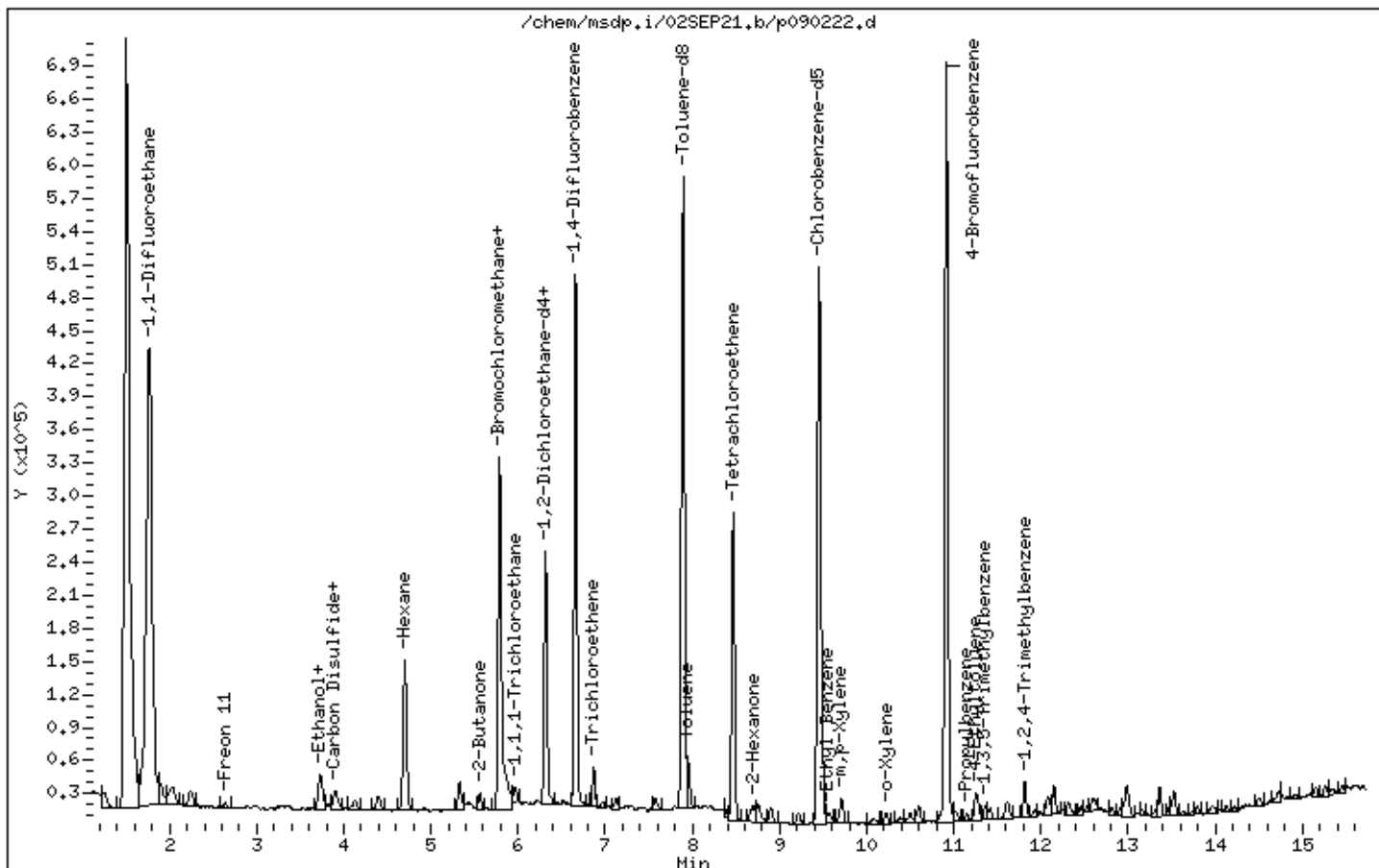
Instrument: msdp.i

Sample Info: 200ml 1L2704

Operator: gh

Column phase: RTX-624

Column diameter: 0.25





Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

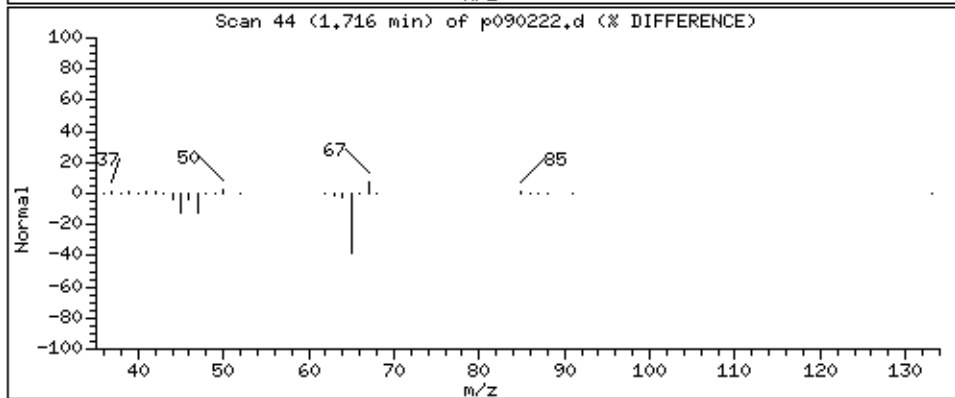
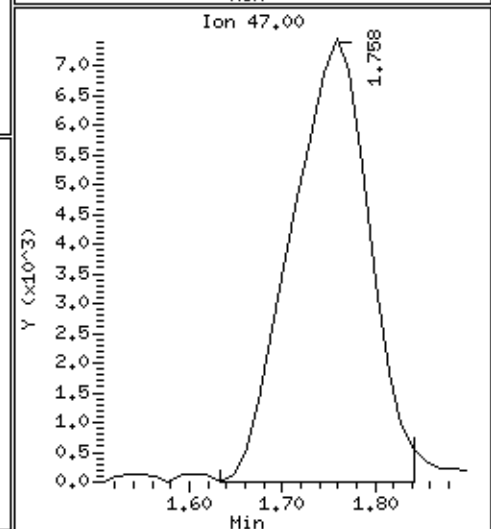
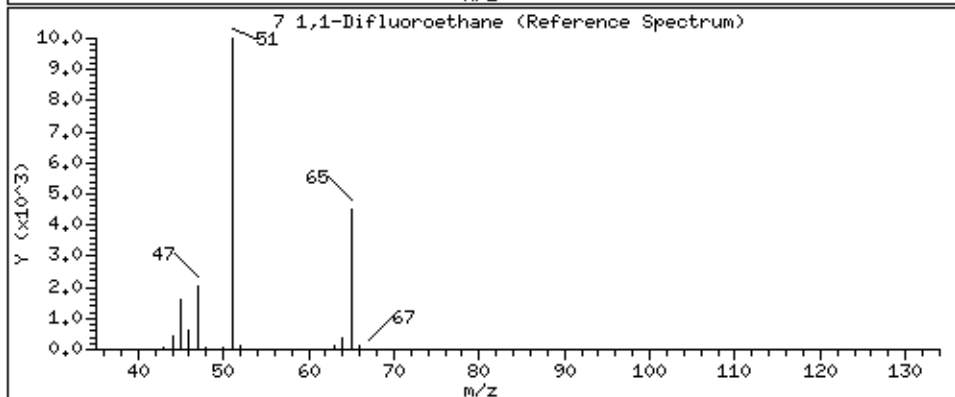
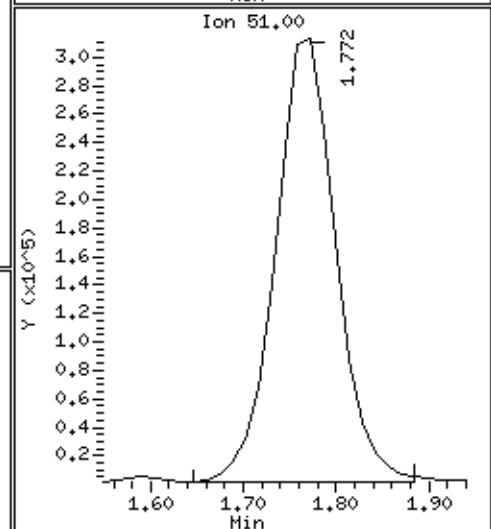
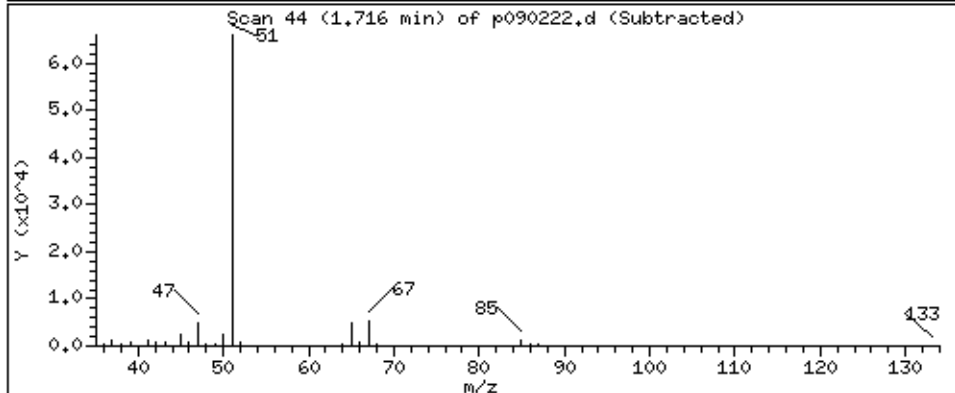
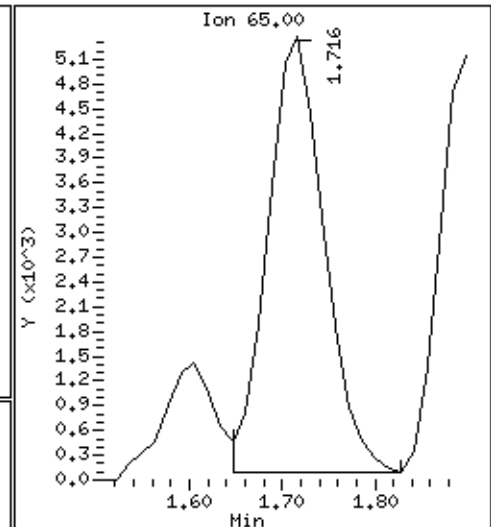
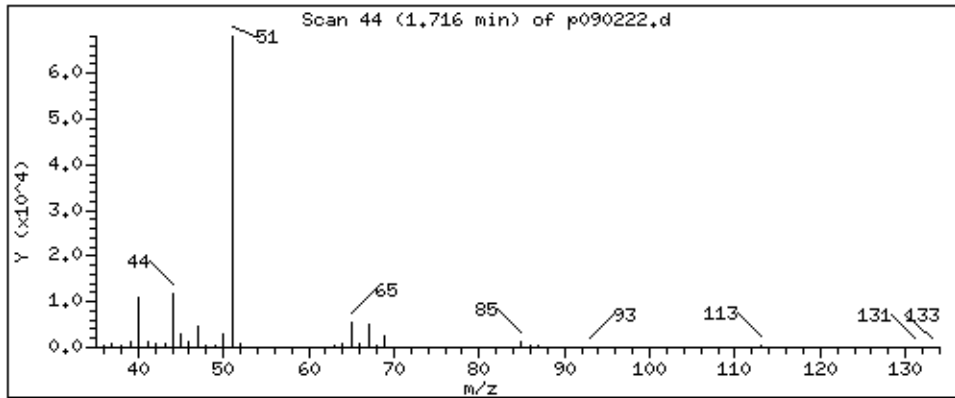
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 18,127 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

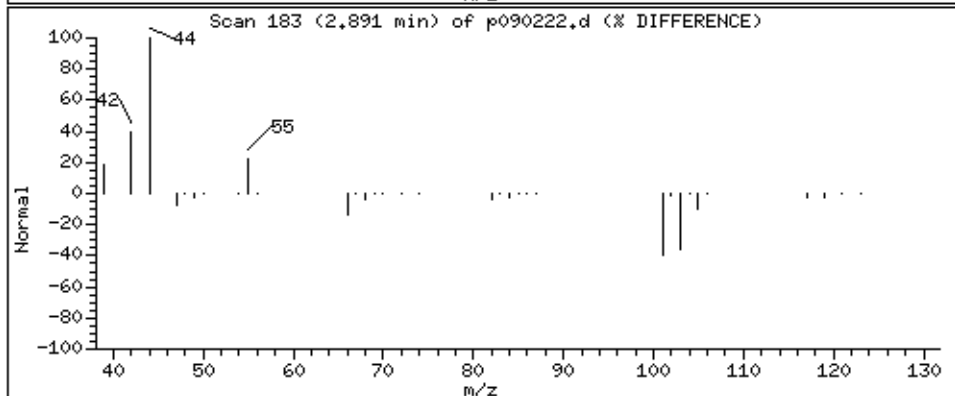
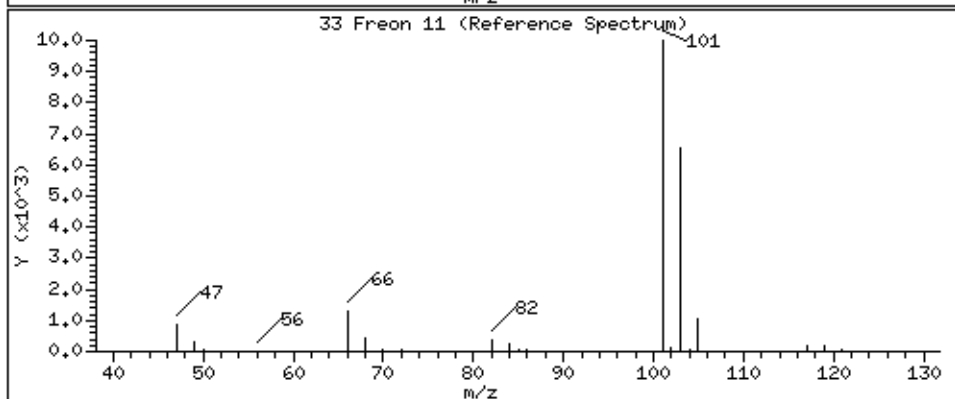
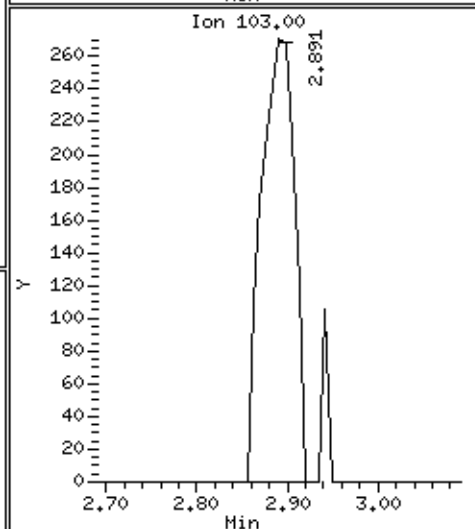
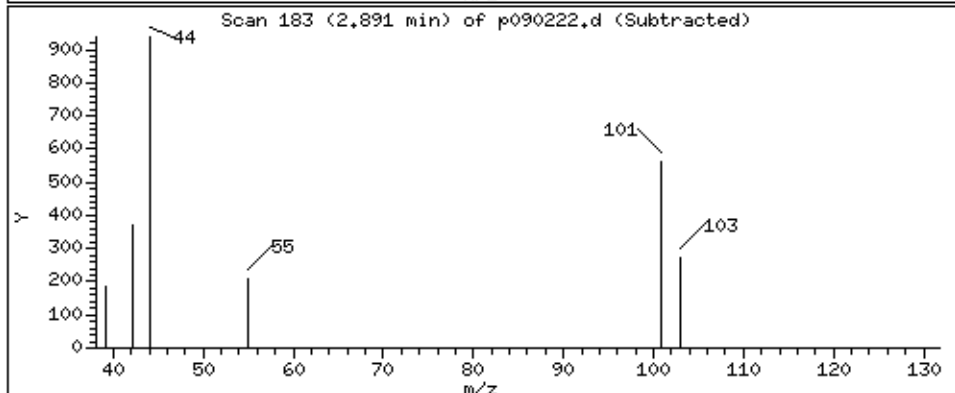
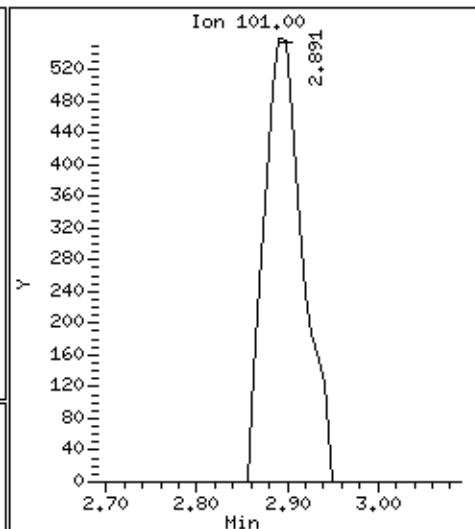
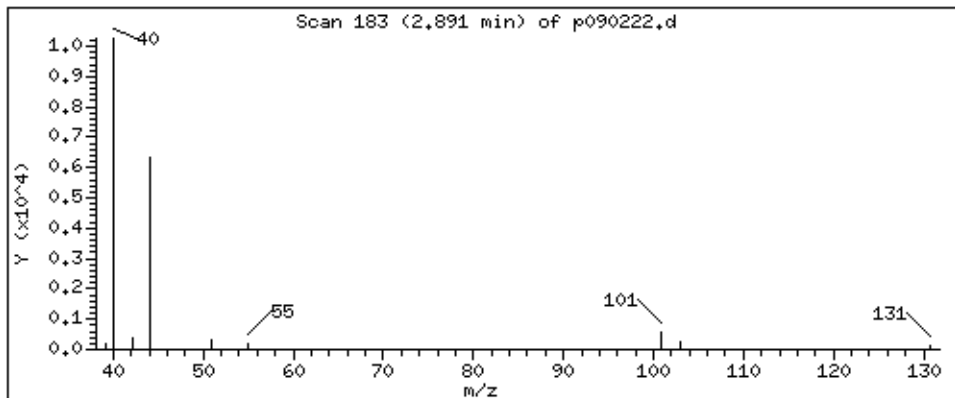
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

33 Freon 11

Concentration: 0.3202 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

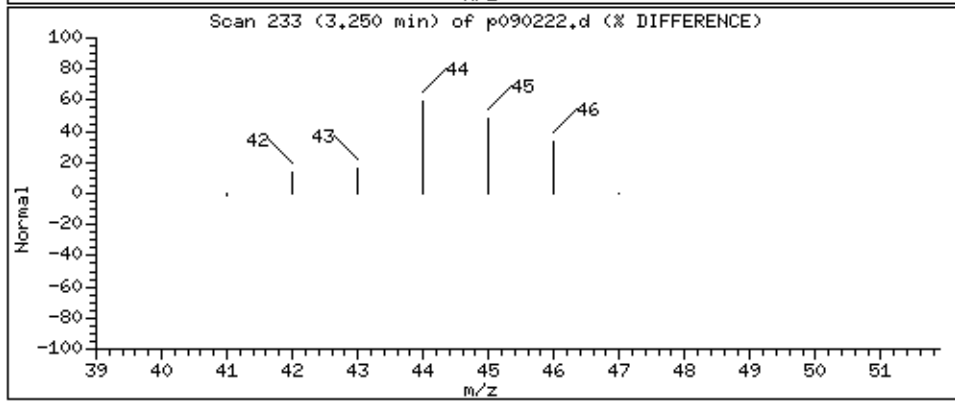
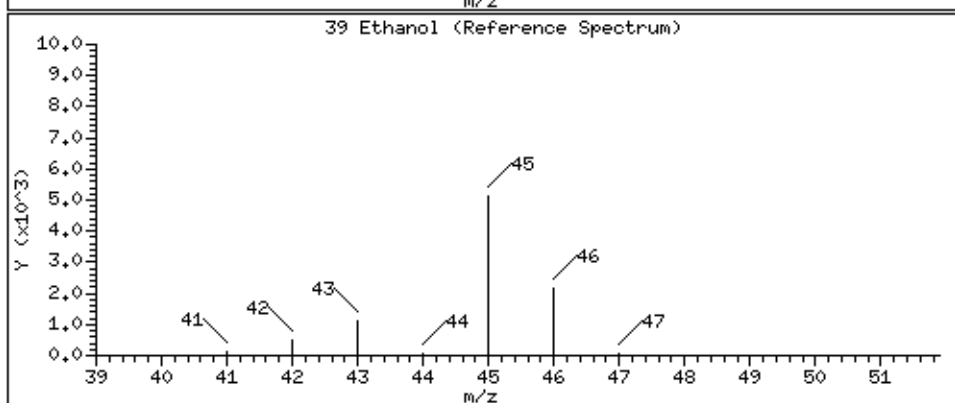
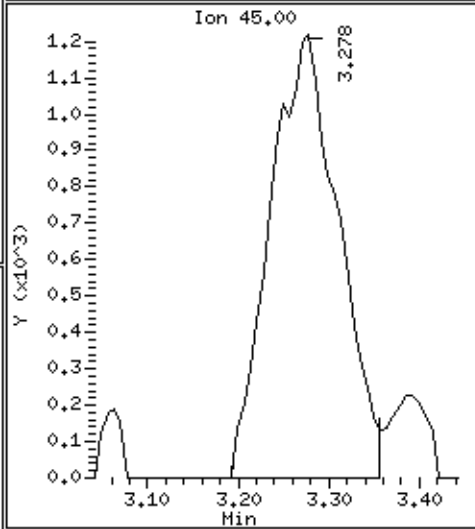
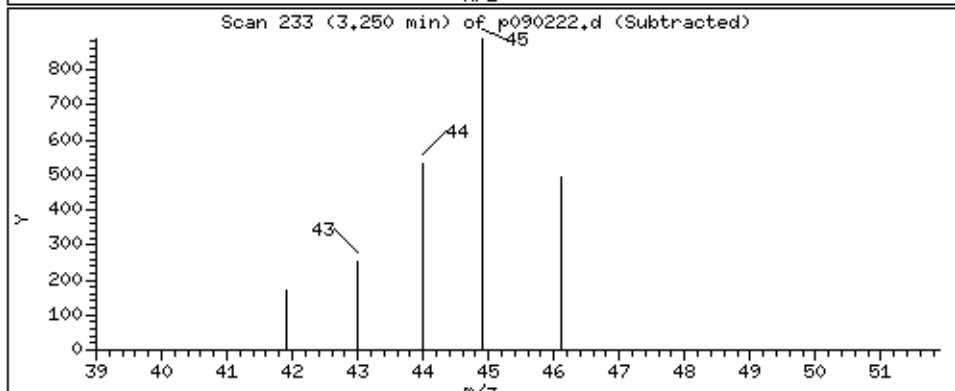
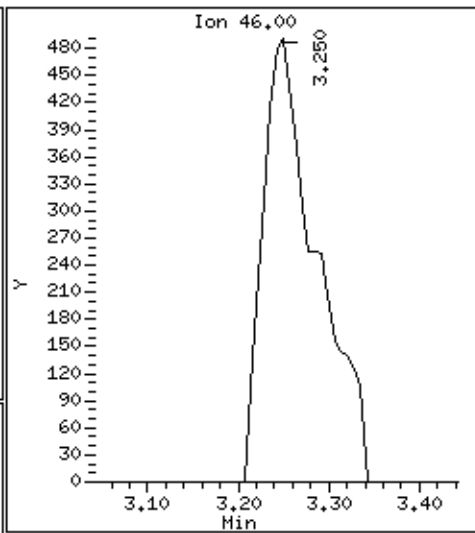
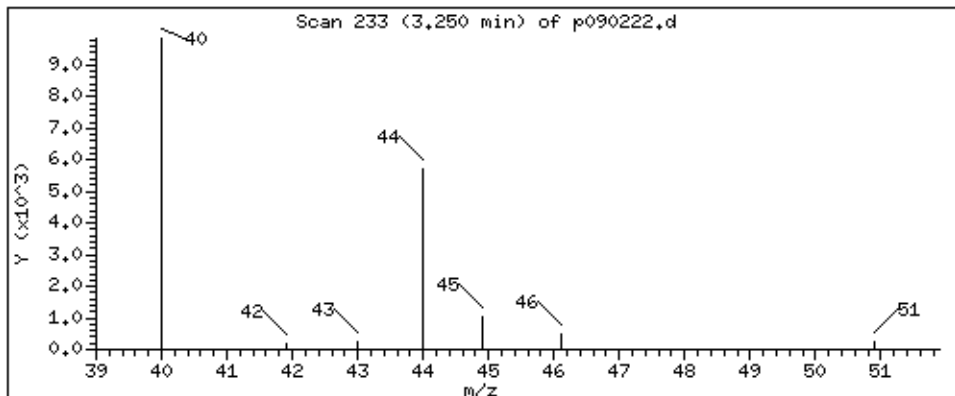
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 3,778 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

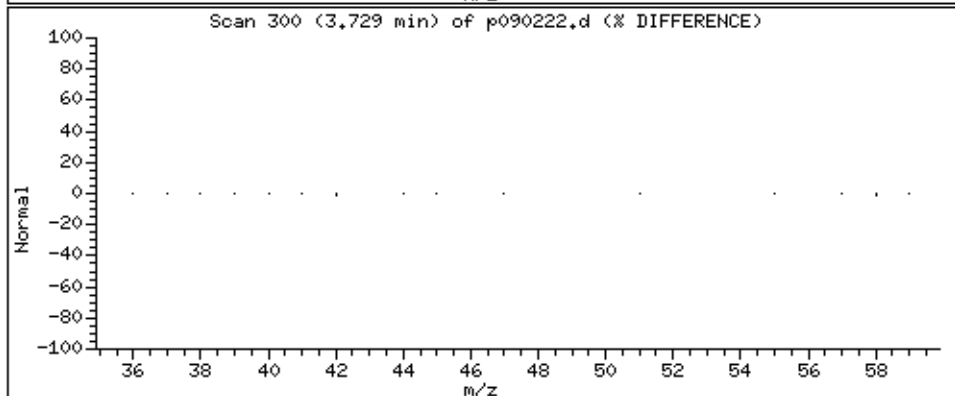
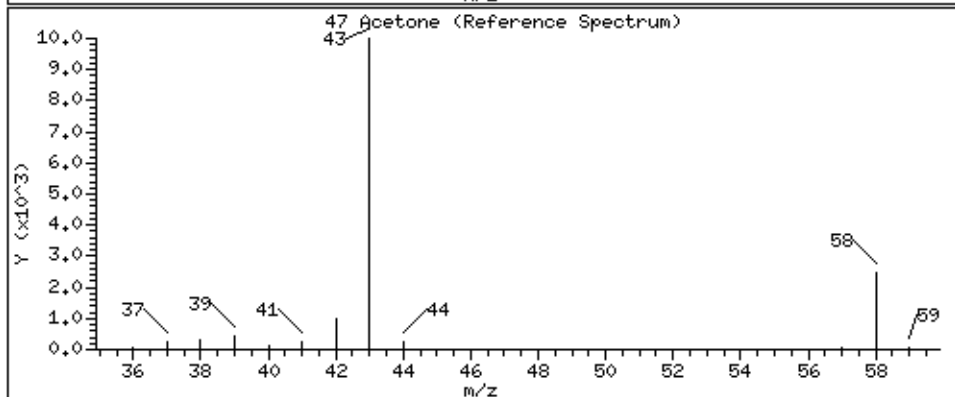
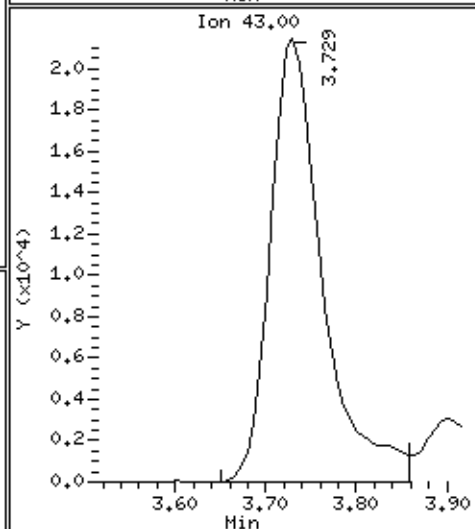
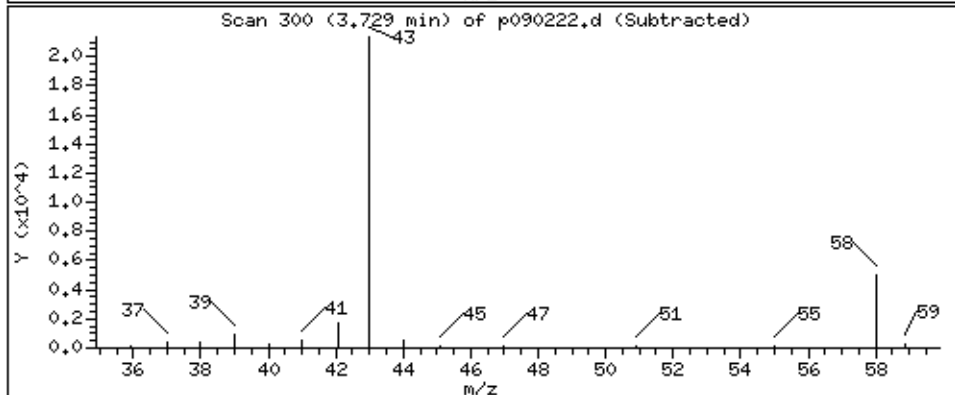
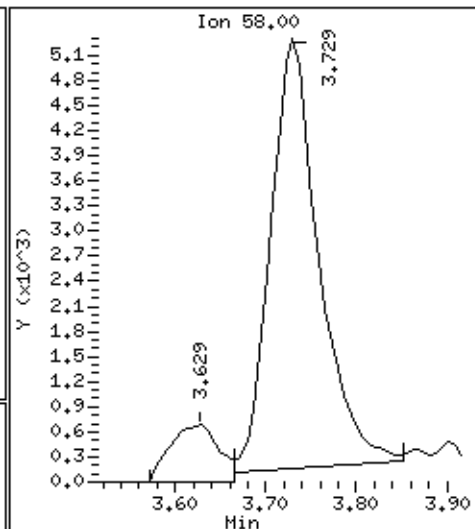
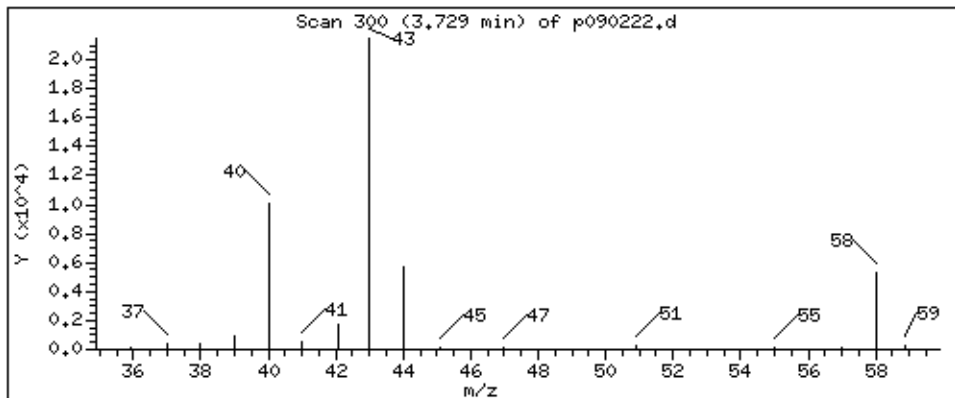
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 13,336 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

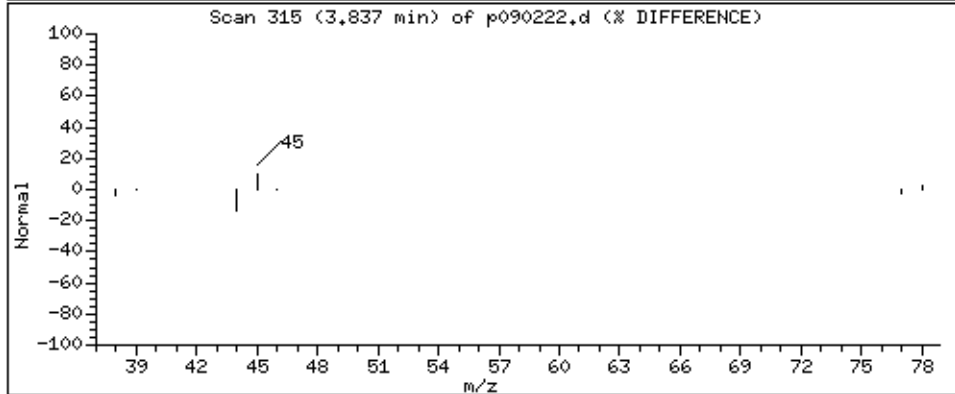
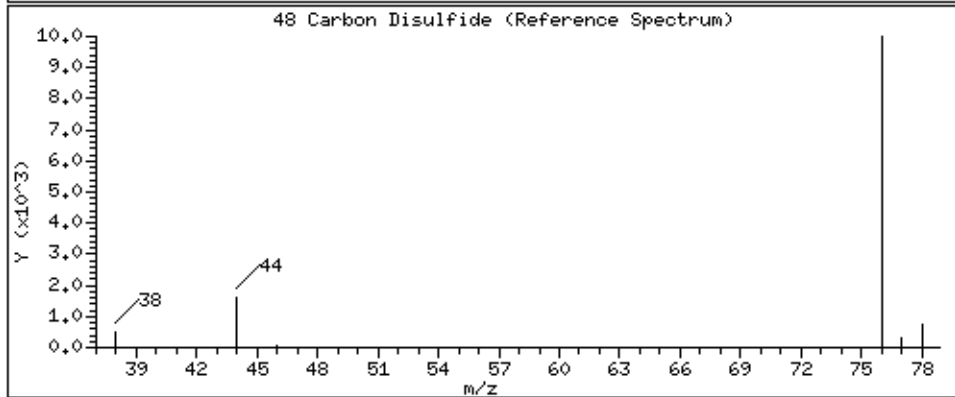
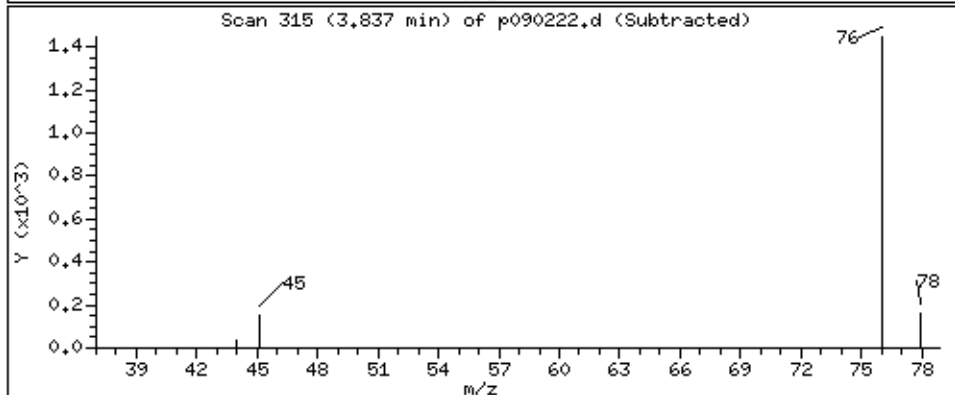
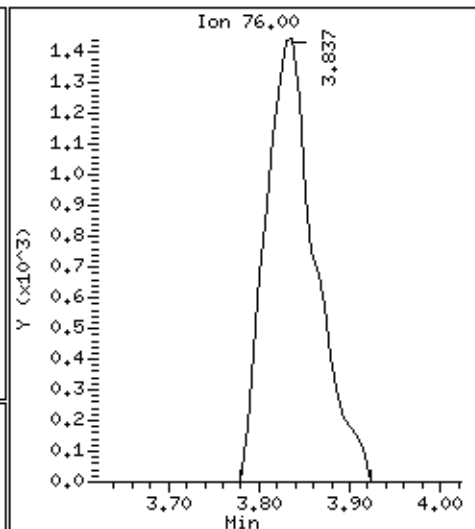
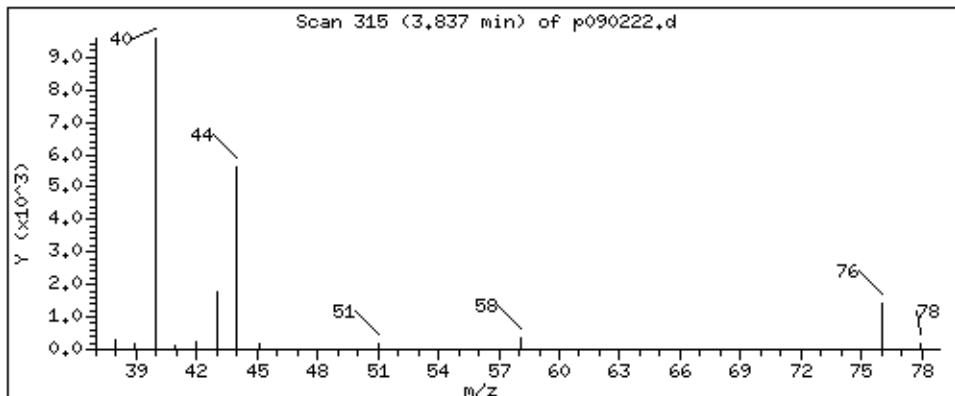
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

48 Carbon Disulfide

Concentration: 0.9210 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

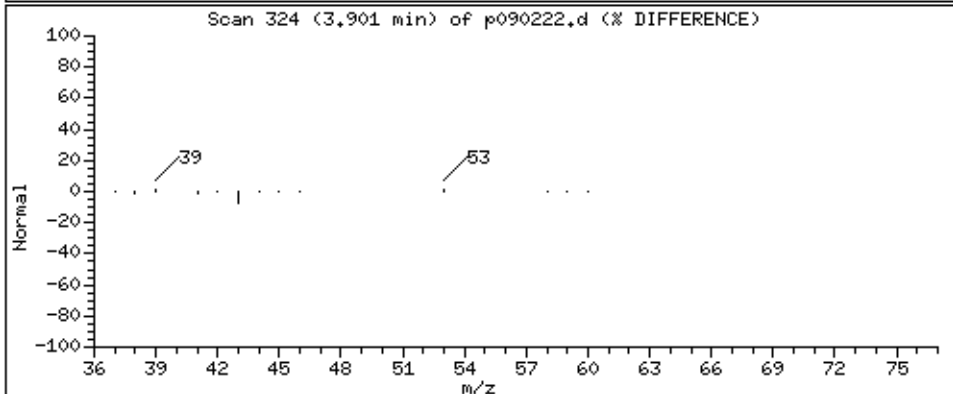
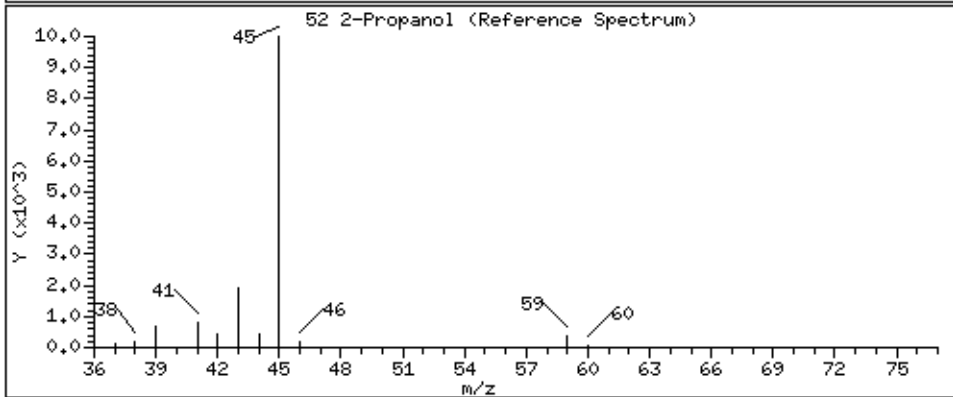
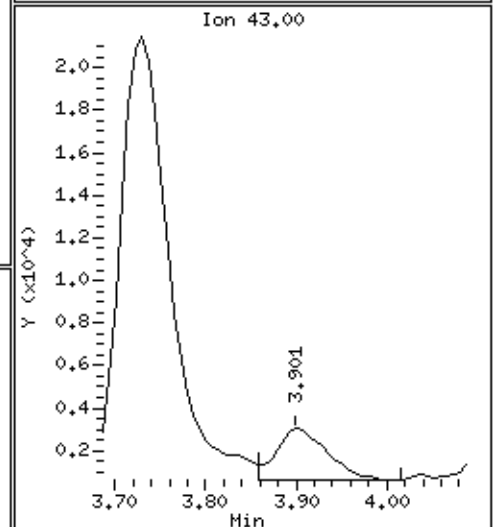
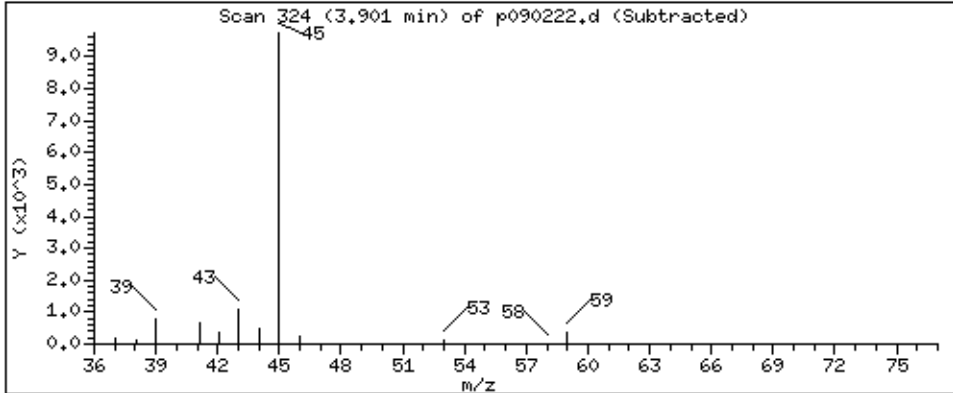
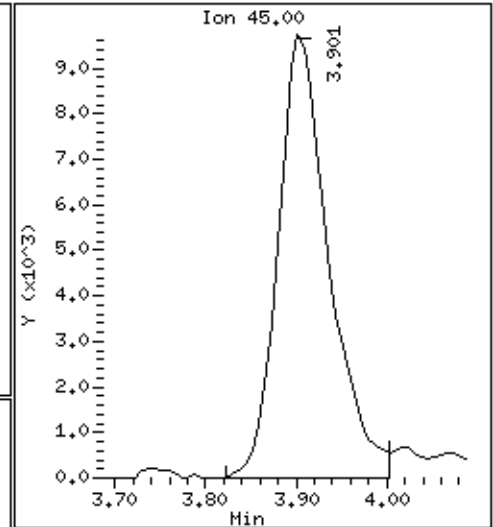
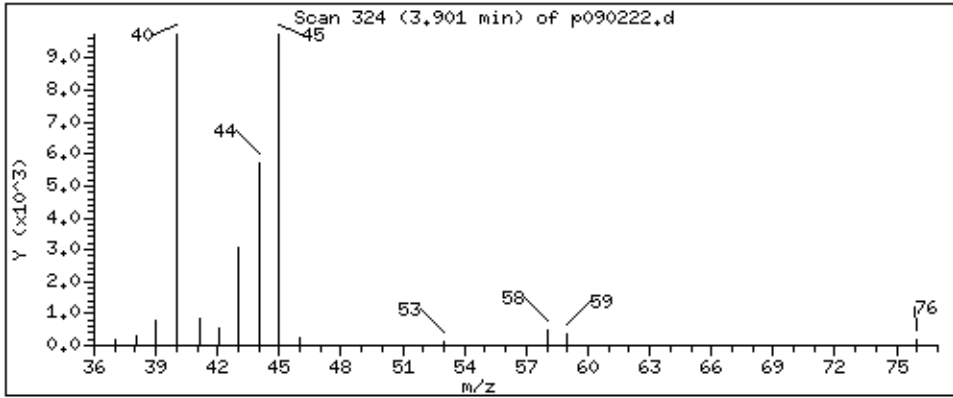
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 6.626 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

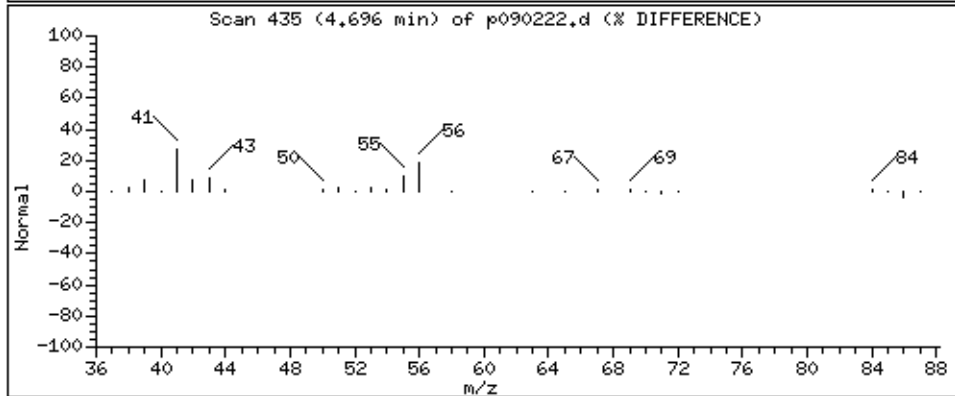
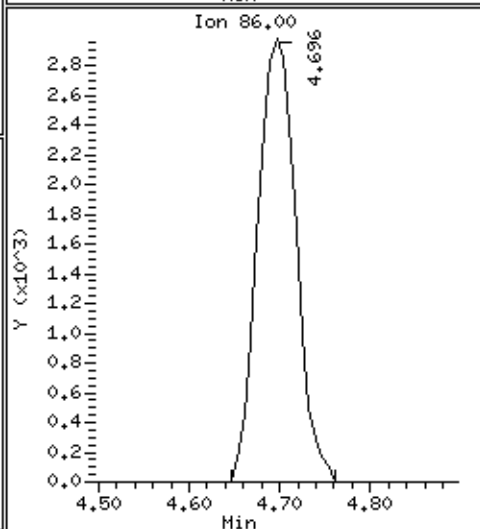
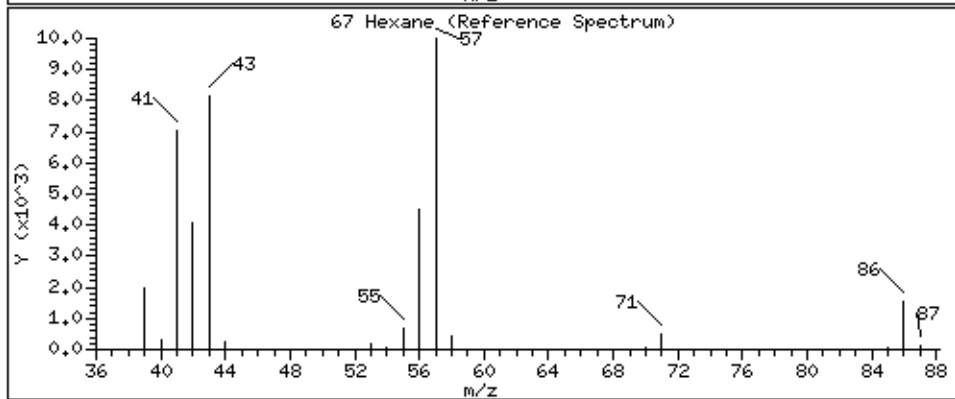
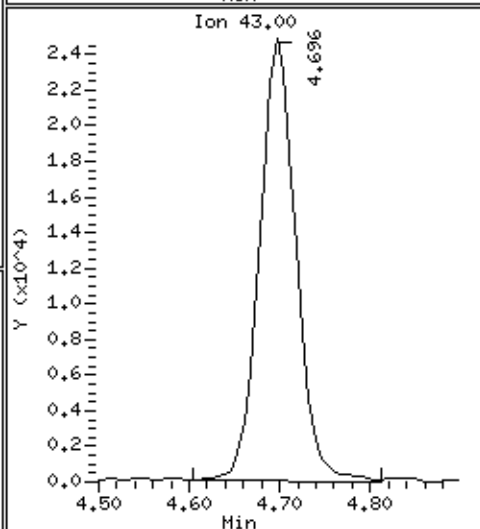
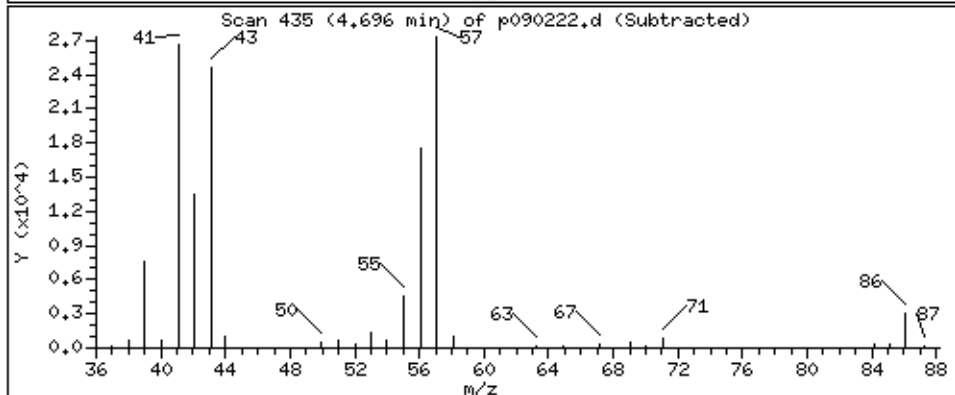
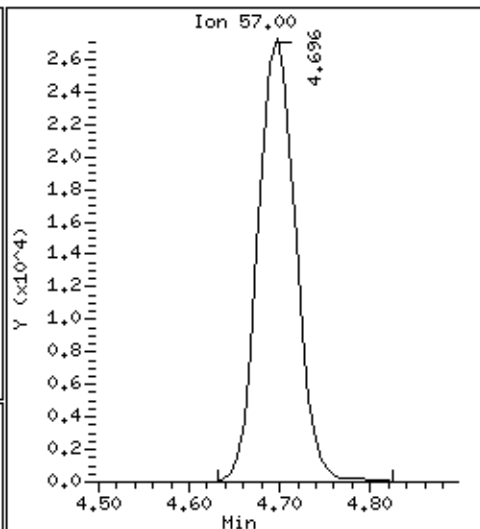
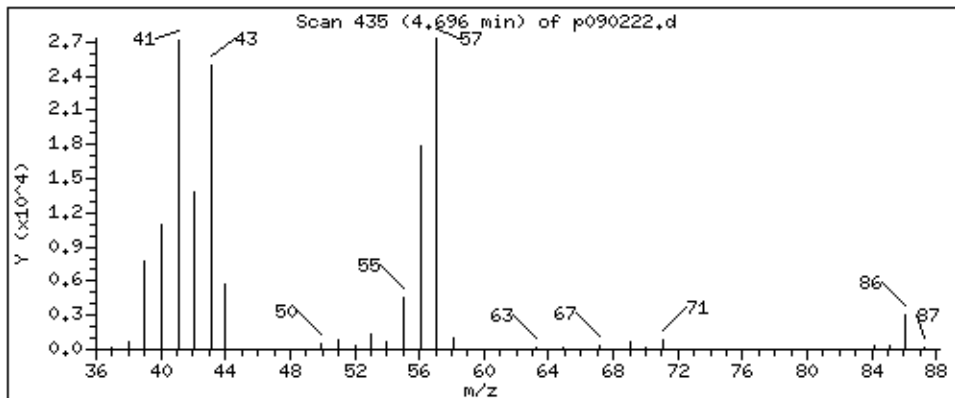
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 14,739 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

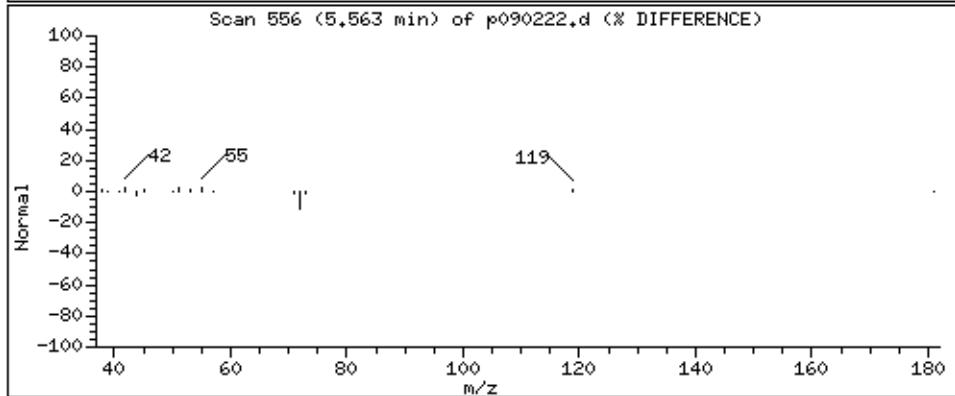
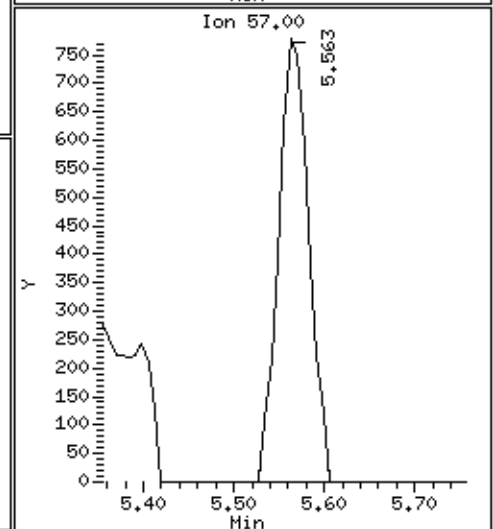
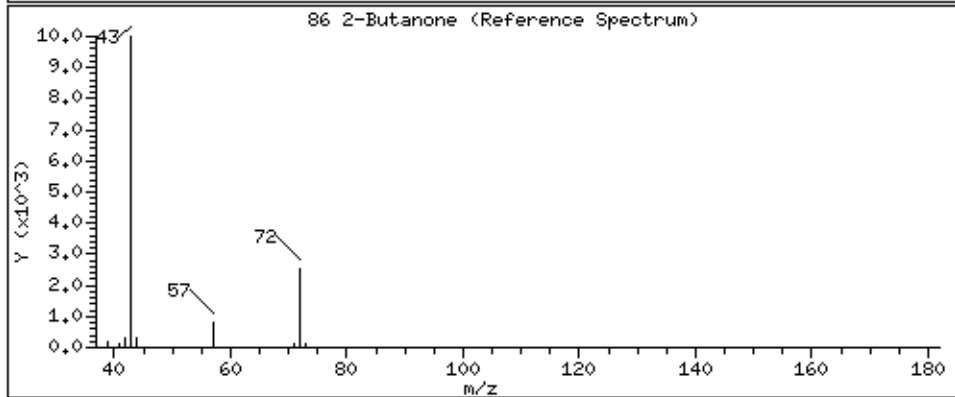
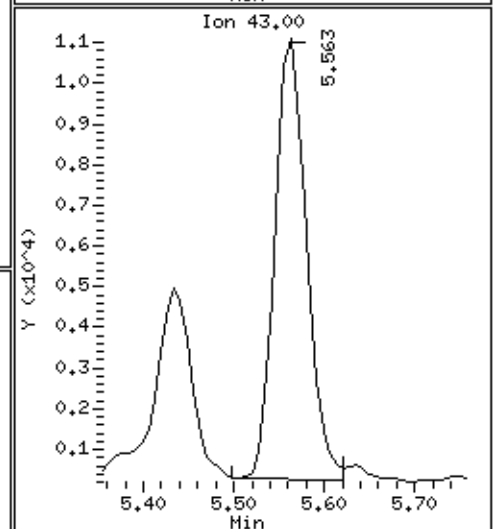
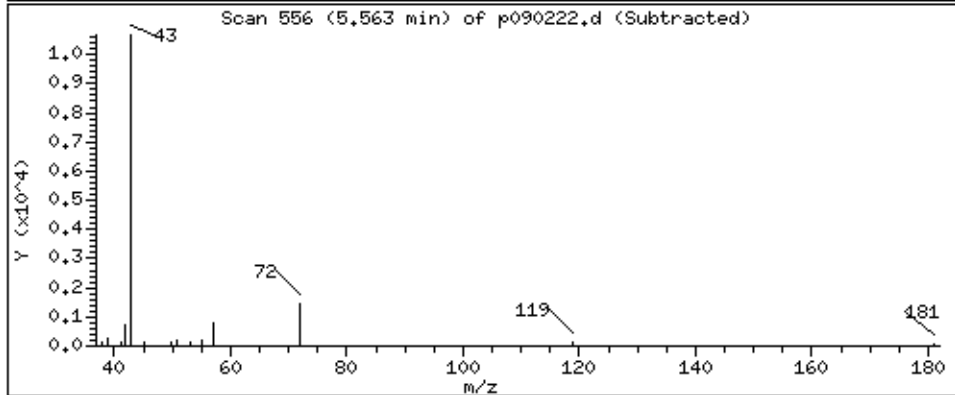
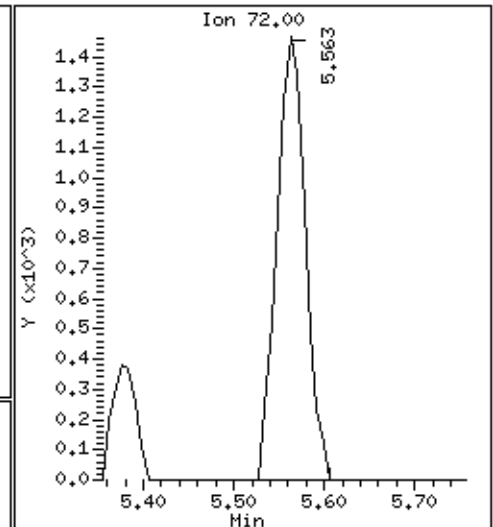
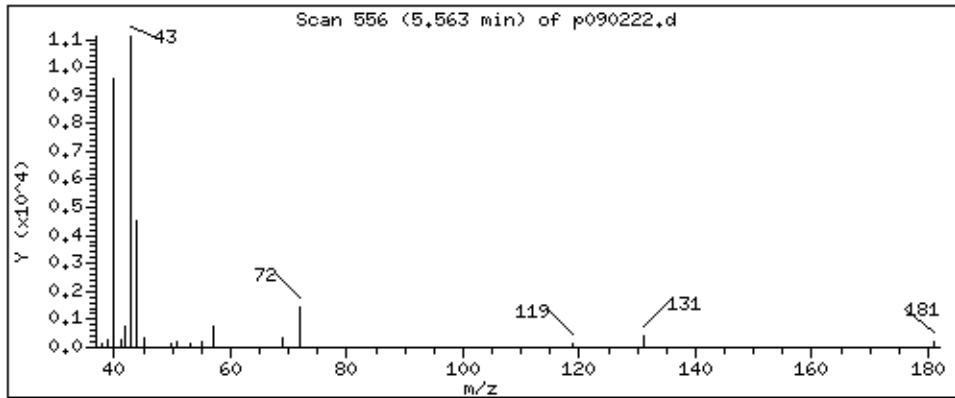
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

86 2-Butanone

Concentration: 2,596 PPBV





Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

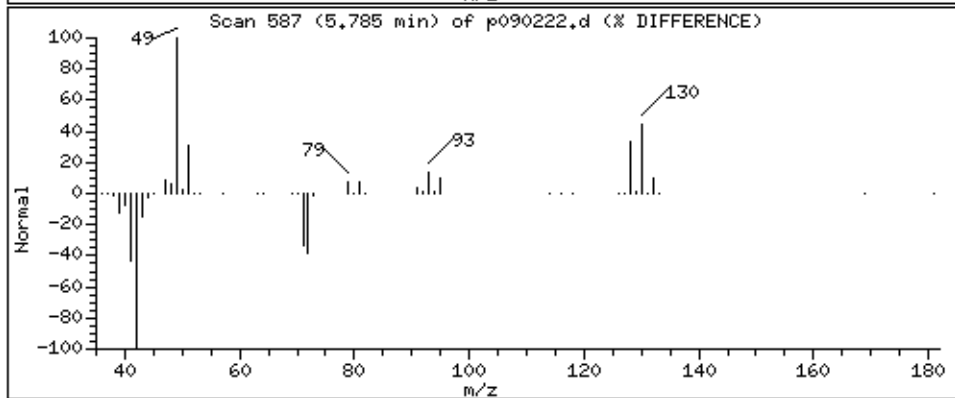
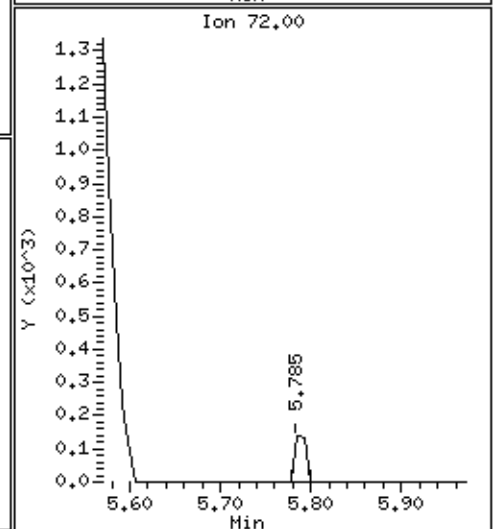
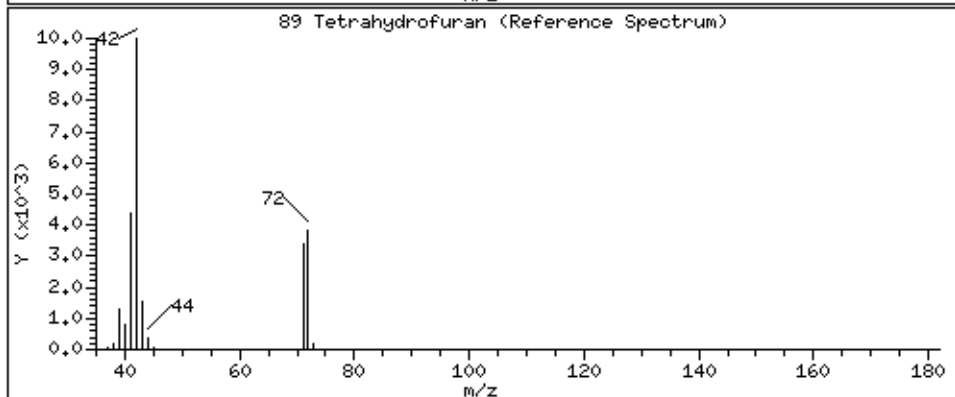
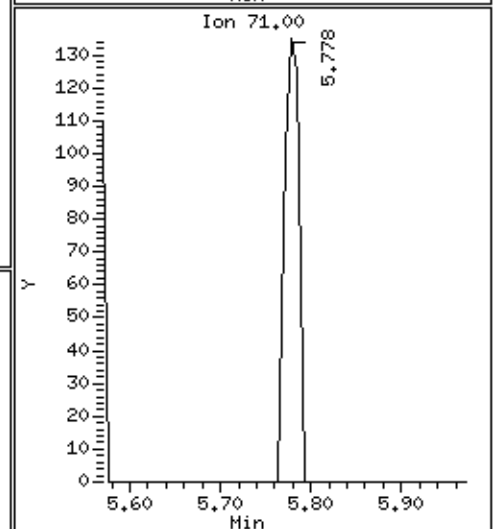
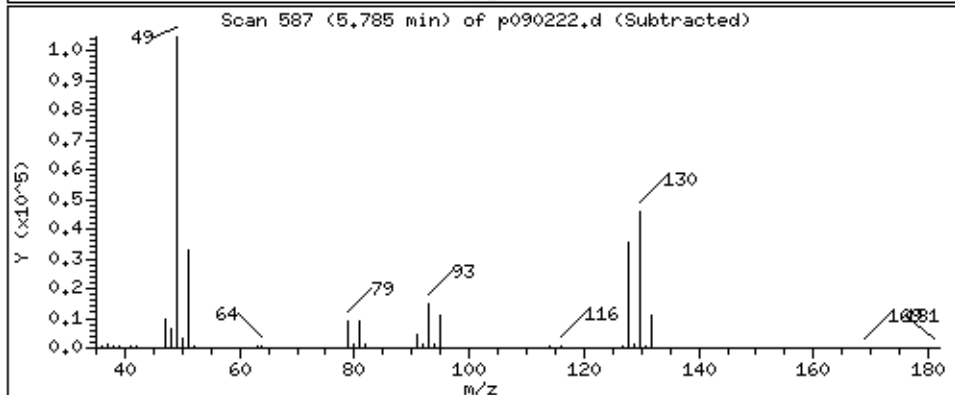
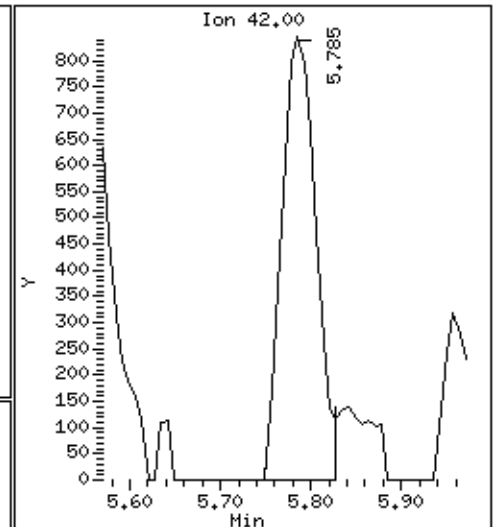
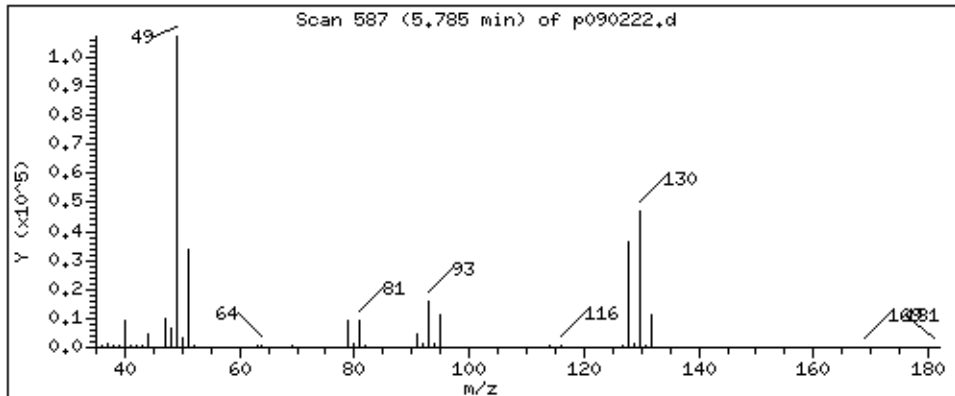
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

89 Tetrahydrofuran

Concentration: 0.5484 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

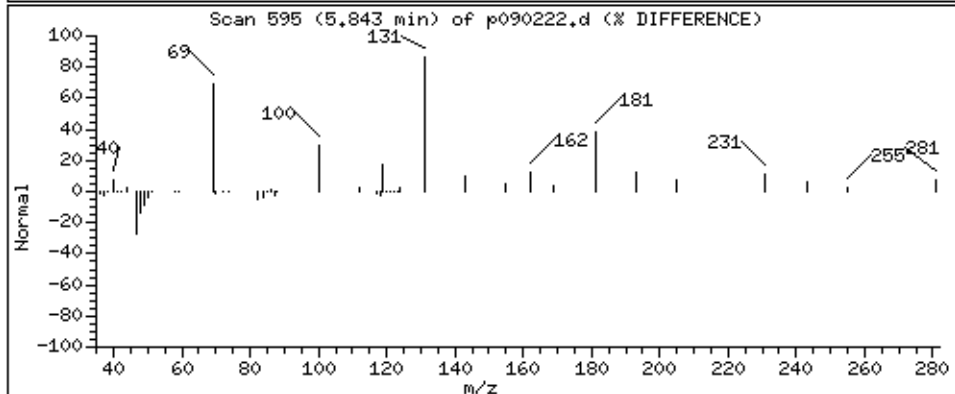
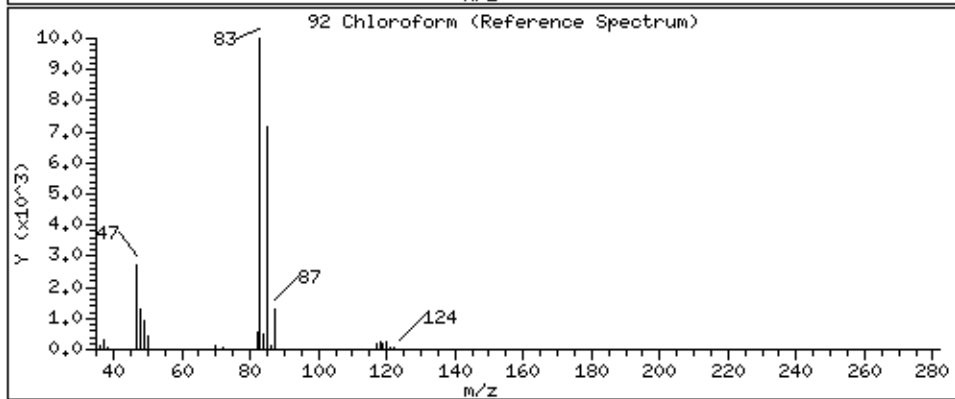
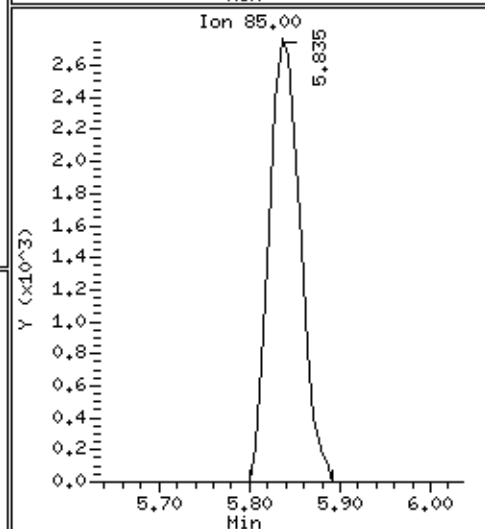
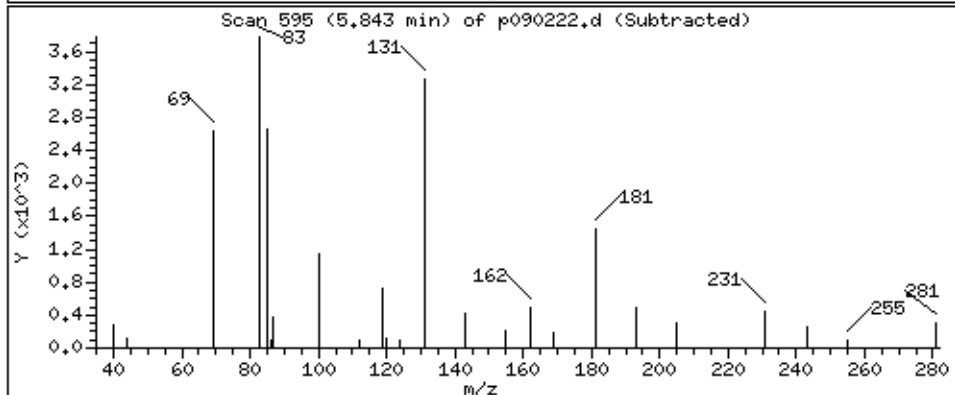
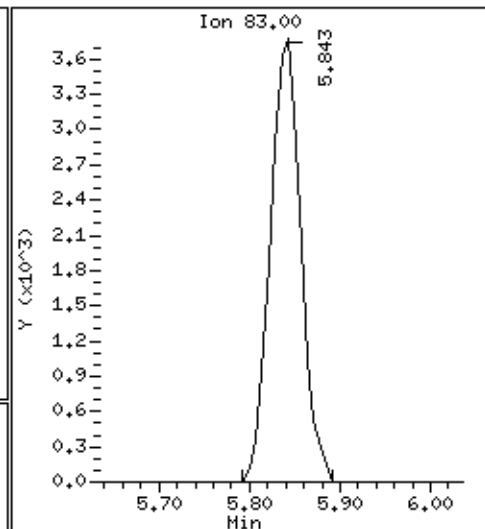
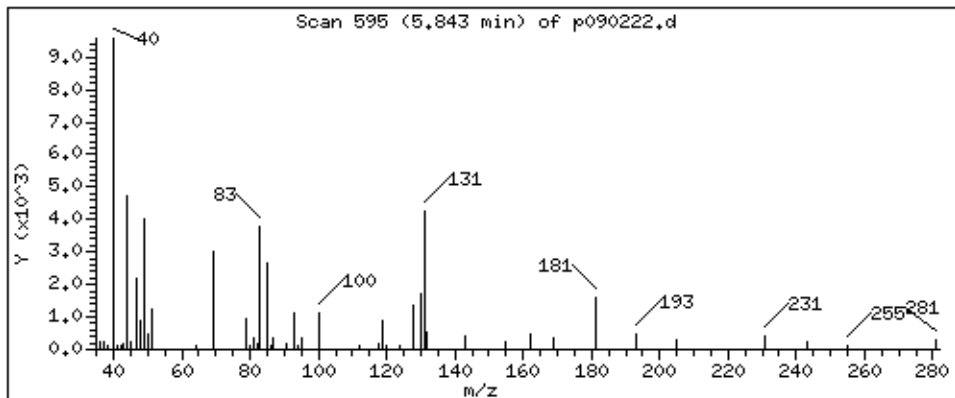
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 1.872 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

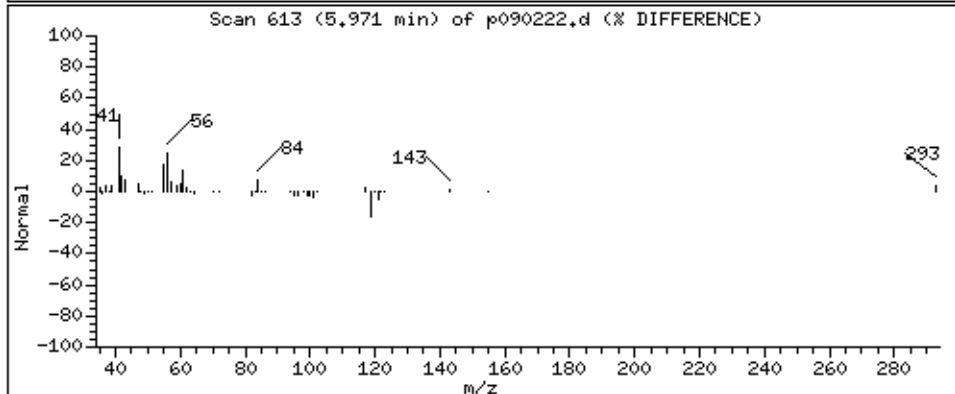
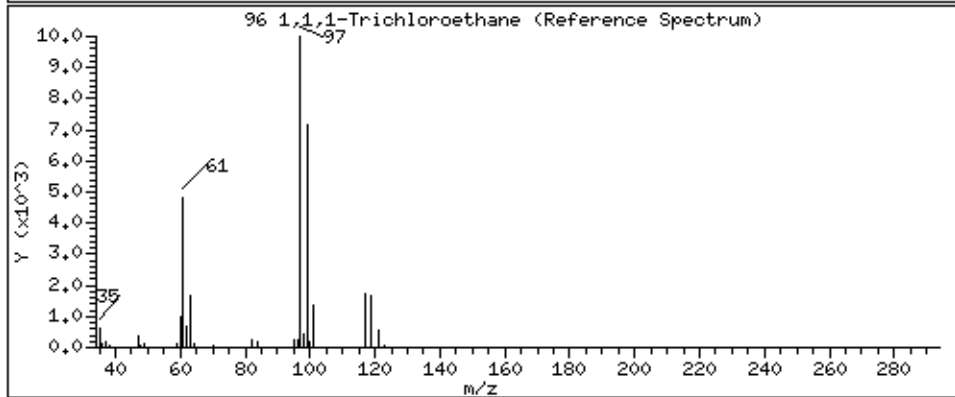
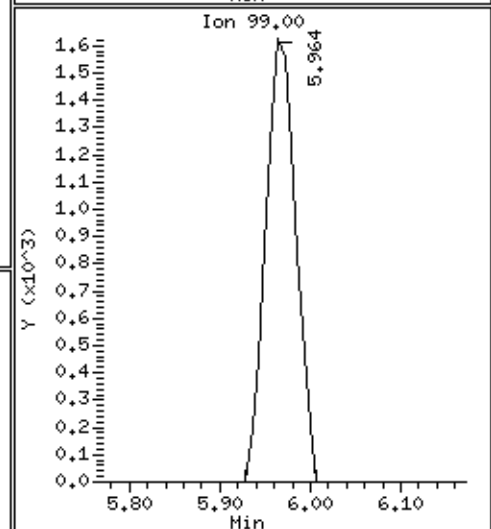
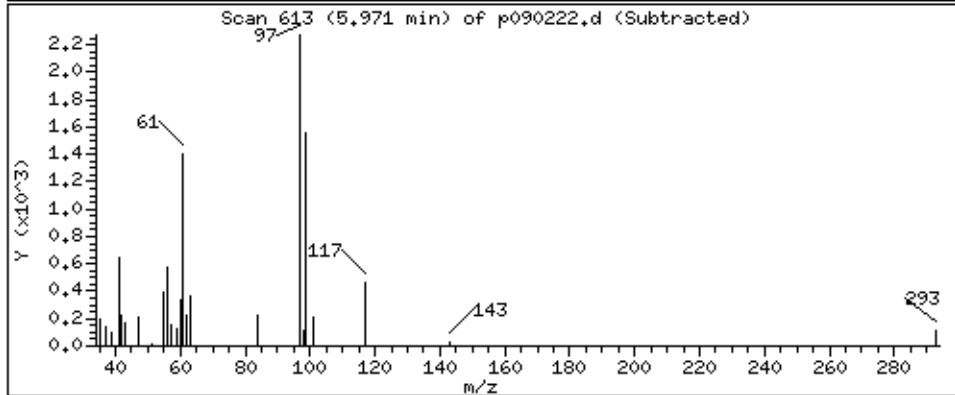
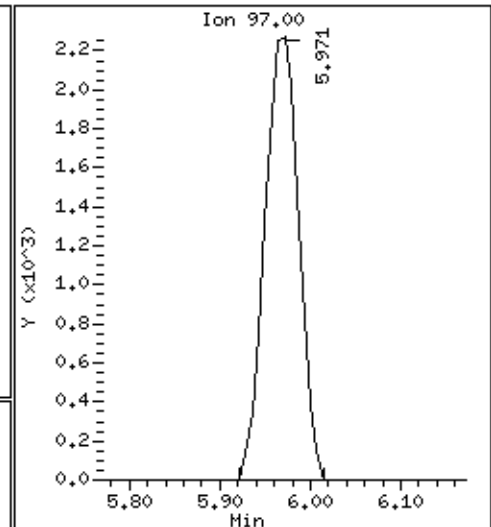
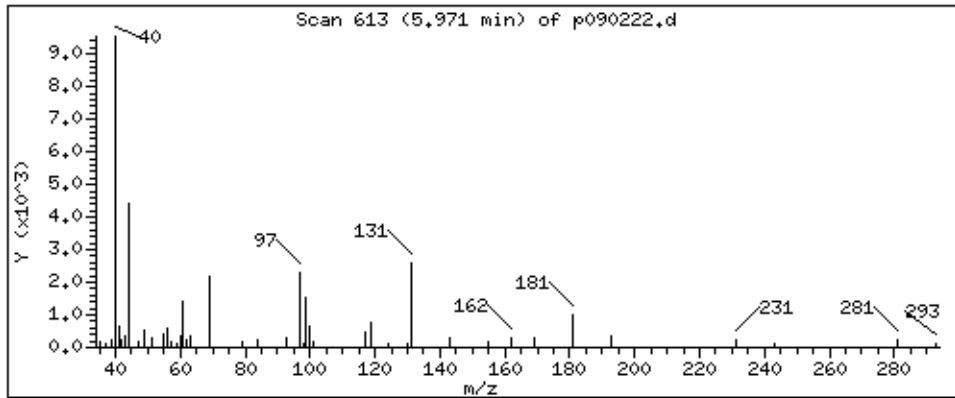
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

96 1,1,1-Trichloroethane

Concentration: 1,107 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

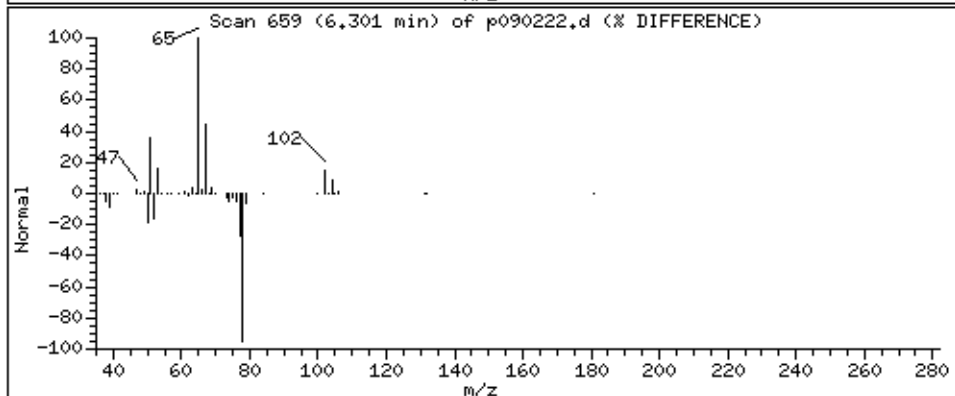
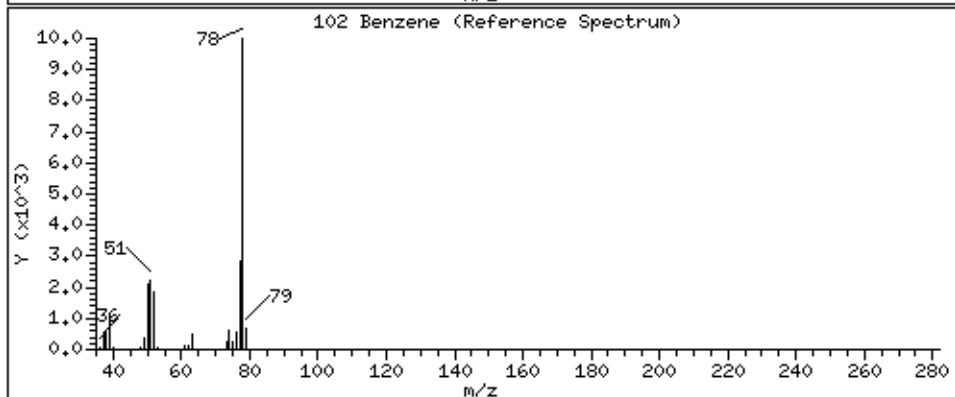
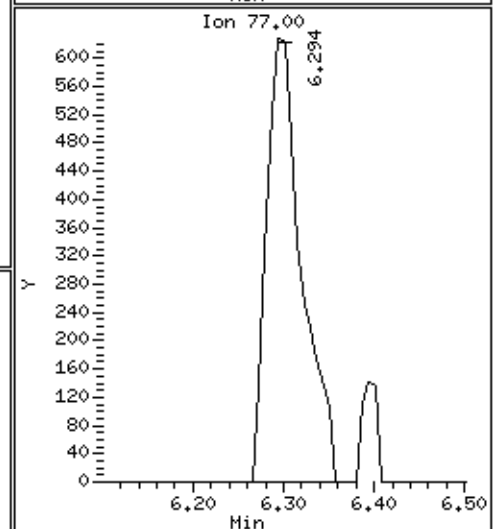
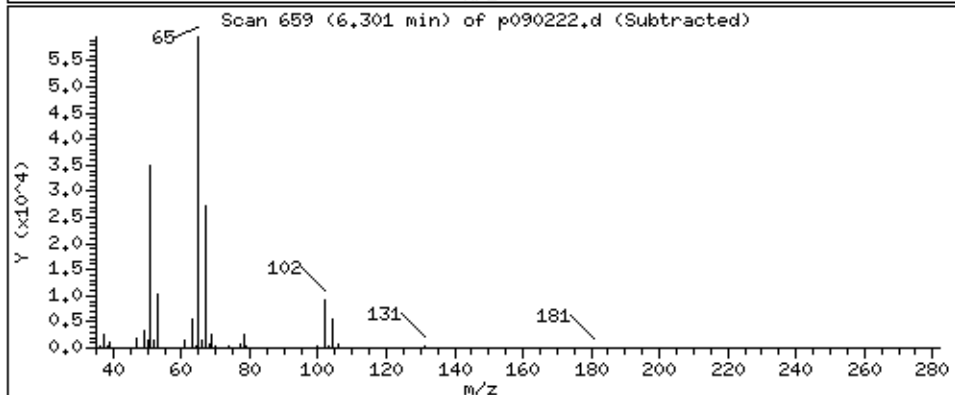
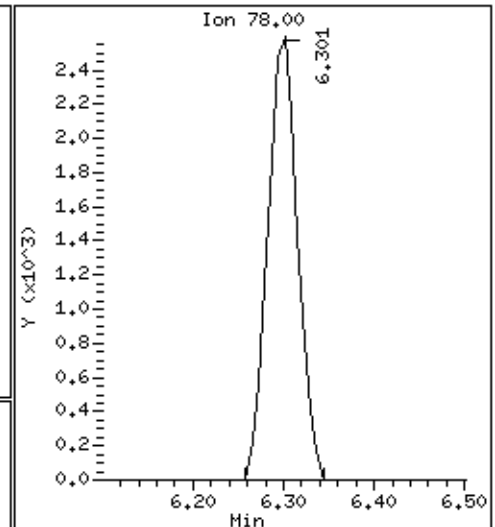
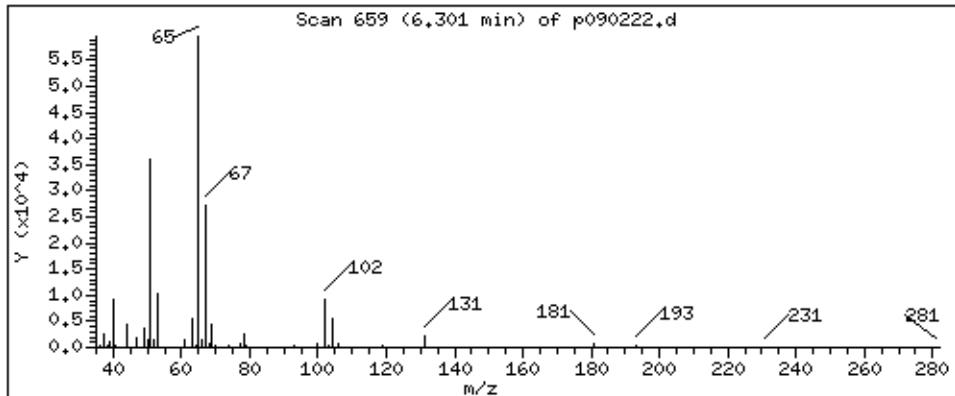
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

102 Benzene

Concentration: 0.9709 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

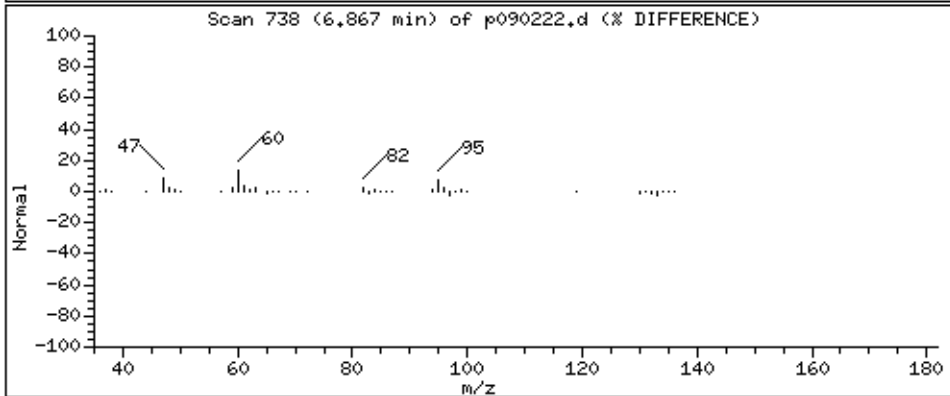
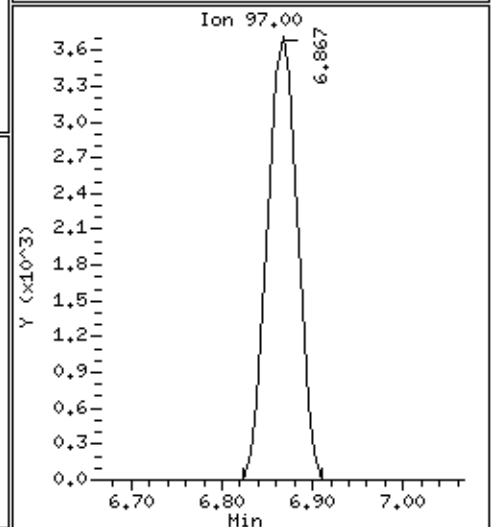
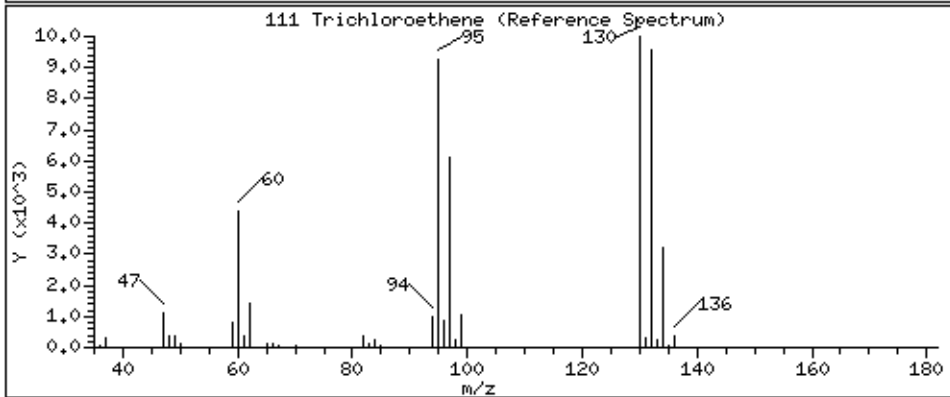
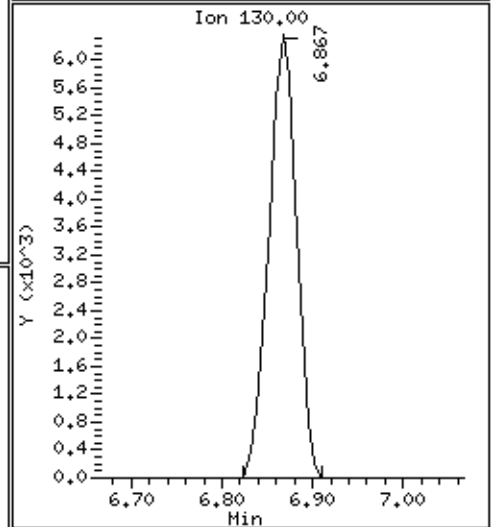
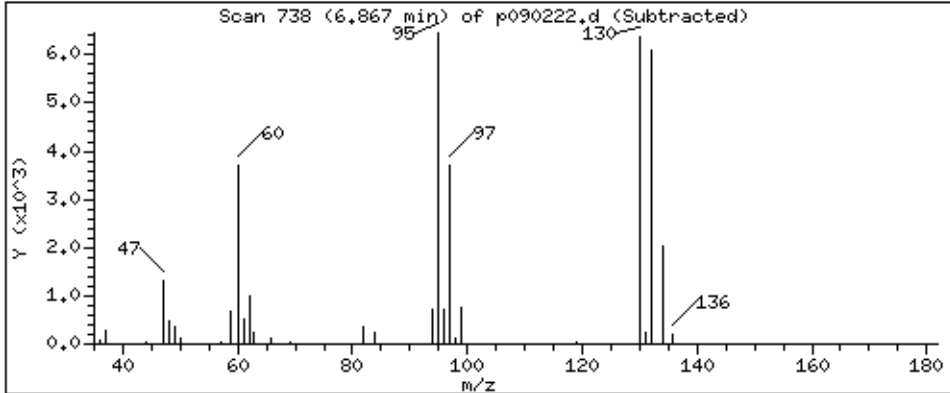
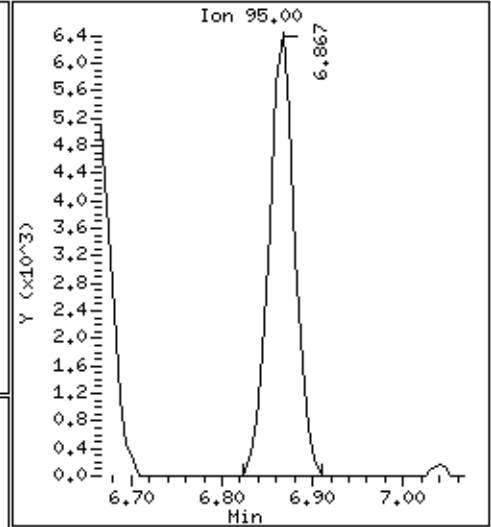
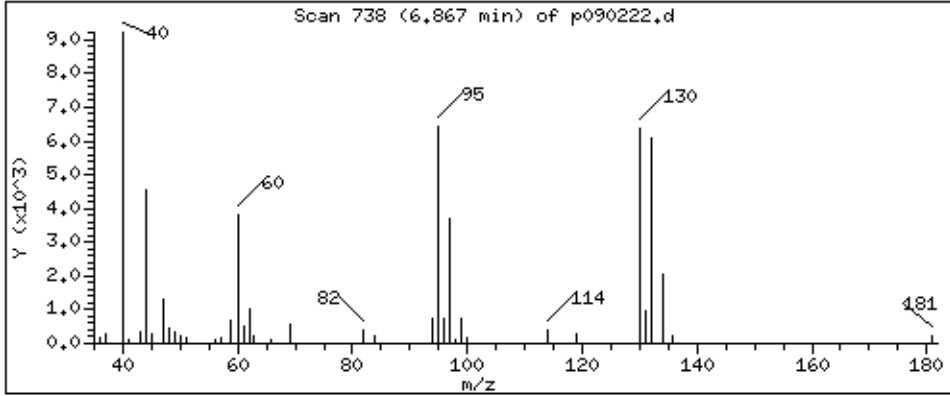
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

111 Trichloroethene

Concentration: 4.290 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

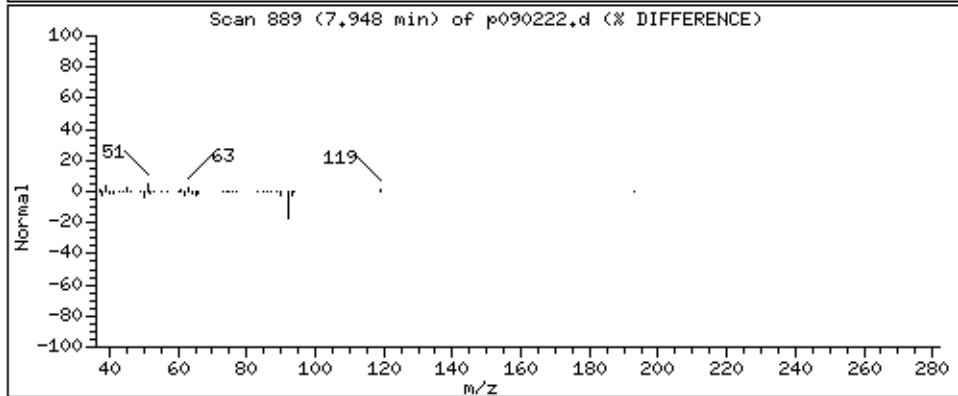
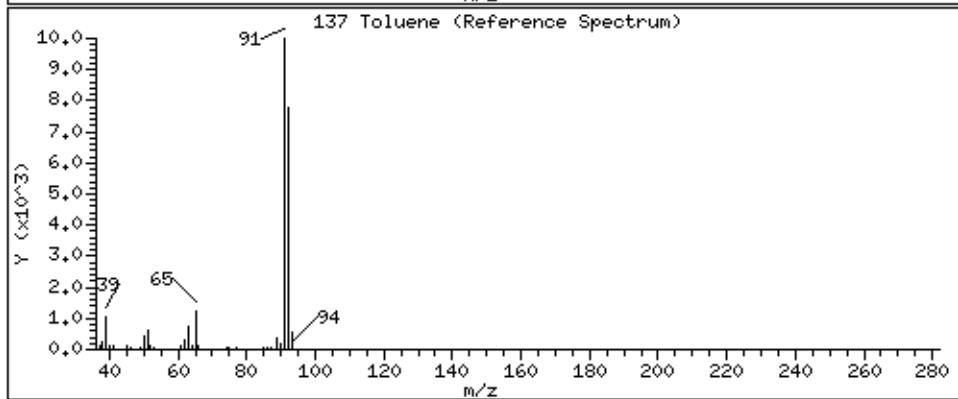
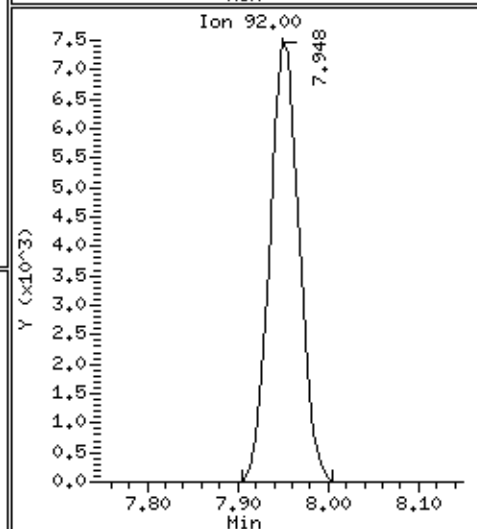
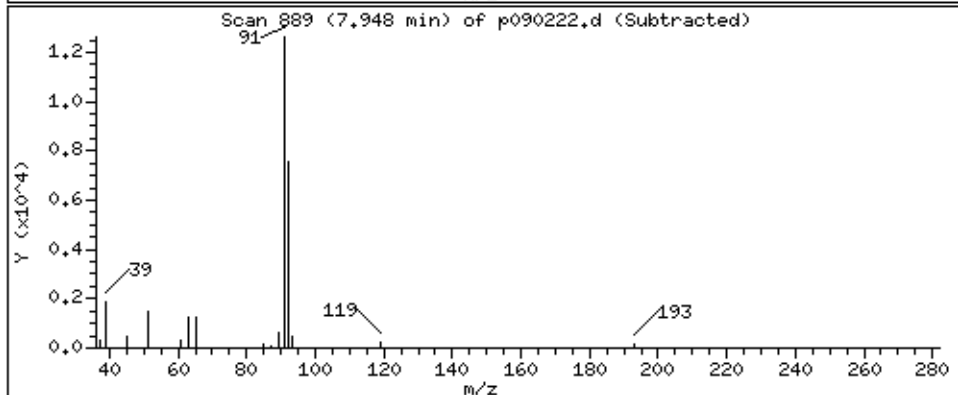
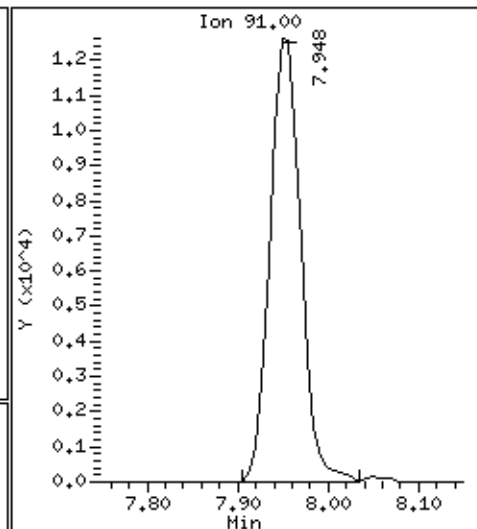
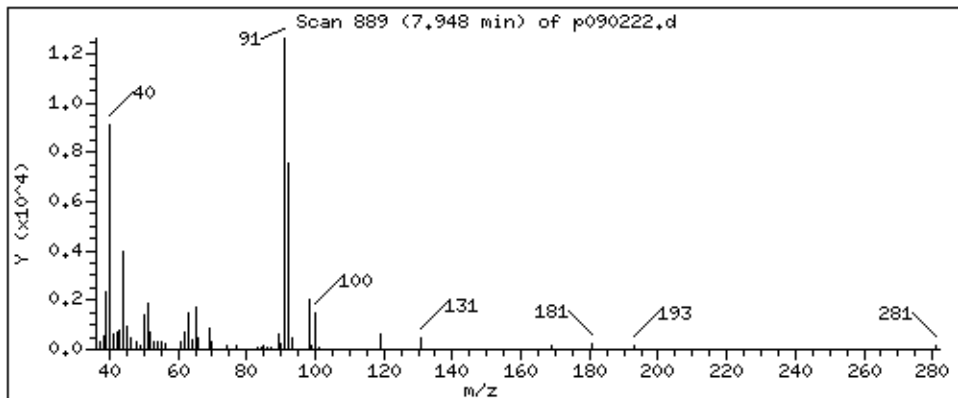
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 3,550 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

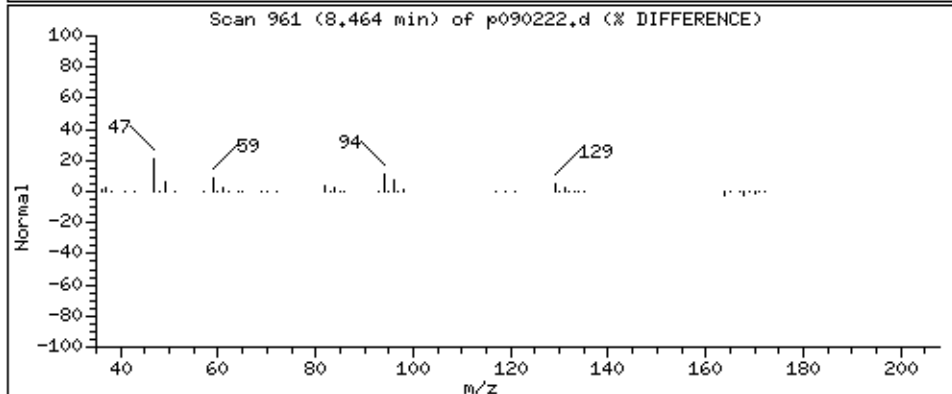
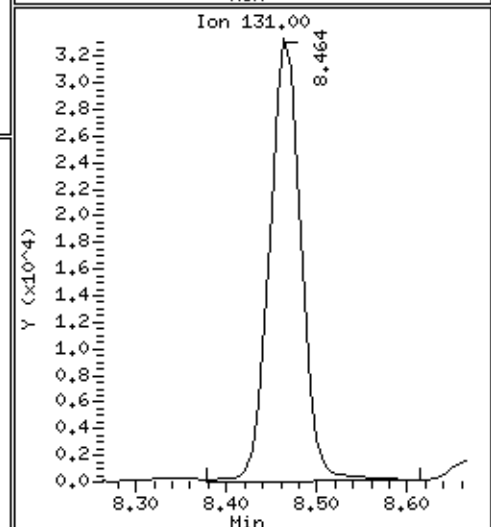
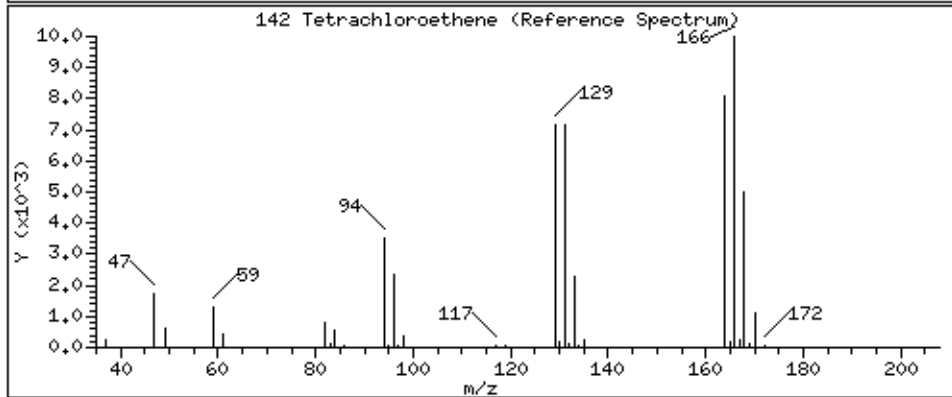
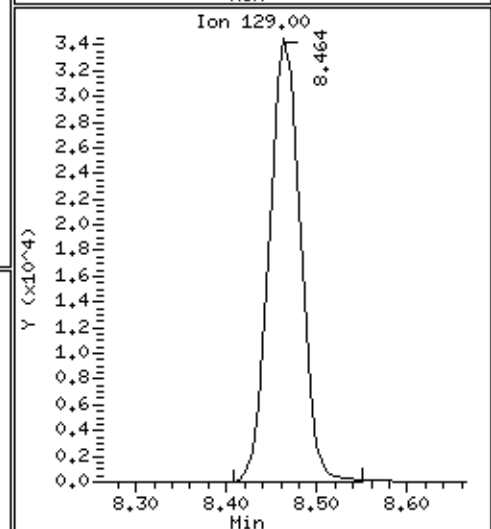
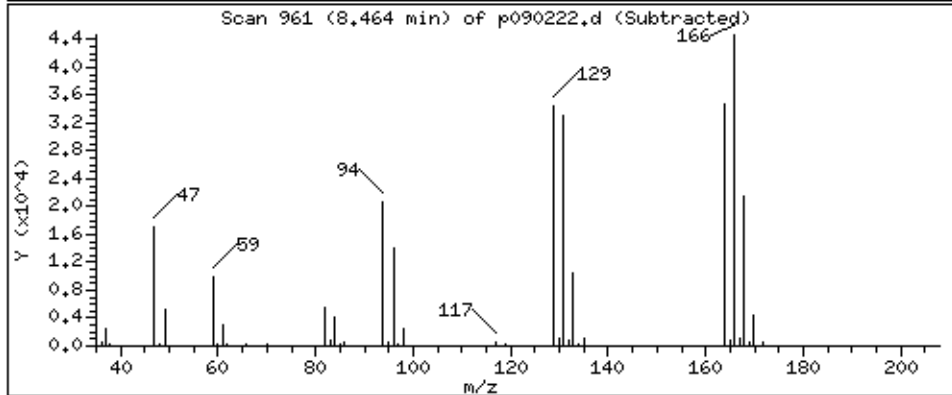
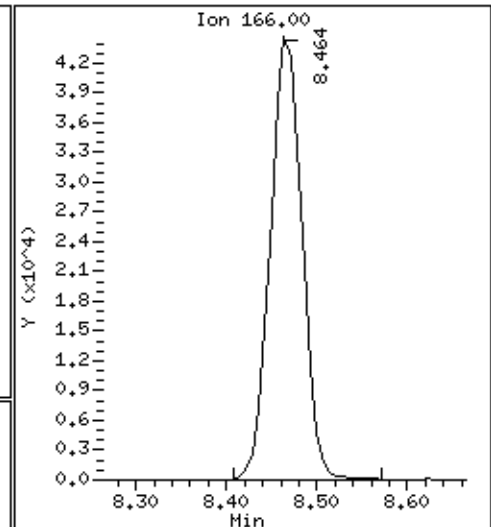
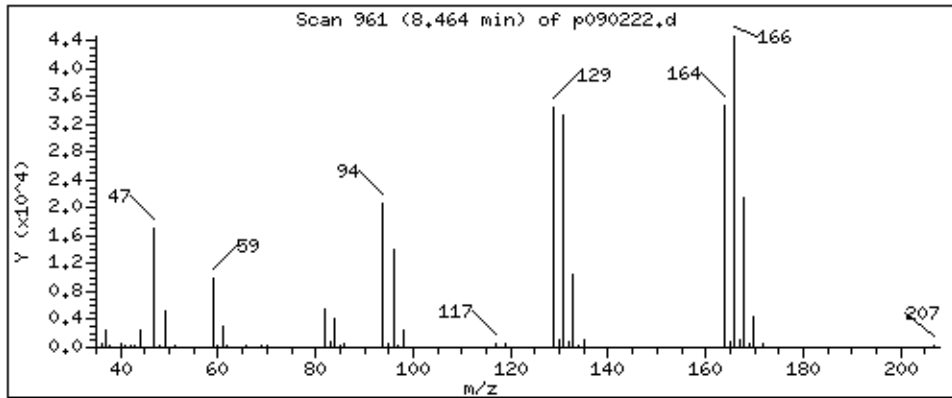
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 25,299 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

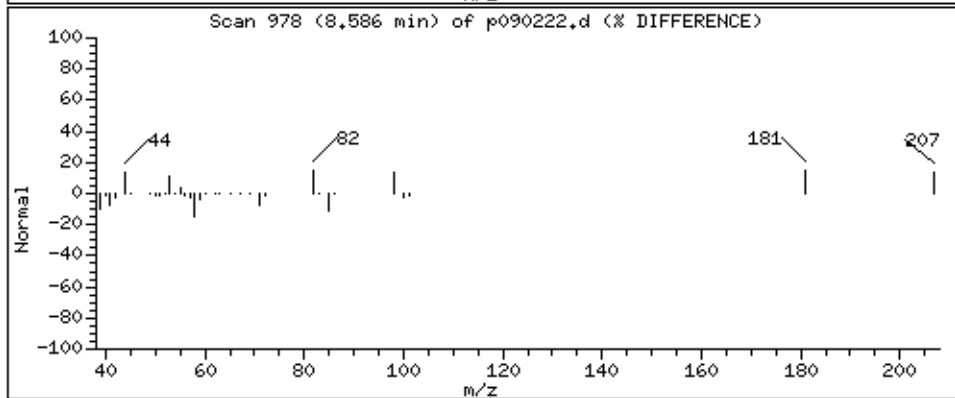
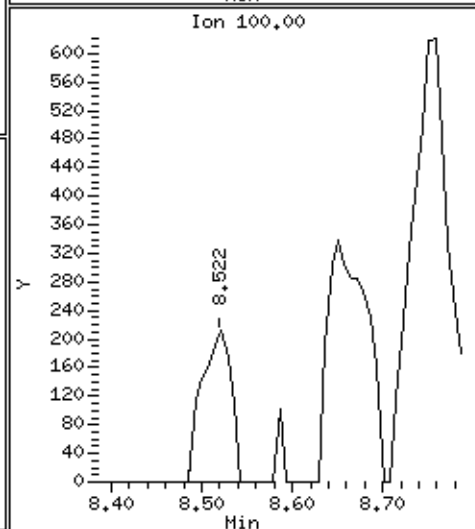
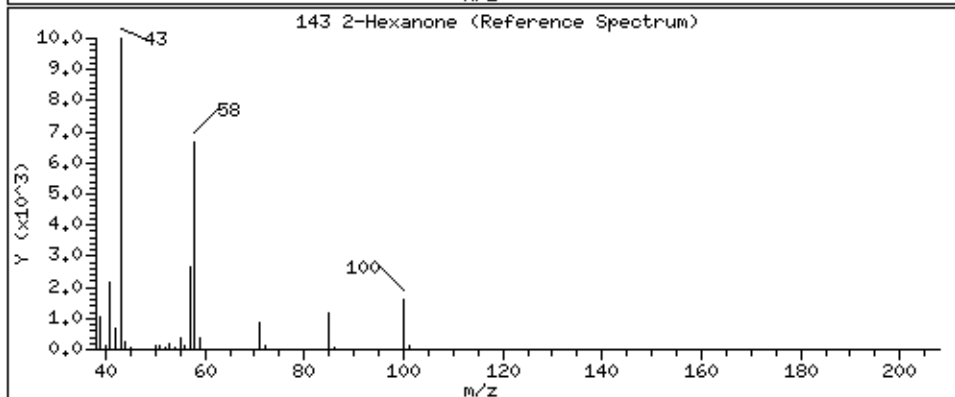
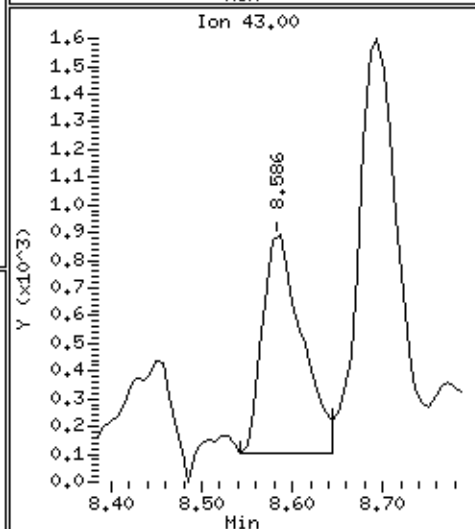
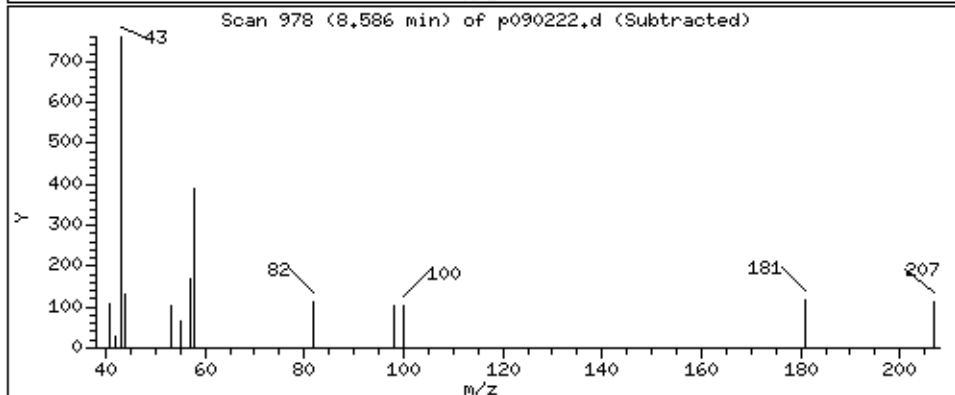
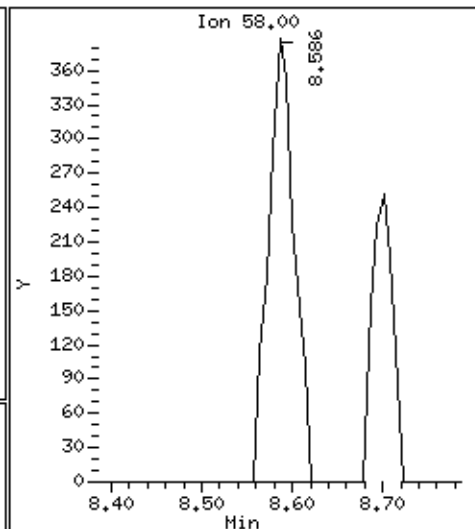
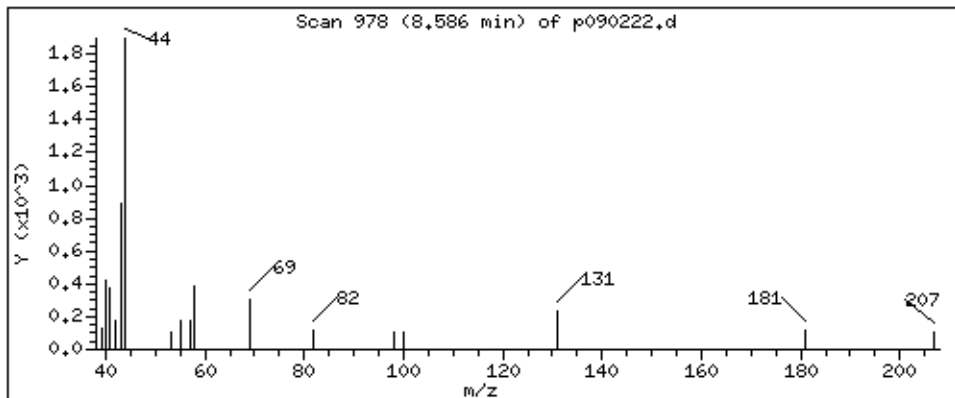
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

143 2-Hexanone

Concentration: 0.1757 PPBV





Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

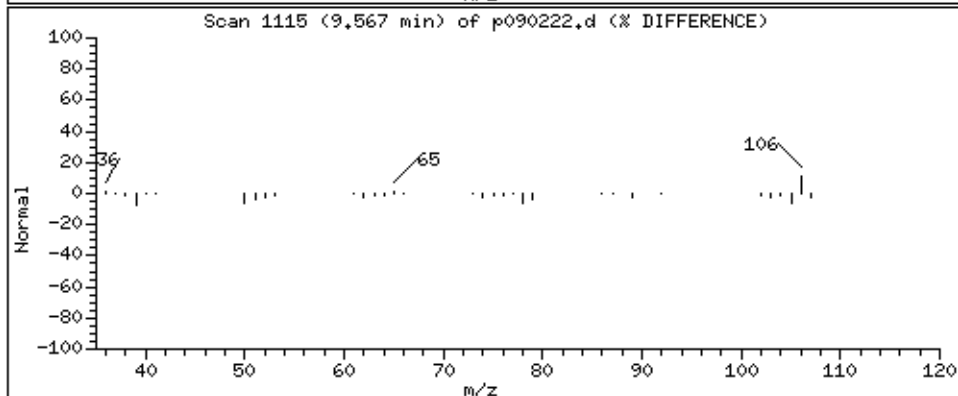
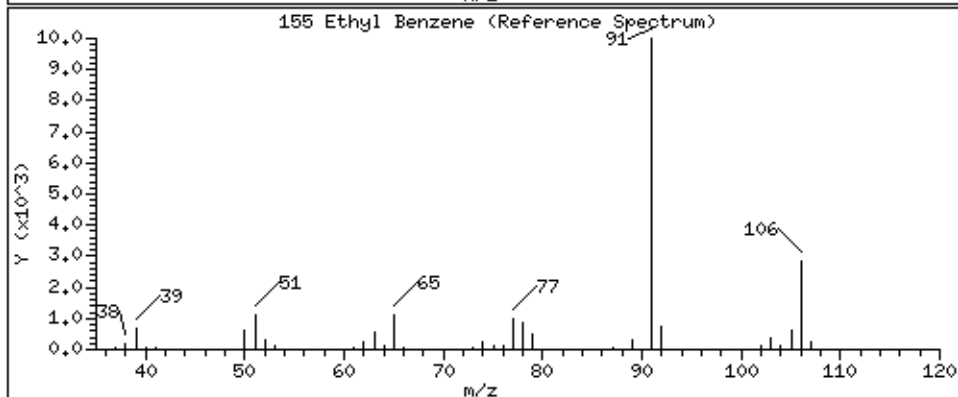
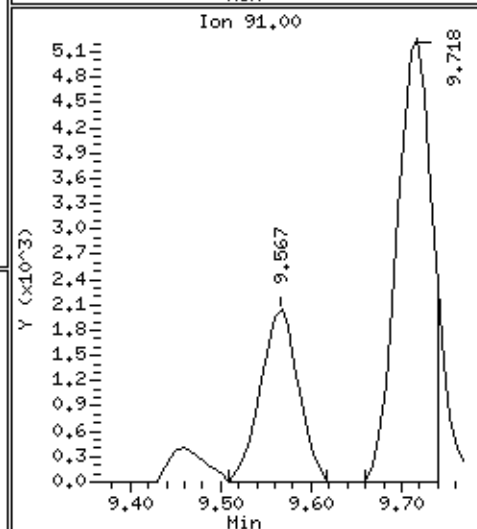
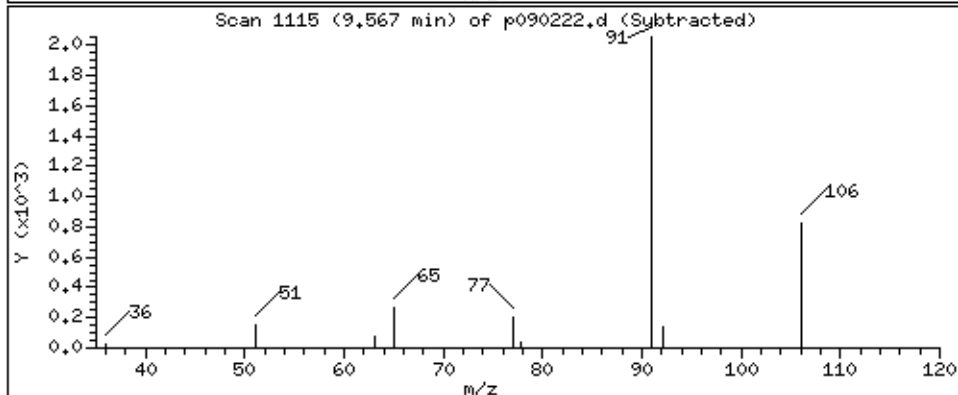
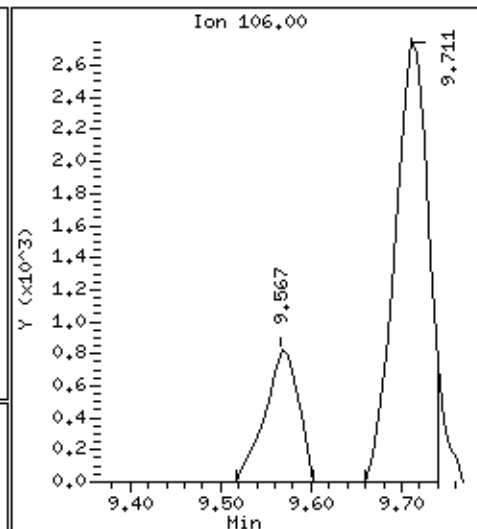
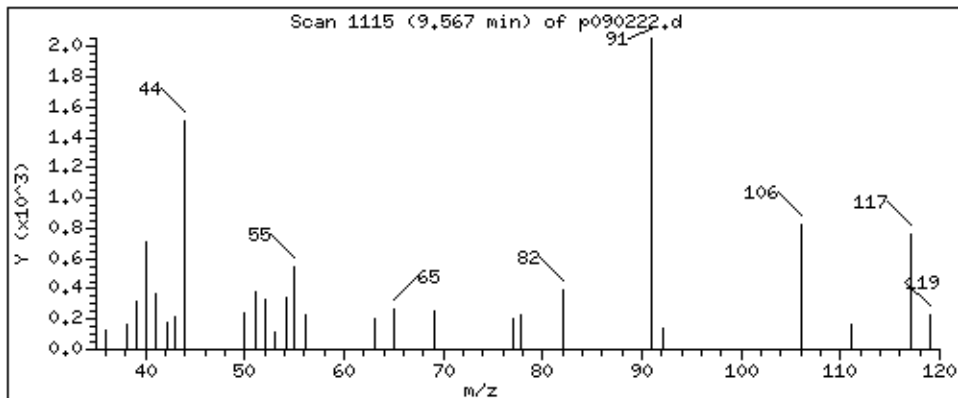
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 0.5413 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

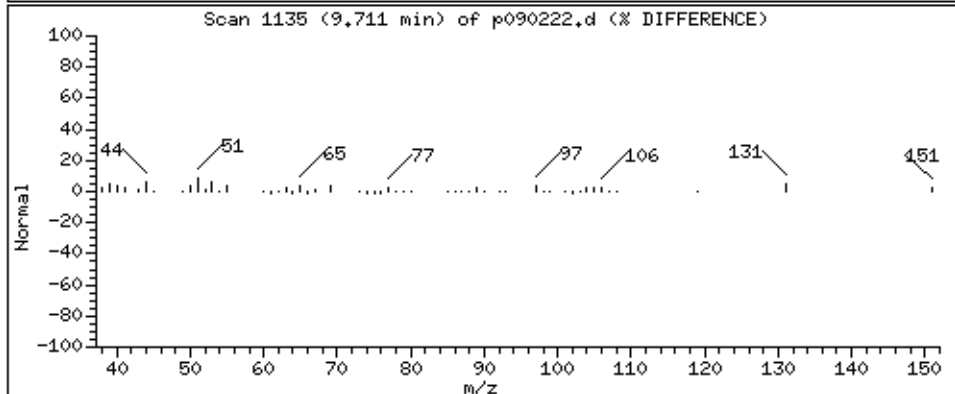
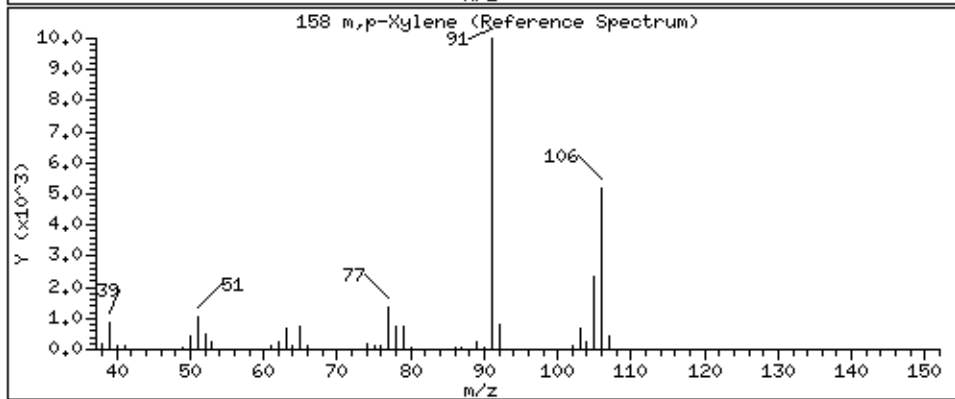
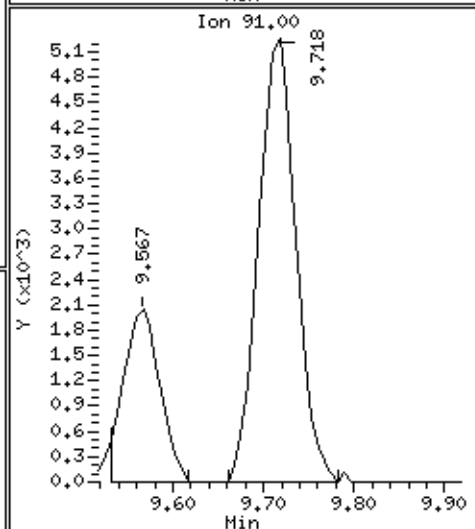
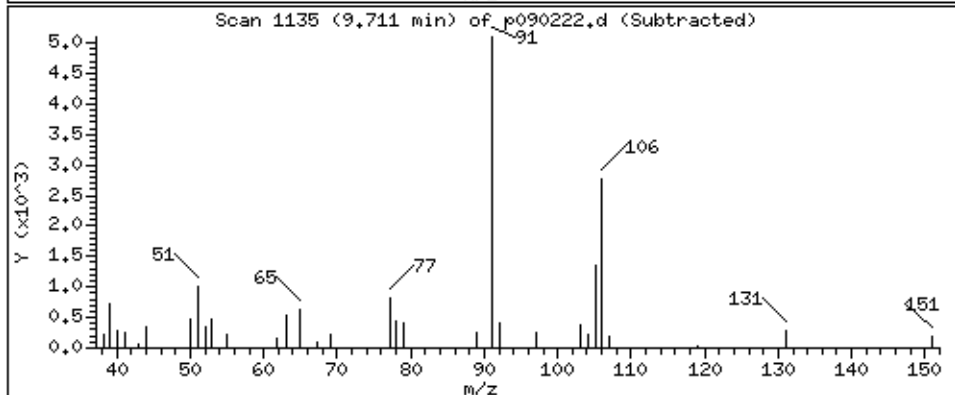
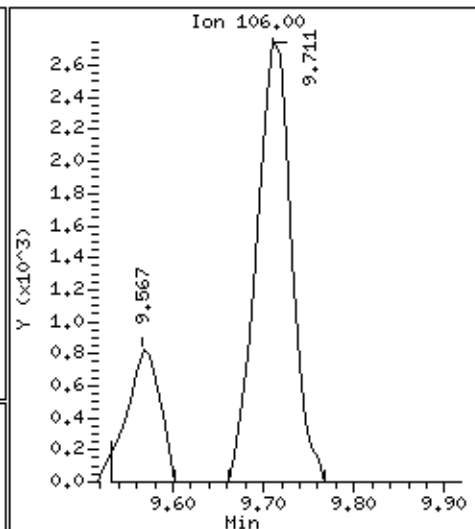
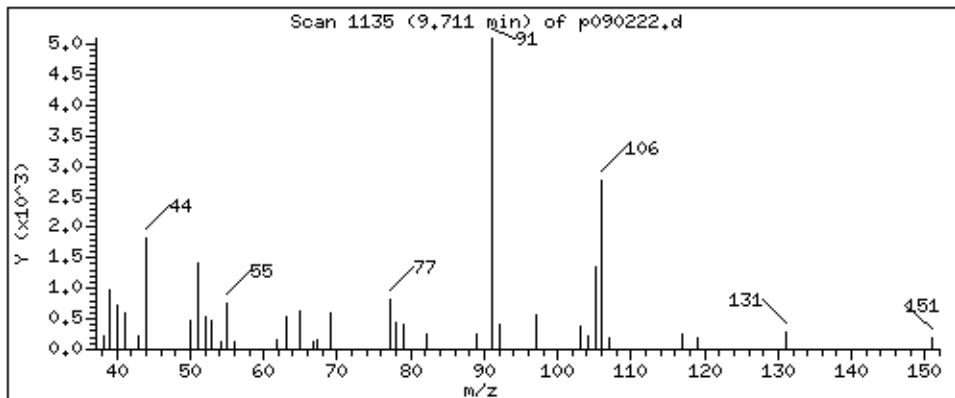
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 1,501 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

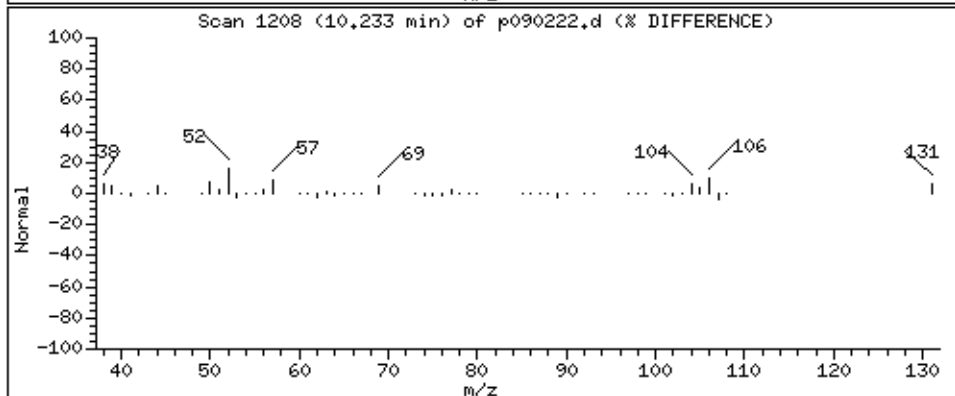
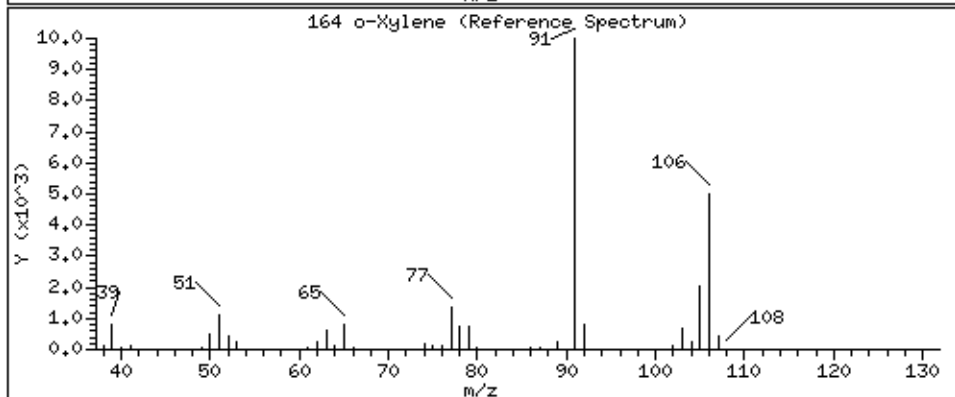
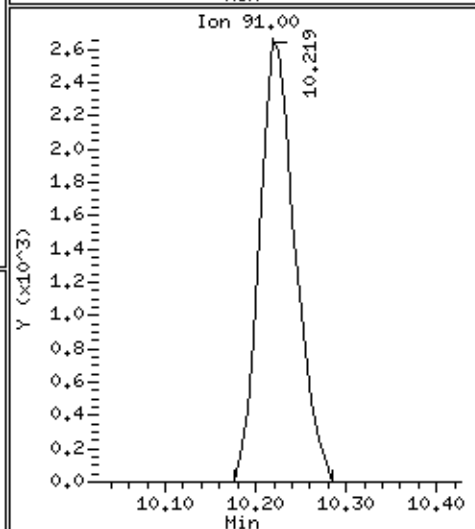
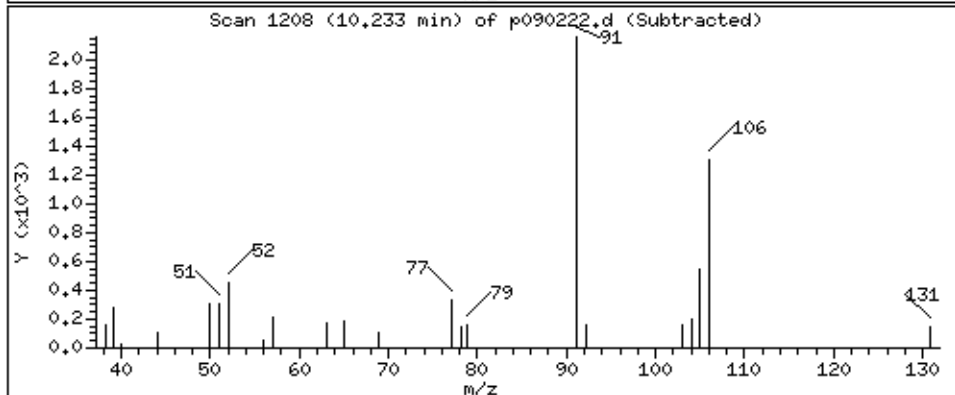
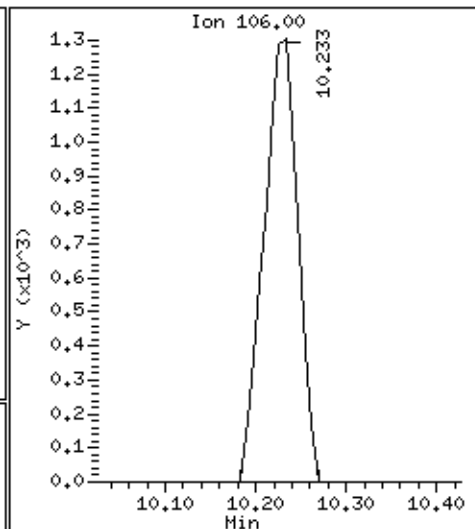
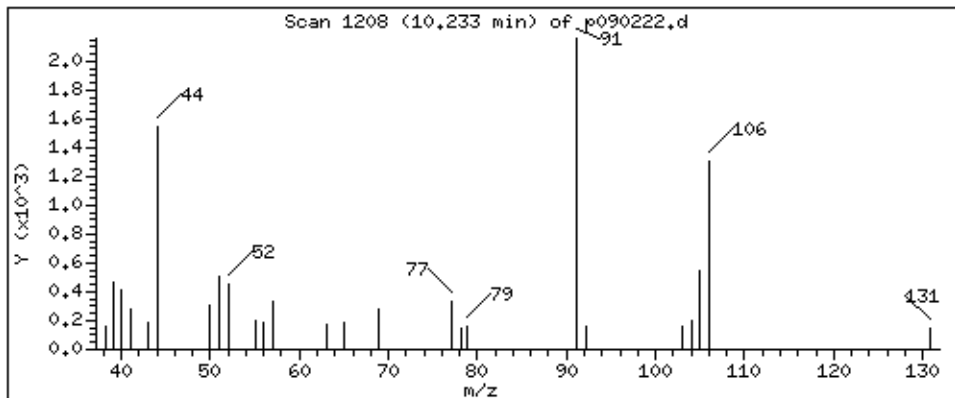
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 0.7219 PPBW



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

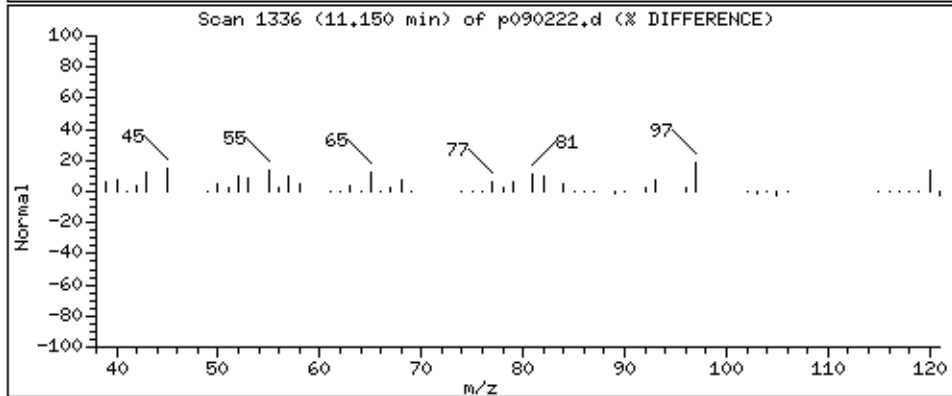
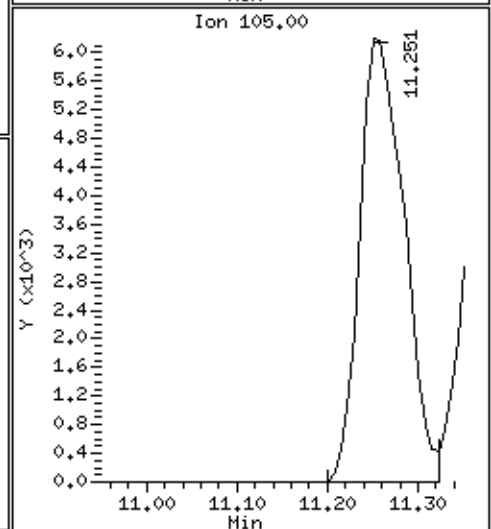
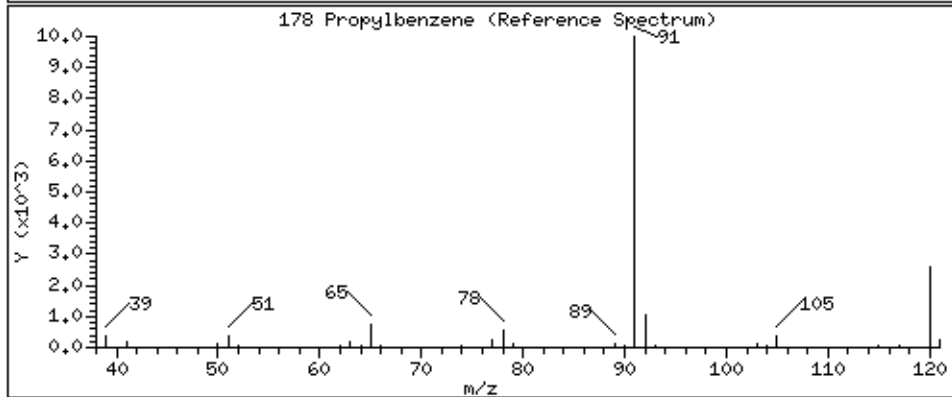
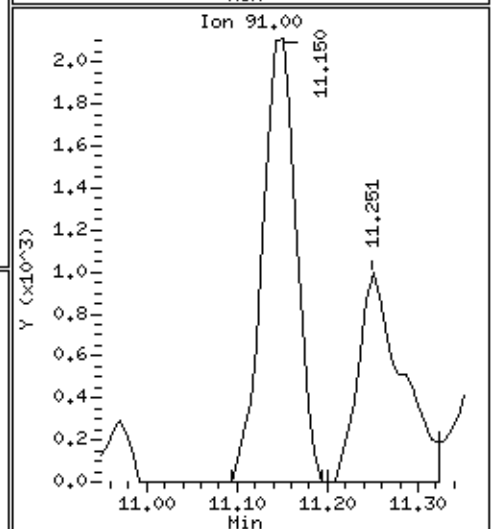
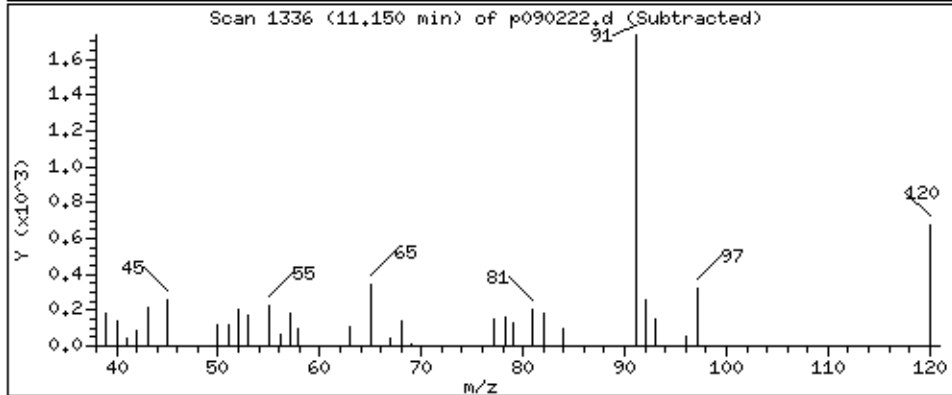
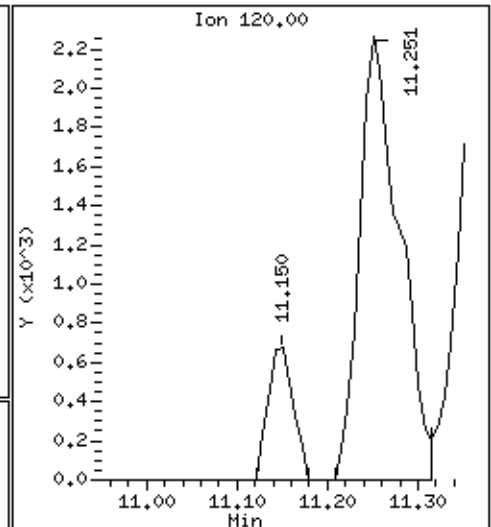
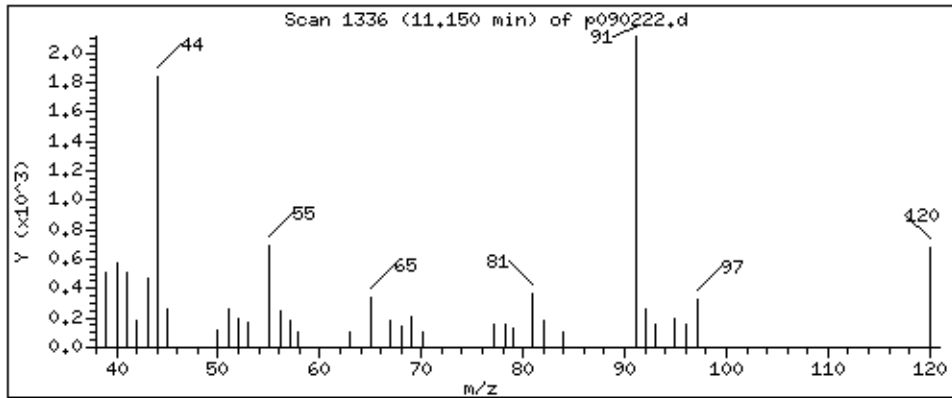
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

178 Propylbenzene

Concentration: 0.2975 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

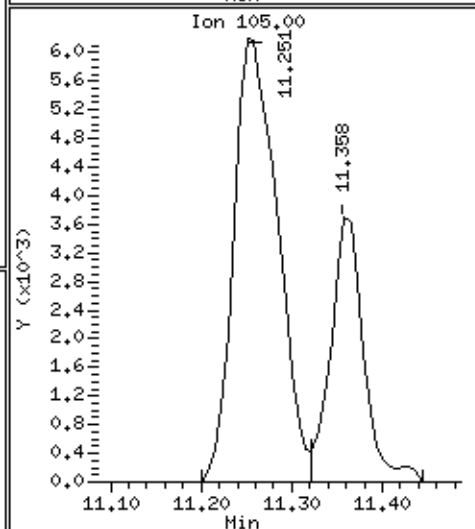
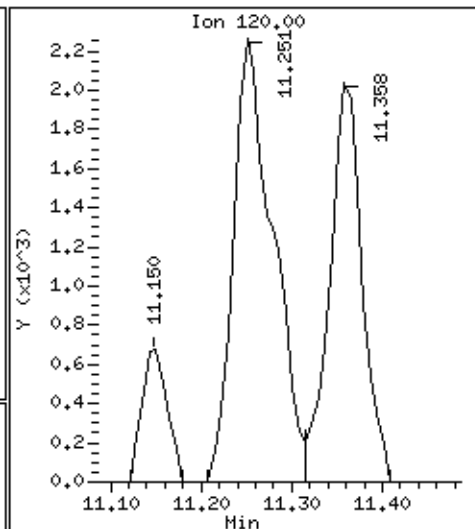
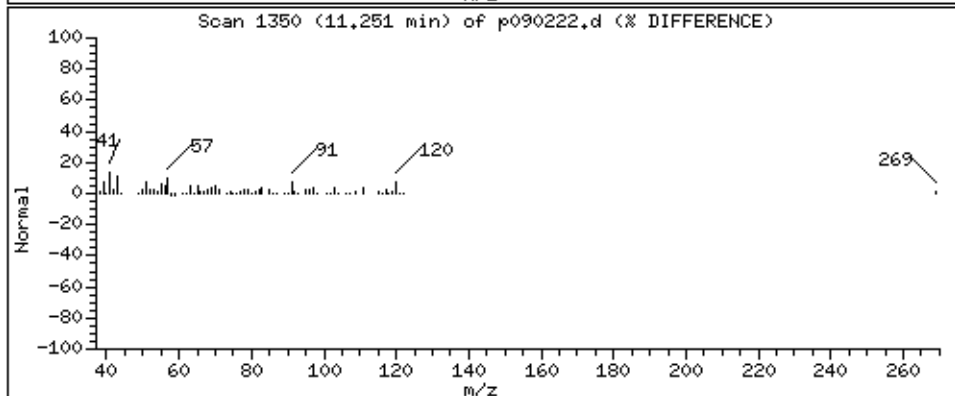
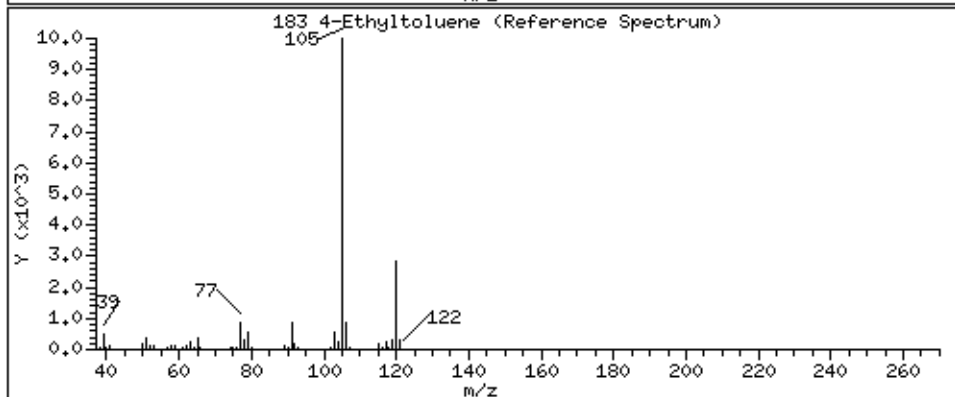
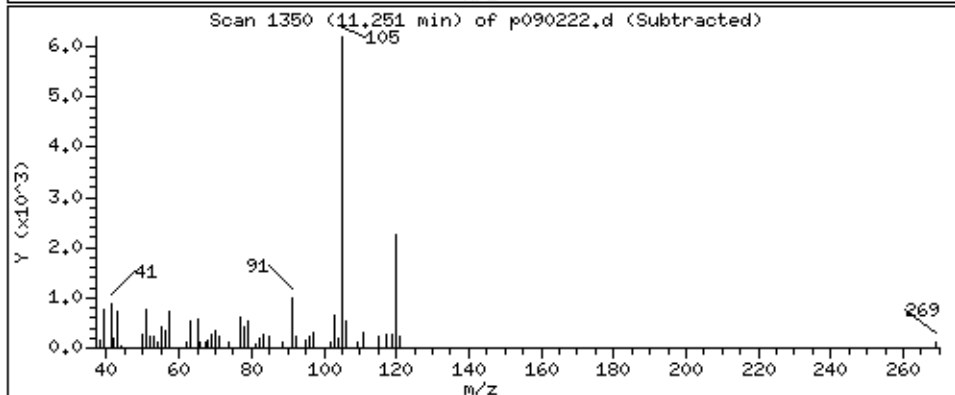
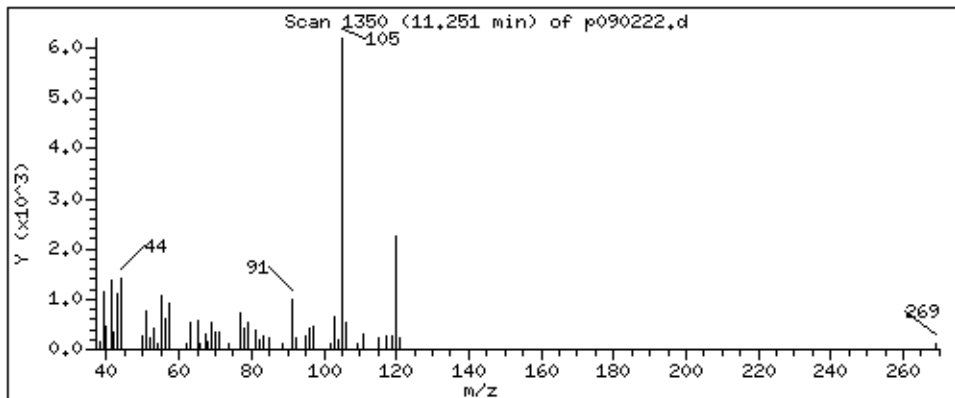
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 1.455 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

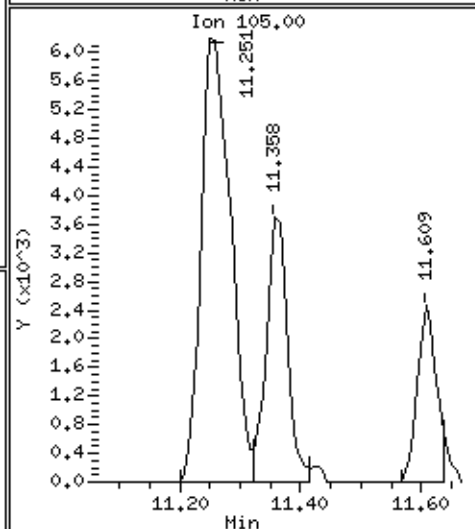
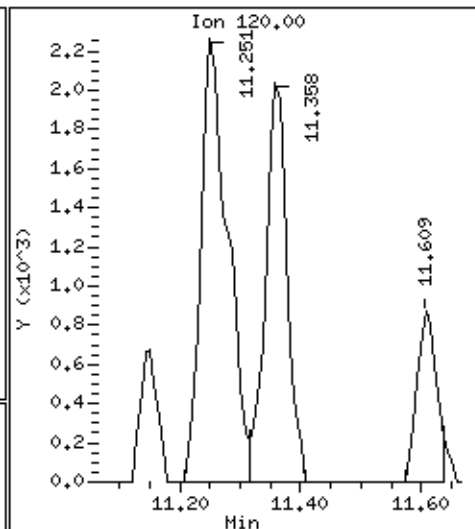
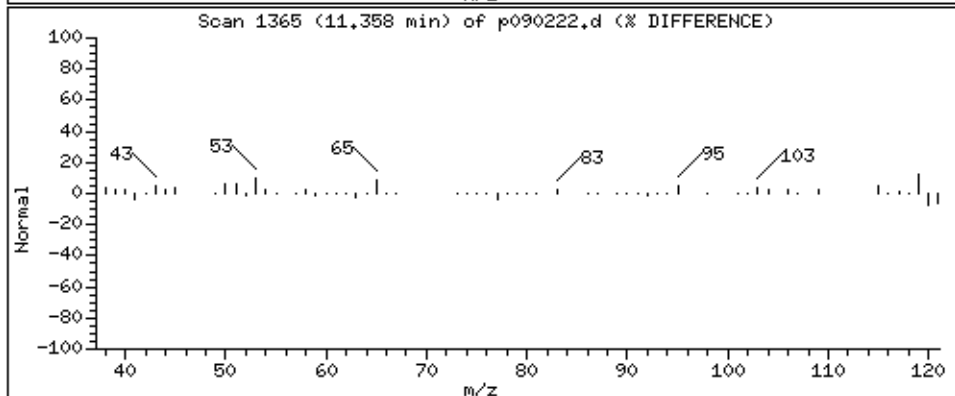
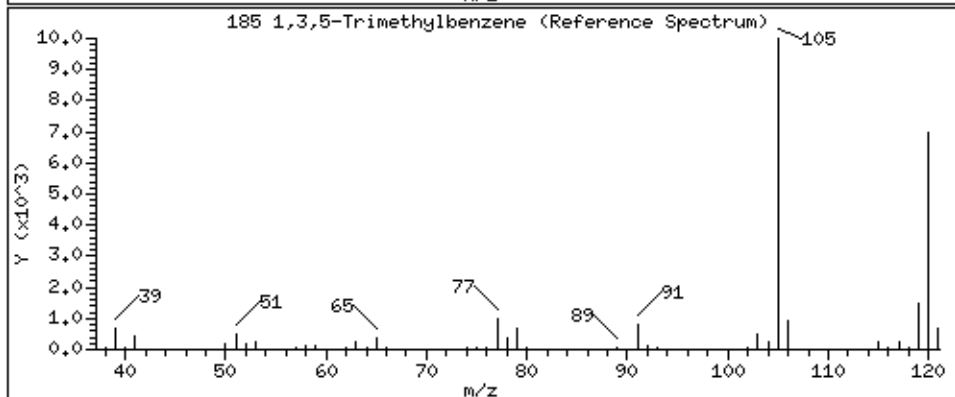
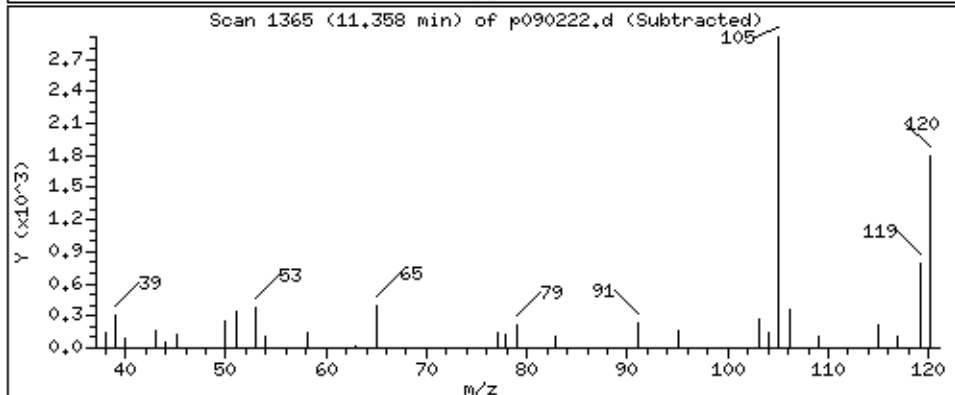
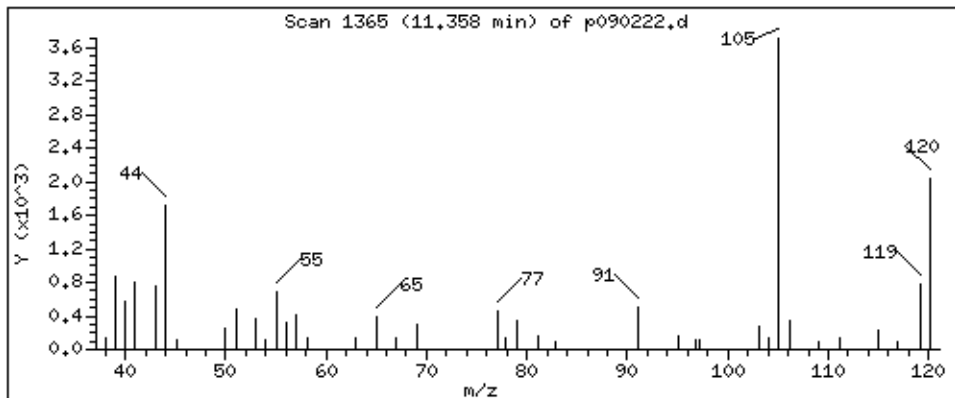
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

185 1,3,5-Trimethylbenzene

Concentration: 0.7828 PPBV



Date : 02-SEP-2021 22:59

Client ID:

Instrument: msdp.i

Sample Info: 200ml 1L2704

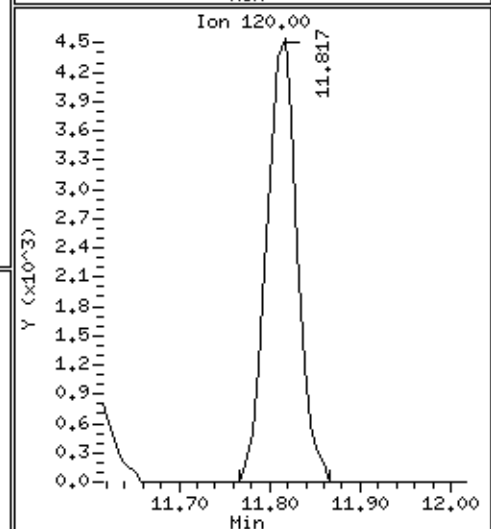
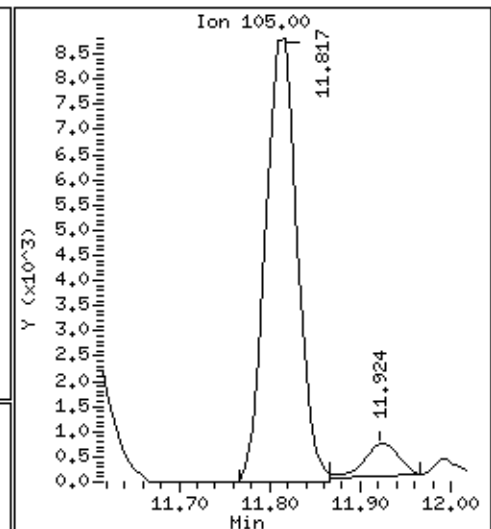
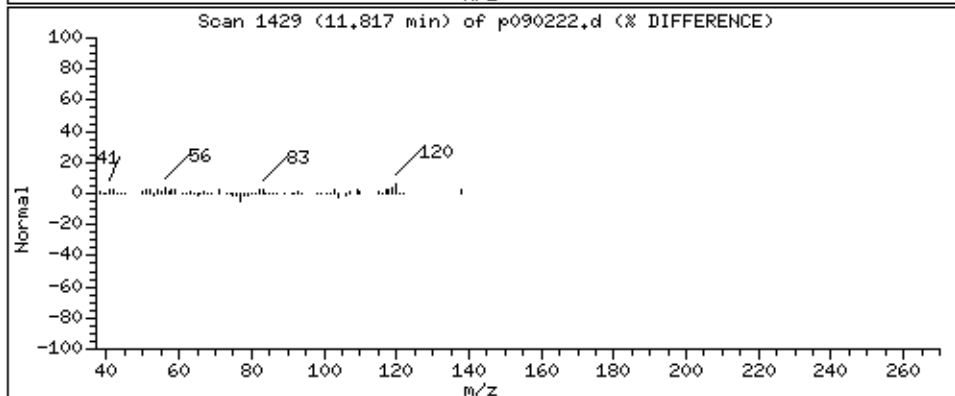
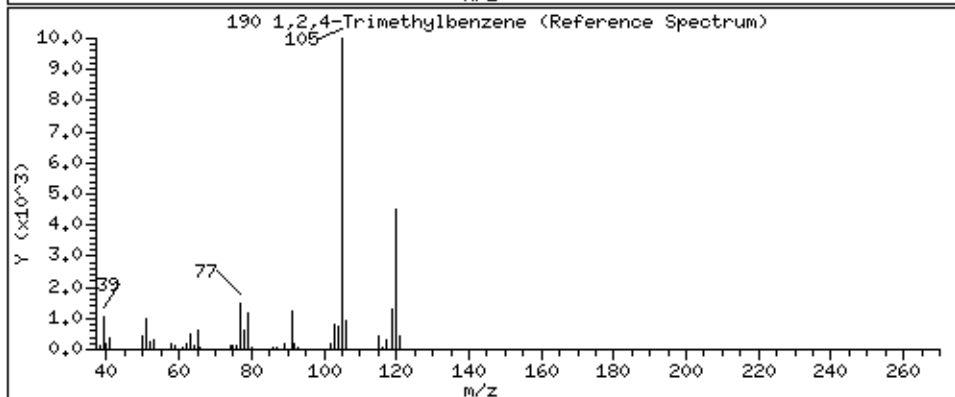
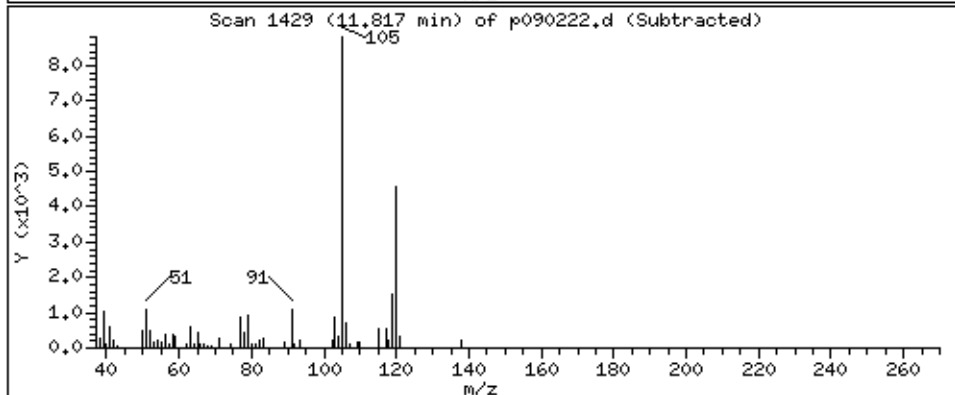
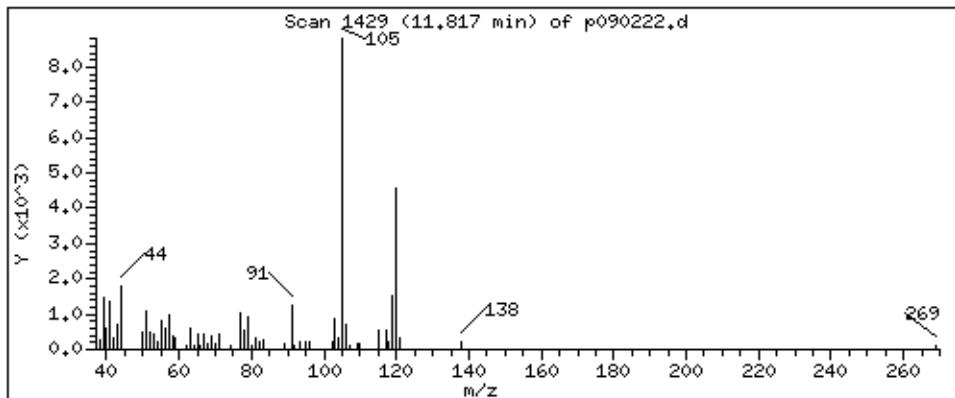
Operator: gh

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 1.732 PPBV



## **QC Results and Raw Data**



EPA METHOD TO-15 GC/MS FULL SCAN  
SMUD 59th St

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	9/2/21 02:28 PM
<b>Lab ID:</b>	2108676A-02A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090209d
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	630-20-6	0.69	D	14	Not Detected
1,1,1-Trichloroethane	71-55-6	0.21	1.4	2.7	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.32	1.7	3.4	Not Detected
1,1,2-Trichloroethane	79-00-5	0.44	1.4	2.7	Not Detected
1,1-Dichloroethane	75-34-3	0.42	1.0	2.0	Not Detected
1,1-Dichloroethene	75-35-4	0.65	0.99	2.0	Not Detected
1,1-Difluoroethane	75-37-6	1.2	D	5.4	Not Detected
1,2,3-Trichloropropane	96-18-4	0.76	D	12	Not Detected
1,2,4-Trichlorobenzene	120-82-1	1.3	4.4	15	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.28	1.2	2.4	Not Detected
1,2-Dibromo-3-chloropropane	96-12-8	0.63	D	19	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.75	1.9	3.8	Not Detected
1,2-Dichlorobenzene	95-50-1	0.34	1.5	3.0	Not Detected
1,2-Dichloroethane	107-06-2	0.33	1.0	2.0	Not Detected
1,2-Dichloropropane	78-87-5	0.55	1.2	2.3	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.51	1.2	2.4	Not Detected
1,3-Butadiene	106-99-0	0.32	0.55	1.1	Not Detected
1,3-Dichlorobenzene	541-73-1	0.34	1.5	3.0	Not Detected
1,4-Dichlorobenzene	106-46-7	0.36	1.5	3.0	Not Detected
1,4-Dioxane	123-91-1	1.1	2.2	7.2	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.27	1.2	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.90	1.8	5.9	Not Detected
2-Hexanone	591-78-6	0.20	1.0	8.2	Not Detected
2-Propanol	67-63-0	0.37	1.5	4.9	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	9/2/21 02:28 PM
<b>Lab ID:</b>	2108676A-02A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090209d
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
3-Chloropropene	107-05-1	1.4	1.9	6.3	Not Detected
4-Ethyltoluene	622-96-8	0.50	1.2	2.4	Not Detected
4-Methyl-2-pentanone	108-10-1	0.49	1.0	2.0	Not Detected
Acetone	67-64-1	1.2	1.4	12	Not Detected
Acrolein	107-02-8	0.69	D	4.6	Not Detected
Acrylonitrile	107-13-1	0.26	D	4.3	Not Detected
alpha-Chlorotoluene	100-44-7	0.23	1.3	2.6	Not Detected
Benzene	71-43-2	0.30	0.80	1.6	Not Detected
Bromodichloromethane	75-27-4	0.50	1.7	3.4	Not Detected
Bromoform	75-25-2	0.54	2.6	5.2	Not Detected
Bromomethane	74-83-9	0.84	2.3	19	Not Detected
Carbon Disulfide	75-15-0	0.61	1.9	6.2	Not Detected
Carbon Tetrachloride	56-23-5	0.83	1.6	3.1	Not Detected
Chlorobenzene	108-90-7	0.21	1.2	2.3	Not Detected
Chloroethane	75-00-3	1.4	2.0	5.3	Not Detected
Chloroform	67-66-3	0.21	1.2	2.4	Not Detected
Chloromethane	74-87-3	0.72	1.2	10	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.72	0.99	2.0	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.44	1.1	2.3	Not Detected
Cumene	98-82-8	0.31	1.2	2.4	Not Detected
Cyclohexane	110-82-7	0.28	0.86	1.7	Not Detected
Dibromochloromethane	124-48-1	0.73	2.1	4.2	Not Detected
Dibromomethane	74-95-3	0.54	D	14	Not Detected
Ethanol	64-17-5	1.2	1.4	9.4	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	9/2/21 02:28 PM
<b>Lab ID:</b>	2108676A-02A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090209d
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Acetate	141-78-6	0.42	D	7.2	Not Detected
Ethyl Benzene	100-41-4	0.57	1.1	2.2	Not Detected
Ethyl-tert-butyl ether	637-92-3	0.44	D	8.4	Not Detected
Freon 11	75-69-4	0.60	1.4	2.8	Not Detected
Freon 113	76-13-1	0.61	1.9	3.8	Not Detected
Freon 114	76-14-2	0.62	1.7	3.5	Not Detected
Freon 12	75-71-8	0.39	1.2	2.5	Not Detected
Freon 134a	811-97-2	1.0	D	8.3	Not Detected
Heptane	142-82-5	0.49	1.0	2.0	Not Detected
Hexachlorobutadiene	87-68-3	2.0	6.4	21	Not Detected
Hexachloroethane	67-72-1	NA	D	19	Not Detected
Hexane	110-54-3	0.32	0.88	1.8	Not Detected
Iodomethane	74-88-4	0.38	D	29	Not Detected
Isopropyl ether	108-20-3	0.25	D	8.4	Not Detected
m,p-Xylene	108-38-3	0.50	1.1	2.2	Not Detected
Methyl tert-butyl ether	1634-04-4	0.39	2.2	7.2	Not Detected
Methylene Chloride	75-09-2	0.36	0.87	17	Not Detected
Naphthalene	91-20-3	2.0	2.6	5.2	Not Detected
o-Xylene	95-47-6	0.54	1.1	2.2	Not Detected
Propylbenzene	103-65-1	0.41	1.2	2.4	Not Detected
Propylene	115-07-1	0.25	0.43	3.4	Not Detected
Styrene	100-42-5	0.28	1.1	2.1	Not Detected
tert-Amyl methyl ether	994-05-8	0.88	D	8.4	Not Detected
tert-Butyl alcohol	75-65-0	0.42	1.8	6.1	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	9/2/21 02:28 PM
<b>Lab ID:</b>	2108676A-02A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090209d
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	0.55	1.7	3.4	Not Detected
Tetrahydrofuran	109-99-9	0.30	0.74	1.5	Not Detected
Toluene	108-88-3	0.19	0.94	1.9	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	200	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.51	0.99	2.0	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.40	1.1	2.3	Not Detected
Trichloroethene	79-01-6	0.39	1.3	2.7	Not Detected
Vinyl Acetate	108-05-4	1.9	2.6	7.0	Not Detected
Vinyl Bromide	593-60-2	0.60	D	8.7	Not Detected
Vinyl Chloride	75-01-4	0.32	0.64	1.3	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	120
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	100

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/02SEP21.b/p090209d.d  
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
Inj Date : 02-SEP-2021 14:28  
Operator : LD Inst ID: msdp.i  
Smp Info : 200ml 34353  
Misc Info : humid  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/02SEP21.b/p21q0519a.m  
Meth Date : 03-Sep-2021 10:14 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
Als bottle: 12  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AEC25677.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5		
5.785	5.778	(1.000)	130	113418	25.0000	80.00- 120.00	100.00	
5.785	5.778	(1.000)	128	87862		48.23- 108.23	77.47	
5.785	5.778	(1.000)	49	270035		150.57- 210.57	238.09	
-----								
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0		
6.315	6.308	(1.092)	65	187882	30.0168	30.017 80.00- 120.00	100.00	
6.315	6.308	(1.092)	67	83463		27.21- 87.21	44.42	
-----								
* 108	1,4-Difluorobenzene					CAS #: 540-36-3		
6.666	6.659	(1.000)	114	398729	25.0000	80.00- 120.00	100.00	
6.666	6.659	(1.000)	88	58859		0.00- 45.71	14.76	
-----								
\$ 134	Toluene-d8					CAS #: 2037-26-5		
7.891	7.891	(1.184)	98	434805	25.1124	25.112 80.00- 120.00	100.00	
7.891	7.891	(1.184)	70	47226		0.00- 40.44	10.86	
7.891	7.891	(1.184)	100	282212		34.95- 94.95	64.91	
-----								
* 153	Chlorobenzene-d5					CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	396172	25.0000	80.00- 120.00	100.00	

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO	
					ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 153 Chlorobenzene-d5 (continued)									
9.460	9.460	(1.000)	82	209996			23.78-	83.78	53.01
-----									
\$ 170 4-Bromofluorobenzene					CAS #: 460-00-4				
10.921	10.921	(1.154)	174	259027	25.4616	25.462	80.00-	120.00	100.00
10.921	10.921	(1.154)	95	297685			95.92-	155.92	114.92
10.921	10.921	(1.154)	176	250628			66.89-	126.89	96.76
-----									

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 02-SEP-2021
Lab File ID: p090209d.d	Calibration Time: 09:55
Lab Smp Id: Lab Blank	Client Smp ID: Lab Blank
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msdp.i/02SEP21.b/p21q0519a.m	
Misc Info: humid	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	111368	66821	155915	113418	1.84
108 1,4-Difluorobenze	392899	235739	550059	398729	1.48
153 Chlorobenzene-d5	382253	229352	535154	396172	3.64

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.79	0.13
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 02SEP21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msdp.i/02SEP21.b/p21q0519a.m  
Misc Info: humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	30.017	120.07	70-130
\$ 134 Toluene-d8	25.000	25.112	100.45	70-130
\$ 170 4-Bromofluorobenz	25.000	25.462	101.85	70-130



Date : 02-SEP-2021 14:28

Client ID: Lab Blank

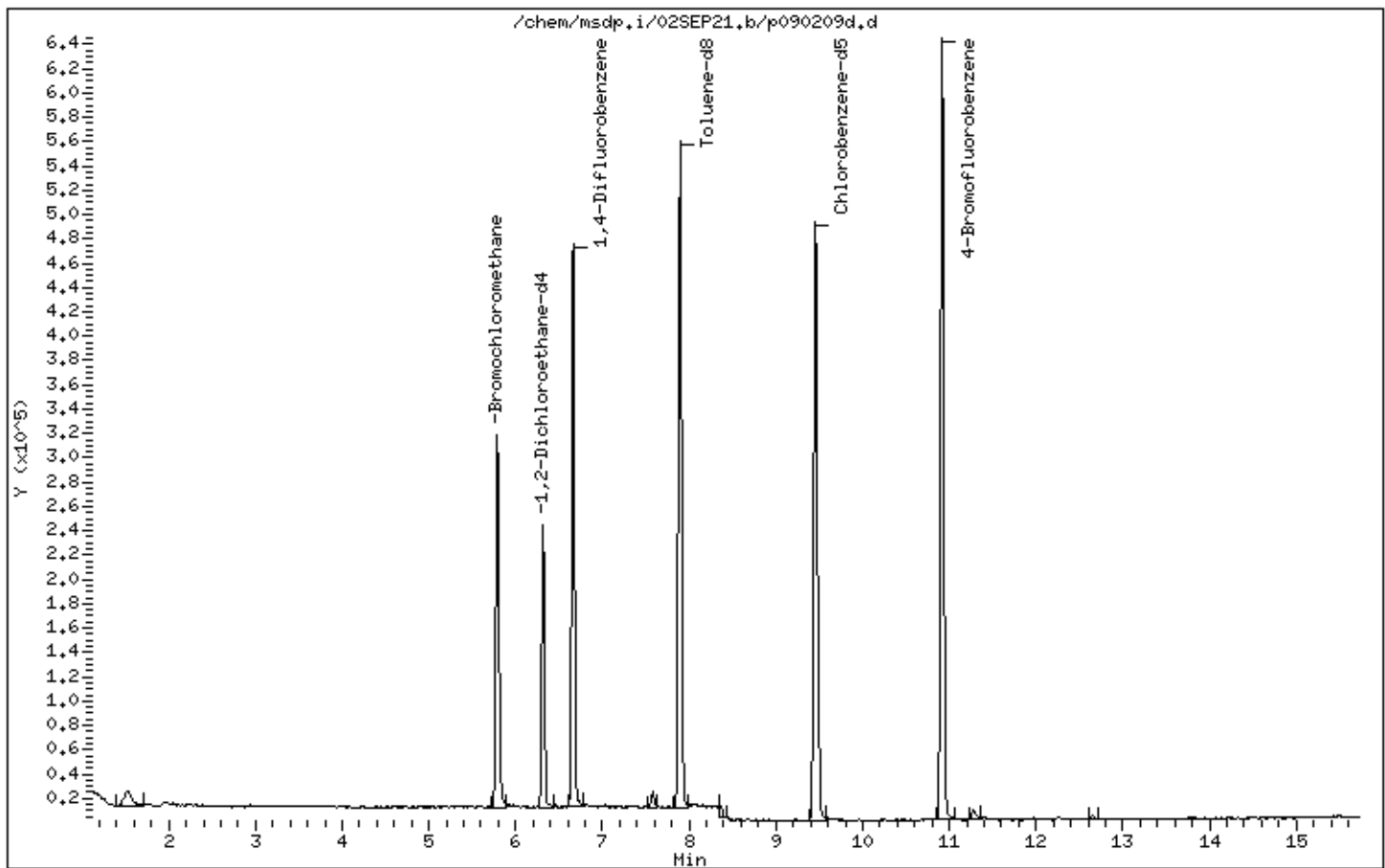
Instrument: msdp,i

Sample Info: 200ml 34353

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



**LEVEL-IV VALIDATABLE**  
**MODIFIED EPA METHOD TO-15**  
**SURROGATE RECOVERY FORM**

Lab Name : Eurofins Air Toxics, LLC \_\_\_\_\_ SDG No. :2108676A

CLIENT SAMPLE NO.		SURROGATE % RECOVERY						
						TOTAL		
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#	OUT
1	SG-VW21A-05	112		100		104		
2	Lab Blank	120		100		102		
3	CCV	119		100		114		
4	LCS	122		101		112		
5	LCSD	112		99		112		

Surrogate Recovery Limits

1,2-Dichloroethane-d4	70 - 130
Toluene-d8	70 - 130
4-Bromofluorobenzene	70 - 130

\* Designates Values Outside of QC limits

**LEVEL-IV VALIDATABLE**

**MODIFIED EPA METHOD TO-15**

**INTERNAL STANDARD AREA AND RT SUMMARY**

Lab Name : Eurofins Air Toxics, LLC File ID: p090202.d Date : 2021-09-02 09:55:00 SDG No. : 2108676A

		Bromochloromethane	RT	1,4-Difluorobenzene	RT	Chlorobenzene-d5	RT
24-HOUR CCV		111368	5.78	392899	6.66	382253	9.46
UPPER LIMIT		155915	6.11	550058	6.99	535154	9.79
LOWER LIMIT		66820	5.45	235739	6.33	229351	9.13
<b>CLIENT SAMPLE NO.</b>							
1	SG-VW21A-05	119538	5.79	406854	6.66	415198	9.46
2	Lab Blank	113418	5.79	398729	6.67	396172	9.46
3	CCV	111368	5.78	392899	6.66	382253	9.46
4	LCS	115366	5.78	419990	6.67	411816	9.46
5	LCSD	125942	5.78	442624	6.66	431027	9.46

Area Upper Limit = +40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT

Area Lower Limit = -40% of internal standard area

RT Lower Limit = -0.33 minutes of internal standard RT

\* Designates Values Outside of QC limits

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab File ID: p090203.d & p090204.d

Lab Sample ID: 04A & 04AA

CAS Number	Compound	Original	Duplicate	Result Less Than	
		Amount	Amount	RPD	5X RL
71-55-6	1,1,1-Trichloroethane	112	106	5.5	
79-34-5	1,1,2,2-Tetrachloroethane	100	98	2.0	
79-00-5	1,1,2-Trichloroethane	105	104	0.96	
75-34-3	1,1-Dichloroethane	101	97	4.0	
75-35-4	1,1-Dichloroethene	91	86	5.6	
120-82-1	1,2,4-Trichlorobenzene	128	134	4.6	
95-63-6	1,2,4-Trimethylbenzene	110	108	1.8	
106-93-4	1,2-Dibromoethane (EDB)	108	110	1.8	
95-50-1	1,2-Dichlorobenzene	115	116	0.87	
107-06-2	1,2-Dichloroethane	135	133	1.5	
78-87-5	1,2-Dichloropropane	99	100	1.0	
108-67-8	1,3,5-Trimethylbenzene	109	108	0.92	
106-99-0	1,3-Butadiene	117	110	6.2	
541-73-1	1,3-Dichlorobenzene	118	117	0.85	
106-46-7	1,4-Dichlorobenzene	118	116	1.7	
123-91-1	1,4-Dioxane	93	92	1.1	
540-84-1	2,2,4-Trimethylpentane	101	96	5.1	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	83	80	3.7	
591-78-6	2-Hexanone	110	110	0	
67-63-0	2-Propanol	119	113	5.2	
107-05-1	3-Chloropropene	83	77	7.5	
622-96-8	4-Ethyltoluene	109	107	1.9	
108-10-1	4-Methyl-2-pentanone	105	105	0	
67-64-1	Acetone	100	96	4.1	
100-44-7	alpha-Chlorotoluene	109	108	0.92	
71-43-2	Benzene	95	93	2.1	
75-27-4	Bromodichloromethane	117	116	0.86	
75-25-2	Bromoform	120	120	0	
74-83-9	Bromomethane	89	85	4.6	
75-15-0	Carbon Disulfide	84	81	3.6	
56-23-5	Carbon Tetrachloride	124	121	2.4	
108-90-7	Chlorobenzene	102	103	0.98	
75-00-3	Chloroethane	85	82	3.6	
67-66-3	Chloroform	108	102	5.7	
74-87-3	Chloromethane	132	121	8.7	
156-59-2	cis-1,2-Dichloroethene	93	91	2.2	

10061-01-5	cis-1,3-Dichloropropene	96	99	3.1
98-82-8	Cumene	99	100	1.0
110-82-7	Cyclohexane	84	82	2.4
124-48-1	Dibromochloromethane	120	120	0
64-17-5	Ethanol	98	92	6.3
100-41-4	Ethyl Benzene	100	100	0
75-69-4	Freon 11	123	115	6.7
76-13-1	Freon 113	101	97	4.0
76-14-2	Freon 114	110	105	4.7
75-71-8	Freon 12	119	112	6.1
142-82-5	Heptane	86	87	1.2
87-68-3	Hexachlorobutadiene	140	146	4.2
110-54-3	Hexane	98	96	2.1
108-38-3	m,p-Xylene	101	101	0
1634-04-4	Methyl tert-butyl ether	88	85	3.5
75-09-2	Methylene Chloride	128	121	5.6
91-20-3	Naphthalene	110	117	6.2
95-47-6	o-Xylene	97	97	0
103-65-1	Propylbenzene	107	107	0
115-07-1	Propylene	115	108	6.3
100-42-5	Styrene	97	98	1.0
127-18-4	Tetrachloroethene	112	113	0.89
109-99-9	Tetrahydrofuran	121	115	5.1
108-88-3	Toluene	97	96	1.0
156-60-5	trans-1,2-Dichloroethene	89	89	0
10061-02-6	trans-1,3-Dichloropropene	106	108	1.9
79-01-6	Trichloroethene	106	108	1.9
108-05-4	Vinyl Acetate	92	83	10
75-01-4	Vinyl Chloride	95	84	12

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Calibration File Names:

Level 2: /chem/msdp.i/19MAY21.b/p051914.d  
 Level 3: /chem/msdp.i/19MAY21.b/p051915.d  
 Level 4: /chem/msdp.i/19MAY21.b/p051916.d  
 Level 5: /chem/msdp.i/19MAY21.b/p051917.d  
 Level 6: /chem/msdp.i/19MAY21.b/p051918.d  
 Level 7: /chem/msdp.i/19MAY21.b/p051919.d  
 Level 8: /chem/msdp.i/19MAY21.b/p051920.d  
 Level 9: /chem/msdp.i/19MAY21.b/p051921.d  
 Level 10: /chem/msdp.i/19MAY21.b/p051924.d

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	0.64347	0.55833	0.28699	0.48663	0.54132	0.48307	26.850
4 Freon 134a	+++++	0.77011	0.84089	0.78129	0.71828	0.77669	0.79126	5.405
5 Propylene	+++++	+++++	1.30044	1.16437	0.97808	1.08818	1.14402	9.390

## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
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 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
6 Propane	0.35885	0.70755	0.41224	0.45766	0.35651	0.39030		
	0.42780	0.42956	++++				0.44256	25.464
7 1,1-Difluoroethane	++++	++++	0.71318	0.51293	0.51356	0.55570		
	0.58422	0.52044	++++				0.56667	13.609
8 Freon 12	++++	1.89452	2.25684	2.41287	1.98305	2.23908		
	2.37709	2.51953	2.25486				2.24223	9.426
9 Chlorodifluoromethane	++++	0.19040	0.21703	0.22854	0.20953	0.22781		
	0.23846	0.23864	++++				0.22149	7.823
10 Freon 114	++++	2.19697	2.35022	2.42550	1.98865	2.15848		
	2.32315	2.38505	1.78003				2.20100	10.095
11 Freon 14	++++	++++	++++	++++	++++	++++		
	++++	++++	++++				++++	++++
12 Isobutane	++++	++++	2.94068	2.70679	2.13532	2.31544		
	2.47976	2.61851	++++				2.53275	11.334
13 Freon 142b	2.88379	2.72504	2.51717	2.51995	1.92155	2.20295		
	2.38394	2.38895	++++				2.44292	12.194
14 Acetaldehyde	++++	++++	++++	++++	++++	++++		
	++++	++++	++++				++++	++++

## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
15 Chloromethane	+++++	+++++	1.62633	1.12803	1.35456	1.40983		
	1.30365	0.98253	+++++				1.30082	17.255
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 Butane	+++++	+++++	0.36632	0.35071	0.20777	0.23711		
	0.29558	0.35050	+++++				0.30133	22.008
19 Vinyl Chloride	+++++	1.63750	1.79369	1.70399	1.29644	1.43002		
	1.50248	1.58819	1.56702				1.56492	10.007
20 1,3-Butadiene	+++++	1.15962	1.11125	1.12135	1.33604	1.33164		
	1.39178	1.46398	1.15352				1.25865	10.936
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
24 Bromomethane	+++++	+++++	1.20010	1.20656	0.84526	0.89756		
	0.93585	0.95210	+++++				1.00624	15.607
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	0.55246	0.65854	0.47089	0.52675		
	0.57230	0.59544	+++++				0.56273	11.288
31 Isopentane	+++++	+++++	1.67935	1.76478	1.70699	1.64818		
	1.70298	1.77148	+++++				1.71230	2.809
32 Vinyl Bromide	+++++	0.89521	1.00012	0.99635	0.80298	0.86636		
	0.95282	0.99672	+++++				0.93008	8.292

## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
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 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
33 Freon 11	+++++	2.37298	2.30540	2.51055	2.23314	2.30111		
	2.43347	2.54911	2.35618				2.38274	4.554
34 Dichlorofluoromethane	+++++	2.10328	2.06570	2.13311	1.73001	1.97932		
	2.12384	2.24043	+++++				2.05367	7.927
35 Pentane	+++++	2.89800	2.83104	2.84872	2.63186	2.68332		
	2.75389	2.83565	+++++				2.78321	3.479
36 1-Pentene	2.06121	1.59213	1.56421	1.63474	1.37543	1.48214		
	1.53709	1.54332	+++++				1.59878	12.659
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
38 Ethyl Ether	+++++	0.41543	0.47730	0.50593	0.42858	0.46228		
	0.48772	0.50964	+++++				0.46955	7.767
39 Ethanol	+++++	+++++	0.27474	0.25602	0.21630	0.23850		
	0.24473	0.25725	+++++				0.24792	8.009
40 Freon 123a	1.67643	1.70260	1.56653	1.71267	1.35347	1.42708		
	1.48357	1.59067	+++++				1.56413	8.516
41 Freon 123	2.23549	2.28998	2.32261	2.22470	2.10291	2.12379		
	2.22936	2.25042	+++++				2.22241	3.385

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
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 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
42 Acrolein	+++++	+++++	0.43742	0.46343	0.37582	0.40776		
	0.43668	0.46010	+++++				0.43020	7.747
43 Freon 113	+++++	1.66116	1.75764	1.84846	1.81076	1.72301		
	1.78692	1.85367	1.72082				1.77031	3.803
44 1,1-Dichloroethene	+++++	1.13047	0.98158	1.08462	0.90481	0.98246		
	1.04403	1.08444	1.24812				1.05757	9.982
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
47 Acetone	+++++	+++++	0.71912	0.66713	0.55646	0.62462		
	0.66710	0.69799	+++++				0.65540	8.867
48 Carbon Disulfide	+++++	+++++	2.82595	2.99407	2.45111	2.66619		
	2.81912	2.96077	+++++				2.78620	7.233
49 Iodomethane	+++++	+++++	1.13057	1.12578	1.89275	2.20331		
	2.35282	2.40768	+++++				1.85215	31.782 <-
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

## US32TAR1

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 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	2.69785	2.66069	2.37669	2.59218	2.64148	5.564
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	0.46426	0.51422	0.48997	0.39775	0.44877	0.46546	7.851
55 Cyclopentene	2.17715	2.47822	2.46632	2.56699	2.14041	2.34707	2.39124	6.514
56 Methyl Acetate	2.75833	2.64156	2.95164	2.98908	2.39164	2.73802	2.79640	7.421
57 Acetonitrile	+++++	+++++	1.17773	1.29138	1.02662	1.19401	1.23114	10.326
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	1.66058	1.84335	1.45839	1.64567	1.70236	8.667

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
61 1,2-Dichloro-1-fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	3.20065	3.30496	2.90583	2.89744		
	3.04086	3.13252	+++++				3.08038	5.297
63 Methyl tert-butyl ether	+++++	3.20233	3.03539	3.11282	3.04059	2.95544		
	3.02504	3.11966	+++++				3.07018	2.627
64 trans-1,2-Dichloroethene	+++++	0.70368	0.71795	0.72086	0.61472	0.66913		
	0.70892	0.74337	0.77451				0.70664	6.798
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
66 Acrylonitrile	+++++	1.08486	1.02749	1.03009	0.83743	0.92318		
	0.97672	1.03119	0.95852				0.98368	7.902
67 Hexane	+++++	2.36995	2.44383	2.55815	2.23183	2.38896		
	2.51048	2.60764	2.59146				2.46279	5.242
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
71 1,1-Dichloroethane	+++++	2.12050	2.15298	2.31268	1.88443	2.09213		
	2.23176	2.32442	1.81878				2.11721	8.735
72 Isopropyl ether	+++++	+++++	5.59896	5.72998	5.66571	5.66877		
	5.76012	5.94316	+++++				5.72778	2.086
73 Vinyl Acetate	+++++	+++++	0.27670	0.27644	0.22773	0.26524		
	0.28486	0.30161	+++++				0.27210	9.135
74 Chloroprene	2.14359	2.03061	2.29463	2.44863	1.90092	2.21243		
	2.40069	2.43763	+++++				2.23364	8.953
75 1-Propanol	0.34779	0.37288	0.37461	0.33474	0.25627	0.30465		
	0.32597	0.32511	+++++				0.33025	11.608
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	4.83620	5.05574	4.88798	4.89187		
	4.97055	5.10638	+++++				4.95812	2.131
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
84 2,2-Dichloropropane	+++++	1.77964	1.81997	1.87272	1.91022	1.85607		
	1.92796	1.99401	+++++				1.88008	3.793
85 cis-1,2-Dichloroethene	+++++	0.63006	0.72053	0.77116	0.61241	0.72577		
	0.77548	0.80235	0.82883				0.73332	10.638
86 2-Butanone	+++++	+++++	0.58624	0.61354	0.46455	0.53642		
	0.58432	0.60531	+++++				0.56506	9.921

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
87 Ethyl Acetate	+++++	+++++	0.57084	0.59355	0.47870	0.54564		
	0.57818	0.60540	+++++				0.56205	8.124
88 Methyl Acrylate	3.17133	2.76269	2.95610	3.12287	2.41468	2.81782		
	3.08995	3.13777	+++++				2.93415	8.839
89 Tetrahydrofuran	+++++	1.93446	1.95308	2.03673	1.59091	1.83806		
	1.94537	2.03649	1.69916				1.87928	8.525
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
92 Chloroform	+++++	2.04196	2.15806	2.35426	1.86695	2.17101		
	2.31664	2.42886	2.06383				2.17519	8.546
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
94 Cyclohexane	+++++	1.43367	1.50722	1.58410	1.57245	1.53317		
	1.54570	1.61103	1.79345				1.57260	6.636
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
96 1,1,1-Trichloroethane	+++++	2.46156	2.42553	2.48444	2.36393	2.36921		
	2.42958	2.51331	2.61099				2.45732	3.291



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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
97 Carbon Tetrachloride	+++++	2.25147	2.24440	2.22561	2.35635	2.31498		
	2.45306	2.54156	2.05010				2.30469	6.528
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	0.17378	0.17794	0.17658	0.15112	0.16544		
	0.17360	0.17276	+++++				0.17017	5.462
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	8.25963	8.27890	8.75173	8.57253	8.58971		
	8.69563	8.91957	8.41247				8.56002	2.709
102 Benzene	+++++	0.78550	0.87685	0.84553	0.74484	0.82677		
	0.84553	0.84637	0.82851				0.82499	5.017
103 Isobutanol	0.54457	0.28827	0.32257	0.35375	0.28589	0.33052		
	0.36043	0.34600	+++++				0.35400	23.128
105 tert-Amyl methyl ether	+++++	+++++	0.24796	0.22661	0.23645	0.23382		
	0.22848	0.22244	+++++				0.23262	3.884
106 1,2-Dichloroethane	+++++	0.41345	0.44525	0.47019	0.38312	0.44057		
	0.45058	0.44750	0.38354				0.42928	7.531

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
107 Heptane	+++++	0.30034	0.32485	0.33244	0.32365	0.33156		
	0.32821	0.32372	0.34983				0.32683	4.186
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	0.28572	0.30596	0.28104	0.30551		
	0.31292	0.30849	+++++				0.29994	4.393
111 Trichloroethene	+++++	0.38664	0.41237	0.41315	0.35498	0.40036		
	0.41626	0.41270	0.40610				0.40032	5.166
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	0.05846	0.06007	0.06293	0.05929	0.05058	0.05740		
	0.05605	0.05682	+++++				0.05770	6.225
114 1,2-Dichloropropane	+++++	0.43979	0.42737	0.42567	0.39065	0.41185		
	0.42060	0.42118	0.44647				0.42295	4.035
115 2-Pentanone	1.21904	1.27106	1.31222	1.33128	1.17591	1.27524		
	1.28236	1.28701	+++++				1.26926	3.934
116 Methyl Methacrylate	+++++	0.35343	0.34137	0.34552	0.32431	0.34108		
	0.34921	0.34961	+++++				0.34351	2.790

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	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
117 1,4-Dioxane	+++++	0.22595	0.23899	0.23631	0.21158	0.22036		
	0.22028	0.21996	+++++				0.22478	4.349
118 Dibromomethane	+++++	0.34506	0.39714	0.39205	0.34241	0.37852		
	0.39319	0.38886	0.33065				0.37098	7.285
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	0.58233	0.63649	0.64840	0.58270	0.62912		
	0.65408	0.65615	0.57631				0.62070	5.563
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
126 cis-1,3-Dichloropropene	+++++	0.50516	0.52561	0.54285	0.48751	0.51912		
	0.54679	0.54891	0.51913				0.52438	4.097
127 Methylcyclohexane	+++++	0.61465	0.55349	0.55932	0.59377	0.58677		
	0.57314	0.56161	0.59163				0.57930	3.623
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	0.44567	0.41535	0.42739	0.42024	0.41445		
	0.41323	0.40846	0.49125				0.42950	6.406
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	0.49928	0.45400	0.47320	0.49988	0.47864		
	0.47697	0.47146	0.52912				0.48532	4.775

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	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
137 Toluene	+++++	1.17435	1.15077	1.15598	1.08690	1.13273		
	1.13471	1.13158	1.13864				1.13821	2.227
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloropropene	+++++	0.47393	0.50610	0.49304	0.46856	0.50673		
	0.51882	0.51939	0.44922				0.49197	5.206
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	0.39429	0.40170	0.39839	0.38144	0.40439		
	0.41066	0.41457	0.44769				0.40664	4.784
142 Tetrachloroethene	+++++	0.60799	0.58444	0.57342	0.55590	0.57612		
	0.57841	0.58067	0.50122				0.56977	5.476
143 2-Hexanone	+++++	+++++	0.57709	0.59101	0.58032	0.57999		
	0.57982	0.57760	+++++				0.58097	0.877
144 1,3-Dichloropropane	+++++	0.50031	0.56980	0.56359	0.52057	0.55649		
	0.56248	0.55833	0.49258				0.54052	5.748
145 Butyl Acetate	0.62964	0.65442	0.64029	0.63612	0.60754	0.62559		
	0.62661	0.61750	+++++				0.62971	2.270

## US32TAR1

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 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
146 Dibromochloromethane	+++++	0.78306	0.76265	0.73963	0.72881	0.77388		
	0.79214	0.79892	0.69915				0.75978	4.551
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	0.66728	0.66954	0.65728	0.60433	0.66080		
	0.67392	0.67207	0.61234				0.65220	4.249
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	0.78697	0.80160	0.70538	0.77001		
	0.79910	0.79313	+++++				0.77603	4.691
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Chlorobenzene	+++++	0.98039	1.00297	1.00615	0.95318	0.98786		
	1.00429	1.00931	0.99753				0.99271	1.887
155 Ethyl Benzene	+++++	0.54541	0.51726	0.50090	0.51483	0.52055		
	0.51499	0.51317	0.52561				0.51909	2.460

## US32TAR1

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 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
156 Nonane	+++++	1.38941	1.32633	1.28604	1.42437	1.31837		
	1.30797	1.29642	+++++				1.33556	3.856
157 1,1,1,2-Tetrachloroethane	0.61281	0.53381	0.51050	0.53112	0.56741	0.57195		
	0.55638	0.56243	+++++				0.55580	5.622
158 m,p-Xylene	+++++	0.67481	0.63902	0.63767	0.64445	0.64388		
	0.63345	0.63344	0.69432				0.65013	3.424
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
160 bis(chloromethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
163 2-Chloroethyl Vinyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
164 o-Xylene	+++++	0.62320	0.64348	0.61211	0.64029	0.61923		
	0.61359	0.61455	0.61674				0.62290	1.967

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	---	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
165 Styrene	+++++	1.11525	1.07016	1.03759	1.05319	1.04745		
	1.04414	1.04408	1.11034				1.06528	2.899
166 2-Heptanone	3.67167	3.65906	3.63687	3.79847	3.47203	3.63504		
	3.74717	3.74578	+++++				3.67076	2.721
167 Bromoform	+++++	0.73776	0.73139	0.72964	0.73975	0.76576		
	0.77834	0.78519	0.72346				0.74891	3.192
168 Cumene	+++++	2.00688	1.92184	1.93874	2.01036	1.95640		
	1.93477	1.91851	1.96634				1.95673	1.829
169 Cyclohexanone	+++++	0.76224	0.72554	0.66914	0.71016	0.68589		
	0.67623	0.66926	+++++				0.69978	4.981
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
172 D-Limonene	0.41095	0.35482	0.36589	0.34451	0.78397	0.78575		
	0.74309	0.72747	+++++				0.56456	37.333 <-
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
174 1-Chloro-2-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++



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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
175 1,1,2,2-Tetrachloroethane	+++++	0.98352	0.94583	0.93628	0.96719	0.95406		
	0.94385	0.94078	0.96890				0.95505	1.733
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	0.57508	0.60639	0.58293	0.59010	0.60294		
	0.60418	0.60421	+++++				0.59512	2.090
178 Propylbenzene	+++++	0.60804	0.57139	0.56757	0.59410	0.57645		
	0.57084	0.56325	0.58989				0.58019	2.677
179 1,2,3-Trichloropropane	+++++	0.31533	0.32131	0.28626	0.30096	0.29557		
	0.29066	0.28564	0.33945				0.30440	6.324
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-butene	+++++	0.19277	0.21017	0.19835	0.19195	0.20110		
	0.20192	0.20059	+++++				0.19955	3.082
182 Decane	+++++	1.79609	1.57143	1.44505	1.61070	1.49654		
	1.37373	1.36070	+++++				1.52203	10.036
183 4-Ethyltoluene	+++++	0.65033	0.64054	0.60196	0.63791	0.61418		
	0.60505	0.58832	0.70940				0.63096	6.073

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
184 2-Chlorotoluene	+++++	0.49984	0.49658	0.48311	0.50814	0.48663		
	0.47710	0.47426	0.52646				0.49401	3.541
185 1,3,5-Trimethylbenzene	+++++	0.88840	0.83919	0.85191	0.89900	0.86876		
	0.85974	0.86328	0.87938				0.86871	2.254
186 4-Chlorotoluene	0.50588	0.49708	0.52780	0.52855	0.50077	0.52139		
	0.50962	0.50476	+++++				0.51198	2.399
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
188 alpha Methyl Styrene	+++++	0.86535	0.87923	0.83462	0.89343	0.87794		
	0.86963	0.86867	0.81509				0.86300	2.969
189 tert-Butylbenzene	+++++	1.62733	1.62633	1.57945	1.65095	1.62250		
	1.63890	1.62816	+++++				1.62480	1.368
190 1,2,4-Trimethylbenzene	+++++	1.70877	1.62174	1.59089	1.69054	1.63659		
	1.62056	1.60514	1.64323				1.63968	2.487
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
192 sec-Butylbenzene	+++++	0.49560	0.50610	0.49423	0.52391	0.50675		
	0.50351	0.50154	0.50833				0.50500	1.821

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
193 bis(2-Chloroethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	2.30462	2.16921	2.12863	2.30933	2.22972		
	2.20755	2.18683	2.32036				2.23203	3.228
195 1,3-Dichlorobenzene	+++++	1.15658	1.15643	1.11720	1.11291	1.12849		
	1.10749	1.10683	1.09255				1.12231	2.086
196 1,4-Dichlorobenzene	+++++	1.16982	1.13485	1.12938	1.10992	1.14109		
	1.13566	1.13005	1.12236				1.13414	1.523
197 1,2,3-Trimethylbenzene	0.74930	0.74831	0.73294	0.73383	0.76340	0.76689		
	0.73531	0.73354	+++++				0.74544	1.857
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	1.51181	1.54888	1.53627	1.57168	1.58619		
	1.58130	1.57052	1.55269				1.55742	1.609
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	1.88866	1.82307	1.77843	1.79835	1.77435		
	1.69116	1.55266	+++++				1.75810	6.155

## US32TAR1

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 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
202 Butylbenzene	+++++	0.58573	0.58249	0.55423	0.58167	0.56357		
	0.53997	0.53683	0.59066				0.56690	3.760
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	1.10407	1.12539	1.09831	1.11450	1.09041		
	1.07307	1.07027	1.12778				1.10047	1.987
205 Hexachloroethane	0.25905	0.24933	0.20237	0.17807	0.37549	0.37170		
	0.35119	0.35730	+++++				0.29306	27.359
206 1,2-Dibromo-3-chloropropane	+++++	+++++	0.65994	0.64226	0.67551	0.68086		
	0.67149	0.66910	+++++				0.66653	2.068
207 Dodecane	+++++	1.08884	1.29307	1.39322	1.32012	1.47555		
	1.50880	1.50906	1.55944				1.39351	11.157
208 1,3,5-Trichlorobenzene	1.03535	1.05171	1.06253	1.06764	0.99487	1.06875		
	1.05551	1.04770	+++++				1.04801	2.304
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	0.88866	0.92999	0.95994	0.95225	1.08022	1.15606		
	1.13931	1.16647	+++++				1.03411	10.952

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	0.73365	0.82349	0.83826	0.78299	0.83257		
	0.83665	0.84391	+++++				0.81307	4.981
214 beta-Pinene	0.45942	0.49034	0.48541	0.49081	0.86434	0.92317		
	0.87191	0.83101	+++++				0.67705	31.130 <-
215 Hexachlorobutadiene	+++++	0.49305	0.57072	0.57784	0.56417	0.59160		
	0.59973	0.60841	+++++				0.57222	6.696
216 Naphthalene	+++++	2.17464	2.22406	2.02701	1.91757	2.04984		
	2.05935	2.09326	+++++				2.07796	4.828
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	0.63662	0.72700	0.71965	0.68156	0.74340		
	0.75801	0.76517	+++++				0.71877	6.351
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
225 4-Ethyl-1,2-dimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
228 1,2,4,5-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 234 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
238 Total Volatile Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference MineralSpirits	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stoddard	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



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 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
247 TVOC reference to Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref C5 + C6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref Dodecan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,2,3-TMB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	—	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,4,5-TMB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	+++++	1.29421	1.33794	1.42747	1.32413	1.34572		
	1.44423	1.55619	1.30758				1.37968	6.488
\$ 133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 134 Toluene-d8	+++++	1.07349	1.09274	1.09966	1.07597	1.08471		
	1.09026	1.08938	1.07858				1.08560	0.834
\$ 170 4-Bromofluorobenzene	+++++	0.64219	0.64090	0.63876	0.63357	0.63698		
	0.64598	0.65756	0.63983				0.64197	1.133

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
End Cal Date : 20-MAY-2021 00:05  
Quant Method : ISTD  
Origin : Disabled  
Target Version : 3.60  
Integrator : HP RTE  
Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Cal Date : 20-May-2021 11:07 lk8g  
Curve Type : Average

Average %RSD Results.	
=====	
Calculated Average %RSD =	7.06874
Maximun Average %RSD =	30.00000
* Passed Average %RSD Test.	

Report Date: 20-May-2021 11:06

### Calibration History

Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Start Cal Date: 19-MAY-2021 14:02  
End Cal Date : 20-MAY-2021 00:05

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 0.40000		
19-MAY-2021 19:17	AT20spICAL	/chem/msdp.i/19MAY21.b/p051914.d
Cal Level: 3 , Cal Amount: 0.80000		
19-MAY-2021 19:45	AT20spICAL	/chem/msdp.i/19MAY21.b/p051915.d
19-MAY-2021 14:02	AT20_Level13	/chem/msdp.i/19MAY21.b/p051904.d
Cal Level: 4 , Cal Amount: 2.00000		
19-MAY-2021 20:13	AT20spICAL	/chem/msdp.i/19MAY21.b/p051916.d
19-MAY-2021 14:30	AT20ICAL	/chem/msdp.i/19MAY21.b/p051905.d
Cal Level: 5 , Cal Amount: 5.00000		
19-MAY-2021 20:43	AT20spICAL	/chem/msdp.i/19MAY21.b/p051917.d
19-MAY-2021 15:00	AT20ICAL	/chem/msdp.i/19MAY21.b/p051906.d
Cal Level: 6 , Cal Amount: 20.00000		
19-MAY-2021 21:10	AT20spICAL	/chem/msdp.i/19MAY21.b/p051918.d
19-MAY-2021 15:27	AT20ICAL	/chem/msdp.i/19MAY21.b/p051907.d
Cal Level: 7 , Cal Amount: 50.00000		
19-MAY-2021 21:38	AT20spICAL	/chem/msdp.i/19MAY21.b/p051919.d
19-MAY-2021 15:55	AT20ICAL	/chem/msdp.i/19MAY21.b/p051908.d
Cal Level: 8 , Cal Amount: 100.00000		
19-MAY-2021 22:07	AT20spICAL	/chem/msdp.i/19MAY21.b/p051920.d
19-MAY-2021 16:24	AT20ICAL	/chem/msdp.i/19MAY21.b/p051909.d

Cal Level: 9 , Cal Amount: 200.00000		
19-MAY-2021 22:39	AT20spICAL	/chem/msdp.i/19MAY21.b/p051921.d
19-MAY-2021 16:53	AT20ICAL	/chem/msdp.i/19MAY21.b/p051910.d

Cal Level: 10, Cal Amount: 0.50000		
20-MAY-2021 00:05	AT20_Level12	/chem/msdp.i/19MAY21.b/p051924.d

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 7

Ccal Level: 7 , Ccal Amount: 50.000		
19-MAY-2021 15:55	AT20ICAL	/chem/msdp.i/19MAY21.b/p051908.d
Ccal Level: 7 , Ccal Amount: 50.000		
19-MAY-2021 21:38	AT20spICAL	/chem/msdp.i/19MAY21.b/p051919.d

## Initial Calibration Narrative (Extended)

### P21Q0519a.m

A multi-point TO-15 initial calibration was analyzed on MSD-P on 05/19/21 and 05/20/21.

**ICAL:** 3 out. Iodomethane @ 32%, D-Limonene @ 37%, and beta-Pinene @ 31%  
Naph RSD @ 4.8%

**ICV:** 3 out; Trans-1, 4-dichloro-2-butene @ 146%, Dodecane @ 153%, and 1,2,3-Trichlorobenzene @ 133%  
File: P051925. Naph recovery: 117%

**DODQSM:** 3 out; Trans-1, 4-dichloro-2-butene @ 146%, Dodecane @ 153%, and 1,2,3-Trichlorobenzene @ 133% File: P051925a

**DOD4.2:** 0 (zero) out; File: P051925c

**RCP:** 0 (zero) RCP compounds out. 5 **Non-RCP** compounds outside 80-120%. File P051925d

**DODsp: (PID 23339):** 2 out; Trans-1, 4-dichloro-2-butene @ 146%, Dodecane @ 153% and 1,2,3-Trichlorobenzene @ 133 File: P051925e

The concentrations for Ethanol, Acrolein, 1,2,4-Trichlorobenzene, Naphthalene, 1,2,3-Trichlorobenzene, and Hexachlorobutadiene were adjusted in the ICV due to the certified concentration exceeding more than 15% of the nominal concentration.

An 8-point ICAL for AT20 supplemental compounds was analyzed on MSDP on 05/19/21-05/20/21.

An ICV was analyzed for the following AT20 supplemental compounds: 1,1,1,2-Tetrachloroethane.

**ICV:** 0 out; File: P051925

**RCP Compounds:** 0 RCP compounds out. File P051925d

**ICAL Levels 1 and 2 were not included due to poor peak quality.**

**\*\*\*Bottom of the curve is 0.5ppbv; no TA RLs.\*\*\***

**The RL for Isobutane was raised from 0.8ppbv to 2.0ppbv.**

The concentrations for Dodecane, 1,2,4-TCB, Hexachlorobutadiene, 1,2,3-TCB, and Naphthalene were adjusted in the calibration due to the certified concentration exceeding more than 15% of the nominal concentration.

-Dodecane was curved at 0.618ppbv → 247ppbv.

-1,2,4-TCB was curved at 1.01ppbv → 252ppbv

-Hexachlorobutadiene was curved at 1.03ppbv → 257ppbv

-1,2,3-TCB was curved at 1.06ppbv → 266ppbv

-Naphthalene was curved at 0.10ppbv → 25.4ppbv

BFB tune file:

1. P051901

The TO-15MDL study expires on 10/29/21.

Select specials MDL study expires 10/29/21.

## Initial Calibration Narrative (TO-15) P21Q0519a.m

A multi-point TO-15 initial calibration was analyzed on MSD-P on 05/19/21 and 05/20/21.

**ICAL: 0 out**  
Naph RSD @ 4.8%

**ICV: 0 (zero) out.** File: P051925  
Naph recovery: 117%.  
**DODQSM: 0 (zero) out.** File: P051925a  
**DOD4.2: 0 (zero) out;** P051925c  
**RCP: 0 (zero) RCP compounds out. 2 Non-RCP compounds outside 80-120%.** File P051925d  
**DODsp: (PID 23339): 2 out;** Trans-1, 4-dichloro-2-butene @ 146%, Dodecane @ 153% and 1,2,3-Trichlorobenzene @ 133 File: P051925e

The concentrations for Ethanol, 1,2,4-Trichlorobenzene, Naphthalene and Hexachlorobutadiene were adjusted in the ICV due to the certified concentration exceeding more than 15% of the nominal concentration.

**ICAL Levels 1 and 2 were not included due to poor peak quality.**

**\*\*\*Bottom of the curve is 0.5ppbv; no TA RLs.\*\*\***

**The RL for Isobutane was raised from 0.8ppbv to 2.0ppbv.**

The concentrations for 1,2,4-TCB, Hexachlorobutadiene and Naphthalene were adjusted in the calibration due to the certified concentration exceeding more than 15% of the nominal concentration.

-1,2,4-TCB was curved at 1.01ppbv → 252ppbv  
-Hexachlorobutadiene was curved at 1.03ppbv → 257ppbv  
-Naphthalene was curved at 0.10ppbv → 25.4ppbv

BFB tune file:  
1. P051901

The TO-15MDL study expires on 10/29/21.



US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 19-MAY-2021 14:02  
 End Cal Date : 20-MAY-2021 00:05  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Cal Date : 20-May-2021 11:07 lk8g  
 Curve Type : Average

Please see Calibration History page(s)  
 for all the calibration files.

W 5/20/21  
 GH 5/20/21

Calibration File Names:

- Level 2: /chem/msdp.i/19MAY21.b/p051914.d
- Level 3: /chem/msdp.i/19MAY21.b/p051915.d
- Level 4: /chem/msdp.i/19MAY21.b/p051916.d
- Level 5: /chem/msdp.i/19MAY21.b/p051917.d
- Level 6: /chem/msdp.i/19MAY21.b/p051918.d
- Level 7: /chem/msdp.i/19MAY21.b/p051919.d
- Level 8: /chem/msdp.i/19MAY21.b/p051920.d
- Level 9: /chem/msdp.i/19MAY21.b/p051921.d
- Level 10: /chem/msdp.i/19MAY21.b/p051924.d

Compound	0.40000	0.80000	2.000	5.000	20.000	50.000	RRF	% RSD
	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7		
	100.000	200.000	0.50000					
	Level 8	Level 9	Level 10					
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	0.64347	0.55833	0.28699	0.48663	0.54132	0.48307	26.850
	0.53859	0.32618	+++++					
4 Freon 134a	+++++	0.77011	0.84089	0.78129	0.71828	0.77669	0.79126	5.405
	0.83041	0.82114	+++++					
5 Propylene	+++++	+++++	1.30044	1.16437	0.97808	1.08818	1.14402	9.390
	1.14258	1.19048	+++++					

MSDP

BBB Verification of 126/174 ratio: (142592/146432)*100=97.37%		Method TO-15/TO-14		SOP # 6		Vacuum: NA	
Item	Exp. Date:	Surrogate#	NA	Exp. Date:	Surrogate#	NA	Exp. Date:
BCM	3234-10	158,810		8/17/21			8/17/21
1,4-DFB	597,103			8/17/21			8/17/21
CP-45	587,747			8/17/21			8/17/21
Please check all standards							
Verified CCV w/ ICAL mid-point (40%): LD							
Method: r2140519.m							

Item #	Event/Scan Sample Use	Container	Conc. Ppt.	Pressure	Vol.	DF	Verify Used	Transfer Ink	Date Analyzed	Time	Review Unit	Comments
V	P051901	BBB Tune Check	3234-10	36mg	200ml	1.00	LD	LD	5/19/2021	1139	LD	Exp. 8/17/21
X	P051902	ICAL Level 1	3018-2045	0.3ppbw (5.0ppbw)	12ml	1.00	LD	LD	5/19/2021	1224	LD	Exp. 8/17/21. Poor peak quality.
X	P051903	ICAL Level 2	3018-2045	0.4ppbw (5.0ppbw)	16ml	1.00	LD	LD	5/19/2021	1252	LD	Poor peak quality.
V	P051904	ICAL Level 3	3018-2045	0.8ppbw (5.0ppbw)	32ml	1.00	gh	LD	5/19/2021	1402	LD	
V	P051905	ICAL Level 4	3018-2045	2.0ppbw (5.0ppbw)	80ml	1.00	gh	LD	5/19/2021	1430	LD	
V	P051906	ICAL Level 5	3018-2045	5.0ppbw (5.0ppbw)	200ml	1.00	gh	LD	5/19/2021	1500	LD	
V	P051907	ICAL Level 6	3018-2034	20ppbw (200ppbw)	20ml	1.00	gh	LD	5/19/2021	1527	LD	Exp. 8/17/21
V	P051908	ICAL Level 7	3018-2034	50ppbw (200ppbw)	50ml	1.00	gh	LD	5/19/2021	1555	LD	
V	P051909	ICAL Level 8	3018-2034	100ppbw (200ppbw)	100ml	1.00	gh	LD	5/19/2021	1624	LD	
V	P051910	ICAL Level 9	3018-2034	200ppbw (200ppbw)	200ml	1.00	gh	LD	5/19/2021	1653	LD	
V	P051911	System Blank	35157	Humid	200ml	1.00	gh	LD	5/19/2021	1723	LD	
V	P051912	System Blank	35157	Humid	200ml	1.00	gh	gh	5/19/2021	1809	LD	
X	P051913	ICAL Level 2	3018-2045	0.4ppbw (5.0ppbw)	16ml	1.00	gh	gh	5/19/2021	1849	LD	Exp. 8/17/21. Poor peak quality.
V	P051914	ICAL Level 2	3018-1928	0.4ppbw (5.0ppbw)	16ml	1.00	gh	gh	5/19/2021	1917	LD	Exp. 6/17/21
V	P051915	ICAL Level 3	3018-1928	0.8ppbw (5.0ppbw)	32ml	1.00	gh	gh	5/19/2021	1945	LD	
V	P051916	ICAL Level 4	3018-1928	2.0ppbw (5.0ppbw)	80ml	1.00	gh	gh	5/19/2021	2013	LD	
V	P051917	ICAL Level 5	3018-1928	5.0ppbw (5.0ppbw)	200ml	1.00	gh	gh	5/19/2021	2043	LD	
V	P051918	ICAL Level 6	3018-2013	20ppbw (200ppbw)	20ml	1.00	gh	gh	5/19/2021	2110	LD	Exp. 8/17/21
V	P051919	ICAL Level 7	3018-2013	50ppbw (200ppbw)	50ml	1.00	gh	gh	5/19/2021	2138	LD	
V	P051920	ICAL Level 8	3018-2013	100ppbw (200ppbw)	100ml	1.00	gh	gh	5/19/2021	2207	LD	
V	P051921	ICAL Level 9	3018-2013	200ppbw (200ppbw)	200ml	1.00	gh	gh	5/19/2021	2239	LD	
V	P051922	System Blank	35157	Humid	200ml	1.00	LD	gh	5/19/2021	2308	LD	
V	P051923	System Blank	35157	Humid	200ml	1.00	LD	gh	5/19/2021	2338	LD	
V	P051924	ICAL Level 10	3018-2045	0.5ppbw (5.0ppbw)	20ml	1.00	LD	gh	5/20/2021	0005	LD	Exp. 8/17/21
V	P051925	ICV	3018-2016	50ppbw (200ppbw)	50ml	1.00	LD	gh	5/20/2021	0033	LD	Exp. 8/5/21

MS 5/20/21

## IS and Associated Target Compounds and Surr. Instruction #: I1.20

Modified EPA Methods TO-14A/TO-15  
Internal Standard and Associated Target Compounds and Surrogates

Bromochloromethane*
<b>Target Compounds:</b>
Freon 12
Freon 114
Chloromethane
Vinyl Chloride
1,3-Butadiene
Bromomethane
Chloroethane
Freon 11
Ethanol
Freon 113
1,1-Dichloroethene
Acetone
2-Propanol
Carbon Disulfide
3-Chloropropene
Methylene Chloride
Methyl tert-butyl ether
trans-1,2-Dichloroethene
Hexane
1,1-Dichloroethane
2-Butanone (Methyl Ethyl Ketone)
cis-1,2-Dichloroethene
Tetrahydrofuran
Chloroform
1,1,1-Trichloroethane
Cyclohexane
Carbon Tetrachloride
2,2,4-Trimethylpentane
<b>Surrogates:</b>
1,2-Dichloroethane-d4

1,4-Difluorobenzene
<b>Target Compounds:</b>
Benzene
1,2-Dichloroethane
Heptane
Trichloroethene
1,2-Dichloropropane
1,4-Dioxane
Bromodichloromethane
cis-1,3-Dichloropropene
4-Methyl-2-pentanone
Toluene
<b>Surrogates:</b>
Toluene-d8

Chlorobenzene-d5
<b>Target Compounds:</b>
trans-1,3-Dichloropropene
1,1,2-Trichloroethane
Tetrachloroethene
2-Hexanone
Dibromochloromethane
1,2-Dibromoethane (EDB)
Chlorobenzene
Ethyl Benzene
m,p-Xylene
o-Xylene
Styrene
Bromoform
Cumene
1,1,2,2-Tetrachloroethane
Propylbenzene
4-Ethyltoluene
1,3,5-Trimethylbenzene
1,2,4-Trimethylbenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
alpha-Chlorotoluene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobutadiene
<b>Surrogates:</b>
Bromofluorobenzene

\*Note: If Bromochloromethane (BCM) is required as a target compound, the internal standard mix is blended without BCM. Compounds and surrogates assigned to BCM are re-assigned to 1,4-Difluorobenzene for calibration and subsequent quantitation.

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051914.d  
Lab Smp Id: ICAL Level 2  
Inj Date : 19-MAY-2021 19:17  
Operator : gh Inst ID: msdp.i  
Smp Info : 16mL 3018-1928  
Misc Info : 0.4ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 19:17 Cal File: p051914.d  
Als bottle: 2 Calibration Sample, Level: 2  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.778	5.778	(1.000)	130	163890	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	127715			48.23- 108.23 77.93
5.771	5.778	(1.000)	49	296851			150.57- 210.57 181.13
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.659	6.659	(1.000)	114	600935	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	93335			0.00- 45.71 15.53
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.460	9.460	(1.000)	117	587965	25.0000		80.00- 120.00 100.00
9.453	9.460	(1.000)	82	324501			23.78- 83.78 55.19
-----							
6 Propane CAS #: 74-98-6							
1.675	1.674	(0.290)	43	941	0.40000	0.3085	80.00- 120.00 100.00(a)
1.675	1.674	(0.290)	39	1309			34.98- 94.98 139.11
1.689	1.674	(0.292)	41	861			25.22- 85.22 91.50
-----							
13 Freon 142b CAS #: 75-68-3							
1.884	1.884	(0.326)	65	7562	0.40000	0.4489	80.00- 120.00 100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
13 Freon 142b (continued)								
1.898	1.884	(0.329)	45	2247			0.00- 59.77	29.71
-----								
36 1-Pentene								
						CAS #: 109-67-1		
2.891	2.906	(0.500)	55	5405	0.40000	0.4946	80.00- 120.00	100.00(a)
2.899	2.906	(0.502)	42	6051			105.17- 165.17	111.95
-----								
40 Freon 123a								
						CAS #: 354-23-4		
3.378	3.385	(0.585)	117	4396	0.40000	0.4147	80.00- 120.00	100.00(a)
3.378	3.378	(0.585)	67	4936			104.69- 164.69	112.28
-----								
41 Freon 123								
						CAS #: 306-83-2		
3.464	3.479	(0.600)	83	5862	0.40000	0.3993	80.00- 120.00	100.00(a)
3.486	3.479	(0.603)	133	1216			0.00- 50.87	20.74
3.472	3.479	(0.601)	85	3801			36.08- 96.08	64.84
-----								
55 Cyclopentene								
						CAS #: 142-29-0		
4.073	4.073	(0.705)	67	5709	0.40000	0.3618	80.00- 120.00	100.00(a)
4.066	4.073	(0.704)	68	2522			6.76- 66.76	44.18
4.066	4.073	(0.704)	53	1675			0.00- 57.54	29.34
-----								
56 Methyl Acetate								
						CAS #: 79-20-9		
4.080	4.073	(0.706)	43	7233	0.40000	0.3918	80.00- 120.00	100.00(a)
4.080	4.073	(0.706)	74	768			0.00- 44.13	10.62
-----								
74 Chloroprene								
						CAS #: 126-99-8		
5.019	5.019	(0.869)	53	5621	0.40000	0.3852	80.00- 120.00	100.00(a)
5.019	5.019	(0.869)	88	2057			9.21- 69.21	36.59
5.012	5.019	(0.867)	50	1789			0.00- 54.25	31.83
-----								
75 1-Propanol								
						CAS #: 71-23-8		
5.098	5.083	(0.882)	59	912	0.40000	0.4010	80.00- 120.00	100.00(a)
5.098	5.083	(0.882)	42	931			63.23- 123.23	102.08
5.105	5.083	(0.883)	41	494			24.74- 84.74	54.17
-----								
88 Methyl Acrylate								
						CAS #: 96-33-3		
5.628	5.620	(0.974)	55	8316	0.40000	0.4277	80.00- 120.00	100.00(a)
5.621	5.620	(0.973)	85	1426			0.00- 41.28	17.15
5.628	5.620	(0.974)	58	1499			0.00- 38.22	18.03
-----								
103 Isobutanol								
						CAS #: 78-83-1		
6.244	6.244	(1.081)	39	1428	0.40000	0.5920	80.00- 120.00	100.00(a)
6.244	6.244	(1.081)	43	3902			448.18- 508.18	273.25
6.244	6.244	(1.081)	41	2603			299.99- 359.99	182.28
-----								
113 Ethyl acrylate								
						CAS #: 140-88-5		
6.939	6.938	(0.733)	99	550	0.40000	0.3922	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
113 Ethyl acrylate (continued)								
6.939	6.938	(0.733)	45	1161			149.95- 209.95	211.09
6.939	6.938	(0.733)	55	9624			1849.07-1909.07	1749.82
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.032	7.031	(0.743)	43	11468	0.40000	0.3804	80.00- 120.00	100.00(a)
7.039	7.031	(0.744)	58	1303			0.00- 37.44	11.36
7.032	7.031	(0.743)	86	1613			0.00- 42.78	14.07
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.665	8.665	(1.301)	56	6054	0.40000	0.3952	80.00- 120.00	100.00(a)
8.665	8.665	(1.301)	73	2892			0.00- 59.10	47.77
8.665	8.657	(1.301)	43	14727			215.30- 275.30	243.26
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.596	9.596	(1.014)	131	5765	0.40000	0.4440	80.00- 120.00	100.00(a)
9.460	9.460	(1.000)	117	587965			57.42- 117.42	10198.87
9.596	9.596	(1.014)	95	2522			5.70- 65.70	43.75
-----								
166 2-Heptanone						CAS #: 110-43-0		
10.362	10.362	(1.793)	58	9628	0.40000	0.3991	80.00- 120.00	100.00(a)
10.362	10.362	(1.793)	43	17002			136.03- 196.03	176.59
-----								
172 D-Limonene						CAS #: 5989-27-5		
12.089	12.089	(1.278)	68	3866	0.40000	0.3634	80.00- 120.00	100.00(a)
12.089	12.089	(1.278)	93	2278			39.41- 99.41	58.92
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
11.444	11.444	(1.210)	126	4759	0.40000	0.3920	80.00- 120.00	100.00(a)
11.444	11.444	(1.210)	91	14696			295.02- 355.02	308.80
11.437	11.444	(1.209)	63	2158			11.82- 71.82	45.35
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
12.318	12.318	(1.302)	120	7049	0.40000	0.4016	80.00- 120.00	100.00(a)
12.318	12.318	(1.302)	105	15461			192.40- 252.40	219.34
12.318	12.318	(1.302)	77	2242			0.00- 54.69	31.81
-----								
205 Hexachloroethane						CAS #: 67-72-1		
12.963	12.970	(1.370)	201	2437	0.40000	0.4110	80.00- 120.00	100.00(a)
12.963	12.970	(1.370)	117	3360			102.99- 162.99	137.87
-----								
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	9740	0.40000	0.3917	80.00- 120.00	100.00(a)
13.758	13.758	(1.454)	182	8432			65.24- 125.24	86.57
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	8360	0.40000	0.3637	80.00- 120.00	100.00(a)

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
210 alpha-Pinene (continued)									
10.599	10.599	(1.120)	77	2517			0.00- 58.21	30.11	
-----									
214 beta-Pinene									
						CAS #: 127-91-3			
11.415	11.422	(1.207)	93	4322	0.40000	0.3225	80.00- 120.00	100.00(a)	
11.444	11.444	(1.210)	91	14696			153.57- 213.57	340.03	
-----									

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msdp.i  
Lab File ID: p051914.d  
Lab Smp Id: ICAL Level 2  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: gh  
Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
Misc Info: 0.4ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
Calibration Time: 15:55  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	163890	3.20
108 1,4-Difluorobenze	597103	358262	835944	600935	0.64
153 Chlorobenzene-d5	587747	352648	822846	587965	0.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.



Date : 19-MAY-2021 19:17

Client ID:

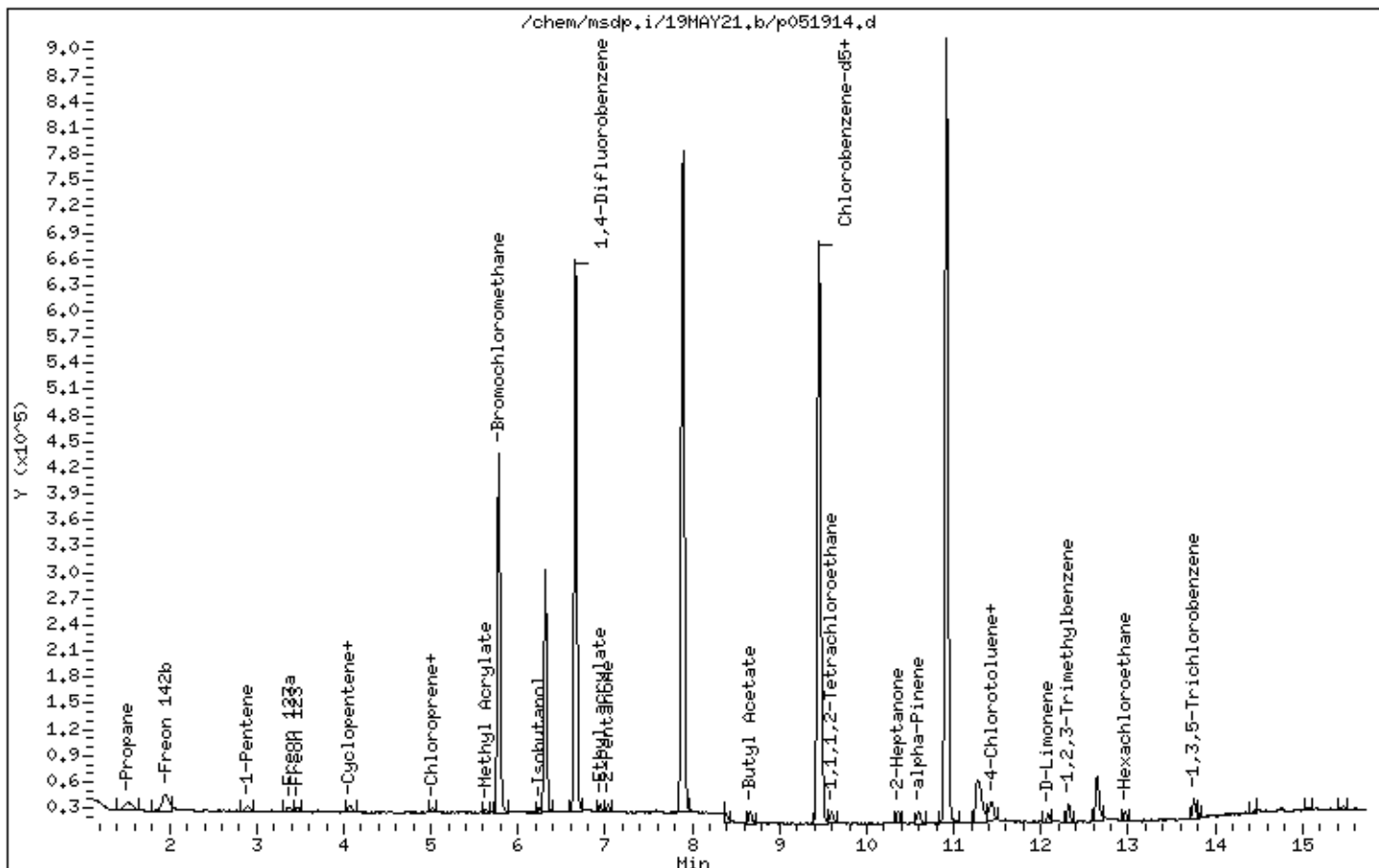
Instrument: msdp.i

Sample Info: 16mL 3018-1928

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051904.d  
Lab Smp Id: ICAL Level 3  
Inj Date : 19-MAY-2021 14:02  
Operator : LD Inst ID: msdp.i  
Smp Info : 32mL 3018-2045  
Misc Info : 0.8ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 11:07 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
Als bottle: 1 Calibration Sample, Level: 3  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20\_Level3.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2							
1.633	1.633	(0.283)	83	4069 0.80000	0.7786	80.00- 120.00	100.00(a)
1.633	1.633	(0.283)	69	3525		59.44- 119.44	86.63
1.744	1.745	(0.302)	51	16724		419.06- 479.06	411.01
-----							
8 Freon 12 CAS #: 75-71-8							
1.717	1.717	(0.297)	85	10010 0.80000	0.6759	80.00- 120.00	100.00
1.717	1.717	(0.297)	87	3731		2.37- 62.37	37.27
-----							
9 Chlorodifluoromethane CAS #: 75-45-6							
1.744	1.745	(0.302)	67	1006 0.80000	0.6877	80.00- 120.00	100.00
1.744	1.745	(0.302)	51	16724		1501.01-1561.01	1662.43
-----							
10 Freon 114 CAS #: 76-14-2							
1.842	1.856	(0.319)	135	11608 0.80000	0.7985	80.00- 120.00	100.00
1.842	1.856	(0.319)	137	3024		2.30- 62.30	26.05
-----							
19 Vinyl Chloride CAS #: 75-01-4							
2.068	2.068	(0.358)	62	8652 0.80000	0.8371	80.00- 120.00	100.00
2.060	2.068	(0.357)	64	2015		0.00- 59.69	23.29
-----							

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
20 1,3-Butadiene						CAS #: 106-99-0		
2.089	2.089	(0.362)	54	6127	0.80000	0.7370	80.00- 120.00	100.00
2.082	2.089	(0.360)	39	6271			52.37- 112.37	102.35
-----								
32 Vinyl Bromide						CAS #: 593-60-2		
2.834	2.841	(0.490)	106	4730	0.80000	0.7700	80.00- 120.00	100.00
2.834	2.841	(0.490)	108	4577			69.27- 129.27	96.77
-----								
33 Freon 11						CAS #: 75-69-4		
2.884	2.884	(0.499)	101	12538	0.80000	0.7967	80.00- 120.00	100.00
2.884	2.884	(0.499)	103	8055			34.72- 94.72	64.24
-----								
34 Dichlorofluoromethane						CAS #: 75-43-4		
2.891	2.899	(0.500)	67	11113	0.80000	0.8193	80.00- 120.00	100.00(a)
2.891	2.899	(0.500)	69	4116			0.84- 60.84	37.04
-----								
35 Pentane						CAS #: 109-66-0		
2.963	2.970	(0.513)	43	15312	0.80000	0.8330	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	3948			0.00- 44.98	25.78
2.970	2.970	(0.514)	72	1224			0.00- 37.39	7.99
-----								
38 Ethyl Ether						CAS #: 60-29-7		
3.300	3.285	(0.571)	74	2195	0.80000	0.7078	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	5814			163.46- 223.46	264.87
3.278	3.285	(0.567)	45	7546			250.40- 310.40	343.78
-----								
43 Freon 113						CAS #: 76-13-1		
3.550	3.550	(0.614)	151	8777	0.80000	0.7507	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	5991			33.56- 93.56	68.26
3.550	3.550	(0.614)	101	10762			89.21- 149.21	122.62
-----								
44 1,1-Dichloroethene						CAS #: 75-35-4		
3.572	3.579	(0.618)	96	5973	0.80000	0.8551	80.00- 120.00	100.00
3.572	3.579	(0.618)	98	4228			34.02- 94.02	70.79
3.572	3.579	(0.618)	61	10403			168.77- 228.77	174.17
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.037	4.052	(0.699)	76	2453	0.80000	0.7979	80.00- 120.00	100.00
4.045	4.052	(0.700)	41	9150			396.19- 456.19	373.01
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.769)	73	16920	0.80000	0.8344	80.00- 120.00	100.00
4.453	4.446	(0.771)	57	5536			3.10- 63.10	32.72
4.446	4.446	(0.769)	41	6146			1.28- 61.28	36.32
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.474	4.482	(0.774)	98	3718	0.80000	0.7966	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
64 trans-1,2-Dichloroethene (continued)								
4.474	4.482	(0.774)	61	9389			255.84- 315.84	252.53
4.474	4.482	(0.774)	96	5939			127.59- 187.59	159.74
-----								
66 Acrylonitrile CAS #: 107-13-1								
4.553	4.560	(0.788)	52	5732	0.80000	0.8823	80.00- 120.00	100.00
4.553	4.560	(0.788)	53	5440			88.05- 148.05	94.91
-----								
67 Hexane CAS #: 110-54-3								
4.696	4.697	(0.813)	57	12522	0.80000	0.7698	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	8321			37.52- 97.52	66.45
4.696	4.697	(0.813)	86	1347			0.00- 41.48	10.76
-----								
71 1,1-Dichloroethane CAS #: 75-34-3								
4.962	4.962	(0.859)	63	11204	0.80000	0.8012	80.00- 120.00	100.00
4.962	4.962	(0.859)	65	3451			0.00- 59.70	30.80
-----								
84 2,2-Dichloropropane CAS #: 594-20-7								
5.506	5.506	(0.953)	77	9403	0.80000	0.7573	80.00- 120.00	100.00(a)
5.506	5.506	(0.953)	79	3306			2.28- 62.28	35.16
5.506	5.506	(0.953)	97	2804			0.00- 53.93	29.82
-----								
85 cis-1,2-Dichloroethene CAS #: 156-59-2								
5.542	5.549	(0.959)	98	3329	0.80000	0.6873	80.00- 120.00	100.00
5.542	5.549	(0.959)	96	6335			125.75- 185.75	190.30
5.542	5.549	(0.959)	61	13408			332.40- 392.40	402.76
-----								
89 Tetrahydrofuran CAS #: 109-99-9								
5.778	5.771	(1.000)	42	10221	0.80000	0.8235	80.00- 120.00	100.00
5.778	5.771	(1.000)	71	1918			0.00- 55.82	18.77
5.778	5.771	(1.000)	72	2670			0.00- 57.59	26.12
-----								
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.778	(1.000)	130	165114	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	125643			48.23- 108.23	76.09
5.771	5.778	(1.000)	49	294417			150.57- 210.57	178.31
-----								
92 Chloroform CAS #: 67-66-3								
5.835	5.835	(1.010)	83	10789	0.80000	0.7510	80.00- 120.00	100.00
5.835	5.835	(1.010)	85	7171			34.70- 94.70	66.47
-----								
94 Cyclohexane CAS #: 110-82-7								
5.957	5.957	(1.031)	84	7575	0.80000	0.7293	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	14971			142.57- 202.57	197.64
5.957	5.957	(1.031)	41	7502			62.09- 122.09	99.04
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.964	5.972	(1.032)	97	13006	0.80000	0.8014	80.00- 120.00	100.00
5.971	5.972	(1.033)	99	7613			34.02- 94.02	58.53
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.086	6.086	(1.053)	119	11896	0.80000	0.7815	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	10211			70.64- 130.64	85.84
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.115	6.115	(0.918)	110	3371	0.80000	0.8170	80.00- 120.00	100.00(a)
6.115	6.115	(0.918)	75	7643			226.85- 286.85	226.73
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.280	6.280	(1.087)	57	43641	0.80000	0.7719	80.00- 120.00	100.00
6.280	6.280	(1.087)	56	13299			2.24- 62.24	30.47
6.280	6.280	(1.087)	41	11333			0.00- 54.39	25.97
-----								
102 Benzene						CAS #: 71-43-2		
6.294	6.301	(0.945)	78	15237	0.80000	0.7617	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	4544			0.00- 52.90	29.82
-----								
§ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.308	6.308	(1.092)	65	213692	25.0000	23.451	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	105735			27.21- 87.21	49.48
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.958)	62	8020	0.80000	0.7705	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	2408			0.79- 60.79	30.02
-----								
107 Heptane						CAS #: 142-82-5		
6.444	6.444	(0.968)	71	5826	0.80000	0.7352	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	17276			226.53- 286.53	296.53
6.444	6.444	(0.968)	57	8717			100.85- 160.85	149.62
-----								
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	606184	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	94479			0.00- 45.71	15.59
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	7500	0.80000	0.7727	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	8249			76.29- 136.29	109.99
6.867	6.867	(1.031)	97	5319			33.63- 93.63	70.92
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.089	7.089	(1.065)	63	8531	0.80000	0.8318	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	5060			41.07- 101.07	59.31

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
114 1,2-Dichloropropane (continued)								
7.089	7.089	(1.065)	41	4367			22.53- 82.53	51.19
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.132	7.132	(0.754)	69	6670	0.80000	0.8231	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	13396			179.84- 239.84	200.84
7.139	7.139	(0.755)	100	2488			9.59- 69.59	37.30
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.182	7.175	(1.079)	88	4383	0.80000	0.8042	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	4085			68.28- 128.28	93.20
7.182	7.175	(1.079)	57	1304			2.68- 62.68	29.75
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.204	7.204	(0.761)	174	6512	0.80000	0.7441	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	7271			60.09- 120.09	111.66
7.204	7.204	(0.761)	95	5822			48.38- 108.38	89.40
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	11296	0.80000	0.7506	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	7568			35.24- 95.24	67.00
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.691	7.691	(1.155)	75	9799	0.80000	0.7707	80.00- 120.00	100.00
7.691	7.691	(1.155)	77	3081			2.42- 62.42	31.44
7.691	7.691	(1.155)	39	6857			37.16- 97.16	69.98
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	11923	0.80000	0.8488	80.00- 120.00	100.00(a)
6.974	6.974	(1.047)	98	4960			15.78- 75.78	41.60
6.974	6.974	(1.047)	55	14478			84.64- 144.64	121.43
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.798	7.791	(1.171)	58	8645	0.80000	0.8301	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	23117			242.35- 302.35	267.40
7.798	7.791	(1.171)	85	3561			3.24- 63.24	41.19
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.891	7.891	(1.185)	98	650730	25.0000	24.721	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	72936			0.00- 40.44	11.21
7.891	7.891	(1.185)	100	428196			34.95- 94.95	65.80
-----								
137 Toluene						CAS #: 108-88-3		
7.949	7.949	(1.194)	91	22780	0.80000	0.8254	80.00- 120.00	100.00
7.949	7.949	(1.194)	92	12614			28.38- 88.38	55.37
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
136 Octane						CAS #: 111-65-9		
7.941	7.949	(1.193)	57	9685	0.80000	0.8230	80.00- 120.00	100.00
7.941	7.949	(1.193)	85	8103			56.00- 116.00	83.67
7.941	7.949	(1.193)	43	24475			228.66- 288.66	252.71
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.214	8.214	(0.868)	75	8944	0.80000	0.7706	80.00- 120.00	100.00
8.214	8.214	(0.868)	77	3413			1.24- 61.24	38.16
8.214	8.214	(0.868)	39	5828			34.11- 94.11	65.16
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.400	8.400	(0.888)	97	7441	0.80000	0.7757	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	4988			31.96- 91.96	67.03
8.400	8.400	(0.888)	83	6109			52.93- 112.93	82.10
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	11474	0.80000	0.8537	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	9050			47.84- 107.84	78.87
8.464	8.464	(0.895)	131	8617			45.29- 105.29	75.10
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.288)	76	9705	0.80000	0.7405	80.00- 120.00	100.00(a)
8.579	8.579	(1.288)	41	15102			94.99- 154.99	155.61
8.579	8.579	(1.288)	78	4420			2.05- 62.05	45.54
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	14778	0.80000	0.8245	80.00- 120.00	100.00
8.794	8.801	(0.930)	127	11344			47.45- 107.45	76.76
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	12593	0.80000	0.8185	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	11731			64.21- 124.21	93.15
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	589752	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	320479			23.78- 83.78	54.34
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	18502	0.80000	0.7901	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	5822			1.74- 61.74	31.47
9.496	9.496	(1.004)	77	16247			25.04- 85.04	87.81
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	10293	0.80000	0.8406	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	30246			273.74- 333.74	293.85
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
156 Nonane						CAS #: 111-84-2		
9.596	9.596	(1.014)	43	26221	0.80000	0.8322	80.00- 120.00	100.00
9.596	9.603	(1.014)	57	21624			54.16- 114.16	82.47
9.603	9.603	(1.015)	85	6333			0.00- 53.90	24.15
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	12735	0.80000	0.8304	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	24959			163.73- 223.73	195.99
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	11761	0.80000	0.8004	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	25094			177.45- 237.45	213.37
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	21047	0.80000	0.8375	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	10991			17.88- 77.88	52.22
-----								
167 Bromoform						CAS #: 75-25-2		
10.542	10.542	(1.114)	173	13923	0.80000	0.7881	80.00- 120.00	100.00
10.542	10.542	(1.114)	171	7225			21.25- 81.25	51.89
-----								
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	37874	0.80000	0.8205	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	10437			0.00- 58.52	27.56
10.649	10.649	(1.126)	51	4962			0.00- 43.00	13.10
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.871	10.871	(1.149)	55	14385	0.80000	0.8714	80.00- 120.00	100.00(a)
10.878	10.871	(1.150)	98	5447			1.94- 61.94	37.87
10.871	10.871	(1.149)	42	10807			37.89- 97.89	75.13
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	378732	25.0000	25.008	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	481990			95.92- 155.92	127.26
10.921	10.921	(1.154)	176	365332			66.89- 126.89	96.46
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.107	11.100	(1.174)	83	18561	0.80000	0.8238	80.00- 120.00	100.00
11.100	11.100	(1.173)	85	11307			35.20- 95.20	60.92
-----								
177 Bromobenzene						CAS #: 108-86-1		
11.107	11.107	(1.174)	156	10853	0.80000	0.7731	80.00- 120.00	100.00(a)
11.107	11.107	(1.174)	158	10789			67.21- 127.21	99.41
11.179	11.179	(1.182)	77	6933			29.02- 89.02	63.88
-----								
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	11475	0.80000	0.8384	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
178 Propylbenzene (continued)								
11.150	11.150	(1.179)	91	43112			366.49- 426.49	375.70
11.143	11.150	(1.178)	105	2100			0.00- 44.85	18.30
-----								
179 1,2,3-Trichloropropane CAS #: 96-18-4								
11.179	11.179	(1.182)	110	5951	0.80000	0.8287	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	18371			280.55- 340.55	308.70
11.100	11.100	(1.173)	61	3117			15.49- 75.49	52.38
-----								
181 trans-1,4-Dichloro-2-butene CAS #: 110-57-6								
11.179	11.179	(1.182)	53	3638	0.80000	0.7728	80.00- 120.00	100.00(a)
11.179	11.179	(1.182)	89	2918			49.11- 109.11	80.21
11.179	11.179	(1.182)	75	18371			426.44- 486.44	504.98
-----								
182 Decane CAS #: 124-18-5								
11.251	11.251	(1.189)	57	33896	0.80000	0.9440	80.00- 120.00	100.00
11.258	11.251	(1.190)	71	9535			0.00- 57.66	28.13
11.258	11.258	(1.190)	142	1347			0.00- 34.09	3.97
-----								
183 4-Ethyltoluene CAS #: 622-96-8								
11.286	11.287	(1.193)	120	12273	0.80000	0.8246	80.00- 120.00	100.00
11.286	11.287	(1.193)	105	37727			284.55- 344.55	307.40
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
11.308	11.308	(1.195)	126	9433	0.80000	0.8094	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	32992			315.17- 375.17	349.75
11.308	11.301	(1.195)	65	4962			21.55- 81.55	52.60
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	16766	0.80000	0.8181	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	32345			164.93- 224.93	192.92
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.645	11.645	(1.231)	118	16331	0.80000	0.8022	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	9432			25.30- 85.30	57.76
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.738	11.738	(1.241)	119	30711	0.80000	0.8012	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	7000			0.00- 54.25	22.79
11.738	11.738	(1.241)	91	18642			31.27- 91.27	60.70
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.817	11.817	(1.249)	105	32248	0.80000	0.8337	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	16498			19.05- 79.05	51.16
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.996	11.996	(1.268)	134	9353	0.80000	0.7851	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
192 sec-Butylbenzene (continued)								
11.996	11.996	(1.268)	105	44701			437.55- 497.55	477.93
11.996	11.996	(1.268)	91	7110			40.76- 100.76	76.02
-----								
194 p-Cymene						CAS #: 99-87-6		
12.160	12.160	(1.285)	119	43493	0.80000	0.8260	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	10779			0.00- 55.54	24.78
12.153	12.153	(1.285)	91	9590			0.00- 51.48	22.05
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
12.196	12.196	(1.289)	146	21827	0.80000	0.8244	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	13524			33.21- 93.21	61.96
12.196	12.196	(1.289)	111	9335			11.31- 71.31	42.77
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
12.311	12.311	(1.301)	146	22077	0.80000	0.8252	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	13735			33.90- 93.90	62.21
12.311	12.311	(1.301)	111	9361			9.45- 69.45	42.40
-----								
199 alpha-Chlorotoluene						CAS #: 100-44-7		
12.461	12.461	(1.317)	91	28531	0.80000	0.7766	80.00- 120.00	100.00
12.461	12.461	(1.317)	126	7255			0.00- 53.26	25.43
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	35643	0.80000	0.8594	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	32820			58.12- 118.12	92.08
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	11054	0.80000	0.8266	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	36768			314.79- 374.79	332.62
12.626	12.626	(1.335)	92	18539			154.29- 214.29	167.71
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.733	12.741	(1.346)	146	20836	0.80000	0.8026	80.00- 120.00	100.00
12.733	12.741	(1.346)	148	14179			33.84- 93.84	68.05
12.733	12.741	(1.346)	111	9568			12.73- 72.73	45.92
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	25429	0.99000	0.7736	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	20311			52.87- 112.87	79.87
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	17480	1.01000	0.9113	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	17289			65.33- 125.33	98.91
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.582	(1.541)	225	11980	1.03000	0.8875	80.00- 120.00	100.00

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
215 Hexachlorobutadiene (continued)									
14.581	14.582	(1.541)	223	7605			33.17- 93.17	63.48	
-----									
216 Naphthalene									
						CAS #: 91-20-3			
14.761	14.768	(1.560)	128	5130	0.10000	0.1046	80.00- 120.00	100.00(a)	
14.761	14.768	(1.560)	127	1046			0.00- 42.88	20.39	
-----									
222 1,2,3-Trichlorobenzene									
						CAS #: 87-61-6			
15.069	15.069	(1.593)	180	15919	1.06000	0.9388	80.00- 120.00	100.00	
15.069	15.069	(1.593)	182	15376			65.75- 125.75	96.59	
15.069	15.069	(1.593)	145	5239			5.23- 65.23	32.91	
-----									

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051904.d  
 Lab Smp Id: ICAL Level 3  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 0.8ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	165114	3.97
108 1,4-Difluorobenze	597103	358262	835944	606184	1.52
153 Chlorobenzene-d5	587747	352648	822846	589752	0.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 14:02

Client ID:

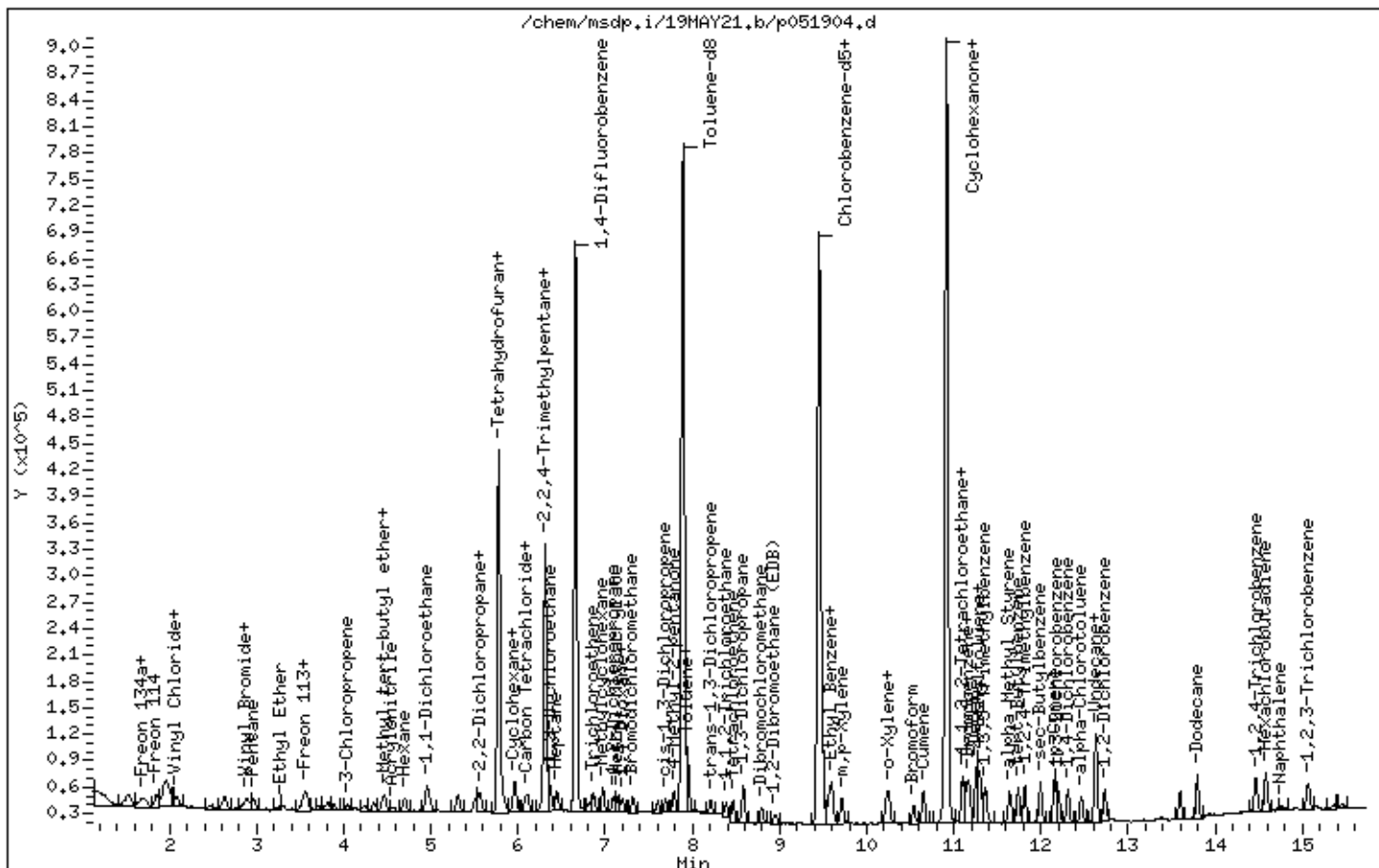
Instrument: msdp.i

Sample Info: 32mL 3018-2045

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051915.d  
 Lab Smp Id: ICAL Level 3  
 Inj Date : 19-MAY-2021 19:45  
 Operator : gh Inst ID: msdp.i  
 Smp Info : 32mL 3018-1928  
 Misc Info : 0.8ppbv (5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 2 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.778	(1.000)	130	164344	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	125886			48.23- 108.23	76.60
5.778	5.778	(1.000)	49	290825			150.57- 210.57	176.96
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.659	(1.000)	114	606504	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	95686			0.00- 45.71	15.78
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	593084	25.0000		80.00- 120.00	100.00
9.453	9.460	(1.000)	82	324813			23.78- 83.78	54.77
-----								
3 Freon 143a CAS #: 420-46-2								
1.591	1.590	(0.275)	65	3384	0.80000	1.014	80.00- 120.00	100.00(a)
1.591	1.590	(0.275)	69	8253			243.50- 303.50	243.88
1.591	1.590	(0.275)	64	1419			0.00- 54.06	41.93
-----								
6 Propane CAS #: 74-98-6								
1.674	1.674	(0.290)	43	3721	0.80000	1.216	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.674	1.674	(0.290)	39	2558			34.98- 94.98	68.74
1.688	1.674	(0.292)	41	1187			25.22- 85.22	31.90
-----								
13 Freon 142b			CAS #: 75-68-3					
1.884	1.884	(0.326)	65	14331	0.80000	0.8483	80.00- 120.00	100.00(a)
1.884	1.884	(0.326)	45	4817			0.00- 59.77	33.61
-----								
36 1-Pentene			CAS #: 109-67-1					
2.898	2.906	(0.502)	55	8373	0.80000	0.7641	80.00- 120.00	100.00(a)
2.898	2.906	(0.502)	42	10665			105.17- 165.17	127.37
-----								
40 Freon 123a			CAS #: 354-23-4					
3.378	3.385	(0.585)	117	8954	0.80000	0.8423	80.00- 120.00	100.00(a)
3.378	3.378	(0.585)	67	10000			104.69- 164.69	111.68
-----								
41 Freon 123			CAS #: 306-83-2					
3.479	3.479	(0.602)	83	12043	0.80000	0.8181	80.00- 120.00	100.00(a)
3.486	3.479	(0.603)	133	2878			0.00- 50.87	23.90
3.472	3.479	(0.601)	85	7657			36.08- 96.08	63.58
-----								
55 Cyclopentene			CAS #: 142-29-0					
4.066	4.073	(0.704)	67	13033	0.80000	0.8236	80.00- 120.00	100.00(a)
4.073	4.073	(0.705)	68	5570			6.76- 66.76	42.74
4.073	4.073	(0.705)	53	4098			0.00- 57.54	31.44
-----								
56 Methyl Acetate			CAS #: 79-20-9					
4.080	4.073	(0.706)	43	13892	0.80000	0.7505	80.00- 120.00	100.00(a)
4.073	4.073	(0.705)	74	2356			0.00- 44.13	16.96
-----								
74 Chloroprene			CAS #: 126-99-8					
5.019	5.019	(0.869)	53	10679	0.80000	0.7298	80.00- 120.00	100.00(a)
5.019	5.019	(0.869)	88	4129			9.21- 69.21	38.66
5.019	5.019	(0.869)	50	3511			0.00- 54.25	32.88
-----								
75 1-Propanol			CAS #: 71-23-8					
5.090	5.083	(0.881)	59	1961	0.80000	0.8598	80.00- 120.00	100.00(a)
5.090	5.083	(0.881)	42	1356			63.23- 123.23	69.15
5.090	5.083	(0.881)	41	964			24.74- 84.74	49.16
-----								
88 Methyl Acrylate			CAS #: 96-33-3					
5.628	5.620	(0.974)	55	14529	0.80000	0.7451	80.00- 120.00	100.00(a)
5.620	5.620	(0.973)	85	2658			0.00- 41.28	18.29
5.620	5.620	(0.973)	58	1084			0.00- 38.22	7.46
-----								
103 Isobutanol			CAS #: 78-83-1					
6.244	6.244	(1.081)	39	1516	0.80000	0.6268	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.244	6.244	(1.081)	43	6586			448.18- 508.18	434.43
6.244	6.244	(1.081)	41	6296			299.99- 359.99	415.30
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
6.938	6.938	(0.733)	99	1140	0.80000	0.8059	80.00- 120.00	100.00(a)
6.938	6.938	(0.733)	45	2310			149.95- 209.95	202.63
6.938	6.938	(0.733)	55	19701			1849.07-1909.07	1728.16
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.032	7.031	(0.743)	43	24123	0.80000	0.7933	80.00- 120.00	100.00(a)
7.032	7.031	(0.743)	58	1837			0.00- 37.44	7.62
7.032	7.031	(0.743)	86	3321			0.00- 42.78	13.77
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.665	8.665	(1.301)	56	12701	0.80000	0.8216	80.00- 120.00	100.00(a)
8.665	8.665	(1.301)	73	3929			0.00- 59.10	30.93
8.665	8.657	(1.301)	43	29172			215.30- 275.30	229.68
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.596	9.596	(1.014)	131	10131	0.80000	0.7736	80.00- 120.00	100.00(a)
9.460	9.460	(1.000)	117	593084			57.42- 117.42	5854.15
9.596	9.596	(1.014)	95	4021			5.70- 65.70	39.69
-----								
166 2-Heptanone						CAS #: 110-43-0		
10.362	10.362	(1.793)	58	19243	0.80000	0.7954	80.00- 120.00	100.00(a)
10.362	10.362	(1.793)	43	30387			136.03- 196.03	157.91
-----								
172 D-Limonene						CAS #: 5989-27-5		
12.089	12.089	(1.278)	68	6734	0.80000	0.6275	80.00- 120.00	100.00(a)
12.089	12.089	(1.278)	93	4720			39.41- 99.41	70.09
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
11.444	11.444	(1.210)	126	9434	0.80000	0.7705	80.00- 120.00	100.00(a)
11.444	11.444	(1.210)	91	29750			295.02- 355.02	315.35
11.437	11.444	(1.209)	63	4126			11.82- 71.82	43.74
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
12.318	12.318	(1.302)	120	14202	0.80000	0.8022	80.00- 120.00	100.00(a)
12.318	12.318	(1.302)	105	30046			192.40- 252.40	211.56
12.318	12.318	(1.302)	77	4952			0.00- 54.69	34.87
-----								
205 Hexachloroethane						CAS #: 67-72-1		
12.970	12.970	(1.371)	201	4732	0.80000	0.7912	80.00- 120.00	100.00(a)
12.963	12.970	(1.370)	117	7064			102.99- 162.99	149.28
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	19960	0.80000	0.7958	80.00- 120.00	100.00(a)
13.758	13.758	(1.454)	182	18425			65.24- 125.24	92.31
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	17650	0.80000	0.7612	80.00- 120.00	100.00(a)
10.599	10.599	(1.120)	77	6081			0.00- 58.21	34.45
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.423	11.422	(1.207)	93	9306	0.80000	0.6884	80.00- 120.00	100.00(a)
11.444	11.444	(1.210)	91	29750			153.57- 213.57	319.69
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051915.d  
 Lab Smp Id: ICAL Level 3  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 0.8ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	164344	3.48
108 1,4-Difluorobenze	597103	358262	835944	606504	1.57
153 Chlorobenzene-d5	587747	352648	822846	593084	0.91

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 19:45

Client ID:

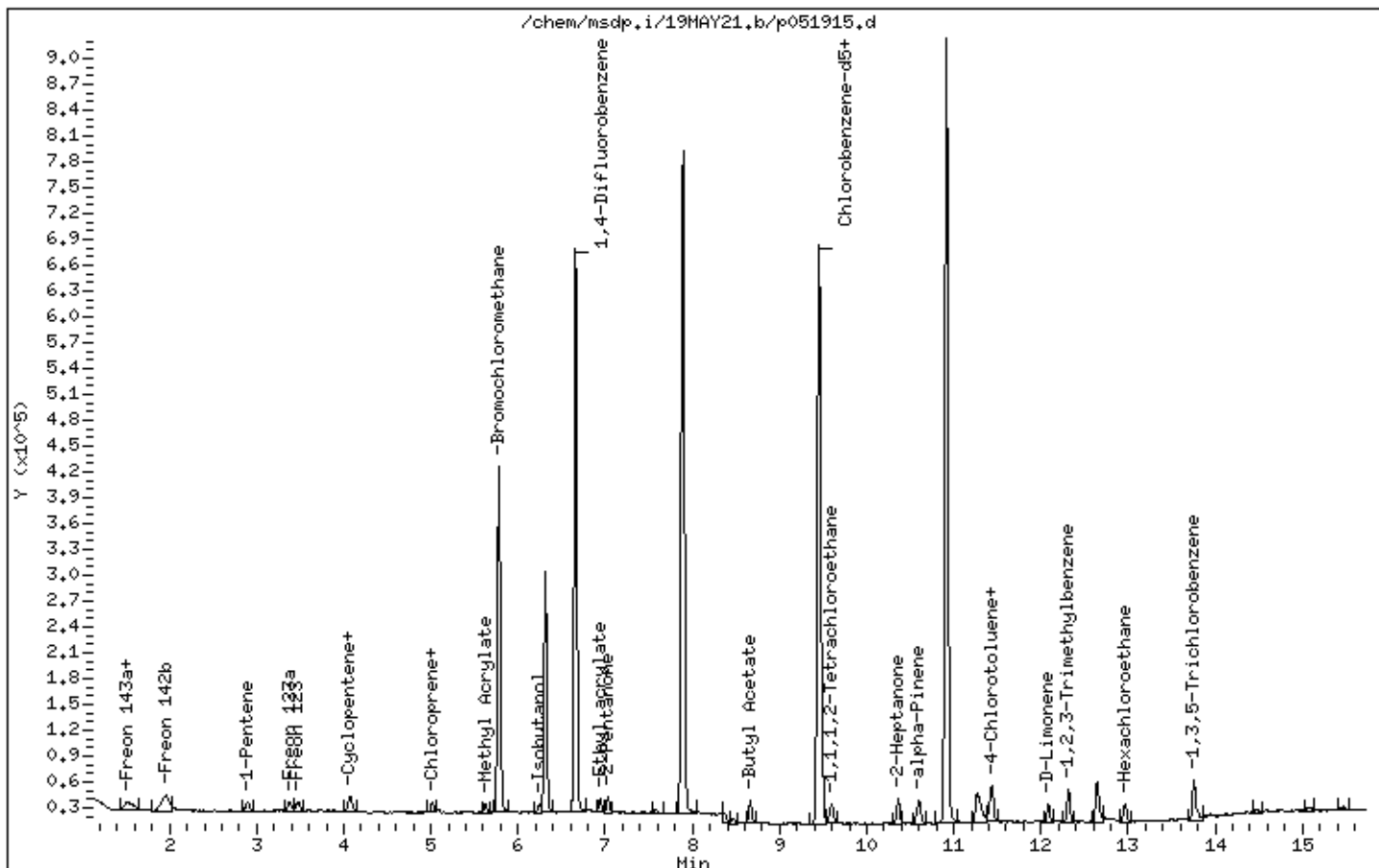
Instrument: msdp.i

Sample Info: 32mL 3018-1928

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051905.d  
Lab Smp Id: ICAL Level 4  
Inj Date : 19-MAY-2021 14:30  
Operator : LD Inst ID: msdp.i  
Smp Info : 80mL 3018-2045  
Misc Info : 2.0ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 20:13 Cal File: p051916.d  
Als bottle: 1 Calibration Sample, Level: 4  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2							
1.646	1.633	(0.285)	83	10752	2.00000	2.113 80.00- 120.00	100.00
1.646	1.633	(0.285)	69	9430		59.44- 119.44	87.70
1.744	1.745	(0.302)	51	44872		419.06- 479.06	417.34
-----							
5 Propylene CAS #: 115-07-1							
1.674	1.675	(0.290)	41	16628	2.00000	2.178 80.00- 120.00	100.00
1.674	1.675	(0.290)	42	9737		35.28- 95.28	58.56
1.674	1.675	(0.290)	39	9475		38.35- 98.35	56.98
-----							
7 1,1-Difluoroethane CAS #: 75-37-6							
1.702	1.703	(0.295)	65	9119	2.00000	2.248 80.00- 120.00	100.00
1.744	1.745	(0.302)	51	44872		597.63- 657.63	492.07
1.702	1.703	(0.295)	47	4376		33.72- 93.72	47.99
-----							
8 Freon 12 CAS #: 75-71-8							
1.716	1.717	(0.297)	85	28857	2.00000	2.119 80.00- 120.00	100.00
1.716	1.717	(0.297)	87	9809		2.37- 62.37	33.99
-----							
9 Chlorodifluoromethane CAS #: 75-45-6							
1.744	1.745	(0.302)	67	2775	2.00000	2.050 80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.744	1.745	(0.302)	51	44872			1501.01-1561.01	1617.01
-----								
10 Freon 114 CAS #: 76-14-2								
1.856	1.856	(0.321)	135	30051	2.00000	2.103	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	10561			2.30- 62.30	35.14
-----								
12 Isobutane CAS #: 75-28-5								
1.870	1.870	(0.324)	43	37601	2.00000	2.238	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	10224			2.44- 62.44	27.19
1.870	1.856	(0.324)	58	1126			0.00- 33.36	2.99
-----								
15 Chloromethane CAS #: 74-87-3								
1.940	1.940	(0.336)	50	20795	2.00000	2.143	80.00- 120.00	100.00
1.940	1.940	(0.336)	52	6777			0.00- 56.26	32.59
-----								
18 Butane CAS #: 106-97-8								
2.025	2.025	(0.350)	58	4684	2.00000	2.428	80.00- 120.00	100.00
2.025	2.025	(0.350)	43	30160			823.29- 883.29	643.89
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.068	2.068	(0.358)	62	22935	2.00000	2.214	80.00- 120.00	100.00
2.075	2.068	(0.359)	64	4016			0.00- 59.69	17.51
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.089	2.089	(0.362)	54	14209	2.00000	1.851	80.00- 120.00	100.00
2.089	2.089	(0.362)	39	14860			52.37- 112.37	104.58
-----								
24 Bromomethane CAS #: 74-83-9								
2.483	2.483	(0.430)	94	15345	2.00000	2.288	80.00- 120.00	100.00
2.476	2.483	(0.428)	96	14452			64.07- 124.07	94.18
-----								
30 Chloroethane CAS #: 75-00-3								
2.612	2.612	(0.452)	64	7064	2.00000	2.048	80.00- 120.00	100.00
2.619	2.612	(0.453)	66	2424			0.04- 60.04	34.31
2.619	2.612	(0.453)	49	2630			4.54- 64.54	37.23
-----								
31 Isopentane CAS #: 78-78-4								
2.633	2.634	(0.456)	43	21473	2.00000	2.019	80.00- 120.00	100.00
2.633	2.634	(0.456)	57	14410			34.12- 94.12	67.11
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.848	2.841	(0.493)	106	12788	2.00000	2.173	80.00- 120.00	100.00
2.841	2.841	(0.492)	108	11825			69.27- 129.27	92.47
-----								
33 Freon 11 CAS #: 75-69-4								
2.884	2.884	(0.499)	101	29478	2.00000	1.982	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.884	2.884	(0.499)	103	21023			34.72- 94.72	71.32
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.898	2.899	(0.502)	67	26413	2.00000	2.016	80.00- 120.00	100.00
2.891	2.899	(0.500)	69	8532			0.84- 60.84	32.30
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.514)	43	36199	2.00000	2.019	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	5481			0.00- 44.98	15.14
2.970	2.970	(0.514)	72	2569			0.00- 37.39	7.10
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.292	3.285	(0.570)	74	6103	2.00000	2.113	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	11984			163.46- 223.46	196.36
3.285	3.285	(0.569)	45	17007			250.40- 310.40	278.67
-----								
39 Ethanol CAS #: 64-17-5								
3.249	3.242	(0.562)	46	3513	2.00000	2.141	80.00- 120.00	100.00
3.285	3.242	(0.569)	45	17032			511.19- 571.19	484.83
-----								
42 Acrolein CAS #: 107-02-8								
3.536	3.529	(0.612)	55	5593	2.00000	2.070	80.00- 120.00	100.00
3.529	3.529	(0.611)	56	9027			111.10- 171.10	161.40
-----								
43 Freon 113 CAS #: 76-13-1								
3.550	3.550	(0.614)	151	22474	2.00000	2.051	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	14485			33.56- 93.56	64.45
3.550	3.550	(0.614)	101	27010			89.21- 149.21	120.18
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.579	3.579	(0.619)	96	12551	2.00000	1.903	80.00- 120.00	100.00
3.579	3.579	(0.619)	98	8404			34.02- 94.02	66.96
3.579	3.579	(0.619)	61	26438			168.77- 228.77	210.64
-----								
47 Acetone CAS #: 67-64-1								
3.715	3.708	(0.643)	58	9195	2.00000	2.141	80.00- 120.00	100.00
3.715	3.708	(0.643)	43	30176			302.95- 362.95	328.18
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.822	3.823	(0.662)	76	36134	2.00000	2.058	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.794	3.794	(0.657)	142	14456	2.00000	1.356	80.00- 120.00	100.00(a)
3.794	3.794	(0.657)	127	6010			12.22- 72.22	41.57
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.894	3.887	(0.674)	45	34496	2.00000	2.040	80.00- 120.00	100.00
3.894	3.887	(0.674)	43	6922			0.00- 47.19	20.07
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.045	4.052	(0.700)	76	6575	2.00000	2.162	80.00- 120.00	100.00
4.045	4.052	(0.700)	41	25612			396.19- 456.19	389.54
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.131	4.123	(0.715)	41	15059	2.00000	1.986	80.00- 120.00	100.00
4.131	4.123	(0.715)	40	9224			20.95- 80.95	61.25
4.131	4.123	(0.715)	38	2726			0.00- 41.17	18.10
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.231	4.238	(0.732)	49	21233	2.00000	2.009	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	11130			22.03- 82.03	52.42
4.238	4.238	(0.733)	51	6579			0.18- 60.18	30.98
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.345	4.338	(0.752)	59	40925	2.00000	2.099	80.00- 120.00	100.00
4.345	4.338	(0.752)	41	8206			0.00- 51.11	20.05
4.338	4.338	(0.751)	57	4155			0.00- 40.49	10.15
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.453	4.446	(0.771)	73	38812	2.00000	1.981	80.00- 120.00	100.00
4.453	4.446	(0.771)	57	12311			3.10- 63.10	31.72
4.453	4.446	(0.771)	41	12889			1.28- 61.28	33.21
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.474	4.482	(0.774)	98	9180	2.00000	2.060	80.00- 120.00	100.00
4.474	4.482	(0.774)	61	24720			255.84- 315.84	269.28
4.474	4.482	(0.774)	96	14713			127.59- 187.59	160.27
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.560	4.560	(0.789)	52	13138	2.00000	2.031	80.00- 120.00	100.00
4.560	4.560	(0.789)	53	14824			88.05- 148.05	112.83
-----								
67 Hexane						CAS #: 110-54-3		
4.696	4.697	(0.813)	57	31248	2.00000	2.036	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	21924			37.52- 97.52	70.16
4.696	4.697	(0.813)	86	3562			0.00- 41.48	11.40
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.961	4.962	(0.859)	63	27529	2.00000	2.029	80.00- 120.00	100.00
4.961	4.962	(0.859)	65	8205			0.00- 59.70	29.80
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.954	4.954	(0.857)	45	71591	2.00000	1.988	80.00- 120.00	100.00(a)
4.954	4.954	(0.857)	87	13182			0.00- 48.18	18.41
4.954	4.954	(0.857)	59	8012			0.00- 40.15	11.19
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.865)	86	3538	2.00000	2.042	80.00- 120.00	100.00
4.997	4.997	(0.865)	43	83098			2432.48-2492.48	2348.73
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.312	5.305	(0.919)	59	61838	2.00000	1.988	80.00- 120.00	100.00(a)
5.312	5.305	(0.919)	87	18730			1.00- 61.00	30.29
5.312	5.305	(0.919)	41	11608			0.00- 48.73	18.77
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.953)	77	23271	2.00000	2.002	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	7682			2.28- 62.28	33.01
5.506	5.506	(0.953)	97	5978			0.00- 53.93	25.69
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.960)	98	9213	2.00000	2.082	80.00- 120.00	100.00
5.542	5.549	(0.959)	96	15160			125.75- 185.75	164.55
5.542	5.549	(0.959)	61	33574			332.40- 392.40	364.42
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.962)	72	7496	2.00000	2.089	80.00- 120.00	100.00
5.570	5.556	(0.964)	43	90870			1214.50-1274.50	1212.25
5.556	5.556	(0.962)	57	3054			14.68- 74.68	40.74
87 Ethyl Acetate						CAS #: 141-78-6		
5.577	5.570	(0.965)	45	7299	2.00000	2.045	80.00- 120.00	100.00
5.542	5.549	(0.959)	61	33574			452.04- 512.04	459.98
5.570	5.570	(0.964)	70	4007			22.77- 82.77	54.90
89 Tetrahydrofuran						CAS #: 109-99-9		
5.778	5.771	(1.000)	42	24973	2.00000	2.047	80.00- 120.00	100.00
5.778	5.771	(1.000)	71	6164			0.00- 55.82	24.68
5.778	5.771	(1.000)	72	6913			0.00- 57.59	27.68
* 90 Bromochloromethane						CAS #: 74-97-5		
5.778	5.778	(1.000)	130	159831	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	126227			48.23- 108.23	78.98
5.778	5.778	(1.000)	49	292527			150.57- 210.57	183.02
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	27594	2.00000	2.032	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.835	5.835	(1.010)	85	18631			34.70- 94.70	67.52
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.957	5.957	(1.031)	84	19272	2.00000	2.021	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	34982			142.57- 202.57	181.52
5.957	5.957	(1.031)	41	20285			62.09- 122.09	105.26
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.964	5.972	(1.032)	97	31014	2.00000	2.006	80.00- 120.00	100.00
5.971	5.972	(1.033)	99	19587			34.02- 94.02	63.16
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.086	6.086	(1.053)	119	28698	2.00000	1.977	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	27861			70.64- 130.64	97.08
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.115	6.115	(0.918)	110	8669	2.00000	2.064	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	21304			226.85- 286.85	245.75
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.287	6.280	(1.088)	57	105858	2.00000	1.977	80.00- 120.00	100.00
6.279	6.280	(1.087)	56	34121			2.24- 62.24	32.23
6.287	6.280	(1.088)	41	25646			0.00- 54.39	24.23
-----								
102 Benzene						CAS #: 71-43-2		
6.301	6.301	(0.946)	78	42719	2.00000	2.114	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	9426			0.00- 52.90	22.07
-----								
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.308	6.308	(1.092)	65	213845	25.0000	25.226	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	109056			27.21- 87.21	51.00
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.358	6.358	(0.955)	87	12080	2.00000	2.059	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	45185			372.79- 432.79	374.05
6.358	6.358	(0.955)	55	15451			112.09- 172.09	127.91
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.958)	62	21692	2.00000	2.056	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	7191			0.79- 60.79	33.15
-----								
107 Heptane						CAS #: 142-82-5		
6.444	6.444	(0.968)	71	15826	2.00000	2.037	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	42456			226.53- 286.53	268.27
6.444	6.444	(0.968)	57	22790			100.85- 160.85	144.00
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	608981	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	97098			0.00- 45.71	15.94
-----								
110 n-Butanol						CAS #: 71-36-3		
6.817	6.810	(1.024)	56	13920	2.00000	1.933	80.00- 120.00	100.00
6.817	6.810	(1.024)	41	11206			40.99- 100.99	80.50
6.817	6.810	(1.024)	43	8308			27.38- 87.38	59.68
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	20090	2.00000	2.063	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	21639			76.29- 136.29	107.71
6.867	6.867	(1.031)	97	12122			33.63- 93.63	60.34
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.096	7.089	(1.066)	63	20821	2.00000	2.005	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	14576			41.07- 101.07	70.01
7.096	7.089	(1.066)	41	10584			22.53- 82.53	50.83
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.139	7.132	(0.755)	69	16454	2.00000	1.977	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	33345			179.84- 239.84	202.66
7.139	7.139	(0.755)	100	6482			9.59- 69.59	39.39
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.182	7.175	(1.079)	88	11643	2.00000	2.092	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	11397			68.28- 128.28	97.89
7.175	7.175	(1.077)	57	4191			2.68- 62.68	36.00
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.203	7.204	(0.761)	174	19142	2.00000	2.126	80.00- 120.00	100.00
7.203	7.204	(0.761)	93	16978			60.09- 120.09	88.70
7.203	7.204	(0.761)	95	14808			48.38- 108.38	77.36
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	31009	2.00000	2.066	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	19794			35.24- 95.24	63.83
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.691	7.691	(1.155)	75	25607	2.00000	2.035	80.00- 120.00	100.00
7.691	7.691	(1.155)	77	8122			2.42- 62.42	31.72
7.691	7.691	(1.155)	39	17386			37.16- 97.16	67.90
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	26965	2.00000	1.892	80.00- 120.00	100.00(a)
6.974	6.974	(1.047)	98	13600			15.78- 75.78	50.44

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.047)	55	34696			84.64- 144.64	128.67
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.798	7.791	(1.171)	58	20235	2.00000	1.954	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	55273			242.35- 302.35	273.16
7.798	7.791	(1.171)	85	7479			3.24- 63.24	36.96
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.891	7.891	(1.185)	98	665455	25.0000	25.210	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	77094			0.00- 40.44	11.59
7.891	7.891	(1.185)	100	431576			34.95- 94.95	64.85
-----								
137 Toluene						CAS #: 108-88-3		
7.948	7.949	(1.194)	91	56064	2.00000	1.997	80.00- 120.00	100.00
7.948	7.949	(1.194)	92	34906			28.38- 88.38	62.26
-----								
136 Octane						CAS #: 111-65-9		
7.948	7.949	(1.194)	57	22118	2.00000	1.902	80.00- 120.00	100.00
7.948	7.949	(1.194)	85	18563			56.00- 116.00	83.93
7.941	7.949	(1.193)	43	60251			228.66- 288.66	272.41
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.213	8.214	(0.868)	75	24394	2.00000	2.042	80.00- 120.00	100.00
8.213	8.214	(0.868)	77	8513			1.24- 61.24	34.90
8.213	8.214	(0.868)	39	16646			34.11- 94.11	68.24
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.400	8.400	(0.888)	97	19362	2.00000	2.008	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	12564			31.96- 91.96	64.89
8.400	8.400	(0.888)	83	17346			52.93- 112.93	89.59
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	28170	2.00000	1.983	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	21640			47.84- 107.84	76.82
8.464	8.464	(0.895)	131	20810			45.29- 105.29	73.87
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.586	8.586	(0.908)	58	27816	2.00000	1.995	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	55470			162.87- 222.87	199.42
8.586	8.586	(0.908)	100	4450			0.00- 45.94	16.00
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.288)	76	27760	2.00000	2.102	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	35478			94.99- 154.99	127.80
8.579	8.579	(1.288)	78	9229			2.05- 62.05	33.25
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	36760	2.00000	1.973	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	28370			47.45- 107.45	77.18
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	32272	2.00000	2.011	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	30370			64.21- 124.21	94.11
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	38340	2.00000	2.022	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	11961			0.00- 59.64	31.20
7.605	7.605	(1.142)	144	3836			0.00- 39.63	10.01
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	602501	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	328882			23.78- 83.78	54.59
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	48343	2.00000	2.025	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	15057			1.74- 61.74	31.15
9.496	9.496	(1.004)	77	32004			25.04- 85.04	66.20
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	24932	2.00000	1.960	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	76105			273.74- 333.74	305.25
-----								
156 Nonane						CAS #: 111-84-2		
9.596	9.596	(1.014)	43	63929	2.00000	1.973	80.00- 120.00	100.00
9.596	9.603	(1.014)	57	51732			54.16- 114.16	80.92
9.596	9.603	(1.014)	85	15047			0.00- 53.90	23.54
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	30801	2.00000	1.958	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	61907			163.73- 223.73	200.99
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	31016	2.00000	2.047	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	61477			177.45- 237.45	198.21
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	51582	2.00000	1.986	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	24588			17.88- 77.88	47.67
-----								
167 Bromoform						CAS #: 75-25-2		
10.541	10.542	(1.114)	173	35253	2.00000	1.964	80.00- 120.00	100.00
10.549	10.542	(1.115)	171	18187			21.25- 81.25	51.59
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	92633	2.00000	1.959	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	25468			0.00- 58.52	27.49
10.649	10.649	(1.126)	51	12337			0.00- 43.00	13.32
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.871	10.871	(1.149)	55	34971	2.00000	2.003	80.00- 120.00	100.00(a)
10.878	10.871	(1.150)	98	11080			1.94- 61.94	31.68
10.871	10.871	(1.149)	42	22417			37.89- 97.89	64.10
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	386143	25.0000	25.034	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	491927			95.92- 155.92	127.40
10.921	10.921	(1.154)	176	373529			66.89- 126.89	96.73
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.100	11.100	(1.173)	83	45589	2.00000	1.968	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	30225			35.20- 95.20	66.30
-----								
177 Bromobenzene						CAS #: 108-86-1		
11.107	11.107	(1.174)	156	29228	2.00000	2.039	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	27871			67.21- 127.21	95.36
11.179	11.179	(1.182)	77	16535			29.02- 89.02	56.57
-----								
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	27541	2.00000	1.952	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	110564			366.49- 426.49	401.45
11.150	11.150	(1.179)	105	4410			0.00- 44.85	16.01
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
11.179	11.179	(1.182)	110	15487	2.00000	2.068	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	44040			280.55- 340.55	284.37
11.100	11.100	(1.173)	61	6929			15.49- 75.49	44.74
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
11.179	11.179	(1.182)	53	10130	2.00000	2.088	80.00- 120.00	100.00
11.179	11.179	(1.182)	89	7740			49.11- 109.11	76.41
11.179	11.179	(1.182)	75	44040			426.44- 486.44	434.75
-----								
182 Decane						CAS #: 124-18-5		
11.251	11.251	(1.189)	57	75743	2.00000	1.938	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	21477			0.00- 57.66	28.36
11.258	11.258	(1.190)	142	2780			0.00- 34.09	3.67
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
11.286	11.287	(1.193)	120	30874	2.00000	2.017	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.286	11.287	(1.193)	105	94572			284.55- 344.55	306.32
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
11.308	11.308	(1.195)	126	23935	2.00000	2.009	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	81565			315.17- 375.17	340.78
11.301	11.301	(1.195)	65	12898			21.55- 81.55	53.89
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
11.365	11.365	(1.201)	120	40449	2.00000	1.939	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	83373			164.93- 224.93	206.12
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
11.645	11.645	(1.231)	118	42379	2.00000	2.012	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	23377			25.30- 85.30	55.16
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
11.738	11.738	(1.241)	119	78389	2.00000	2.001	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	18724			0.00- 54.25	23.89
11.738	11.738	(1.241)	91	46791			31.27- 91.27	59.69
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
11.816	11.817	(1.249)	105	78168	2.00000	1.959	80.00- 120.00	100.00
11.816	11.817	(1.249)	120	40414			19.05- 79.05	51.70
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
11.996	11.996	(1.268)	134	24394	2.00000	2.013	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	113600			437.55- 497.55	465.69
11.996	11.996	(1.268)	91	17621			40.76- 100.76	72.23
-----								
194 p-Cymene						CAS #: 99-87-6		
12.160	12.160	(1.285)	119	104556	2.00000	1.942	80.00- 120.00	100.00
12.153	12.160	(1.285)	134	27205			0.00- 55.54	26.02
12.153	12.153	(1.285)	91	22499			0.00- 51.48	21.52
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
12.196	12.196	(1.289)	146	55740	2.00000	2.016	80.00- 120.00	100.00
12.196	12.196	(1.289)	148	34699			33.21- 93.21	62.25
12.196	12.196	(1.289)	111	22480			11.31- 71.31	40.33
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
12.311	12.311	(1.301)	146	54700	2.00000	1.976	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	35545			33.90- 93.90	64.98
12.311	12.311	(1.301)	111	21710			9.45- 69.45	39.69
-----								
199 alpha-Chlorotoluene						CAS #: 100-44-7		
12.461	12.461	(1.317)	91	74656	2.00000	2.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	17192			0.00- 53.26	23.03
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	87872	2.00000	1.994	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	80279			58.12- 118.12	91.36
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	28076	2.00000	2.018	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	92470			314.79- 374.79	329.36
12.626	12.626	(1.335)	92	50010			154.29- 214.29	178.12
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.733	12.741	(1.346)	146	54244	2.00000	2.034	80.00- 120.00	100.00
12.733	12.741	(1.346)	148	33671			33.84- 93.84	62.07
12.733	12.741	(1.346)	111	23692			12.73- 72.73	43.68
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	31809	2.00000	1.969	80.00- 120.00	100.00(a)
13.600	13.600	(1.438)	75	26948			52.48- 112.48	84.72
13.600	13.600	(1.438)	155	24389			47.41- 107.41	76.67
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	76973	2.47000	2.484	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	66209			52.87- 112.87	86.02
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.460	14.467	(1.529)	180	50012	2.52000	2.605	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	47092			65.33- 125.33	94.16
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.582	(1.541)	225	35349	2.57000	2.658	80.00- 120.00	100.00
14.581	14.582	(1.541)	223	22934			33.17- 93.17	64.88
-----								
216 Naphthalene						CAS #: 91-20-3		
14.760	14.768	(1.560)	128	13400	0.25000	0.2587	80.00- 120.00	100.00(a)
14.768	14.768	(1.561)	127	2043			0.00- 42.88	15.25
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.068	15.069	(1.593)	180	46605	2.66000	2.753	80.00- 120.00	100.00
15.068	15.069	(1.593)	182	42985			65.75- 125.75	92.23
15.061	15.069	(1.592)	145	15683			5.23- 65.23	33.65
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051905.d  
 Lab Smp Id: ICAL Level 4  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 2.0ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	159831	0.64
108 1,4-Difluorobenze	597103	358262	835944	608981	1.99
153 Chlorobenzene-d5	587747	352648	822846	602501	2.51

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 14:30

Client ID:

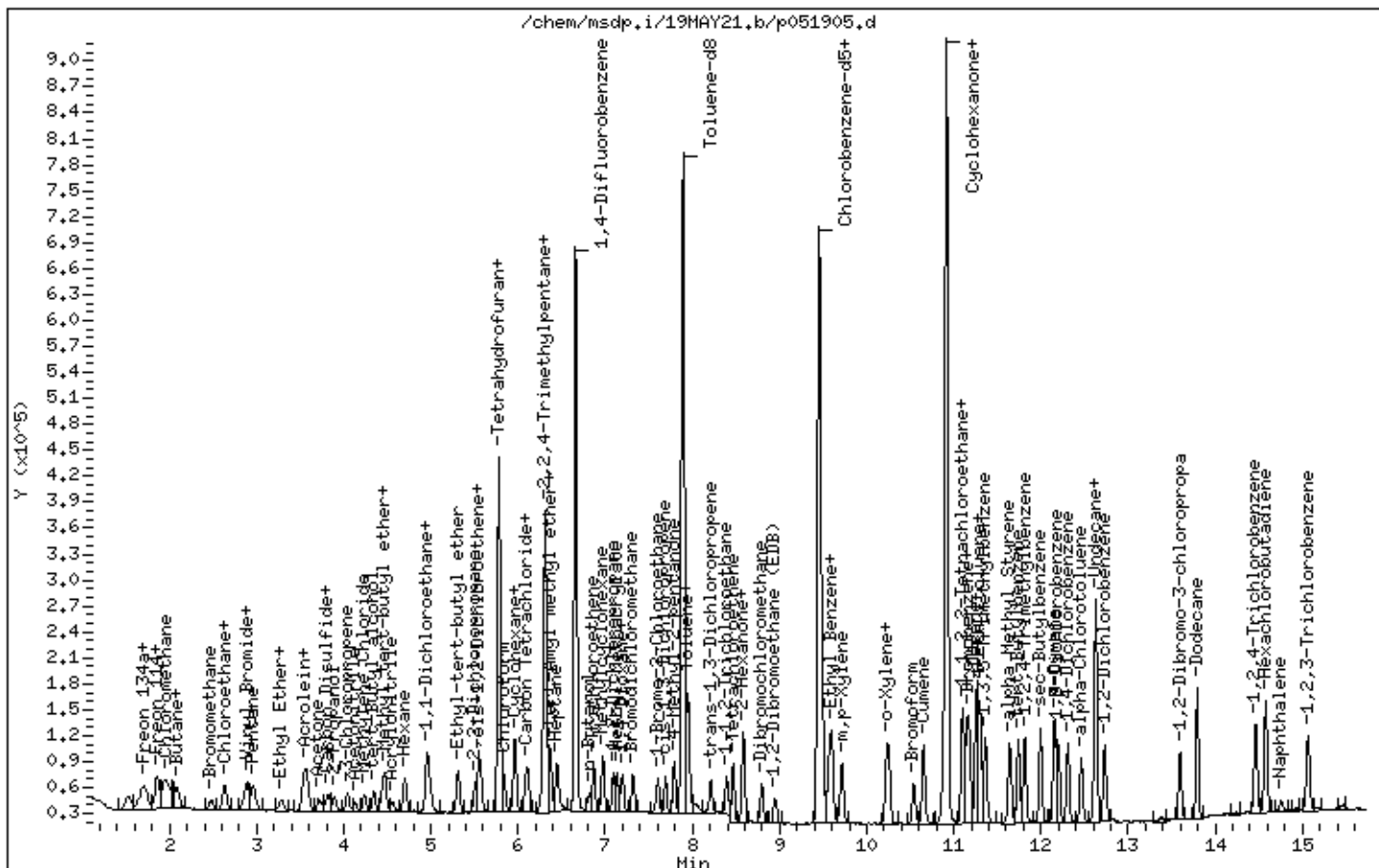
Instrument: msdp.i

Sample Info: 80mL 3018-2045

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051916.d  
Lab Smp Id: ICAL Level 4  
Inj Date : 19-MAY-2021 20:13  
Operator : gh Inst ID: msdp.i  
Smp Info : 80mL 3018-1928  
Misc Info : 2.0ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 20:13 Cal File: p051916.d  
Als bottle: 2 Calibration Sample, Level: 4  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.778	5.778	(1.000)	130	156828	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	122219			48.23- 108.23 77.93
5.778	5.778	(1.000)	49	287649			150.57- 210.57 183.42
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.659	6.659	(1.000)	114	605078	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	96791			0.00- 45.71 16.00
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.460	9.460	(1.000)	117	594880	25.0000		80.00- 120.00 100.00
9.460	9.460	(1.000)	82	325179			23.78- 83.78 54.66
-----							
3 Freon 143a CAS #: 420-46-2							
1.591	1.590	(0.275)	65	7005	2.00000	2.200	80.00- 120.00 100.00
1.591	1.590	(0.275)	69	17061			243.50- 303.50 243.55
1.591	1.590	(0.275)	64	2455			0.00- 54.06 35.05
-----							
6 Propane CAS #: 74-98-6							
1.675	1.674	(0.290)	43	5172	2.00000	1.772	80.00- 120.00 100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.675	1.674	(0.290)	39	4252			34.98- 94.98	82.21
1.675	1.674	(0.290)	41	3543			25.22- 85.22	68.50
-----								
13 Freon 142b						CAS #: 75-68-3		
1.898	1.884	(0.329)	65	31581	2.00000	1.959	80.00- 120.00	100.00(a)
1.884	1.884	(0.326)	45	11066			0.00- 59.77	35.04
-----								
36 1-Pentene						CAS #: 109-67-1		
2.906	2.906	(0.503)	55	19625	2.00000	1.877	80.00- 120.00	100.00(a)
2.906	2.906	(0.503)	42	27964			105.17- 165.17	142.49
-----								
40 Freon 123a						CAS #: 354-23-4		
3.378	3.385	(0.585)	117	19654	2.00000	1.937	80.00- 120.00	100.00(a)
3.386	3.378	(0.586)	67	26135			104.69- 164.69	132.98
-----								
41 Freon 123						CAS #: 306-83-2		
3.479	3.479	(0.602)	83	29140	2.00000	2.074	80.00- 120.00	100.00
3.479	3.479	(0.602)	133	6343			0.00- 50.87	21.77
3.479	3.479	(0.602)	85	20407			36.08- 96.08	70.03
-----								
55 Cyclopentene						CAS #: 142-29-0		
4.073	4.073	(0.705)	67	30943	2.00000	2.049	80.00- 120.00	100.00
4.073	4.073	(0.705)	68	11219			6.76- 66.76	36.26
4.073	4.073	(0.705)	53	8640			0.00- 57.54	27.92
-----								
56 Methyl Acetate						CAS #: 79-20-9		
4.080	4.073	(0.706)	43	37032	2.00000	2.096	80.00- 120.00	100.00(a)
4.080	4.073	(0.706)	74	5940			0.00- 44.13	16.04
-----								
74 Chloroprene						CAS #: 126-99-8		
5.019	5.019	(0.869)	53	28789	2.00000	2.062	80.00- 120.00	100.00
5.019	5.019	(0.869)	88	11054			9.21- 69.21	38.40
5.019	5.019	(0.869)	50	7722			0.00- 54.25	26.82
-----								
75 1-Propanol						CAS #: 71-23-8		
5.090	5.083	(0.881)	59	4700	2.00000	2.160	80.00- 120.00	100.00
5.090	5.083	(0.881)	42	3899			63.23- 123.23	82.96
5.090	5.083	(0.881)	41	2821			24.74- 84.74	60.02
-----								
88 Methyl Acrylate						CAS #: 96-33-3		
5.628	5.620	(0.974)	55	37088	2.00000	1.993	80.00- 120.00	100.00(a)
5.628	5.620	(0.974)	85	5500			0.00- 41.28	14.83
5.628	5.620	(0.974)	58	3509			0.00- 38.22	9.46
-----								
103 Isobutanol						CAS #: 78-83-1		
6.244	6.244	(1.081)	39	4047	2.00000	1.753	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO	
				CAL-AMT	ON-COL			
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.244	6.244	(1.081)	43	20761		448.18- 508.18	513.00	
6.244	6.244	(1.081)	41	13172		299.99- 359.99	325.48	
-----								
113 Ethyl acrylate								
						CAS #: 140-88-5		
6.946	6.938	(0.734)	99	2995	2.00000	2.111 80.00- 120.00	100.00	
6.946	6.938	(0.734)	45	5574		149.95- 209.95	186.11	
6.939	6.938	(0.733)	55	50476		1849.07-1909.07	1685.34	
-----								
115 2-Pentanone								
						CAS #: 107-87-9		
7.032	7.031	(0.743)	43	62449	2.00000	2.048 80.00- 120.00	100.00	
7.032	7.031	(0.743)	58	4500		0.00- 37.44	7.21	
7.032	7.031	(0.743)	86	7757		0.00- 42.78	12.42	
-----								
145 Butyl Acetate								
						CAS #: 123-86-4		
8.665	8.665	(1.301)	56	30994	2.00000	2.010 80.00- 120.00	100.00(a)	
8.665	8.665	(1.301)	73	9804		0.00- 59.10	31.63	
8.665	8.657	(1.301)	43	73858		215.30- 275.30	238.30	
-----								
157 1,1,1,2-Tetrachloroethane								
						CAS #: 630-20-6		
9.596	9.596	(1.014)	131	24295	2.00000	1.850 80.00- 120.00	100.00(a)	
9.460	9.460	(1.000)	117	594880		57.42- 117.42	2448.57	
9.603	9.596	(1.015)	95	9068		5.70- 65.70	37.32	
-----								
166 2-Heptanone								
						CAS #: 110-43-0		
10.362	10.362	(1.793)	58	45629	2.00000	1.976 80.00- 120.00	100.00(a)	
10.362	10.362	(1.793)	43	77430		136.03- 196.03	169.69	
-----								
172 D-Limonene								
						CAS #: 5989-27-5		
12.089	12.089	(1.278)	68	17413	2.00000	1.618 80.00- 120.00	100.00(a)	
12.089	12.089	(1.278)	93	11534		39.41- 99.41	66.24	
-----								
186 4-Chlorotoluene								
						CAS #: 106-43-4		
11.444	11.444	(1.210)	126	25118	2.00000	2.045 80.00- 120.00	100.00	
11.444	11.444	(1.210)	91	72648		295.02- 355.02	289.23	
11.444	11.444	(1.210)	63	9860		11.82- 71.82	39.25	
-----								
197 1,2,3-Trimethylbenzene								
						CAS #: 526-73-8		
12.318	12.318	(1.302)	120	34881	2.00000	1.964 80.00- 120.00	100.00(a)	
12.318	12.318	(1.302)	105	77447		192.40- 252.40	222.03	
12.311	12.318	(1.301)	77	8888		0.00- 54.69	25.48	
-----								
205 Hexachloroethane								
						CAS #: 67-72-1		
12.963	12.970	(1.370)	201	9631	2.00000	1.605 80.00- 120.00	100.00(a)	
12.963	12.970	(1.370)	117	13291		102.99- 162.99	138.00	
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
-----								
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	50566	2.00000	2.010	80.00- 120.00	100.00
13.758	13.758	(1.454)	182	47208			65.24- 125.24	93.36
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	45684	2.00000	1.964	80.00- 120.00	100.00(a)
10.599	10.599	(1.120)	77	14355			0.00- 58.21	31.42
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.415	11.422	(1.207)	93	23101	2.00000	1.704	80.00- 120.00	100.00(a)
11.444	11.444	(1.210)	91	72648			153.57- 213.57	314.48
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051916.d  
 Lab Smp Id: ICAL Level 4  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 2.0ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	156828	-1.25
108 1,4-Difluorobenze	597103	358262	835944	605078	1.34
153 Chlorobenzene-d5	587747	352648	822846	594880	1.21

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 20:13

Client ID:

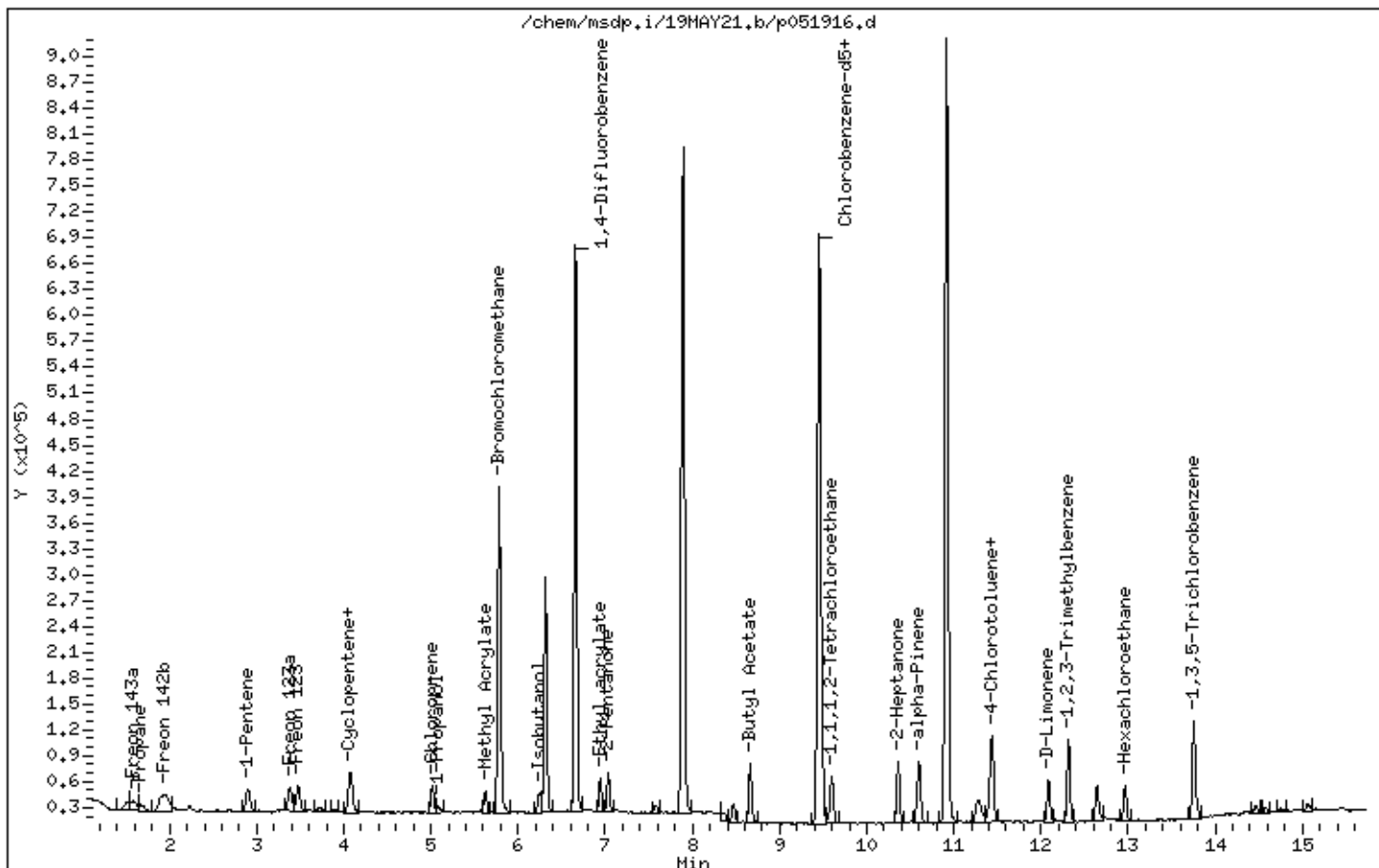
Instrument: msdp.i

Sample Info: 80mL 3018-1928

Operator: gh

Column phase: RTX-624

Column diameter: 0.25





US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051906.d  
 Lab Smp Id: ICAL Level 5  
 Inj Date : 19-MAY-2021 15:00  
 Operator : LD  
 Smp Info : 200mL 3018-2045  
 Misc Info : 5.0ppbv (5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g  
 Cal Date : 19-MAY-2021 20:43  
 Als bottle: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Inst ID: msdp.i  
 Quant Type: ISTD  
 Cal File: p051917.d  
 Calibration Sample, Level: 5  
 Compound Sublist: AT20ICAL.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a								CAS #: 811-97-2
1.661	1.633	(0.287)	83	23995	5.00000	4.931	80.00- 120.00	100.00
1.661	1.633	(0.287)	69	22578			59.44- 119.44	94.09
1.759	1.745	(0.304)	51	102230			419.06- 479.06	426.05
-----								
5 Propylene								CAS #: 115-07-1
1.689	1.675	(0.292)	41	35760	5.00000	4.916	80.00- 120.00	100.00
1.689	1.675	(0.292)	42	24631			35.28- 95.28	68.88
1.689	1.675	(0.292)	39	23528			38.35- 98.35	65.79
-----								
7 1,1-Difluoroethane								CAS #: 75-37-6
1.703	1.703	(0.294)	65	15753	5.00000	4.318	80.00- 120.00	100.00
1.759	1.745	(0.304)	51	102230			597.63- 657.63	648.96
1.717	1.703	(0.297)	47	10143			33.72- 93.72	64.39
-----								
8 Freon 12								CAS #: 75-71-8
1.717	1.717	(0.297)	85	74104	5.00000	5.482	80.00- 120.00	100.00
1.717	1.717	(0.297)	87	24165			2.37- 62.37	32.61
-----								
9 Chlorodifluoromethane								CAS #: 75-45-6
1.759	1.745	(0.304)	67	7019	5.00000	5.292	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.759	1.745	(0.304)	51	102230			1501.01-1561.01	1456.48
-----								
10 Freon 114 CAS #: 76-14-2								
1.857	1.856	(0.321)	135	74492	5.00000	5.312	80.00- 120.00	100.00
1.857	1.856	(0.321)	137	23699			2.30- 62.30	31.81
-----								
12 Isobutane CAS #: 75-28-5								
1.871	1.870	(0.323)	43	83131	5.00000	5.099	80.00- 120.00	100.00
1.871	1.870	(0.323)	42	28746			2.44- 62.44	34.58
1.871	1.856	(0.323)	58	3128			0.00- 33.36	3.76
-----								
15 Chloromethane CAS #: 74-87-3								
1.954	1.940	(0.338)	50	34644	5.00000	4.063	80.00- 120.00	100.00
1.954	1.940	(0.338)	52	9203			0.00- 56.26	26.56
-----								
18 Butane CAS #: 106-97-8								
2.032	2.025	(0.351)	58	10771	5.00000	5.513	80.00- 120.00	100.00
2.039	2.025	(0.352)	43	81676			823.29- 883.29	758.30
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.075	2.068	(0.359)	62	52333	5.00000	5.191	80.00- 120.00	100.00
2.075	2.068	(0.359)	64	16408			0.00- 59.69	31.35
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.104	2.089	(0.364)	54	34439	5.00000	4.748	80.00- 120.00	100.00
2.096	2.089	(0.362)	39	40510			52.37- 112.37	117.63
-----								
24 Bromomethane CAS #: 74-83-9								
2.483	2.483	(0.429)	94	37056	5.00000	5.477	80.00- 120.00	100.00
2.483	2.483	(0.429)	96	35000			64.07- 124.07	94.45
-----								
30 Chloroethane CAS #: 75-00-3								
2.619	2.612	(0.453)	64	20225	5.00000	5.684	80.00- 120.00	100.00
2.619	2.612	(0.453)	66	5966			0.04- 60.04	29.50
2.612	2.612	(0.452)	49	6111			4.54- 64.54	30.22
-----								
31 Isopentane CAS #: 78-78-4								
2.641	2.634	(0.456)	43	54200	5.00000	5.198	80.00- 120.00	100.00
2.641	2.634	(0.456)	57	34951			34.12- 94.12	64.49
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.849	2.841	(0.492)	106	30600	5.00000	5.302	80.00- 120.00	100.00
2.849	2.841	(0.492)	108	29476			69.27- 129.27	96.33
-----								
33 Freon 11 CAS #: 75-69-4								
2.891	2.884	(0.500)	101	77104	5.00000	5.291	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.891	2.884	(0.500)	103	50811			34.72- 94.72	65.90
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.906	2.899	(0.502)	67	65512	5.00000	5.152	80.00- 120.00	100.00
2.906	2.899	(0.502)	69	21322			0.84- 60.84	32.55
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.513)	43	87490	5.00000	5.059	80.00- 120.00	100.00
2.970	2.970	(0.513)	57	12542			0.00- 44.98	14.34
2.970	2.970	(0.513)	72	6373			0.00- 37.39	7.28
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.293	3.285	(0.569)	74	15538	5.00000	5.437	80.00- 120.00	100.00
3.293	3.285	(0.569)	59	30441			163.46- 223.46	195.91
3.285	3.285	(0.568)	45	42142			250.40- 310.40	271.22
-----								
39 Ethanol CAS #: 64-17-5								
3.250	3.242	(0.562)	46	7863	5.00000	4.992	80.00- 120.00	100.00
3.285	3.242	(0.568)	45	41557			511.19- 571.19	528.51
-----								
42 Acrolein CAS #: 107-02-8								
3.543	3.529	(0.612)	55	14233	5.00000	5.312	80.00- 120.00	100.00
3.543	3.529	(0.612)	56	18296			111.10- 171.10	128.55
-----								
43 Freon 113 CAS #: 76-13-1								
3.550	3.550	(0.614)	151	56770	5.00000	5.289	80.00- 120.00	100.00
3.558	3.550	(0.615)	153	35706			33.56- 93.56	62.90
3.550	3.550	(0.614)	101	68951			89.21- 149.21	121.46
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.586	3.579	(0.620)	96	33311	5.00000	5.191	80.00- 120.00	100.00
3.586	3.579	(0.620)	98	21526			34.02- 94.02	64.62
3.586	3.579	(0.620)	61	66191			168.77- 228.77	198.71
-----								
47 Acetone CAS #: 67-64-1								
3.722	3.708	(0.643)	58	20489	5.00000	4.976	80.00- 120.00	100.00
3.722	3.708	(0.643)	43	68525			302.95- 362.95	334.45
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.830	3.823	(0.662)	76	91954	5.00000	5.292	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.801	3.794	(0.657)	142	34575	5.00000	3.786	80.00- 120.00	100.00
3.801	3.794	(0.657)	127	14689			12.22- 72.22	42.48
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.894	3.887	(0.673)	45	81715	5.00000	5.020	80.00- 120.00	100.00
3.901	3.887	(0.674)	43	14133			0.00- 47.19	17.30
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.052	4.052	(0.700)	76	15048	5.00000	5.111	80.00- 120.00	100.00
4.052	4.052	(0.700)	41	60762			396.19- 456.19	403.79
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.131	4.123	(0.714)	41	39661	5.00000	5.288	80.00- 120.00	100.00
4.138	4.123	(0.715)	40	25399			20.95- 80.95	64.04
4.138	4.123	(0.715)	38	4002			0.00- 41.17	10.09
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.238	4.238	(0.733)	49	56613	5.00000	5.369	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	29850			22.03- 82.03	52.73
4.238	4.238	(0.733)	51	17301			0.18- 60.18	30.56
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.346	4.338	(0.751)	59	101502	5.00000	5.272	80.00- 120.00	100.00
4.346	4.338	(0.751)	41	20240			0.00- 51.11	19.94
4.346	4.338	(0.751)	57	10646			0.00- 40.49	10.49
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.453	4.446	(0.770)	73	95601	5.00000	5.059	80.00- 120.00	100.00
4.453	4.446	(0.770)	57	32712			3.10- 63.10	34.22
4.446	4.446	(0.768)	41	29468			1.28- 61.28	30.82
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.482	4.482	(0.775)	98	22139	5.00000	5.128	80.00- 120.00	100.00
4.482	4.482	(0.775)	61	65349			255.84- 315.84	295.18
4.482	4.482	(0.775)	96	35688			127.59- 187.59	161.20
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.568	4.560	(0.790)	52	31636	5.00000	5.067	80.00- 120.00	100.00
4.568	4.560	(0.790)	53	37230			88.05- 148.05	117.68
-----								
67 Hexane						CAS #: 110-54-3		
4.697	4.697	(0.812)	57	78566	5.00000	5.242	80.00- 120.00	100.00
4.697	4.697	(0.812)	43	52548			37.52- 97.52	66.88
4.697	4.697	(0.812)	86	8762			0.00- 41.48	11.15
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.969	4.962	(0.859)	63	71027	5.00000	5.330	80.00- 120.00	100.00
4.969	4.962	(0.859)	65	20959			0.00- 59.70	29.51
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.954	4.954	(0.856)	45	175979	5.00000	5.056	80.00- 120.00	100.00
4.954	4.954	(0.856)	87	32174			0.00- 48.18	18.28
4.954	4.954	(0.856)	59	19101			0.00- 40.15	10.85
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.864)	86	8490	5.00000	5.067	80.00- 120.00	100.00
4.997	4.997	(0.864)	43	210809			2432.48-2492.48	2483.03
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.917)	59	155272	5.00000	5.130	80.00- 120.00	100.00
5.313	5.305	(0.918)	87	47844			1.00- 61.00	30.81
5.305	5.305	(0.917)	41	29096			0.00- 48.73	18.74
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.952)	77	57515	5.00000	5.111	80.00- 120.00	100.00
5.506	5.506	(0.952)	79	19126			2.28- 62.28	33.25
5.513	5.506	(0.953)	97	14288			0.00- 53.93	24.84
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.959)	98	23684	5.00000	5.416	80.00- 120.00	100.00
5.549	5.549	(0.959)	96	37228			125.75- 185.75	157.19
5.549	5.549	(0.959)	61	88318			332.40- 392.40	372.90
86 2-Butanone						CAS #: 78-93-3		
5.563	5.556	(0.962)	72	18843	5.00000	5.301	80.00- 120.00	100.00
5.570	5.556	(0.963)	43	231029			1214.50-1274.50	1226.07
5.556	5.556	(0.960)	57	9599			14.68- 74.68	50.94
87 Ethyl Acetate						CAS #: 141-78-6		
5.578	5.570	(0.964)	45	18229	5.00000	5.206	80.00- 120.00	100.00
5.549	5.549	(0.959)	61	88318			452.04- 512.04	484.49
5.578	5.570	(0.964)	70	9745			22.77- 82.77	53.46
89 Tetrahydrofuran						CAS #: 109-99-9		
5.778	5.771	(0.999)	42	62552	5.00000	5.248	80.00- 120.00	100.00
5.778	5.771	(0.999)	71	16889			0.00- 55.82	27.00
5.778	5.771	(0.999)	72	17687			0.00- 57.59	28.28
* 90 Bromochloromethane						CAS #: 74-97-5		
5.785	5.778	(1.000)	130	153560	25.0000		80.00- 120.00	100.00
5.785	5.778	(1.000)	128	120740			48.23- 108.23	78.63
5.785	5.778	(1.000)	49	285150			150.57- 210.57	185.69
92 Chloroform						CAS #: 67-66-3		
5.843	5.835	(1.010)	83	72304	5.00000	5.396	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.835	5.835	(1.009)	85	48644			34.70- 94.70	67.28
-----								
94 Cyclohexane								
5.957	5.957	(1.030)	84	48651	5.00000	5.230	80.00- 120.00	100.00
5.957	5.957	(1.030)	56	84034			142.57- 202.57	172.73
5.957	5.957	(1.030)	41	47136			62.09- 122.09	96.89
-----								
96 1,1,1-Trichloroethane								
5.972	5.972	(1.032)	97	76302	5.00000	5.101	80.00- 120.00	100.00
5.972	5.972	(1.032)	99	48638			34.02- 94.02	63.74
-----								
97 Carbon Tetrachloride								
6.086	6.086	(1.052)	119	68353	5.00000	4.926	80.00- 120.00	100.00
6.086	6.086	(1.052)	117	69130			70.64- 130.64	101.14
-----								
99 1,1-Dichloropropene								
6.122	6.115	(0.918)	110	21692	5.00000	5.091	80.00- 120.00	100.00
6.115	6.115	(0.917)	75	54412			226.85- 286.85	250.84
-----								
101 2,2,4-Trimethylpentane								
6.280	6.280	(1.085)	57	268783	5.00000	5.166	80.00- 120.00	100.00
6.280	6.280	(1.085)	56	86771			2.24- 62.24	32.28
6.280	6.280	(1.085)	41	65018			0.00- 54.39	24.19
-----								
102 Benzene								
6.301	6.301	(0.945)	78	103868	5.00000	5.071	80.00- 120.00	100.00
6.301	6.301	(0.945)	77	24431			0.00- 52.90	23.52
-----								
§ 104 1,2-Dichloroethane-d4								
6.315	6.308	(1.092)	65	219202	25.0000	26.408	80.00- 120.00	100.00
6.315	6.308	(1.092)	67	110588			27.21- 87.21	50.45
-----								
105 tert-Amyl methyl ether								
6.358	6.358	(0.954)	87	27837	5.00000	4.798	80.00- 120.00	100.00
6.358	6.358	(0.954)	73	110361			372.79- 432.79	396.45
6.358	6.358	(0.954)	55	40445			112.09- 172.09	145.29
-----								
106 1,2-Dichloroethane								
6.380	6.380	(0.957)	62	57760	5.00000	5.314	80.00- 120.00	100.00
6.380	6.380	(0.957)	64	18494			0.79- 60.79	32.02
-----								
107 Heptane								
6.452	6.444	(0.968)	71	40838	5.00000	5.157	80.00- 120.00	100.00
6.452	6.444	(0.968)	43	109706			226.53- 286.53	268.64
6.452	6.444	(0.968)	57	53636			100.85- 160.85	131.34
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.666	6.659	(1.000)	114	614215	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	99192			0.00- 45.71	16.15
-----								
110 n-Butanol						CAS #: 71-36-3		
6.817	6.810	(1.023)	56	37585	5.00000	5.115	80.00- 120.00	100.00
6.817	6.810	(1.023)	41	25791			40.99- 100.99	68.62
6.817	6.810	(1.023)	43	19657			27.38- 87.38	52.30
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.030)	95	50753	5.00000	5.124	80.00- 120.00	100.00
6.867	6.867	(1.030)	130	55306			76.29- 136.29	108.97
6.867	6.867	(1.030)	97	33227			33.63- 93.63	65.47
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.096	7.089	(1.064)	63	52290	5.00000	4.994	80.00- 120.00	100.00
7.096	7.089	(1.064)	62	37275			41.07- 101.07	71.29
7.096	7.089	(1.064)	41	32092			22.53- 82.53	61.37
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.139	7.132	(0.755)	69	42786	5.00000	5.002	80.00- 120.00	100.00
7.139	7.132	(0.755)	41	84724			179.84- 239.84	198.02
7.139	7.139	(0.755)	100	16675			9.59- 69.59	38.97
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.182	7.175	(1.077)	88	29029	5.00000	5.128	80.00- 120.00	100.00
7.182	7.175	(1.077)	58	30676			68.28- 128.28	105.67
7.175	7.175	(1.076)	57	10403			2.68- 62.68	35.84
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.204	7.204	(0.761)	174	48548	5.00000	5.183	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	44155			60.09- 120.09	90.95
7.204	7.204	(0.761)	95	37033			48.38- 108.38	76.28
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.098)	83	79651	5.00000	5.195	80.00- 120.00	100.00
7.318	7.318	(1.098)	85	50267			35.24- 95.24	63.11
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.698	7.691	(1.155)	75	66685	5.00000	5.188	80.00- 120.00	100.00
7.691	7.691	(1.154)	77	20474			2.42- 62.42	30.70
7.698	7.691	(1.155)	39	45208			37.16- 97.16	67.79
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.046)	83	68708	5.00000	4.834	80.00- 120.00	100.00
6.974	6.974	(1.046)	98	32707			15.78- 75.78	47.60

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.046)	55	78753			84.64- 144.64	114.62
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.798	7.791	(1.170)	58	52502	5.00000	5.020	80.00- 120.00	100.00
7.798	7.791	(1.170)	43	142064			242.35- 302.35	270.59
7.798	7.791	(1.170)	85	17584			3.24- 63.24	33.49
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.891	7.891	(1.184)	98	675430	25.0000	25.276	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	73047			0.00- 40.44	10.81
7.891	7.891	(1.184)	100	435947			34.95- 94.95	64.54
-----								
137 Toluene						CAS #: 108-88-3		
7.956	7.949	(1.193)	91	142004	5.00000	5.011	80.00- 120.00	100.00
7.956	7.949	(1.193)	92	83371			28.38- 88.38	58.71
-----								
136 Octane						CAS #: 111-65-9		
7.949	7.949	(1.192)	57	58129	5.00000	4.968	80.00- 120.00	100.00
7.949	7.949	(1.192)	85	50245			56.00- 116.00	86.44
7.949	7.949	(1.192)	43	157708			228.66- 288.66	271.31
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.214	8.214	(0.868)	75	61054	5.00000	4.981	80.00- 120.00	100.00
8.214	8.214	(0.868)	77	20798			1.24- 61.24	34.06
8.214	8.214	(0.868)	39	41024			34.11- 94.11	67.19
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.400	8.400	(0.888)	97	49333	5.00000	4.984	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	30960			31.96- 91.96	62.76
8.400	8.400	(0.888)	83	42360			52.93- 112.93	85.87
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	71008	5.00000	4.897	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	56371			47.84- 107.84	79.39
8.464	8.464	(0.895)	131	53822			45.29- 105.29	75.80
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.586	8.586	(0.908)	58	73185	5.00000	5.071	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	139375			162.87- 222.87	190.44
8.586	8.586	(0.908)	100	11054			0.00- 45.94	15.10
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.287)	76	69233	5.00000	5.146	80.00- 120.00	100.00
8.579	8.579	(1.287)	41	91020			94.99- 154.99	131.47
8.579	8.579	(1.287)	78	23803			2.05- 62.05	34.38
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	91590	5.00000	4.835	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	70825			47.45- 107.45	77.33
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	81392	5.00000	4.951	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	77262			64.21- 124.21	94.93
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.141)	63	98471	5.00000	5.098	80.00- 120.00	100.00
7.605	7.605	(1.141)	65	28839			0.00- 59.64	29.29
7.612	7.605	(1.142)	144	9784			0.00- 39.63	9.94
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	619157	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	334026			23.78- 83.78	53.95
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	124593	5.00000	5.059	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	38052			1.74- 61.74	30.54
9.496	9.496	(1.004)	77	71532			25.04- 85.04	57.41
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	62027	5.00000	4.807	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	188972			273.74- 333.74	304.66
-----								
156 Nonane						CAS #: 111-84-2		
9.603	9.596	(1.015)	43	159252	5.00000	4.835	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	134249			54.16- 114.16	84.30
9.603	9.603	(1.015)	85	35745			0.00- 53.90	22.45
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	78963	5.00000	4.914	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	153333			163.73- 223.73	194.18
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	75798	5.00000	4.901	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	152985			177.45- 237.45	201.83
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	128486	5.00000	4.859	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	63172			17.88- 77.88	49.17
-----								
167 Bromoform						CAS #: 75-25-2		
10.549	10.542	(1.115)	173	90352	5.00000	4.922	80.00- 120.00	100.00
10.549	10.542	(1.115)	171	45856			21.25- 81.25	50.75
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	240077	5.00000	4.956	80.00- 120.00	100.00
10.656	10.649	(1.126)	120	66515			0.00- 58.52	27.71
10.649	10.649	(1.126)	51	32083			0.00- 43.00	13.36
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.871	10.871	(1.149)	55	82861	5.00000	4.708	80.00- 120.00	100.00(a)
10.871	10.871	(1.149)	98	26897			1.94- 61.94	32.46
10.871	10.871	(1.149)	42	53882			37.89- 97.89	65.03
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	395495	25.0000	24.963	80.00- 120.00	100.00
10.921	10.921	(1.154)	95	504864			95.92- 155.92	127.65
10.921	10.921	(1.154)	176	377124			66.89- 126.89	95.35
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.107	11.100	(1.174)	83	115941	5.00000	4.902	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	75106			35.20- 95.20	64.78
-----								
177 Bromobenzene						CAS #: 108-86-1		
11.107	11.107	(1.174)	156	72185	5.00000	4.925	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	70501			67.21- 127.21	97.67
11.179	11.179	(1.182)	77	42638			29.02- 89.02	59.07
-----								
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	70283	5.00000	4.886	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	273213			366.49- 426.49	388.73
11.150	11.150	(1.179)	105	11389			0.00- 44.85	16.20
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
11.179	11.179	(1.182)	110	35448	5.00000	4.699	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	108981			280.55- 340.55	307.44
11.100	11.100	(1.173)	61	16930			15.49- 75.49	47.76
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
11.179	11.179	(1.182)	53	24562	5.00000	4.944	80.00- 120.00	100.00
11.179	11.179	(1.182)	89	19278			49.11- 109.11	78.49
11.179	11.179	(1.182)	75	108981			426.44- 486.44	443.70
-----								
182 Decane						CAS #: 124-18-5		
11.251	11.251	(1.189)	57	178943	5.00000	4.581	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	50239			0.00- 57.66	28.08
11.258	11.258	(1.190)	142	7536			0.00- 34.09	4.21
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
11.287	11.287	(1.193)	120	74542	5.00000	4.802	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.287	11.287	(1.193)	105	236331			284.55- 344.55	317.04
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
11.308	11.308	(1.195)	126	59824	5.00000	4.914	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	202772			315.17- 375.17	338.95
11.301	11.301	(1.195)	65	31085			21.55- 81.55	51.96
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	105493	5.00000	4.941	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	204343			164.93- 224.93	193.70
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.645	11.645	(1.231)	118	103352	5.00000	4.828	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	55037			25.30- 85.30	53.25
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.738	11.738	(1.241)	119	195585	5.00000	4.893	80.00- 120.00	100.00
11.745	11.738	(1.242)	134	47923			0.00- 54.25	24.50
11.738	11.738	(1.241)	91	122078			31.27- 91.27	62.42
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.817	11.817	(1.249)	105	197002	5.00000	4.852	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	100446			19.05- 79.05	50.99
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.996	11.996	(1.268)	134	61201	5.00000	4.936	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	289294			437.55- 497.55	472.69
11.996	11.996	(1.268)	91	43669			40.76- 100.76	71.35
-----								
194 p-Cymene CAS #: 99-87-6								
12.160	12.160	(1.285)	119	263591	5.00000	4.820	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	69874			0.00- 55.54	26.51
12.160	12.153	(1.285)	91	57763			0.00- 51.48	21.91
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.203	12.196	(1.290)	146	138345	5.00000	4.901	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	88212			33.21- 93.21	63.76
12.196	12.196	(1.289)	111	57941			11.31- 71.31	41.88
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	139853	5.00000	4.937	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	90352			33.90- 93.90	64.60
12.311	12.311	(1.301)	111	54179			9.45- 69.45	38.74
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	190239	5.00000	4.969	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	42809			0.00- 53.26	22.50
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	220225	5.00000	4.896	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	195864			58.12- 118.12	88.94
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	68631	5.00000	4.849	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	231841			314.79- 374.79	337.81
12.626	12.626	(1.335)	92	123591			154.29- 214.29	180.08
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.741	12.741	(1.347)	146	136005	5.00000	4.972	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	85924			33.84- 93.84	63.18
12.733	12.741	(1.346)	111	58979			12.73- 72.73	43.37
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	79532	5.00000	4.858	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	66463			52.48- 112.48	83.57
13.600	13.600	(1.438)	155	62161			47.41- 107.41	78.16
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	213240	6.18000	6.559	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	173340			52.87- 112.87	81.29
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	130791	6.30000	6.544	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	126487			65.33- 125.33	96.71
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.582	14.582	(1.541)	225	92162	6.44000	6.665	80.00- 120.00	100.00
14.582	14.582	(1.541)	223	58371			33.17- 93.17	63.34
-----								
216 Naphthalene						CAS #: 91-20-3		
14.768	14.768	(1.561)	128	32129	0.64000	0.6122	80.00- 120.00	100.00
14.761	14.768	(1.560)	127	4372			0.00- 42.88	13.61
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.069	15.069	(1.593)	180	118701	6.66000	6.782	80.00- 120.00	100.00
15.069	15.069	(1.593)	182	113556			65.75- 125.75	95.67
15.069	15.069	(1.593)	145	41550			5.23- 65.23	35.00
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051906.d  
 Lab Smp Id: ICAL Level 5  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 5.0ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	153560	-3.31
108 1,4-Difluorobenze	597103	358262	835944	614215	2.87
153 Chlorobenzene-d5	587747	352648	822846	619157	5.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.79	0.13
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Date : 19-MAY-2021 15:00

Client ID:

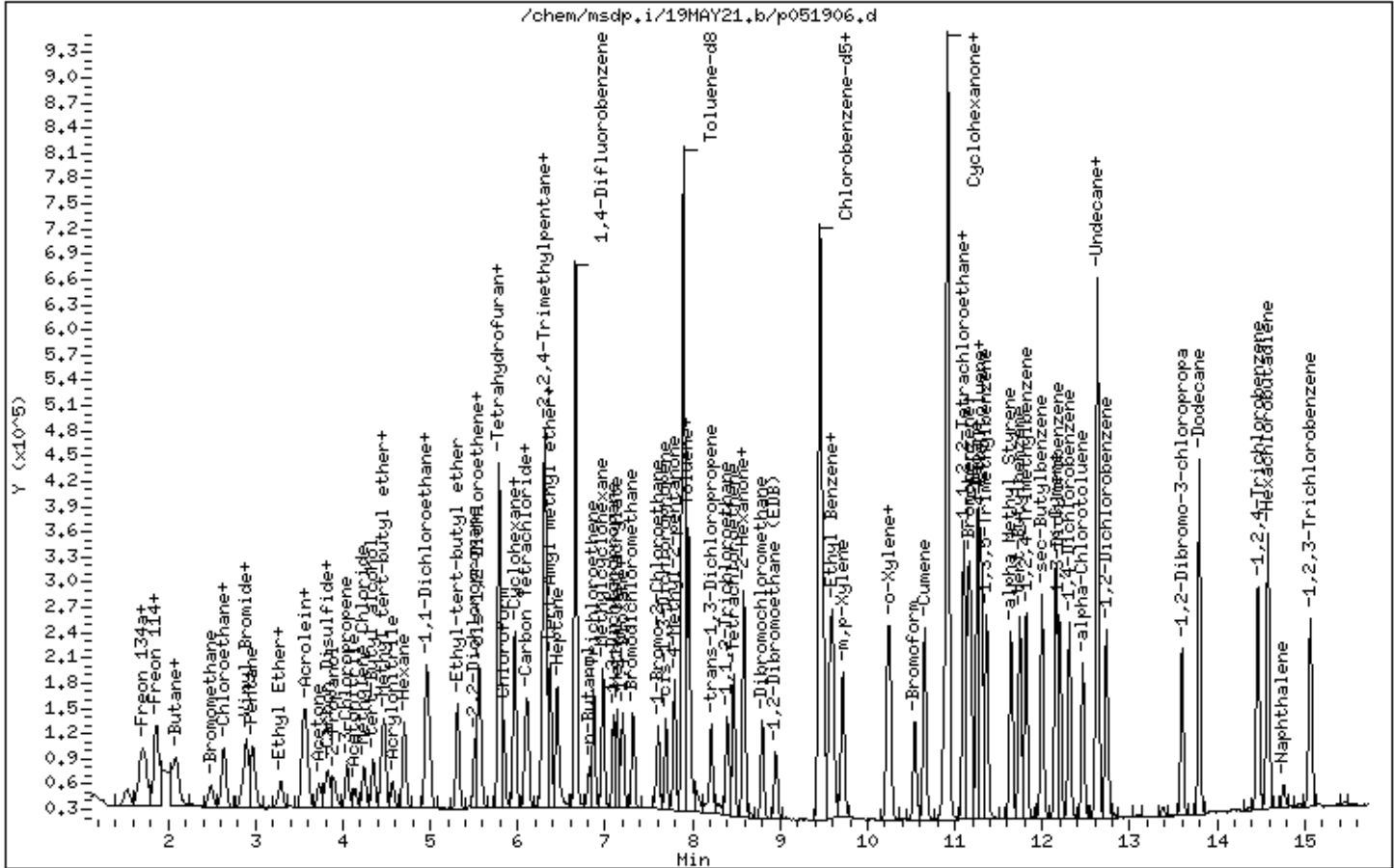
Instrument: msdp.i

Sample Info: 200mL 3018-2045

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051917.d  
 Lab Smp Id: ICAL Level 5  
 Inj Date : 19-MAY-2021 20:43  
 Operator : gh Inst ID: msdp.i  
 Smp Info : 200mL 3018-1928  
 Misc Info : 5.0ppbv (5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 20:43 Cal File: p051917.d  
 Als bottle: 2 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.785	5.778	(1.000)	130	153596	25.0000		80.00- 120.00	100.00
5.785	5.778	(1.000)	128	120099			48.23- 108.23	78.19
5.785	5.778	(1.000)	49	277119			150.57- 210.57	180.42
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.659	(1.000)	114	607535	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	95316			0.00- 45.71	15.69
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	599728	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	327307			23.78- 83.78	54.58
-----								
3 Freon 143a CAS #: 420-46-2								
1.591	1.590	(0.275)	65	8816	5.00000	2.827	80.00- 120.00	100.00
1.605	1.590	(0.277)	69	21877			243.50- 303.50	248.15
1.605	1.590	(0.277)	64	2504			0.00- 54.06	28.40
-----								
6 Propane CAS #: 74-98-6								
1.688	1.674	(0.292)	43	14059	5.00000	4.918	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.688	1.674	(0.292)	39	9149			34.98- 94.98	65.08
1.688	1.674	(0.292)	41	8274			25.22- 85.22	58.85
-----								
13 Freon 142b						CAS #: 75-68-3		
1.898	1.884	(0.328)	65	77411	5.00000	4.903	80.00- 120.00	100.00
1.898	1.884	(0.328)	45	23408			0.00- 59.77	30.24
-----								
36 1-Pentene						CAS #: 109-67-1		
2.906	2.906	(0.502)	55	50218	5.00000	4.904	80.00- 120.00	100.00(a)
2.906	2.906	(0.502)	42	65836			105.17- 165.17	131.10
-----								
40 Freon 123a						CAS #: 354-23-4		
3.393	3.385	(0.586)	117	52612	5.00000	5.296	80.00- 120.00	100.00(a)
3.386	3.378	(0.585)	67	63816			104.69- 164.69	121.30
-----								
41 Freon 123						CAS #: 306-83-2		
3.486	3.479	(0.603)	83	68341	5.00000	4.967	80.00- 120.00	100.00
3.486	3.479	(0.603)	133	15880			0.00- 50.87	23.24
3.486	3.479	(0.603)	85	48933			36.08- 96.08	71.60
-----								
55 Cyclopentene						CAS #: 142-29-0		
4.073	4.073	(0.704)	67	78856	5.00000	5.332	80.00- 120.00	100.00
4.073	4.073	(0.704)	68	30336			6.76- 66.76	38.47
4.073	4.073	(0.704)	53	22763			0.00- 57.54	28.87
-----								
56 Methyl Acetate						CAS #: 79-20-9		
4.088	4.073	(0.707)	43	91822	5.00000	5.308	80.00- 120.00	100.00
4.088	4.073	(0.707)	74	13069			0.00- 44.13	14.23
-----								
74 Chloroprene						CAS #: 126-99-8		
5.019	5.019	(0.868)	53	75220	5.00000	5.500	80.00- 120.00	100.00
5.019	5.019	(0.868)	88	29151			9.21- 69.21	38.75
5.019	5.019	(0.868)	50	18461			0.00- 54.25	24.54
-----								
75 1-Propanol						CAS #: 71-23-8		
5.090	5.083	(0.880)	59	10283	5.00000	4.824	80.00- 120.00	100.00
5.090	5.083	(0.880)	42	8877			63.23- 123.23	86.33
5.090	5.083	(0.880)	41	5590			24.74- 84.74	54.36
-----								
88 Methyl Acrylate						CAS #: 96-33-3		
5.628	5.620	(0.973)	55	95932	5.00000	5.264	80.00- 120.00	100.00
5.628	5.620	(0.973)	85	11014			0.00- 41.28	11.48
5.628	5.620	(0.973)	58	7843			0.00- 38.22	8.18
-----								
103 Isobutanol						CAS #: 78-83-1		
6.244	6.244	(1.079)	39	10867	5.00000	4.807	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.244	6.244	(1.079)	43	49327			448.18- 508.18	453.92
6.244	6.244	(1.079)	41	33984			299.99- 359.99	312.73
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
6.946	6.938	(0.734)	99	7111 5.00000	4.971		80.00- 120.00	100.00
6.938	6.938	(0.733)	45	13011			149.95- 209.95	182.97
6.938	6.938	(0.733)	55	133152			1849.07-1909.07	1872.48
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.032	7.031	(0.743)	43	159681 5.00000	5.193		80.00- 120.00	100.00
7.032	7.031	(0.743)	58	12244			0.00- 37.44	7.67
7.032	7.031	(0.743)	86	19990			0.00- 42.78	12.52
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.665	8.665	(1.301)	56	77293 5.00000	4.991		80.00- 120.00	100.00(a)
8.665	8.665	(1.301)	73	23632			0.00- 59.10	30.57
8.665	8.657	(1.301)	43	188441			215.30- 275.30	243.80
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.596	9.596	(1.014)	131	63705 5.00000	4.810		80.00- 120.00	100.00
9.460	9.460	(1.000)	117	599728			57.42- 117.42	941.41
9.596	9.596	(1.014)	95	23461			5.70- 65.70	36.83
-----								
166 2-Heptanone						CAS #: 110-43-0		
10.362	10.362	(1.791)	58	116686 5.00000	5.161		80.00- 120.00	100.00
10.362	10.362	(1.791)	43	191827			136.03- 196.03	164.40
-----								
172 D-Limonene						CAS #: 5989-27-5		
12.089	12.089	(1.278)	68	41323 5.00000	3.808		80.00- 120.00	100.00
12.089	12.089	(1.278)	93	28530			39.41- 99.41	69.04
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
11.444	11.444	(1.210)	126	63397 5.00000	5.120		80.00- 120.00	100.00
11.444	11.444	(1.210)	91	187470			295.02- 355.02	295.71
11.444	11.444	(1.210)	63	25896			11.82- 71.82	40.85
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
12.318	12.318	(1.302)	120	88020 5.00000	4.917		80.00- 120.00	100.00(a)
12.318	12.318	(1.302)	105	198476			192.40- 252.40	225.49
12.318	12.318	(1.302)	77	22835			0.00- 54.69	25.94
-----								
205 Hexachloroethane						CAS #: 67-72-1		
12.970	12.970	(1.371)	201	21359 5.00000	3.532		80.00- 120.00	100.00
12.970	12.970	(1.371)	117	28923			102.99- 162.99	135.41
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
-----								
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	128059	5.00000	5.049	80.00- 120.00	100.00
13.758	13.758	(1.454)	182	121863			65.24- 125.24	95.16
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	114218	5.00000	4.871	80.00- 120.00	100.00
10.599	10.599	(1.120)	77	34098			0.00- 58.21	29.85
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.423	11.422	(1.207)	93	58870	5.00000	4.306	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	187470			153.57- 213.57	318.45
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

Report Date: 20-May-2021 09:50

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARYInstrument ID: msdp.i  
Lab File ID: p051917.d  
Lab Smp Id: ICAL Level 5  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: ghCalibration Date: 19-MAY-2021  
Calibration Time: 15:55Level: LOW  
Sample Type: AIR

Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m

Misc Info: 5.0ppbv (5.0ppbv)

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	153596	-3.28
108 1,4-Difluorobenze	597103	358262	835944	607535	1.75
153 Chlorobenzene-d5	587747	352648	822846	599728	2.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.79	0.12
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 20:43

Client ID:

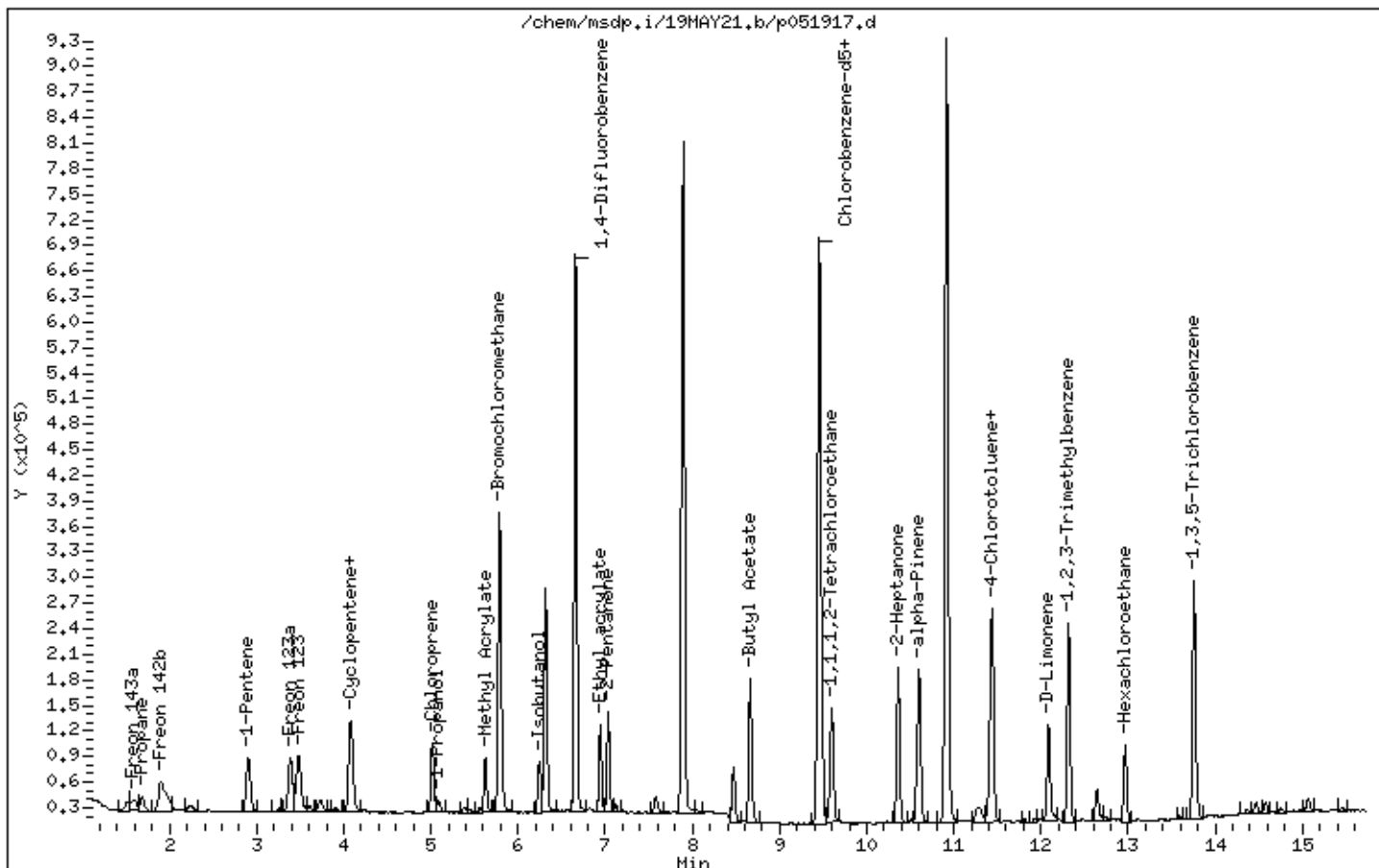
Instrument: msdp.i

Sample Info: 200mL 3018-1928

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051907.d  
Lab Smp Id: ICAL Level 6  
Inj Date : 19-MAY-2021 15:27  
Operator : LD Inst ID: msdp.i  
Smp Info : 20mL 3018-2034  
Misc Info : 20ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 15:27 Cal File: p051907.d  
Als bottle: 13 Calibration Sample, Level: 6  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2							
1.633	1.633	(0.283)	83	93022 20.0000	18.478	80.00- 120.00	100.00
1.633	1.633	(0.283)	69	85552		59.44- 119.44	91.97
1.744	1.745	(0.302)	51	410469		419.06- 479.06	441.26
-----							
5 Propylene CAS #: 115-07-1							
1.675	1.675	(0.290)	41	126668 20.0000	17.269	80.00- 120.00	100.00
1.675	1.675	(0.290)	42	83011		35.28- 95.28	65.53
1.675	1.675	(0.290)	39	87777		38.35- 98.35	69.30
-----							
7 1,1-Difluoroethane CAS #: 75-37-6							
1.688	1.703	(0.292)	65	66510 20.0000	17.899	80.00- 120.00	100.00
1.744	1.745	(0.302)	51	410469		597.63- 657.63	617.15
1.688	1.703	(0.292)	47	42224		33.72- 93.72	63.49
-----							
8 Freon 12 CAS #: 75-71-8							
1.716	1.717	(0.297)	85	256819 20.0000	18.385	80.00- 120.00	100.00
1.716	1.717	(0.297)	87	83094		2.37- 62.37	32.36
-----							
9 Chlorodifluoromethane CAS #: 75-45-6							
1.744	1.745	(0.302)	67	27136 20.0000	19.522	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.744	1.745	(0.302)	51	410469			1501.01-1561.01	1512.64
-----								
10 Freon 114 CAS #: 76-14-2								
1.842	1.856	(0.319)	135	257544	20.0000	17.884	80.00- 120.00	100.00
1.842	1.856	(0.319)	137	84530			2.30- 62.30	32.82
-----								
12 Isobutane CAS #: 75-28-5								
1.856	1.870	(0.321)	43	276539	20.0000	16.916	80.00- 120.00	100.00
1.856	1.870	(0.321)	42	89198			2.44- 62.44	32.26
1.856	1.856	(0.321)	58	9258			0.00- 33.36	3.35
-----								
15 Chloromethane CAS #: 74-87-3								
1.940	1.940	(0.336)	50	175425	20.0000	19.636	80.00- 120.00	100.00
1.940	1.940	(0.336)	52	48487			0.00- 56.26	27.64
-----								
18 Butane CAS #: 106-97-8								
2.025	2.025	(0.350)	58	26908	20.0000	14.306	80.00- 120.00	100.00
2.025	2.025	(0.350)	43	210189			823.29- 883.29	781.14
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.068	2.068	(0.358)	62	167898	20.0000	16.491	80.00- 120.00	100.00
2.068	2.068	(0.358)	64	51574			0.00- 59.69	30.72
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.089	2.089	(0.362)	54	173027	20.0000	22.047	80.00- 120.00	100.00
2.089	2.089	(0.362)	39	131220			52.37- 112.37	75.84
-----								
24 Bromomethane CAS #: 74-83-9								
2.476	2.483	(0.428)	94	109467	20.0000	16.296	80.00- 120.00	100.00
2.476	2.483	(0.428)	96	101049			64.07- 124.07	92.31
-----								
30 Chloroethane CAS #: 75-00-3								
2.605	2.612	(0.451)	64	60984	20.0000	17.056	80.00- 120.00	100.00
2.605	2.612	(0.451)	66	18278			0.04- 60.04	29.97
2.605	2.612	(0.451)	49	19753			4.54- 64.54	32.39
-----								
31 Isopentane CAS #: 78-78-4								
2.634	2.634	(0.456)	43	221068	20.0000	20.084	80.00- 120.00	100.00
2.634	2.634	(0.456)	57	143195			34.12- 94.12	64.77
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.834	2.841	(0.490)	106	103992	20.0000	17.605	80.00- 120.00	100.00
2.834	2.841	(0.490)	108	100338			69.27- 129.27	96.49
-----								
33 Freon 11 CAS #: 75-69-4								
2.884	2.884	(0.499)	101	289208	20.0000	19.049	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.884	2.884	(0.499)	103	188691			34.72- 94.72	65.24
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.899	2.899	(0.502)	67	224049	20.0000	17.280	80.00- 120.00	100.00
2.899	2.899	(0.502)	69	67915			0.84- 60.84	30.31
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.514)	43	340845	20.0000	18.944	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	51294			0.00- 44.98	15.05
2.970	2.970	(0.514)	72	24256			0.00- 37.39	7.12
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.285	3.285	(0.569)	74	55504	20.0000	18.719	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	102072			163.46- 223.46	183.90
3.278	3.285	(0.567)	45	151025			250.40- 310.40	272.10
-----								
39 Ethanol CAS #: 64-17-5								
3.235	3.242	(0.560)	46	28012	20.0000	17.557	80.00- 120.00	100.00
3.278	3.242	(0.567)	45	150850			511.19- 571.19	538.52
-----								
42 Acrolein CAS #: 107-02-8								
3.522	3.529	(0.609)	55	48671	20.0000	17.849	80.00- 120.00	100.00
3.522	3.529	(0.609)	56	67406			111.10- 171.10	138.49
-----								
43 Freon 113 CAS #: 76-13-1								
3.550	3.550	(0.614)	151	234506	20.0000	20.574	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	150010			33.56- 93.56	63.97
3.550	3.550	(0.614)	101	277635			89.21- 149.21	118.39
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.579	3.579	(0.619)	96	117179	20.0000	17.797	80.00- 120.00	100.00
3.579	3.579	(0.619)	98	73665			34.02- 94.02	62.87
3.579	3.579	(0.619)	61	234280			168.77- 228.77	199.93
-----								
47 Acetone CAS #: 67-64-1								
3.708	3.708	(0.642)	58	72065	20.0000	17.340	80.00- 120.00	100.00
3.708	3.708	(0.642)	43	241838			302.95- 362.95	335.58
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.815	3.823	(0.660)	76	317436	20.0000	17.928	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.787	3.794	(0.655)	142	245125	20.0000	23.837	80.00- 120.00	100.00
3.787	3.794	(0.655)	127	102171			12.22- 72.22	41.68
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.880	3.887	(0.671)	45	307798	20.0000	18.411	80.00- 120.00	100.00
3.880	3.887	(0.671)	43	51379			0.00- 47.19	16.69
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.045	4.052	(0.700)	76	51511	20.0000	17.182	80.00- 120.00	100.00
4.045	4.052	(0.700)	41	225722			396.19- 456.19	438.20
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.123	4.123	(0.714)	41	132955	20.0000	17.513	80.00- 120.00	100.00
4.123	4.123	(0.714)	40	69875			20.95- 80.95	52.56
4.123	4.123	(0.714)	38	15334			0.00- 41.17	11.53
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.231	4.238	(0.732)	49	188872	20.0000	17.656	80.00- 120.00	100.00
4.231	4.238	(0.732)	84	97783			22.03- 82.03	51.77
4.231	4.238	(0.732)	51	56590			0.18- 60.18	29.96
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.338	4.338	(0.751)	59	376326	20.0000	18.886	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	79824			0.00- 51.11	21.21
4.338	4.338	(0.751)	57	39827			0.00- 40.49	10.58
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.769)	73	393778	20.0000	19.813	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	131571			3.10- 63.10	33.41
4.446	4.446	(0.769)	41	127804			1.28- 61.28	32.46
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.474	4.482	(0.774)	98	79611	20.0000	17.941	80.00- 120.00	100.00
4.474	4.482	(0.774)	61	222503			255.84- 315.84	279.49
4.474	4.482	(0.774)	96	121969			127.59- 187.59	153.21
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.553	4.560	(0.788)	52	108453	20.0000	17.080	80.00- 120.00	100.00
4.553	4.560	(0.788)	53	125300			88.05- 148.05	115.53
-----								
67 Hexane						CAS #: 110-54-3		
4.696	4.697	(0.813)	57	289038	20.0000	18.610	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	192159			37.52- 97.52	66.48
4.696	4.697	(0.813)	86	34504			0.00- 41.48	11.94
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.961	4.962	(0.859)	63	244047	20.0000	17.840	80.00- 120.00	100.00
4.961	4.962	(0.859)	65	72133			0.00- 59.70	29.56
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.947	4.954	(0.856)	45	733750	20.0000	19.999	80.00- 120.00	100.00
4.954	4.954	(0.857)	87	130937			0.00- 48.18	17.84
4.947	4.954	(0.856)	59	74206			0.00- 40.15	10.11
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.865)	86	29493	20.0000	17.415	80.00- 120.00	100.00
4.990	4.997	(0.864)	43	540307			2432.48-2492.48	1831.98
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.918)	59	633028	20.0000	19.878	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	196731			1.00- 61.00	31.08
5.305	5.305	(0.918)	41	121691			0.00- 48.73	19.22
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.953)	77	247387	20.0000	20.676	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	79013			2.28- 62.28	31.94
5.506	5.506	(0.953)	97	59214			0.00- 53.93	23.94
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.542	5.549	(0.959)	98	79311	20.0000	17.700	80.00- 120.00	100.00
5.542	5.549	(0.959)	96	126353			125.75- 185.75	159.31
5.542	5.549	(0.959)	61	301739			332.40- 392.40	380.45
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.962)	72	60163	20.0000	16.887	80.00- 120.00	100.00
5.563	5.556	(0.963)	43	755298			1214.50-1274.50	1255.42
5.556	5.556	(0.962)	57	27140			14.68- 74.68	45.11
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.964)	45	61995	20.0000	17.497	80.00- 120.00	100.00
5.542	5.549	(0.959)	61	301739			452.04- 512.04	486.72
5.570	5.570	(0.964)	70	32560			22.77- 82.77	52.52
89 Tetrahydrofuran						CAS #: 109-99-9		
5.771	5.771	(0.999)	42	206034	20.0000	17.009	80.00- 120.00	100.00
5.771	5.771	(0.999)	71	54220			0.00- 55.82	26.32
5.771	5.771	(0.999)	72	59914			0.00- 57.59	29.08
* 90 Bromochloromethane						CAS #: 74-97-5		
5.778	5.778	(1.000)	130	161884	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	125674			48.23- 108.23	77.63
5.771	5.778	(1.000)	49	290833			150.57- 210.57	179.66
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	241783	20.0000	17.626	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.835	5.835	(1.010)	85	158829			34.70- 94.70	65.69
-----								
94 Cyclohexane CAS #: 110-82-7								
5.957	5.957	(1.031)	84	203644	20.0000	20.607	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	346268			142.57- 202.57	170.04
5.957	5.957	(1.031)	41	187080			62.09- 122.09	91.87
-----								
96 1,1,1-Trichloroethane CAS #: 71-55-6								
5.964	5.972	(1.032)	97	306146	20.0000	19.529	80.00- 120.00	100.00
5.964	5.972	(1.032)	99	199684			34.02- 94.02	65.23
-----								
97 Carbon Tetrachloride CAS #: 56-23-5								
6.086	6.086	(1.053)	119	305164	20.0000	20.683	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	305319			70.64- 130.64	100.05
-----								
99 1,1-Dichloropropene CAS #: 563-58-6								
6.115	6.115	(0.918)	110	71487	20.0000	17.887	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	180986			226.85- 286.85	253.17
-----								
101 2,2,4-Trimethylpentane CAS #: 540-84-1								
6.279	6.280	(1.087)	57	1110205	20.0000	20.193	80.00- 120.00	100.00
6.279	6.280	(1.087)	56	359061			2.24- 62.24	32.34
6.279	6.280	(1.087)	41	278205			0.00- 54.39	25.06
-----								
102 Benzene CAS #: 71-43-2								
6.301	6.301	(0.946)	78	352350	20.0000	18.258	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	82919			0.00- 52.90	23.53
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.308	6.308	(1.092)	65	214356	25.0000	24.596	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	113737			27.21- 87.21	53.06
-----								
105 tert-Amyl methyl ether CAS #: 994-05-8								
6.358	6.358	(0.955)	87	111853	20.0000	20.020	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	458075			372.79- 432.79	409.53
6.358	6.358	(0.955)	55	161464			112.09- 172.09	144.35
-----								
106 1,2-Dichloroethane CAS #: 107-06-2								
6.380	6.380	(0.958)	62	181236	20.0000	17.798	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	57046			0.79- 60.79	31.48
-----								
107 Heptane CAS #: 142-82-5								
6.444	6.444	(0.968)	71	153106	20.0000	20.067	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	404624			226.53- 286.53	264.28
6.444	6.444	(0.968)	57	205765			100.85- 160.85	134.39
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	591321	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	94057			0.00- 45.71	15.91
-----								
110 n-Butanol						CAS #: 71-36-3		
6.810	6.810	(1.023)	56	132950	20.0000	19.082	80.00- 120.00	100.00
6.810	6.810	(1.023)	41	94545			40.99- 100.99	71.11
6.810	6.810	(1.023)	43	78634			27.38- 87.38	59.15
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	167926	20.0000	18.042	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	180875			76.29- 136.29	107.71
6.867	6.867	(1.031)	97	109619			33.63- 93.63	65.28
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.089	7.089	(1.065)	63	184802	20.0000	18.644	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	133840			41.07- 101.07	72.42
7.089	7.089	(1.065)	41	101498			22.53- 82.53	54.92
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.132	7.132	(0.754)	69	150281	20.0000	19.013	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	320687			179.84- 239.84	213.39
7.132	7.139	(0.754)	100	60103			9.59- 69.59	39.99
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.175	7.175	(1.077)	88	100090	20.0000	18.671	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	98658			68.28- 128.28	98.57
7.175	7.175	(1.077)	57	32744			2.68- 62.68	32.71
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.204	7.204	(0.761)	174	158665	20.0000	18.457	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	142936			60.09- 120.09	90.09
7.204	7.204	(0.761)	95	122464			48.38- 108.38	77.18
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	275648	20.0000	18.925	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	177537			35.24- 95.24	64.41
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.691	7.691	(1.155)	75	230619	20.0000	18.894	80.00- 120.00	100.00
7.691	7.691	(1.155)	77	72627			2.42- 62.42	31.49
7.691	7.691	(1.155)	39	154077			37.16- 97.16	66.81
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	280885	20.0000	20.418	80.00- 120.00	100.00
6.974	6.974	(1.047)	98	132474			15.78- 75.78	47.16

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.047)	55	326597			84.64- 144.64	116.27
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.791	7.791	(1.170)	58	198797	20.0000	19.794	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	542659			242.35- 302.35	272.97
7.791	7.791	(1.170)	85	66078			3.24- 63.24	33.24
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.891	7.891	(1.185)	98	636242	25.0000	24.785	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	65527			0.00- 40.44	10.30
7.891	7.891	(1.185)	100	416442			34.95- 94.95	65.45
-----								
137 Toluene						CAS #: 108-88-3		
7.948	7.949	(1.194)	91	514167	20.0000	19.066	80.00- 120.00	100.00
7.948	7.949	(1.194)	92	307832			28.38- 88.38	59.87
-----								
136 Octane						CAS #: 111-65-9		
7.941	7.949	(1.193)	57	236470	20.0000	20.785	80.00- 120.00	100.00
7.941	7.949	(1.193)	85	199342			56.00- 116.00	84.30
7.941	7.949	(1.193)	43	614834			228.66- 288.66	260.01
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.214	8.214	(0.868)	75	217123	20.0000	19.138	80.00- 120.00	100.00
8.214	8.214	(0.868)	77	68252			1.24- 61.24	31.43
8.214	8.214	(0.868)	39	141891			34.11- 94.11	65.35
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.400	8.400	(0.888)	97	176754	20.0000	19.263	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	111333			31.96- 91.96	62.99
8.400	8.400	(0.888)	83	150175			52.93- 112.93	84.96
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	257592	20.0000	19.183	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	201058			47.84- 107.84	78.05
8.464	8.464	(0.895)	131	191367			45.29- 105.29	74.29
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.586	8.586	(0.908)	58	268908	20.0000	19.939	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	517945			162.87- 222.87	192.61
8.586	8.586	(0.908)	100	41484			0.00- 45.94	15.43
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.288)	76	246257	20.0000	19.204	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	314850			94.99- 154.99	127.85
8.579	8.579	(1.288)	78	78397			2.05- 62.05	31.84
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	337715	20.0000	19.240	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	263594			47.45- 107.45	78.05
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	280035	20.0000	18.542	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	267724			64.21- 124.21	95.60
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	333684	20.0000	18.417	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	97824			0.00- 59.64	29.32
7.605	7.605	(1.142)	144	32120			0.00- 39.63	9.63
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	579226	25.0000		80.00- 120.00	100.00
9.453	9.460	(1.000)	82	311215			23.78- 83.78	53.73
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	441684	20.0000	19.332	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	142490			1.74- 61.74	32.26
9.496	9.496	(1.004)	77	248503			25.04- 85.04	56.26
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	238564	20.0000	19.809	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	733130			273.74- 333.74	307.31
156 Nonane						CAS #: 111-84-2		
9.596	9.596	(1.014)	43	660026	20.0000	21.119	80.00- 120.00	100.00
9.596	9.603	(1.014)	57	552781			54.16- 114.16	83.75
9.596	9.603	(1.014)	85	158629			0.00- 53.90	24.03
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	298628	20.0000	19.892	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	589189			163.73- 223.73	197.30
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	296697	20.0000	20.402	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	604874			177.45- 237.45	203.87
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	488029	20.0000	19.783	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	228738			17.88- 77.88	46.87
167 Bromoform						CAS #: 75-25-2		
10.541	10.542	(1.114)	173	342784	20.0000	19.970	80.00- 120.00	100.00
10.541	10.542	(1.114)	171	175679			21.25- 81.25	51.25

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene			CAS #: 98-82-8					
10.649	10.649	(1.126)	105	931561	20.0000	20.442	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	266395			0.00- 58.52	28.60
10.649	10.649	(1.126)	51	122943			0.00- 43.00	13.20
169 Cyclohexanone			CAS #: 108-94-1					
10.871	10.871	(1.149)	55	329076	20.0000	19.988	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	105887			1.94- 61.94	32.18
10.871	10.871	(1.149)	42	225892			37.89- 97.89	68.64
§ 170 4-Bromofluorobenzene			CAS #: 460-00-4					
10.921	10.921	(1.154)	174	366979	25.0000	24.808	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	468117			95.92- 155.92	127.56
10.921	10.921	(1.154)	176	351685			66.89- 126.89	95.83
175 1,1,2,2-Tetrachloroethane			CAS #: 79-34-5					
11.107	11.100	(1.174)	83	448177	20.0000	20.205	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	290309			35.20- 95.20	64.78
177 Bromobenzene			CAS #: 108-86-1					
11.107	11.107	(1.174)	156	273442	20.0000	19.953	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	268738			67.21- 127.21	98.28
11.179	11.179	(1.182)	77	168602			29.02- 89.02	61.66
178 Propylbenzene			CAS #: 103-65-1					
11.150	11.150	(1.179)	120	275295	20.0000	20.363	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	1090818			366.49- 426.49	396.24
11.150	11.150	(1.179)	105	41933			0.00- 44.85	15.23
179 1,2,3-Trichloropropane			CAS #: 96-18-4					
11.179	11.179	(1.182)	110	139458	20.0000	19.807	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	427261			280.55- 340.55	306.37
11.100	11.100	(1.173)	61	62807			15.49- 75.49	45.04
181 trans-1,4-Dichloro-2-butene			CAS #: 110-57-6					
11.179	11.179	(1.182)	53	88946	20.0000	19.304	80.00- 120.00	100.00
11.172	11.179	(1.181)	89	71489			49.11- 109.11	80.37
11.179	11.179	(1.182)	75	427261			426.44- 486.44	480.36
182 Decane			CAS #: 124-18-5					
11.251	11.251	(1.189)	57	746366	20.0000	20.338	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	204118			0.00- 57.66	27.35
11.258	11.258	(1.190)	142	29608			0.00- 34.09	3.97
183 4-Ethyltoluene			CAS #: 622-96-8					
11.286	11.287	(1.193)	120	295596	20.0000	20.284	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.286	11.287	(1.193)	105	929331			284.55- 344.55	314.39
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
11.308	11.308	(1.195)	126	235462	20.0000	20.537	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	804535			315.17- 375.17	341.68
11.301	11.301	(1.195)	65	116734			21.55- 81.55	49.58
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	416581	20.0000	20.680	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	804831			164.93- 224.93	193.20
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.645	11.645	(1.231)	118	413999	20.0000	20.536	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	229936			25.30- 85.30	55.54
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.738	11.738	(1.241)	119	765020	20.0000	20.366	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	183021			0.00- 54.25	23.92
11.738	11.738	(1.241)	91	463050			31.27- 91.27	60.53
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.817	11.817	(1.249)	105	783363	20.0000	20.495	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	381421			19.05- 79.05	48.69
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.996	11.996	(1.268)	134	242771	20.0000	20.736	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	1145624			437.55- 497.55	471.89
11.996	11.996	(1.268)	91	174745			40.76- 100.76	71.98
-----								
194 p-Cymene CAS #: 99-87-6								
12.160	12.160	(1.285)	119	1070099	20.0000	20.727	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	276177			0.00- 55.54	25.81
12.153	12.153	(1.285)	91	231505			0.00- 51.48	21.63
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.196	12.196	(1.289)	146	515702	20.0000	19.622	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	331017			33.21- 93.21	64.19
12.196	12.196	(1.289)	111	214395			11.31- 71.31	41.57
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	514316	20.0000	19.523	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	333938			33.90- 93.90	64.93
12.311	12.311	(1.301)	111	204966			9.45- 69.45	39.85
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	728285	20.0000	20.267	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	167108			0.00- 53.26	22.95
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	833319	20.0000	19.843	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	748015			58.12- 118.12	89.76
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	269536	20.0000	20.284	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	921873			314.79- 374.79	342.02
12.626	12.626	(1.335)	92	496131			154.29- 214.29	184.07
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.741	12.741	(1.347)	146	516436	20.0000	20.144	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	324827			33.84- 93.84	62.90
12.733	12.741	(1.346)	111	222511			12.73- 72.73	43.09
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	313020	20.0000	20.327	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	265111			52.48- 112.48	84.69
13.600	13.600	(1.438)	155	243659			47.41- 107.41	77.84
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	755474	24.7000	24.812	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	627549			52.87- 112.87	83.07
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	457157	25.2000	24.597	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	438717			65.33- 125.33	95.97
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.582	(1.541)	225	335930	25.7000	25.915	80.00- 120.00	100.00
14.581	14.582	(1.541)	223	210653			33.17- 93.17	62.71
-----								
216 Naphthalene						CAS #: 91-20-3		
14.761	14.768	(1.560)	128	112848	2.54000	2.343	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	14592			0.00- 42.88	12.93
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.069	15.069	(1.593)	180	420041	26.6000	25.838	80.00- 120.00	100.00
15.069	15.069	(1.593)	182	398636			65.75- 125.75	94.90
15.069	15.069	(1.593)	145	147343			5.23- 65.23	35.08
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051907.d  
 Lab Smp Id: ICAL Level 6  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 20ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	161884	1.94
108 1,4-Difluorobenze	597103	358262	835944	591321	-0.97
153 Chlorobenzene-d5	587747	352648	822846	579226	-1.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 15:27

Client ID:

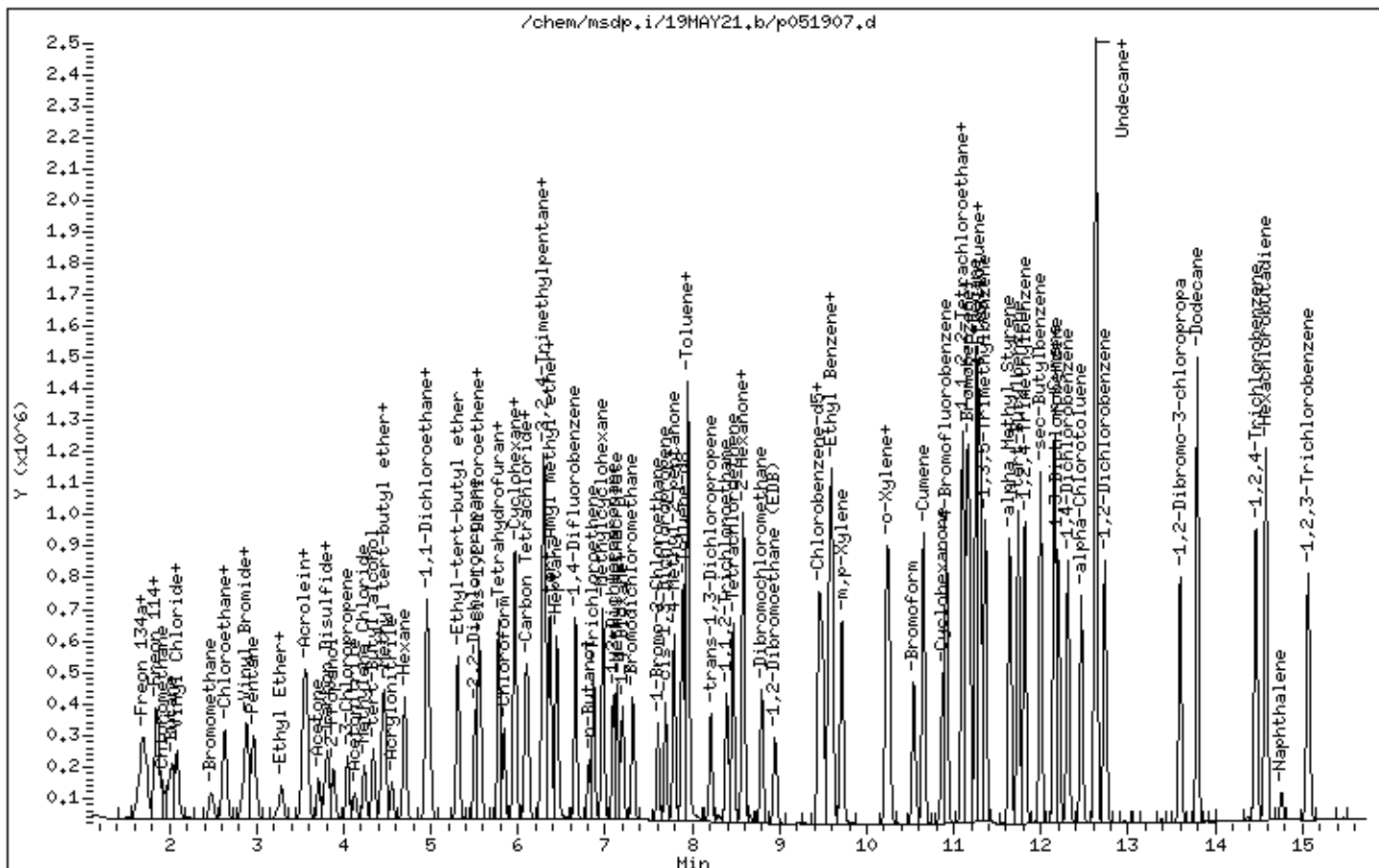
Instrument: msdp.i

Sample Info: 20mL 3018-2034

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051918.d  
Lab Smp Id: ICAL Level 6  
Inj Date : 19-MAY-2021 21:10  
Operator : gh Inst ID: msdp.i  
Smp Info : 20mL 3018-2013  
Misc Info : 20ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 21:10 Cal File: p051918.d  
Als bottle: 3 Calibration Sample, Level: 6  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.778	5.778	(1.000)	130	164276	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	126583			48.23- 108.23 77.06
5.771	5.778	(1.000)	49	292813			150.57- 210.57 178.24
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.659	6.659	(1.000)	114	594883	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	94502			0.00- 45.71 15.89
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.460	9.460	(1.000)	117	584012	25.0000		80.00- 120.00 100.00
9.453	9.460	(1.000)	82	316968			23.78- 83.78 54.27
-----							
3 Freon 143a CAS #: 420-46-2							
1.577	1.590	(0.273)	65	63953	20.0000	19.336	80.00- 120.00 100.00
1.591	1.590	(0.275)	69	170661			243.50- 303.50 266.85
1.591	1.590	(0.275)	64	16338			0.00- 54.06 25.55
-----							
6 Propane CAS #: 74-98-6							
1.674	1.674	(0.290)	43	46853	20.0000	15.945	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.674	1.674	(0.290)	39	29481			34.98- 94.98	62.92
1.674	1.674	(0.290)	41	25457			25.22- 85.22	54.33
-----								
13 Freon 142b CAS #: 75-68-3								
1.884	1.884	(0.326)	65	252531	20.0000	15.611	80.00- 120.00	100.00
1.884	1.884	(0.326)	45	76512			0.00- 59.77	30.30
-----								
36 1-Pentene CAS #: 109-67-1								
2.906	2.906	(0.503)	55	180760	20.0000	16.998	80.00- 120.00	100.00
2.906	2.906	(0.503)	42	247205			105.17- 165.17	136.76
-----								
40 Freon 123a CAS #: 354-23-4								
3.378	3.385	(0.585)	117	177874	20.0000	17.207	80.00- 120.00	100.00
3.378	3.378	(0.585)	67	248317			104.69- 164.69	139.60
-----								
41 Freon 123 CAS #: 306-83-2								
3.472	3.479	(0.601)	83	276366	20.0000	18.974	80.00- 120.00	100.00
3.479	3.479	(0.602)	133	56290			0.00- 50.87	20.37
3.472	3.479	(0.601)	85	179827			36.08- 96.08	65.07
-----								
55 Cyclopentene CAS #: 142-29-0								
4.073	4.073	(0.705)	67	281294	20.0000	18.118	80.00- 120.00	100.00
4.073	4.073	(0.705)	68	105999			6.76- 66.76	37.68
4.066	4.073	(0.704)	53	78449			0.00- 57.54	27.89
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.073	4.073	(0.705)	43	314311	20.0000	17.425	80.00- 120.00	100.00
4.073	4.073	(0.705)	74	43403			0.00- 44.13	13.81
-----								
74 Chloroprene CAS #: 126-99-8								
5.019	5.019	(0.869)	53	249821	20.0000	17.505	80.00- 120.00	100.00
5.019	5.019	(0.869)	88	97837			9.21- 69.21	39.16
5.019	5.019	(0.869)	50	60899			0.00- 54.25	24.38
-----								
75 1-Propanol CAS #: 71-23-8								
5.083	5.083	(0.880)	59	33679	20.0000	15.446	80.00- 120.00	100.00
5.083	5.083	(0.880)	42	32228			63.23- 123.23	95.69
5.083	5.083	(0.880)	41	20019			24.74- 84.74	59.44
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.620	5.620	(0.973)	55	317339	20.0000	16.802	80.00- 120.00	100.00
5.620	5.620	(0.973)	85	34842			0.00- 41.28	10.98
5.620	5.620	(0.973)	58	27405			0.00- 38.22	8.64
-----								
103 Isobutanol CAS #: 78-83-1								
6.244	6.244	(1.081)	39	37572	20.0000	16.140	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.244	6.244	(1.081)	43	188703			448.18- 508.18	502.24
6.244	6.244	(1.081)	41	131184			299.99- 359.99	349.15
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
6.938	6.938	(0.733)	99	23633	20.0000	17.406	80.00- 120.00	100.00
6.938	6.938	(0.733)	45	44798			149.95- 209.95	189.56
6.938	6.938	(0.733)	55	458959			1849.07-1909.07	1942.03
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.032	7.031	(0.743)	43	549397	20.0000	18.604	80.00- 120.00	100.00
7.032	7.031	(0.743)	58	42813			0.00- 37.44	7.79
7.032	7.031	(0.743)	86	69391			0.00- 42.78	12.63
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.658	8.665	(1.300)	56	289132	20.0000	19.218	80.00- 120.00	100.00
8.665	8.665	(1.301)	73	85224			0.00- 59.10	29.48
8.658	8.657	(1.300)	43	710835			215.30- 275.30	245.85
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.596	9.596	(1.014)	131	265099	20.0000	20.462	80.00- 120.00	100.00
9.460	9.460	(1.000)	117	584012			57.42- 117.42	220.30
9.596	9.596	(1.014)	95	96156			5.70- 65.70	36.27
-----								
166 2-Heptanone						CAS #: 110-43-0		
10.362	10.362	(1.793)	58	456297	20.0000	19.048	80.00- 120.00	100.00
10.362	10.362	(1.793)	43	750475			136.03- 196.03	164.47
-----								
172 D-Limonene						CAS #: 5989-27-5		
12.089	12.089	(1.278)	68	366276	20.0000	30.886	80.00- 120.00	100.00
12.089	12.089	(1.278)	93	252611			39.41- 99.41	68.97
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
11.444	11.444	(1.210)	126	233965	20.0000	19.501	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	762751			295.02- 355.02	326.01
11.444	11.444	(1.210)	63	101096			11.82- 71.82	43.21
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
12.318	12.318	(1.302)	120	356670	20.0000	20.382	80.00- 120.00	100.00
12.318	12.318	(1.302)	105	795713			192.40- 252.40	223.10
12.318	12.318	(1.302)	77	89457			0.00- 54.69	25.08
-----								
205 Hexachloroethane						CAS #: 67-72-1		
12.970	12.970	(1.371)	201	175433	20.0000	27.542	80.00- 120.00	100.00
12.970	12.970	(1.371)	117	236009			102.99- 162.99	134.53
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	464814	20.0000	19.008	80.00- 120.00	100.00
13.758	13.758	(1.454)	182	442074			65.24- 125.24	95.11
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	504688	20.0000	21.723	80.00- 120.00	100.00
10.599	10.599	(1.120)	77	146698			0.00- 58.21	29.07
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.423	11.422	(1.207)	93	403829	20.0000	27.931	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	762751			153.57- 213.57	188.88
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051918.d  
 Lab Smp Id: ICAL Level 6  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 20ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	164276	3.44
108 1,4-Difluorobenze	597103	358262	835944	594883	-0.37
153 Chlorobenzene-d5	587747	352648	822846	584012	-0.64

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.



Date : 19-MAY-2021 21:10

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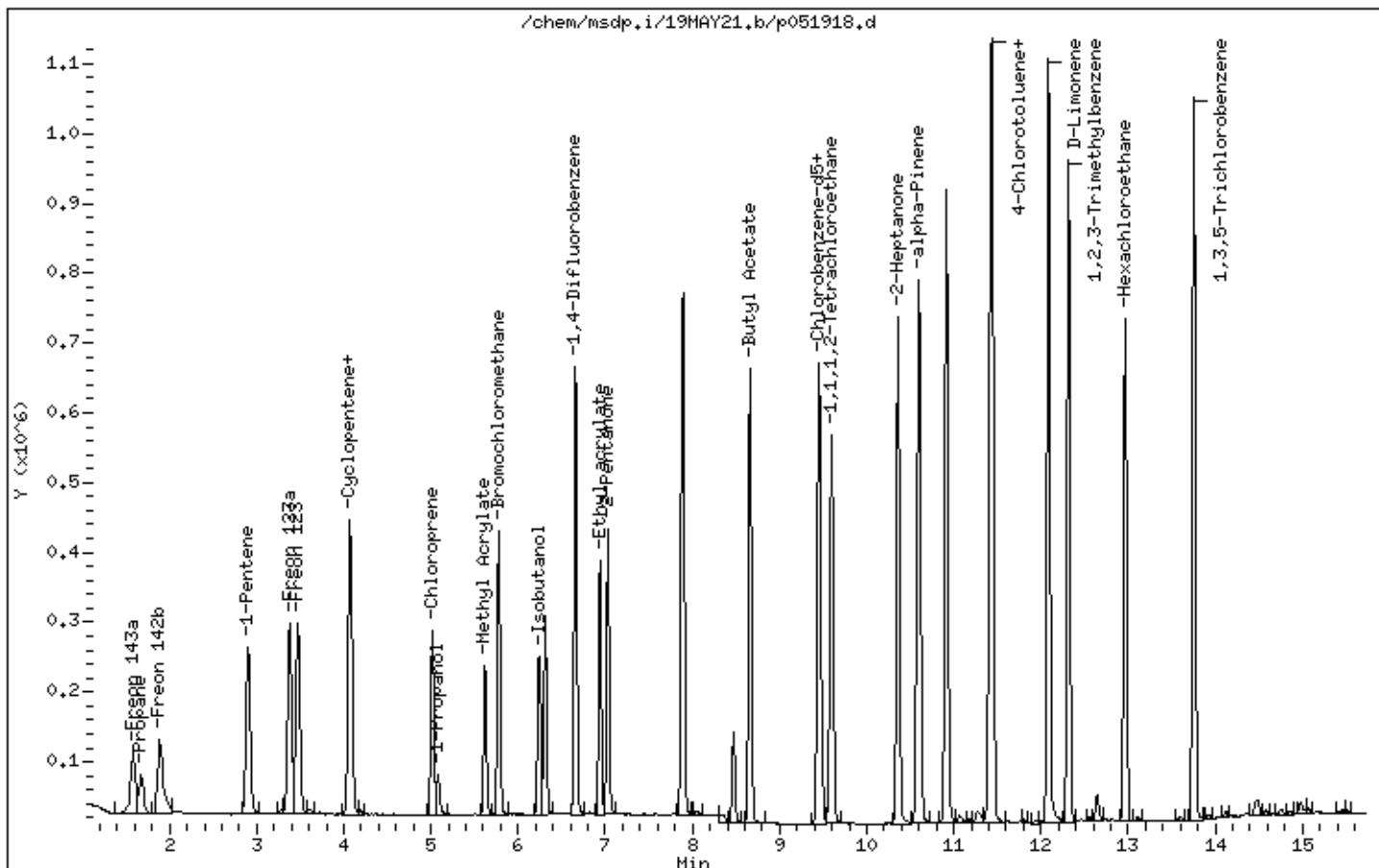
Instrument: msdp.i

Sample Info: 20mL 3018-2013

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051908.d  
 Lab Smp Id: ICAL Level 7  
 Inj Date : 19-MAY-2021 15:55  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 50mL 3018-2034  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:49 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 21:38 Cal File: p051919.d  
 Als bottle: 13 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.633	1.633	(0.283)	83	246691	50.0000	50.000	80.00- 120.00	100.00
1.633	1.633	(0.283)	69	220643			59.44- 119.44	89.44
1.745	1.745	(0.302)	51	1107781			419.06- 479.06	449.06
-----								
5 Propylene CAS #: 115-07-1								
1.675	1.675	(0.290)	41	345627	50.0000	50.000	80.00- 120.00	100.00
1.675	1.675	(0.290)	42	225623			35.28- 95.28	65.28
1.675	1.675	(0.290)	39	236222			38.35- 98.35	68.35
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.703	1.703	(0.295)	65	176502	50.0000	50.000	80.00- 120.00	100.00
1.745	1.745	(0.302)	51	1107781			597.63- 657.63	627.63
1.703	1.703	(0.295)	47	112469			33.72- 93.72	63.72
-----								
8 Freon 12 CAS #: 75-71-8								
1.717	1.717	(0.297)	85	711177	50.0000	50.000	80.00- 120.00	100.00
1.717	1.717	(0.297)	87	230217			2.37- 62.37	32.37
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.745	1.745	(0.302)	67	72356	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.745	1.745	(0.302)	51	1107781			1501.01-1561.01	1531.01
-----								
10 Freon 114 CAS #: 76-14-2								
1.856	1.856	(0.321)	135	685577	50.0000	50.000	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	221438			2.30- 62.30	32.30
-----								
12 Isobutane CAS #: 75-28-5								
1.870	1.870	(0.324)	43	735430	50.0000	50.000	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	238581			2.44- 62.44	32.44
1.856	1.856	(0.321)	58	24710			0.00- 33.36	3.36
-----								
15 Chloromethane CAS #: 74-87-3								
1.940	1.940	(0.336)	50	447790	50.0000	50.000	80.00- 120.00	100.00
1.940	1.940	(0.336)	52	117587			0.00- 56.26	26.26
-----								
18 Butane CAS #: 106-97-8								
2.025	2.025	(0.350)	58	75310	50.0000	50.000	80.00- 120.00	100.00
2.025	2.025	(0.350)	43	642610			823.29- 883.29	853.29
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.068	2.068	(0.358)	62	454203	50.0000	50.000	80.00- 120.00	100.00
2.068	2.068	(0.358)	64	134867			0.00- 59.69	29.69
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.089	2.089	(0.362)	54	422955	50.0000	50.000	80.00- 120.00	100.00
2.089	2.089	(0.362)	39	348369			52.37- 112.37	82.37
-----								
24 Bromomethane CAS #: 74-83-9								
2.483	2.483	(0.430)	94	285084	50.0000	50.000	80.00- 120.00	100.00
2.483	2.483	(0.430)	96	268184			64.07- 124.07	94.07
-----								
30 Chloroethane CAS #: 75-00-3								
2.612	2.612	(0.452)	64	167305	50.0000	50.000	80.00- 120.00	100.00
2.605	2.605	(0.451)	66	50256			0.04- 60.04	30.04
2.612	2.612	(0.452)	49	57784			4.54- 64.54	34.54
-----								
31 Isopentane CAS #: 78-78-4								
2.634	2.634	(0.456)	43	523495	50.0000	50.000	80.00- 120.00	100.00
2.641	2.641	(0.457)	57	335680			34.12- 94.12	64.12
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.841	2.841	(0.492)	106	275173	50.0000	50.000	80.00- 120.00	100.00
2.841	2.841	(0.492)	108	273159			69.27- 129.27	99.27
-----								
33 Freon 11 CAS #: 75-69-4								
2.884	2.884	(0.499)	101	730878	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.884	2.884	(0.499)	103	472992			34.72- 94.72	64.72
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.899	2.899	(0.502)	67	628672	50.0000	50.000	80.00- 120.00	100.00
2.899	2.899	(0.502)	69	193895			0.84- 60.84	30.84
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.514)	43	852276	50.0000	50.000	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	127691			0.00- 44.98	14.98
2.970	2.970	(0.514)	72	63019			0.00- 37.39	7.39
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.285	3.285	(0.569)	74	146830	50.0000	50.000	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	284064			163.46- 223.46	193.46
3.285	3.285	(0.569)	45	411715			250.40- 310.40	280.40
-----								
39 Ethanol CAS #: 64-17-5								
3.242	3.242	(0.561)	46	75752	50.0000	50.000	80.00- 120.00	100.00
3.285	3.285	(0.569)	45	409963			511.19- 571.19	541.19
-----								
42 Acrolein CAS #: 107-02-8								
3.529	3.529	(0.611)	55	129512	50.0000	50.000	80.00- 120.00	100.00
3.529	3.529	(0.611)	56	182747			111.10- 171.10	141.10
-----								
43 Freon 113 CAS #: 76-13-1								
3.550	3.550	(0.614)	151	547261	50.0000	50.000	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	347836			33.56- 93.56	63.56
3.550	3.550	(0.614)	101	652410			89.21- 149.21	119.21
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.579	3.579	(0.619)	96	312049	50.0000	50.000	80.00- 120.00	100.00
3.579	3.579	(0.619)	98	199778			34.02- 94.02	64.02
3.579	3.579	(0.619)	61	620248			168.77- 228.77	198.77
-----								
47 Acetone CAS #: 67-64-1								
3.708	3.708	(0.642)	58	198391	50.0000	50.000	80.00- 120.00	100.00
3.708	3.708	(0.642)	43	660552			302.95- 362.95	332.95
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.823	3.823	(0.662)	76	846836	50.0000	50.000	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.794	3.794	(0.657)	142	699816	50.0000	50.000	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	295430			12.22- 72.22	42.22
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.887	3.887	(0.673)	45	823329	50.0000	50.000	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	141505			0.00- 47.19	17.19
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.052	4.052	(0.701)	76	142539	50.0000	50.000	80.00- 120.00	100.00
4.045	4.045	(0.700)	41	607488			396.19- 456.19	426.19
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.123	4.123	(0.714)	41	379243	50.0000	50.000	80.00- 120.00	100.00
4.123	4.123	(0.714)	40	193207			20.95- 80.95	50.95
4.123	4.123	(0.714)	38	42379			0.00- 41.17	11.17
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.238	4.238	(0.733)	49	522699	50.0000	50.000	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	271957			22.03- 82.03	52.03
4.238	4.238	(0.733)	51	157735			0.18- 60.18	30.18
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.338	4.338	(0.751)	59	920285	50.0000	50.000	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	194304			0.00- 51.11	21.11
4.338	4.338	(0.751)	57	96551			0.00- 40.49	10.49
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.769)	73	938706	50.0000	50.000	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	310725			3.10- 63.10	33.10
4.446	4.446	(0.769)	41	293659			1.28- 61.28	31.28
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.482	4.482	(0.776)	98	212528	50.0000	50.000	80.00- 120.00	100.00
4.474	4.474	(0.774)	61	607494			255.84- 315.84	285.84
4.482	4.482	(0.776)	96	334925			127.59- 187.59	157.59
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.560	4.560	(0.789)	52	293221	50.0000	50.000	80.00- 120.00	100.00
4.560	4.560	(0.789)	53	346138			88.05- 148.05	118.05
-----								
67 Hexane						CAS #: 110-54-3		
4.697	4.697	(0.813)	57	758783	50.0000	50.000	80.00- 120.00	100.00
4.697	4.697	(0.813)	43	512299			37.52- 97.52	67.52
4.697	4.697	(0.813)	86	87084			0.00- 41.48	11.48
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.962	4.962	(0.859)	63	664501	50.0000	50.000	80.00- 120.00	100.00
4.962	4.962	(0.859)	65	197374			0.00- 59.70	29.70
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.954	4.954	(0.857)	45	1800515	50.0000	50.000	80.00- 120.00	100.00
4.954	4.954	(0.857)	87	327418			0.00- 48.18	18.18
4.954	4.954	(0.857)	59	182720			0.00- 40.15	10.15
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.865)	86	84247	50.0000	50.000	80.00- 120.00	100.00
4.990	4.990	(0.864)	43	2074564			2432.48-2492.48	2462.48
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.918)	59	1553756	50.0000	50.000	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	481611			1.00- 61.00	31.00
5.305	5.305	(0.918)	41	291010			0.00- 48.73	18.73
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.953)	77	589524	50.0000	50.000	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	190269			2.28- 62.28	32.28
5.506	5.506	(0.953)	97	141063			0.00- 53.93	23.93
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.960)	98	230520	50.0000	50.000	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	359034			125.75- 185.75	155.75
5.549	5.549	(0.960)	61	835407			332.40- 392.40	362.40
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.962)	72	170377	50.0000	50.000	80.00- 120.00	100.00
5.563	5.563	(0.963)	43	2120337			1214.50-1274.50	1244.50
5.556	5.556	(0.962)	57	76128			14.68- 74.68	44.68
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.964)	45	173307	50.0000	50.000	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	835407			452.04- 512.04	482.04
5.570	5.570	(0.964)	70	91460			22.77- 82.77	52.77
89 Tetrahydrofuran						CAS #: 109-99-9		
5.771	5.771	(0.999)	42	583804	50.0000	50.000	80.00- 120.00	100.00
5.771	5.771	(0.999)	71	150745			0.00- 55.82	25.82
5.771	5.771	(0.999)	72	161049			0.00- 57.59	27.59
* 90 Bromochloromethane						CAS #: 74-97-5		
5.778	5.778	(1.000)	130	158810	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	124237			48.23- 108.23	78.23
5.778	5.778	(1.000)	49	286765			150.57- 210.57	180.57
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	689555	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.835	5.835	(1.010)	85	446160			34.70- 94.70	64.70
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.957	5.957	(1.031)	84	486964	50.0000	50.000	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	840372			142.57- 202.57	172.57
5.957	5.957	(1.031)	41	448455			62.09- 122.09	92.09
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.972	5.972	(1.033)	97	752510	50.0000	50.000	80.00- 120.00	100.00
5.972	5.972	(1.033)	99	481725			34.02- 94.02	64.02
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.086	6.086	(1.053)	119	735285	50.0000	50.000	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	739982			70.64- 130.64	100.64
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.115	6.115	(0.918)	110	197564	50.0000	50.000	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	507450			226.85- 286.85	256.85
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.280	6.280	(1.087)	57	2728265	50.0000	50.000	80.00- 120.00	100.00
6.280	6.280	(1.087)	56	879725			2.24- 62.24	32.24
6.280	6.280	(1.087)	41	665520			0.00- 54.39	24.39
-----								
102 Benzene						CAS #: 71-43-2		
6.301	6.301	(0.946)	78	987337	50.0000	50.000	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	226078			0.00- 52.90	22.90
-----								
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.308	6.308	(1.092)	65	213713	25.0000	25.000	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	122256			27.21- 87.21	57.21
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.358	6.358	(0.955)	87	279227	50.0000	50.000	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	1124694			372.79- 432.79	402.79
6.358	6.358	(0.955)	55	396758			112.09- 172.09	142.09
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.958)	62	526134	50.0000	50.000	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	162017			0.79- 60.79	30.79
-----								
107 Heptane						CAS #: 142-82-5		
6.444	6.444	(0.968)	71	395953	50.0000	50.000	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	1015753			226.53- 286.53	256.53
6.444	6.444	(0.968)	57	518123			100.85- 160.85	130.85
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	597103	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	93822			0.00- 45.71	15.71
-----								
110 n-Butanol						CAS #: 71-36-3		
6.810	6.810	(1.023)	56	364840	50.0000	50.000	80.00- 120.00	100.00
6.810	6.810	(1.023)	41	258986			40.99- 100.99	70.99
6.810	6.810	(1.023)	43	209354			27.38- 87.38	57.38
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	478111	50.0000	50.000	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	508207			76.29- 136.29	106.29
6.867	6.867	(1.031)	97	304245			33.63- 93.63	63.63
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.089	7.089	(1.065)	63	491834	50.0000	50.000	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	349523			41.07- 101.07	71.07
7.096	7.096	(1.066)	41	258375			22.53- 82.53	52.53
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.132	7.132	(0.754)	69	400937	50.0000	50.000	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	841331			179.84- 239.84	209.84
7.139	7.139	(0.755)	100	158742			9.59- 69.59	39.59
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.175	7.175	(1.077)	88	263150	50.0000	50.000	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	258613			68.28- 128.28	98.28
7.175	7.175	(1.077)	57	86007			2.68- 62.68	32.68
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.204	7.204	(0.761)	174	444945	50.0000	50.000	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	400838			60.09- 120.09	90.09
7.204	7.204	(0.761)	95	348769			48.38- 108.38	78.38
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	751298	50.0000	50.000	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	490118			35.24- 95.24	65.24
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.691	7.691	(1.155)	75	619937	50.0000	50.000	80.00- 120.00	100.00
7.691	7.691	(1.155)	77	200964			2.42- 62.42	32.42
7.691	7.691	(1.155)	39	416341			37.16- 97.16	67.16
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	700725	50.0000	50.000	80.00- 120.00	100.00
6.974	6.974	(1.047)	98	320784			15.78- 75.78	45.78



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.047)	55	803336			84.64- 144.64	114.64
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.791	7.791	(1.170)	58	494934	50.0000	50.000	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	1347937			242.35- 302.35	272.35
7.791	7.791	(1.170)	85	164527			3.24- 63.24	33.24
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	647681	25.0000	25.000	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	67618			0.00- 40.44	10.44
7.891	7.891	(1.185)	100	420696			34.95- 94.95	64.95
-----								
137 Toluene CAS #: 108-88-3								
7.949	7.949	(1.194)	91	1352715	50.0000	50.000	80.00- 120.00	100.00
7.949	7.949	(1.194)	92	789761			28.38- 88.38	58.38
-----								
136 Octane CAS #: 111-65-9								
7.949	7.949	(1.194)	57	571594	50.0000	50.000	80.00- 120.00	100.00
7.949	7.949	(1.194)	85	491595			56.00- 116.00	86.00
7.949	7.949	(1.194)	43	1478464			228.66- 288.66	258.66
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
8.214	8.214	(0.868)	75	595661	50.0000	50.000	80.00- 120.00	100.00
8.214	8.214	(0.868)	77	186109			1.24- 61.24	31.24
8.214	8.214	(0.868)	39	381886			34.11- 94.11	64.11
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
8.400	8.400	(0.888)	97	475355	50.0000	50.000	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	294547			31.96- 91.96	61.96
8.400	8.400	(0.888)	83	394203			52.93- 112.93	82.93
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.464	8.464	(0.895)	166	677222	50.0000	50.000	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	527121			47.84- 107.84	77.84
8.464	8.464	(0.895)	131	509856			45.29- 105.29	75.29
-----								
143 2-Hexanone CAS #: 591-78-6								
8.586	8.586	(0.908)	58	681778	50.0000	50.000	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	1314958			162.87- 222.87	192.87
8.586	8.586	(0.908)	100	108687			0.00- 45.94	15.94
-----								
144 1,3-Dichloropropane CAS #: 142-28-9								
8.579	8.579	(1.288)	76	664559	50.0000	50.000	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	830619			94.99- 154.99	124.99
8.579	8.579	(1.288)	78	212995			2.05- 62.05	32.05
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	909694	50.0000	50.000	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	704539			47.45- 107.45	77.45
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	776769	50.0000	50.000	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	731780			64.21- 124.21	94.21
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	919549	50.0000	50.000	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	272524			0.00- 59.64	29.64
7.605	7.605	(1.142)	144	88579			0.00- 39.63	9.63
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	587747	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	316106			23.78- 83.78	53.78
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	1161228	50.0000	50.000	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	368543			1.74- 61.74	31.74
9.496	9.496	(1.004)	77	639171			25.04- 85.04	55.04
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	611900	50.0000	50.000	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	1858590			273.74- 333.74	303.74
-----								
156 Nonane						CAS #: 111-84-2		
9.596	9.596	(1.014)	43	1549739	50.0000	50.000	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	1304255			54.16- 114.16	84.16
9.603	9.603	(1.015)	85	370362			0.00- 53.90	23.90
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	756872	50.0000	50.000	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	1466255			163.73- 223.73	193.73
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	727897	50.0000	50.000	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	1509987			177.45- 237.45	207.45
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	1231272	50.0000	50.000	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	589570			17.88- 77.88	47.88
-----								
167 Bromoform						CAS #: 75-25-2		
10.542	10.542	(1.114)	173	900150	50.0000	50.000	80.00- 120.00	100.00
10.542	10.542	(1.114)	171	461304			21.25- 81.25	51.25
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene			CAS #: 98-82-8					
10.649	10.649	(1.126)	105	2299741	50.0000	50.000	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	655786			0.00- 58.52	28.52
10.649	10.649	(1.126)	51	299021			0.00- 43.00	13.00
169 Cyclohexanone			CAS #: 108-94-1					
10.871	10.871	(1.149)	55	806258	50.0000	50.000	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	257503			1.94- 61.94	31.94
10.871	10.871	(1.149)	42	547332			37.89- 97.89	67.89
§ 170 4-Bromofluorobenzene			CAS #: 460-00-4					
10.921	10.921	(1.154)	174	374384	25.0000	25.000	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	471423			95.92- 155.92	125.92
10.921	10.921	(1.154)	176	362754			66.89- 126.89	96.89
175 1,1,2,2-Tetrachloroethane			CAS #: 79-34-5					
11.100	11.100	(1.173)	83	1121488	50.0000	50.000	80.00- 120.00	100.00
11.107	11.107	(1.174)	85	731261			35.20- 95.20	65.20
177 Bromobenzene			CAS #: 108-86-1					
11.107	11.107	(1.174)	156	708749	50.0000	50.000	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	689001			67.21- 127.21	97.21
11.179	11.179	(1.182)	77	418295			29.02- 89.02	59.02
178 Propylbenzene			CAS #: 103-65-1					
11.150	11.150	(1.179)	120	677615	50.0000	50.000	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	2686688			366.49- 426.49	396.49
11.150	11.150	(1.179)	105	100610			0.00- 44.85	14.85
179 1,2,3-Trichloropropane			CAS #: 96-18-4					
11.179	11.179	(1.182)	110	347438	50.0000	50.000	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	1078964			280.55- 340.55	310.55
11.100	11.100	(1.173)	61	158059			15.49- 75.49	45.49
181 trans-1,4-Dichloro-2-butene			CAS #: 110-57-6					
11.179	11.179	(1.182)	53	236389	50.0000	50.000	80.00- 120.00	100.00
11.179	11.179	(1.182)	89	187005			49.11- 109.11	79.11
11.179	11.179	(1.182)	75	1078964			426.44- 486.44	456.44
182 Decane			CAS #: 124-18-5					
11.251	11.251	(1.189)	57	1759170	50.0000	50.000	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	486507			0.00- 57.66	27.66
11.258	11.258	(1.190)	142	71926			0.00- 34.09	4.09
183 4-Ethyltoluene			CAS #: 622-96-8					
11.287	11.287	(1.193)	120	721963	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.287	11.287	(1.193)	105	2270938			284.55- 344.55	314.55
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
11.308	11.308	(1.195)	126	572035	50.0000	50.000	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1974474			315.17- 375.17	345.17
11.301	11.301	(1.195)	65	294904			21.55- 81.55	51.55
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	1021220	50.0000	50.000	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1990658			164.93- 224.93	194.93
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.645	11.645	(1.231)	118	1032008	50.0000	50.000	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	570738			25.30- 85.30	55.30
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.738	11.738	(1.241)	119	1907239	50.0000	50.000	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	462558			0.00- 54.25	24.25
11.738	11.738	(1.241)	91	1168575			31.27- 91.27	61.27
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.817	11.817	(1.249)	105	1923799	50.0000	50.000	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	943605			19.05- 79.05	49.05
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.996	11.996	(1.268)	134	595687	50.0000	50.000	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	2785108			437.55- 497.55	467.55
11.996	11.996	(1.268)	91	421521			40.76- 100.76	70.76
-----								
194 p-Cymene CAS #: 99-87-6								
12.160	12.160	(1.285)	119	2621026	50.0000	50.000	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	669378			0.00- 55.54	25.54
12.153	12.153	(1.285)	91	562900			0.00- 51.48	21.48
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.196	12.196	(1.289)	146	1326539	50.0000	50.000	80.00- 120.00	100.00
12.203	12.203	(1.290)	148	838543			33.21- 93.21	63.21
12.196	12.196	(1.289)	111	547931			11.31- 71.31	41.31
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	1341343	50.0000	50.000	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	857150			33.90- 93.90	63.90
12.311	12.311	(1.301)	111	529140			9.45- 69.45	39.45
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	1864560	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	433710			0.00- 53.26	23.26
-----								
201 Undecane CAS #: 1120-21-4								
12.640	12.640	(1.336)	57	2085733	50.0000	50.000	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1838043			58.12- 118.12	88.12
-----								
202 Butylbenzene CAS #: 104-51-8								
12.626	12.626	(1.335)	134	662478	50.0000	50.000	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	2284179			314.79- 374.79	344.79
12.626	12.626	(1.335)	92	1220868			154.29- 214.29	184.29
-----								
204 1,2-Dichlorobenzene CAS #: 95-50-1								
12.741	12.741	(1.347)	146	1281765	50.0000	50.000	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	818290			33.84- 93.84	63.84
12.733	12.733	(1.346)	111	547687			12.73- 72.73	42.73
-----								
206 1,2-Dibromo-3-chloropropane CAS #: 96-12-8								
13.600	13.600	(1.438)	157	800345	50.0000	50.000	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	660103			52.48- 112.48	82.48
13.600	13.600	(1.438)	155	619570			47.41- 107.41	77.41
-----								
207 Dodecane CAS #: 112-40-3								
13.801	13.801	(1.459)	57	2143839	61.8000	61.800	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	1776648			52.87- 112.87	82.87
-----								
213 1,2,4-Trichlorobenzene CAS #: 120-82-1								
14.467	14.467	(1.529)	180	1233138	63.0000	63.000	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	1175567			65.33- 125.33	95.33
-----								
215 Hexachlorobutadiene CAS #: 87-68-3								
14.582	14.582	(1.541)	225	895709	64.4000	64.400	80.00- 120.00	100.00
14.582	14.582	(1.541)	223	565855			33.17- 93.17	63.17
-----								
216 Naphthalene CAS #: 91-20-3								
14.768	14.768	(1.561)	128	306016	6.35000	6.350	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	39402			0.00- 42.88	12.88
-----								
222 1,2,3-Trichlorobenzene CAS #: 87-61-6								
15.069	15.069	(1.593)	180	1163980	66.6000	66.600	80.00- 120.00	100.00
15.069	15.069	(1.593)	182	1114530			65.75- 125.75	95.75
15.069	15.069	(1.593)	145	410098			5.23- 65.23	35.23
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051908.d  
 Lab Smp Id: ICAL Level 7  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 50ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	158810	0.00
108 1,4-Difluorobenze	597103	358262	835944	597103	0.00
153 Chlorobenzene-d5	587747	352648	822846	587747	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Date : 19-MAY-2021 15:55

Client ID:

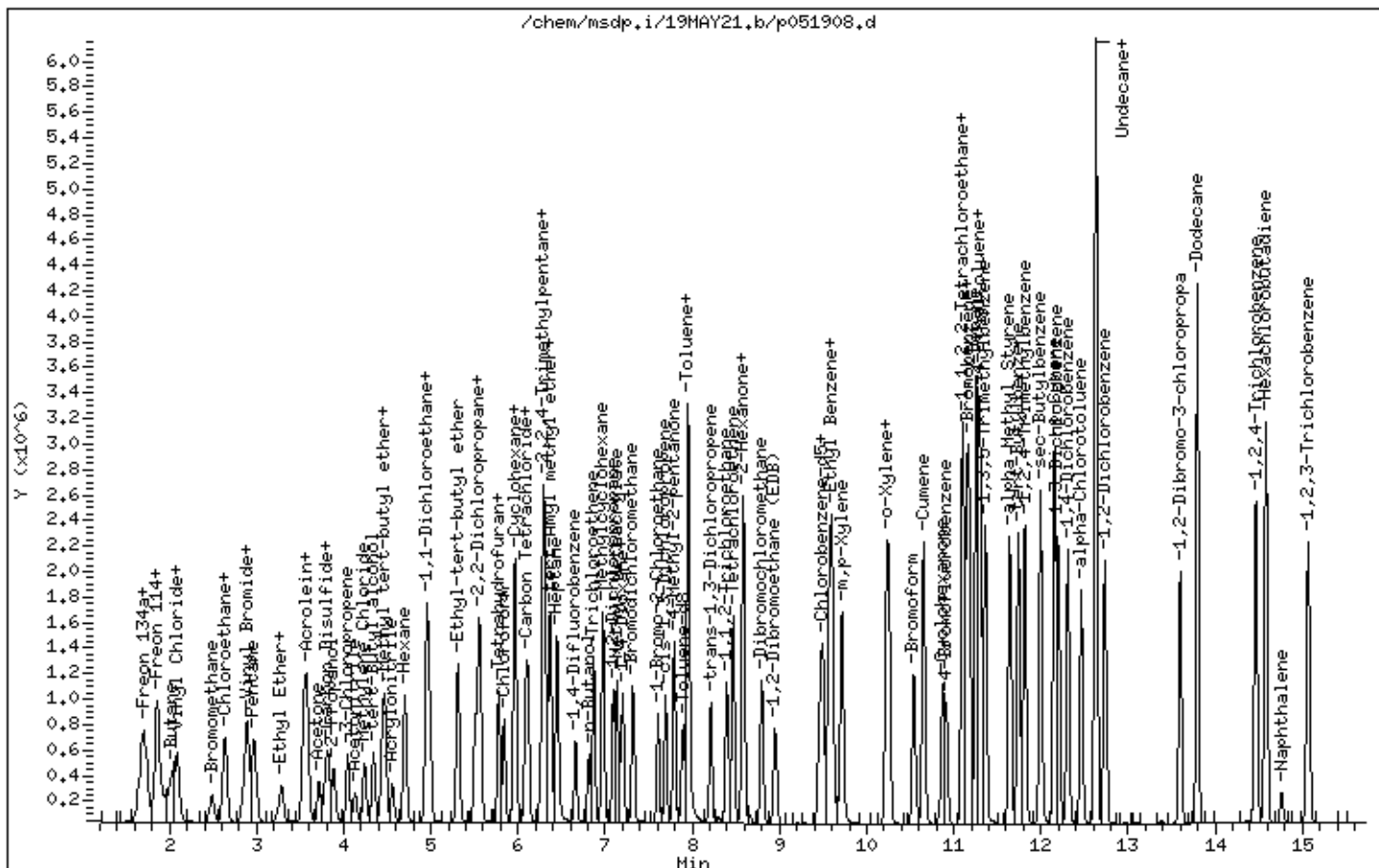
Instrument: msdp.i

Sample Info: 50mL 3018-2034

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051919.d  
Lab Smp Id: ICAL Level 7  
Inj Date : 19-MAY-2021 21:38  
Operator : gh Inst ID: msdp.i  
Smp Info : 50mL 3018-2013  
Misc Info : 50ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:48 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 21:38 Cal File: p051919.d  
Als bottle: 3 Calibration Sample, Level: 7  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5		
5.778	5.778	(1.000)	130	161689	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	124860			47.22- 107.22	77.22
5.778	5.778	(1.000)	49	289657			149.14- 209.14	179.14
-----								
* 108	1,4-Difluorobenzene					CAS #: 540-36-3		
6.659	6.659	(1.000)	114	604813	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	94059			0.00- 45.55	15.55
-----								
* 153	Chlorobenzene-d5					CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	587682	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	320961			24.61- 84.61	54.61
-----								
3	Freon 143a					CAS #: 420-46-2		
1.590	1.590	(0.275)	65	175050	50.0000	50.000	80.00- 120.00	100.00
1.590	1.590	(0.275)	69	478765			243.50- 303.50	273.50
1.590	1.590	(0.275)	64	42119			0.00- 54.06	24.06
-----								
6	Propane					CAS #: 74-98-6		
1.674	1.674	(0.290)	43	126213	50.0000	50.000	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.674	1.674	(0.290)	39	82019			34.98- 94.98	64.98
1.674	1.674	(0.290)	41	69691			25.22- 85.22	55.22
-----								
13 Freon 142b CAS #: 75-68-3								
1.884	1.884	(0.326)	65	712387	50.0000	50.000	80.00- 120.00	100.00
1.884	1.884	(0.326)	45	212071			0.00- 59.77	29.77
-----								
36 1-Pentene CAS #: 109-67-1								
2.906	2.906	(0.503)	55	479291	50.0000	50.000	80.00- 120.00	100.00
2.906	2.906	(0.503)	42	647860			105.17- 165.17	135.17
-----								
40 Freon 123a CAS #: 354-23-4								
3.385	3.385	(0.586)	117	461487	50.0000	50.000	80.00- 120.00	100.00
3.378	3.378	(0.585)	67	621572			104.69- 164.69	134.69
-----								
41 Freon 123 CAS #: 306-83-2								
3.479	3.479	(0.602)	83	686787	50.0000	50.000	80.00- 120.00	100.00
3.479	3.479	(0.602)	133	143333			0.00- 50.87	20.87
3.479	3.479	(0.602)	85	453806			36.08- 96.08	66.08
-----								
55 Cyclopentene CAS #: 142-29-0								
4.073	4.073	(0.705)	67	758990	50.0000	50.000	80.00- 120.00	100.00
4.073	4.073	(0.705)	68	279019			6.76- 66.76	36.76
4.073	4.073	(0.705)	53	209054			0.00- 57.54	27.54
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.073	4.073	(0.705)	43	885414	50.0000	50.000	80.00- 120.00	100.00
4.073	4.073	(0.705)	74	125122			0.00- 44.13	14.13
-----								
74 Chloroprene CAS #: 126-99-8								
5.019	5.019	(0.869)	53	715451	50.0000	50.000	80.00- 120.00	100.00
5.019	5.019	(0.869)	88	280509			9.21- 69.21	39.21
5.019	5.019	(0.869)	50	173487			0.00- 54.25	24.25
-----								
75 1-Propanol CAS #: 71-23-8								
5.083	5.083	(0.880)	59	98517	50.0000	50.000	80.00- 120.00	100.00
5.083	5.083	(0.880)	42	91848			63.23- 123.23	93.23
5.083	5.083	(0.880)	41	53925			24.74- 84.74	54.74
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.620	5.620	(0.973)	55	911220	50.0000	50.000	80.00- 120.00	100.00
5.620	5.620	(0.973)	85	102793			0.00- 41.28	11.28
5.620	5.620	(0.973)	58	74910			0.00- 38.22	8.22
-----								
103 Isobutanol CAS #: 78-83-1								
6.244	6.244	(1.081)	39	106882	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.244	6.244	(1.081)	43	511089			448.18- 508.18	478.18
6.244	6.244	(1.081)	41	352703			299.99- 359.99	329.99
-----								
113 Ethyl acrylate								
							CAS #: 140-88-5	
6.938	6.938	(0.733)	99	67461	50.0000	50.000	80.00- 120.00	100.00
6.938	6.938	(0.733)	45	121394			149.95- 209.95	179.95
6.938	6.938	(0.733)	55	1267640			1849.07-1909.07	1879.07
-----								
115 2-Pentanone								
							CAS #: 107-87-9	
7.031	7.031	(0.743)	43	1498872	50.0000	50.000	80.00- 120.00	100.00
7.031	7.031	(0.743)	58	111516			0.00- 37.44	7.44
7.031	7.031	(0.743)	86	191499			0.00- 42.78	12.78
-----								
145 Butyl Acetate								
							CAS #: 123-86-4	
8.665	8.665	(1.301)	56	756724	50.0000	50.000	80.00- 120.00	100.00
8.665	8.665	(1.301)	73	220224			0.00- 59.10	29.10
8.657	8.657	(1.300)	43	1856227			215.30- 275.30	245.30
-----								
157 1,1,1,2-Tetrachloroethane								
							CAS #: 630-20-6	
9.596	9.596	(1.014)	131	672251	50.0000	50.000	80.00- 120.00	100.00
9.460	9.460	(1.000)	117	587682			57.42- 117.42	87.42
9.596	9.596	(1.014)	95	240014			5.70- 65.70	35.70
-----								
166 2-Heptanone								
							CAS #: 110-43-0	
10.362	10.362	(1.793)	58	1175492	50.0000	50.000	80.00- 120.00	100.00
10.362	10.362	(1.793)	43	1951662			136.03- 196.03	166.03
-----								
172 D-Limonene								
							CAS #: 5989-27-5	
12.089	12.089	(1.278)	68	923546	50.0000	50.000	80.00- 120.00	100.00
12.089	12.089	(1.278)	93	641066			39.41- 99.41	69.41
-----								
186 4-Chlorotoluene								
							CAS #: 106-43-4	
11.444	11.444	(1.210)	126	612826	50.0000	50.000	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	1991813			295.02- 355.02	325.02
11.444	11.444	(1.210)	63	256306			11.82- 71.82	41.82
-----								
197 1,2,3-Trimethylbenzene								
							CAS #: 526-73-8	
12.318	12.318	(1.302)	120	901378	50.0000	50.000	80.00- 120.00	100.00
12.318	12.318	(1.302)	105	2004624			192.40- 252.40	222.40
12.318	12.318	(1.302)	77	222560			0.00- 54.69	24.69
-----								
205 Hexachloroethane								
							CAS #: 67-72-1	
12.970	12.970	(1.371)	201	436881	50.0000	50.000	80.00- 120.00	100.00
12.970	12.970	(1.371)	117	581027			102.99- 162.99	132.99
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	1256168	50.0000	50.000	80.00- 120.00	100.00
13.758	13.758	(1.454)	182	1196432			65.24- 125.24	95.24
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	1358794	50.0000	50.000	80.00- 120.00	100.00
10.599	10.599	(1.120)	77	383320			0.00- 58.21	28.21
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.422	11.422	(1.207)	93	1085058	50.0000	50.000	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	1991813			153.57- 213.57	183.57
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051919.d  
 Lab Smp Id: ICAL Level 7  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 50ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 21:38  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	161689	97013	226365	161689	0.00
108 1,4-Difluorobenze	604813	362888	846738	604813	0.00
153 Chlorobenzene-d5	587682	352609	822755	587682	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Date : 19-MAY-2021 21:38

Client ID:

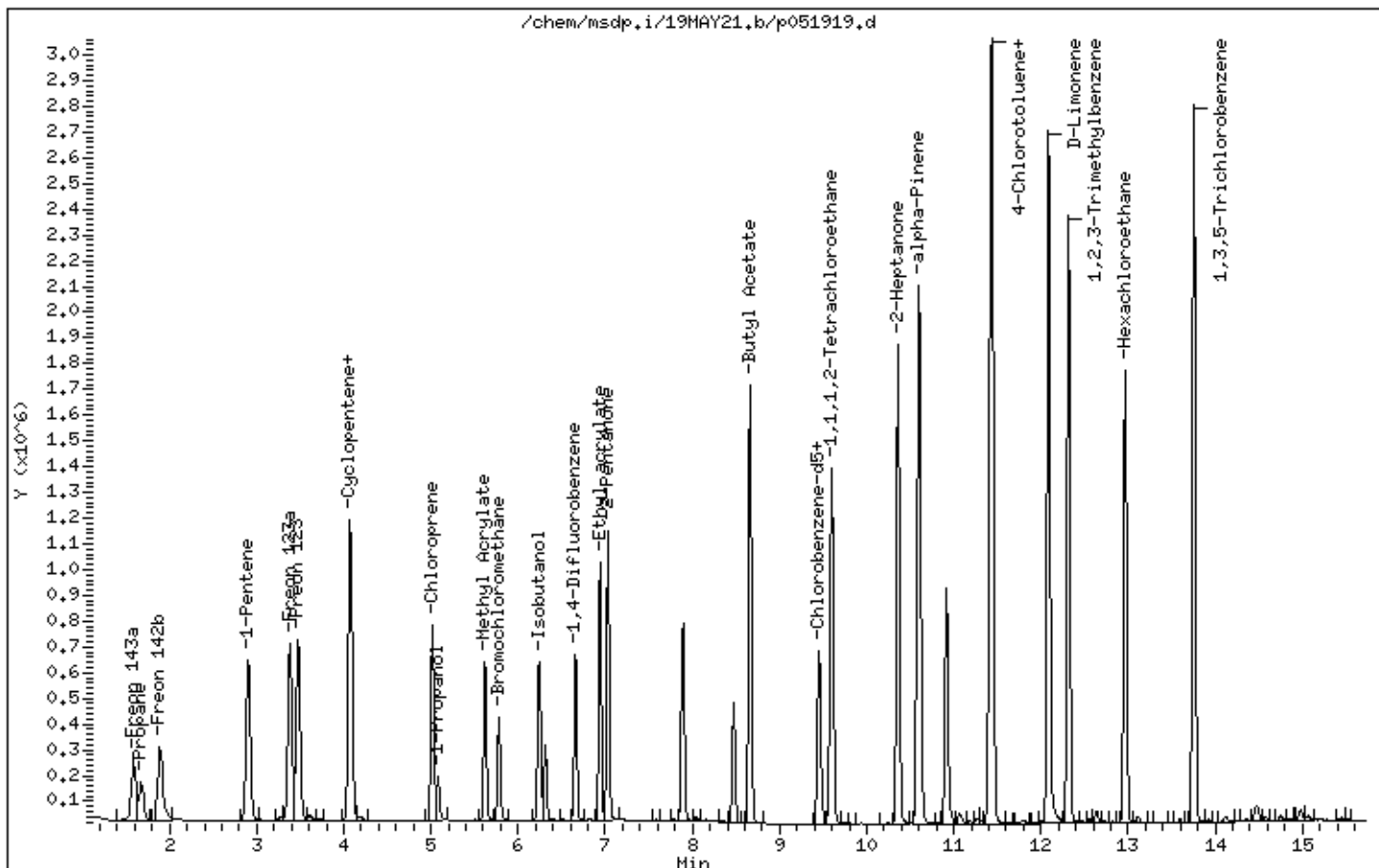
Instrument: msdp.i

Sample Info: 50mL 3018-2013

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051909.d  
 Lab Smp Id: ICAL Level 8  
 Inj Date : 19-MAY-2021 16:24  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 100mL 3018-2034  
 Misc Info : 100ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 16:24 Cal File: p051909.d  
 Als bottle: 13 Calibration Sample, Level: 8  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.646	1.633	(0.285)	83	507565	100.000	105.61	80.00- 120.00	100.00
1.646	1.633	(0.285)	69	455041			59.44- 119.44	89.65
1.744	1.745	(0.302)	51	2268262			419.06- 479.06	446.89
-----								
5 Propylene CAS #: 115-07-1								
1.674	1.675	(0.290)	41	698368	100.000	100.69	80.00- 120.00	100.00
1.674	1.675	(0.290)	42	460529			35.28- 95.28	65.94
1.674	1.675	(0.290)	39	475977			38.35- 98.35	68.16
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.702	1.703	(0.295)	65	357088	100.000	101.44	80.00- 120.00	100.00
1.744	1.745	(0.302)	51	2268262			597.63- 657.63	635.21
1.702	1.703	(0.295)	47	231703			33.72- 93.72	64.89
-----								
8 Freon 12 CAS #: 75-71-8								
1.716	1.717	(0.297)	85	1452922	100.000	108.35	80.00- 120.00	100.00
1.716	1.717	(0.297)	87	469974			2.37- 62.37	32.35
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.758	1.745	(0.304)	67	145754	100.000	109.07	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.744	1.745	(0.302)	51	2268262			1501.01-1561.01	1556.23
-----								
10 Freon 114 CAS #: 76-14-2								
1.856	1.856	(0.321)	135	1419953	100.000	103.69	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	456158			2.30- 62.30	32.12
-----								
12 Isobutane CAS #: 75-28-5								
1.870	1.870	(0.324)	43	1515676	100.000	98.575	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	485596			2.44- 62.44	32.04
1.870	1.856	(0.324)	58	50044			0.00- 33.36	3.30
-----								
15 Chloromethane CAS #: 74-87-3								
1.940	1.940	(0.336)	50	796816	100.000	95.542	80.00- 120.00	100.00
1.954	1.940	(0.338)	52	204373			0.00- 56.26	25.65
-----								
18 Butane CAS #: 106-97-8								
2.039	2.025	(0.353)	58	180663	100.000	101.40	80.00- 120.00	100.00
2.039	2.025	(0.353)	43	1466054			823.29- 883.29	811.49
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.075	2.068	(0.359)	62	918346	100.000	96.270	80.00- 120.00	100.00
2.075	2.068	(0.359)	64	270816			0.00- 59.69	29.49
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.096	2.089	(0.363)	54	850684	100.000	112.06	80.00- 120.00	100.00
2.096	2.089	(0.363)	39	739010			52.37- 112.37	86.87
-----								
24 Bromomethane CAS #: 74-83-9								
2.483	2.483	(0.430)	94	572011	100.000	92.015	80.00- 120.00	100.00
2.483	2.483	(0.430)	96	535822			64.07- 124.07	93.67
-----								
30 Chloroethane CAS #: 75-00-3								
2.612	2.612	(0.452)	64	349804	100.000	102.90	80.00- 120.00	100.00
2.612	2.612	(0.452)	66	100650			0.04- 60.04	28.77
2.612	2.612	(0.452)	49	117019			4.54- 64.54	33.45
-----								
31 Isopentane CAS #: 78-78-4								
2.641	2.634	(0.457)	43	1040896	100.000	100.15	80.00- 120.00	100.00
2.641	2.634	(0.457)	57	666459			34.12- 94.12	64.03
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.848	2.841	(0.493)	106	582384	100.000	103.68	80.00- 120.00	100.00
2.848	2.841	(0.493)	108	563942			69.27- 129.27	96.83
-----								
33 Freon 11 CAS #: 75-69-4								
2.891	2.884	(0.500)	101	1487386	100.000	103.14	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.891	2.884	(0.500)	103	967038			34.72- 94.72	65.02
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.898	2.899	(0.502)	67	1298135	100.000	105.01	80.00- 120.00	100.00
2.898	2.899	(0.502)	69	401988			0.84- 60.84	30.97
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.514)	43	1683232	100.000	99.258	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	245789			0.00- 44.98	14.60
2.970	2.970	(0.514)	72	121307			0.00- 37.39	7.21
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.285	3.285	(0.569)	74	298105	100.000	105.37	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	576501			163.46- 223.46	193.39
3.285	3.285	(0.569)	45	836034			250.40- 310.40	280.45
-----								
39 Ethanol CAS #: 64-17-5								
3.242	3.242	(0.561)	46	149584	100.000	99.460	80.00- 120.00	100.00
3.285	3.242	(0.569)	45	832557			511.19- 571.19	556.58
-----								
42 Acrolein CAS #: 107-02-8								
3.536	3.529	(0.612)	55	266909	100.000	102.94	80.00- 120.00	100.00
3.536	3.529	(0.612)	56	376803			111.10- 171.10	141.17
-----								
43 Freon 113 CAS #: 76-13-1								
3.550	3.550	(0.614)	151	1092200	100.000	101.26	80.00- 120.00	100.00
3.557	3.550	(0.616)	153	689565			33.56- 93.56	63.14
3.550	3.550	(0.614)	101	1295372			89.21- 149.21	118.60
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.586	3.579	(0.621)	96	638130	100.000	102.22	80.00- 120.00	100.00
3.586	3.579	(0.621)	98	399466			34.02- 94.02	62.60
3.586	3.579	(0.621)	61	1261088			168.77- 228.77	197.62
-----								
47 Acetone CAS #: 67-64-1								
3.715	3.708	(0.643)	58	407743	100.000	103.12	80.00- 120.00	100.00
3.715	3.708	(0.643)	43	1336506			302.95- 362.95	327.78
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.830	3.823	(0.663)	76	1723104	100.000	102.46	80.00- 120.00	100.00
-----								
49 Iodomethane CAS #: 74-88-4								
3.794	3.794	(0.657)	142	1438092	100.000	135.14	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	601035			12.22- 72.22	41.79
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.887	3.887	(0.673)	45	1661934	100.000	104.21	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	292411			0.00- 47.19	17.59
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.052	4.052	(0.701)	76	292429	100.000	102.76	80.00- 120.00	100.00
4.052	4.052	(0.701)	41	1196303			396.19- 456.19	409.09
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.123	4.123	(0.714)	41	798509	100.000	108.94	80.00- 120.00	100.00
4.123	4.123	(0.714)	40	401874			20.95- 80.95	50.33
4.123	4.123	(0.714)	38	88300			0.00- 41.17	11.06
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.238	4.238	(0.733)	49	1074098	100.000	105.04	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	556924			22.03- 82.03	51.85
4.238	4.238	(0.733)	51	323217			0.18- 60.18	30.09
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.338	4.338	(0.751)	59	1858636	100.000	99.052	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	385487			0.00- 51.11	20.74
4.338	4.338	(0.751)	57	191013			0.00- 40.49	10.28
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.769)	73	1848968	100.000	98.795	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	604553			3.10- 63.10	32.70
4.446	4.446	(0.769)	41	579143			1.28- 61.28	31.32
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.481	4.482	(0.776)	98	433306	100.000	102.86	80.00- 120.00	100.00
4.481	4.482	(0.776)	61	1236426			255.84- 315.84	285.35
4.481	4.482	(0.776)	96	693293			127.59- 187.59	160.00
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.560	4.560	(0.789)	52	596989	100.000	99.669	80.00- 120.00	100.00
4.560	4.560	(0.789)	53	715968			88.05- 148.05	119.93
-----								
67 Hexane						CAS #: 110-54-3		
4.696	4.697	(0.813)	57	1534457	100.000	103.86	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	1029510			37.52- 97.52	67.09
4.696	4.697	(0.813)	86	176385			0.00- 41.48	11.49
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.969	4.962	(0.860)	63	1364098	100.000	104.66	80.00- 120.00	100.00
4.969	4.962	(0.860)	65	405911			0.00- 59.70	29.76
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.947	4.954	(0.856)	45	3520699	100.000	101.33	80.00- 120.00	100.00
4.947	4.954	(0.856)	87	644730			0.00- 48.18	18.31
4.947	4.954	(0.856)	59	358329			0.00- 40.15	10.18
-----								
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.865)	86	174113	100.000	107.01	80.00- 120.00	100.00
4.990	4.997	(0.864)	43	3073069			2432.48-2492.48	1764.99
-----								
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.918)	59	3038101	100.000	100.85	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	938894			1.00- 61.00	30.90
5.305	5.305	(0.918)	41	568486			0.00- 48.73	18.71
-----								
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.953)	77	1178409	100.000	103.59	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	375834			2.28- 62.28	31.89
5.513	5.506	(0.954)	97	287766			0.00- 53.93	24.42
-----								
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.960)	98	473987	100.000	109.86	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	736483			125.75- 185.75	155.38
5.549	5.549	(0.960)	61	1694585			332.40- 392.40	357.52
-----								
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.962)	72	357150	100.000	104.90	80.00- 120.00	100.00
5.563	5.556	(0.963)	43	4378918			1214.50-1274.50	1226.07
5.556	5.556	(0.962)	57	154664			14.68- 74.68	43.31
-----								
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.964)	45	353395	100.000	104.48	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	1695217			452.04- 512.04	479.69
5.570	5.570	(0.964)	70	189420			22.77- 82.77	53.60
-----								
89 Tetrahydrofuran						CAS #: 109-99-9		
5.771	5.771	(0.999)	42	1189052	100.000	103.31	80.00- 120.00	100.00
5.771	5.771	(0.999)	71	309814			0.00- 55.82	26.06
5.771	5.771	(0.999)	72	335384			0.00- 57.59	28.21
-----								
* 90 Bromochloromethane						CAS #: 74-97-5		
5.778	5.778	(1.000)	130	152805	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	121664			48.23- 108.23	79.62
5.778	5.778	(1.000)	49	281698			150.57- 210.57	184.35
-----								
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	1415975	100.000	107.68	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.835	5.835	(1.010)	85	915346			34.70- 94.70	64.64
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.957	5.957	(1.031)	84	944762	100.000	101.07	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	1666010			142.57- 202.57	176.34
5.957	5.957	(1.031)	41	886450			62.09- 122.09	93.83
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.971	5.972	(1.033)	97	1485005	100.000	100.30	80.00- 120.00	100.00
5.971	5.972	(1.033)	99	948874			34.02- 94.02	63.90
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.086	6.086	(1.053)	119	1499358	100.000	106.30	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	1503563			70.64- 130.64	100.28
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.115	6.115	(0.918)	110	416114	100.000	102.27	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	1049030			226.85- 286.85	252.10
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.279	6.280	(1.087)	57	5314941	100.000	102.00	80.00- 120.00	100.00
6.279	6.280	(1.087)	56	1735895			2.24- 62.24	32.66
6.279	6.280	(1.087)	41	1349070			0.00- 54.39	25.38
-----								
102 Benzene						CAS #: 71-43-2		
6.301	6.301	(0.946)	78	2026776	100.000	103.01	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	474028			0.00- 52.90	23.39
-----								
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.308	6.308	(1.092)	65	220685	25.0000	26.504	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	141968			27.21- 87.21	64.33
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.358	6.358	(0.955)	87	547673	100.000	97.366	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	2227568			372.79- 432.79	406.73
6.358	6.358	(0.955)	55	768756			112.09- 172.09	140.37
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.958)	62	1080056	100.000	103.85	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	332034			0.79- 60.79	30.74
-----								
107 Heptane						CAS #: 142-82-5		
6.444	6.444	(0.968)	71	786728	100.000	101.45	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	2022288			226.53- 286.53	257.05
6.444	6.444	(0.968)	57	1020722			100.85- 160.85	129.74
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	599259	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	96032			0.00- 45.71	16.03
-----								
110 n-Butanol						CAS #: 71-36-3		
6.809	6.810	(1.023)	56	750083	100.000	104.92	80.00- 120.00	100.00
6.809	6.810	(1.023)	41	530236			40.99- 100.99	70.69
6.809	6.810	(1.023)	43	429051			27.38- 87.38	57.20
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	997780	100.000	104.77	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	1060416			76.29- 136.29	106.28
6.867	6.867	(1.031)	97	630792			33.63- 93.63	63.22
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.089	7.089	(1.065)	63	1008198	100.000	100.30	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	717137			41.07- 101.07	71.13
7.096	7.089	(1.066)	41	522377			22.53- 82.53	51.81
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.139	7.132	(0.755)	69	824440	100.000	101.96	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	1710649			179.84- 239.84	207.49
7.139	7.139	(0.755)	100	331918			9.59- 69.59	40.26
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.175	7.175	(1.077)	88	528029	100.000	97.653	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	524400			68.28- 128.28	99.31
7.175	7.175	(1.077)	57	177216			2.68- 62.68	33.56
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.203	7.204	(0.761)	174	928250	100.000	104.93	80.00- 120.00	100.00
7.203	7.204	(0.761)	93	831541			60.09- 120.09	89.58
7.203	7.204	(0.761)	95	722804			48.38- 108.38	77.87
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	1567843	100.000	105.12	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	1011256			35.24- 95.24	64.50
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.690	7.691	(1.155)	75	1310676	100.000	104.92	80.00- 120.00	100.00
7.690	7.691	(1.155)	77	416599			2.42- 62.42	31.79
7.690	7.691	(1.155)	39	879596			37.16- 97.16	67.11
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	1373843	100.000	98.785	80.00- 120.00	100.00
6.974	6.974	(1.047)	98	639936			15.78- 75.78	46.58

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.047)	55	1577222			84.64- 144.64	114.80
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.791	7.791	(1.170)	58	990523	100.000	97.755	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	2685952			242.35- 302.35	271.17
7.798	7.791	(1.171)	85	326227			3.24- 63.24	32.93
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.891	7.891	(1.185)	98	653351	25.0000	25.095	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	69659			0.00- 40.44	10.66
7.891	7.891	(1.185)	100	427970			34.95- 94.95	65.50
-----								
137 Toluene						CAS #: 108-88-3		
7.948	7.949	(1.194)	91	2719947	100.000	99.602	80.00- 120.00	100.00
7.948	7.949	(1.194)	92	1593607			28.38- 88.38	58.59
-----								
136 Octane						CAS #: 111-65-9		
7.948	7.949	(1.194)	57	1143310	100.000	99.301	80.00- 120.00	100.00
7.948	7.949	(1.194)	85	970463			56.00- 116.00	84.88
7.948	7.949	(1.194)	43	2966309			228.66- 288.66	259.45
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.213	8.214	(0.868)	75	1224849	100.000	104.91	80.00- 120.00	100.00
8.213	8.214	(0.868)	77	387990			1.24- 61.24	31.68
8.213	8.214	(0.868)	39	804536			34.11- 94.11	65.68
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.400	8.400	(0.888)	97	969495	100.000	103.06	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	600278			31.96- 91.96	61.92
8.400	8.400	(0.888)	83	805643			52.93- 112.93	83.10
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.464	8.464	(0.895)	166	1365527	100.000	99.832	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	1069381			47.84- 107.84	78.31
8.464	8.464	(0.895)	131	1033508			45.29- 105.29	75.69
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.586	8.586	(0.908)	58	1368856	100.000	99.686	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	2631318			162.87- 222.87	192.23
8.586	8.586	(0.908)	100	212248			0.00- 45.94	15.51
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.579	8.579	(1.288)	76	1348288	100.000	103.10	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	1683093			94.99- 154.99	124.83
8.579	8.579	(1.288)	78	436936			2.05- 62.05	32.41
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	1870111	100.000	103.77	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	1452482			47.45- 107.45	77.67
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	1591018	100.000	102.80	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	1499795			64.21- 124.21	94.27
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	1915471	100.000	103.43	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	566303			0.00- 59.64	29.56
7.605	7.605	(1.142)	144	182840			0.00- 39.63	9.55
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	590210	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	323727			23.78- 83.78	54.85
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	2370958	100.000	101.53	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	756993			1.74- 61.74	31.93
9.496	9.496	(1.004)	77	1286889			25.04- 85.04	54.28
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	1215808	100.000	99.229	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	3709578			273.74- 333.74	305.11
-----								
156 Nonane						CAS #: 111-84-2		
9.603	9.596	(1.015)	43	3087905	100.000	97.458	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	2613991			54.16- 114.16	84.65
9.603	9.603	(1.015)	85	738081			0.00- 53.90	23.90
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	1495472	100.000	98.126	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	2934052			163.73- 223.73	196.20
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	1448581	100.000	98.124	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	2977601			177.45- 237.45	205.55
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	2465052	100.000	98.384	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	1179971			17.88- 77.88	47.87
-----								
167 Bromoform						CAS #: 75-25-2		
10.549	10.542	(1.115)	173	1837525	100.000	104.18	80.00- 120.00	100.00
10.541	10.542	(1.114)	171	942585			21.25- 81.25	51.30
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
168 Cumene			CAS #: 98-82-8					
10.649	10.649	(1.126)	105	4567679	100.000	98.637	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	1306308			0.00- 58.52	28.60
10.649	10.649	(1.126)	51	589542			0.00- 43.00	12.91
169 Cyclohexanone			CAS #: 108-94-1					
10.871	10.871	(1.149)	55	1596477	100.000	95.938	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	513572			1.94- 61.94	32.17
10.871	10.871	(1.149)	42	1073939			37.89- 97.89	67.27
§ 170 4-Bromofluorobenzene			CAS #: 460-00-4					
10.921	10.921	(1.154)	174	381266	25.0000	25.244	80.00- 120.00	100.00
10.921	10.921	(1.154)	95	486727			95.92- 155.92	127.66
10.921	10.921	(1.154)	176	367158			66.89- 126.89	96.30
175 1,1,2,2-Tetrachloroethane			CAS #: 79-34-5					
11.107	11.100	(1.174)	83	2228280	100.000	98.820	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	1439832			35.20- 95.20	64.62
177 Bromobenzene			CAS #: 108-86-1					
11.107	11.107	(1.174)	156	1426381	100.000	101.78	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	1394001			67.21- 127.21	97.73
11.179	11.179	(1.182)	77	841614			29.02- 89.02	59.00
178 Propylbenzene			CAS #: 103-65-1					
11.150	11.150	(1.179)	120	1347671	100.000	98.184	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	5312611			366.49- 426.49	394.21
11.150	11.150	(1.179)	105	203289			0.00- 44.85	15.08
179 1,2,3-Trichloropropane			CAS #: 96-18-4					
11.179	11.179	(1.182)	110	686203	100.000	96.347	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	2133287			280.55- 340.55	310.88
11.100	11.100	(1.173)	61	307567			15.49- 75.49	44.82
181 trans-1,4-Dichloro-2-butene			CAS #: 110-57-6					
11.179	11.179	(1.182)	53	476707	100.000	101.28	80.00- 120.00	100.00
11.179	11.179	(1.182)	89	367391			49.11- 109.11	77.07
11.179	11.179	(1.182)	75	2133287			426.44- 486.44	447.50
182 Decane			CAS #: 124-18-5					
11.251	11.251	(1.189)	57	3243150	100.000	88.689	80.00- 120.00	100.00
11.258	11.251	(1.190)	71	905505			0.00- 57.66	27.92
11.258	11.258	(1.190)	142	133433			0.00- 34.09	4.11
183 4-Ethyltoluene			CAS #: 622-96-8					
11.286	11.287	(1.193)	120	1428430	100.000	96.809	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.286	11.287	(1.193)	105	4478546			284.55- 344.55	313.53
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
11.315	11.308	(1.196)	126	1126349	100.000	96.991	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	3926471			315.17- 375.17	348.60
11.301	11.301	(1.195)	65	571555			21.55- 81.55	50.74
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	2029709	100.000	99.067	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	3958269			164.93- 224.93	195.02
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.644	11.645	(1.231)	118	2053068	100.000	99.954	80.00- 120.00	100.00
11.644	11.645	(1.231)	103	1126967			25.30- 85.30	54.89
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.738	11.738	(1.241)	119	3869191	100.000	100.90	80.00- 120.00	100.00
11.745	11.738	(1.242)	134	937426			0.00- 54.25	24.23
11.738	11.738	(1.241)	91	2366627			31.27- 91.27	61.17
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.816	11.817	(1.249)	105	3825889	100.000	98.524	80.00- 120.00	100.00
11.816	11.817	(1.249)	120	1877483			19.05- 79.05	49.07
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.995	11.996	(1.268)	134	1188712	100.000	99.702	80.00- 120.00	100.00
11.995	11.996	(1.268)	105	5589774			437.55- 497.55	470.24
11.995	11.996	(1.268)	91	846180			40.76- 100.76	71.18
-----								
194 p-Cymene CAS #: 99-87-6								
12.160	12.160	(1.285)	119	5211679	100.000	99.223	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	1335569			0.00- 55.54	25.63
12.160	12.153	(1.285)	91	1113414			0.00- 51.48	21.36
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.203	12.196	(1.290)	146	2614617	100.000	98.021	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	1681191			33.21- 93.21	64.30
12.196	12.196	(1.289)	111	1089961			11.31- 71.31	41.69
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	2681111	100.000	99.901	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	1693939			33.90- 93.90	63.18
12.311	12.311	(1.301)	111	1052991			9.45- 69.45	39.27
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	3733206	100.000	101.62	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	855205			0.00- 53.26	22.91
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	3992563	100.000	94.355	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	3525819			58.12- 118.12	88.31
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	1274791	100.000	95.075	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	4476615			314.79- 374.79	351.16
12.626	12.626	(1.335)	92	2399035			154.29- 214.29	188.19
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.733	12.741	(1.346)	146	2533352	100.000	97.467	80.00- 120.00	100.00
12.733	12.741	(1.346)	148	1616747			33.84- 93.84	63.82
12.733	12.741	(1.346)	111	1075764			12.73- 72.73	42.46
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	1585272	100.000	100.82	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	1323143			52.48- 112.48	83.46
13.600	13.600	(1.438)	155	1237839			47.41- 107.41	78.08
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	4416932	124.000	138.94	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	3610956			52.87- 112.87	81.75
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	2488736	126.000	130.48	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	2388833			65.33- 125.33	95.99
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.582	(1.541)	225	1826473	129.000	136.64	80.00- 120.00	100.00
14.581	14.582	(1.541)	223	1154987			33.17- 93.17	63.24
-----								
216 Naphthalene						CAS #: 91-20-3		
14.768	14.768	(1.561)	128	617447	12.7000	12.602	80.00- 120.00	100.00
14.760	14.768	(1.560)	127	78355			0.00- 42.88	12.69
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.068	15.069	(1.593)	180	2380079	133.000	141.78	80.00- 120.00	100.00
15.068	15.069	(1.593)	182	2269705			65.75- 125.75	95.36
15.061	15.069	(1.592)	145	846452			5.23- 65.23	35.56
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051909.d  
 Lab Smp Id: ICAL Level 8  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 100ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	152805	-3.78
108 1,4-Difluorobenze	597103	358262	835944	599259	0.36
153 Chlorobenzene-d5	587747	352648	822846	590210	0.42

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 16:24

Client ID:

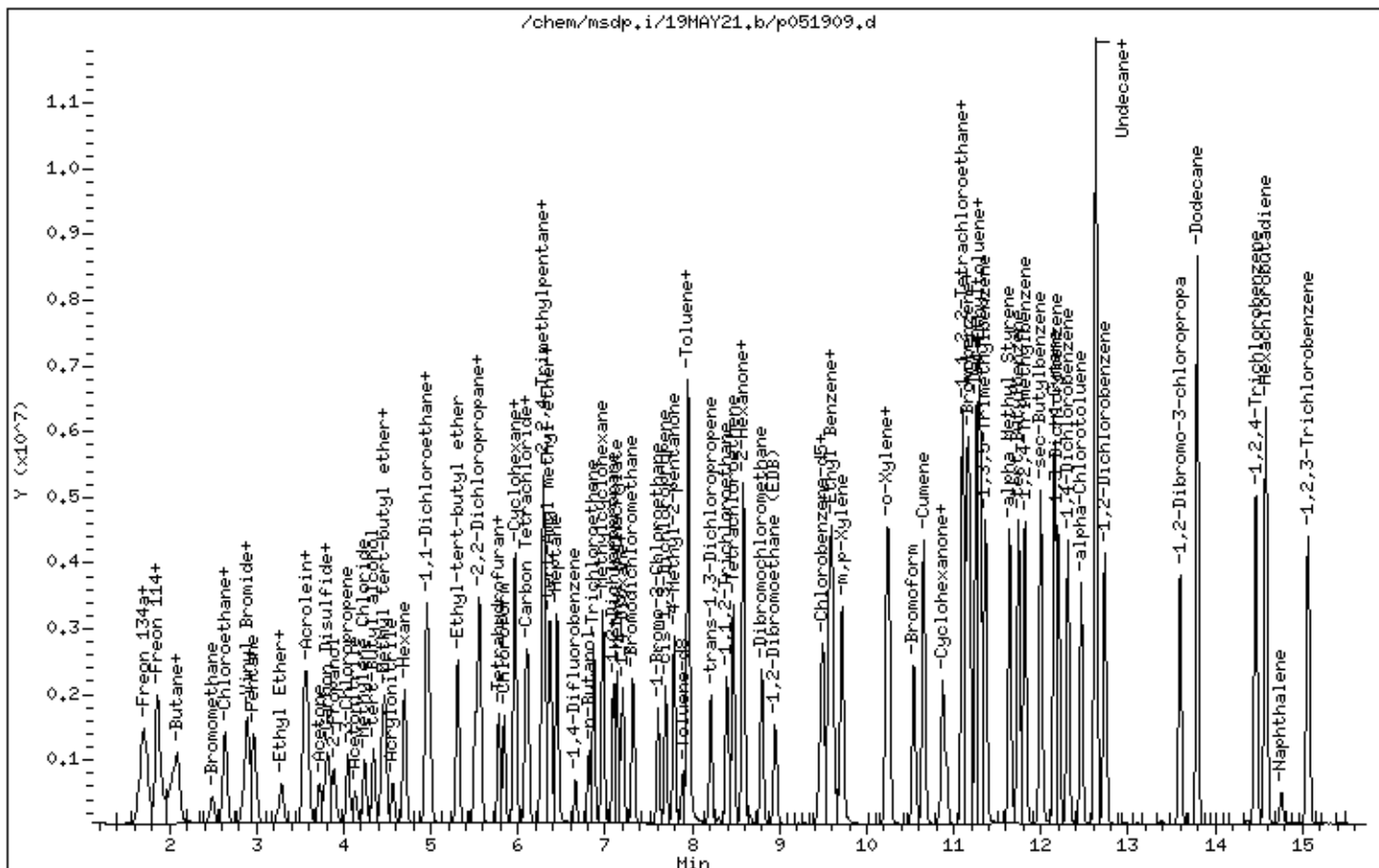
Instrument: msdp.i

Sample Info: 100mL 3018-2034

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051920.d  
Lab Smp Id: ICAL Level 8  
Inj Date : 19-MAY-2021 22:07  
Operator : gh Inst ID: msdp.i  
Smp Info : 100mL 3018-2013  
Misc Info : 100ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 22:07 Cal File: p051920.d  
Als bottle: 3 Calibration Sample, Level: 8  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane				CAS #: 74-97-5		
5.778	5.778	(1.000)	130	157260	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	127325			48.23- 108.23 80.96
5.778	5.778	(1.000)	49	290406			150.57- 210.57 184.67
-----							
* 108	1,4-Difluorobenzene				CAS #: 540-36-3		
6.659	6.659	(1.000)	114	611896	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	94534			0.00- 45.71 15.45
-----							
* 153	Chlorobenzene-d5				CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	605655	25.0000		80.00- 120.00 100.00
9.460	9.460	(1.000)	82	331071			23.78- 83.78 54.66
-----							
3	Freon 143a				CAS #: 420-46-2		
1.590	1.590	(0.275)	65	338792	100.000	105.77	80.00- 120.00 100.00
1.590	1.590	(0.275)	69	923313			243.50- 303.50 272.53
1.590	1.590	(0.275)	64	80203			0.00- 54.06 23.67
-----							
6	Propane				CAS #: 74-98-6		
1.674	1.674	(0.290)	43	269102	100.000	96.261	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.674	1.674	(0.290)	39	170552			34.98- 94.98	63.38
1.674	1.674	(0.290)	41	145053			25.22- 85.22	53.90
-----								
13 Freon 142b CAS #: 75-68-3								
1.884	1.884	(0.326)	65	1499593	100.000	97.279	80.00- 120.00	100.00
1.884	1.884	(0.326)	45	444419			0.00- 59.77	29.64
-----								
36 1-Pentene CAS #: 109-67-1								
2.906	2.906	(0.503)	55	966890	100.000	95.667	80.00- 120.00	100.00
2.906	2.906	(0.503)	42	1331259			105.17- 165.17	137.68
-----								
40 Freon 123a CAS #: 354-23-4								
3.386	3.385	(0.586)	117	933222	100.000	95.080	80.00- 120.00	100.00
3.386	3.378	(0.586)	67	1253615			104.69- 164.69	134.33
-----								
41 Freon 123 CAS #: 306-83-2								
3.479	3.479	(0.602)	83	1402358	100.000	100.49	80.00- 120.00	100.00
3.479	3.479	(0.602)	133	293086			0.00- 50.87	20.90
3.479	3.479	(0.602)	85	954375			36.08- 96.08	68.06
-----								
55 Cyclopentene CAS #: 142-29-0								
4.073	4.073	(0.705)	67	1549614	100.000	103.63	80.00- 120.00	100.00
4.073	4.073	(0.705)	68	574894			6.76- 66.76	37.10
4.073	4.073	(0.705)	53	430697			0.00- 57.54	27.79
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.073	4.073	(0.705)	43	1860322	100.000	106.56	80.00- 120.00	100.00
4.080	4.073	(0.706)	74	265330			0.00- 44.13	14.26
-----								
74 Chloroprene CAS #: 126-99-8								
5.019	5.019	(0.869)	53	1510132	100.000	108.90	80.00- 120.00	100.00
5.019	5.019	(0.869)	88	592673			9.21- 69.21	39.25
5.019	5.019	(0.869)	50	359244			0.00- 54.25	23.79
-----								
75 1-Propanol CAS #: 71-23-8								
5.083	5.083	(0.880)	59	205049	100.000	98.484	80.00- 120.00	100.00
5.083	5.083	(0.880)	42	189310			63.23- 123.23	92.32
5.083	5.083	(0.880)	41	113051			24.74- 84.74	55.13
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.620	5.620	(0.973)	55	1943701	100.000	106.36	80.00- 120.00	100.00
5.620	5.620	(0.973)	85	217090			0.00- 41.28	11.17
5.620	5.620	(0.973)	58	162912			0.00- 38.22	8.38
-----								
103 Isobutanol CAS #: 78-83-1								
6.236	6.244	(1.079)	39	226725	100.000	101.49	80.00- 120.00	100.00

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT	ON-COL		
==	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)							
6.244	6.244	(1.081)	43	1059873		448.18- 508.18	467.47
6.244	6.244	(1.081)	41	745566		299.99- 359.99	328.84
-----							
113 Ethyl acrylate							
						CAS #: 140-88-5	
6.938	6.938	(0.733)	99	135799	100.000	96.936 80.00- 120.00	100.00
6.938	6.938	(0.733)	45	252316		149.95- 209.95	185.80
6.938	6.938	(0.733)	55	2635755		1849.07-1909.07	1940.92
-----							
115 2-Pentanone							
						CAS #: 107-87-9	
7.032	7.031	(0.743)	43	3106672	100.000	101.23 80.00- 120.00	100.00
7.032	7.031	(0.743)	58	227526		0.00- 37.44	7.32
7.032	7.031	(0.743)	86	400164		0.00- 42.78	12.88
-----							
145 Butyl Acetate							
						CAS #: 123-86-4	
8.665	8.665	(1.301)	56	1533686	100.000	99.232 80.00- 120.00	100.00
8.665	8.665	(1.301)	73	450207		0.00- 59.10	29.35
8.658	8.657	(1.300)	43	3763757		215.30- 275.30	245.41
-----							
157 1,1,1,2-Tetrachloroethane							
						CAS #: 630-20-6	
9.596	9.596	(1.014)	131	1347909	100.000	100.28 80.00- 120.00	100.00
9.460	9.460	(1.000)	117	605655		57.42- 117.42	44.93
9.596	9.596	(1.014)	95	485333		5.70- 65.70	36.01
-----							
166 2-Heptanone							
						CAS #: 110-43-0	
10.362	10.362	(1.793)	58	2357119	100.000	102.38 80.00- 120.00	100.00
10.362	10.362	(1.793)	43	3890207		136.03- 196.03	165.04
-----							
172 D-Limonene							
						CAS #: 5989-27-5	
12.089	12.089	(1.278)	68	1800213	100.000	137.28 80.00- 120.00	100.00
12.089	12.089	(1.278)	93	1238262		39.41- 99.41	68.78
-----							
186 4-Chlorotoluene							
						CAS #: 106-43-4	
11.444	11.444	(1.210)	126	1234609	100.000	99.338 80.00- 120.00	100.00
11.444	11.444	(1.210)	91	3962866		295.02- 355.02	320.98
11.444	11.444	(1.210)	63	506526		11.82- 71.82	41.03
-----							
197 1,2,3-Trimethylbenzene							
						CAS #: 526-73-8	
12.318	12.318	(1.302)	120	1781367	100.000	98.416 80.00- 120.00	100.00
12.318	12.318	(1.302)	105	3973322		192.40- 252.40	223.05
12.318	12.318	(1.302)	77	442101		0.00- 54.69	24.82
-----							
205 Hexachloroethane							
						CAS #: 67-72-1	
12.977	12.970	(1.372)	201	850803	100.000	123.71 80.00- 120.00	100.00
12.977	12.970	(1.372)	117	1124452		102.99- 162.99	132.16
-----							

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.779	13.758	(1.457)	180	2557091	100.000	100.71	80.00- 120.00	100.00
13.779	13.758	(1.457)	182	2439083			65.24- 125.24	95.39
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	2760113	100.000	112.22	80.00- 120.00	100.00
10.599	10.599	(1.120)	77	796024			0.00- 58.21	28.84
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.422	11.422	(1.207)	93	2112301	100.000	133.10	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	3962866			153.57- 213.57	187.61
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051920.d  
 Lab Smp Id: ICAL Level 8  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 100ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	157260	-0.98
108 1,4-Difluorobenze	597103	358262	835944	611896	2.48
153 Chlorobenzene-d5	587747	352648	822846	605655	3.05

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.



Date : 19-MAY-2021 22:07

Client ID:

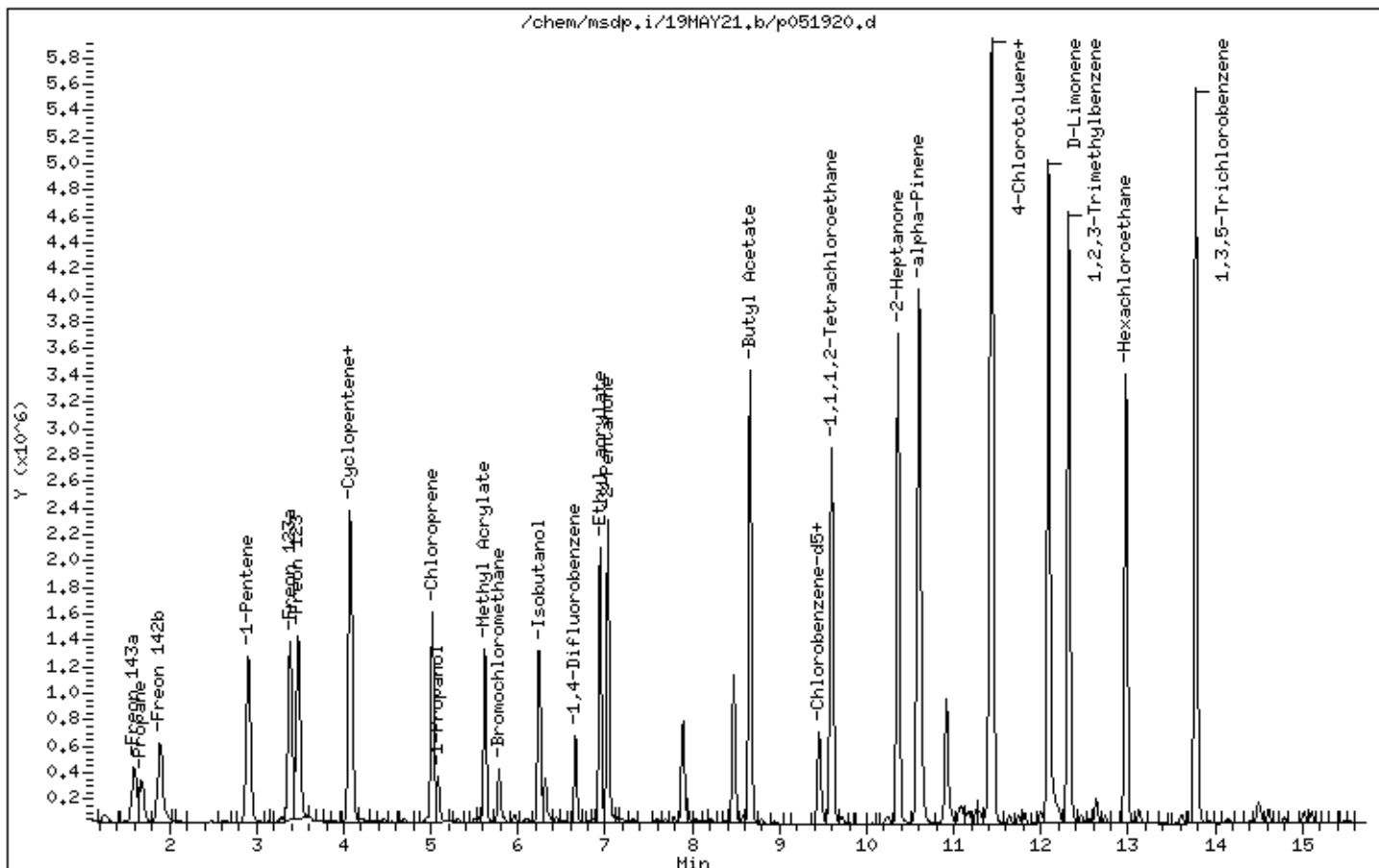
Instrument: msdp.i

Sample Info: 100mL 3018-2013

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051910.d  
 Lab Smp Id: ICAL Level 9  
 Inj Date : 19-MAY-2021 16:53  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 200mL 3018-2034  
 Misc Info : 200ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 16:53 Cal File: p051910.d  
 Als bottle: 13 Calibration Sample, Level: 9  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a				CAS #: 811-97-2				
1.660	1.633	(0.287)	83	963392	200.000	207.55	80.00- 120.00	100.00(A)
1.646	1.633	(0.285)	69	867624			59.44- 119.44	90.06
1.758	1.745	(0.304)	51	4138681			419.06- 479.06	429.59
-----								
5 Propylene				CAS #: 115-07-1				
1.688	1.675	(0.292)	41	1396714	200.000	208.12	80.00- 120.00	100.00(A)
1.688	1.675	(0.292)	42	925437			35.28- 95.28	66.26
1.688	1.675	(0.292)	39	960683			38.35- 98.35	68.78
-----								
7 1,1-Difluoroethane				CAS #: 75-37-6				
1.716	1.703	(0.297)	65	610604	200.000	183.68	80.00- 120.00	100.00
1.758	1.745	(0.304)	51	4138681			597.63- 657.63	677.80
1.716	1.703	(0.297)	47	402984			33.72- 93.72	66.00
-----								
8 Freon 12				CAS #: 75-71-8				
1.730	1.717	(0.299)	85	2956019	200.000	224.92	80.00- 120.00	100.00(A)
1.730	1.717	(0.299)	87	956315			2.37- 62.37	32.35
-----								
9 Chlorodifluoromethane				CAS #: 75-45-6				
1.758	1.745	(0.304)	67	279979	200.000	215.49	80.00- 120.00	100.00(A)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.758	1.745	(0.304)	51	4138681			1501.01-1561.01	1478.21
-----								
10 Freon 114 CAS #: 76-14-2								
1.856	1.856	(0.321)	135	2798238	200.000	210.96	80.00- 120.00	100.00(A)
1.856	1.856	(0.321)	137	896202			2.30- 62.30	32.03
-----								
12 Isobutane CAS #: 75-28-5								
1.870	1.870	(0.323)	43	3072142	200.000	206.77	80.00- 120.00	100.00(A)
1.870	1.870	(0.323)	42	980915			2.44- 62.44	31.93
1.870	1.856	(0.323)	58	99396			0.00- 33.36	3.24
-----								
15 Chloromethane CAS #: 74-87-3								
1.954	1.940	(0.338)	50	1152746	200.000	151.06	80.00- 120.00	100.00
1.954	1.940	(0.338)	52	283410			0.00- 56.26	24.59
-----								
18 Butane CAS #: 106-97-8								
2.053	2.025	(0.355)	58	411216	200.000	232.63	80.00- 120.00	100.00(A)
2.053	2.025	(0.355)	43	3342638			823.29- 883.29	812.87
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.075	2.068	(0.359)	62	1863332	200.000	203.01	80.00- 120.00	100.00(A)
2.075	2.068	(0.359)	64	541008			0.00- 59.69	29.03
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.111	2.089	(0.365)	54	1717595	200.000	229.88	80.00- 120.00	100.00(A)
2.111	2.089	(0.365)	39	2054933			52.37- 112.37	119.64
-----								
24 Bromomethane CAS #: 74-83-9								
2.490	2.483	(0.430)	94	1117043	200.000	189.24	80.00- 120.00	100.00
2.490	2.483	(0.430)	96	1045104			64.07- 124.07	93.56
-----								
30 Chloroethane CAS #: 75-00-3								
2.619	2.612	(0.453)	64	698592	200.000	211.62	80.00- 120.00	100.00(A)
2.619	2.612	(0.453)	66	205685			0.04- 60.04	29.44
2.619	2.612	(0.453)	49	231191			4.54- 64.54	33.09
-----								
31 Isopentane CAS #: 78-78-4								
2.641	2.634	(0.456)	43	2078373	200.000	206.91	80.00- 120.00	100.00(A)
2.641	2.634	(0.456)	57	1341657			34.12- 94.12	64.55
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.848	2.841	(0.492)	106	1169390	200.000	214.33	80.00- 120.00	100.00(A)
2.848	2.841	(0.492)	108	1149051			69.27- 129.27	98.26
-----								
33 Freon 11 CAS #: 75-69-4								
2.898	2.884	(0.501)	101	2990714	200.000	213.62	80.00- 120.00	100.00(A)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.898	2.884	(0.501)	103	1954067			34.72- 94.72	65.34
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.906	2.899	(0.502)	67	2628562	200.000	218.19	80.00- 120.00	100.00(A)
2.906	2.899	(0.502)	69	808198			0.84- 60.84	30.75
-----								
35 Pentane CAS #: 109-66-0								
2.977	2.970	(0.515)	43	3326896	200.000	203.77	80.00- 120.00	100.00(A)
2.977	2.970	(0.515)	57	497125			0.00- 44.98	14.94
2.977	2.970	(0.515)	72	250044			0.00- 37.39	7.52
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.292	3.285	(0.569)	74	597925	200.000	217.07	80.00- 120.00	100.00(A)
3.292	3.285	(0.569)	59	1144802			163.46- 223.46	191.46
3.285	3.285	(0.568)	45	1667751			250.40- 310.40	278.92
-----								
39 Ethanol CAS #: 64-17-5								
3.249	3.242	(0.562)	46	301814	200.000	207.52	80.00- 120.00	100.00(A)
3.285	3.242	(0.568)	45	1657457			511.19- 571.19	549.17
-----								
42 Acrolein CAS #: 107-02-8								
3.543	3.529	(0.612)	55	539808	200.000	213.90	80.00- 120.00	100.00(A)
3.543	3.529	(0.612)	56	750593			111.10- 171.10	139.05
-----								
43 Freon 113 CAS #: 76-13-1								
3.557	3.550	(0.615)	151	2174805	200.000	208.58	80.00- 120.00	100.00(A)
3.557	3.550	(0.615)	153	1392066			33.56- 93.56	64.01
3.557	3.550	(0.615)	101	2603153			89.21- 149.21	119.70
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.593	3.579	(0.621)	96	1272304	200.000	210.50	80.00- 120.00	100.00(A)
3.593	3.579	(0.621)	98	804446			34.02- 94.02	63.23
3.593	3.579	(0.621)	61	2540756			168.77- 228.77	199.70
-----								
47 Acetone CAS #: 67-64-1								
3.722	3.708	(0.643)	58	818913	200.000	213.00	80.00- 120.00	100.00(A)
3.722	3.708	(0.643)	43	2670673			302.95- 362.95	326.12
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.837	3.823	(0.663)	76	3473690	200.000	212.53	80.00- 120.00	100.00(A)
-----								
49 Iodomethane CAS #: 74-88-4								
3.794	3.794	(0.656)	142	2824784	200.000	259.99	80.00- 120.00	100.00(A)
3.794	3.794	(0.656)	127	1185970			12.22- 72.22	41.98
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.901	3.887	(0.674)	45	3287894	200.000	212.18	80.00- 120.00	100.00(A)
3.901	3.887	(0.674)	43	565170			0.00- 47.19	17.19
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.059	4.052	(0.702)	76	545365	200.000	199.73	80.00- 120.00	100.00
4.052	4.052	(0.700)	41	2224570			396.19- 456.19	407.90
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.131	4.123	(0.714)	41	1631593	200.000	225.92	80.00- 120.00	100.00(A)
4.131	4.123	(0.714)	40	829052			20.95- 80.95	50.81
4.131	4.123	(0.714)	38	182363			0.00- 41.17	11.18
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.238	4.238	(0.733)	49	2169168	200.000	217.21	80.00- 120.00	100.00(A)
4.238	4.238	(0.733)	84	1125402			22.03- 82.03	51.88
4.238	4.238	(0.733)	51	657885			0.18- 60.18	30.33
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.345	4.338	(0.751)	59	3675194	200.000	203.38	80.00- 120.00	100.00(A)
4.345	4.338	(0.751)	41	762931			0.00- 51.11	20.76
4.345	4.338	(0.751)	57	374274			0.00- 40.49	10.18
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.768)	73	3660106	200.000	203.22	80.00- 120.00	100.00(A)
4.446	4.446	(0.768)	57	1205080			3.10- 63.10	32.92
4.446	4.446	(0.768)	41	1137977			1.28- 61.28	31.09
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.482	4.482	(0.775)	98	872146	200.000	213.32	80.00- 120.00	100.00(A)
4.482	4.482	(0.775)	61	2471299			255.84- 315.84	283.36
4.482	4.482	(0.775)	96	1368568			127.59- 187.59	156.92
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.567	4.560	(0.789)	52	1209839	200.000	208.90	80.00- 120.00	100.00(A)
4.567	4.560	(0.789)	53	1441756			88.05- 148.05	119.17
-----								
67 Hexane						CAS #: 110-54-3		
4.696	4.697	(0.812)	57	3059384	200.000	213.36	80.00- 120.00	100.00(A)
4.696	4.697	(0.812)	43	2035499			37.52- 97.52	66.53
4.696	4.697	(0.812)	86	348023			0.00- 41.48	11.38
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.969	4.962	(0.859)	63	2727099	200.000	215.24	80.00- 120.00	100.00(A)
4.969	4.962	(0.859)	65	807144			0.00- 59.70	29.60
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
72 Isopropyl ether						CAS #: 108-20-3		
4.947	4.954	(0.855)	45	6972756	200.000	207.52	80.00- 120.00	100.00(A)
4.947	4.954	(0.855)	87	1261426			0.00- 48.18	18.09
4.947	4.954	(0.855)	59	707319			0.00- 40.15	10.14
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.864)	86	353856	200.000	221.69	80.00- 120.00	100.00(A)
4.997	4.997	(0.864)	43	6152688			2432.48-2492.48	1738.75
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.917)	59	5991015	200.000	205.98	80.00- 120.00	100.00(A)
5.305	5.305	(0.917)	87	1852036			1.00- 61.00	30.91
5.305	5.305	(0.917)	41	1108520			0.00- 48.73	18.50
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.513	5.506	(0.953)	77	2339456	200.000	212.12	80.00- 120.00	100.00(A)
5.513	5.506	(0.953)	79	759579			2.28- 62.28	32.47
5.513	5.506	(0.953)	97	577290			0.00- 53.93	24.68
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.959)	98	941351	200.000	222.97	80.00- 120.00	100.00(A)
5.549	5.549	(0.959)	96	1475590			125.75- 185.75	156.75
5.549	5.549	(0.959)	61	3406307			332.40- 392.40	361.85
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.960)	72	710177	200.000	214.24	80.00- 120.00	100.00(A)
5.563	5.556	(0.962)	43	8748765			1214.50-1274.50	1231.91
5.556	5.556	(0.960)	57	313614			14.68- 74.68	44.16
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.963)	45	710278	200.000	215.42	80.00- 120.00	100.00(A)
5.549	5.549	(0.959)	61	3406439			452.04- 512.04	479.59
5.570	5.570	(0.963)	70	376648			22.77- 82.77	53.03
89 Tetrahydrofuran						CAS #: 109-99-9		
5.778	5.771	(0.999)	42	2389288	200.000	213.80	80.00- 120.00	100.00(A)
5.778	5.771	(0.999)	71	621062			0.00- 55.82	25.99
5.778	5.771	(0.999)	72	679138			0.00- 57.59	28.42
* 90 Bromochloromethane						CAS #: 74-97-5		
5.785	5.778	(1.000)	130	146655	25.0000		80.00- 120.00	100.00
5.785	5.778	(1.000)	128	114483			48.23- 108.23	78.06
5.785	5.778	(1.000)	49	264310			150.57- 210.57	180.23
92 Chloroform						CAS #: 67-66-3		
5.842	5.835	(1.010)	83	2849633	200.000	221.70	80.00- 120.00	100.00(A)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform (continued)								
5.842	5.835	(1.010)	85	1839274			34.70- 94.70	64.54
-----								
94 Cyclohexane								
							CAS #: 110-82-7	
5.957	5.957	(1.030)	84	1890120	200.000	209.08	80.00- 120.00	100.00(A)
5.957	5.957	(1.030)	56	3281786			142.57- 202.57	173.63
5.957	5.957	(1.030)	41	1740496			62.09- 122.09	92.08
-----								
96 1,1,1-Trichloroethane								
							CAS #: 71-55-6	
5.971	5.972	(1.032)	97	2948715	200.000	206.40	80.00- 120.00	100.00(A)
5.971	5.972	(1.032)	99	1896974			34.02- 94.02	64.33
-----								
97 Carbon Tetrachloride								
							CAS #: 56-23-5	
6.093	6.086	(1.053)	119	2981854	200.000	217.13	80.00- 120.00	100.00(A)
6.093	6.086	(1.053)	117	3007163			70.64- 130.64	100.85
-----								
99 1,1-Dichloropropene								
							CAS #: 563-58-6	
6.122	6.115	(0.919)	110	839217	200.000	203.04	80.00- 120.00	100.00(A)
6.115	6.115	(0.918)	75	2124877			226.85- 286.85	253.20
-----								
101 2,2,4-Trimethylpentane								
							CAS #: 540-84-1	
6.279	6.280	(1.085)	57	10464793	200.000	207.89	80.00- 120.00	100.00(A)
6.279	6.280	(1.085)	56	3399889			2.24- 62.24	32.49
6.279	6.280	(1.085)	41	2587604			0.00- 54.39	24.73
-----								
102 Benzene								
							CAS #: 71-43-2	
6.301	6.301	(0.946)	78	4111436	200.000	205.31	80.00- 120.00	100.00(A)
6.301	6.301	(0.946)	77	947596			0.00- 52.90	23.05
-----								
\$ 104 1,2-Dichloroethane-d4								
							CAS #: 17060-07-0	
6.315	6.308	(1.092)	65	228223	25.0000	27.989	80.00- 120.00	100.00
6.308	6.308	(1.090)	67	169168			27.21- 87.21	74.12
-----								
105 tert-Amyl methyl ether								
							CAS #: 994-05-8	
6.358	6.358	(0.955)	87	1080564	200.000	191.25	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	4364452			372.79- 432.79	403.90
6.358	6.358	(0.955)	55	1482176			112.09- 172.09	137.17
-----								
106 1,2-Dichloroethane								
							CAS #: 107-06-2	
6.380	6.380	(0.958)	62	2173814	200.000	205.36	80.00- 120.00	100.00(A)
6.380	6.380	(0.958)	64	662081			0.79- 60.79	30.46
-----								
107 Heptane								
							CAS #: 142-82-5	
6.444	6.444	(0.968)	71	1572559	200.000	200.11	80.00- 120.00	100.00(A)
6.444	6.444	(0.968)	43	4039565			226.53- 286.53	256.88
6.444	6.444	(0.968)	57	2057612			100.85- 160.85	130.84
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene								
						CAS #: 540-36-3		
6.659	6.659	(1.000)	114	607214	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	93970			0.00- 45.71	15.48
-----								
110 n-Butanol								
						CAS #: 71-36-3		
6.809	6.810	(1.023)	56	1498541	200.000	205.70	80.00- 120.00	100.00(A)
6.809	6.810	(1.023)	41	1046025			40.99- 100.99	69.80
6.809	6.810	(1.023)	43	852168			27.38- 87.38	56.87
-----								
111 Trichloroethene								
						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	2004771	200.000	206.61	80.00- 120.00	100.00(A)
6.867	6.867	(1.031)	130	2152958			76.29- 136.29	107.39
6.867	6.867	(1.031)	97	1282796			33.63- 93.63	63.99
-----								
114 1,2-Dichloropropane								
						CAS #: 78-87-5		
7.096	7.089	(1.066)	63	2045978	200.000	200.76	80.00- 120.00	100.00(A)
7.096	7.089	(1.066)	62	1452463			41.07- 101.07	70.99
7.096	7.089	(1.066)	41	1025055			22.53- 82.53	50.10
-----								
116 Methyl Methacrylate								
						CAS #: 80-62-6		
7.139	7.132	(0.755)	69	1664410	200.000	203.56	80.00- 120.00	100.00(A)
7.139	7.132	(0.755)	41	3490137			179.84- 239.84	209.69
7.139	7.139	(0.755)	100	669735			9.59- 69.59	40.24
-----								
117 1,4-Dioxane								
						CAS #: 123-91-1		
7.175	7.175	(1.077)	88	1068493	200.000	195.71	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	1054342			68.28- 128.28	98.68
7.175	7.175	(1.077)	57	357622			2.68- 62.68	33.47
-----								
118 Dibromomethane								
						CAS #: 74-95-3		
7.211	7.204	(0.762)	174	1851234	200.000	206.43	80.00- 120.00	100.00(A)
7.203	7.204	(0.761)	93	1651072			60.09- 120.09	89.19
7.203	7.204	(0.761)	95	1434152			48.38- 108.38	77.47
-----								
122 Bromodichloromethane								
						CAS #: 75-27-4		
7.318	7.318	(1.099)	83	3187397	200.000	209.29	80.00- 120.00	100.00(A)
7.318	7.318	(1.099)	85	2050718			35.24- 95.24	64.34
-----								
126 cis-1,3-Dichloropropene								
						CAS #: 10061-01-5		
7.698	7.691	(1.156)	75	2666430	200.000	209.05	80.00- 120.00	100.00(A)
7.698	7.691	(1.156)	77	846283			2.42- 62.42	31.74
7.691	7.691	(1.155)	39	1760038			37.16- 97.16	66.01
-----								
127 Methylcyclohexane								
						CAS #: 108-87-2		
6.974	6.974	(1.047)	83	2728123	200.000	194.48	80.00- 120.00	100.00
6.974	6.974	(1.047)	98	1272958			15.78- 75.78	46.66



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
127 Methylcyclohexane (continued)								
6.974	6.974	(1.047)	55	3109761			84.64- 144.64	113.99
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.791	7.791	(1.170)	58	1984175	200.000	194.19	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	5363252			242.35- 302.35	270.30
7.798	7.791	(1.171)	85	653050			3.24- 63.24	32.91
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	661488	25.0000	25.064	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	62867			0.00- 40.44	9.50
7.891	7.891	(1.185)	100	430214			34.95- 94.95	65.04
-----								
137 Toluene CAS #: 108-88-3								
7.956	7.949	(1.195)	91	5496866	200.000	198.84	80.00- 120.00	100.00
7.956	7.949	(1.195)	92	3223093			28.38- 88.38	58.64
-----								
136 Octane CAS #: 111-65-9								
7.948	7.949	(1.194)	57	2290202	200.000	196.83	80.00- 120.00	100.00
7.948	7.949	(1.194)	85	1946174			56.00- 116.00	84.98
7.948	7.949	(1.194)	43	5895371			228.66- 288.66	257.42
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
8.213	8.214	(0.868)	75	2472659	200.000	208.56	80.00- 120.00	100.00(A)
8.213	8.214	(0.868)	77	780505			1.24- 61.24	31.57
8.213	8.214	(0.868)	39	1616909			34.11- 94.11	65.39
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
8.400	8.400	(0.888)	97	1973653	200.000	206.88	80.00- 120.00	100.00(A)
8.400	8.400	(0.888)	99	1227648			31.96- 91.96	62.20
8.400	8.400	(0.888)	83	1639096			52.93- 112.93	83.05
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.464	8.464	(0.895)	166	2764412	200.000	200.38	80.00- 120.00	100.00(A)
8.464	8.464	(0.895)	129	2156828			47.84- 107.84	78.02
8.464	8.464	(0.895)	131	2092898			45.29- 105.29	75.71
-----								
143 2-Hexanone CAS #: 591-78-6								
8.586	8.586	(0.908)	58	2749799	200.000	198.84	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	5238084			162.87- 222.87	190.49
8.586	8.586	(0.908)	100	433880			0.00- 45.94	15.78
-----								
144 1,3-Dichloropropane CAS #: 142-28-9								
8.579	8.579	(1.288)	76	2712190	200.000	204.00	80.00- 120.00	100.00(A)
8.579	8.579	(1.288)	41	3365614			94.99- 154.99	124.09
8.579	8.579	(1.288)	78	882760			2.05- 62.05	32.55
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
146 Dibromochloromethane						CAS #: 124-48-1		
8.801	8.801	(0.930)	129	3803420	200.000	207.93	80.00- 120.00	100.00(A)
8.801	8.801	(0.930)	127	2948441			47.45- 107.45	77.52
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.951	8.951	(0.946)	107	3199545	200.000	204.31	80.00- 120.00	100.00(A)
8.951	8.951	(0.946)	109	3015665			64.21- 124.21	94.25
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.605	7.605	(1.142)	63	3852793	200.000	204.41	80.00- 120.00	100.00(A)
7.605	7.605	(1.142)	65	1142924			0.00- 59.64	29.66
7.605	7.605	(1.142)	144	374076			0.00- 39.63	9.71
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	595090	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	322638			23.78- 83.78	54.22
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.496	9.496	(1.004)	112	4805022	200.000	203.48	80.00- 120.00	100.00(A)
9.496	9.496	(1.004)	114	1542900			1.74- 61.74	32.11
9.496	9.496	(1.004)	77	2584699			25.04- 85.04	53.79
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.567	9.567	(1.011)	106	2443043	200.000	198.07	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	7445132			273.74- 333.74	304.75
-----								
156 Nonane						CAS #: 111-84-2		
9.603	9.596	(1.015)	43	6171885	200.000	194.14	80.00- 120.00	100.00
9.603	9.603	(1.015)	57	5253139			54.16- 114.16	85.11
9.603	9.603	(1.015)	85	1482943			0.00- 53.90	24.03
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.718	9.718	(1.027)	106	3015614	200.000	196.78	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	5869082			163.73- 223.73	194.62
-----								
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	2925715	200.000	197.04	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	5968076			177.45- 237.45	203.99
-----								
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	4970586	200.000	197.21	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	2372058			17.88- 77.88	47.72
-----								
167 Bromoform						CAS #: 75-25-2		
10.549	10.542	(1.115)	173	3738056	200.000	208.68	80.00- 120.00	100.00(A)
10.549	10.542	(1.115)	171	1919438			21.25- 81.25	51.35
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene			CAS #: 98-82-8					
10.656	10.649	(1.126)	105	9133490	200.000	196.23	80.00- 120.00	100.00
10.656	10.649	(1.126)	120	2612516			0.00- 58.52	28.60
10.649	10.649	(1.126)	51	1174655			0.00- 43.00	12.86
169 Cyclohexanone			CAS #: 108-94-1					
10.871	10.871	(1.149)	55	3186182	200.000	191.28	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	1023262			1.94- 61.94	32.12
10.871	10.871	(1.149)	42	2155068			37.89- 97.89	67.64
§ 170 4-Bromofluorobenzene			CAS #: 460-00-4					
10.921	10.921	(1.154)	174	391305	25.0000	25.595	80.00- 120.00	100.00
10.921	10.921	(1.154)	95	492677			95.92- 155.92	125.91
10.921	10.921	(1.154)	176	379433			66.89- 126.89	96.97
175 1,1,2,2-Tetrachloroethane			CAS #: 79-34-5					
11.107	11.100	(1.174)	83	4478778	200.000	197.42	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	2889301			35.20- 95.20	64.51
177 Bromobenzene			CAS #: 108-86-1					
11.107	11.107	(1.174)	156	2876488	200.000	203.06	80.00- 120.00	100.00(A)
11.107	11.107	(1.174)	158	2796126			67.21- 127.21	97.21
11.179	11.179	(1.182)	77	1690886			29.02- 89.02	58.78
178 Propylbenzene			CAS #: 103-65-1					
11.150	11.150	(1.179)	120	2681478	200.000	194.62	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	10576237			366.49- 426.49	394.42
11.150	11.150	(1.179)	105	403848			0.00- 44.85	15.06
179 1,2,3-Trichloropropane			CAS #: 96-18-4					
11.179	11.179	(1.182)	110	1359844	200.000	190.81	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	4281561			280.55- 340.55	314.86
11.107	11.100	(1.174)	61	607928			15.49- 75.49	44.71
181 trans-1,4-Dichloro-2-butene			CAS #: 110-57-6					
11.179	11.179	(1.182)	53	954975	200.000	201.05	80.00- 120.00	100.00(A)
11.179	11.179	(1.182)	89	738088			49.11- 109.11	77.29
11.179	11.179	(1.182)	75	4281561			426.44- 486.44	448.34
182 Decane			CAS #: 124-18-5					
11.258	11.251	(1.190)	57	6477918	200.000	178.80	80.00- 120.00	100.00
11.258	11.251	(1.190)	71	1764517			0.00- 57.66	27.24
11.258	11.258	(1.190)	142	263248			0.00- 34.09	4.06
183 4-Ethyltoluene			CAS #: 622-96-8					
11.286	11.287	(1.193)	120	2800806	200.000	189.85	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
11.286	11.287	(1.193)	105	9001865			284.55- 344.55	321.40
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
11.315	11.308	(1.196)	126	2257842	200.000	193.82	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	7834055			315.17- 375.17	346.97
11.301	11.301	(1.195)	65	1128270			21.55- 81.55	49.97
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
11.365	11.365	(1.201)	120	4109840	200.000	199.10	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	7853670			164.93- 224.93	191.09
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
11.645	11.645	(1.231)	118	4135477	200.000	199.73	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	2280562			25.30- 85.30	55.15
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
11.745	11.738	(1.242)	119	7751216	200.000	200.41	80.00- 120.00	100.00(A)
11.745	11.738	(1.242)	134	1872880			0.00- 54.25	24.16
11.738	11.738	(1.241)	91	4741993			31.27- 91.27	61.18
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.816	11.817	(1.249)	105	7641602	200.000	195.85	80.00- 120.00	100.00
11.816	11.817	(1.249)	120	3760947			19.05- 79.05	49.22
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
12.003	11.996	(1.269)	134	2387678	200.000	198.82	80.00- 120.00	100.00
12.003	11.996	(1.269)	105	11138250			437.55- 497.55	466.49
11.996	11.996	(1.268)	91	1685037			40.76- 100.76	70.57
-----								
194 p-Cymene CAS #: 99-87-6								
12.160	12.160	(1.285)	119	10410880	200.000	197.06	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	2680251			0.00- 55.54	25.74
12.160	12.153	(1.285)	91	2223506			0.00- 51.48	21.36
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.203	12.196	(1.290)	146	5269323	200.000	196.50	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	3364893			33.21- 93.21	63.86
12.196	12.196	(1.289)	111	2179310			11.31- 71.31	41.36
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	5379837	200.000	198.98	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	3443156			33.90- 93.90	64.00
12.311	12.311	(1.301)	111	2132840			9.45- 69.45	39.65
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	7476818	200.000	201.60	80.00- 120.00	100.00(A)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
12.461	12.461	(1.317)	126	1723549			0.00- 53.26	23.05
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	7391785	200.000	176.63	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	6481442			58.12- 118.12	87.68
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	2555712	200.000	190.54	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	8833770			314.79- 374.79	345.65
12.626	12.626	(1.335)	92	4753356			154.29- 214.29	185.99
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.733	12.741	(1.346)	146	5095250	200.000	195.20	80.00- 120.00	100.00
12.733	12.741	(1.346)	148	3245004			33.84- 93.84	63.69
12.733	12.741	(1.346)	111	2166463			12.73- 72.73	42.52
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	3185412	200.000	200.77	80.00- 120.00	100.00(A)
13.600	13.600	(1.438)	75	2632735			52.48- 112.48	82.65
13.600	13.600	(1.438)	155	2459698			47.41- 107.41	77.22
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	8872524	247.000	272.11	80.00- 120.00	100.00(A)
13.801	13.801	(1.459)	43	7239358			52.87- 112.87	81.59
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	5062178	252.000	261.56	80.00- 120.00	100.00(A)
14.467	14.467	(1.529)	182	4827276			65.33- 125.33	95.36
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.582	(1.541)	225	3721949	257.000	273.25	80.00- 120.00	100.00(A)
14.581	14.582	(1.541)	223	2342743			33.17- 93.17	62.94
-----								
216 Naphthalene						CAS #: 91-20-3		
14.768	14.768	(1.561)	128	1265607	25.4000	25.587	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	157387			0.00- 42.88	12.44
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.068	15.069	(1.593)	180	4844896	266.000	283.17	80.00- 120.00	100.00(A)
15.068	15.069	(1.593)	182	4630533			65.75- 125.75	95.58
15.068	15.069	(1.593)	145	1724268			5.23- 65.23	35.59
-----								

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051910.d  
 Lab Smp Id: ICAL Level 9  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 200ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	146655	-7.65
108 1,4-Difluorobenze	597103	358262	835944	607214	1.69
153 Chlorobenzene-d5	587747	352648	822846	595090	1.25

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.79	0.12
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 16:53

Client ID:

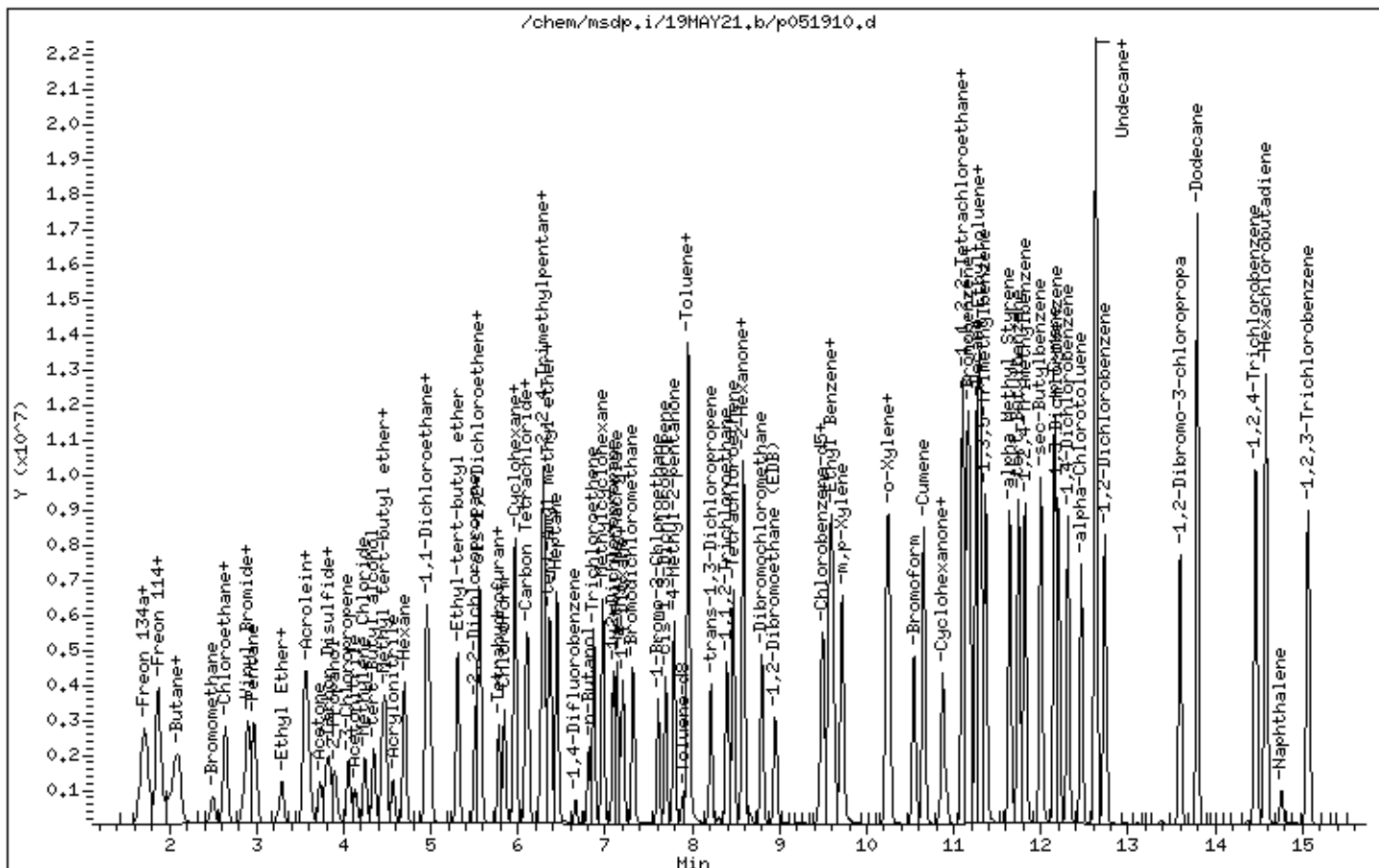
Instrument: msdp.i

Sample Info: 200mL 3018-2034

Operator: LD

Column phase: RTX-624

Column diameter: 0.25





US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051921.d  
Lab Smp Id: ICAL Level 9  
Inj Date : 19-MAY-2021 22:39  
Operator : gh Inst ID: msdp.i  
Smp Info : 200mL 3018-2013  
Misc Info : 200ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 22:39 Cal File: p051921.d  
Als bottle: 3 Calibration Sample, Level: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane				CAS #: 74-97-5		
5.778	5.778	(1.000)	130	153421	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	119993			48.23- 108.23 78.21
5.778	5.778	(1.000)	49	281111			150.57- 210.57 183.23
-----							
* 108	1,4-Difluorobenzene				CAS #: 540-36-3		
6.659	6.659	(1.000)	114	611809	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	95212			0.00- 45.71 15.56
-----							
* 153	Chlorobenzene-d5				CAS #: 3114-55-4		
9.460	9.460	(1.000)	117	591968	25.0000		80.00- 120.00 100.00
9.460	9.460	(1.000)	82	325404			23.78- 83.78 54.97
-----							
3	Freon 143a				CAS #: 420-46-2		
1.591	1.590	(0.275)	65	400344	200.000	135.04	80.00- 120.00 100.00
1.591	1.590	(0.275)	69	1105090			243.50- 303.50 276.04
1.591	1.590	(0.275)	64	95760			0.00- 54.06 23.92
-----							
6	Propane				CAS #: 74-98-6		
1.675	1.674	(0.290)	43	527234	200.000	194.13	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.675	1.674	(0.290)	39	330737			34.98- 94.98	62.73
1.675	1.674	(0.290)	41	280905			25.22- 85.22	53.28
-----								
13 Freon 142b CAS #: 75-68-3								
1.884	1.884	(0.326)	65	2932126	200.000	195.58	80.00- 120.00	100.00
1.884	1.884	(0.326)	45	866027			0.00- 59.77	29.54
-----								
36 1-Pentene CAS #: 109-67-1								
2.906	2.906	(0.503)	55	1894226	200.000	193.06	80.00- 120.00	100.00
2.906	2.906	(0.503)	42	2580451			105.17- 165.17	136.23
-----								
40 Freon 123a CAS #: 354-23-4								
3.386	3.385	(0.586)	117	1952332	200.000	203.39	80.00- 120.00	100.00(A)
3.378	3.378	(0.585)	67	2434248			104.69- 164.69	124.68
-----								
41 Freon 123 CAS #: 306-83-2								
3.479	3.479	(0.602)	83	2762089	200.000	202.52	80.00- 120.00	100.00(A)
3.479	3.479	(0.602)	133	571513			0.00- 50.87	20.69
3.479	3.479	(0.602)	85	1881243			36.08- 96.08	68.11
-----								
55 Cyclopentene CAS #: 142-29-0								
4.073	4.073	(0.705)	67	3056516	200.000	208.28	80.00- 120.00	100.00(A)
4.073	4.073	(0.705)	68	1136453			6.76- 66.76	37.18
4.066	4.073	(0.704)	53	851928			0.00- 57.54	27.87
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.073	4.073	(0.705)	43	3612790	200.000	210.52	80.00- 120.00	100.00(A)
4.073	4.073	(0.705)	74	515897			0.00- 44.13	14.28
-----								
74 Chloroprene CAS #: 126-99-8								
5.012	5.019	(0.867)	53	2991875	200.000	218.26	80.00- 120.00	100.00(A)
5.019	5.019	(0.869)	88	1176445			9.21- 69.21	39.32
5.012	5.019	(0.867)	50	709040			0.00- 54.25	23.70
-----								
75 1-Propanol CAS #: 71-23-8								
5.083	5.083	(0.880)	59	399024	200.000	196.88	80.00- 120.00	100.00
5.083	5.083	(0.880)	42	379166			63.23- 123.23	95.02
5.083	5.083	(0.880)	41	223562			24.74- 84.74	56.03
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.621	5.620	(0.973)	55	3851199	200.000	213.88	80.00- 120.00	100.00(A)
5.621	5.620	(0.973)	85	434023			0.00- 41.28	11.27
5.621	5.620	(0.973)	58	316363			0.00- 38.22	8.21
-----								
103 Isobutanol CAS #: 78-83-1								
6.237	6.244	(1.079)	39	424672	200.000	195.48	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.237	6.244	(1.079)	43	2091776			448.18- 508.18	492.56
6.237	6.244	(1.079)	41	1430737			299.99- 359.99	336.90
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
6.939	6.938	(0.733)	99	269080	200.000	196.94	80.00- 120.00	100.00
6.939	6.938	(0.733)	45	496156			149.95- 209.95	184.39
6.939	6.938	(0.733)	55	5189842			1849.07-1909.07	1928.74
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.032	7.031	(0.743)	43	6094951	200.000	202.80	80.00- 120.00	100.00(A)
7.032	7.031	(0.743)	58	460764			0.00- 37.44	7.56
7.032	7.031	(0.743)	86	784528			0.00- 42.78	12.87
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.665	8.665	(1.301)	56	3022342	200.000	196.12	80.00- 120.00	100.00
8.665	8.665	(1.301)	73	883323			0.00- 59.10	29.23
8.665	8.657	(1.301)	43	7358553			215.30- 275.30	243.47
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.596	9.596	(1.014)	131	2663540	200.000	202.39	80.00- 120.00	100.00(A)
9.460	9.460	(1.000)	117	591968			57.42- 117.42	22.22
9.596	9.596	(1.014)	95	938731			5.70- 65.70	35.24
-----								
166 2-Heptanone						CAS #: 110-43-0		
10.362	10.362	(1.793)	58	4597454	200.000	204.09	80.00- 120.00	100.00(A)
10.362	10.362	(1.793)	43	7586394			136.03- 196.03	165.01
-----								
172 D-Limonene						CAS #: 5989-27-5		
12.089	12.089	(1.278)	68	3445097	200.000	257.71	80.00- 120.00	100.00(A)
12.089	12.089	(1.278)	93	2389612			39.41- 99.41	69.36
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
11.444	11.444	(1.210)	126	2390402	200.000	197.18	80.00- 120.00	100.00
11.444	11.444	(1.210)	91	7653013			295.02- 355.02	320.16
11.444	11.444	(1.210)	63	988176			11.82- 71.82	41.34
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
12.318	12.318	(1.302)	120	3473836	200.000	196.80	80.00- 120.00	100.00
12.318	12.318	(1.302)	105	7726951			192.40- 252.40	222.43
12.318	12.318	(1.302)	77	848060			0.00- 54.69	24.41
-----								
205 Hexachloroethane						CAS #: 67-72-1		
12.970	12.970	(1.371)	201	1692084	200.000	243.84	80.00- 120.00	100.00(A)
12.963	12.970	(1.370)	117	2255610			102.99- 162.99	133.30
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
13.758	13.758	(1.454)	180	4961639	200.000	199.94	80.00- 120.00	100.00
13.758	13.758	(1.454)	182	4745365			65.24- 125.24	95.64
-----								
210 alpha-Pinene						CAS #: 80-56-8		
10.599	10.599	(1.120)	93	5524082	200.000	225.60	80.00- 120.00	100.00(A)
10.599	10.599	(1.120)	77	1558779			0.00- 58.21	28.22
-----								
214 beta-Pinene						CAS #: 127-91-3		
11.423	11.422	(1.207)	93	3935444	200.000	245.48	80.00- 120.00	100.00(A)
11.444	11.444	(1.210)	91	7653013			153.57- 213.57	194.46
-----								

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051921.d  
 Lab Smp Id: ICAL Level 9  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 200ppbv (200ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	153421	-3.39
108 1,4-Difluorobenze	597103	358262	835944	611809	2.46
153 Chlorobenzene-d5	587747	352648	822846	591968	0.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 19-MAY-2021 22:39

Client ID:

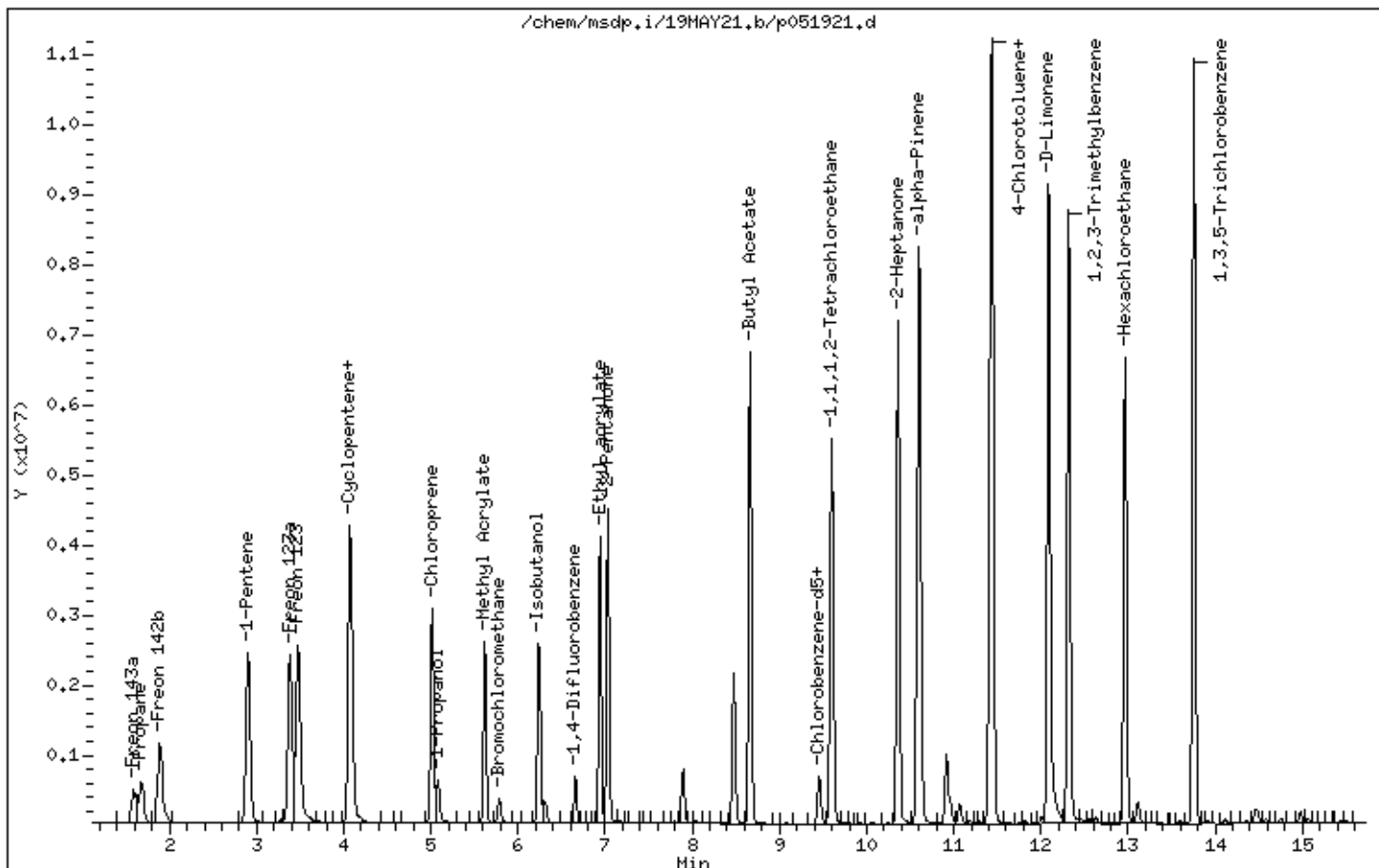
Instrument: msdp.i

Sample Info: 200mL 3018-2013

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051924.d  
Lab Smp Id: ICAL Level 10  
Inj Date : 20-MAY-2021 00:05  
Operator : gh Inst ID: msdp.i  
Smp Info : 20mL 3018-2045  
Misc Info : 0.5ppbv (5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
Meth Date : 20-May-2021 09:50 lk8g Quant Type: ISTD  
Cal Date : 20-MAY-2021 00:05 Cal File: p051924.d  
Als bottle: 1 Calibration Sample, Level: 10  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20\_Level12.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane			CAS #: 74-97-5			
5.778	5.778	(1.000)	130	163846	25.0000		80.00- 120.00 100.00
5.778	5.778	(1.000)	128	127369			48.23- 108.23 77.74
5.771	5.778	(1.000)	49	298690			150.57- 210.57 182.30
-----							
* 108	1,4-Difluorobenzene			CAS #: 540-36-3			
6.659	6.659	(1.000)	114	600718	25.0000		80.00- 120.00 100.00
6.659	6.659	(1.000)	88	95422			0.00- 45.71 15.88
-----							
* 153	Chlorobenzene-d5			CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	590361	25.0000		80.00- 120.00 100.00
9.460	9.460	(1.000)	82	322116			23.78- 83.78 54.56
-----							
\$ 104	1,2-Dichloroethane-d4			CAS #: 17060-07-0			
6.308	6.308	(1.092)	65	214241	25.0000	23.693	80.00- 120.00 100.00
6.308	6.308	(1.092)	67	108928			27.21- 87.21 50.84
-----							
\$ 134	Toluene-d8			CAS #: 2037-26-5			
7.891	7.891	(1.185)	98	647924	25.0000	24.838	80.00- 120.00 100.00
7.891	7.891	(1.185)	70	71814			0.00- 40.44 11.08

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	419509			34.95- 94.95	64.75
-----								
§ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	377731	25.0000	24.917	80.00- 120.00	100.00
10.914	10.921	(1.154)	95	484972			95.92- 155.92	128.39
10.921	10.921	(1.154)	176	368139			66.89- 126.89	97.46
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.716	1.717	(0.297)	85	7389	0.50000	0.5028	80.00- 120.00	100.00
1.716	1.717	(0.297)	87	2098			2.37- 62.37	28.39
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.842	1.856	(0.319)	135	5833	0.50000	0.4044	80.00- 120.00	100.00(a)
1.842	1.856	(0.319)	137	1678			2.30- 62.30	28.77
-----								
19 Vinyl Chloride								
						CAS #: 75-01-4		
2.068	2.068	(0.358)	62	5135	0.50000	0.5007	80.00- 120.00	100.00
2.053	2.068	(0.355)	64	2485			0.00- 59.69	48.39
-----								
20 1,3-Butadiene								
						CAS #: 106-99-0		
2.089	2.089	(0.362)	54	3780	0.50000	0.4582	80.00- 120.00	100.00(a)
2.082	2.089	(0.360)	39	3849			52.37- 112.37	101.83
-----								
33 Freon 11								
						CAS #: 75-69-4		
2.884	2.884	(0.499)	101	7721	0.50000	0.4944	80.00- 120.00	100.00(a)
2.877	2.884	(0.498)	103	5435			34.72- 94.72	70.39
-----								
43 Freon 113								
						CAS #: 76-13-1		
3.550	3.550	(0.614)	151	5639	0.50000	0.4860	80.00- 120.00	100.00(a)
3.550	3.550	(0.614)	153	3997			33.56- 93.56	70.88
3.543	3.550	(0.613)	101	6873			89.21- 149.21	121.88
-----								
44 1,1-Dichloroethene								
						CAS #: 75-35-4		
3.579	3.579	(0.619)	96	4090	0.50000	0.5901	80.00- 120.00	100.00
3.572	3.579	(0.618)	98	2595			34.02- 94.02	63.45
3.579	3.579	(0.619)	61	6008			168.77- 228.77	146.89
-----								
64 trans-1,2-Dichloroethene								
						CAS #: 156-60-5		
4.474	4.482	(0.774)	98	2538	0.50000	0.5480	80.00- 120.00	100.00
4.474	4.482	(0.774)	61	5211			255.84- 315.84	205.32
4.474	4.482	(0.774)	96	4298			127.59- 187.59	169.35
-----								
66 Acrylonitrile								
						CAS #: 107-13-1		
4.560	4.560	(0.789)	52	3141	0.50000	0.4872	80.00- 120.00	100.00(a)
4.553	4.560	(0.788)	53	3388			88.05- 148.05	107.86
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
67 Hexane						CAS #: 110-54-3		
4.689	4.697	(0.812)	57	8492	0.50000	0.5261	80.00- 120.00	100.00
4.696	4.697	(0.813)	43	5530			37.52- 97.52	65.12
4.696	4.697	(0.813)	86	877			0.00- 41.48	10.33
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.961	4.962	(0.859)	63	5960	0.50000	0.4295	80.00- 120.00	100.00(a)
4.961	4.962	(0.859)	65	2369			0.00- 59.70	39.75
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.542	5.549	(0.959)	98	2716	0.50000	0.5651	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	3855			125.75- 185.75	141.94
5.542	5.549	(0.959)	61	7686			332.40- 392.40	282.99
89 Tetrahydrofuran						CAS #: 109-99-9		
5.778	5.771	(1.000)	42	5568	0.50000	0.4521	80.00- 120.00	100.00(a)
5.778	5.771	(1.000)	71	1335			0.00- 55.82	23.98
5.778	5.771	(1.000)	72	1481			0.00- 57.59	26.60
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	6763	0.50000	0.4744	80.00- 120.00	100.00(a)
5.835	5.835	(1.010)	85	4617			34.70- 94.70	68.27
94 Cyclohexane						CAS #: 110-82-7		
5.957	5.957	(1.031)	84	5877	0.50000	0.5702	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	9323			142.57- 202.57	158.64
5.957	5.957	(1.031)	41	5136			62.09- 122.09	87.39
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.964	5.972	(1.032)	97	8556	0.50000	0.5313	80.00- 120.00	100.00
5.964	5.972	(1.032)	99	5329			34.02- 94.02	62.28
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.086	6.086	(1.053)	119	6718	0.50000	0.4448	80.00- 120.00	100.00(a)
6.086	6.086	(1.053)	117	6855			70.64- 130.64	102.04
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.279	6.280	(1.087)	57	27567	0.50000	0.4914	80.00- 120.00	100.00(a)
6.279	6.280	(1.087)	56	8468			2.24- 62.24	30.72
6.279	6.280	(1.087)	41	9487			0.00- 54.39	34.41
102 Benzene						CAS #: 71-43-2		
6.294	6.301	(0.945)	78	9954	0.50000	0.5021	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	2384			0.00- 52.90	23.95
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.958)	62	4608	0.50000	0.4467	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
106 1,2-Dichloroethane (continued)								
6.380	6.380	(0.958)	64	1942			0.79- 60.79	42.14
-----								
107 Heptane CAS #: 142-82-5								
6.444	6.444	(0.968)	71	4203	0.50000	0.5352	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	9247			226.53- 286.53	220.01
6.444	6.444	(0.968)	57	5163			100.85- 160.85	122.84
-----								
111 Trichloroethene CAS #: 79-01-6								
6.867	6.867	(1.031)	95	4879	0.50000	0.5072	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	4525			76.29- 136.29	92.74
6.867	6.867	(1.031)	97	2893			33.63- 93.63	59.29
-----								
114 1,2-Dichloropropane CAS #: 78-87-5								
7.089	7.089	(1.065)	63	5364	0.50000	0.5278	80.00- 120.00	100.00
7.096	7.089	(1.066)	62	3356			41.07- 101.07	62.57
7.096	7.089	(1.066)	41	2982			22.53- 82.53	55.59
-----								
118 Dibromomethane CAS #: 74-95-3								
7.211	7.204	(0.762)	174	3904	0.50000	0.4456	80.00- 120.00	100.00(a)
7.204	7.204	(0.761)	93	4176			60.09- 120.09	106.97
7.204	7.204	(0.761)	95	4289			48.38- 108.38	109.86
-----								
122 Bromodichloromethane CAS #: 75-27-4								
7.318	7.318	(1.099)	83	6924	0.50000	0.4642	80.00- 120.00	100.00(a)
7.318	7.318	(1.099)	85	4799			35.24- 95.24	69.31
-----								
126 cis-1,3-Dichloropropene CAS #: 10061-01-5								
7.691	7.691	(1.155)	75	6237	0.50000	0.4950	80.00- 120.00	100.00(a)
7.691	7.691	(1.155)	77	2224			2.42- 62.42	35.66
7.698	7.691	(1.156)	39	4083			37.16- 97.16	65.46
-----								
127 Methylcyclohexane CAS #: 108-87-2								
6.974	6.974	(1.047)	83	7108	0.50000	0.5106	80.00- 120.00	100.00(a)
6.974	6.974	(1.047)	98	3734			15.78- 75.78	52.53
6.967	6.974	(1.046)	55	8514			84.64- 144.64	119.78
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.791	7.791	(1.170)	58	5902	0.50000	0.5719	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	15074			242.35- 302.35	255.40
7.798	7.791	(1.171)	85	2388			3.24- 63.24	40.46
-----								
137 Toluene CAS #: 108-88-3								
7.948	7.949	(1.194)	91	13680	0.50000	0.5002	80.00- 120.00	100.00
7.948	7.949	(1.194)	92	7825			28.38- 88.38	57.20
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
136 Octane						CAS #:	111-65-9	
7.941	7.949	(1.193)	57	6357	0.50000	0.5451	80.00- 120.00	100.00
7.941	7.949	(1.193)	85	5775			56.00- 116.00	90.84
7.941	7.949	(1.193)	43	15538			228.66- 288.66	244.42
-----								
139 trans-1,3-Dichloropropene						CAS #:	10061-02-6	
8.213	8.214	(0.868)	75	5304	0.50000	0.4565	80.00- 120.00	100.00(a)
8.213	8.214	(0.868)	77	3481			1.24- 61.24	65.63
8.213	8.214	(0.868)	39	3904			34.11- 94.11	73.60
-----								
141 1,1,2-Trichloroethane						CAS #:	79-00-5	
8.393	8.400	(0.887)	97	5286	0.50000	0.5505	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	2785			31.96- 91.96	52.69
8.400	8.400	(0.888)	83	4153			52.93- 112.93	78.57
-----								
142 Tetrachloroethene						CAS #:	127-18-4	
8.464	8.464	(0.895)	166	5918	0.50000	0.4398	80.00- 120.00	100.00(a)
8.464	8.464	(0.895)	129	5123			47.84- 107.84	86.57
8.464	8.464	(0.895)	131	4693			45.29- 105.29	79.30
-----								
144 1,3-Dichloropropane						CAS #:	142-28-9	
8.579	8.579	(1.288)	76	5918	0.50000	0.4556	80.00- 120.00	100.00(a)
8.579	8.579	(1.288)	41	8417			94.99- 154.99	142.23
8.579	8.579	(1.288)	78	2554			2.05- 62.05	43.16
-----								
146 Dibromochloromethane						CAS #:	124-48-1	
8.801	8.801	(0.930)	129	8255	0.50000	0.4601	80.00- 120.00	100.00(a)
8.794	8.801	(0.930)	127	6763			47.45- 107.45	81.93
-----								
148 1,2-Dibromoethane (EDB)						CAS #:	106-93-4	
8.951	8.951	(0.946)	107	7230	0.50000	0.4694	80.00- 120.00	100.00(a)
8.951	8.951	(0.946)	109	7175			64.21- 124.21	99.24
-----								
154 Chlorobenzene						CAS #:	108-90-7	
9.496	9.496	(1.004)	112	11778	0.50000	0.5024	80.00- 120.00	100.00
9.489	9.496	(1.003)	114	3810			1.74- 61.74	32.35
9.489	9.496	(1.003)	77	11483			25.04- 85.04	97.50
-----								
155 Ethyl Benzene						CAS #:	100-41-4	
9.567	9.567	(1.011)	106	6206	0.50000	0.5063	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	18714			273.74- 333.74	301.55
-----								
158 m,p-Xylene						CAS #:	108-38-3	
9.718	9.718	(1.027)	106	8198	0.50000	0.5340	80.00- 120.00	100.00
9.711	9.718	(1.026)	91	15993			163.73- 223.73	195.08
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
164 o-Xylene						CAS #: 95-47-6		
10.226	10.226	(1.081)	106	7282	0.50000	0.4950	80.00- 120.00	100.00(a)
10.226	10.226	(1.081)	91	15872			177.45- 237.45	217.96
165 Styrene						CAS #: 100-42-5		
10.255	10.255	(1.084)	104	13110	0.50000	0.5212	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	6253			17.88- 77.88	47.70
167 Bromoform						CAS #: 75-25-2		
10.549	10.542	(1.115)	173	8542	0.50000	0.4830	80.00- 120.00	100.00(a)
10.549	10.542	(1.115)	171	4517			21.25- 81.25	52.88
168 Cumene						CAS #: 98-82-8		
10.649	10.649	(1.126)	105	23217	0.50000	0.5024	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	6594			0.00- 58.52	28.40
10.649	10.649	(1.126)	51	3671			0.00- 43.00	15.81
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
11.107	11.100	(1.174)	83	11440	0.50000	0.5072	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	7316			35.20- 95.20	63.95
178 Propylbenzene						CAS #: 103-65-1		
11.150	11.150	(1.179)	120	6965	0.50000	0.5084	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	26590			366.49- 426.49	381.77
11.150	11.150	(1.179)	105	910			0.00- 44.85	13.07
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
11.179	11.179	(1.182)	110	4008	0.50000	0.5576	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	11313			280.55- 340.55	282.26
11.100	11.100	(1.173)	61	1733			15.49- 75.49	43.24
183 4-Ethyltoluene						CAS #: 622-96-8		
11.286	11.287	(1.193)	120	8376	0.50000	0.5622	80.00- 120.00	100.00
11.286	11.287	(1.193)	105	23951			284.55- 344.55	285.95
184 2-Chlorotoluene						CAS #: 95-49-8		
11.308	11.308	(1.195)	126	6216	0.50000	0.5328	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	20231			315.17- 375.17	325.47
11.294	11.301	(1.194)	65	3746			21.55- 81.55	60.26
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
11.358	11.365	(1.201)	120	10383	0.50000	0.5061	80.00- 120.00	100.00
11.358	11.365	(1.201)	105	18974			164.93- 224.93	182.74
188 alpha Methyl Styrene						CAS #: 98-83-9		
11.645	11.645	(1.231)	118	9624	0.50000	0.4722	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
188 alpha Methyl Styrene (continued)								
11.645	11.645	(1.231)	103	5344			25.30- 85.30	55.53
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
11.816	11.817	(1.249)	105	19402	0.50000	0.5011	80.00- 120.00	100.00
11.816	11.817	(1.249)	120	9573			19.05- 79.05	49.34
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
11.996	11.996	(1.268)	134	6002	0.50000	0.5033	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	29055			437.55- 497.55	484.09
11.996	11.996	(1.268)	91	4721			40.76- 100.76	78.66
-----								
194 p-Cymene CAS #: 99-87-6								
12.153	12.160	(1.285)	119	27397	0.50000	0.5198	80.00- 120.00	100.00(a)
12.160	12.160	(1.285)	134	6978			0.00- 55.54	25.47
12.153	12.153	(1.285)	91	6676			0.00- 51.48	24.37
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
12.203	12.196	(1.290)	146	12900	0.50000	0.4867	80.00- 120.00	100.00(a)
12.203	12.196	(1.290)	148	8737			33.21- 93.21	67.73
12.203	12.196	(1.290)	111	5935			11.31- 71.31	46.01
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
12.311	12.311	(1.301)	146	13252	0.50000	0.4948	80.00- 120.00	100.00(a)
12.311	12.311	(1.301)	148	8912			33.90- 93.90	67.25
12.311	12.311	(1.301)	111	5613			9.45- 69.45	42.36
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
12.461	12.461	(1.317)	91	18333	0.50000	0.4985	80.00- 120.00	100.00(a)
12.461	12.461	(1.317)	126	4052			0.00- 53.26	22.10
-----								
202 Butylbenzene CAS #: 104-51-8								
12.626	12.626	(1.335)	134	6974	0.50000	0.5210	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	24024			314.79- 374.79	344.48
12.626	12.626	(1.335)	92	13531			154.29- 214.29	194.02
-----								
204 1,2-Dichlorobenzene CAS #: 95-50-1								
12.733	12.741	(1.346)	146	13316	0.50000	0.5124	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	8543			33.84- 93.84	64.16
12.733	12.741	(1.346)	111	6040			12.73- 72.73	45.36
-----								
207 Dodecane CAS #: 112-40-3								
13.801	13.801	(1.459)	57	22758	0.61800	0.6916	80.00- 120.00	100.00(a)
13.801	13.801	(1.459)	43	20608			52.87- 112.87	90.55
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i  
 Lab File ID: p051924.d  
 Lab Smp Id: ICAL Level 10  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Misc Info: 0.5ppbv (5.0ppbv)

Calibration Date: 19-MAY-2021  
 Calibration Time: 15:55  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	163846	3.17
108 1,4-Difluorobenze	597103	358262	835944	600718	0.61
153 Chlorobenzene-d5	587747	352648	822846	590361	0.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 20-MAY-2021 00:05

Client ID:

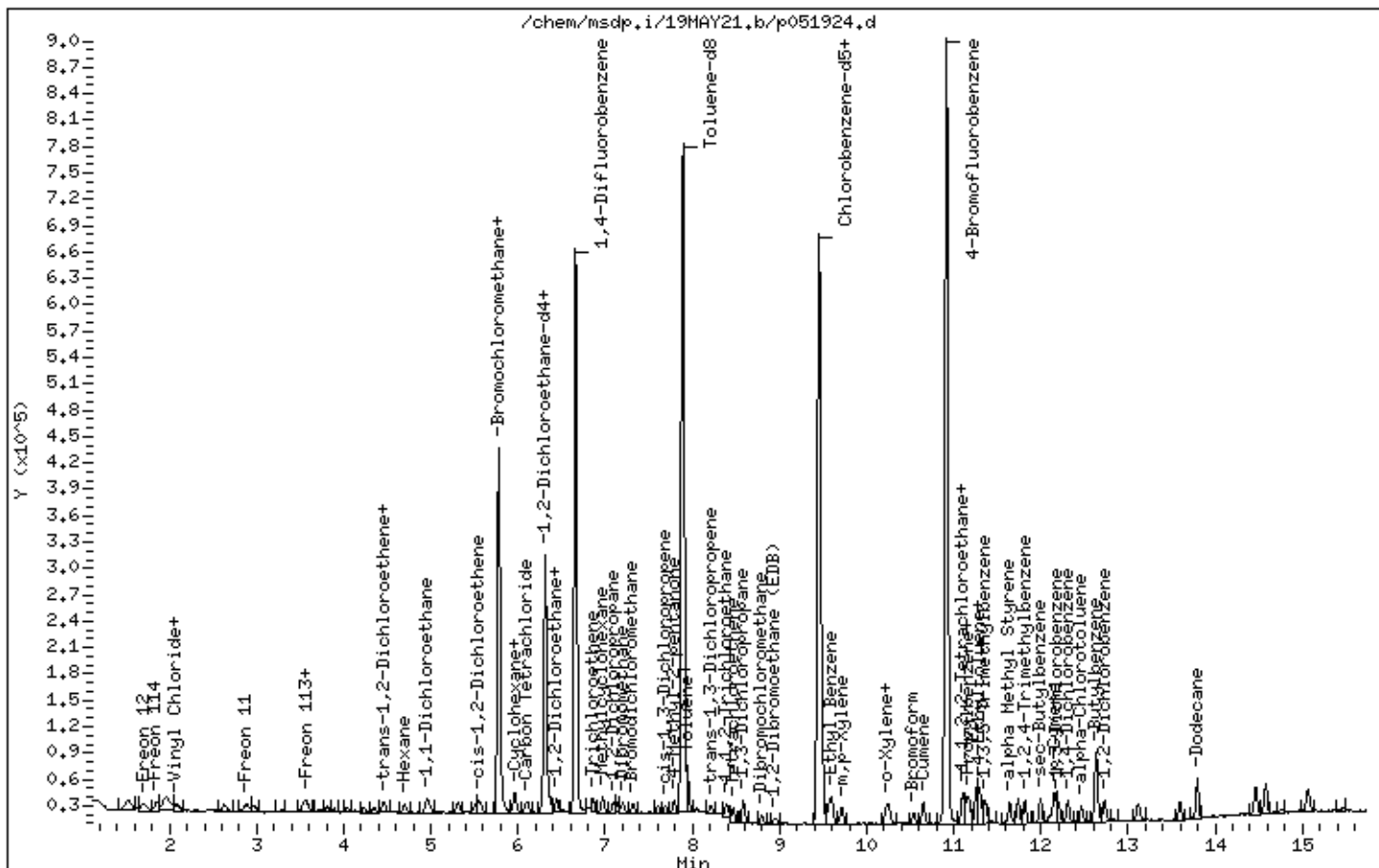
Instrument: msdp.i

Sample Info: 20mL 3018-2045

Operator: gh

Column phase: RTX-624

Column diameter: 0.25





US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/19MAY21.b/p051925.d  
 Lab Smp Id: ICV Client Smp ID: ICV  
 Inj Date : 20-MAY-2021 00:33  
 Operator : gh Inst ID: msdp.i  
 Smp Info : 50mL 3018-2016  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/19MAY21.b/p21q0519a.m  
 Meth Date : 20-May-2021 11:31 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 14 QC Sample: ICV  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.778	(1.000)	130	159261	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	123314			48.23- 108.23	77.43
5.778	5.778	(1.000)	49	287112			150.57- 210.57	180.28
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.659	(1.000)	114	599327	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	93610			0.00- 45.71	15.62
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	583008	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	317926			23.78- 83.78	54.53
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.308	6.308	(1.092)	65	217297	24.7232	24.723	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	123853			27.21- 87.21	57.00
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	648333	24.9118	24.912	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	65745			0.00- 40.44	10.14

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)							
7.891	7.891	(1.185)	100	421967		34.95- 94.95	65.08
-----							
§ 170 4-Bromofluorobenzene							
						CAS #: 460-00-4	
10.921	10.921	(1.154)	174	376160	25.1259	25.126 80.00- 120.00	100.00
10.921	10.921	(1.154)	95	479143		95.92- 155.92	127.38
10.921	10.921	(1.154)	176	367133		66.89- 126.89	97.60
-----							
4 Freon 134a							
						CAS #: 811-97-2	
1.633	1.633	(0.283)	83	269381	53.4416	53.442 80.00- 120.00	100.00
1.633	1.633	(0.283)	69	238008		59.44- 119.44	88.35
1.745	1.745	(0.302)	51	1146080		419.06- 479.06	425.45
-----							
5 Propylene							
						CAS #: 115-07-1	
1.675	1.675	(0.290)	41	351150	48.1826	48.182 80.00- 120.00	100.00
1.675	1.675	(0.290)	42	231660		35.28- 95.28	65.97
1.675	1.675	(0.290)	39	239136		38.35- 98.35	68.10
-----							
7 1,1-Difluoroethane							
						CAS #: 75-37-6	
1.703	1.703	(0.295)	65	184945	51.2320	51.232 80.00- 120.00	100.00
1.745	1.745	(0.302)	51	1146080		597.63- 657.63	619.69
1.703	1.703	(0.295)	47	118519		33.72- 93.72	64.08
-----							
8 Freon 12							
						CAS #: 75-71-8	
1.717	1.717	(0.297)	85	729033	51.0385	51.038 80.00- 120.00	100.00
1.717	1.717	(0.297)	87	236858		2.37- 62.37	32.49
-----							
9 Chlorodifluoromethane							
						CAS #: 75-45-6	
1.745	1.745	(0.302)	67	72194	51.1662	51.166 80.00- 120.00	100.00
1.745	1.745	(0.302)	51	1146080		1501.01-1561.01	1587.50
-----							
10 Freon 114							
						CAS #: 76-14-2	
1.856	1.856	(0.321)	135	701038	49.9978	49.998 80.00- 120.00	100.00
1.856	1.856	(0.321)	137	225650		2.30- 62.30	32.19
-----							
12 Isobutane							
						CAS #: 75-28-5	
1.870	1.870	(0.324)	43	765128	47.4212	47.421 80.00- 120.00	100.00
1.870	1.870	(0.324)	42	246889		2.44- 62.44	32.27
1.856	1.856	(0.321)	58	25257		0.00- 33.36	3.30
-----							
15 Chloromethane							
						CAS #: 74-87-3	
1.940	1.940	(0.336)	50	437995	52.8545	52.854 80.00- 120.00	100.00
1.940	1.940	(0.336)	52	114348		0.00- 56.26	26.11
-----							
18 Butane							
						CAS #: 106-97-8	
2.025	2.025	(0.350)	58	80145	41.7506	41.751 80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
2.025	2.025	(0.350)	43	645591		823.29- 883.29	805.53		
-----									
19 Vinyl Chloride CAS #: 75-01-4									
2.068	2.068	(0.358)	62	464010	46.5443	46.544	80.00- 120.00	100.00	
2.068	2.068	(0.358)	64	139745			0.00- 59.69	30.12	
-----									
20 1,3-Butadiene CAS #: 106-99-0									
2.089	2.089	(0.362)	54	446648	55.7047	55.705	80.00- 120.00	100.00	
2.089	2.089	(0.362)	39	360563			52.37- 112.37	80.73	
-----									
24 Bromomethane CAS #: 74-83-9									
2.483	2.483	(0.430)	94	297578	46.4227	46.423	80.00- 120.00	100.00	
2.483	2.483	(0.430)	96	278799			64.07- 124.07	93.69	
-----									
30 Chloroethane CAS #: 75-00-3									
2.612	2.612	(0.452)	64	171538	47.8510	47.851	80.00- 120.00	100.00	
2.612	2.612	(0.452)	66	50751			0.04- 60.04	29.59	
2.612	2.612	(0.452)	49	59140			4.54- 64.54	34.48	
-----									
31 Isopentane CAS #: 78-78-4									
2.634	2.634	(0.456)	43	529089	48.5043	48.504	80.00- 120.00	100.00	
2.634	2.634	(0.456)	57	338228			34.12- 94.12	63.93	
-----									
32 Vinyl Bromide CAS #: 593-60-2									
2.841	2.841	(0.492)	106	279438	47.1623	47.162	80.00- 120.00	100.00	
2.841	2.841	(0.492)	108	273101			69.27- 129.27	97.73	
-----									
33 Freon 11 CAS #: 75-69-4									
2.884	2.884	(0.499)	101	742373	48.9075	48.908	80.00- 120.00	100.00	
2.884	2.884	(0.499)	103	483442			34.72- 94.72	65.12	
-----									
34 Dichlorofluoromethane CAS #: 75-43-4									
2.899	2.899	(0.502)	67	646344	49.4042	49.404	80.00- 120.00	100.00	
2.899	2.899	(0.502)	69	195128			0.84- 60.84	30.19	
-----									
35 Pentane CAS #: 109-66-0									
2.970	2.970	(0.514)	43	832217	46.9376	46.938	80.00- 120.00	100.00	
2.970	2.970	(0.514)	57	122475			0.00- 44.98	14.72	
2.970	2.970	(0.514)	72	59490			0.00- 37.39	7.15	
-----									
38 Ethyl Ether CAS #: 60-29-7									
3.285	3.285	(0.569)	74	152084	50.8427	50.843	80.00- 120.00	100.00	
3.285	3.285	(0.569)	59	294053			163.46- 223.46	193.35	
3.285	3.285	(0.569)	45	421334			250.40- 310.40	277.04	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.242	3.242	(0.561)	46	73066	46.2624	46.262	80.00- 120.00	100.00
3.285	3.242	(0.569)	45	419314			511.19- 571.19	573.88
42 Acrolein					CAS #: 107-02-8			
3.536	3.529	(0.612)	55	138287	50.4592	50.459	80.00- 120.00	100.00
3.536	3.529	(0.612)	56	194444			111.10- 171.10	140.61
43 Freon 113					CAS #: 76-13-1			
3.550	3.550	(0.614)	151	550653	48.8270	48.827	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	354592			33.56- 93.56	64.39
3.550	3.550	(0.614)	101	666533			89.21- 149.21	121.04
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.579	3.579	(0.619)	96	337843	50.1462	50.146	80.00- 120.00	100.00
3.579	3.579	(0.619)	98	214195			34.02- 94.02	63.40
3.579	3.579	(0.619)	61	675008			168.77- 228.77	199.80
47 Acetone					CAS #: 67-64-1			
3.715	3.708	(0.643)	58	199513	47.7852	47.785	80.00- 120.00	100.00
3.715	3.708	(0.643)	43	667100			302.95- 362.95	334.36
48 Carbon Disulfide					CAS #: 75-15-0			
3.823	3.823	(0.662)	76	862293	48.5817	48.582	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.794	3.794	(0.657)	142	700808	59.3954	59.395	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	293044			12.22- 72.22	41.82
52 2-Propanol					CAS #: 67-63-0			
3.887	3.887	(0.673)	45	849259	50.4689	50.469	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	140946			0.00- 47.19	16.60
54 3-Chloropropene					CAS #: 107-05-1			
4.045	4.052	(0.700)	76	145308	49.0044	49.004	80.00- 120.00	100.00
4.045	4.052	(0.700)	41	618664			396.19- 456.19	425.76
57 Acetonitrile					CAS #: 75-05-8			
4.123	4.123	(0.714)	41	381456	48.6371	48.637	80.00- 120.00	100.00
4.123	4.123	(0.714)	40	193635			20.95- 80.95	50.76
4.123	4.123	(0.714)	38	41374			0.00- 41.17	10.85
59 Methylene Chloride					CAS #: 75-09-2			
4.238	4.238	(0.733)	49	531632	49.0219	49.022	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	271047			22.03- 82.03	50.98
4.238	4.238	(0.733)	51	161032			0.18- 60.18	30.29

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
4.338	4.338	(0.751)	59	909661	46.3560	46.356	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	192086			0.00- 51.11	21.12
4.338	4.338	(0.751)	57	96676			0.00- 40.49	10.63
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
4.446	4.446	(0.769)	73	942632	48.1957	48.196	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	317705			3.10- 63.10	33.70
4.446	4.446	(0.769)	41	299560			1.28- 61.28	31.78
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
4.474	4.482	(0.774)	98	218803	48.6055	48.605	80.00- 120.00	100.00
4.474	4.482	(0.774)	61	620102			255.84- 315.84	283.41
4.474	4.482	(0.774)	96	343318			127.59- 187.59	156.91
66 Acrylonitrile					CAS #: 107-13-1			
4.560	4.560	(0.789)	52	303698	48.4637	48.464	80.00- 120.00	100.00
4.560	4.560	(0.789)	53	359381			88.05- 148.05	118.33
67 Hexane					CAS #: 110-54-3			
4.697	4.697	(0.813)	57	776348	49.4834	49.483	80.00- 120.00	100.00
4.697	4.697	(0.813)	43	525013			37.52- 97.52	67.63
4.697	4.697	(0.813)	86	88068			0.00- 41.48	11.34
71 1,1-Dichloroethane					CAS #: 75-34-3			
4.962	4.962	(0.859)	63	682714	50.6181	50.618	80.00- 120.00	100.00
4.962	4.962	(0.859)	65	199004			0.00- 59.70	29.15
72 Isopropyl ether					CAS #: 108-20-3			
4.947	4.954	(0.856)	45	1790476	49.0696	49.070	80.00- 120.00	100.00
4.954	4.954	(0.857)	87	321907			0.00- 48.18	17.98
4.954	4.954	(0.857)	59	180794			0.00- 40.15	10.10
73 Vinyl Acetate					CAS #: 108-05-4			
4.997	4.997	(0.865)	86	88227	50.8989	50.899	80.00- 120.00	100.00
4.990	4.997	(0.864)	43	2127436			2432.48-2492.48	2411.32
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
5.305	5.305	(0.918)	59	1542046	48.8215	48.821	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	471804			1.00- 61.00	30.60
5.305	5.305	(0.918)	41	285817			0.00- 48.73	18.53
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.506	5.506	(0.953)	77	590380	49.2930	49.293	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	190828			2.28- 62.28	32.32
5.513	5.506	(0.954)	97	143176			0.00- 53.93	24.25

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.549	5.549	(0.960)	98	233240	49.9273	49.927	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	363999			125.75- 185.75	156.06
5.549	5.549	(0.960)	61	845213			332.40- 392.40	362.38
-----					-----			
86 2-Butanone					CAS #: 78-93-3			
5.556	5.556	(0.962)	72	172909	48.0341	48.034	80.00- 120.00	100.00
5.563	5.556	(0.963)	43	2166913			1214.50-1274.50	1253.21
5.556	5.556	(0.962)	57	75659			14.68- 74.68	43.76
-----					-----			
87 Ethyl Acetate					CAS #: 141-78-6			
5.570	5.570	(0.964)	45	177582	49.5968	49.597	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	845213			452.04- 512.04	475.96
5.570	5.570	(0.964)	70	92639			22.77- 82.77	52.17
-----					-----			
89 Tetrahydrofuran					CAS #: 109-99-9			
5.771	5.771	(0.999)	42	596496	49.8249	49.825	80.00- 120.00	100.00
5.771	5.771	(0.999)	71	151172			0.00- 55.82	25.34
5.771	5.771	(0.999)	72	164276			0.00- 57.59	27.54
-----					-----			
92 Chloroform					CAS #: 67-66-3			
5.835	5.835	(1.010)	83	698985	50.4429	50.443	80.00- 120.00	100.00
5.835	5.835	(1.010)	85	450734			34.70- 94.70	64.48
-----					-----			
94 Cyclohexane					CAS #: 110-82-7			
5.957	5.957	(1.031)	84	484683	48.3805	48.380	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	852306			142.57- 202.57	175.85
5.957	5.957	(1.031)	41	457785			62.09- 122.09	94.45
-----					-----			
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
5.972	5.972	(1.033)	97	760233	48.5642	48.564	80.00- 120.00	100.00
5.972	5.972	(1.033)	99	490526			34.02- 94.02	64.52
-----					-----			
97 Carbon Tetrachloride					CAS #: 56-23-5			
6.086	6.086	(1.053)	119	745174	50.7546	50.755	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	752839			70.64- 130.64	101.03
-----					-----			
99 1,1-Dichloropropene					CAS #: 563-58-6			
6.115	6.115	(0.918)	110	203160	49.7993	49.799	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	511996			226.85- 286.85	252.02
-----					-----			
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
6.280	6.280	(1.087)	57	2687519	49.2841	49.284	80.00- 120.00	100.00
6.280	6.280	(1.087)	56	862052			2.24- 62.24	32.08
6.280	6.280	(1.087)	41	651161			0.00- 54.39	24.23
-----					-----			

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
6.301	6.301	(0.946)	78	1008062	50.9701	50.970	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	234415			0.00- 52.90	23.25
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.358	6.358	(0.955)	87	277129	49.6938	49.694	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	1123129			372.79- 432.79	405.27
6.358	6.358	(0.955)	55	386701			112.09- 172.09	139.54
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.380	6.380	(0.958)	62	539745	52.4480	52.448	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	168125			0.79- 60.79	31.15
-----								
107 Heptane					CAS #: 142-82-5			
6.444	6.444	(0.968)	71	404133	51.5803	51.580	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	1034181			226.53- 286.53	255.90
6.444	6.444	(0.968)	57	534196			100.85- 160.85	132.18
-----								
110 n-Butanol					CAS #: 71-36-3			
6.810	6.810	(1.023)	56	349325	48.5815	48.581	80.00- 120.00	100.00
6.810	6.810	(1.023)	41	250704			40.99- 100.99	71.77
6.810	6.810	(1.023)	43	202468			27.38- 87.38	57.96
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.867	6.867	(1.031)	95	487275	50.7743	50.774	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	525030			76.29- 136.29	107.75
6.867	6.867	(1.031)	97	316440			33.63- 93.63	64.94
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.089	7.089	(1.065)	63	501779	49.4882	49.488	80.00- 120.00	100.00
7.089	7.089	(1.065)	62	357412			41.07- 101.07	71.23
7.096	7.089	(1.066)	41	260924			22.53- 82.53	52.00
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.139	7.132	(0.755)	69	396710	49.5227	49.523	80.00- 120.00	100.00
7.132	7.132	(0.754)	41	847515			179.84- 239.84	213.64
7.139	7.139	(0.755)	100	159570			9.59- 69.59	40.22
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.175	7.175	(1.077)	88	259955	48.2421	48.242	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	255954			68.28- 128.28	98.46
7.175	7.175	(1.077)	57	86664			2.68- 62.68	33.34
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.204	7.204	(0.761)	174	458044	52.9443	52.944	80.00- 120.00	100.00
7.204	7.204	(0.761)	93	407519			60.09- 120.09	88.97

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
7.204	7.204	(0.761)	95	354189				48.38- 108.38	77.33
-----									
122 Bromodichloromethane						CAS #: 75-27-4			
7.318	7.318	(1.099)	83	770056	51.7510	51.751		80.00- 120.00	100.00
7.318	7.318	(1.099)	85	492807				35.24- 95.24	64.00
-----									
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5			
7.691	7.691	(1.155)	75	636121	50.6019	50.602		80.00- 120.00	100.00
7.691	7.691	(1.155)	77	200691				2.42- 62.42	31.55
7.691	7.691	(1.155)	39	434030				37.16- 97.16	68.23
-----									
127 Methylcyclohexane						CAS #: 108-87-2			
6.974	6.974	(1.047)	83	691986	49.8280	49.828		80.00- 120.00	100.00
6.974	6.974	(1.047)	98	322440				15.78- 75.78	46.60
6.974	6.974	(1.047)	55	795373				84.64- 144.64	114.94
-----									
131 4-Methyl-2-pentanone						CAS #: 108-10-1			
7.791	7.791	(1.170)	58	480926	46.7077	46.708		80.00- 120.00	100.00
7.791	7.791	(1.170)	43	1325477				242.35- 302.35	275.61
7.798	7.791	(1.171)	85	161202				3.24- 63.24	33.52
-----									
137 Toluene						CAS #: 108-88-3			
7.949	7.949	(1.194)	91	1343637	49.2421	49.242		80.00- 120.00	100.00
7.949	7.949	(1.194)	92	787609				28.38- 88.38	58.62
-----									
136 Octane						CAS #: 111-65-9			
7.949	7.949	(1.194)	57	566390	48.6818	48.682		80.00- 120.00	100.00
7.949	7.949	(1.194)	85	479927				56.00- 116.00	84.73
7.949	7.949	(1.194)	43	1456775				228.66- 288.66	257.20
-----									
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6			
8.214	8.214	(0.868)	75	600175	52.3121	52.312		80.00- 120.00	100.00
8.214	8.214	(0.868)	77	190922				1.24- 61.24	31.81
8.214	8.214	(0.868)	39	389221				34.11- 94.11	64.85
-----									
141 1,1,2-Trichloroethane						CAS #: 79-00-5			
8.400	8.400	(0.888)	97	476355	50.2326	50.232		80.00- 120.00	100.00
8.400	8.400	(0.888)	99	296859				31.96- 91.96	62.32
8.400	8.400	(0.888)	83	396895				52.93- 112.93	83.32
-----									
142 Tetrachloroethene						CAS #: 127-18-4			
8.464	8.464	(0.895)	166	682961	51.3998	51.400		80.00- 120.00	100.00
8.464	8.464	(0.895)	129	535513				47.84- 107.84	78.41
8.464	8.464	(0.895)	131	516602				45.29- 105.29	75.64
-----									



CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone					CAS #: 591-78-6				
8.586	8.586	(0.908)	58	657966	48.5640	48.564	80.00- 120.00	100.00	
8.586	8.586	(0.908)	43	1278689			162.87- 222.87	194.34	
8.586	8.586	(0.908)	100	102219			0.00- 45.94	15.54	
-----									
144 1,3-Dichloropropane					CAS #: 142-28-9				
8.579	8.579	(1.288)	76	649887	50.1538	50.154	80.00- 120.00	100.00	
8.579	8.579	(1.288)	41	820466			94.99- 154.99	126.25	
8.579	8.579	(1.288)	78	211986			2.05- 62.05	32.62	
-----									
146 Dibromochloromethane					CAS #: 124-48-1				
8.801	8.801	(0.930)	129	922140	52.0444	52.044	80.00- 120.00	100.00	
8.801	8.801	(0.930)	127	712882			47.45- 107.45	77.31	
-----									
148 1,2-Dibromoethane (EDB)					CAS #: 106-93-4				
8.951	8.951	(0.946)	107	783569	51.5187	51.519	80.00- 120.00	100.00	
8.951	8.951	(0.946)	109	740572			64.21- 124.21	94.51	
-----									
151 1-Bromo-2-Chloroethane					CAS #: 107-04-0				
7.605	7.605	(1.142)	63	920567	49.4826	49.482	80.00- 120.00	100.00	
7.605	7.605	(1.142)	65	271612			0.00- 59.64	29.50	
7.605	7.605	(1.142)	144	89030			0.00- 39.63	9.67	
-----									
154 Chlorobenzene					CAS #: 108-90-7				
9.496	9.496	(1.004)	112	1170183	50.5473	50.547	80.00- 120.00	100.00	
9.496	9.496	(1.004)	114	376526			1.74- 61.74	32.18	
9.496	9.496	(1.004)	77	640652			25.04- 85.04	54.75	
-----									
155 Ethyl Benzene					CAS #: 100-41-4				
9.567	9.567	(1.011)	106	610182	50.4060	50.406	80.00- 120.00	100.00	
9.567	9.567	(1.011)	91	1864363			273.74- 333.74	305.54	
-----									
156 Nonane					CAS #: 111-84-2				
9.603	9.596	(1.015)	43	1509244	48.4576	48.458	80.00- 120.00	100.00	
9.603	9.603	(1.015)	57	1271714			54.16- 114.16	84.26	
9.603	9.603	(1.015)	85	358055			0.00- 53.90	23.72	
-----									
157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6				
9.596	9.596	(1.014)	131	532758	41.1032	41.103	80.00- 120.00	100.00	
9.460	9.460	(1.000)	117	583008			57.42- 117.42	109.43	
9.596	9.596	(1.014)	95	192120			5.70- 65.70	36.06	
-----									
158 m,p-Xylene					CAS #: 108-38-3				
9.718	9.718	(1.027)	106	760695	50.1737	50.174	80.00- 120.00	100.00	
9.718	9.718	(1.027)	91	1493758			163.73- 223.73	196.37	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene					CAS #: 95-47-6			
10.226	10.226	(1.081)	106	723870	49.8321	49.832	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	1494892			177.45- 237.45	206.51
-----								
165 Styrene					CAS #: 100-42-5			
10.255	10.255	(1.084)	104	1208123	48.6312	48.631	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	579213			17.88- 77.88	47.94
-----								
167 Bromoform					CAS #: 75-25-2			
10.542	10.542	(1.114)	173	906568	51.9083	51.908	80.00- 120.00	100.00
10.542	10.542	(1.114)	171	460931			21.25- 81.25	50.84
-----								
168 Cumene					CAS #: 98-82-8			
10.649	10.649	(1.126)	105	2265548	49.6487	49.649	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	647806			0.00- 58.52	28.59
10.649	10.649	(1.126)	51	293698			0.00- 43.00	12.96
-----								
169 Cyclohexanone					CAS #: 108-94-1			
10.871	10.871	(1.149)	55	751578	46.0550	46.055	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	241627			1.94- 61.94	32.15
10.871	10.871	(1.149)	42	519433			37.89- 97.89	69.11
-----								
175 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
11.107	11.100	(1.174)	83	1111439	49.9028	49.903	80.00- 120.00	100.00
11.107	11.100	(1.174)	85	714222			35.20- 95.20	64.26
-----								
177 Bromobenzene					CAS #: 108-86-1			
11.107	11.107	(1.174)	156	712211	51.3180	51.318	80.00- 120.00	100.00
11.107	11.107	(1.174)	158	694838			67.21- 127.21	97.56
11.179	11.179	(1.182)	77	448248			29.02- 89.02	62.94
-----								
178 Propylbenzene					CAS #: 103-65-1			
11.150	11.150	(1.179)	120	673698	49.7919	49.792	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	2670473			366.49- 426.49	396.39
11.150	11.150	(1.179)	105	100975			0.00- 44.85	14.99
-----								
179 1,2,3-Trichloropropane					CAS #: 96-18-4			
11.179	11.179	(1.182)	110	347282	48.9223	48.922	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	1167359			280.55- 340.55	336.14
11.100	11.100	(1.173)	61	156927			15.49- 75.49	45.19
-----								
181 trans-1,4-Dichloro-2-butene					CAS #: 110-57-6			
11.179	11.179	(1.182)	53	340414	73.1510	73.151	80.00- 120.00	100.00(R)
11.179	11.179	(1.182)	89	238240			49.11- 109.11	69.99
11.179	11.179	(1.182)	75	1167359			426.44- 486.44	342.92
-----								

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane					CAS #: 124-18-5			
11.251	11.251	(1.189)	57	1694913	47.7517	47.752	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	465002			0.00- 57.66	27.44
11.258	11.258	(1.190)	142	69403			0.00- 34.09	4.09
-----					-----			
183 4-Ethyltoluene					CAS #: 622-96-8			
11.287	11.287	(1.193)	120	721474	49.0325	49.032	80.00- 120.00	100.00
11.287	11.287	(1.193)	105	2282704			284.55- 344.55	316.39
-----					-----			
184 2-Chlorotoluene					CAS #: 95-49-8			
11.308	11.308	(1.195)	126	570341	49.5063	49.506	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1973274			315.17- 375.17	345.98
11.301	11.301	(1.195)	65	288198			21.55- 81.55	50.53
-----					-----			
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
11.365	11.365	(1.201)	120	1019008	50.3002	50.300	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1992138			164.93- 224.93	195.50
-----					-----			
188 alpha Methyl Styrene					CAS #: 98-83-9			
11.645	11.645	(1.231)	118	1011075	50.2389	50.239	80.00- 120.00	100.00
11.645	11.645	(1.231)	103	559661			25.30- 85.30	55.35
-----					-----			
189 tert-Butylbenzene					CAS #: 98-06-6			
11.738	11.738	(1.241)	119	1828423	48.2549	48.255	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	453008			0.00- 54.25	24.78
11.738	11.738	(1.241)	91	1113434			31.27- 91.27	60.90
-----					-----			
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
11.817	11.817	(1.249)	105	1940625	50.7513	50.751	80.00- 120.00	100.00
11.817	11.817	(1.249)	120	961894			19.05- 79.05	49.57
-----					-----			
192 sec-Butylbenzene					CAS #: 135-98-8			
11.996	11.996	(1.268)	134	587147	49.8567	49.857	80.00- 120.00	100.00
11.996	11.996	(1.268)	105	2755895			437.55- 497.55	469.37
11.996	11.996	(1.268)	91	411332			40.76- 100.76	70.06
-----					-----			
194 p-Cymene					CAS #: 99-87-6			
12.160	12.160	(1.285)	119	2592253	49.8015	49.802	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	667083			0.00- 55.54	25.73
12.160	12.153	(1.285)	91	550118			0.00- 51.48	21.22
-----					-----			
195 1,3-Dichlorobenzene					CAS #: 541-73-1			
12.203	12.196	(1.290)	146	1321489	50.4912	50.491	80.00- 120.00	100.00
12.203	12.196	(1.290)	148	844750			33.21- 93.21	63.92
12.196	12.196	(1.289)	111	544933			11.31- 71.31	41.24
-----					-----			

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
12.311	12.311	(1.301)	146	1351414	51.0959	51.096	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	860632			33.90- 93.90	63.68
12.311	12.311	(1.301)	111	545078			9.45- 69.45	40.33
-----								
199 alpha-Chlorotoluene					CAS #: 100-44-7			
12.461	12.461	(1.317)	91	1867138	51.4087	51.409	80.00- 120.00	100.00
12.468	12.461	(1.318)	126	432223			0.00- 53.26	23.15
-----								
201 Undecane					CAS #: 1120-21-4			
12.640	12.640	(1.336)	57	2141161	52.2242	52.224	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1903384			58.12- 118.12	88.89
-----								
202 Butylbenzene					CAS #: 104-51-8			
12.626	12.626	(1.335)	134	659133	49.8581	49.858	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	2279398			314.79- 374.79	345.82
12.626	12.626	(1.335)	92	1217501			154.29- 214.29	184.71
-----								
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
12.741	12.741	(1.347)	146	1280596	49.8997	49.900	80.00- 120.00	100.00
12.741	12.741	(1.347)	148	810645			33.84- 93.84	63.30
12.741	12.741	(1.347)	111	542670			12.73- 72.73	42.38
-----								
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
13.614	13.600	(1.439)	157	808811	52.0350	52.035	80.00- 120.00	100.00
13.614	13.600	(1.439)	75	667140			52.48- 112.48	82.48
13.614	13.600	(1.439)	155	627024			47.41- 107.41	77.52
-----								
207 Dodecane					CAS #: 112-40-3			
13.822	13.801	(1.461)	57	2491393	76.6649	76.665	80.00- 120.00	100.00(R)
13.822	13.801	(1.461)	43	2053107			52.87- 112.87	82.41
-----								
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
14.496	14.467	(1.532)	180	1351062	71.2544	71.254	80.00- 120.00	100.00
14.496	14.467	(1.532)	182	1288755			65.33- 125.33	95.39
-----								
215 Hexachlorobutadiene					CAS #: 87-68-3			
14.617	14.582	(1.545)	225	961978	72.0891	72.089	80.00- 120.00	100.00
14.617	14.582	(1.545)	223	615317			33.17- 93.17	63.96
-----								
216 Naphthalene					CAS #: 91-20-3			
14.796	14.768	(1.564)	128	329062	6.79056	6.790	80.00- 120.00	100.00
14.804	14.768	(1.565)	127	41782			0.00- 42.88	12.70
-----								
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
15.104	15.069	(1.597)	180	1290198	76.9717	76.972	80.00- 120.00	100.00(R)

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
15.104	15.069	(1.597)	182	1235122			65.75- 125.75	95.73
15.104	15.069	(1.597)	145	454864			5.23- 65.23	35.26

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Report Date: 20-May-2021 11:42

## US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARYInstrument ID: msdp.i  
Lab File ID: p051925.dLab Smp Id: ICV  
Analysis Type: VOA

Quant Type: ISTD

Operator: gh

Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m

Misc Info: 50ppbv (200ppbv)

Calibration Date: 19-MAY-2021

Calibration Time: 15:55

Client Smp ID: ICV

Level: LOW

Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	158810	95286	222334	159261	0.28
108 1,4-Difluorobenze	597103	358262	835944	599327	0.37
153 Chlorobenzene-d5	587747	352648	822846	583008	-0.81

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	-0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Report Date: 20-May-2021 11:42

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 19MAY21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: ICV Client Smp ID: ICV  
Level: LOW Operator: gh  
Data Type: MS DATA SampleType: ICV  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AT20LCS\_new.sub  
Method File: /chem/msdp.i/19MAY21.b/p21q0519a.m  
Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	53.442	106.88	70-130
5 Propylene	50.000	48.182	96.37	70-130
7 1,1-Difluoroethan	50.000	51.232	102.46	70-130
8 Freon 12	50.000	51.038	102.08	70-130
9 Chlorodifluoromet	50.000	51.166	102.33	70-130
10 Freon 114	50.000	49.998	100.00	70-130
12 Isobutane	50.000	47.421	94.84	70-130
15 Chloromethane	50.000	52.854	105.71	70-130
18 Butane	50.000	41.751	83.50	70-130
19 Vinyl Chloride	50.000	46.544	93.09	70-130
20 1,3-Butadiene	50.000	55.705	111.41	70-130
24 Bromomethane	50.000	46.423	92.85	70-130
30 Chloroethane	50.000	47.851	95.70	70-130
31 Isopentane	50.000	48.504	97.01	70-130
32 Vinyl Bromide	50.000	47.162	94.32	70-130
33 Freon 11	50.000	48.908	97.82	70-130
34 Dichlorofluoromet	50.000	49.404	98.81	70-130
35 Pentane	50.000	46.938	93.88	70-130
38 Ethyl Ether	50.000	50.843	101.69	70-130
39 Ethanol	58.000	46.262	79.76	70-130
42 Acrolein	58.000	50.459	87.00	70-130
43 Freon 113	50.000	48.827	97.65	70-130
44 1,1-Dichloroethen	50.000	50.146	100.29	70-130
47 Acetone	50.000	47.785	95.57	70-130
48 Carbon Disulfide	50.000	48.582	97.16	70-130
49 Iodomethane	50.000	59.395	118.79	70-130
52 2-Propanol	50.000	50.469	100.94	70-130
54 3-Chloropropene	50.000	49.004	98.01	70-130
57 Acetonitrile	50.000	48.637	97.27	70-130
59 Methylene Chlorid	50.000	49.022	98.04	70-130
62 tert-Butyl alcoho	50.000	46.356	92.71	70-130
63 Methyl tert-butyl	50.000	48.196	96.39	70-130
64 trans-1,2-Dichlor	50.000	48.605	97.21	70-130

Report Date: 20-May-2021 11:42

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	48.464	96.93	70-130
67 Hexane	50.000	49.483	98.97	70-130
71 1,1-Dichloroethan	50.000	50.618	101.24	70-130
72 Isopropyl ether	50.000	49.070	98.14	70-130
73 Vinyl Acetate	50.000	50.899	101.80	70-130
79 Ethyl-tert-butyl	50.000	48.821	97.64	70-130
84 2,2-Dichloropropa	50.000	49.293	98.59	70-130
85 cis-1,2-Dichloroe	50.000	49.927	99.85	70-130
86 2-Butanone	50.000	48.034	96.07	70-130
87 Ethyl Acetate	50.000	49.597	99.19	70-130
89 Tetrahydrofuran	50.000	49.825	99.65	70-130
92 Chloroform	50.000	50.443	100.89	70-130
94 Cyclohexane	50.000	48.380	96.76	70-130
96 1,1,1-Trichloroet	50.000	48.564	97.13	70-130
99 1,1-Dichloroprop	50.000	49.799	99.60	70-130
97 Carbon Tetrachlor	50.000	50.755	101.51	70-130
101 2,2,4-Trimethylpe	50.000	49.284	98.57	70-130
102 Benzene	50.000	50.970	101.94	70-130
105 tert-Amyl methyl	50.000	49.694	99.39	70-130
106 1,2-Dichloroethan	50.000	52.448	104.90	70-130
107 Heptane	50.000	51.580	103.16	70-130
110 n-Butanol	50.000	48.581	97.16	70-130
111 Trichloroethene	50.000	50.774	101.55	70-130
118 Dibromomethane	50.000	52.944	105.89	70-130
127 Methylcyclohexane	50.000	49.828	99.66	70-130
114 1,2-Dichloropropa	50.000	49.488	98.98	70-130
116 Methyl Methacryla	50.000	49.523	99.05	70-130
117 1,4-Dioxane	50.000	48.242	96.48	70-130
122 Bromodichlorometh	50.000	51.751	103.50	70-130
126 cis-1,3-Dichlorop	50.000	50.602	101.20	70-130
131 4-Methyl-2-pentan	50.000	46.708	93.42	70-130
136 Octane	50.000	48.682	97.36	70-130
137 Toluene	50.000	49.242	98.48	70-130
139 trans-1,3-Dichlor	50.000	52.312	104.62	70-130
141 1,1,2-Trichloroet	50.000	50.232	100.47	70-130
142 Tetrachloroethene	50.000	51.400	102.80	70-130
143 2-Hexanone	50.000	48.564	97.13	70-130
144 1,3-Dichloropropa	50.000	50.154	100.31	70-130
146 Dibromochlorometh	50.000	52.044	104.09	70-130
148 1,2-Dibromoethane	50.000	51.519	103.04	70-130
151 1-Bromo-2-Chloroe	50.000	49.482	98.97	70-130
154 Chlorobenzene	50.000	50.547	101.09	70-130
155 Ethyl Benzene	50.000	50.406	100.81	70-130
156 Nonane	50.000	48.458	96.92	70-130
157 1,1,1,2-Tetrachlo	50.000	41.103	82.21	70-130
158 m,p-Xylene	50.000	50.174	100.35	70-130
164 o-Xylene	50.000	49.832	99.66	70-130



SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	48.631	97.26	70-130
167 Bromoform	50.000	51.908	103.82	70-130
168 Cumene	50.000	49.649	99.30	70-130
169 Cyclohexanone	50.000	46.055	92.11	70-130
175 1,1,2,2-Tetrachlo	50.000	49.903	99.81	70-130
177 Bromobenzene	50.000	51.318	102.64	70-130
178 Propylbenzene	50.000	49.792	99.58	70-130
179 1,2,3-Trichloropr	50.000	48.922	97.84	70-130
181 trans-1,4-Dichlor	50.000	73.151	146.30*	70-130
182 Decane	50.000	47.752	95.50	70-130
183 4-Ethyltoluene	50.000	49.032	98.07	70-130
184 2-Chlorotoluene	50.000	49.506	99.01	70-130
185 1,3,5-Trimethylbe	50.000	50.300	100.60	70-130
188 alpha Methyl Styr	50.000	50.239	100.48	70-130
189 tert-Butylbenzene	50.000	48.255	96.51	70-130
190 1,2,4-Trimethylbe	50.000	50.751	101.50	70-130
192 sec-Butylbenzene	50.000	49.857	99.71	70-130
194 p-Cymene	50.000	49.802	99.60	70-130
195 1,3-Dichlorobenze	50.000	50.491	100.98	70-130
196 1,4-Dichlorobenze	50.000	51.096	102.19	70-130
199 alpha-Chlorotolue	50.000	51.409	102.82	70-130
201 Undecane	50.000	52.224	104.45	70-130
202 Butylbenzene	50.000	49.858	99.72	70-130
204 1,2-Dichlorobenze	50.000	49.900	99.80	70-130
206 1,2-Dibromo-3-chl	50.000	52.035	104.07	70-130
207 Dodecane	50.000	76.665	153.33*	70-130
213 1,2,4-Trichlorobe	58.000	71.254	122.85	70-130
215 Hexachlorobutadie	58.000	72.089	124.29	70-130
216 Naphthalene	5.800	6.790	117.08	60-140
222 1,2,3-Trichlorobe	58.000	76.972	132.71*	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.723	98.89	70-130
\$ 134 Toluene-d8	25.000	24.912	99.65	70-130
\$ 170 4-Bromofluorobenz	25.000	25.126	100.50	70-130

Date : 20-MAY-2021 00:33

Client ID: ICV

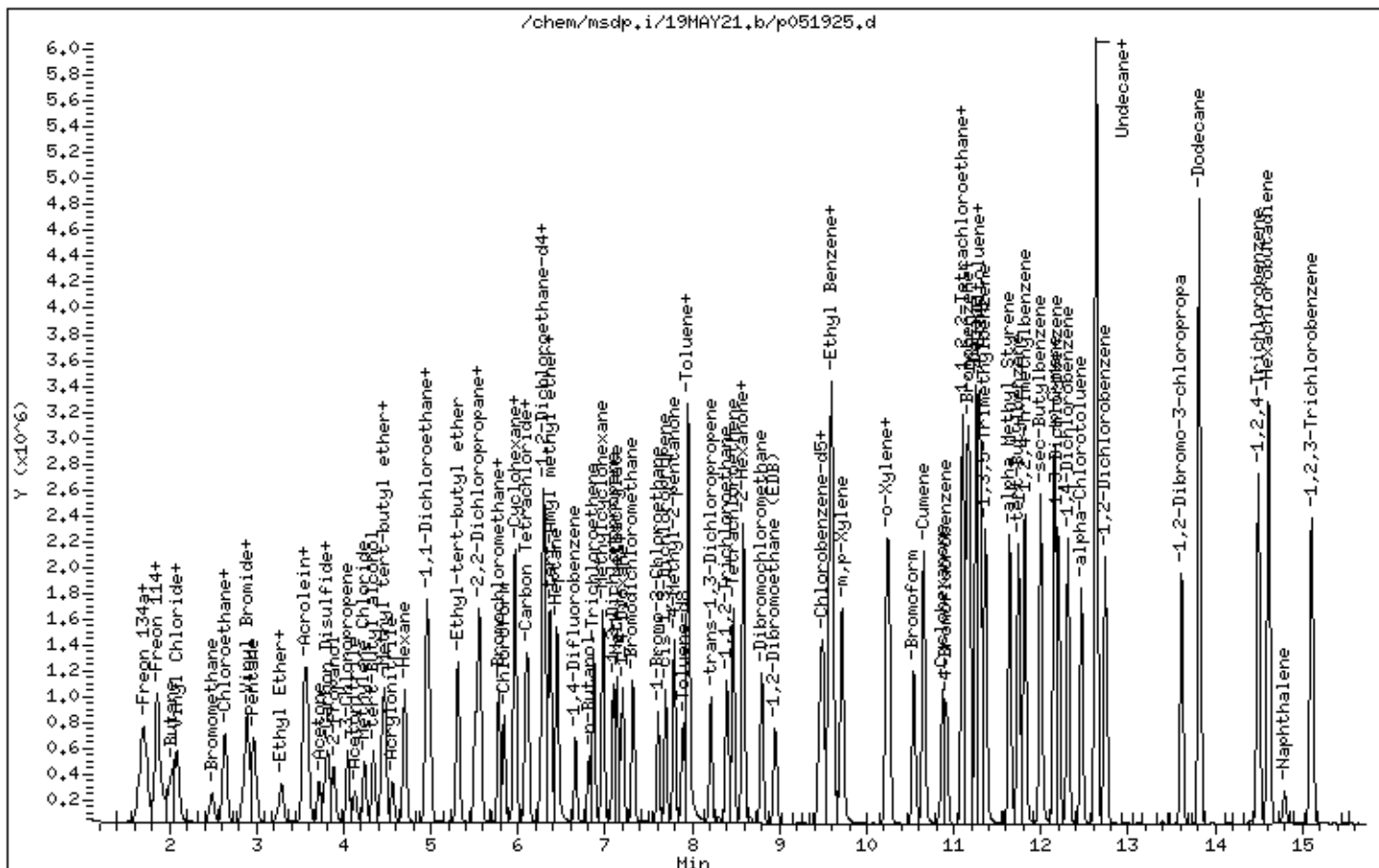
Instrument: msdp.i

Sample Info: 50mL 3018-2016

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



## MSD-P MDL Case Narrative

A Method Detection Limit study for TO-15 method was performed on 10/19/20-10/23/20,10/26/20-10/29/20 & 11/02/20,11/05/20,11/06/20.

The MDL was performed at:

- 0.3 ppbv (5.0ppbv->0.3ppbv) for the 0.3ppbv RL compounds; 12mL of #3018-1674
- 0.4 ppbv (5.0ppbv->0.4ppbv) for the 0.4ppbv RL compounds; 16mL of #3018-1674
- 0.8 ppbv (5.0ppbv->0.8ppbv) for 0.8ppbv RL compounds; 32ml of #3018-1674
- 1.0ppbv (5.0ppbv->1.0ppbv) for chloroethane & ethanol;40ml of 3018-1674 & 40ml of 3018-1682

A Method Detection Limit study for select TA TO-15 specials was performed on 11/27/20-11/29/20.

The MDL was performed at:

- 0.4ppbv(5.0ppbv->0.4ppbv) for 1,1,1,2-tetrachloroethane;16ml of #3018-1644

MDL verifications were analyzed on 11/03/20 & 11/10/20:

- P110313: (0.3ppbv & 0.4ppbv RL compounds). 5.0ppbv->0.25ppv; 10ml of #3018-1682.
- P110314: (0.8ppbv RL compounds). 5.0ppbv->0.6ppbv. 24ml of #3018-1682.
- P110315: (0.5 for naph only). 5.0->5.0ppbv; 200ml of #3018-1682.
- P110312: (for 1,1,1,2-PCA only). 5.0ppbv->0.25ppbv. 10ml of #3018-1644
- P111017: (for chloroethane, ethanol & vinyl acetate). 5.0ppbv->0.75ppbv. 30ml of 3018-1682.

Notes:

1. The MDL values for the following compounds were taken from the MDL blank:
  - a. Dibromomethane (0.07607ppbv)
  - b. Acetone (0.48647ppbv)
  - c. Iodomethane (0.06508ppbv)
  - d. Carbon disulfide (0.1958ppbv)
  - e. Decane (0.57314ppbv)
  - f. Undecane(0.1836ppbv)
  - g. Dodecane (0.71923ppbv)
  - h. Naphthalene (0.38524ppbv)
2. The ratio of the mean recovered concentration and the MDL value for naphthalene and dodecane recovered outside of 1-20.
3. The MDL verification for chloroethane and ethanol is less than 2X the mean MDL.

**MDL Expires 10/29/21**

0.3mdl.rp

Report Date : 28-Oct-2020 16:45

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

TOIS Quad MDL MSD-P  
Standard 3018-1674 (5.0ppbv)  
12mL load volume  
Spike concentration: 0.3ppbv  
Page 1

ID: MDL01 MDL02 MDL03 MDL04 MDL05 MDL06 MDL07 MDL08 MDL09  
FILENAME: P101908 P101909 P101910 P102008 P102009 P102010 P102107 P102108 P102109  
INJ.DATE: 19-OCT-2020 19-OCT-2020 19-OCT-2020 20-OCT-2020 20-OCT-2020 20-OCT-2020 21-OCT-2020 21-OCT-2020 21-OCT-2020  
INJ.TIME: 14:06 14:34 15:01 16:26 16:54 17:21 15:23 15:51 16:19

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1   
Reviewer 2 

Date: 10/30/20  
Date: 11/11/20

Ratio of the mean recovered concentration  
and the MDL value is between 1 & 20.

$\bar{x} = 70.54$   
 $2\bar{x} = 141.07$   
 $3\bar{x} = 211.62$   
 $4\bar{x} = 282.16$

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.1/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.1/19OCT20.b  
Inst ID: msdp.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-Fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
64 trans-1,2-Dichloroethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	217.02	219.07	292.15	253.35	258.29	195.74	292.58	280.15	220.83	247.69	36.00	104.26
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 2-Methyl-1-pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 cis-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPV PL(PPV) SP PL(PPV) BLANK

MDL 05500

300

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPM	RL (PPM)	SP (LL PPM)	Blank
87 Ethyl Acetate	201.00	285.05	246.94	220.66	323.49	229.31	299.26	256.43	286.92	261.01	40.42	117.05	2000	300		
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
* 90 Bromochloromethane	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00	0.00			
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
92 Chloroform	242.52	244.52	264.08	247.68	239.93	283.26	261.71	270.85	264.59	257.68	14.79	42.84	500	300		
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
96 1,1,1-Trichloroethane	292.64	289.12	314.87	273.07	292.46	311.97	284.37	293.95	306.68	295.46	13.50	39.11	500	300		
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
\$ 104 1,2-Dichloroethane-d4	23662.67	23877.71	24079.59	23563.77	24206.96	24182.62	23963.20	24552.71	24218.03	24034.14	305.26	884.02				
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
* 108 1,4-Difluorobenzene	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00	0.00			
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	DPTV	RL(PPTV)	SPPL(PPTV)	BLANK
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
122 Bromodichloromethane	248.45	319.45	282.47	291.32	274.66	272.30	278.78	242.30	239.06	272.09	25.76	74.60	500			
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
124 Chloroacetoneitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
131 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++			
134 Toluene-d8	24585.67	24787.41	24622.65	24917.45	24550.68	25002.95	24999.39	25581.69	24685.96	24859.31	321.49	931.02				

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.001	0.001
154 Chlorobenzene	274.661	274.061	286.731	307.611	281.731	317.241	284.891	304.851	280.241	290.221	15.661	45.361
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ppmv      2L(ppmv)      500  
SP2L(ppmv)      300  
Blank

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis(chloromethyl) Ethel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromodichlorobenzene	24680.65	24394.98	24458.85	24972.60	24217.99	24821.47	24904.35	25061.39	25327.68	24760.00	354.77	1027.42
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US321ARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/19OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/19OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

0.4.mdl.rpt

Report Date : 28-Oct-2020 18:51

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

TO15 Quad MDL - MSD-P  
Standard 3015-1074 (5.0ppbv)  
1uml load volume  
spike concentration: 0.1ppbv  
Page 1

ID	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	436.271	459.071	358.711	365.971	442.84	407.04	328.83	315.33	395.64	389.971	51.11	148.021
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	368.051	362.51	350.901	422.39	382.44	336.13	389.94	336.87	366.98	368.47	27.28	79.01
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	402.191	319.34	374.64	343.74	334.54	363.82	297.84	361.33	350.45	349.77	30.80	89.201
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_  
Date: 10/30/20  
Date: 11/11/20

MDL09  
P102607  
P102607  
26-OCT-2020  
12:23  
MDL  
ppbv  
ppbv  
ppbv  
Blank

$\bar{x} = 93.579$   
 $2\bar{x} = 187.16$   
 $3\bar{x} = 280.74$   
 $4\bar{x} = 374.32$   
The ratio of the mean recovered concentration  
to the MDL value is b/w 1 to 20.



US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	292.39	43.60	126.26
19 Vinyl Chloride	238.72	286.52	271.11	333.74	362.20	338.00	255.39	295.79	250.02	292.39	43.60	126.26
20 1,3-Butadiene	312.68	378.59	382.05	250.04	280.91	275.23	257.72	279.89	265.49	298.07	49.87	144.41
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Freon 11	457.24	407.10	435.95	369.75	393.31	349.16	378.67	348.37	383.63	391.46	36.91	106.88
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PtV (LLPPM) SP (LLPPM) Blank

500 400

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	426.15	433.79	441.55	364.87	456.53	443.18	409.02	415.07	401.94	421.35	27.52	79.69
44 1,1-Dichloroethene	411.86	277.89	289.34	245.03	323.41	408.62	342.89	361.09	322.12	331.36	56.67	164.11
45 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	372.76	312.97	335.71	286.43	401.04	334.94	335.25	305.15	310.05	332.70	35.53	102.89
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PP4V      PL(ppm)      SPPL(ppm)      Blank

5000      400      500      60.72

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPTV	PLPPTV	SPPLPPTV	BLANK
64 trans-1,2-Dichloroethane	313.591	405.501	314.931	359.931	369.921	296.051	382.071	269.641	318.201	336.651	44.631	129.251	500	400		
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
66 Acrylonitrile	340.641	301.351	399.891	330.731	361.111	300.841	267.261	315.861	273.741	321.271	42.211	122.241	2000	800		
67 Hexane	284.591	274.851	274.181	282.131	331.111	344.691	341.121	289.671	342.621	307.221	31.561	91.391	500	800		
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
85 cis-1,2-Dichloroethane	364.421	423.151	261.261	309.141	261.641	232.811	264.661	260.961	254.081	292.461	62.511	181.021	500	400		
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	300.421	300.831	294.381	309.821	323.071	338.591	237.001	237.361	280.141	291.291	34.921	101.131
* 90 Bromochloromethane	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	500
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	333.631	372.371	338.121	334.851	386.701	337.431	317.341	337.971	288.471	338.541	28.421	82.291
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	351.081	365.901	423.661	373.131	342.961	305.441	373.841	266.921	317.121	346.671	45.691	132.321
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	355.691	333.151	292.381	297.051	306.331	311.831	333.391	309.711	308.791	316.481	20.281	58.721
102 Benzene	398.551	338.761	371.151	328.611	335.511	376.931	394.841	330.431	306.371	353.461	32.621	94.471
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	25538.411	25119.181	24972.961	25310.461	26037.221	25493.941	22898.211	23988.751	24315.921	24852.781	963.981	2791.691
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 1,2-Dichloroethane	368.161	305.971	383.281	351.011	378.611	339.201	327.181	311.281	361.641	347.371	28.301	81.941
107 Heptane	377.001	338.491	321.631	237.391	335.691	324.801	348.251	362.211	369.781	335.031	41.401	119.901
* 108 1,4-Difluorobenzene	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	500
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPV 2L(PPM) SP2L(PPV) Blank

81.94 500 800 10.4

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPM	RL(PPM)	SP(PPM)	BLANK
111 Trichloroethene	359.98	366.80	369.81	358.75	381.97	420.18	406.91	394.92	420.70	386.67	24.88	72.05	500	400		
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	500	400		
114 1,2-Dichloropropane	367.27	387.51	438.23	349.97	414.12	402.30	315.92	374.28	442.15	387.97	41.24	119.42	500	400		
115 2-Pentanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
118 Dibromomethane	363.07	396.21	400.70	375.65	381.51	404.00	384.97	366.62	423.18	388.43	19.37	56.11	2000	400		316.07
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
124 Chloroacetoneitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
126 cis-1,3-Dichloropropan	280.09	346.41	399.61	350.41	326.89	332.36	325.16	374.56	344.71	342.24	33.38	96.67	500	400		
127 Methylcyclohexane	421.60	402.15	396.00	283.94	356.13	415.49	365.32	368.56	344.41	372.62	42.80	123.96	2000	400		
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
131 4-Methyl-2-pentanone	349.17	342.85	324.09	329.39	448.82	363.24	372.47	304.65	357.29	354.66	41.09	118.99	500	400		
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
134 Toluene-d8	124608.41	24757.16	24060.47	24358.97	24799.49	24544.21	24420.57	24318.45	25304.67	24574.71	356.92	1033.64				

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL			
135 1-Methoxy-2-propanol	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++			
136 Octane	391.51	314.58	349.24	392.86	398.27	317.52	435.75	346.46	343.20	365.49	41.01	118.76	2000	400	
137 Toluene	393.31	369.84	335.47	374.46	391.89	378.56	364.69	361.01	383.40	372.52	17.82	51.60	500	400	
138 1-Heptene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++		400	
139 trans-1,3-Dichloroprop	332.51	308.98	399.68	312.19	350.76	343.89	326.55	353.48	301.43	336.61	30.06	87.07	500	400	
140 2,3-Dichloro-1-propene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++			
141 1,1,2-Trichloroethane	359.42	310.37	399.03	326.09	345.12	374.12	325.48	333.64	335.86	345.46	27.67	80.13	500	400	
142 Tetrachloroethane	368.16	376.49	362.62	383.34	406.92	446.83	425.80	406.87	406.85	398.21	27.87	80.71	500	400	7.09
143 2-Hexanone	337.34	364.76	359.28	356.16	308.83	350.55	345.40	353.88	353.41	347.73	16.58	48.02	2000	400	
144 1,3-Dichloropropane	379.58	319.29	400.88	326.89	349.89	313.18	370.24	372.04	373.71	356.19	30.43	88.14	2000	400	
145 Butyl Acetate	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++		400	
146 Dibromochloromethane	399.15	402.43	371.98	328.44	351.93	404.39	388.88	370.10	331.22	372.06	29.51	85.45	500	400	
147 Bromodichloroethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++			
148 1,2-Dibromoethane (EDB)	337.27	380.78	399.90	344.59	425.77	356.23	338.97	345.95	323.51	361.44	33.67	97.51	500	800	
149 2-Methylheptane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++			
150 3-Methylheptane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++			
151 1-Bromo-2-Chloroethane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++			
152 Diethyl Ketone	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++			
* 153 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00			
154 Chlorobenzene	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++			
155 Ethyl Benzene	350.04	307.75	414.55	382.37	341.21	376.01	421.98	290.14	387.24	363.48	45.10	130.60	500	400	
156 Nonane	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++			
157 1,1,1,2-Tetrachloroeth	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++			
158 m,p-Xylene	381.11	385.02	373.70	279.50	328.49	371.80	390.58	345.71	301.63	350.84	39.78	115.22	500	800	

Pptv DL (ppm) SPRL (ppm) Blank

19.2.9  
14.0.2.9  
9.11.11.12

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	360.35	388.65	360.30	402.22	263.00	381.05	393.85	328.05	343.58	357.89	43.09	424.79 500
165 Styrene	363.22	358.96	355.97	332.09	332.19	352.82	322.68	355.25	294.72	340.88	22.41	500
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	384.81	405.27	406.78	365.38	370.81	375.07	374.03	369.63	351.46	378.14	18.12	52.48 500
168 Cumene	358.73	319.23	373.24	314.45	325.75	332.23	371.15	349.17	341.49	342.83	21.76	63.02 500
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromofluorobenzene	25111.07	24795.31	25807.35	25214.38	25273.17	25304.26	25170.01	25431.80	25249.38	25261.86	269.17	779.51
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	394.75	382.23	361.14	364.24	388.23	395.06	358.67	355.71	362.71	373.64	16.20	46.93 500
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	358.34	343.23	365.47	348.41	315.89	358.02	401.15	335.02	403.17	358.74	28.65	82.96 500
179 1,2,3-Trichloropropane	396.36	433.62	361.53	369.60	355.73	433.59	394.94	293.12	372.73	378.80	43.25	125.25 2000
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PAH  
P4(PH)  
SP P4(PH)  
BIANT

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPTV	RL(PPTV)	SP(PL(PPTV))	BUMWK
183 4-Ethyltoluene	328.35	323.51	409.88	350.59	394.94	309.53	348.09	311.33	343.67	346.65	35.09	101.62	500	400	—	—
184 2-Chlorotoluene	367.12	437.45	399.61	324.10	337.68	379.55	388.66	368.97	399.59	378.08	34.12	98.81	2000	400	—	—
185 1,3,5-Trimethylbenzene	361.70	382.59	305.37	322.46	290.91	333.22	399.63	316.81	339.41	339.12	35.94	104.09	500	400	11.91	—
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	340.84	346.95	357.65	316.13	311.83	307.88	324.63	323.57	342.20	330.19	17.32	50.16	1000	400	—	—
189 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	351.77	366.19	384.29	326.05	339.25	336.74	376.07	351.72	372.74	356.09	19.91	57.67	500	500	40.41	—
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	326.70	387.27	334.38	303.10	357.00	376.71	377.82	357.98	334.64	350.62	27.86	80.67	2000	400	—	—
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	329.01	291.99	322.26	303.61	342.86	308.30	363.77	346.10	361.19	329.90	25.52	53.91	2000	500	49.1	—
195 1,3-Dichlorobenzene	396.73	395.68	406.80	347.34	383.69	416.48	403.45	401.34	390.46	393.55	19.74	57.16	500	400	6.61	—
196 1,4-Dichlorobenzene	397.02	396.80	373.82	336.65	380.96	372.10	379.74	387.84	407.73	381.41	20.51	59.40	500	400	10.61	—
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	355.07	348.38	383.67	358.47	379.84	352.56	372.19	361.56	392.68	367.16	15.53	44.97	500	500	—	—
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	358.91	342.67	328.13	333.54	305.09	329.53	365.04	339.04	387.15	343.23	24.06	69.69	2000	400	45.09	—
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	405.81	403.04	358.55	356.29	398.25	390.07	392.01	401.55	406.90	390.27	19.48	56.41	500	400	26.05	—
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/22OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/22OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Report Date : 30-Oct-2020 15:35

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

This Quad MDL MSP-P  
Standard 308-1674 (5.0ppbv)  
3mL load volume  
Spike concentration: 0.8 ppbv  
Naph @ 0.08 ppbv  
Page 1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	782.35	724.88	886.81	836.87	782.13	915.12	890.85	977.30	953.51	861.09	85.21	246.77 2000
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	828.20	1034.35	526.55	766.58	681.54	895.20	701.39	694.22	904.48	781.39	151.42	438.51 2000
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	854.60	805.17	642.55	827.65	687.63	812.52	1041.61	928.38	684.55	809.41	126.85	367.37 2000
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	719.04	711.25	707.49	729.52	689.89	671.33	801.41	778.78	804.87	734.84	48.61	140.77 2000
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	882.85	931.18	918.86	751.25	728.44	745.41	1061.42	972.38	1001.77	888.17	121.18	350.93 5000
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_ Date: 10/30/20  
Reviewer 2 \_\_\_\_\_ Date: 11/11/20

MDL 11103120

~~X̄ = 253.78~~ 254.04 243.95  
2x̄ = 507.56 508.08 487.90  
3x̄ = 761.34 762.12 731.85  
4x̄ = 1015.12 1016.40 985.80

The ratio of the mean recovered concentration to the MDL value is b/w 1-20 for all compounds except dodecane and Naphthalene.

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPTN	BLPPTN	SPBLPPTN	BLANK
18 Butane	898.471	689.601	606.501	714.191	994.521	733.801	751.231	938.981	1233.611	840.101	194.991	564.681	1000		800	
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
24 Bromomethane	834.501	796.281	852.481	898.111	761.371	815.391	846.321	919.261	1012.421	859.571	74.891	216.881	5000		800	
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
31 Isopentane	655.871	662.861	650.611	734.811	705.951	701.651	727.871	655.131	699.751	688.281	32.731	94.781	1000		1000	
32 Vinyl Bromide	737.721	813.811	758.981	757.931	700.241	661.881	709.791	675.941	746.891	729.241	47.221	136.751	1000		800	
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
34 Dichlorofluoromethane	778.661	732.591	744.211	814.551	761.681	702.111	748.891	790.161	735.311	756.461	33.931	98.251	1000		800	
35 Pentane	639.531	701.461	729.101	649.671	678.401	698.891	670.061	598.351	821.941	687.491	63.441	183.721	1000		800	
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
38 Ethyl Ether	564.601	615.241	558.001	800.061	654.881	660.411	744.341	741.001	309.411	627.551	145.031	420.001	1000		800	
39 Ethanol	569.541	328.321	497.321	644.081	1160.401	721.671	599.911	403.711	443.841	586.131	244.551	708.231	1000		1000	

\* Ethanol MDL included in 10ppb spike

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPTN	RL(PPTN)	SPRL(PPTN)	Blank
40 Freon 133a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000		
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000	2000		
42 Acrolein	699.46	712.62	502.97	856.57	794.32	807.25	756.02	655.40	696.07	720.08	103.32	299.22	2000			
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
44 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
47 Acetone	848.22	800.39	727.29	836.77	676.13	837.53	907.31	713.75	735.23	786.96	76.92	222.76	5000			
48 Carbon Disulfide	808.80	840.34	749.99	777.80	747.78	684.04	761.31	799.80	776.40	771.81	44.40	128.59	2000			
49 Iodomethane	457.35	451.01	440.43	437.13	459.33	452.25	478.66	430.79	399.77	445.19	22.11	64.22	2000			
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
52 2-Propanol	666.68	704.84	695.32	785.79	731.69	795.25	734.79	809.37	796.47	746.69	51.78	149.96	2000			137.2
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
54 3-Chloropentene	852.23	979.94	823.74	485.40	620.09	771.94	735.72	607.16	820.37	744.06	150.57	436.06	2000			
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
57 Acetonitrile	731.86	716.27	660.84	656.65	700.17	610.38	801.87	579.31	812.61	696.66	79.25	229.52	2000			
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
61 1,2-Dichloro-1-fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000			
62 tert-Butyl alcohol	740.42	784.24	698.11	749.56	863.98	769.73	738.29	787.50	724.28	761.79	47.82	138.48	2000			
63 Methyl tert-butyl ethe	732.79	675.63	767.02	757.40	730.51	793.25	764.89	693.44	732.19	738.57	37.05	107.30	2000			

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL				
64 trans-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
72 Isopropyl ether	682.23	642.03	666.75	695.31	656.63	696.37	661.77	656.86	696.19	672.68	20.37	58.98	2000	800	-	
73 Vinyl Acetate	379.16	510.38	679.89	456.28	594.69	817.23	865.96	319.67	628.92	583.57	186.68	540.62	2000	800	-	
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
79 Ethyl-tert-butyl ether	732.15	735.05	698.72	703.42	678.14	735.97	721.12	633.77	751.04	709.93	36.40	105.41	2000	800	-	
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
84 2,2-Dichloropropane	856.50	766.31	748.03	737.62	810.23	833.08	893.06	935.10	891.13	830.12	69.98	202.65	2000	800	-	
85 cis-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	ppm	2000	800	-
86 2-Butanone	494.27	680.84	630.20	636.77	695.03	636.19	496.57	833.87	704.79	645.39	104.97	303.98	2000	800	-	

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 90 Bromochloromethane	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.001	0.001
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	691.47	788.20	695.94	788.42	758.83	619.78	822.02	955.67	776.77	766.35	94.95	274.96
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	26542.98	25336.38	25035.81	26773.65	27060.55	27089.31	28110.69	28004.75	27657.60	26845.75	1081.60	3132.31
105 tert-Amyl methyl ether	672.84	754.03	800.25	749.08	911.69	801.21	750.86	870.59	838.98	794.39	72.44	209.80
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 108 1,4-Difluorobenzene	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.001	0.001
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	818.67	808.84	787.27	836.16	856.22	901.90	852.85	807.79	844.38	834.98	34.16	98.92

PPTV DL(PPTV) 50 DL(PPTV) Blank

98.92 2000 800 2000 68.07



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	757.871	628.931	710.271	777.161	558.681	667.001	648.501	874.391	750.661	708.161	93.911	271.961
117 1,4-Dioxane	765.971	849.411	952.341	642.091	797.151	771.611	800.611	642.991	673.241	766.161	101.841	294.931
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetoneitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	24078.61	24335.63	24036.51	23516.55	23802.94	23773.37	23590.02	23613.19	24343.15	23898.89	313.751	908.621

pptn  
PULPND  
SP(PULPND)  
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1000  
800  
500

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.1/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.1/27OCT20.b  
Inst ID: msdp.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
136 1-Methoxy-2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-Propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	657.71	773.71	721.48	656.34	733.70	677.29	720.22	717.61	692.34	705.60	38.30	110.92
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
154 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	649.99	615.89	662.19	649.94	671.72	581.89	713.24	665.35	674.53	653.86	37.29	108.00
157 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ppm  
 PL (ppm)  
 SPEL (ppm)  
 BLANK

108.00

800

46.24

800

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	ppm	ppm	ppm	Blank	
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
160 bis(chloromethyl) EtHe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
169 Cyclohexanone	848.24	767.43	798.03	808.84	844.16	792.72	752.74	812.64	890.64	812.83	42.72	123.73	2000	500			
170 4-BromoFluorobenzene	26008.20	26019.99	26097.96	26091.99	26069.47	25566.33	25848.37	26700.26	25817.70	26024.47	306.72	888.26	2000	500			
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
177 Bromobenzene	806.33	851.30	818.09	815.14	762.80	818.62	765.09	884.18	735.55	806.35	46.17	133.72	2000	500			
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
181 trans-1,4-Dichloro-2-b	696.47	780.58	811.00	821.84	756.32	754.81	776.59	738.59	930.39	785.18	66.13	191.51	2000	500			
182 Decane	665.03	678.56	590.12	632.67	602.85	585.50	637.99	632.02	612.73	626.39	31.92	92.43	2000	500			

573.14

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PPM	SPR (PPM)	Blank
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
185 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
189 tert-Butylbenzene	777.35	746.78	784.01	732.15	775.27	697.75	724.53	721.59	728.65	743.12	29.77	86.20	2000	300	32.20
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
198 1-Norone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
201 Undecane	543.26	526.15	549.31	522.63	565.63	525.07	573.32	541.49	521.46	540.92	19.10	55.32	2000	800	183.60
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000		

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL	PRN	EL(PRN)	SP(ELPRN)	BLANK
206 1,2-Dibromo-3-chloropr	776.961	766.331	816.701	748.771	742.971	795.651	764.631	775.371	776.171	773.731	22.51	65.19	1000		800	
207 Dodecane	669.701	747.331	708.321	688.301	749.031	735.591	633.571	674.711	655.941	695.831	41.64	120.591	1000		800	
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
210 alpha-pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
213 1,2,4-Trichlorobenzene	1024.361	1024.971	1115.911	982.451	1070.321	954.951	934.251	1004.441	1088.591	1022.251	60.901	176.361	1000		1000	65.15
214 Beta-pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
215 Hexachlorobutadiene	1087.271	1049.681	989.991	1016.981	1194.771	1118.771	1104.491	1141.261	1112.791	1090.671	63.371	183.511	1000		1000	36.16
216 Naphthalene	96.821	117.031	115.701	96.981	95.101	96.491	94.231	93.621	93.191	99.911	9.441	27.331	1000		800	38.5
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
222 1,2,3-Trichlorobenzene	1001.111	1201.961	1141.791	1103.141	1149.531	1158.531	1177.051	1141.751	1245.421	1146.701	68.021	196.981	1000		800	129.49
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++				

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

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Batch File: /chem/msdp.i/27OCT20.b  
Inst ID: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.1/27OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.1/27OCT20.b  
Inst ID: msdp.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

1.0.mnd1.rp

Chloroethane B Ethanol only

THIS QUAD MDL MSD-P  
STANDARDS: 3018-1074 & 3018-1052  
40mL load volume  
spike concentration: 1.0ppbv  
(5.0ppbv)

Report Date : 12-NOV-2020 16:23

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Spiked ID(s) Spiked Vol(s)

US32TAR1

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/06NOV20.b/p20q1012a.m  
Batch File: /chem/msdp.i/06NOV20.b

Instrument Names: msdp.i  
Student T 2.896 for 9 Replicates with 99% Confidence

ID: MDL01 MDL02 MDL03 MDL04 MDL05 MDL06 MDL07 MDL08 MDL09  
FILENAME: p110206 p110207 p110208 p110513 p110514 p110515 p110609 p110610 p110611  
INJ.DATE: 02-NOV-2020 02-NOV-2020 02-NOV-2020 05-NOV-2020 05-NOV-2020 05-NOV-2020 06-NOV-2020 06-NOV-2020 06-NOV-2020  
INJ.TIME: 14:13 14:41 15:09 20:32 21:00 21:28 14:11 14:39 15:06

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
1 Chloroethane	949.12	1022.70	806.30	825.92	1224.10	964.54	1180.50	905.28	1303.10	1020.17	177.54	0.000000	2.00	1.98	514.16
2 Ethanol	794.28	1176.80	541.34	587.68	928.34	802.22	478.16	696.21	766.27	752.37	213.76	0.000000	2.00	1.22	619.05
* 3 Bromochloromethane	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000
\$ 4 1,2-Dichloroethane-d4	27635.00	26462.00	27301.00	26650.00	26719.00	27118.00	27404.00	26779.00	27199.00	27029.67	394.08	0.000000	0.400	23.68	1141.26
* 5 1,4-Difluorobenzene	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000
\$ 6 Toluene-d8	24478.00	23898.00	24046.00	24964.00	25032.00	24902.00	24547.00	25074.00	25358.00	24699.89	492.08	0.000000	0.400	17.33	1425.08
* 7 Chlorobenzene-d5	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000
\$ 8 4-Bromofluorobenzene	126376.00	26376.00	125359.00	123859.00	24195.00	23898.00	24336.00	24526.00	24254.00	24797.67	995.84	0.000000	0.400	8.60	2883.95

Reviewer 1  Date: 11/12/20  
Reviewer 2  Date: 11/12/20

The ratio of the mean recovered concentration to the MDL is b/w 1-20.

$\bar{X} = 516.60$   
 $s\bar{X} = 1133.21$



1112PCA-MDL.RP

TO15 Quad MDL MSD-P  
Standard 3018-1044 (5.0ppbv)

1,1,1,2-Tetrachloroethane only 10ml load volume

Spike concentration 0.4ppbv

Report Date : 10-NOV-2020 15:36

US32TARI

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SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Spiked ID(s) Spiked Vol(s)

Method File: /chem/msdp.i/29OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/29OCT20.b  
Instrument Names: msdp.i

Student T 2.896 for 9 Replicates with 9% Confidence

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09
FILENAME:	P102710	P102711	P102712	P102809	P102810	P102811	P102910	P102911	P102912
INJ. DATE:	27-OCT-2020	27-OCT-2020	27-OCT-2020	28-OCT-2020	28-OCT-2020	28-OCT-2020	29-OCT-2020	29-OCT-2020	29-OCT-2020
INJ. TIME:	14:49	15:17	15:45	14:57	15:25	15:53	14:46	15:14	15:42

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL	
* 1 Bromochloromethane	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	1.00	0.000000	
\$ 2 1,2-Dichloroethane-d4	24573.00	24807.00	24616.00	25011.00	26208.00	26456.00	27161.00	26313.00	27385.00	125836.67	1102.74	0.000000	2.00	8.09	3193.55
* 3 1,4-Difluorobenzene	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	1.00	0.000000	
\$ 4 Toluene-d8	24075.00	24304.00	24661.00	24305.00	23479.00	23880.00	24032.00	24417.00	23597.00	24083.33	385.46	0.000000	2.00	21.57	1116.30
* 5 Chlorobenzene-d5	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	1.00	0.000000	
\$ 6 1,1,1,2-Tetrachloroethane	379.06	447.57	427.78	423.52	384.11	446.89	435.94	349.79	387.48	409.13	34.82	0.000000	2.00	4.06	100.83
\$ 7 4-Bromofluorobenzene	125482.00	125724.00	125783.00	126216.00	125959.00	125799.00	126068.00	125824.00	125833.00	125854.22	209.93	0.000000	2.00	42.53	607.95

PPV PL Blank

Reviewer 1  Date: 11/10/20  
Reviewer 2  Date: 11/12/20

The ratio of the mean recovered concentration  
to the MDL is blw 1-20.

$\bar{X} = 100.83$

$2\bar{X} = 201.66$

$3\bar{X} = 302.49$

$4\bar{X} = 403.32$

blank.mdi.rp

WSD-P Blank MDL  
CWN #s 33665 & 497

Report Date : 03-NOV-2020 17:44

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US32TARI  
SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/29OCT20.b/p20q1012a.m

Spiked ID(s) Spiked Vol(s)

Batch File: /chem/msdp.i/29OCT20.b

Instrument Names: msdp.i

Student T 2.896 for 9 Replicates with 9% Confidence

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09
FILENAME:	p102707EPALB	p102708EPALB	p102709EPALB	p102806EPALB	p102807EPALB	p102808EPALB	p102907EPALB	p102908EPALB	p102909EPALB
INJ DATE:	27-OCT-2020	27-OCT-2020	27-OCT-2020	28-OCT-2020	28-OCT-2020	28-OCT-2020	29-OCT-2020	29-OCT-2020	29-OCT-2020
INJ TIME:	13:05	13:52	14:22	12:51	14:00	14:29	12:51	13:49	14:18

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SEK AMT	RL	RATIO	MDL
1 Freon 134a	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
2 Propylene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
3 1,1-Difluoroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
4 Freon 12	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
5 Chlorodifluoromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
6 Freon 114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
7 Isobutane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
8 Chloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
9 Butane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
10 Vinyl Chloride	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
11 1,3-Butadiene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
12 Bromomethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
13 Chloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
14 Isopentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
15 Vinyl Bromide	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
16 Freon 11	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
17 Dichlorofluoromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
18 Pentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
19 Ethanol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
20 Ethyl Ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
21 Acrolein	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000

Reviewer 1 \_\_\_\_\_ Date: 11/03/20

Reviewer 2 \_\_\_\_\_ Date: 11/11/20

US321ARI1

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/290CT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/290CT20.b  
Instrument Names: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
22 Freon 113	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
23 1,1-Dichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
24 Acetone <i>442.49</i>	331.00	354.71	246.63	201.44	376.96	233.77	173.33	355.39	249.83	<i>289.34</i>	74.98	0.000000	0.400	1.29	<i>217.15</i>
25 Toluene <i>65.08</i>	65.08	27.98	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	10.34	22.52	0.000000	2.00	0.159	65.21
26 Carbon Disulfide <i>145.78</i>	151.31	148.10	133.40	158.96	153.20	166.49	113.13	146.20	117.68	<i>143.16</i>	18.17	0.000000	0.400	2.72	<i>52.62</i>
27 2-Propanol <i>137.20</i>	69.67	88.64	14.84	42.56	56.13	41.38	31.21	93.32	82.38	<i>57.79</i>	27.42	0.000000	0.400	0.728	<i>79.41</i>
28 3-Chloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
29 Acetonitrile	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
30 Methylene Chloride <i>60.72</i>	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	<i>60.72</i>	6.75	20.24	0.400	0.115	58.61
31 tert-Butyl alcohol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
32 Methyl tert-butyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
33 trans-1,2-dichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
34 Acrylonitrile	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
35 Hexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
36 Isopropyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
37 1,1-Dichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
38 Vinyl Acetate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
39 Ethyl-tert-butyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
40 2,2-Dichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
41 cis-1,2-Dichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
42 2-Butanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
43 Ethyl Acetate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
* 44 Bromochloromethane	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.400	1.00	0.000000
45 Tetrahydrofuran	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
46 Chloroform	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
47 Cyclohexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
48 1,1,1-Trichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
49 Carbon Tetrachloride	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

US32TARI

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msdp.i/29OCT20.b/p20q1012a.m  
Batch File: /chem/msdp.i/29OCT20.b  
Instrument Names: msdp.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
50 1,1-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
51 2,2,4-Trimethylpentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
52 Benzene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
53 1,2-Dichloroethane-44	25449.00	26875.00	26033.00	28600.00	27056.00	27244.00	27238.00	27582.00	27588.00	27073.89	913.17	0.000000	0.400	10.24	2644.53
54 tert-Amyl methyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
55 1,2-Dichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.16	0.400	0.115	10.04
56 Heptane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
57 1,4-Difluorobenzene	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000
58 n-Butanol	52.43	0.000000	39.24	68.07	0.000000	0.000000	38.26	54.00	0.000000	28.00	27.94	0.000000	0.400	0.346	80.92
59 Trichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
60 Methylcyclohexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
61 1,2-Dichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
62 Methyl Methacrylate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
63 1,4-Dioxane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
64 Dibromomethane	0.000000	0.000000	50.85	30.83	0.000000	0.000000	76.07	28.33	20.27	22.93	26.94	0.000000	0.400	0.294	78.01
65 Bromodichloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
66 1-Bromo-2-Chloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
67 cis-1,3-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
68 4-Methyl-2-pentanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
69 Toluene-d8	24332.00	24851.00	24110.00	24640.00	24909.00	24437.00	24430.00	24025.00	23792.00	24391.78	374.29	0.000000	0.400	22.50	1083.95
70 Octane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
71 Toluene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
72 trans-1,3-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
73 1,1,2-Trichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
74 Tetrachloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.115	6.85
75 1,3-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
76 2-Hexanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
77 Dibromochloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
78 1,2-Dibromoethane (EDB)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
* 79 Chlorobenzene-d5	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	0.400	1.00	0.000000



Reviewer 1 \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_

A handwritten signature in black ink, appearing to be 'V. S. S.', written over a horizontal line.

Date: 11/03/20  
Date: \_\_\_\_\_

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	9/2/21 09:55 AM
<b>Lab ID:</b>	2108676A-03A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090202
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1,2-Tetrachloroethane	630-20-6	113
1,1,1-Trichloroethane	71-55-6	112
1,1,2,2-Tetrachloroethane	79-34-5	104
1,1,2-Trichloroethane	79-00-5	107
1,1-Dichloroethane	75-34-3	99
1,1-Dichloroethene	75-35-4	82
1,1-Difluoroethane	75-37-6	90
1,2,3-Trichloropropane	96-18-4	114
1,2,4-Trichlorobenzene	120-82-1	102
1,2,4-Trimethylbenzene	95-63-6	110
1,2-Dibromo-3-chloropropane	96-12-8	114
1,2-Dibromoethane (EDB)	106-93-4	110
1,2-Dichlorobenzene	95-50-1	117
1,2-Dichloroethane	107-06-2	137 Q
1,2-Dichloropropane	78-87-5	100
1,3,5-Trimethylbenzene	108-67-8	112
1,3-Butadiene	106-99-0	122
1,3-Dichlorobenzene	541-73-1	120
1,4-Dichlorobenzene	106-46-7	118
1,4-Dioxane	123-91-1	95
2,2,4-Trimethylpentane	540-84-1	102
2-Butanone (Methyl Ethyl Ketone)	78-93-3	80
2-Hexanone	591-78-6	111
2-Propanol	67-63-0	113

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	9/2/21 09:55 AM
<b>Lab ID:</b>	2108676A-03A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090202
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
3-Chloropropene	107-05-1	75
4-Ethyltoluene	622-96-8	112
4-Methyl-2-pentanone	108-10-1	106
Acetone	67-64-1	97
Acrolein	107-02-8	96
Acrylonitrile	107-13-1	112
alpha-Chlorotoluene	100-44-7	108
Benzene	71-43-2	93
Bromodichloromethane	75-27-4	118
Bromoform	75-25-2	121
Bromomethane	74-83-9	87
Carbon Disulfide	75-15-0	81
Carbon Tetrachloride	56-23-5	124
Chlorobenzene	108-90-7	104
Chloroethane	75-00-3	83
Chloroform	67-66-3	105
Chloromethane	74-87-3	134 Q
cis-1,2-Dichloroethene	156-59-2	91
cis-1,3-Dichloropropene	10061-01-5	96
Cumene	98-82-8	102
Cyclohexane	110-82-7	81
Dibromochloromethane	124-48-1	122
Dibromomethane	74-95-3	120
Ethanol	64-17-5	108



EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	9/2/21 09:55 AM
<b>Lab ID:</b>	2108676A-03A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090202
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Ethyl Acetate	141-78-6	126
Ethyl Benzene	100-41-4	101
Ethyl-tert-butyl ether	637-92-3	92
Freon 11	75-69-4	119
Freon 113	76-13-1	100
Freon 114	76-14-2	104
Freon 12	75-71-8	116
Freon 134a	811-97-2	122
Heptane	142-82-5	87
Hexachlorobutadiene	87-68-3	113
Hexachloroethane	67-72-1	123
Hexane	110-54-3	96
Iodomethane	74-88-4	101
Isopropyl ether	108-20-3	116
m,p-Xylene	108-38-3	101
Methyl tert-butyl ether	1634-04-4	85
Methylene Chloride	75-09-2	129
Naphthalene	91-20-3	79
o-Xylene	95-47-6	99
Propylbenzene	103-65-1	109
Propylene	115-07-1	112
Styrene	100-42-5	99
tert-Amyl methyl ether	994-05-8	98
tert-Butyl alcohol	75-65-0	93

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	9/2/21 09:55 AM
<b>Lab ID:</b>	2108676A-03A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090202
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Tetrachloroethene	127-18-4	114
Tetrahydrofuran	109-99-9	120
Toluene	108-88-3	100
TPH ref. to Gasoline (MW=100)	9999-9999-038	100
trans-1,2-Dichloroethene	156-60-5	90
trans-1,3-Dichloropropene	10061-02-6	106
Trichloroethene	79-01-6	105
Vinyl Acetate	108-05-4	84
Vinyl Bromide	593-60-2	84
Vinyl Chloride	75-01-4	89

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	119
4-Bromofluorobenzene	460-00-4	70-130	114
Toluene-d8	2037-26-5	70-130	100

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/02SEP21.b/p090202.d  
 Lab Smp Id: CCV Client Smp ID: CCV  
 Inj Date : 02-SEP-2021 09:55  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 50mL 3018-2192  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/02SEP21.b/p21q0519a.m  
 Meth Date : 02-Sep-2021 12:01 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 13 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.778	(1.000)	130	111368	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	89014			48.23- 108.23	79.93
5.778	5.778	(1.000)	49	275354			150.57- 210.57	247.25
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.659	6.659	(1.000)	114	392899	25.0000		80.00- 120.00	100.00
6.659	6.659	(1.000)	88	58178			0.00- 45.71	14.81
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	382253	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	193506			23.78- 83.78	50.62
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.308	6.308	(1.092)	65	183346	25.0000	29.831	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	99712			27.21- 87.21	54.39
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.185)	98	426323	25.0000	24.988	80.00- 120.00	100.00
7.891	7.891	(1.185)	70	44236			0.00- 40.44	10.38

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	277590			34.95- 94.95	65.11
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	279773	25.0000	28.502	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	325083			95.92- 155.92	116.19
10.921	10.921	(1.154)	176	270939			66.89- 126.89	96.84
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.646	1.646	(0.285)	83	215304	50.0000	61.082	80.00- 120.00	100.00
1.646	1.646	(0.285)	69	139765			59.44- 119.44	64.92
1.744	1.744	(0.302)	51	1037280			419.06- 479.06	481.77
-----								
5 Propylene								
						CAS #: 115-07-1		
1.674	1.674	(0.290)	41	286209	50.0000	56.160	80.00- 120.00	100.00
1.674	1.674	(0.290)	42	194434			35.28- 95.28	67.93
1.674	1.674	(0.290)	39	204602			38.35- 98.35	71.49
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.702	1.702	(0.295)	65	113574	50.0000	44.991	80.00- 120.00	100.00
1.744	1.744	(0.302)	51	1037280			597.63- 657.63	913.30
1.702	1.702	(0.295)	47	121201			33.72- 93.72	106.72
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.716	1.716	(0.297)	85	577026	50.0000	57.768	80.00- 120.00	100.00
1.716	1.716	(0.297)	87	190013			2.37- 62.37	32.93
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.744	1.744	(0.302)	67	65732	50.0000	66.621	80.00- 120.00	100.00
1.744	1.744	(0.302)	51	1037280			1501.01-1561.01	1578.03
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.856	1.856	(0.321)	135	511582	50.0000	52.176	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	163495			2.30- 62.30	31.96
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.870	1.870	(0.324)	43	622130	50.0000	55.140	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	204814			2.44- 62.44	32.92
1.870	1.870	(0.324)	58	15631			0.00- 33.36	2.51
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.940	1.940	(0.336)	50	387548	50.0000	66.878	80.00- 120.00	100.00
1.940	1.940	(0.336)	52	96499			0.00- 56.26	24.90
-----								
18 Butane								
						CAS #: 106-97-8		
2.032	2.032	(0.352)	58	56336	50.0000	41.968	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
18 Butane (continued)								
2.032	2.032	(0.352)	43	586754			823.29- 883.29	1041.52
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.067	2.067	(0.358)	62	309798	50.0000	44.439	80.00- 120.00	100.00
2.075	2.075	(0.359)	64	87258			0.00- 59.69	28.17
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.096	2.096	(0.363)	54	342239	50.0000	61.038	80.00- 120.00	100.00
2.089	2.089	(0.362)	39	308197			52.37- 112.37	90.05
-----								
24 Bromomethane CAS #: 74-83-9								
2.483	2.483	(0.430)	94	195980	50.0000	43.721	80.00- 120.00	100.00
2.483	2.483	(0.430)	96	190402			64.07- 124.07	97.15
-----								
30 Chloroethane CAS #: 75-00-3								
2.612	2.612	(0.452)	64	103584	50.0000	41.321	80.00- 120.00	100.00
2.612	2.612	(0.452)	66	29530			0.04- 60.04	28.51
2.612	2.612	(0.452)	49	52207			4.54- 64.54	50.40
-----								
31 Isopentane CAS #: 78-78-4								
2.633	2.633	(0.456)	43	425586	50.0000	55.794	80.00- 120.00	100.00
2.641	2.641	(0.457)	57	227842			34.12- 94.12	53.54
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.841	2.841	(0.492)	106	174630	50.0000	42.148	80.00- 120.00	100.00
2.841	2.841	(0.492)	108	171942			69.27- 129.27	98.46
-----								
33 Freon 11 CAS #: 75-69-4								
2.891	2.891	(0.500)	101	633036	50.0000	59.639	80.00- 120.00	100.00
2.891	2.891	(0.500)	103	417577			34.72- 94.72	65.96
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.898	2.898	(0.502)	67	433093	50.0000	47.340	80.00- 120.00	100.00
2.898	2.898	(0.502)	69	133092			0.84- 60.84	30.73
-----								
35 Pentane CAS #: 109-66-0								
2.970	2.970	(0.514)	43	674257	50.0000	54.382	80.00- 120.00	100.00
2.970	2.970	(0.514)	57	82750			0.00- 44.98	12.27
2.970	2.970	(0.514)	72	35739			0.00- 37.39	5.30
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.285	3.285	(0.569)	74	77876	50.0000	37.230	80.00- 120.00	100.00
3.285	3.285	(0.569)	59	182714			163.46- 223.46	234.62
3.285	3.285	(0.569)	45	337097			250.40- 310.40	432.86
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol						CAS #: 64-17-5		
3.242	3.242	(0.561)	46	59528	50.0000	53.899	80.00- 120.00	100.00
3.285	3.285	(0.569)	45	335010			511.19- 571.19	562.78
-----								
42 Acrolein						CAS #: 107-02-8		
3.536	3.536	(0.612)	55	92095	50.0000	48.056	80.00- 120.00	100.00
3.536	3.536	(0.612)	56	124010			111.10- 171.10	134.65
-----								
43 Freon 113						CAS #: 76-13-1		
3.550	3.550	(0.614)	151	395640	50.0000	50.168	80.00- 120.00	100.00
3.550	3.550	(0.614)	153	248221			33.56- 93.56	62.74
3.550	3.550	(0.614)	101	462109			89.21- 149.21	116.80
-----								
44 1,1-Dichloroethene						CAS #: 75-35-4		
3.579	3.579	(0.619)	96	193892	50.0000	41.156	80.00- 120.00	100.00
3.579	3.579	(0.619)	98	121022			34.02- 94.02	62.42
3.579	3.579	(0.619)	61	461368			168.77- 228.77	237.95
-----								
47 Acetone						CAS #: 67-64-1		
3.715	3.715	(0.643)	58	141938	50.0000	48.615	80.00- 120.00	100.00
3.715	3.715	(0.643)	43	596650			302.95- 362.95	420.36
-----								
48 Carbon Disulfide						CAS #: 75-15-0		
3.822	3.822	(0.662)	76	502910	50.0000	40.518	80.00- 120.00	100.00
-----								
49 Iodomethane						CAS #: 74-88-4		
3.794	3.794	(0.657)	142	415787	50.0000	50.393	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	226767			12.22- 72.22	54.54
-----								
52 2-Propanol						CAS #: 67-63-0		
3.887	3.887	(0.673)	45	665059	50.0000	56.518	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	143911			0.00- 47.19	21.64
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.052	4.052	(0.701)	76	77570	50.0000	37.410	80.00- 120.00	100.00
4.045	4.045	(0.700)	41	484327			396.19- 456.19	624.37
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.123	4.123	(0.714)	41	329024	50.0000	59.992	80.00- 120.00	100.00
4.123	4.123	(0.714)	40	175949			20.95- 80.95	53.48
4.123	4.123	(0.714)	38	37773			0.00- 41.17	11.48
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.238	4.238	(0.733)	49	489190	50.0000	64.506	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	166079			22.03- 82.03	33.95
4.238	4.238	(0.733)	51	140958			0.18- 60.18	28.81
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.338	4.338	(0.751)	59	639215	50.0000	46.582	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	176828			0.00- 51.11	27.66
4.338	4.338	(0.751)	57	73993			0.00- 40.49	11.58
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.446	4.446	(0.769)	73	579584	50.0000	42.377	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	225005			3.10- 63.10	38.82
4.446	4.446	(0.769)	41	265520			1.28- 61.28	45.81
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.481	4.481	(0.776)	98	140945	50.0000	44.774	80.00- 120.00	100.00
4.474	4.474	(0.774)	61	444056			255.84- 315.84	315.06
4.474	4.474	(0.774)	96	221150			127.59- 187.59	156.90
66 Acrylonitrile						CAS #: 107-13-1		
4.560	4.560	(0.789)	52	245263	50.0000	55.970	80.00- 120.00	100.00
4.560	4.560	(0.789)	53	285603			88.05- 148.05	116.45
67 Hexane						CAS #: 110-54-3		
4.696	4.696	(0.813)	57	524388	50.0000	47.797	80.00- 120.00	100.00
4.696	4.696	(0.813)	43	430763			37.52- 97.52	82.15
4.696	4.696	(0.813)	86	51743			0.00- 41.48	9.87
71 1,1-Dichloroethane						CAS #: 75-34-3		
4.961	4.961	(0.859)	63	468337	50.0000	49.656	80.00- 120.00	100.00
4.961	4.961	(0.859)	65	132350			0.00- 59.70	28.26
72 Isopropyl ether						CAS #: 108-20-3		
4.947	4.947	(0.856)	45	1483407	50.0000	58.137	80.00- 120.00	100.00
4.954	4.954	(0.857)	87	188891			0.00- 48.18	12.73
4.947	4.947	(0.856)	59	121119			0.00- 40.15	8.16
73 Vinyl Acetate						CAS #: 108-05-4		
4.997	4.997	(0.865)	86	50792	50.0000	41.904	80.00- 120.00	100.00
4.990	4.990	(0.864)	43	1309574			2432.48-2492.48	2578.29
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.305	5.305	(0.918)	59	1021094	50.0000	46.230	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	292840			1.00- 61.00	28.68
5.305	5.305	(0.918)	41	280809			0.00- 48.73	27.50
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.506	5.506	(0.953)	77	448896	50.0000	53.598	80.00- 120.00	100.00
5.506	5.506	(0.953)	79	143406			2.28- 62.28	31.95
5.513	5.513	(0.954)	97	98192			0.00- 53.93	21.87

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.549	5.549	(0.960)	98	148921	50.0000	45.587	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	234374			125.75- 185.75	157.38
5.549	5.549	(0.960)	61	600349			332.40- 392.40	403.13
-----								
86 2-Butanone						CAS #: 78-93-3		
5.556	5.556	(0.962)	72	100302	50.0000	39.846	80.00- 120.00	100.00
5.563	5.563	(0.963)	43	1967208			1214.50-1274.50	1961.28
5.556	5.556	(0.962)	57	58802			14.68- 74.68	58.63
-----								
87 Ethyl Acetate						CAS #: 141-78-6		
5.570	5.570	(0.964)	45	158423	50.0000	63.273	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	600349			452.04- 512.04	378.95
5.570	5.570	(0.964)	70	49429			22.77- 82.77	31.20
-----								
89 Tetrahydrofuran						CAS #: 109-99-9		
5.771	5.771	(0.999)	42	500722	50.0000	59.811	80.00- 120.00	100.00
5.778	5.778	(1.000)	71	83928			0.00- 55.82	16.76
5.771	5.771	(0.999)	72	91422			0.00- 57.59	18.26
-----								
92 Chloroform						CAS #: 67-66-3		
5.835	5.835	(1.010)	83	510643	50.0000	52.698	80.00- 120.00	100.00
5.835	5.835	(1.010)	85	331433			34.70- 94.70	64.90
-----								
94 Cyclohexane						CAS #: 110-82-7		
5.957	5.957	(1.031)	84	285006	50.0000	40.683	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	600173			142.57- 202.57	210.58
5.957	5.957	(1.031)	41	384575			62.09- 122.09	134.94
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
5.971	5.971	(1.033)	97	611399	50.0000	55.852	80.00- 120.00	100.00
5.971	5.971	(1.033)	99	387478			34.02- 94.02	63.38
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.086	6.086	(1.053)	119	638160	50.0000	62.157	80.00- 120.00	100.00
6.086	6.086	(1.053)	117	636459			70.64- 130.64	99.73
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.115	6.115	(0.918)	110	130606	50.0000	48.835	80.00- 120.00	100.00
6.115	6.115	(0.918)	75	327044			226.85- 286.85	250.41
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.279	6.279	(1.087)	57	1950294	50.0000	51.145	80.00- 120.00	100.00
6.279	6.279	(1.087)	56	670054			2.24- 62.24	34.36
6.279	6.279	(1.087)	41	622301			0.00- 54.39	31.91
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
102 Benzene						CAS #: 71-43-2		
6.301	6.301	(0.946)	78	605565	50.0000	46.706	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	144865			0.00- 52.90	23.92
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.358	6.358	(0.955)	87	179300	50.0000	49.044	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	693241			372.79- 432.79	386.64
6.358	6.358	(0.955)	55	327588			112.09- 172.09	182.70
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.380	6.380	(0.958)	62	460790	50.0000	68.301	80.00- 120.00	100.00
6.380	6.380	(0.958)	64	135600			0.79- 60.79	29.43
-----								
107 Heptane						CAS #: 142-82-5		
6.444	6.444	(0.968)	71	224414	50.0000	43.691	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	873087			226.53- 286.53	389.05
6.444	6.444	(0.968)	57	379549			100.85- 160.85	169.13
-----								
110 n-Butanol						CAS #: 71-36-3		
6.809	6.809	(1.023)	56	255819	50.0000	54.270	80.00- 120.00	100.00
6.809	6.809	(1.023)	41	218672			40.99- 100.99	85.48
6.809	6.809	(1.023)	43	176374			27.38- 87.38	68.94
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.867	6.867	(1.031)	95	331455	50.0000	52.684	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	369059			76.29- 136.29	111.35
6.867	6.867	(1.031)	97	216773			33.63- 93.63	65.40
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.096	7.096	(1.066)	63	331835	50.0000	49.922	80.00- 120.00	100.00
7.096	7.096	(1.066)	62	243711			41.07- 101.07	73.44
7.096	7.096	(1.066)	41	291128			22.53- 82.53	87.73
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.139	7.139	(0.755)	69	239031	50.0000	45.510	80.00- 120.00	100.00
7.139	7.139	(0.755)	41	678855			179.84- 239.84	284.00
7.139	7.139	(0.755)	100	97550			9.59- 69.59	40.81
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.175	7.175	(1.077)	88	167118	50.0000	47.308	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	193041			68.28- 128.28	115.51
7.175	7.175	(1.077)	57	69235			2.68- 62.68	41.43
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.211	7.211	(0.762)	174	339250	50.0000	59.808	80.00- 120.00	100.00
7.203	7.203	(0.761)	93	307649			60.09- 120.09	90.69

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
7.203	7.203	(0.761)	95	266647			48.38- 108.38	78.60
-----								
122 Bromodichloromethane CAS #: 75-27-4								
7.318	7.318	(1.099)	83	575518	50.0000	58.998	80.00- 120.00	100.00
7.318	7.318	(1.099)	85	371541			35.24- 95.24	64.56
-----								
126 cis-1,3-Dichloropropene CAS #: 10061-01-5								
7.698	7.698	(1.156)	75	395021	50.0000	47.932	80.00- 120.00	100.00
7.698	7.698	(1.156)	77	125789			2.42- 62.42	31.84
7.690	7.690	(1.155)	39	363692			37.16- 97.16	92.07
-----								
127 Methylcyclohexane CAS #: 108-87-2								
6.974	6.974	(1.047)	83	417181	50.0000	45.823	80.00- 120.00	100.00
6.974	6.974	(1.047)	98	209175			15.78- 75.78	50.14
6.974	6.974	(1.047)	55	605616			84.64- 144.64	145.17
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.798	7.798	(1.171)	58	356719	50.0000	52.847	80.00- 120.00	100.00
7.791	7.791	(1.170)	43	1232461			242.35- 302.35	345.50
7.798	7.798	(1.171)	85	99570			3.24- 63.24	27.91
-----								
137 Toluene CAS #: 108-88-3								
7.948	7.948	(1.194)	91	895945	50.0000	50.086	80.00- 120.00	100.00
7.948	7.948	(1.194)	92	519960			28.38- 88.38	58.03
-----								
136 Octane CAS #: 111-65-9								
7.948	7.948	(1.194)	57	425948	50.0000	55.846	80.00- 120.00	100.00
7.948	7.948	(1.194)	85	291401			56.00- 116.00	68.41
7.948	7.948	(1.194)	43	1339385			228.66- 288.66	314.45
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
8.213	8.213	(0.868)	75	400201	50.0000	53.202	80.00- 120.00	100.00
8.213	8.213	(0.868)	77	125230			1.24- 61.24	31.29
8.213	8.213	(0.868)	39	339208			34.11- 94.11	84.76
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
8.400	8.400	(0.888)	97	332793	50.0000	53.525	80.00- 120.00	100.00
8.400	8.400	(0.888)	99	204137			31.96- 91.96	61.34
8.400	8.400	(0.888)	83	264652			52.93- 112.93	79.52
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.464	8.464	(0.895)	166	494402	50.0000	56.750	80.00- 120.00	100.00
8.464	8.464	(0.895)	129	380502			47.84- 107.84	76.96
8.464	8.464	(0.895)	131	373005			45.29- 105.29	75.45
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone			CAS #: 591-78-6					
8.586	8.586	(0.908)	58	491540	50.0000	55.334	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	1194241			162.87- 222.87	242.96
8.586	8.586	(0.908)	100	65891			0.00- 45.94	13.41
-----								
144 1,3-Dichloropropane			CAS #: 142-28-9					
8.579	8.579	(1.288)	76	436052	50.0000	51.332	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	755229			94.99- 154.99	173.20
8.579	8.579	(1.288)	78	142429			2.05- 62.05	32.66
-----								
146 Dibromochloromethane			CAS #: 124-48-1					
8.801	8.801	(0.930)	129	705853	50.0000	60.760	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	547975			47.45- 107.45	77.63
-----								
148 1,2-Dibromoethane (EDB)			CAS #: 106-93-4					
8.951	8.951	(0.946)	107	548490	50.0000	55.002	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	515263			64.21- 124.21	93.94
-----								
151 1-Bromo-2-Chloroethane			CAS #: 107-04-0					
7.605	7.605	(1.142)	63	629665	50.0000	51.628	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	175034			0.00- 59.64	27.80
7.605	7.605	(1.142)	144	65410			0.00- 39.63	10.39
-----								
154 Chlorobenzene			CAS #: 108-90-7					
9.496	9.496	(1.004)	112	791543	50.0000	52.148	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	253062			1.74- 61.74	31.97
9.496	9.496	(1.004)	77	402594			25.04- 85.04	50.86
-----								
155 Ethyl Benzene			CAS #: 100-41-4					
9.567	9.567	(1.011)	106	399239	50.0000	50.301	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	1196953			273.74- 333.74	299.81
-----								
156 Nonane			CAS #: 111-84-2					
9.596	9.596	(1.014)	43	1382774	50.0000	67.714	80.00- 120.00	100.00
9.596	9.596	(1.014)	57	940320			54.16- 114.16	68.00
9.603	9.603	(1.015)	85	221415			0.00- 53.90	16.01
-----								
158 m,p-Xylene			CAS #: 108-38-3					
9.718	9.718	(1.027)	106	500054	50.0000	50.304	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	953632			163.73- 223.73	190.71
-----								
164 o-Xylene			CAS #: 95-47-6					
10.226	10.226	(1.081)	106	471453	50.0000	49.501	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	949569			177.45- 237.45	201.41
-----								
165 Styrene			CAS #: 100-42-5					
10.255	10.255	(1.084)	104	804229	50.0000	49.375	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
165 Styrene (continued)								
10.255	10.255	(1.084)	78	388541			17.88- 77.88	48.31
-----								
167 Bromoform CAS #: 75-25-2								
10.541	10.541	(1.114)	173	692433	50.0000	60.470	80.00- 120.00	100.00
10.541	10.541	(1.114)	171	359534			21.25- 81.25	51.92
-----								
168 Cumene CAS #: 98-82-8								
10.649	10.649	(1.126)	105	1530142	50.0000	51.143	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	449428			0.00- 58.52	29.37
10.649	10.649	(1.126)	51	271574			0.00- 43.00	17.75
-----								
169 Cyclohexanone CAS #: 108-94-1								
10.871	10.871	(1.149)	55	630936	50.0000	58.967	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	162025			1.94- 61.94	25.68
10.871	10.871	(1.149)	42	473207			37.89- 97.89	75.00
-----								
175 1,1,2,2-Tetrachloroethane CAS #: 79-34-5								
11.100	11.100	(1.173)	83	757601	50.0000	51.880	80.00- 120.00	100.00
11.100	11.100	(1.173)	85	492970			35.20- 95.20	65.07
-----								
177 Bromobenzene CAS #: 108-86-1								
11.100	11.100	(1.173)	156	526640	50.0000	57.876	80.00- 120.00	100.00
11.100	11.100	(1.173)	158	508916			67.21- 127.21	96.63
11.172	11.172	(1.181)	77	281776			29.02- 89.02	53.50
-----								
178 Propylbenzene CAS #: 103-65-1								
11.150	11.150	(1.179)	120	483010	50.0000	54.447	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	1846978			366.49- 426.49	382.39
11.150	11.150	(1.179)	105	73457			0.00- 44.85	15.21
-----								
179 1,2,3-Trichloropropane CAS #: 96-18-4								
11.179	11.179	(1.182)	110	266074	50.0000	57.168	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	729687			280.55- 340.55	274.24
11.100	11.100	(1.173)	61	144198			15.49- 75.49	54.19
-----								
181 trans-1,4-Dichloro-2-butene CAS #: 110-57-6								
11.179	11.179	(1.182)	53	202610	50.0000	66.405	80.00- 120.00	100.00
11.172	11.172	(1.181)	89	132202			49.11- 109.11	65.25
11.179	11.179	(1.182)	75	729687			426.44- 486.44	360.14
-----								
182 Decane CAS #: 124-18-5								
11.251	11.251	(1.189)	57	1291189	50.0000	55.482	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	284689			0.00- 57.66	22.05
11.258	11.258	(1.190)	142	48455			0.00- 34.09	3.75
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene						CAS #: 622-96-8		
11.286	11.286	(1.193)	120	539151	50.0000	55.885	80.00- 120.00	100.00
11.286	11.286	(1.193)	105	1623246			284.55- 344.55	301.07
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
11.308	11.308	(1.195)	126	433516	50.0000	57.392	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1430200			315.17- 375.17	329.91
11.301	11.301	(1.195)	65	221357			21.55- 81.55	51.06
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
11.365	11.365	(1.201)	120	744328	50.0000	56.038	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1407986			164.93- 224.93	189.16
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
11.644	11.644	(1.231)	118	658586	50.0000	49.911	80.00- 120.00	100.00
11.644	11.644	(1.231)	103	365061			25.30- 85.30	55.43
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
11.738	11.738	(1.241)	119	1452554	50.0000	58.468	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	353186			0.00- 54.25	24.31
11.738	11.738	(1.241)	91	863717			31.27- 91.27	59.46
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
11.816	11.816	(1.249)	105	1377103	50.0000	54.928	80.00- 120.00	100.00
11.816	11.816	(1.249)	120	705447			19.05- 79.05	51.23
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
11.995	11.995	(1.268)	134	448596	50.0000	58.097	80.00- 120.00	100.00
11.995	11.995	(1.268)	105	2022439			437.55- 497.55	450.84
11.995	11.995	(1.268)	91	316938			40.76- 100.76	70.65
-----								
194 p-Cymene						CAS #: 99-87-6		
12.160	12.160	(1.285)	119	1942207	50.0000	56.909	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	500197			0.00- 55.54	25.75
12.160	12.160	(1.285)	91	413071			0.00- 51.48	21.27
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
12.196	12.196	(1.289)	146	1034515	50.0000	60.285	80.00- 120.00	100.00
12.196	12.196	(1.289)	148	662659			33.21- 93.21	64.06
12.196	12.196	(1.289)	111	405982			11.31- 71.31	39.24
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
12.311	12.311	(1.301)	146	1026723	50.0000	59.207	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	656851			33.90- 93.90	63.98
12.311	12.311	(1.301)	111	386046			9.45- 69.45	37.60
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene						CAS #: 100-44-7		
12.461	12.461	(1.317)	91	1290443	50.0000	54.190	80.00- 120.00	100.00
12.461	12.461	(1.317)	126	309551			0.00- 53.26	23.99
-----								
201 Undecane						CAS #: 1120-21-4		
12.640	12.640	(1.336)	57	1592719	50.0000	59.250	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1702320			58.12- 118.12	106.88
-----								
202 Butylbenzene						CAS #: 104-51-8		
12.626	12.626	(1.335)	134	493643	50.0000	56.951	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	1629708			314.79- 374.79	330.14
12.626	12.626	(1.335)	92	849049			154.29- 214.29	172.00
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
12.740	12.740	(1.347)	146	987884	50.0000	58.710	80.00- 120.00	100.00
12.740	12.740	(1.347)	148	633996			33.84- 93.84	64.18
12.733	12.733	(1.346)	111	403865			12.73- 72.73	40.88
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
13.600	13.600	(1.438)	157	578387	50.0000	56.753	80.00- 120.00	100.00
13.600	13.600	(1.438)	75	481911			52.48- 112.48	83.32
13.600	13.600	(1.438)	155	442650			47.41- 107.41	76.53
-----								
207 Dodecane						CAS #: 112-40-3		
13.801	13.801	(1.459)	57	1263257	61.8000	59.288	80.00- 120.00	100.00
13.801	13.801	(1.459)	43	1249777			52.87- 112.87	98.93
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
14.467	14.467	(1.529)	180	795108	63.0000	63.957	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	752080			65.33- 125.33	94.59
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
14.581	14.581	(1.541)	225	636087	64.4000	72.702	80.00- 120.00	100.00
14.581	14.581	(1.541)	223	401491			33.17- 93.17	63.12
-----								
216 Naphthalene						CAS #: 91-20-3		
14.768	14.768	(1.561)	128	158614	6.35000	4.992	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	21775			0.00- 42.88	13.73
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
15.068	15.068	(1.593)	180	710933	66.6000	64.688	80.00- 120.00	100.00
15.068	15.068	(1.593)	182	680648			65.75- 125.75	95.74
15.068	15.068	(1.593)	145	236049			5.23- 65.23	33.20
-----								

US32TAR1

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                      Injection Date: 02-SEP-2021 09:55  
 Lab File ID: p090202.d                  Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                        Init. Cal. Times: 14:02                      00:05  
 Lab Sample ID: CCV                        Quant Type:    ISTD  
 Method: /chem/msdp.i/02SEP21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
\$ 104 1,2-Dichloroethane-d4	1.37968	1.64630	0.010	-19.32424	30.00000	Averaged	
\$ 134 Toluene-d8	1.08560	1.08507	0.010	0.04859	30.00000	Averaged	
\$ 170 4-Bromofluorobenzene	0.64197	0.73191	0.010	-14.00932	30.00000	Averaged	
4 Freon 134a	0.79126	0.96663	0.010	-22.16360	30.00000	Averaged	
5 Propylene	1.14402	1.28496	0.010	-12.31994	30.00000	Averaged	
7 1,1-Difluoroethane	0.56667	0.50990	0.010	10.01791	30.00000	Averaged	
8 Freon 12	2.24223	2.59061	0.010	-15.53709	30.00000	Averaged	
9 Chlorodifluoromethane	0.22149	0.29511	0.010	-33.24175	30.00000	Averaged <-	
10 Freon 114	2.20100	2.29679	0.010	-4.35196	30.00000	Averaged	
12 Isobutane	2.53275	2.79311	0.010	-10.27964	30.00000	Averaged	
15 Chloromethane	1.30082	1.73993	0.010	-33.75650	30.00000	Averaged <-	
18 Butane	0.30133	0.25293	0.010	16.06360	30.00000	Averaged	
19 Vinyl Chloride	1.56492	1.39087	0.010	11.12212	30.00000	Averaged	
20 1,3-Butadiene	1.25865	1.53651	0.010	-22.07664	30.00000	Averaged	
24 Bromomethane	1.00624	0.87987	0.010	12.55840	30.00000	Averaged	
30 Chloroethane	0.56273	0.46505	0.010	17.35815	30.00000	Averaged	
31 Isopentane	1.71230	1.91071	0.010	-11.58745	30.00000	Averaged	
32 Vinyl Bromide	0.93008	0.78402	0.010	15.70413	30.00000	Averaged	
33 Freon 11	2.38274	2.84207	0.010	-19.27723	30.00000	Averaged	
34 Dichlorofluoromethane	2.05367	1.94441	0.010	5.32019	30.00000	Averaged	
35 Pentane	2.78321	3.02714	0.010	-8.76414	30.00000	Averaged	
38 Ethyl Ether	0.46955	0.34963	0.010	25.53970	30.00000	Averaged	
39 Ethanol	0.24792	0.26726	0.010	-7.79805	30.00000	Averaged	
42 Acrolein	0.43020	0.41347	0.010	3.88856	30.00000	Averaged	
43 Freon 113	1.77031	1.77626	0.010	-0.33645	30.00000	Averaged	
44 1,1-Dichloroethene	1.05757	0.87050	0.010	17.68865	30.00000	Averaged	
47 Acetone	0.65540	0.63724	0.010	2.77046	30.00000	Averaged	
48 Carbon Disulfide	2.78620	2.25786	0.010	18.96293	30.00000	Averaged	
49 Iodomethane	1.85215	1.86671	0.010	-0.78619	30.00000	Averaged	
52 2-Propanol	2.64148	2.98584	0.010	-13.03679	30.00000	Averaged	
54 3-Chloropropene	0.46546	0.34826	0.010	25.17992	30.00000	Averaged	
57 Acetonitrile	1.23114	1.47718	0.010	-19.98502	30.00000	Averaged	
59 Methylene Chloride	1.70236	2.19626	0.010	-29.01266	30.00000	Averaged	
62 tert-Butyl alcohol	3.08038	2.86981	0.010	6.83569	30.00000	Averaged	
63 Methyl tert-butyl ether	3.07018	2.60209	0.010	15.24631	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                    Injection Date: 02-SEP-2021 09:55  
 Lab File ID: p090202.d                Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                     Init. Cal. Times: 14:02 00:05  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msdp.i/02SEP21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
64 trans-1,2-Dichloroethene	0.70664	0.63279	0.010	10.45140	30.00000	Averaged	
66 Acrylonitrile	0.98368	1.10113	0.010	-11.93961	30.00000	Averaged	
67 Hexane	2.46279	2.35429	0.010	4.40563	30.00000	Averaged	
71 1,1-Dichloroethane	2.11721	2.10264	0.010	0.68811	30.00000	Averaged	
72 Isopropyl ether	5.72778	6.65988	0.010	-16.27326	30.00000	Averaged	
73 Vinyl Acetate	0.27210	0.22804	0.010	16.19283	30.00000	Averaged	
79 Ethyl-tert-butyl ether	4.95812	4.58429	0.010	7.53984	30.00000	Averaged	
84 2,2-Dichloropropane	1.88008	2.01536	0.010	-7.19518	30.00000	Averaged	
85 cis-1,2-Dichloroethene	0.73332	0.66859	0.010	8.82667	30.00000	Averaged	
86 2-Butanone	0.56506	0.45032	0.010	20.30715	30.00000	Averaged	
87 Ethyl Acetate	0.56205	0.71125	0.010	-26.54639	30.00000	Averaged	
89 Tetrahydrofuran	1.87928	2.24803	0.010	-19.62197	30.00000	Averaged	
92 Chloroform	2.17519	2.29258	0.010	-5.39646	30.00000	Averaged	
94 Cyclohexane	1.57260	1.27956	0.010	18.63391	30.00000	Averaged	
96 1,1,1-Trichloroethane	2.45732	2.74493	0.010	-11.70422	30.00000	Averaged	
97 Carbon Tetrachloride	2.30469	2.86508	0.010	-24.31497	30.00000	Averaged	
99 1,1-Dichloropropene	0.17017	0.16621	0.010	2.33020	30.00000	Averaged	
101 2,2,4-Trimethylpentane	8.56002	8.75601	0.010	-2.28955	30.00000	Averaged	
102 Benzene	0.82499	0.77064	0.010	6.58823	30.00000	Averaged	
105 tert-Amyl methyl ether	0.23262	0.22818	0.010	1.91227	30.00000	Averaged	
106 1,2-Dichloroethane	0.42928	0.58640	0.010	-36.60191	30.00000	Averaged <-	
107 Heptane	0.32683	0.28559	0.010	12.61792	30.00000	Averaged	
110 n-Butanol	0.29994	0.32555	0.010	-8.53929	30.00000	Averaged	
111 Trichloroethene	0.40032	0.42181	0.010	-5.36759	30.00000	Averaged	
114 1,2-Dichloropropane	0.42295	0.42229	0.010	0.15539	30.00000	Averaged	
116 Methyl Methacrylate	0.34351	0.31266	0.010	8.97922	30.00000	Averaged	
117 1,4-Dioxane	0.22478	0.21267	0.010	5.38408	30.00000	Averaged	
118 Dibromomethane	0.37098	0.44375	0.010	-19.61521	30.00000	Averaged	
122 Bromodichloromethane	0.62070	0.73240	0.010	-17.99616	30.00000	Averaged	
126 cis-1,3-Dichloropropene	0.52438	0.50270	0.010	4.13499	30.00000	Averaged	
127 Methylcyclohexane	0.57930	0.53090	0.010	8.35419	30.00000	Averaged	
131 4-Methyl-2-pentanone	0.42950	0.45396	0.010	-5.69376	30.00000	Averaged	
137 Toluene	1.13821	1.14017	0.010	-0.17239	30.00000	Averaged	
136 Octane	0.48532	0.54206	0.010	-11.69156	30.00000	Averaged	
139 trans-1,3-Dichloropropene	0.49197	0.52348	0.010	-6.40368	30.00000	Averaged	



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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                    Injection Date: 02-SEP-2021 09:55  
 Lab File ID: p090202.d                Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                     Init. Cal. Times: 14:02 00:05  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msdp.i/02SEP21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
141 1,1,2-Trichloroethane	0.40664	0.43531	0.010	-7.04920	30.00000	Averaged	
142 Tetrachloroethene	0.56977	0.64670	0.010	-13.50100	30.00000	Averaged	
143 2-Hexanone	0.58097	0.64295	0.010	-10.66834	30.00000	Averaged	
144 1,3-Dichloropropane	0.54052	0.55492	0.010	-2.66376	30.00000	Averaged	
146 Dibromochloromethane	0.75978	0.92328	0.010	-21.51943	30.00000	Averaged	
148 1,2-Dibromoethane (EDB)	0.65220	0.71744	0.010	-10.00447	30.00000	Averaged	
151 1-Bromo-2-Chloroethane	0.77603	0.80131	0.010	-3.25696	30.00000	Averaged	
154 Chlorobenzene	0.99271	1.03537	0.010	-4.29718	30.00000	Averaged	
155 Ethyl Benzene	0.51909	0.52222	0.010	-0.60274	30.00000	Averaged	
156 Nonane	1.33556	1.80872	0.010	-35.42775	30.00000	Averaged	<-
158 m,p-Xylene	0.65013	0.65409	0.010	-0.60888	30.00000	Averaged	
164 o-Xylene	0.62290	0.61668	0.010	0.99863	30.00000	Averaged	
165 Styrene	1.06528	1.05196	0.010	1.25006	30.00000	Averaged	
167 Bromoform	0.74891	0.90573	0.010	-20.93943	30.00000	Averaged	
168 Cumene	1.95673	2.00148	0.010	-2.28689	30.00000	Averaged	
169 Cyclohexanone	0.69978	0.82529	0.010	-17.93492	30.00000	Averaged	
175 1,1,2,2-Tetrachloroethane	0.95505	0.99097	0.010	-3.76086	30.00000	Averaged	
177 Bromobenzene	0.59512	0.68886	0.010	-15.75205	30.00000	Averaged	
178 Propylbenzene	0.58019	0.63179	0.010	-8.89383	30.00000	Averaged	
179 1,2,3-Trichloropropane	0.30440	0.34803	0.010	-14.33542	30.00000	Averaged	
181 trans-1,4-Dichloro-2-butene	0.19955	0.26502	0.010	-32.80942	30.00000	Averaged	<-
182 Decane	1.52203	1.68892	0.010	-10.96470	30.00000	Averaged	
183 4-Ethyltoluene	0.63096	0.70523	0.010	-11.77069	30.00000	Averaged	
184 2-Chlorotoluene	0.49401	0.56705	0.010	-14.78496	30.00000	Averaged	
185 1,3,5-Trimethylbenzene	0.86871	0.97361	0.010	-12.07531	30.00000	Averaged	
188 alpha Methyl Styrene	0.86300	0.86145	0.010	0.17876	30.00000	Averaged	
189 tert-Butylbenzene	1.62480	1.89999	0.010	-16.93676	30.00000	Averaged	
190 1,2,4-Trimethylbenzene	1.63968	1.80130	0.010	-9.85659	30.00000	Averaged	
192 sec-Butylbenzene	0.50500	0.58678	0.010	-16.19461	30.00000	Averaged	
194 p-Cymene	2.23203	2.54047	0.010	-13.81887	30.00000	Averaged	
195 1,3-Dichlorobenzene	1.12231	1.35318	0.010	-20.57090	30.00000	Averaged	
196 1,4-Dichlorobenzene	1.13414	1.34299	0.010	-18.41456	30.00000	Averaged	
199 alpha-Chlorotoluene	1.55742	1.68794	0.010	-8.38087	30.00000	Averaged	
201 Undecane	1.75810	2.08333	0.010	-18.49929	30.00000	Averaged	
202 Butylbenzene	0.56690	0.64570	0.010	-13.90152	30.00000	Averaged	

US32TAR1

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                    Injection Date: 02-SEP-2021 09:55  
Lab File ID: p090202.d                Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
Analysis Type: AIR                    Init. Cal. Times: 14:02                    00:05  
Lab Sample ID: CCV                    Quant Type: ISTD  
Method: /chem/msdp.i/02SEP21.b/p21q0519a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
204 1,2-Dichlorobenzene	1.10047	1.29219	0.010	-17.42087	30.00000	Averaged
206 1,2-Dibromo-3-chloropropane	0.66653	0.75655	0.010	-13.50652	30.00000	Averaged
207 Dodecane	1.39351	1.33688	0.010	4.06413	30.00000	Averaged
213 1,2,4-Trichlorobenzene	0.81307	0.82542	0.010	-1.51861	30.00000	Averaged
215 Hexachlorobutadiene	0.57222	0.64598	0.010	-12.89095	30.00000	Averaged
216 Naphthalene	2.07796	1.63365	0.010	21.38204	30.00000	Averaged
222 1,2,3-Trichlorobenzene	0.71877	0.69814	0.010	2.87006	30.00000	Averaged

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 02-SEP-2021
Lab File ID: p090202.d	Calibration Time: 11:41
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msdp.i/02SEP21.b/p21q0519a.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	132824	79694	185954	111368	-16.15
108 1,4-Difluorobenze	469419	281651	657187	392899	-16.30
153 Chlorobenzene-d5	454122	272473	635771	382253	-15.83

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	-0.00
108 1,4-Difluorobenze	6.67	6.34	7.00	6.66	-0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	-0.00

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.

Date : 02-SEP-2021 09:55

Client ID: CCV

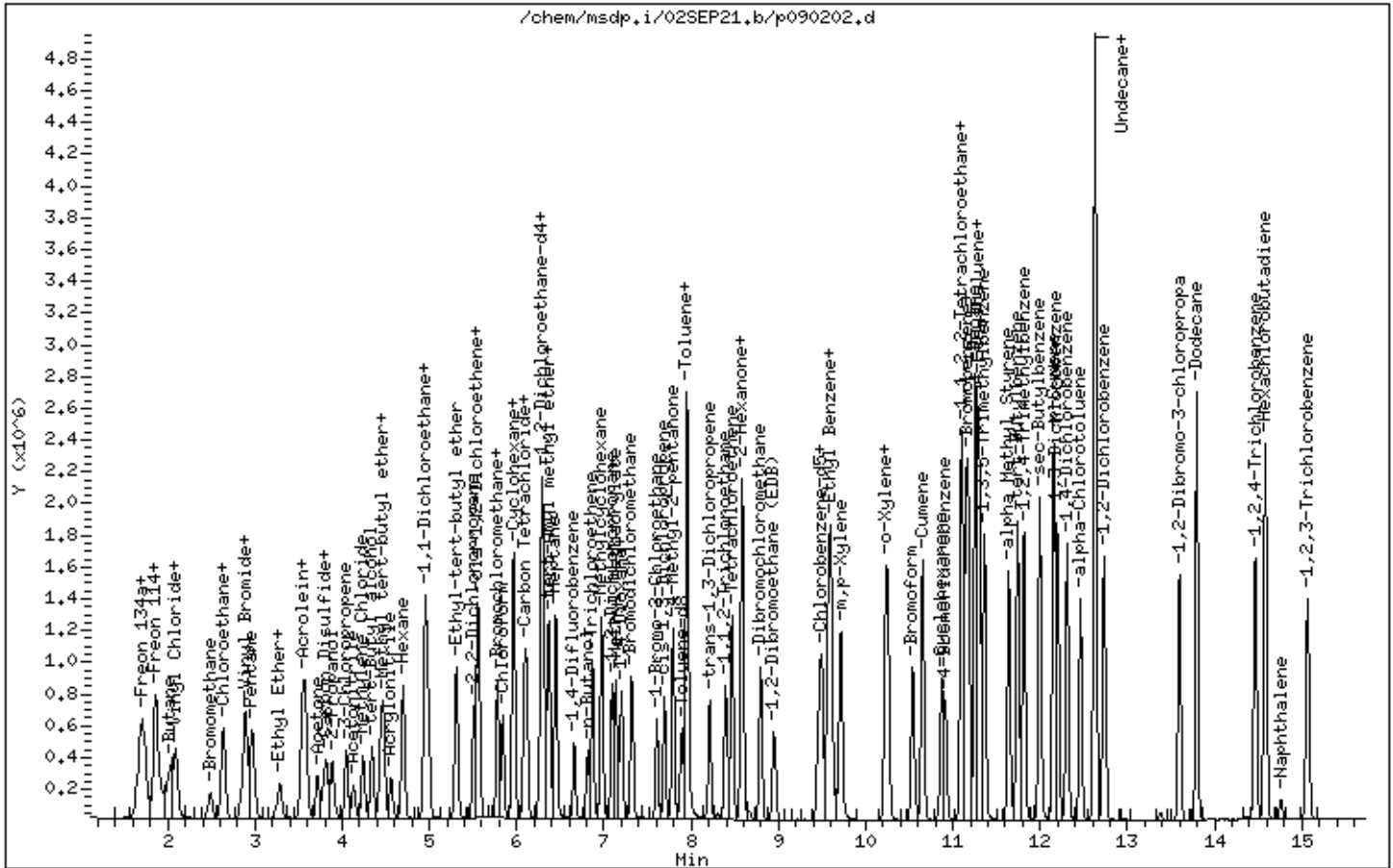
Instrument: msdp.i

Sample Info: 50mL 3018-2192

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	9/2/21 10:23 AM
<b>Lab ID:</b>	2108676A-04A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090203
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	112
1,1,2,2-Tetrachloroethane	79-34-5	100
1,1,2-Trichloroethane	79-00-5	105
1,1-Dichloroethane	75-34-3	101
1,1-Dichloroethene	75-35-4	91
1,2,4-Trichlorobenzene	120-82-1	128
1,2,4-Trimethylbenzene	95-63-6	110
1,2-Dibromoethane (EDB)	106-93-4	108
1,2-Dichlorobenzene	95-50-1	115
1,2-Dichloroethane	107-06-2	135 Q
1,2-Dichloropropane	78-87-5	99
1,3,5-Trimethylbenzene	108-67-8	109
1,3-Butadiene	106-99-0	117
1,3-Dichlorobenzene	541-73-1	118
1,4-Dichlorobenzene	106-46-7	118
1,4-Dioxane	123-91-1	93
2,2,4-Trimethylpentane	540-84-1	101
2-Butanone (Methyl Ethyl Ketone)	78-93-3	83
2-Hexanone	591-78-6	110
2-Propanol	67-63-0	119
3-Chloropropene	107-05-1	83
4-Ethyltoluene	622-96-8	109
4-Methyl-2-pentanone	108-10-1	105
Acetone	67-64-1	100

\* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	9/2/21 10:23 AM
<b>Lab ID:</b>	2108676A-04A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090203
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
alpha-Chlorotoluene	100-44-7	109
Benzene	71-43-2	95
Bromodichloromethane	75-27-4	117
Bromoform	75-25-2	120
Bromomethane	74-83-9	89
Carbon Disulfide	75-15-0	84
Carbon Tetrachloride	56-23-5	124
Chlorobenzene	108-90-7	102
Chloroethane	75-00-3	85
Chloroform	67-66-3	108
Chloromethane	74-87-3	132 Q
cis-1,2-Dichloroethene	156-59-2	93
cis-1,3-Dichloropropene	10061-01-5	96
Cumene	98-82-8	99
Cyclohexane	110-82-7	84
Dibromochloromethane	124-48-1	120
Ethanol	64-17-5	98
Ethyl Benzene	100-41-4	100
Freon 11	75-69-4	123
Freon 113	76-13-1	101
Freon 114	76-14-2	110
Freon 12	75-71-8	119
Heptane	142-82-5	86
Hexachlorobutadiene	87-68-3	140 Q

\* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	9/2/21 10:23 AM
<b>Lab ID:</b>	2108676A-04A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090203
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Hexane	110-54-3	98
m,p-Xylene	108-38-3	101
Methyl tert-butyl ether	1634-04-4	88
Methylene Chloride	75-09-2	128
Naphthalene	91-20-3	110
o-Xylene	95-47-6	97
Propylbenzene	103-65-1	107
Propylene	115-07-1	115
Styrene	100-42-5	97
Tetrachloroethene	127-18-4	112
Tetrahydrofuran	109-99-9	121
Toluene	108-88-3	97
trans-1,2-Dichloroethene	156-60-5	89
trans-1,3-Dichloropropene	10061-02-6	106
Trichloroethene	79-01-6	106
Vinyl Acetate	108-05-4	92
Vinyl Chloride	75-01-4	95

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	122
4-Bromofluorobenzene	460-00-4	70-130	112
Toluene-d8	2037-26-5	70-130	101

\* % Recovery is calculated using unrounded analytical results.

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/02SEP21.b/p090203.d  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Inj Date : 02-SEP-2021 10:23  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 50mL 3018-2173  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msdp.i/02SEP21.b/p21q0519a.m  
 Meth Date : 02-Sep-2021 12:01 lk8g Quant Type: ISTD  
 Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
 Als bottle: 14 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.778	5.778	(1.000)	130	115366	25.0000		80.00- 120.00	100.00
5.778	5.778	(1.000)	128	92109			48.23- 108.23	79.84
5.778	5.778	(1.000)	49	272404			150.57- 210.57	236.12
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.666	6.659	(1.000)	114	419990	25.0000		80.00- 120.00	100.00
6.666	6.659	(1.000)	88	60943			0.00- 45.71	14.51
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.460	9.460	(1.000)	117	411816	25.0000		80.00- 120.00	100.00
9.460	9.460	(1.000)	82	212362			23.78- 83.78	51.57
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.315	6.308	(1.093)	65	193537	30.3980	30.398	80.00- 120.00	100.00
6.308	6.308	(1.092)	67	102508			27.21- 87.21	52.97
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.891	7.891	(1.184)	98	460117	25.2290	25.229	80.00- 120.00	100.00
7.891	7.891	(1.184)	70	44947			0.00- 40.44	9.77



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.184)	100	290991			34.95- 94.95	63.24
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.921	10.921	(1.154)	174	295037	27.8996	27.900	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	340632			95.92- 155.92	115.45
10.914	10.921	(1.154)	176	283540			66.89- 126.89	96.10
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.647	1.646	(0.285)	83	247159	67.6892	67.689	80.00- 120.00	100.00(R)
1.647	1.646	(0.285)	69	161929			59.44- 119.44	65.52
1.745	1.744	(0.302)	51	1086754			419.06- 479.06	439.70
-----								
5 Propylene								
						CAS #: 115-07-1		
1.675	1.674	(0.290)	41	302824	57.3612	57.361	80.00- 120.00	100.00
1.675	1.674	(0.290)	42	202817			35.28- 95.28	66.98
1.675	1.674	(0.290)	39	214580			38.35- 98.35	70.86
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.703	1.702	(0.295)	65	122336	46.7827	46.783	80.00- 120.00	100.00
1.745	1.744	(0.302)	51	1086754			597.63- 657.63	888.33
1.703	1.702	(0.295)	47	125751			33.72- 93.72	102.79
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.717	1.716	(0.297)	85	617756	59.7031	59.703	80.00- 120.00	100.00
1.717	1.716	(0.297)	87	197256			2.37- 62.37	31.93
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.759	1.744	(0.304)	67	67257	65.8045	65.804	80.00- 120.00	100.00(R)
1.745	1.744	(0.302)	51	1086754			1501.01-1561.01	1615.80
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.856	1.856	(0.321)	135	558505	54.9879	54.988	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	173033			2.30- 62.30	30.98
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.870	1.870	(0.324)	43	668948	57.2349	57.235	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	226000			2.44- 62.44	33.78
1.870	1.870	(0.324)	58	18464			0.00- 33.36	2.76
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.940	1.940	(0.336)	50	395476	65.8815	65.882	80.00- 120.00	100.00(R)
1.940	1.940	(0.336)	52	96576			0.00- 56.26	24.42
-----								
18 Butane								
						CAS #: 106-97-8		
2.032	2.032	(0.352)	58	73181	52.6279	52.628	80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
2.032	2.032	(0.352)	43	655805				823.29- 883.29	896.14
-----									
19 Vinyl Chloride									
2.075	2.067	(0.359)	62	343834	47.6123	47.612		80.00- 120.00	100.00
2.075	2.075	(0.359)	64	90726				0.00- 59.69	26.39
-----									
20 1,3-Butadiene									
2.096	2.096	(0.363)	54	339383	58.4315	58.432		80.00- 120.00	100.00
2.096	2.089	(0.363)	39	318862				52.37- 112.37	93.95
-----									
24 Bromomethane									
2.483	2.483	(0.430)	94	207531	44.6934	44.693		80.00- 120.00	100.00
2.483	2.483	(0.430)	96	195729				64.07- 124.07	94.31
-----									
30 Chloroethane									
2.612	2.612	(0.452)	64	110836	42.6819	42.682		80.00- 120.00	100.00
2.612	2.612	(0.452)	66	32219				0.04- 60.04	29.07
2.612	2.612	(0.452)	49	56811				4.54- 64.54	51.26
-----									
31 Isopentane									
2.641	2.633	(0.457)	43	447821	56.6743	56.674		80.00- 120.00	100.00
2.641	2.641	(0.457)	57	244467				34.12- 94.12	54.59
-----									
32 Vinyl Bromide									
2.848	2.841	(0.493)	106	184643	43.0204	43.020		80.00- 120.00	100.00
2.848	2.841	(0.493)	108	188067				69.27- 129.27	101.85
-----									
33 Freon 11									
2.891	2.891	(0.500)	101	674107	61.3074	61.307		80.00- 120.00	100.00
2.891	2.891	(0.500)	103	431999				34.72- 94.72	64.08
-----									
34 Dichlorofluoromethane									
2.906	2.898	(0.503)	67	458688	48.4002	48.400		80.00- 120.00	100.00
2.906	2.898	(0.503)	69	135844				0.84- 60.84	29.62
-----									
35 Pentane									
2.970	2.970	(0.514)	43	695998	54.1904	54.190		80.00- 120.00	100.00
2.970	2.970	(0.514)	57	85786				0.00- 44.98	12.33
2.970	2.970	(0.514)	72	34440				0.00- 37.39	4.95
-----									
38 Ethyl Ether									
3.285	3.285	(0.569)	74	90120	41.5908	41.591		80.00- 120.00	100.00
3.285	3.285	(0.569)	59	205739				163.46- 223.46	228.29
3.285	3.285	(0.569)	45	359300				250.40- 310.40	398.69
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.242	3.242	(0.561)	46	64933	56.7562	56.756	80.00- 120.00	100.00
3.285	3.285	(0.569)	45	356949			511.19- 571.19	549.71
42 Acrolein					CAS #: 107-02-8			
3.536	3.536	(0.612)	55	93957	47.3280	47.328	80.00- 120.00	100.00
3.536	3.536	(0.612)	56	126677			111.10- 171.10	134.82
43 Freon 113					CAS #: 76-13-1			
3.558	3.550	(0.616)	151	413797	50.6524	50.652	80.00- 120.00	100.00
3.558	3.550	(0.616)	153	267490			33.56- 93.56	64.64
3.550	3.550	(0.614)	101	484464			89.21- 149.21	117.08
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.586	3.579	(0.621)	96	222822	45.6575	45.658	80.00- 120.00	100.00
3.586	3.579	(0.621)	98	138057			34.02- 94.02	61.96
3.586	3.579	(0.621)	61	517235			168.77- 228.77	232.13
47 Acetone					CAS #: 67-64-1			
3.715	3.715	(0.643)	58	151836	50.2030	50.203	80.00- 120.00	100.00
3.715	3.715	(0.643)	43	624855			302.95- 362.95	411.53
48 Carbon Disulfide					CAS #: 75-15-0			
3.830	3.822	(0.663)	76	539943	41.9949	41.995	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.794	3.794	(0.657)	142	483147	56.5279	56.528	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	255757			12.22- 72.22	52.94
52 2-Propanol					CAS #: 67-63-0			
3.887	3.887	(0.673)	45	727102	59.6499	59.650	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	146911			0.00- 47.19	20.21
54 3-Chloropropene					CAS #: 107-05-1			
4.052	4.052	(0.701)	76	88710	41.2998	41.300	80.00- 120.00	100.00
4.052	4.045	(0.701)	41	515221			396.19- 456.19	580.79
57 Acetonitrile					CAS #: 75-05-8			
4.123	4.123	(0.714)	41	330773	58.2215	58.221	80.00- 120.00	100.00
4.123	4.123	(0.714)	40	175544			20.95- 80.95	53.07
4.123	4.123	(0.714)	38	35993			0.00- 41.17	10.88
59 Methylene Chloride					CAS #: 75-09-2			
4.238	4.238	(0.733)	49	504039	64.1613	64.161	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	175687			22.03- 82.03	34.86
4.238	4.238	(0.733)	51	151674			0.18- 60.18	30.09

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
4.338	4.338	(0.751)	59	686020	48.2607	48.261	80.00- 120.00	100.00
4.338	4.338	(0.751)	41	182167			0.00- 51.11	26.55
4.338	4.338	(0.751)	57	78748			0.00- 40.49	11.48
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
4.446	4.446	(0.769)	73	620452	43.7930	43.793	80.00- 120.00	100.00
4.446	4.446	(0.769)	57	234846			3.10- 63.10	37.85
4.446	4.446	(0.769)	41	279964			1.28- 61.28	45.12
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
4.482	4.481	(0.776)	98	145414	44.5933	44.593	80.00- 120.00	100.00
4.482	4.474	(0.776)	61	468856			255.84- 315.84	322.43
4.482	4.474	(0.776)	96	229948			127.59- 187.59	158.13
66 Acrylonitrile					CAS #: 107-13-1			
4.560	4.560	(0.789)	52	263545	58.0577	58.058	80.00- 120.00	100.00
4.560	4.560	(0.789)	53	306568			88.05- 148.05	116.32
67 Hexane					CAS #: 110-54-3			
4.697	4.696	(0.813)	57	559226	49.2063	49.206	80.00- 120.00	100.00
4.697	4.696	(0.813)	43	448412			37.52- 97.52	80.18
4.697	4.696	(0.813)	86	53069			0.00- 41.48	9.49
71 1,1-Dichloroethane					CAS #: 75-34-3			
4.969	4.961	(0.860)	63	495416	50.7069	50.707	80.00- 120.00	100.00
4.969	4.961	(0.860)	65	141215			0.00- 59.70	28.50
72 Isopropyl ether					CAS #: 108-20-3			
4.954	4.947	(0.857)	45	1540644	58.2876	58.288	80.00- 120.00	100.00
4.954	4.954	(0.857)	87	199063			0.00- 48.18	12.92
4.954	4.947	(0.857)	59	129498			0.00- 40.15	8.41
73 Vinyl Acetate					CAS #: 108-05-4			
4.997	4.997	(0.865)	86	57458	45.7607	45.761	80.00- 120.00	100.00
4.997	4.990	(0.865)	43	1406912			2432.48-2492.48	2448.56
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
5.305	5.305	(0.918)	59	1095377	47.8748	47.875	80.00- 120.00	100.00
5.305	5.305	(0.918)	87	306919			1.00- 61.00	28.02
5.305	5.305	(0.918)	41	276780			0.00- 48.73	25.27
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.513	5.506	(0.954)	77	460309	53.0558	53.056	80.00- 120.00	100.00
5.513	5.506	(0.954)	79	149754			2.28- 62.28	32.53
5.513	5.513	(0.954)	97	101927			0.00- 53.93	22.14

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.549	5.549	(0.960)	98	157594	46.5700	46.570	80.00- 120.00	100.00
5.549	5.549	(0.960)	96	250136			125.75- 185.75	158.72
5.549	5.549	(0.960)	61	631412			332.40- 392.40	400.66
86 2-Butanone					CAS #: 78-93-3			
5.556	5.556	(0.962)	72	107801	41.3415	41.342	80.00- 120.00	100.00
5.563	5.563	(0.963)	43	2052764			1214.50-1274.50	1904.21
5.556	5.556	(0.962)	57	61475			14.68- 74.68	57.03
87 Ethyl Acetate					CAS #: 141-78-6			
5.570	5.570	(0.964)	45	161848	62.4015	62.401	80.00- 120.00	100.00
5.549	5.549	(0.960)	61	631412			452.04- 512.04	390.12
5.578	5.570	(0.965)	70	54349			22.77- 82.77	33.58
89 Tetrahydrofuran					CAS #: 109-99-9			
5.778	5.771	(1.000)	42	525139	60.5540	60.554	80.00- 120.00	100.00
5.778	5.778	(1.000)	71	91497			0.00- 55.82	17.42
5.778	5.771	(1.000)	72	94271			0.00- 57.59	17.95
92 Chloroform					CAS #: 67-66-3			
5.843	5.835	(1.011)	83	539908	53.7876	53.788	80.00- 120.00	100.00
5.843	5.835	(1.011)	85	347283			34.70- 94.70	64.32
94 Cyclohexane					CAS #: 110-82-7			
5.964	5.957	(1.032)	84	305682	42.1224	42.122	80.00- 120.00	100.00
5.957	5.957	(1.031)	56	628589			142.57- 202.57	205.63
5.957	5.957	(1.031)	41	403378			62.09- 122.09	131.96
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
5.972	5.971	(1.033)	97	638163	56.2770	56.277	80.00- 120.00	100.00
5.972	5.971	(1.033)	99	401233			34.02- 94.02	62.87
97 Carbon Tetrachloride					CAS #: 56-23-5			
6.093	6.086	(1.055)	119	661239	62.1737	62.174	80.00- 120.00	100.00
6.093	6.086	(1.055)	117	654609			70.64- 130.64	99.00
99 1,1-Dichloropropene					CAS #: 563-58-6			
6.122	6.115	(0.918)	110	142872	49.9754	49.975	80.00- 120.00	100.00
6.122	6.115	(0.918)	75	341345			226.85- 286.85	238.92
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
6.280	6.279	(1.087)	57	1997221	50.5606	50.560	80.00- 120.00	100.00
6.280	6.279	(1.087)	56	693664			2.24- 62.24	34.73
6.280	6.279	(1.087)	41	619256			0.00- 54.39	31.01

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
6.301	6.301	(0.945)	78	657597	47.4474	47.447	80.00- 120.00	100.00
6.301	6.301	(0.945)	77	153446			0.00- 52.90	23.33
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.358	6.358	(0.954)	87	191268	48.9426	48.943	80.00- 120.00	100.00
6.358	6.358	(0.954)	73	720136			372.79- 432.79	376.51
6.358	6.358	(0.954)	55	336826			112.09- 172.09	176.10
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.380	6.380	(0.957)	62	486935	67.5206	67.521	80.00- 120.00	100.00(R)
6.380	6.380	(0.957)	64	146921			0.79- 60.79	30.17
-----								
107 Heptane					CAS #: 142-82-5			
6.451	6.444	(0.968)	71	237383	43.2348	43.235	80.00- 120.00	100.00
6.444	6.444	(0.967)	43	923022			226.53- 286.53	388.83
6.444	6.444	(0.967)	57	400508			100.85- 160.85	168.72
-----								
110 n-Butanol					CAS #: 71-36-3			
6.810	6.809	(1.021)	56	299193	59.3769	59.377	80.00- 120.00	100.00
6.810	6.809	(1.021)	41	253379			40.99- 100.99	84.69
6.810	6.809	(1.021)	43	203789			27.38- 87.38	68.11
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.867	6.867	(1.030)	95	358292	53.2760	53.276	80.00- 120.00	100.00
6.867	6.867	(1.030)	130	398942			76.29- 136.29	111.35
6.867	6.867	(1.030)	97	236809			33.63- 93.63	66.09
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.096	7.096	(1.064)	63	350908	49.3863	49.386	80.00- 120.00	100.00
7.096	7.096	(1.064)	62	258672			41.07- 101.07	73.72
7.096	7.096	(1.064)	41	289872			22.53- 82.53	82.61
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.139	7.139	(0.755)	69	254842	45.0375	45.037	80.00- 120.00	100.00
7.139	7.139	(0.755)	41	717515			179.84- 239.84	281.55
7.139	7.139	(0.755)	100	106817			9.59- 69.59	41.92
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.175	7.175	(1.076)	88	175051	46.3572	46.357	80.00- 120.00	100.00
7.175	7.175	(1.076)	58	200071			68.28- 128.28	114.29
7.175	7.175	(1.076)	57	74442			2.68- 62.68	42.53
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.211	7.211	(0.762)	174	356820	58.3892	58.389	80.00- 120.00	100.00
7.204	7.203	(0.761)	93	320671			60.09- 120.09	89.87

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
7.204	7.203	(0.761)	95	281247		48.38- 108.38	78.82		
-----									
122 Bromodichloromethane CAS #: 75-27-4									
7.318	7.318	(1.098)	83	611134	58.6081	58.608	80.00- 120.00	100.00	
7.318	7.318	(1.098)	85	394963		35.24- 95.24	64.63		
-----									
126 cis-1,3-Dichloropropene CAS #: 10061-01-5									
7.698	7.698	(1.155)	75	424956	48.2387	48.239	80.00- 120.00	100.00	
7.698	7.698	(1.155)	77	135916		2.42- 62.42	31.98		
7.691	7.690	(1.154)	39	391846		37.16- 97.16	92.21		
-----									
127 Methylcyclohexane CAS #: 108-87-2									
6.974	6.974	(1.046)	83	439299	45.1399	45.140	80.00- 120.00	100.00	
6.974	6.974	(1.046)	98	218760		15.78- 75.78	49.80		
6.974	6.974	(1.046)	55	633788		84.64- 144.64	144.27		
-----									
131 4-Methyl-2-pentanone CAS #: 108-10-1									
7.798	7.798	(1.170)	58	380239	52.6978	52.698	80.00- 120.00	100.00	
7.798	7.791	(1.170)	43	1279277		242.35- 302.35	336.44		
7.798	7.798	(1.170)	85	108747		3.24- 63.24	28.60		
-----									
137 Toluene CAS #: 108-88-3									
7.949	7.948	(1.192)	91	927493	48.5053	48.505	80.00- 120.00	100.00	
7.949	7.948	(1.192)	92	538643		28.38- 88.38	58.08		
-----									
136 Octane CAS #: 111-65-9									
7.949	7.948	(1.192)	57	435867	53.4601	53.460	80.00- 120.00	100.00	
7.949	7.948	(1.192)	85	311834		56.00- 116.00	71.54		
7.949	7.948	(1.192)	43	1358060		228.66- 288.66	311.58		
-----									
139 trans-1,3-Dichloropropene CAS #: 10061-02-6									
8.214	8.213	(0.868)	75	430537	53.1258	53.126	80.00- 120.00	100.00	
8.214	8.213	(0.868)	77	133726		1.24- 61.24	31.06		
8.214	8.213	(0.868)	39	363165		34.11- 94.11	84.35		
-----									
141 1,1,2-Trichloroethane CAS #: 79-00-5									
8.400	8.400	(0.888)	97	352132	52.5692	52.569	80.00- 120.00	100.00	
8.400	8.400	(0.888)	99	219418		31.96- 91.96	62.31		
8.400	8.400	(0.888)	83	283926		52.93- 112.93	80.63		
-----									
142 Tetrachloroethene CAS #: 127-18-4									
8.464	8.464	(0.895)	166	525952	56.0380	56.038	80.00- 120.00	100.00	
8.464	8.464	(0.895)	129	408078		47.84- 107.84	77.59		
8.464	8.464	(0.895)	131	389947		45.29- 105.29	74.14		
-----									

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	
143 2-Hexanone				CAS #: 591-78-6				
8.586	8.586	(0.908)	58	524049	54.7587	54.759	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	1243746			162.87- 222.87	237.33
8.586	8.586	(0.908)	100	70815			0.00- 45.94	13.51
-----				-----				
144 1,3-Dichloropropane				CAS #: 142-28-9				
8.579	8.579	(1.287)	76	451863	49.7619	49.762	80.00- 120.00	100.00
8.579	8.579	(1.287)	41	769389			94.99- 154.99	170.27
8.579	8.579	(1.287)	78	147044			2.05- 62.05	32.54
-----				-----				
146 Dibromochloromethane				CAS #: 124-48-1				
8.801	8.801	(0.930)	129	748801	59.8294	59.829	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	575759			47.45- 107.45	76.89
-----				-----				
148 1,2-Dibromoethane (EDB)				CAS #: 106-93-4				
8.951	8.951	(0.946)	107	581079	54.0871	54.087	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	553198			64.21- 124.21	95.20
-----				-----				
151 1-Bromo-2-Chloroethane				CAS #: 107-04-0				
7.605	7.605	(1.141)	63	659136	50.5588	50.559	80.00- 120.00	100.00
7.605	7.605	(1.141)	65	183873			0.00- 59.64	27.90
7.612	7.605	(1.142)	144	70666			0.00- 39.63	10.72
-----				-----				
154 Chlorobenzene				CAS #: 108-90-7				
9.496	9.496	(1.004)	112	838366	51.2682	51.268	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	261154			1.74- 61.74	31.15
9.496	9.496	(1.004)	77	425153			25.04- 85.04	50.71
-----				-----				
155 Ethyl Benzene				CAS #: 100-41-4				
9.567	9.567	(1.011)	106	428169	50.0737	50.074	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	1272469			273.74- 333.74	297.19
-----				-----				
156 Nonane				CAS #: 111-84-2				
9.596	9.596	(1.014)	43	1421045	64.5924	64.592	80.00- 120.00	100.00
9.596	9.596	(1.014)	57	977061			54.16- 114.16	68.76
9.603	9.603	(1.015)	85	221844			0.00- 53.90	15.61
-----				-----				
157 1,1,1,2-Tetrachloroethane				CAS #: 630-20-6				
9.596	9.596	(1.014)	131	439442	47.9974	47.997	80.00- 120.00	100.00
9.460	9.460	(1.000)	117	411816			57.42- 117.42	93.71
9.596	9.596	(1.014)	95	163195			5.70- 65.70	37.14
-----				-----				
158 m,p-Xylene				CAS #: 108-38-3				
9.718	9.718	(1.027)	106	539613	50.3870	50.387	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	1038350			163.73- 223.73	192.43
-----				-----				



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene					CAS #: 95-47-6			
10.226	10.226	(1.081)	106	500190	48.7477	48.748	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	998397			177.45- 237.45	199.60
-----								
165 Styrene					CAS #: 100-42-5			
10.255	10.255	(1.084)	104	853670	48.6479	48.648	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	414278			17.88- 77.88	48.53
-----								
167 Bromoform					CAS #: 75-25-2			
10.542	10.541	(1.114)	173	738815	59.8885	59.888	80.00- 120.00	100.00
10.542	10.541	(1.114)	171	380948			21.25- 81.25	51.56
-----								
168 Cumene					CAS #: 98-82-8			
10.649	10.649	(1.126)	105	1602737	49.7242	49.724	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	471036			0.00- 58.52	29.39
10.649	10.649	(1.126)	51	275116			0.00- 43.00	17.17
-----								
169 Cyclohexanone					CAS #: 108-94-1			
10.871	10.871	(1.149)	55	699372	60.6712	60.671	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	178667			1.94- 61.94	25.55
10.871	10.871	(1.149)	42	512251			37.89- 97.89	73.24
-----								
175 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
11.100	11.100	(1.173)	83	787023	50.0262	50.026	80.00- 120.00	100.00
11.100	11.100	(1.173)	85	505920			35.20- 95.20	64.28
-----								
177 Bromobenzene					CAS #: 108-86-1			
11.100	11.100	(1.173)	156	564983	57.6325	57.632	80.00- 120.00	100.00
11.107	11.100	(1.174)	158	545281			67.21- 127.21	96.51
11.172	11.172	(1.181)	77	320413			29.02- 89.02	56.71
-----								
178 Propylbenzene					CAS #: 103-65-1			
11.150	11.150	(1.179)	120	512058	53.5776	53.578	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	1944259			366.49- 426.49	379.69
11.150	11.150	(1.179)	105	75693			0.00- 44.85	14.78
-----								
179 1,2,3-Trichloropropane					CAS #: 96-18-4			
11.179	11.179	(1.182)	110	276735	55.1899	55.190	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	829628			280.55- 340.55	299.79
11.100	11.100	(1.173)	61	148679			15.49- 75.49	53.73
-----								
181 trans-1,4-Dichloro-2-butene					CAS #: 110-57-6			
11.179	11.179	(1.182)	53	307903	93.6695	93.669	80.00- 120.00	100.00(R)
11.172	11.172	(1.181)	89	175816			49.11- 109.11	57.10
11.179	11.179	(1.182)	75	829628			426.44- 486.44	269.44
-----								

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane					CAS #: 124-18-5				
11.251	11.251	(1.189)	57	1346294	53.6972	53.697	80.00- 120.00	100.00	
11.251	11.251	(1.189)	71	301755			0.00- 57.66	22.41	
11.258	11.258	(1.190)	142	50620			0.00- 34.09	3.76	
-----									
183 4-Ethyltoluene					CAS #: 622-96-8				
11.287	11.286	(1.193)	120	568384	54.6860	54.686	80.00- 120.00	100.00	
11.287	11.286	(1.193)	105	1708132			284.55- 344.55	300.52	
-----									
184 2-Chlorotoluene					CAS #: 95-49-8				
11.308	11.308	(1.195)	126	448341	55.0942	55.094	80.00- 120.00	100.00	
11.308	11.308	(1.195)	91	1483739			315.17- 375.17	330.94	
11.301	11.301	(1.195)	65	230407			21.55- 81.55	51.39	
-----									
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8				
11.365	11.365	(1.201)	120	777022	54.2995	54.300	80.00- 120.00	100.00	
11.365	11.365	(1.201)	105	1477118			164.93- 224.93	190.10	
-----									
188 alpha Methyl Styrene					CAS #: 98-83-9				
11.645	11.644	(1.231)	118	743420	52.2952	52.295	80.00- 120.00	100.00	
11.645	11.644	(1.231)	103	414971			25.30- 85.30	55.82	
-----									
189 tert-Butylbenzene					CAS #: 98-06-6				
11.738	11.738	(1.241)	119	1501018	56.0817	56.082	80.00- 120.00	100.00	
11.738	11.738	(1.241)	134	362510			0.00- 54.25	24.15	
11.738	11.738	(1.241)	91	896256			31.27- 91.27	59.71	
-----									
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6				
11.817	11.816	(1.249)	105	1483827	54.9364	54.936	80.00- 120.00	100.00	
11.817	11.816	(1.249)	120	742857			19.05- 79.05	50.06	
-----									
192 sec-Butylbenzene					CAS #: 135-98-8				
11.996	11.995	(1.268)	134	471660	56.6992	56.699	80.00- 120.00	100.00	
11.996	11.995	(1.268)	105	2114887			437.55- 497.55	448.39	
11.996	11.995	(1.268)	91	329143			40.76- 100.76	69.78	
-----									
194 p-Cymene					CAS #: 99-87-6				
12.160	12.160	(1.285)	119	2051600	55.7993	55.799	80.00- 120.00	100.00	
12.160	12.160	(1.285)	134	531598			0.00- 55.54	25.91	
12.153	12.160	(1.285)	91	438081			0.00- 51.48	21.35	
-----									
195 1,3-Dichlorobenzene					CAS #: 541-73-1				
12.196	12.196	(1.289)	146	1086555	58.7725	58.772	80.00- 120.00	100.00	
12.196	12.196	(1.289)	148	701239			33.21- 93.21	64.54	
12.196	12.196	(1.289)	111	434469			11.31- 71.31	39.99	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
12.311	12.311	(1.301)	146	1098669	58.8079	58.808	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	701340			33.90- 93.90	63.84
12.311	12.311	(1.301)	111	419990			9.45- 69.45	38.23
-----								
199 alpha-Chlorotoluene					CAS #: 100-44-7			
12.461	12.461	(1.317)	91	1395720	54.4038	54.404	80.00- 120.00	100.00
12.461	12.461	(1.317)	126	332915			0.00- 53.26	23.85
-----								
201 Undecane					CAS #: 1120-21-4			
12.640	12.640	(1.336)	57	1726242	59.6067	59.607	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1840650			58.12- 118.12	106.63
-----								
202 Butylbenzene					CAS #: 104-51-8			
12.626	12.626	(1.335)	134	525067	56.2275	56.227	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	1729890			314.79- 374.79	329.46
12.626	12.626	(1.335)	92	892323			154.29- 214.29	169.94
-----								
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
12.733	12.740	(1.346)	146	1044014	57.5921	57.592	80.00- 120.00	100.00
12.733	12.740	(1.346)	148	672627			33.84- 93.84	64.43
12.733	12.733	(1.346)	111	428172			12.73- 72.73	41.01
-----								
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
13.600	13.600	(1.438)	157	632415	57.5998	57.600	80.00- 120.00	100.00
13.593	13.600	(1.437)	75	527555			52.48- 112.48	83.42
13.600	13.600	(1.438)	155	490445			47.41- 107.41	77.55
-----								
207 Dodecane					CAS #: 112-40-3			
13.801	13.801	(1.459)	57	1705911	74.3158	74.316	80.00- 120.00	100.00(R)
13.801	13.801	(1.459)	43	1666371			52.87- 112.87	97.68
-----								
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
14.467	14.467	(1.529)	180	994066	74.2202	74.220	80.00- 120.00	100.00
14.467	14.467	(1.529)	182	963990			65.33- 125.33	96.97
-----								
215 Hexachlorobutadiene					CAS #: 87-68-3			
14.582	14.581	(1.541)	225	765020	81.1612	81.161	80.00- 120.00	100.00(R)
14.582	14.581	(1.541)	223	479212			33.17- 93.17	62.64
-----								
216 Naphthalene					CAS #: 91-20-3			
14.761	14.768	(1.560)	128	217434	6.35224	6.352	80.00- 120.00	100.00
14.768	14.768	(1.561)	127	28516			0.00- 42.88	13.12
-----								
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
15.069	15.068	(1.593)	180	921443	77.8241	77.824	80.00- 120.00	100.00(R)

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
15.069	15.068	(1.593)	182	871288			65.75- 125.75	94.56
15.061	15.068	(1.592)	145	310686			5.23- 65.23	33.72

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QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 02-SEP-2021
Lab File ID: p090203.d	Calibration Time: 09:55
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msdp.i/02SEP21.b/p21q0519a.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	111368	66821	155915	115366	3.59
108 1,4-Difluorobenze	392899	235739	550059	419990	6.90
153 Chlorobenzene-d5	382253	229352	535154	411816	7.73

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Report Date: 02-Sep-2021 12:01

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 02SEP21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: LCS Client Smp ID: LCS  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: LCS  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AT20LCS\_new.sub  
Method File: /chem/msdp.i/02SEP21.b/p21q0519a.m  
Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	67.689	135.38*	70-130
5 Propylene	50.000	57.361	114.72	70-130
7 1,1-Difluoroethan	50.000	46.783	93.57	70-130
8 Freon 12	50.000	59.703	119.41	70-130
9 Chlorodifluoromet	50.000	65.804	131.61*	70-130
10 Freon 114	50.000	54.988	109.98	70-130
12 Isobutane	50.000	57.235	114.47	70-130
15 Chloromethane	50.000	65.882	131.76*	70-130
18 Butane	50.000	52.628	105.26	70-130
19 Vinyl Chloride	50.000	47.612	95.22	70-130
20 1,3-Butadiene	50.000	58.432	116.86	70-130
24 Bromomethane	50.000	44.693	89.39	70-130
30 Chloroethane	50.000	42.682	85.36	70-130
31 Isopentane	50.000	56.674	113.35	70-130
32 Vinyl Bromide	50.000	43.020	86.04	70-130
33 Freon 11	50.000	61.307	122.61	70-130
34 Dichlorofluoromet	50.000	48.400	96.80	70-130
35 Pentane	50.000	54.190	108.38	70-130
38 Ethyl Ether	50.000	41.591	83.18	70-130
39 Ethanol	58.000	56.756	97.86	70-130
42 Acrolein	58.000	47.328	81.60	70-130
43 Freon 113	50.000	50.652	101.30	70-130
44 1,1-Dichloroethen	50.000	45.658	91.32	70-130
47 Acetone	50.000	50.203	100.41	70-130
48 Carbon Disulfide	50.000	41.995	83.99	70-130
49 Iodomethane	50.000	56.528	113.06	70-130
52 2-Propanol	50.000	59.650	119.30	70-130
54 3-Chloropropene	50.000	41.300	82.60	70-130
57 Acetonitrile	50.000	58.221	116.44	70-130
59 Methylene Chlorid	50.000	64.161	128.32	70-130
62 tert-Butyl alcoho	50.000	48.261	96.52	70-130
63 Methyl tert-butyl	50.000	43.793	87.59	70-130
64 trans-1,2-Dichlor	50.000	44.593	89.19	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	58.058	116.12	70-130
67 Hexane	50.000	49.206	98.41	70-130
71 1,1-Dichloroethan	50.000	50.707	101.41	70-130
72 Isopropyl ether	50.000	58.288	116.58	70-130
73 Vinyl Acetate	50.000	45.761	91.52	70-130
79 Ethyl-tert-butyl	50.000	47.875	95.75	70-130
84 2,2-Dichloropropa	50.000	53.056	106.11	70-130
85 cis-1,2-Dichloroe	50.000	46.570	93.14	70-130
86 2-Butanone	50.000	41.342	82.68	70-130
87 Ethyl Acetate	50.000	62.401	124.80	70-130
89 Tetrahydrofuran	50.000	60.554	121.11	70-130
92 Chloroform	50.000	53.788	107.58	70-130
94 Cyclohexane	50.000	42.122	84.24	70-130
96 1,1,1-Trichloroet	50.000	56.277	112.55	70-130
99 1,1-Dichloroprop	50.000	49.975	99.95	70-130
97 Carbon Tetrachlor	50.000	62.174	124.35	70-130
101 2,2,4-Trimethylpe	50.000	50.560	101.12	70-130
102 Benzene	50.000	47.447	94.89	70-130
105 tert-Amyl methyl	50.000	48.943	97.89	70-130
106 1,2-Dichloroethan	50.000	67.521	135.04*	70-130
107 Heptane	50.000	43.235	86.47	70-130
110 n-Butanol	50.000	59.377	118.75	70-130
111 Trichloroethene	50.000	53.276	106.55	70-130
118 Dibromomethane	50.000	58.389	116.78	70-130
127 Methylcyclohexane	50.000	45.140	90.28	70-130
114 1,2-Dichloropropa	50.000	49.386	98.77	70-130
116 Methyl Methacryla	50.000	45.037	90.07	70-130
117 1,4-Dioxane	50.000	46.357	92.71	70-130
122 Bromodichlorometh	50.000	58.608	117.22	70-130
126 cis-1,3-Dichlorop	50.000	48.239	96.48	70-130
131 4-Methyl-2-pentan	50.000	52.698	105.40	70-130
136 Octane	50.000	53.460	106.92	70-130
137 Toluene	50.000	48.505	97.01	70-130
139 trans-1,3-Dichlor	50.000	53.126	106.25	70-130
141 1,1,2-Trichloroet	50.000	52.569	105.14	70-130
142 Tetrachloroethene	50.000	56.038	112.08	70-130
143 2-Hexanone	50.000	54.759	109.52	70-130
144 1,3-Dichloropropa	50.000	49.762	99.52	70-130
146 Dibromochlorometh	50.000	59.829	119.66	70-130
148 1,2-Dibromoethane	50.000	54.087	108.17	70-130
151 1-Bromo-2-Chloroe	50.000	50.559	101.12	70-130
154 Chlorobenzene	50.000	51.268	102.54	70-130
155 Ethyl Benzene	50.000	50.074	100.15	70-130
156 Nonane	50.000	64.592	129.18	70-130
157 1,1,1,2-Tetrachlo	50.000	47.997	95.99	70-130
158 m,p-Xylene	50.000	50.387	100.77	70-130
164 o-Xylene	50.000	48.748	97.50	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	48.648	97.30	70-130
167 Bromoform	50.000	59.888	119.78	70-130
168 Cumene	50.000	49.724	99.45	70-130
169 Cyclohexanone	50.000	60.671	121.34	70-130
175 1,1,2,2-Tetrachlo	50.000	50.026	100.05	70-130
177 Bromobenzene	50.000	57.632	115.27	70-130
178 Propylbenzene	50.000	53.578	107.16	70-130
179 1,2,3-Trichloropr	50.000	55.190	110.38	70-130
181 trans-1,4-Dichlor	50.000	93.669	187.34*	70-130
182 Decane	50.000	53.697	107.39	70-130
183 4-Ethyltoluene	50.000	54.686	109.37	70-130
184 2-Chlorotoluene	50.000	55.094	110.19	70-130
185 1,3,5-Trimethylbe	50.000	54.300	108.60	70-130
188 alpha Methyl Styr	50.000	52.295	104.59	70-130
189 tert-Butylbenzene	50.000	56.082	112.16	70-130
190 1,2,4-Trimethylbe	50.000	54.936	109.87	70-130
192 sec-Butylbenzene	50.000	56.699	113.40	70-130
194 p-Cymene	50.000	55.799	111.60	70-130
195 1,3-Dichlorobenze	50.000	58.772	117.55	70-130
196 1,4-Dichlorobenze	50.000	58.808	117.62	70-130
199 alpha-Chlorotolue	50.000	54.404	108.81	70-130
201 Undecane	50.000	59.607	119.21	70-130
202 Butylbenzene	50.000	56.227	112.45	70-130
204 1,2-Dichlorobenze	50.000	57.592	115.18	70-130
206 1,2-Dibromo-3-chl	50.000	57.600	115.20	70-130
207 Dodecane	50.000	74.316	148.63*	70-130
213 1,2,4-Trichlorobe	58.000	74.220	127.97	70-130
215 Hexachlorobutadie	58.000	81.161	139.93*	70-130
216 Naphthalene	5.800	6.352	109.52	60-140
222 1,2,3-Trichlorobe	58.000	77.824	134.18*	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	30.398	121.59	70-130
\$ 134 Toluene-d8	25.000	25.229	100.92	70-130
\$ 170 4-Bromofluorobenz	25.000	27.900	111.60	70-130



Date : 02-SEP-2021 10:23

Client ID: LCS

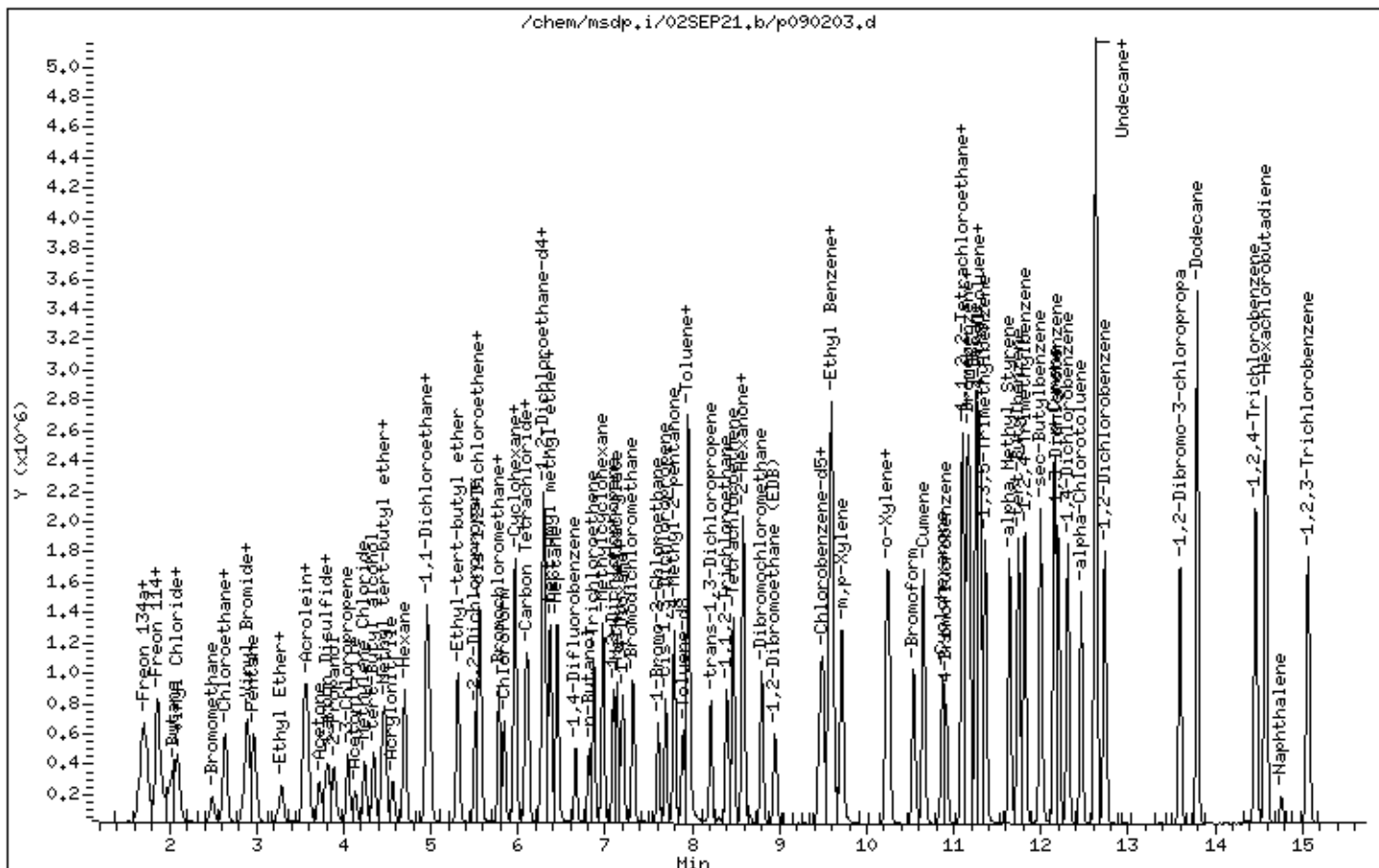
Instrument: msdp.i

Sample Info: 50mL 3018-2173

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	9/2/21 10:51 AM
<b>Lab ID:</b>	2108676A-04AA	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090204
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	106
1,1,2,2-Tetrachloroethane	79-34-5	98
1,1,2-Trichloroethane	79-00-5	104
1,1-Dichloroethane	75-34-3	97
1,1-Dichloroethene	75-35-4	86
1,2,4-Trichlorobenzene	120-82-1	134 Q
1,2,4-Trimethylbenzene	95-63-6	108
1,2-Dibromoethane (EDB)	106-93-4	110
1,2-Dichlorobenzene	95-50-1	116
1,2-Dichloroethane	107-06-2	133 Q
1,2-Dichloropropane	78-87-5	100
1,3,5-Trimethylbenzene	108-67-8	108
1,3-Butadiene	106-99-0	110
1,3-Dichlorobenzene	541-73-1	117
1,4-Dichlorobenzene	106-46-7	116
1,4-Dioxane	123-91-1	92
2,2,4-Trimethylpentane	540-84-1	96
2-Butanone (Methyl Ethyl Ketone)	78-93-3	80
2-Hexanone	591-78-6	110
2-Propanol	67-63-0	113
3-Chloropropene	107-05-1	77
4-Ethyltoluene	622-96-8	107
4-Methyl-2-pentanone	108-10-1	105
Acetone	67-64-1	96

\* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	9/2/21 10:51 AM
<b>Lab ID:</b>	2108676A-04AA	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090204
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
alpha-Chlorotoluene	100-44-7	108
Benzene	71-43-2	93
Bromodichloromethane	75-27-4	116
Bromoform	75-25-2	120
Bromomethane	74-83-9	85
Carbon Disulfide	75-15-0	81
Carbon Tetrachloride	56-23-5	121
Chlorobenzene	108-90-7	103
Chloroethane	75-00-3	82
Chloroform	67-66-3	102
Chloromethane	74-87-3	121
cis-1,2-Dichloroethene	156-59-2	91
cis-1,3-Dichloropropene	10061-01-5	99
Cumene	98-82-8	100
Cyclohexane	110-82-7	82
Dibromochloromethane	124-48-1	120
Ethanol	64-17-5	92
Ethyl Benzene	100-41-4	100
Freon 11	75-69-4	115
Freon 113	76-13-1	97
Freon 114	76-14-2	105
Freon 12	75-71-8	112
Heptane	142-82-5	87
Hexachlorobutadiene	87-68-3	146 Q

\* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	9/2/21 10:51 AM
<b>Lab ID:</b>	2108676A-04AA	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdp.i / p090204
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Hexane	110-54-3	96
m,p-Xylene	108-38-3	101
Methyl tert-butyl ether	1634-04-4	85
Methylene Chloride	75-09-2	121
Naphthalene	91-20-3	117
o-Xylene	95-47-6	97
Propylbenzene	103-65-1	107
Propylene	115-07-1	108
Styrene	100-42-5	98
Tetrachloroethene	127-18-4	113
Tetrahydrofuran	109-99-9	115
Toluene	108-88-3	96
trans-1,2-Dichloroethene	156-60-5	89
trans-1,3-Dichloropropene	10061-02-6	108
Trichloroethene	79-01-6	108
Vinyl Acetate	108-05-4	83
Vinyl Chloride	75-01-4	84

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	112
4-Bromofluorobenzene	460-00-4	70-130	112
Toluene-d8	2037-26-5	70-130	99

\* % Recovery is calculated using unrounded analytical results.

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/02SEP21.b/p090204.d  
Lab Smp Id: LCSD Client Smp ID: LCSD  
Inj Date : 02-SEP-2021 10:51  
Operator : LD Inst ID: msdp.i  
Smp Info : 50mL 3018-2173  
Misc Info : 50ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/02SEP21.b/p21q0519a.m  
Meth Date : 02-Sep-2021 12:01 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
Als bottle: 14 QC Sample: LCSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane					CAS #: 74-97-5			
5.778	5.778	(1.000)	130	125942	25.0000	80.00- 120.00	100.00		
5.778	5.778	(1.000)	128	97014		48.23- 108.23	77.03		
5.778	5.778	(1.000)	49	281820		150.57- 210.57	223.77		
-----									
* 108	1,4-Difluorobenzene					CAS #: 540-36-3			
6.659	6.659	(1.000)	114	442624	25.0000	80.00- 120.00	100.00		
6.659	6.659	(1.000)	88	64972		0.00- 45.71	14.68		
-----									
* 153	Chlorobenzene-d5					CAS #: 3114-55-4			
9.460	9.460	(1.000)	117	431027	25.0000	80.00- 120.00	100.00		
9.460	9.460	(1.000)	82	221008		23.78- 83.78	51.27		
-----									
\$ 104	1,2-Dichloroethane-d4					CAS #: 17060-07-0			
6.315	6.308	(1.093)	65	195365	28.1084	28.108 80.00- 120.00	100.00		
6.308	6.308	(1.092)	67	104067		27.21- 87.21	53.27		
-----									
\$ 134	Toluene-d8					CAS #: 2037-26-5			
7.891	7.891	(1.185)	98	477665	24.8519	24.852 80.00- 120.00	100.00		
7.891	7.891	(1.185)	70	45893		0.00- 40.44	9.61		

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.891	7.891	(1.185)	100	305462			34.95- 94.95	63.95
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.914	10.921	(1.154)	174	309938	28.0024	28.002	80.00- 120.00	100.00
10.914	10.914	(1.154)	95	363875			95.92- 155.92	117.40
10.921	10.921	(1.154)	176	304552			66.89- 126.89	98.26
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.646	1.646	(0.285)	83	254390	63.8189	63.819	80.00- 120.00	100.00
1.646	1.646	(0.285)	69	169422			59.44- 119.44	66.60
1.744	1.744	(0.302)	51	1103429			419.06- 479.06	433.76
-----								
5 Propylene								
						CAS #: 115-07-1		
1.688	1.674	(0.292)	41	312557	54.2331	54.233	80.00- 120.00	100.00
1.688	1.674	(0.292)	42	209949			35.28- 95.28	67.17
1.688	1.674	(0.292)	39	222648			38.35- 98.35	71.23
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.702	1.702	(0.295)	65	132490	46.4111	46.411	80.00- 120.00	100.00
1.744	1.744	(0.302)	51	1103429			597.63- 657.63	832.84
1.702	1.702	(0.295)	47	125614			33.72- 93.72	94.81
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.716	1.716	(0.297)	85	635650	56.2738	56.274	80.00- 120.00	100.00
1.716	1.716	(0.297)	87	204118			2.37- 62.37	32.11
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.758	1.744	(0.304)	67	69671	62.4417	62.442	80.00- 120.00	100.00
1.744	1.744	(0.302)	51	1103429			1501.01-1561.01	1583.76
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.856	1.856	(0.321)	135	583456	52.6205	52.620	80.00- 120.00	100.00
1.856	1.856	(0.321)	137	183105			2.30- 62.30	31.38
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.870	1.870	(0.324)	43	687419	53.8762	53.876	80.00- 120.00	100.00
1.870	1.870	(0.324)	42	226653			2.44- 62.44	32.97
1.870	1.870	(0.324)	58	19216			0.00- 33.36	2.80
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.940	1.940	(0.336)	50	397246	60.6192	60.619	80.00- 120.00	100.00
1.940	1.940	(0.336)	52	104318			0.00- 56.26	26.26
-----								
18 Butane								
						CAS #: 106-97-8		
2.039	2.032	(0.353)	58	68061	44.8360	44.836	80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
2.032	2.032	(0.352)	43	686319				823.29- 883.29	1008.38
-----									
19 Vinyl Chloride CAS #: 75-01-4									
2.075	2.067	(0.359)	62	330252	41.8911	41.891		80.00- 120.00	100.00
2.075	2.075	(0.359)	64	101695				0.00- 59.69	30.79
-----									
20 1,3-Butadiene CAS #: 106-99-0									
2.096	2.096	(0.363)	54	349753	55.1602	55.160		80.00- 120.00	100.00
2.096	2.089	(0.363)	39	338700				52.37- 112.37	96.84
-----									
24 Bromomethane CAS #: 74-83-9									
2.483	2.483	(0.430)	94	215407	42.4940	42.494		80.00- 120.00	100.00
2.483	2.483	(0.430)	96	203765				64.07- 124.07	94.60
-----									
30 Chloroethane CAS #: 75-00-3									
2.612	2.612	(0.452)	64	115841	40.8633	40.863		80.00- 120.00	100.00
2.619	2.612	(0.453)	66	33804				0.04- 60.04	29.18
2.612	2.612	(0.452)	49	56281				4.54- 64.54	48.58
-----									
31 Isopentane CAS #: 78-78-4									
2.641	2.633	(0.457)	43	464195	53.8133	53.813		80.00- 120.00	100.00
2.641	2.641	(0.457)	57	253482				34.12- 94.12	54.61
-----									
32 Vinyl Bromide CAS #: 593-60-2									
2.848	2.841	(0.493)	106	196016	41.8349	41.835		80.00- 120.00	100.00
2.848	2.841	(0.493)	108	197327				69.27- 129.27	100.67
-----									
33 Freon 11 CAS #: 75-69-4									
2.891	2.891	(0.500)	101	692367	57.6802	57.680		80.00- 120.00	100.00
2.891	2.891	(0.500)	103	452676				34.72- 94.72	65.38
-----									
34 Dichlorofluoromethane CAS #: 75-43-4									
2.906	2.898	(0.503)	67	478059	46.2081	46.208		80.00- 120.00	100.00
2.906	2.898	(0.503)	69	146142				0.84- 60.84	30.57
-----									
35 Pentane CAS #: 109-66-0									
2.970	2.970	(0.514)	43	719836	51.3399	51.340		80.00- 120.00	100.00
2.970	2.970	(0.514)	57	91831				0.00- 44.98	12.76
2.977	2.970	(0.515)	72	36900				0.00- 37.39	5.13
-----									
38 Ethyl Ether CAS #: 60-29-7									
3.292	3.285	(0.570)	74	91644	38.7425	38.742		80.00- 120.00	100.00
3.292	3.285	(0.570)	59	212764				163.46- 223.46	232.16
3.285	3.285	(0.569)	45	372460				250.40- 310.40	406.42
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.249	3.242	(0.562)	46	66517	53.2580	53.258	80.00- 120.00	100.00
3.285	3.285	(0.569)	45	370246			511.19- 571.19	556.62
42 Acrolein					CAS #: 107-02-8			
3.536	3.536	(0.612)	55	98959	45.6620	45.662	80.00- 120.00	100.00
3.536	3.536	(0.612)	56	133203			111.10- 171.10	134.60
43 Freon 113					CAS #: 76-13-1			
3.557	3.550	(0.616)	151	432720	48.5207	48.521	80.00- 120.00	100.00
3.557	3.550	(0.616)	153	276860			33.56- 93.56	63.98
3.550	3.550	(0.614)	101	500518			89.21- 149.21	115.67
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.586	3.579	(0.621)	96	230511	43.2666	43.266	80.00- 120.00	100.00
3.586	3.579	(0.621)	98	147275			34.02- 94.02	63.89
3.586	3.579	(0.621)	61	538501			168.77- 228.77	233.61
47 Acetone					CAS #: 67-64-1			
3.715	3.715	(0.643)	58	158063	47.8731	47.873	80.00- 120.00	100.00
3.715	3.715	(0.643)	43	645091			302.95- 362.95	408.12
48 Carbon Disulfide					CAS #: 75-15-0			
3.830	3.822	(0.663)	76	567848	40.4564	40.456	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.794	3.794	(0.657)	142	530715	56.8791	56.879	80.00- 120.00	100.00
3.794	3.794	(0.657)	127	277301			12.22- 72.22	52.25
52 2-Propanol					CAS #: 67-63-0			
3.887	3.887	(0.673)	45	751054	56.4407	56.441	80.00- 120.00	100.00
3.887	3.887	(0.673)	43	150713			0.00- 47.19	20.07
54 3-Chloropropene					CAS #: 107-05-1			
4.052	4.052	(0.701)	76	90482	38.5878	38.588	80.00- 120.00	100.00
4.052	4.045	(0.701)	41	532217			396.19- 456.19	588.20
57 Acetonitrile					CAS #: 75-05-8			
4.130	4.123	(0.715)	41	341139	55.0037	55.004	80.00- 120.00	100.00
4.130	4.123	(0.715)	40	183399			20.95- 80.95	53.76
4.130	4.123	(0.715)	38	38416			0.00- 41.17	11.26
59 Methylene Chloride					CAS #: 75-09-2			
4.238	4.238	(0.733)	49	517804	60.3784	60.378	80.00- 120.00	100.00
4.238	4.238	(0.733)	84	186586			22.03- 82.03	36.03
4.238	4.238	(0.733)	51	152229			0.18- 60.18	29.40



CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0				
4.345	4.338	(0.752)	59	715165	46.0862	46.086	80.00- 120.00	100.00	
4.338	4.338	(0.751)	41	182154			0.00- 51.11	25.47	
4.338	4.338	(0.751)	57	79841			0.00- 40.49	11.16	
63 Methyl tert-butyl ether					CAS #: 1634-04-4				
4.446	4.446	(0.769)	73	655250	42.3653	42.365	80.00- 120.00	100.00	
4.446	4.446	(0.769)	57	248802			3.10- 63.10	37.97	
4.446	4.446	(0.769)	41	284507			1.28- 61.28	43.42	
64 trans-1,2-Dichloroethene					CAS #: 156-60-5				
4.481	4.481	(0.776)	98	159251	44.7354	44.735	80.00- 120.00	100.00	
4.481	4.474	(0.776)	61	471635			255.84- 315.84	296.16	
4.481	4.474	(0.776)	96	240605			127.59- 187.59	151.09	
66 Acrylonitrile					CAS #: 107-13-1				
4.560	4.560	(0.789)	52	268384	54.1588	54.159	80.00- 120.00	100.00	
4.560	4.560	(0.789)	53	317244			88.05- 148.05	118.21	
67 Hexane					CAS #: 110-54-3				
4.696	4.696	(0.813)	57	593530	47.8392	47.839	80.00- 120.00	100.00	
4.696	4.696	(0.813)	43	467100			37.52- 97.52	78.70	
4.696	4.696	(0.813)	86	57096			0.00- 41.48	9.62	
71 1,1-Dichloroethane					CAS #: 75-34-3				
4.969	4.961	(0.860)	63	518339	48.5979	48.598	80.00- 120.00	100.00	
4.969	4.961	(0.860)	65	144421			0.00- 59.70	27.86	
72 Isopropyl ether					CAS #: 108-20-3				
4.947	4.947	(0.856)	45	1604214	55.5960	55.596	80.00- 120.00	100.00	
4.954	4.954	(0.857)	87	208073			0.00- 48.18	12.97	
4.954	4.947	(0.857)	59	132517			0.00- 40.15	8.26	
73 Vinyl Acetate					CAS #: 108-05-4				
4.997	4.997	(0.865)	86	56891	41.5042	41.504	80.00- 120.00	100.00	
4.997	4.990	(0.865)	43	1442970			2432.48-2492.48	2536.35	
79 Ethyl-tert-butyl ether					CAS #: 637-92-3				
5.305	5.305	(0.918)	59	1152971	46.1603	46.160	80.00- 120.00	100.00	
5.305	5.305	(0.918)	87	320156			1.00- 61.00	27.77	
5.305	5.305	(0.918)	41	281700			0.00- 48.73	24.43	
84 2,2-Dichloropropane					CAS #: 594-20-7				
5.513	5.506	(0.954)	77	483697	51.0698	51.070	80.00- 120.00	100.00	
5.513	5.506	(0.954)	79	154623			2.28- 62.28	31.97	
5.513	5.513	(0.954)	97	105535			0.00- 53.93	21.82	

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
-----									
85	cis-1,2-Dichloroethene				CAS #: 156-59-2				
5.549	5.549	(0.960)	98	168992	45.7445	45.744	80.00- 120.00	100.00	
5.549	5.549	(0.960)	96	261092			125.75- 185.75	154.50	
5.549	5.549	(0.960)	61	666569			332.40- 392.40	394.44	
-----									
86	2-Butanone				CAS #: 78-93-3				
5.556	5.556	(0.962)	72	114695	40.2916	40.292	80.00- 120.00	100.00	
5.563	5.563	(0.963)	43	2110766			1214.50-1274.50	1840.33	
5.556	5.556	(0.962)	57	62947			14.68- 74.68	54.88	
-----									
87	Ethyl Acetate				CAS #: 141-78-6				
5.570	5.570	(0.964)	45	168692	59.5783	59.578	80.00- 120.00	100.00	
5.549	5.549	(0.960)	61	666569			452.04- 512.04	395.14	
5.577	5.570	(0.965)	70	57310			22.77- 82.77	33.97	
-----									
89	Tetrahydrofuran				CAS #: 109-99-9				
5.778	5.771	(1.000)	42	545186	57.5865	57.586	80.00- 120.00	100.00	
5.778	5.778	(1.000)	71	96689			0.00- 55.82	17.74	
5.778	5.771	(1.000)	72	100467			0.00- 57.59	18.43	
-----									
92	Chloroform				CAS #: 67-66-3				
5.842	5.835	(1.011)	83	558252	50.9448	50.945	80.00- 120.00	100.00	
5.842	5.835	(1.011)	85	361765			34.70- 94.70	64.80	
-----									
94	Cyclohexane				CAS #: 110-82-7				
5.964	5.957	(1.032)	84	325689	41.1106	41.110	80.00- 120.00	100.00	
5.957	5.957	(1.031)	56	663586			142.57- 202.57	203.75	
5.957	5.957	(1.031)	41	415122			62.09- 122.09	127.46	
-----									
96	1,1,1-Trichloroethane				CAS #: 71-55-6				
5.971	5.971	(1.033)	97	656269	53.0137	53.014	80.00- 120.00	100.00	
5.971	5.971	(1.033)	99	418575			34.02- 94.02	63.78	
-----									
97	Carbon Tetrachloride				CAS #: 56-23-5				
6.093	6.086	(1.055)	119	700571	60.3403	60.340	80.00- 120.00	100.00	
6.093	6.086	(1.055)	117	688613			70.64- 130.64	98.29	
-----									
99	1,1-Dichloropropene				CAS #: 563-58-6				
6.122	6.115	(0.919)	110	150632	49.9955	49.995	80.00- 120.00	100.00	
6.115	6.115	(0.918)	75	370337			226.85- 286.85	245.86	
-----									
101	2,2,4-Trimethylpentane				CAS #: 540-84-1				
6.279	6.279	(1.087)	57	2077175	48.1688	48.169	80.00- 120.00	100.00	
6.279	6.279	(1.087)	56	708484			2.24- 62.24	34.11	
6.279	6.279	(1.087)	41	617142			0.00- 54.39	29.71	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
6.301	6.301	(0.946)	78	678609	46.4597	46.460	80.00- 120.00	100.00
6.301	6.301	(0.946)	77	161696			0.00- 52.90	23.83
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.358	6.358	(0.955)	87	200434	48.6655	48.665	80.00- 120.00	100.00
6.358	6.358	(0.955)	73	762068			372.79- 432.79	380.21
6.358	6.358	(0.955)	55	351215			112.09- 172.09	175.23
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.380	6.380	(0.958)	62	505710	66.5381	66.538	80.00- 120.00	100.00(R)
6.380	6.380	(0.958)	64	152821			0.79- 60.79	30.22
-----								
107 Heptane					CAS #: 142-82-5			
6.444	6.444	(0.968)	71	250938	43.3666	43.367	80.00- 120.00	100.00
6.444	6.444	(0.968)	43	941730			226.53- 286.53	375.28
6.444	6.444	(0.968)	57	427697			100.85- 160.85	170.44
-----								
110 n-Butanol					CAS #: 71-36-3			
6.809	6.809	(1.023)	56	316981	59.6901	59.690	80.00- 120.00	100.00
6.809	6.809	(1.023)	41	256401			40.99- 100.99	80.89
6.809	6.809	(1.023)	43	213523			27.38- 87.38	67.36
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.867	6.867	(1.031)	95	381352	53.8053	53.805	80.00- 120.00	100.00
6.867	6.867	(1.031)	130	420339			76.29- 136.29	110.22
6.867	6.867	(1.031)	97	244873			33.63- 93.63	64.21
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.096	7.096	(1.066)	63	373304	49.8518	49.852	80.00- 120.00	100.00
7.096	7.096	(1.066)	62	270360			41.07- 101.07	72.42
7.096	7.096	(1.066)	41	303864			22.53- 82.53	81.40
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.139	7.139	(0.755)	69	273617	46.2004	46.200	80.00- 120.00	100.00
7.139	7.139	(0.755)	41	746093			179.84- 239.84	272.68
7.139	7.139	(0.755)	100	111565			9.59- 69.59	40.77
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.175	7.175	(1.077)	88	182367	45.8251	45.825	80.00- 120.00	100.00
7.175	7.175	(1.077)	58	209996			68.28- 128.28	115.15
7.175	7.175	(1.077)	57	78259			2.68- 62.68	42.91
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.211	7.211	(0.762)	174	374432	58.5404	58.540	80.00- 120.00	100.00
7.203	7.203	(0.761)	93	331714			60.09- 120.09	88.59

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
7.203	7.203	(0.761)	95	293392				48.38- 108.38	78.36
-----									
122 Bromodichloromethane CAS #: 75-27-4									
7.318	7.318	(1.099)	83	636102	57.8832	57.883		80.00- 120.00	100.00
7.318	7.318	(1.099)	85	413174				35.24- 95.24	64.95
-----									
126 cis-1,3-Dichloropropene CAS #: 10061-01-5									
7.698	7.698	(1.156)	75	458976	49.4362	49.436		80.00- 120.00	100.00
7.698	7.698	(1.156)	77	142063				2.42- 62.42	30.95
7.690	7.690	(1.155)	39	400196				37.16- 97.16	87.19
-----									
127 Methylcyclohexane CAS #: 108-87-2									
6.974	6.974	(1.047)	83	463727	45.2134	45.213		80.00- 120.00	100.00
6.974	6.974	(1.047)	98	228804				15.78- 75.78	49.34
6.974	6.974	(1.047)	55	652955				84.64- 144.64	140.81
-----									
131 4-Methyl-2-pentanone CAS #: 108-10-1									
7.791	7.798	(1.170)	58	398324	52.3812	52.381		80.00- 120.00	100.00
7.791	7.791	(1.170)	43	1322637				242.35- 302.35	332.05
7.798	7.798	(1.171)	85	111473				3.24- 63.24	27.99
-----									
137 Toluene CAS #: 108-88-3									
7.948	7.948	(1.194)	91	970571	48.1626	48.163		80.00- 120.00	100.00
7.948	7.948	(1.194)	92	573240				28.38- 88.38	59.06
-----									
136 Octane CAS #: 111-65-9									
7.948	7.948	(1.194)	57	451177	52.5082	52.508		80.00- 120.00	100.00
7.948	7.948	(1.194)	85	323953				56.00- 116.00	71.80
7.948	7.948	(1.194)	43	1364596				228.66- 288.66	302.45
-----									
139 trans-1,3-Dichloropropene CAS #: 10061-02-6									
8.213	8.213	(0.868)	75	458033	53.9997	54.000		80.00- 120.00	100.00
8.213	8.213	(0.868)	77	143058				1.24- 61.24	31.23
8.213	8.213	(0.868)	39	368576				34.11- 94.11	80.47
-----									
141 1,1,2-Trichloroethane CAS #: 79-00-5									
8.400	8.400	(0.888)	97	366124	52.2219	52.222		80.00- 120.00	100.00
8.400	8.400	(0.888)	99	227176				31.96- 91.96	62.05
8.400	8.400	(0.888)	83	292017				52.93- 112.93	79.76
-----									
142 Tetrachloroethene CAS #: 127-18-4									
8.464	8.464	(0.895)	166	554438	56.4403	56.440		80.00- 120.00	100.00
8.464	8.464	(0.895)	129	423139				47.84- 107.84	76.32
8.464	8.464	(0.895)	131	416172				45.29- 105.29	75.06
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone					CAS #: 591-78-6			
8.586	8.586	(0.908)	58	551699	55.0787	55.079	80.00- 120.00	100.00
8.586	8.586	(0.908)	43	1284463			162.87- 222.87	232.82
8.586	8.586	(0.908)	100	78089			0.00- 45.94	14.15
-----								
144 1,3-Dichloropropane					CAS #: 142-28-9			
8.579	8.579	(1.288)	76	468375	48.9428	48.943	80.00- 120.00	100.00
8.579	8.579	(1.288)	41	783656			94.99- 154.99	167.31
8.579	8.579	(1.288)	78	148559			2.05- 62.05	31.72
-----								
146 Dibromochloromethane					CAS #: 124-48-1			
8.801	8.801	(0.930)	129	785812	59.9883	59.988	80.00- 120.00	100.00
8.801	8.801	(0.930)	127	604485			47.45- 107.45	76.92
-----								
148 1,2-Dibromoethane (EDB)					CAS #: 106-93-4			
8.951	8.951	(0.946)	107	616309	54.8096	54.810	80.00- 120.00	100.00
8.951	8.951	(0.946)	109	574683			64.21- 124.21	93.25
-----								
151 1-Bromo-2-Chloroethane					CAS #: 107-04-0			
7.605	7.605	(1.142)	63	696218	50.6724	50.672	80.00- 120.00	100.00
7.605	7.605	(1.142)	65	195625			0.00- 59.64	28.10
7.605	7.605	(1.142)	144	71536			0.00- 39.63	10.28
-----								
154 Chlorobenzene					CAS #: 108-90-7			
9.496	9.496	(1.004)	112	881980	51.5315	51.531	80.00- 120.00	100.00
9.496	9.496	(1.004)	114	283206			1.74- 61.74	32.11
9.496	9.496	(1.004)	77	446784			25.04- 85.04	50.66
-----								
155 Ethyl Benzene					CAS #: 100-41-4			
9.567	9.567	(1.011)	106	446147	49.8508	49.851	80.00- 120.00	100.00
9.567	9.567	(1.011)	91	1339997			273.74- 333.74	300.35
-----								
156 Nonane					CAS #: 111-84-2			
9.596	9.596	(1.014)	43	1432391	62.2063	62.206	80.00- 120.00	100.00
9.596	9.596	(1.014)	57	1004021			54.16- 114.16	70.09
9.596	9.603	(1.014)	85	244300			0.00- 53.90	17.06
-----								
157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6			
9.596	9.596	(1.014)	131	454652	47.4455	47.445	80.00- 120.00	100.00
9.460	9.460	(1.000)	117	431027			57.42- 117.42	94.80
9.596	9.596	(1.014)	95	167800			5.70- 65.70	36.91
-----								
158 m,p-Xylene					CAS #: 108-38-3			
9.718	9.718	(1.027)	106	566627	50.5514	50.551	80.00- 120.00	100.00
9.718	9.718	(1.027)	91	1087299			163.73- 223.73	191.89
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene					CAS #: 95-47-6			
10.226	10.226	(1.081)	106	520385	48.4556	48.456	80.00- 120.00	100.00
10.226	10.226	(1.081)	91	1079261			177.45- 237.45	207.40
-----								
165 Styrene					CAS #: 100-42-5			
10.255	10.255	(1.084)	104	896137	48.7920	48.792	80.00- 120.00	100.00
10.255	10.255	(1.084)	78	436537			17.88- 77.88	48.71
-----								
167 Bromoform					CAS #: 75-25-2			
10.541	10.541	(1.114)	173	772837	59.8542	59.854	80.00- 120.00	100.00
10.541	10.541	(1.114)	171	395504			21.25- 81.25	51.18
-----								
168 Cumene					CAS #: 98-82-8			
10.649	10.649	(1.126)	105	1682264	49.8653	49.865	80.00- 120.00	100.00
10.649	10.649	(1.126)	120	490434			0.00- 58.52	29.15
10.649	10.649	(1.126)	51	284459			0.00- 43.00	16.91
-----								
169 Cyclohexanone					CAS #: 108-94-1			
10.871	10.871	(1.149)	55	726775	60.2384	60.238	80.00- 120.00	100.00
10.871	10.871	(1.149)	98	190106			1.94- 61.94	26.16
10.871	10.871	(1.149)	42	521696			37.89- 97.89	71.78
-----								
175 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
11.100	11.100	(1.173)	83	810048	49.1949	49.195	80.00- 120.00	100.00
11.100	11.100	(1.173)	85	528824			35.20- 95.20	65.28
-----								
177 Bromobenzene					CAS #: 108-86-1			
11.107	11.100	(1.174)	156	587427	57.2513	57.251	80.00- 120.00	100.00
11.107	11.100	(1.174)	158	565547			67.21- 127.21	96.28
11.172	11.172	(1.181)	77	327706			29.02- 89.02	55.79
-----								
178 Propylbenzene					CAS #: 103-65-1			
11.150	11.150	(1.179)	120	534127	53.3960	53.396	80.00- 120.00	100.00
11.150	11.150	(1.179)	91	2029470			366.49- 426.49	379.96
11.150	11.150	(1.179)	105	78540			0.00- 44.85	14.70
-----								
179 1,2,3-Trichloropropane					CAS #: 96-18-4			
11.179	11.179	(1.182)	110	290111	55.2789	55.279	80.00- 120.00	100.00
11.179	11.179	(1.182)	75	854539			280.55- 340.55	294.56
11.100	11.100	(1.173)	61	154475			15.49- 75.49	53.25
-----								
181 trans-1,4-Dichloro-2-butene					CAS #: 110-57-6			
11.179	11.179	(1.182)	53	319843	92.9652	92.965	80.00- 120.00	100.00(R)
11.172	11.172	(1.181)	89	183124			49.11- 109.11	57.25
11.179	11.179	(1.182)	75	854539			426.44- 486.44	267.17
-----								

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane						CAS #: 124-18-5		
11.251	11.251	(1.189)	57	1367694	52.1195	52.119	80.00- 120.00	100.00
11.251	11.251	(1.189)	71	310894			0.00- 57.66	22.73
11.258	11.258	(1.190)	142	50227			0.00- 34.09	3.67
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
11.286	11.286	(1.193)	120	581864	53.4879	53.488	80.00- 120.00	100.00
11.286	11.286	(1.193)	105	1793923			284.55- 344.55	308.31
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
11.308	11.308	(1.195)	126	469047	55.0697	55.070	80.00- 120.00	100.00
11.308	11.308	(1.195)	91	1542993			315.17- 375.17	328.96
11.301	11.301	(1.195)	65	235409			21.55- 81.55	50.19
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
11.365	11.365	(1.201)	120	809918	54.0758	54.076	80.00- 120.00	100.00
11.365	11.365	(1.201)	105	1555603			164.93- 224.93	192.07
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
11.644	11.644	(1.231)	118	784558	52.7293	52.729	80.00- 120.00	100.00
11.644	11.644	(1.231)	103	432243			25.30- 85.30	55.09
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
11.738	11.738	(1.241)	119	1525784	54.4663	54.466	80.00- 120.00	100.00
11.738	11.738	(1.241)	134	374680			0.00- 54.25	24.56
11.738	11.738	(1.241)	91	911197			31.27- 91.27	59.72
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
11.816	11.816	(1.249)	105	1525645	53.9671	53.967	80.00- 120.00	100.00
11.816	11.816	(1.249)	120	783020			19.05- 79.05	51.32
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
11.995	11.995	(1.268)	134	489893	56.2663	56.266	80.00- 120.00	100.00
11.995	11.995	(1.268)	105	2184379			437.55- 497.55	445.89
11.995	11.995	(1.268)	91	339181			40.76- 100.76	69.24
-----								
194 p-Cymene						CAS #: 99-87-6		
12.160	12.160	(1.285)	119	2101408	54.6067	54.607	80.00- 120.00	100.00
12.160	12.160	(1.285)	134	550336			0.00- 55.54	26.19
12.160	12.160	(1.285)	91	448611			0.00- 51.48	21.35
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
12.196	12.196	(1.289)	146	1133477	58.5780	58.578	80.00- 120.00	100.00
12.196	12.196	(1.289)	148	722440			33.21- 93.21	63.74
12.196	12.196	(1.289)	111	444111			11.31- 71.31	39.18
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
12.311	12.311	(1.301)	146	1137651	58.1804	58.180	80.00- 120.00	100.00
12.311	12.311	(1.301)	148	727685			33.90- 93.90	63.96
12.311	12.311	(1.301)	111	431726			9.45- 69.45	37.95
-----					-----			
199 alpha-Chlorotoluene					CAS #: 100-44-7			
12.461	12.461	(1.317)	91	1455166	54.1929	54.193	80.00- 120.00	100.00
12.468	12.461	(1.318)	126	352448			0.00- 53.26	24.22
-----					-----			
201 Undecane					CAS #: 1120-21-4			
12.640	12.640	(1.336)	57	1802819	59.4764	59.476	80.00- 120.00	100.00
12.640	12.640	(1.336)	43	1904007			58.12- 118.12	105.61
-----					-----			
202 Butylbenzene					CAS #: 104-51-8			
12.626	12.626	(1.335)	134	546665	55.9312	55.931	80.00- 120.00	100.00
12.626	12.626	(1.335)	91	1789784			314.79- 374.79	327.40
12.626	12.626	(1.335)	92	947141			154.29- 214.29	173.26
-----					-----			
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
12.740	12.740	(1.347)	146	1101137	58.0360	58.036	80.00- 120.00	100.00
12.740	12.740	(1.347)	148	702880			33.84- 93.84	63.83
12.740	12.733	(1.347)	111	441206			12.73- 72.73	40.07
-----					-----			
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
13.614	13.600	(1.439)	157	666490	57.9978	57.998	80.00- 120.00	100.00
13.614	13.600	(1.439)	75	554899			52.48- 112.48	83.26
13.614	13.600	(1.439)	155	520424			47.41- 107.41	78.08
-----					-----			
207 Dodecane					CAS #: 112-40-3			
13.822	13.801	(1.461)	57	1959869	81.5739	81.574	80.00- 120.00	100.00(R)
13.822	13.801	(1.461)	43	1927787			52.87- 112.87	98.36
-----					-----			
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
14.495	14.467	(1.532)	180	1092909	77.9633	77.963	80.00- 120.00	100.00(R)
14.495	14.467	(1.532)	182	1056700			65.33- 125.33	96.69
-----					-----			
215 Hexachlorobutadiene					CAS #: 87-68-3			
14.617	14.581	(1.545)	225	833532	84.4884	84.488	80.00- 120.00	100.00(R)
14.617	14.581	(1.545)	223	525498			33.17- 93.17	63.04
-----					-----			
216 Naphthalene					CAS #: 91-20-3			
14.796	14.768	(1.564)	128	243542	6.79787	6.798	80.00- 120.00	100.00
14.796	14.768	(1.564)	127	30898			0.00- 42.88	12.69
-----					-----			
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
15.104	15.068	(1.597)	180	1057836	85.3617	85.362	80.00- 120.00	100.00(R)



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
15.104	15.068	(1.597)	182	1000304			65.75- 125.75	94.56
15.104	15.068	(1.597)	145	355341			5.23- 65.23	33.59

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 02-SEP-2021
Lab File ID: p090204.d	Calibration Time: 09:55
Lab Smp Id: LCSD	Client Smp ID: LCSD
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msdp.i/02SEP21.b/p21q0519a.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	111368	66821	155915	125942	13.09
108 1,4-Difluorobenze	392899	235739	550059	442624	12.66
153 Chlorobenzene-d5	382253	229352	535154	431027	12.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.66	0.00
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Report Date: 02-Sep-2021 12:01

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 02SEP21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCSD Client Smp ID: LCSD  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: LCSD  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AT20LCS\_new.sub  
 Method File: /chem/msdp.i/02SEP21.b/p21q0519a.m  
 Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	63.819	127.64	70-130
5 Propylene	50.000	54.233	108.47	70-130
7 1,1-Difluoroethan	50.000	46.411	92.82	70-130
8 Freon 12	50.000	56.274	112.55	70-130
9 Chlorodifluoromet	50.000	62.442	124.88	70-130
10 Freon 114	50.000	52.620	105.24	70-130
12 Isobutane	50.000	53.876	107.75	70-130
15 Chloromethane	50.000	60.619	121.24	70-130
18 Butane	50.000	44.836	89.67	70-130
19 Vinyl Chloride	50.000	41.891	83.78	70-130
20 1,3-Butadiene	50.000	55.160	110.32	70-130
24 Bromomethane	50.000	42.494	84.99	70-130
30 Chloroethane	50.000	40.863	81.73	70-130
31 Isopentane	50.000	53.813	107.63	70-130
32 Vinyl Bromide	50.000	41.835	83.67	70-130
33 Freon 11	50.000	57.680	115.36	70-130
34 Dichlorofluoromet	50.000	46.208	92.42	70-130
35 Pentane	50.000	51.340	102.68	70-130
38 Ethyl Ether	50.000	38.742	77.48	70-130
39 Ethanol	58.000	53.258	91.82	70-130
42 Acrolein	58.000	45.662	78.73	70-130
43 Freon 113	50.000	48.521	97.04	70-130
44 1,1-Dichloroethen	50.000	43.266	86.53	70-130
47 Acetone	50.000	47.873	95.75	70-130
48 Carbon Disulfide	50.000	40.456	80.91	70-130
49 Iodomethane	50.000	56.879	113.76	70-130
52 2-Propanol	50.000	56.441	112.88	70-130
54 3-Chloropropene	50.000	38.588	77.18	70-130
57 Acetonitrile	50.000	55.004	110.01	70-130
59 Methylene Chlorid	50.000	60.378	120.76	70-130
62 tert-Butyl alcoho	50.000	46.086	92.17	70-130
63 Methyl tert-butyl	50.000	42.365	84.73	70-130
64 trans-1,2-Dichlor	50.000	44.735	89.47	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	54.159	108.32	70-130
67 Hexane	50.000	47.839	95.68	70-130
71 1,1-Dichloroethan	50.000	48.598	97.20	70-130
72 Isopropyl ether	50.000	55.596	111.19	70-130
73 Vinyl Acetate	50.000	41.504	83.01	70-130
79 Ethyl-tert-butyl	50.000	46.160	92.32	70-130
84 2,2-Dichloropropa	50.000	51.070	102.14	70-130
85 cis-1,2-Dichloroe	50.000	45.744	91.49	70-130
86 2-Butanone	50.000	40.292	80.58	70-130
87 Ethyl Acetate	50.000	59.578	119.16	70-130
89 Tetrahydrofuran	50.000	57.586	115.17	70-130
92 Chloroform	50.000	50.945	101.89	70-130
94 Cyclohexane	50.000	41.110	82.22	70-130
96 1,1,1-Trichloroet	50.000	53.014	106.03	70-130
99 1,1-Dichloroprop	50.000	49.995	99.99	70-130
97 Carbon Tetrachlor	50.000	60.340	120.68	70-130
101 2,2,4-Trimethylpe	50.000	48.169	96.34	70-130
102 Benzene	50.000	46.460	92.92	70-130
105 tert-Amyl methyl	50.000	48.665	97.33	70-130
106 1,2-Dichloroethan	50.000	66.538	133.08*	70-130
107 Heptane	50.000	43.367	86.73	70-130
110 n-Butanol	50.000	59.690	119.38	70-130
111 Trichloroethene	50.000	53.805	107.61	70-130
118 Dibromomethane	50.000	58.540	117.08	70-130
127 Methylcyclohexane	50.000	45.213	90.43	70-130
114 1,2-Dichloropropa	50.000	49.852	99.70	70-130
116 Methyl Methacryla	50.000	46.200	92.40	70-130
117 1,4-Dioxane	50.000	45.825	91.65	70-130
122 Bromodichlorometh	50.000	57.883	115.77	70-130
126 cis-1,3-Dichlorop	50.000	49.436	98.87	70-130
131 4-Methyl-2-pentan	50.000	52.381	104.76	70-130
136 Octane	50.000	52.508	105.02	70-130
137 Toluene	50.000	48.163	96.33	70-130
139 trans-1,3-Dichlor	50.000	54.000	108.00	70-130
141 1,1,2-Trichloroet	50.000	52.222	104.44	70-130
142 Tetrachloroethene	50.000	56.440	112.88	70-130
143 2-Hexanone	50.000	55.079	110.16	70-130
144 1,3-Dichloropropa	50.000	48.943	97.89	70-130
146 Dibromochlorometh	50.000	59.988	119.98	70-130
148 1,2-Dibromoethane	50.000	54.810	109.62	70-130
151 1-Bromo-2-Chloroe	50.000	50.672	101.34	70-130
154 Chlorobenzene	50.000	51.531	103.06	70-130
155 Ethyl Benzene	50.000	49.851	99.70	70-130
156 Nonane	50.000	62.206	124.41	70-130
157 1,1,1,2-Tetrachlo	50.000	47.445	94.89	70-130
158 m,p-Xylene	50.000	50.551	101.10	70-130
164 o-Xylene	50.000	48.456	96.91	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	48.792	97.58	70-130
167 Bromoform	50.000	59.854	119.71	70-130
168 Cumene	50.000	49.865	99.73	70-130
169 Cyclohexanone	50.000	60.238	120.48	70-130
175 1,1,2,2-Tetrachlo	50.000	49.195	98.39	70-130
177 Bromobenzene	50.000	57.251	114.50	70-130
178 Propylbenzene	50.000	53.396	106.79	70-130
179 1,2,3-Trichloropr	50.000	55.279	110.56	70-130
181 trans-1,4-Dichlor	50.000	92.965	185.93*	70-130
182 Decane	50.000	52.119	104.24	70-130
183 4-Ethyltoluene	50.000	53.488	106.98	70-130
184 2-Chlorotoluene	50.000	55.070	110.14	70-130
185 1,3,5-Trimethylbe	50.000	54.076	108.15	70-130
188 alpha Methyl Styr	50.000	52.729	105.46	70-130
189 tert-Butylbenzene	50.000	54.466	108.93	70-130
190 1,2,4-Trimethylbe	50.000	53.967	107.93	70-130
192 sec-Butylbenzene	50.000	56.266	112.53	70-130
194 p-Cymene	50.000	54.607	109.21	70-130
195 1,3-Dichlorobenze	50.000	58.578	117.16	70-130
196 1,4-Dichlorobenze	50.000	58.180	116.36	70-130
199 alpha-Chlorotolue	50.000	54.193	108.39	70-130
201 Undecane	50.000	59.476	118.95	70-130
202 Butylbenzene	50.000	55.931	111.86	70-130
204 1,2-Dichlorobenze	50.000	58.036	116.07	70-130
206 1,2-Dibromo-3-chl	50.000	57.998	116.00	70-130
207 Dodecane	50.000	81.574	163.15*	70-130
213 1,2,4-Trichlorobe	58.000	77.963	134.42*	70-130
215 Hexachlorobutadie	58.000	84.488	145.67*	70-130
216 Naphthalene	5.800	6.798	117.20	60-140
222 1,2,3-Trichlorobe	58.000	85.362	147.18*	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	28.108	112.43	70-130
\$ 134 Toluene-d8	25.000	24.852	99.41	70-130
\$ 170 4-Bromofluorobenz	25.000	28.002	112.01	70-130

Date : 02-SEP-2021 10:51

Client ID: LCSD

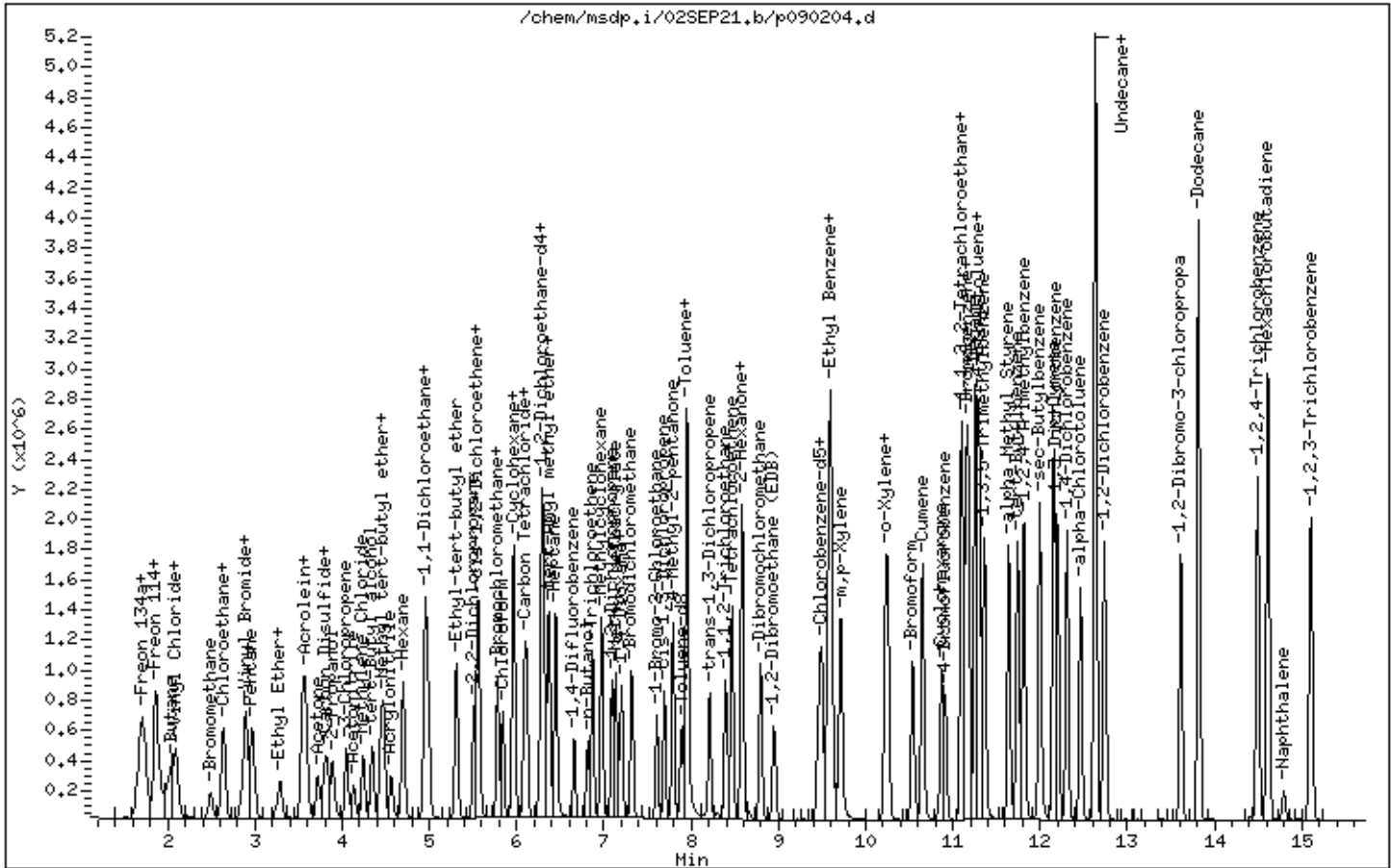
Instrument: msdp.i

Sample Info: 50mL 3018-2173

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



MSDP

BFB Verification of 176/174 ratio: (83144/86072)*100=96.60%		3234-67		Exp. Date:	11/4/21	Method TO-15/TO-14		SOP# 6	Vacuum:	NA
BCM		111,368				Please check all standards				
1.4-DF8		392,899				11/4/21	Surrogate#	NA		Exp. Date:
CB-45		382,253				11/2/21	LCS: 3018-2192			Exp. Date:
							LCS sp1 #			Exp. Date:
							LCS sp2 #			Exp. Date:
							LCS sp3 #			Exp. Date:
Verified CCV w/ ICAU mid-point (40%): LD										
Method: P2160519a.m										

File #	Enter/Scan Sample ID	Container#	Cart Pos.	Pressure	mL	DF	Verify Load	Loaded Inlet	Date Analyzed	Time	Review Inlet	Comments
V	P090201	BFB Tune Check	3234-67	36mg	200ml	1.00	LD	LD	9/2/2021	0915	LD	Exp. 11/4/21, leg validation
V	P090202	CCV	3018-2192	50ppbv (200ppbv)	50ml	1.00	LD	LD	9/2/2021	0955	LD	Exp. 11/2/21, 2 out AT-12, 2 out AT-20
V	P090203	LCS	3018-2173	50ppbv (200ppbv)	50ml	1.00	LD	LD	9/2/2021	1023	LD	Exp. 10/28/21, 3 out AT-12, 5 out AT-20
V	P090204	LCS-D	3018-2173	50ppbv (200ppbv)	50ml	1.00	LD	LD	9/2/2021	1051	LD	Exp. 10/28/21, RPD ok
V	P090205	CCVsp	3018-2127	50ppbv (200ppbv)	50ml	1.00	LD	LD	9/2/2021	1141	LD	Exp. 9/26/21, 2 out
V	P090206	TPHg, CCV	3234-83	500ppbv (1250ppbv)	80ml	1.00	LD	LD	9/2/2021	1209	LD	Exp. 12/1/21
V	P090207	TPHg, eCV Verification	3234-84	500ppbv (1250ppbv)	80ml	1.00	LD	LD	9/2/2021	1249	LD	Exp. 12/1/21
V	P090208	TPHg, LCS Verification	3234-85	500ppbv (1250ppbv)	80ml	1.00	LD	LD	9/2/2021	1340	LD	Exp. 12/1/21
V	P090209	Lab Blank	34353	humid	200ml	1.00	LD	LD	9/2/2021	1428	LD	leg validation
V	P090210	2109005-02A	N3131	3.0 Hg >10 psi	200ml	1.87	gh	LD	9/2/2021	1550	gh	
V	P090211	2109005-01A	111906	4.0 Hg >10 psi	200ml	1.94	gh	LD	9/2/2021	1620	gh	
V	P090212	2109005-05A	NS643	6.0 Hg >10 psi	200ml	2.10	gh	LD	9/2/2021	1649	gh	
X	P090213	2109005-08A	N1448	4.5 Hg >10 psi	200ml	1.98	gh	LD	9/2/2021	1718	gh	possible carryover, confirm
V	P090214	2109005-03A	NS653	6.0 Hg >10 psi	100ml	4.20	gh	LD	9/2/2021	1747	gh	dil tc
V	P090215	2109005-06A	N2056	5.0 Hg >10 psi	100ml	4.03	gh	LD	9/2/2021	1816	gh	dil tc
X	P090216	2109005-07A	N3435	4.5 Hg >10 psi	50ml	7.91	gh	LD	9/2/2021	1844	gh	possible carryover, confirm
V	P090217	2109005-04A	NS472	5.0 Hg >10 psi	50ml	8.06	gh	LD	9/2/2021	1912	gh	dil tc
V	P090218	2109002-01A	O1070	4.5 Hg >10 psi	200ml	1.98	gh	LD	9/2/2021	1941	gh	
V	P090219	2109002-02A	N3421	5.5 Hg >10 psi	200ml	2.06	gh	gh	9/2/2021	2019	gh	
V	P090220	2109002-03A	N1999	5.5 Hg >10 psi	200ml	2.06	gh	gh	9/2/2021	2049	gh	
V	P090221	2109042-01A	111633	3.7 Hg >10.1 psi	200ml	1.92	LD	gh	9/2/2021	2230	LD	
V	P090222	2108676-01A	112704	7.0 Hg >10 psi	200ml	2.19	LD	gh	9/2/2021	2259	LD	
V	P090223	2109011A-07A	O0844	4.7 psi > 9 psi	200ml	1.27	LD	gh	9/2/2021	2328	LD	
V	P090224	2109005A-08A	N1448	4.5 Hg >10 psi	200ml	1.98	LD	gh	9/2/2021	2358	LD	
V	P090225	2109005A-07A	N3435	4.5 Hg >10 psi	50ml	7.91	LD	gh	9/3/2021	0025	LD	dil matrix

CA 9/7/21

US32TAR1

Data file : /chem/msdp.i/19MAY21.b/p051901.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 19-MAY-2021 11:39  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 200ml #3234-10;BFB;BFB  
 Misc Info : 36ng  
 Comment :  
 Method : /chem/msdp.i/19MAY21.b/bfb30.m  
 Meth Date : 18-Nov-2019 14:14 ushn Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 4 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
		ON-COL		FINAL		TARGET RANGE		RATIO	
RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)			
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb					CAS #: 460-00-4				
10.921	10.993	-0.072	95	186911			100.00- 100.00		100.00
10.921	10.993	-0.072	50	42709			8.00- 40.00		22.85
10.921	10.993	-0.072	75	81216			30.00- 66.00		43.45
10.921	10.993	-0.072	96	12084			5.00- 9.00		6.47
10.921	10.993	-0.072	173	1196			0.00- 1.99		0.82
10.921	10.993	-0.072	174	146453			50.01- 120.00		78.35
10.921	10.993	-0.072	175	10521			4.00- 9.00		7.18
10.921	10.993	-0.072	176	142592			93.00- 101.00		97.36
10.921	10.993	-0.072	177	9138			5.00- 9.00		6.41



Date : 19-MAY-2021 11:39

Client ID: BFB

Instrument: msdp.i

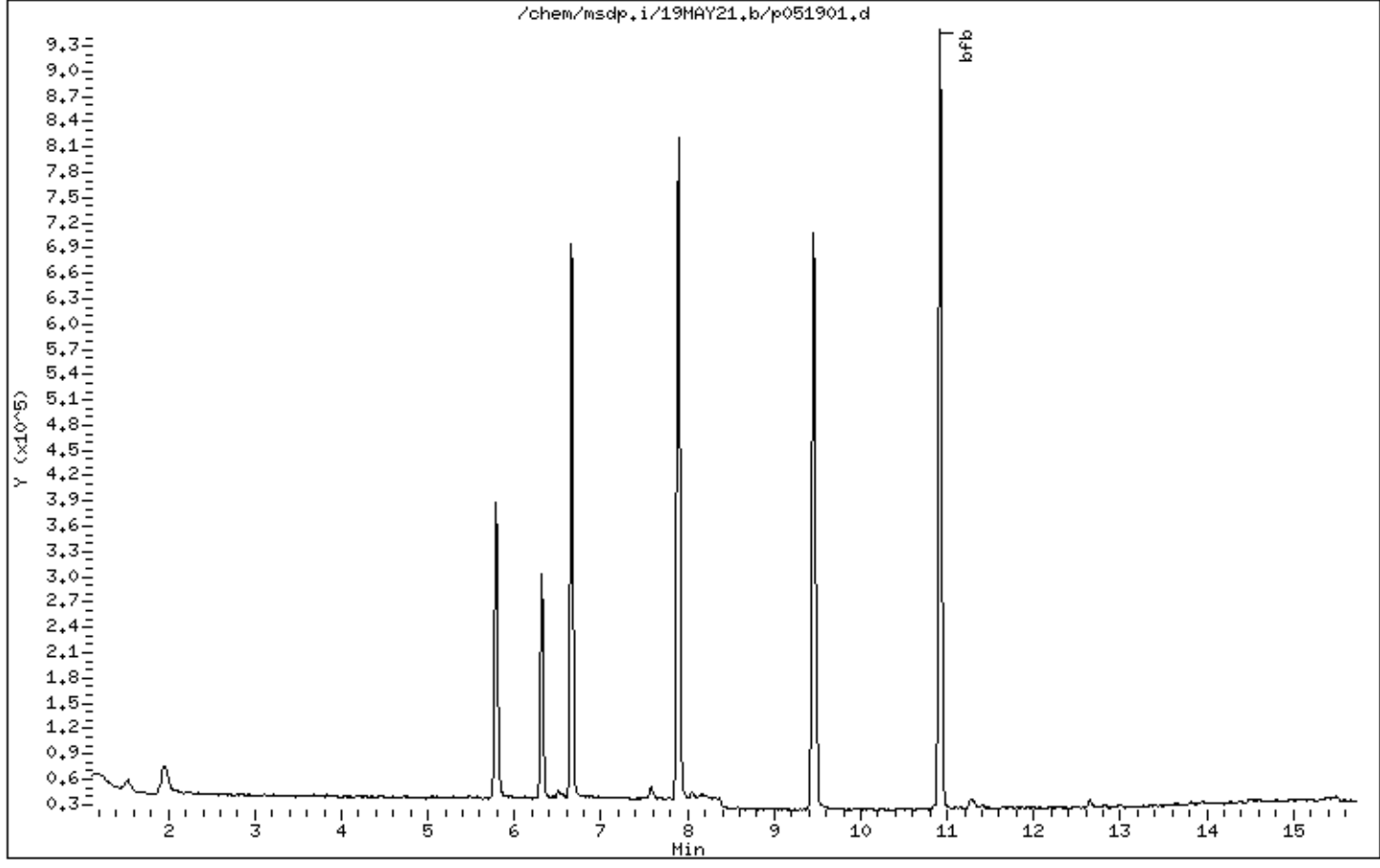
Sample Info: 200ml #3234-10;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00



Date : 19-MAY-2021 11:39

Client ID: BFB

Instrument: msdp.i

Sample Info: 200ml #3234-10;BFB;BFB

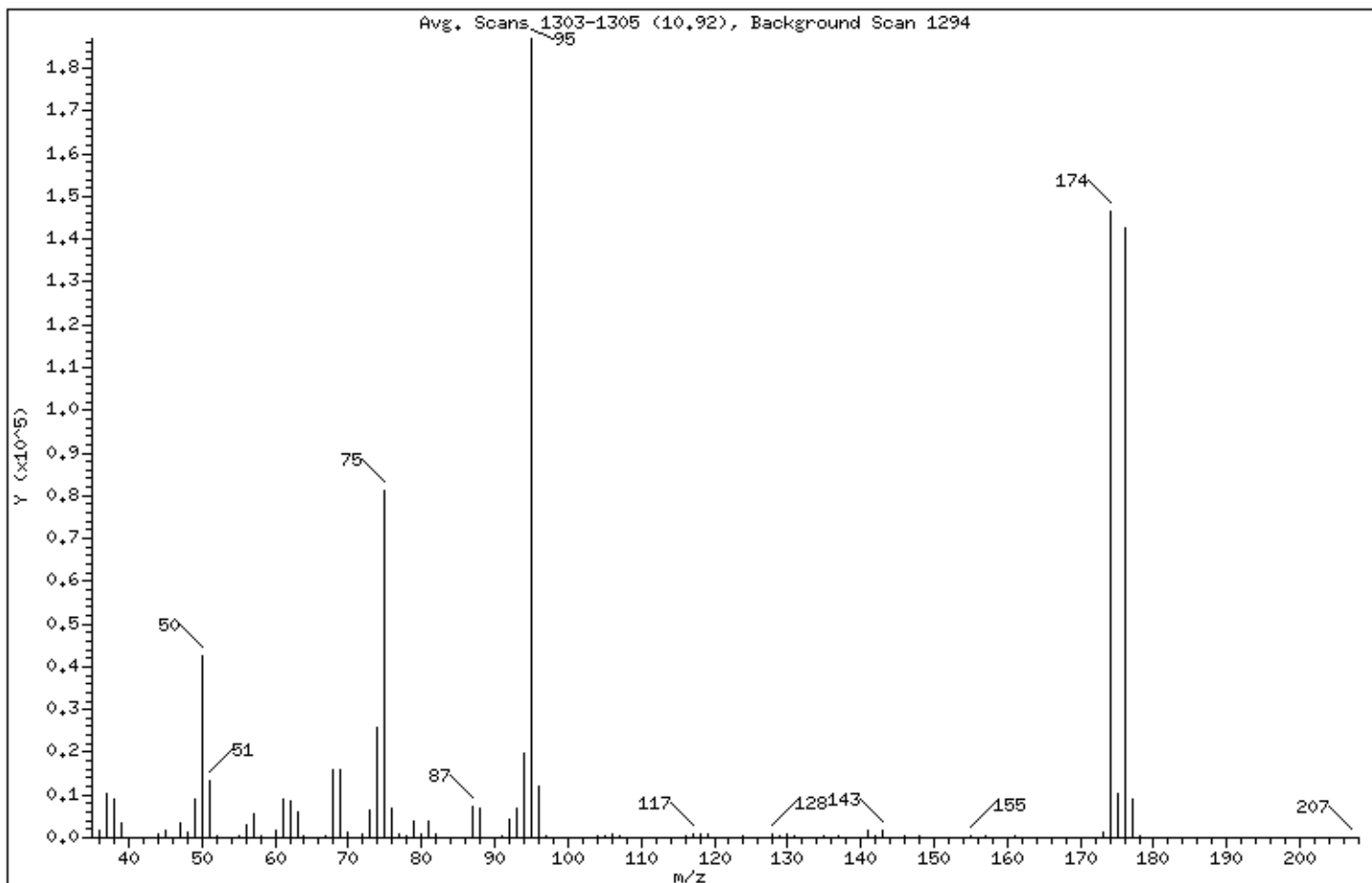
Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	22.85
75	30.00 - 66.00% of mass 95	43.45
96	5.00 - 9.00% of mass 95	6.47
173	Less than 1.99% of mass 174	0.64 ( 0.82)
174	50.01 - 120.00% of mass 95	78.35
175	4.00 - 9.00% of mass 174	5.63 ( 7.18)
176	93.00 - 101.00% of mass 174	76.29 ( 97.36)
177	5.00 - 9.00% of mass 176	4.89 ( 6.41)

Date : 19-MAY-2021 11:39

Client ID: BFB

Instrument: msdp.i

Sample Info: 200ml #3234-10;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

Data File: p051901.d

Spectrum: Avg. Scans 1303-1305 (10.92), Background Scan 1294

Location of Maximum: 95.00

Number of points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1868	70.00	1283	104.00	572	144.00	34
37.00	10229	71.00	45	105.00	269	145.00	194
38.00	8812	72.00	868	106.00	645	146.00	291
39.00	3495	73.00	6642	107.00	260	147.00	74
40.00	164	74.00	25736	110.00	56	148.00	464
44.00	917	75.00	81216	111.00	52	149.00	159
45.00	1818	76.00	7007	112.00	153	150.00	194
46.00	106	77.00	923	113.00	102	152.00	130
47.00	3380	78.00	552	115.00	151	153.00	181
48.00	1430	79.00	3744	116.00	557	154.00	159
49.00	9200	80.00	918	117.00	965	155.00	433
50.00	42704	81.00	3849	118.00	686	157.00	324
51.00	13167	82.00	684	119.00	932	159.00	214
52.00	589	83.00	51	123.00	100	161.00	241
55.00	241	85.00	29	124.00	227	165.00	33
56.00	2844	86.00	166	126.00	88	172.00	143
57.00	5428	87.00	7358	127.00	87	173.00	1196
58.00	256	88.00	6801	128.00	774	174.00	146432
59.00	71	91.00	377	129.00	295	175.00	10521
60.00	1820	92.00	4204	130.00	668	176.00	142592
61.00	9042	93.00	6703	131.00	353	177.00	9138
62.00	8617	94.00	19944	135.00	237	178.00	285
63.00	5849	95.00	186880	137.00	246	207.00	79
64.00	483	96.00	12084	140.00	173		
67.00	360	97.00	281	141.00	1745		
68.00	16023	98.00	26	142.00	230		
69.00	15790	103.00	189	143.00	1755		

US32TAR1

Data file : /chem/msdp.i/02SEP21.b/p090201.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 02-SEP-2021 09:15  
 Operator : LD Inst ID: msdp.i  
 Smp Info : 200ml #3234-67;BFB;BFB  
 Misc Info : 36ng  
 Comment :  
 Method : /chem/msdp.i/02SEP21.b/bfb30.m  
 Meth Date : 18-Nov-2019 14:14 ushn Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 10 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
ON-COL FINAL									
RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
1 bfb					CAS #: 460-00-4				
10.921	10.993	-0.072	95	98725			100.00- 100.00	100.00	
10.921	10.993	-0.072	50	30402			8.00- 40.00	30.79	
10.921	10.993	-0.072	75	48962			30.00- 66.00	49.59	
10.921	10.993	-0.072	96	5875			5.00- 9.00	5.95	
10.921	10.993	-0.072	173	1176			0.00- 1.99	1.37	
10.921	10.993	-0.072	174	86074			50.01- 120.00	87.19	
10.921	10.993	-0.072	175	6349			4.00- 9.00	7.38	
10.921	10.993	-0.072	176	83144			93.00- 101.00	96.60	
10.921	10.993	-0.072	177	5113			5.00- 9.00	6.15	

Date : 02-SEP-2021 09:15

Client ID: BFB

Instrument: msdp.i

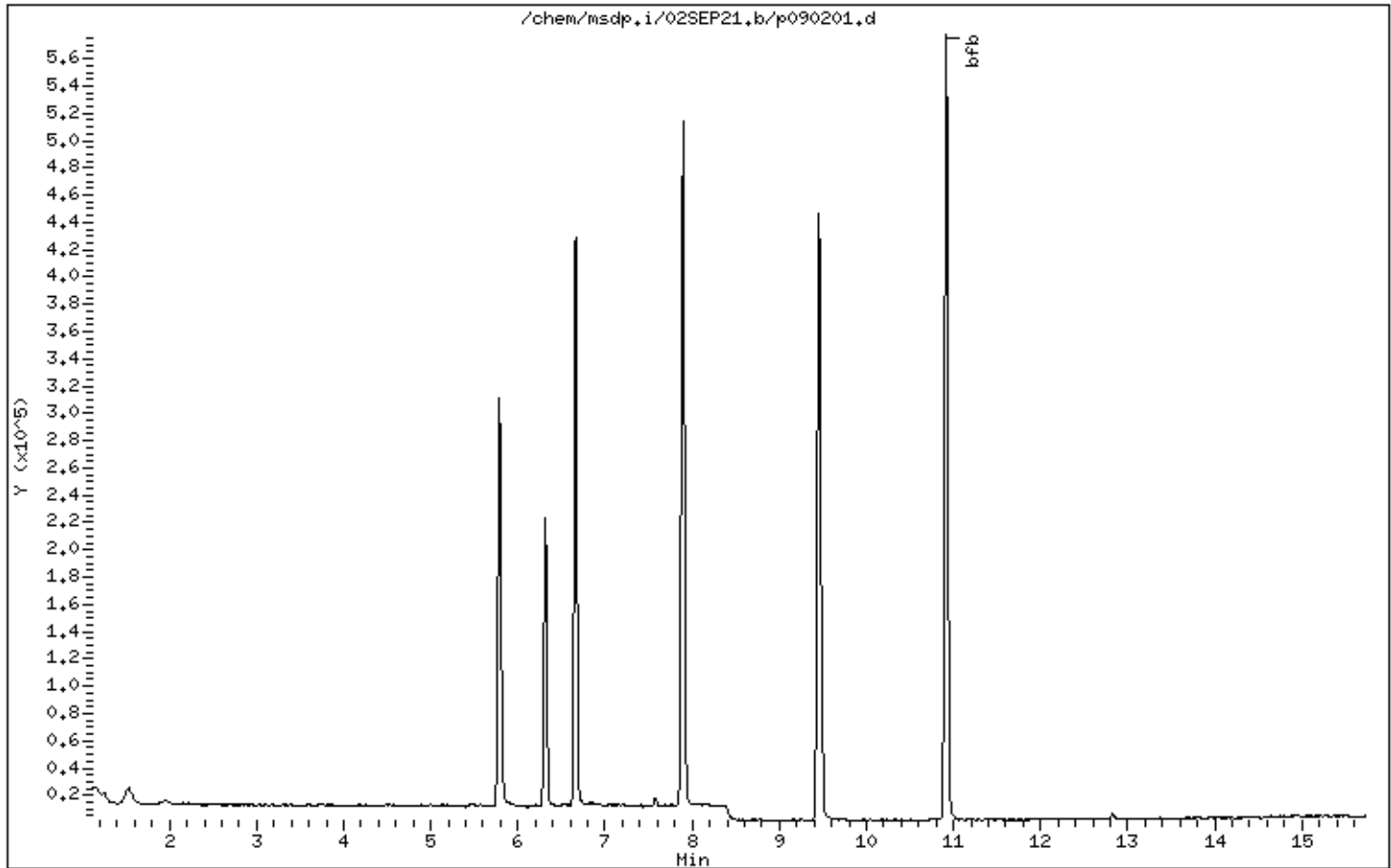
Sample Info: 200ml #3234-67;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00



Date : 02-SEP-2021 09:15

Client ID: BFB

Instrument: msdp.i

Sample Info: 200ml #3234-67;BFB;BFB

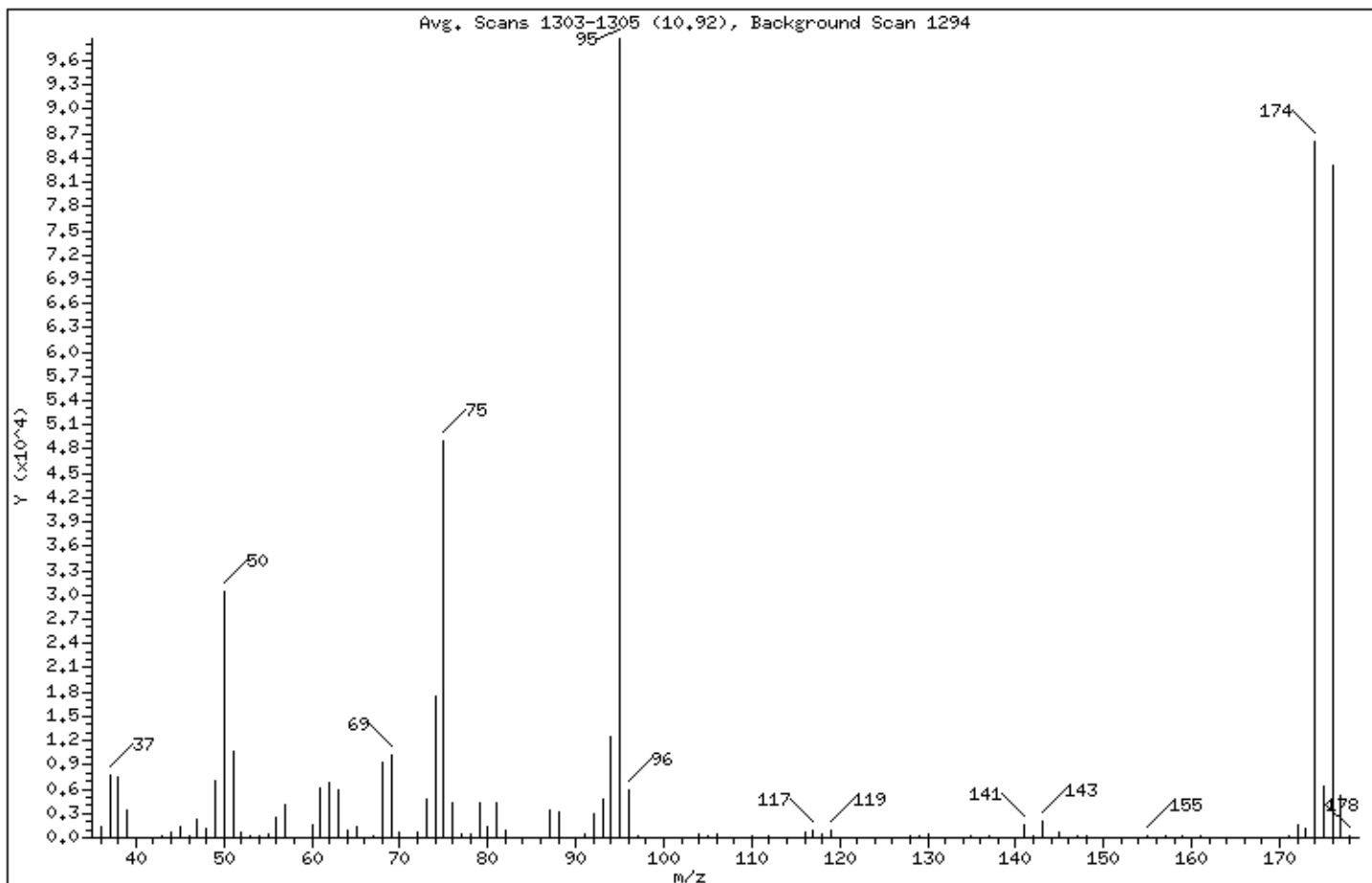
Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	30.79
75	30.00 - 66.00% of mass 95	49.59
96	5.00 - 9.00% of mass 95	5.95
173	Less than 1.99% of mass 174	1.19 ( 1.37)
174	50.01 - 120.00% of mass 95	87.19
175	4.00 - 9.00% of mass 174	6.43 ( 7.38)
176	93.00 - 101.00% of mass 174	84.22 ( 96.60)
177	5.00 - 9.00% of mass 176	5.18 ( 6.15)

Date : 02-SEP-2021 09:15

Client ID: BFB

Instrument: msdp.i

Sample Info: 200ml #3234-67;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

Data File: p090201.d

Spectrum: Avg. Scans 1303-1305 (10.92), Background Scan 1294

Location of Maximum: 95.00

Number of points: 91

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1362	61.00	6229	91.00	473	137.00	201
37.00	7736	62.00	6715	92.00	3027	141.00	1578
38.00	7455	63.00	5800	93.00	4734	142.00	208
39.00	3381	64.00	1009	94.00	12525	143.00	2092
40.00	11	65.00	1257	95.00	98720	144.00	78
41.00	68	67.00	331	96.00	5875	145.00	728
43.00	151	68.00	9384	97.00	250	146.00	113
44.00	734	69.00	10216	104.00	486	147.00	150
45.00	1282	70.00	782	105.00	130	148.00	242
46.00	246	72.00	645	106.00	461	150.00	36
47.00	2341	73.00	4832	107.00	34	155.00	258
48.00	1091	74.00	17408	110.00	180	157.00	184
49.00	6975	75.00	48960	111.00	75	159.00	134
50.00	30400	76.00	4424	112.00	132	161.00	166
51.00	10691	77.00	440	116.00	643	171.00	184
52.00	695	78.00	358	117.00	985	172.00	1592
53.00	290	79.00	4403	118.00	467	173.00	1176
54.00	194	80.00	1290	119.00	910	174.00	86072
55.00	503	81.00	4309	128.00	333	175.00	6349
56.00	2609	82.00	931	129.00	219	176.00	83144
57.00	4081	83.00	78	130.00	497	177.00	5113
58.00	33	87.00	3481	131.00	36	178.00	153
60.00	1504	88.00	3150	135.00	276		

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msdp.i/02SEP21.b/p090205.d  
Lab Smp Id: CCV Client Smp ID: CCV  
Inj Date : 02-SEP-2021 11:41  
Operator : LD Inst ID: msdp.i  
Smp Info : 50mL 3018-2127  
Misc Info : 50ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msdp.i/02SEP21.b/p21q0519a.m  
Meth Date : 02-Sep-2021 12:00 lk8g Quant Type: ISTD  
Cal Date : 19-MAY-2021 19:45 Cal File: p051915.d  
Als bottle: 11 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spCCV.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	( PPBV)	( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5									
5.778	5.778	(1.000)	130	132824	25.0000		80.00- 120.00	100.00	
5.778	5.778	(1.000)	128	104355			48.23- 108.23	78.57	
5.778	5.778	(1.000)	49	292100			150.57- 210.57	219.91	
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.666	6.666	(1.000)	114	469419	25.0000		80.00- 120.00	100.00	
6.666	6.666	(1.000)	88	64537			0.00- 45.71	13.75	
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
9.460	9.460	(1.000)	117	454122	25.0000		80.00- 120.00	100.00	
9.460	9.460	(1.000)	82	234445			23.78- 83.78	51.63	
-----									
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
6.308	6.308	(1.092)	65	200395	25.0000	27.338	80.00- 120.00	100.00	
6.315	6.315	(1.093)	67	91470			27.21- 87.21	45.64	
-----									
\$ 134 Toluene-d8 CAS #: 2037-26-5									
7.891	7.891	(1.184)	98	486618	25.0000	23.872	80.00- 120.00	100.00	
7.891	7.891	(1.184)	70	51169			0.00- 40.44	10.52	



AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 134 Toluene-d8 (continued)									
7.891	7.891	(1.184)	100	313320			34.95- 94.95	64.39	
-----									
\$ 170 4-Bromofluorobenzene									
						CAS #: 460-00-4			
10.921	10.921	(1.154)	174	315654	25.0000	27.068	80.00- 120.00	100.00	
10.914	10.914	(1.154)	95	363063			95.92- 155.92	115.02	
10.921	10.921	(1.154)	176	305921			66.89- 126.89	96.92	
-----									
3 Freon 143a									
						CAS #: 420-46-2			
1.591	1.591	(0.275)	65	183146	50.0000	71.359	80.00- 120.00	100.00	
1.591	1.591	(0.275)	69	336626			243.50- 303.50	183.80	
1.591	1.591	(0.275)	64	41570			0.00- 54.06	22.70	
-----									
6 Propane									
						CAS #: 74-98-6			
1.689	1.689	(0.292)	43	126562	50.0000	53.826	80.00- 120.00	100.00	
1.675	1.675	(0.290)	39	81717			34.98- 94.98	64.57	
1.675	1.675	(0.290)	41	71920			25.22- 85.22	56.83	
-----									
13 Freon 142b									
						CAS #: 75-68-3			
1.898	1.898	(0.329)	65	792069	50.0000	61.026	80.00- 120.00	100.00	
1.884	1.884	(0.326)	45	235902			0.00- 59.77	29.78	
-----									
36 1-Pentene									
						CAS #: 109-67-1			
2.906	2.906	(0.503)	55	383270	50.0000	45.121	80.00- 120.00	100.00	
2.906	2.906	(0.503)	42	568641			105.17- 165.17	148.37	
-----									
40 Freon 123a									
						CAS #: 354-23-4			
3.386	3.386	(0.586)	117	367744	50.0000	44.252	80.00- 120.00	100.00	
3.386	3.386	(0.586)	67	449390			104.69- 164.69	122.20	
-----									
41 Freon 123									
						CAS #: 306-83-2			
3.479	3.479	(0.602)	83	494165	50.0000	41.851	80.00- 120.00	100.00	
3.479	3.479	(0.602)	133	132365			0.00- 50.87	26.79	
3.479	3.479	(0.602)	85	333136			36.08- 96.08	67.41	
-----									
55 Cyclopentene									
						CAS #: 142-29-0			
4.073	4.073	(0.705)	67	488485	50.0000	38.449	80.00- 120.00	100.00	
4.073	4.073	(0.705)	68	180972			6.76- 66.76	37.05	
4.073	4.073	(0.705)	53	183856			0.00- 57.54	37.64	
-----									
56 Methyl Acetate									
						CAS #: 79-20-9			
4.073	4.073	(0.705)	43	886102	50.0000	59.641	80.00- 120.00	100.00	
4.080	4.080	(0.706)	74	85245			0.00- 44.13	9.62	
-----									
74 Chloroprene									
						CAS #: 126-99-8			
5.019	5.019	(0.869)	53	654241	50.0000	55.130	80.00- 120.00	100.00	

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO	
				RESPONSE	( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
74 Chloroprene (continued)									
5.019	5.019	(0.869)	88	194779			9.21- 69.21	29.77	
5.019	5.019	(0.869)	50	169220			0.00- 54.25	25.87	
-----									
75 1-Propanol					CAS #: 71-23-8				
5.083	5.083	(0.880)	59	78239	50.0000	44.590	80.00- 120.00	100.00	
5.083	5.083	(0.880)	42	85399			63.23- 123.23	109.15	
5.083	5.083	(0.880)	41	54098			24.74- 84.74	69.15	
-----									
88 Methyl Acrylate					CAS #: 96-33-3				
5.621	5.621	(0.973)	55	831200	50.0000	53.319	80.00- 120.00	100.00	
5.621	5.621	(0.973)	85	74075			0.00- 41.28	8.91	
5.621	5.621	(0.973)	58	62635			0.00- 38.22	7.54	
-----									
103 Isobutanol					CAS #: 78-83-1				
6.244	6.244	(1.081)	39	105289	50.0000	55.982	80.00- 120.00	100.00	
6.244	6.244	(1.081)	43	472350			448.18- 508.18	448.62	
6.244	6.244	(1.081)	41	330345			299.99- 359.99	313.75	
-----									
113 Ethyl acrylate					CAS #: 140-88-5				
6.946	6.946	(0.734)	99	48726	50.0000	46.490	80.00- 120.00	100.00	
6.939	6.939	(0.733)	45	114963			149.95- 209.95	235.93	
6.939	6.939	(0.733)	55	1118784			1849.07-1909.07	2296.03	
-----									
115 2-Pentanone					CAS #: 107-87-9				
7.032	7.032	(0.743)	43	1511850	50.0000	65.573	80.00- 120.00	100.00	
7.032	7.032	(0.743)	58	96646			0.00- 37.44	6.39	
7.032	7.032	(0.743)	86	141740			0.00- 42.78	9.38	
-----									
145 Butyl Acetate					CAS #: 123-86-4				
8.665	8.665	(1.300)	56	615490	50.0000	52.054	80.00- 120.00	100.00	
8.665	8.665	(1.300)	73	145442			0.00- 59.10	23.63	
8.665	8.665	(1.300)	43	1756102			215.30- 275.30	285.32	
-----									
157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6				
9.596	9.596	(1.014)	131	570038	50.0000	56.461	80.00- 120.00	100.00	
9.460	9.460	(1.000)	117	454122			57.42- 117.42	79.67	
9.596	9.596	(1.014)	95	206451			5.70- 65.70	36.22	
-----									
166 2-Heptanone					CAS #: 110-43-0				
10.362	10.362	(1.793)	58	888678	50.0000	45.567	80.00- 120.00	100.00	
10.362	10.362	(1.793)	43	1744151			136.03- 196.03	196.26	
-----									
172 D-Limonene					CAS #: 5989-27-5				
12.089	12.089	(1.278)	68	538272	50.0000	52.488	80.00- 120.00	100.00	
12.089	12.089	(1.278)	93	408816			39.41- 99.41	75.95	
-----									

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
186 4-Chlorotoluene					CAS #: 106-43-4				
11.444	11.444	(1.210)	126	508145	50.0000	54.639	80.00- 120.00	100.00	
11.444	11.444	(1.210)	91	1525035			295.02- 355.02	300.12	
11.444	11.444	(1.210)	63	238403			11.82- 71.82	46.92	
-----									
197 1,2,3-Trimethylbenzene					CAS #: 526-73-8				
12.318	12.318	(1.302)	120	707787	50.0000	52.270	80.00- 120.00	100.00	
12.318	12.318	(1.302)	105	1535750			192.40- 252.40	216.98	
12.318	12.318	(1.302)	77	167749			0.00- 54.69	23.70	
-----									
205 Hexachloroethane					CAS #: 67-72-1				
12.970	12.970	(1.371)	201	327924	50.0000	61.600	80.00- 120.00	100.00	
12.970	12.970	(1.371)	117	425415			102.99- 162.99	129.73	
-----									
208 1,3,5-Trichlorobenzene					CAS #: 108-70-3				
13.765	13.765	(1.455)	180	992481	50.0000	52.134	80.00- 120.00	100.00	
13.765	13.765	(1.455)	182	953531			65.24- 125.24	96.08	
-----									
210 alpha-Pinene					CAS #: 80-56-8				
10.599	10.599	(1.120)	93	970848	50.0000	51.683	80.00- 120.00	100.00	
10.599	10.599	(1.120)	77	294537			0.00- 58.21	30.34	
-----									
214 beta-Pinene					CAS #: 127-91-3				
11.423	11.423	(1.207)	93	708213	50.0000	57.585	80.00- 120.00	100.00	
11.444	11.444	(1.210)	91	1525035			153.57- 213.57	215.34	
-----									

US32TAR1

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdp.i                    Injection Date: 02-SEP-2021 11:41  
 Lab File ID: p090205.d                Init. Cal. Date(s): 19-MAY-2021 20-MAY-2021  
 Analysis Type: AIR                      Init. Cal. Times: 14:02                    00:05  
 Lab Sample ID: CCV                      Quant Type: ISTD  
 Method: /chem/msdp.i/02SEP21.b/p21q0519a.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
\$ 104 1,2-Dichloroethane-d4	1.37968	1.50872	0.010	-9.35258	30.00000	Averaged	
\$ 134 Toluene-d8	1.08560	1.03664	0.010	4.50985	30.00000	Averaged	
\$ 170 4-Bromofluorobenzene	0.64197	0.69509	0.010	-8.27357	30.00000	Averaged	
3 Freon 143a	0.48307	0.68943	0.010	-42.71763	30.00000	Averaged <-	
6 Propane	0.44256	0.47643	0.010	-7.65278	30.00000	Averaged	
13 Freon 142b	2.44292	2.98163	0.010	-22.05215	30.00000	Averaged	
36 1-Pentene	1.59878	1.44277	0.010	9.75840	30.00000	Averaged	
40 Freon 123a	1.56413	1.38432	0.010	11.49556	30.00000	Averaged	
41 Freon 123	2.22241	1.86022	0.010	16.29726	30.00000	Averaged	
55 Cyclopentene	2.39124	1.83884	0.010	23.10113	30.00000	Averaged	
56 Methyl Acetate	2.79640	3.33561	0.010	-19.28236	30.00000	Averaged	
74 Chloroprene	2.23364	2.46280	0.010	-10.25939	30.00000	Averaged	
75 1-Propanol	0.33025	0.29452	0.010	10.82001	30.00000	Averaged	
88 Methyl Acrylate	2.93415	3.12894	0.010	-6.63866	30.00000	Averaged	
103 Isobutanol	0.35400	0.39635	0.010	-11.96311	30.00000	Averaged	
113 Ethyl acrylate	0.05770	0.05365	0.010	7.02059	30.00000	Averaged	
115 2-Pentanone	1.26926	1.66458	0.010	-31.14548	30.00000	Averaged <-	
145 Butyl Acetate	0.62971	0.65559	0.010	-4.10891	30.00000	Averaged	
157 1,1,1,2-Tetrachloroethane	0.55580	0.62763	0.010	-12.92248	30.00000	Averaged	
166 2-Heptanone	3.67076	3.34531	0.010	8.86614	30.00000	Averaged	
172 D-Limonene	0.56456	0.59265	0.010	-4.97640	30.00000	Averaged	
186 4-Chlorotoluene	0.51198	0.55948	0.010	-9.27762	30.00000	Averaged	
197 1,2,3-Trimethylbenzene	0.74544	0.77929	0.010	-4.54085	30.00000	Averaged	
205 Hexachloroethane	0.29306	0.36105	0.010	-23.19931	30.00000	Averaged	
208 1,3,5-Trichlorobenzene	1.04801	1.09275	0.010	-4.26897	30.00000	Averaged	
210 alpha-Pinene	1.03411	1.06893	0.010	-3.36664	30.00000	Averaged	
214 beta-Pinene	0.67705	0.77976	0.010	-15.16996	30.00000	Averaged	

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msdp.i	Calibration Date: 02-SEP-2021
Lab File ID: p090205.d	Calibration Time: 09:55
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msdp.i/02SEP21.b/p21q0519a.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	111368	66821	155915	132824	19.27
108 1,4-Difluorobenze	392899	235739	550059	469419	19.48
153 Chlorobenzene-d5	382253	229352	535154	454122	18.80

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.78	5.45	6.11	5.78	0.00
108 1,4-Difluorobenze	6.66	6.33	6.99	6.67	0.11
153 Chlorobenzene-d5	9.46	9.13	9.79	9.46	0.00

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.

Date : 02-SEP-2021 11:41

Client ID: CCV

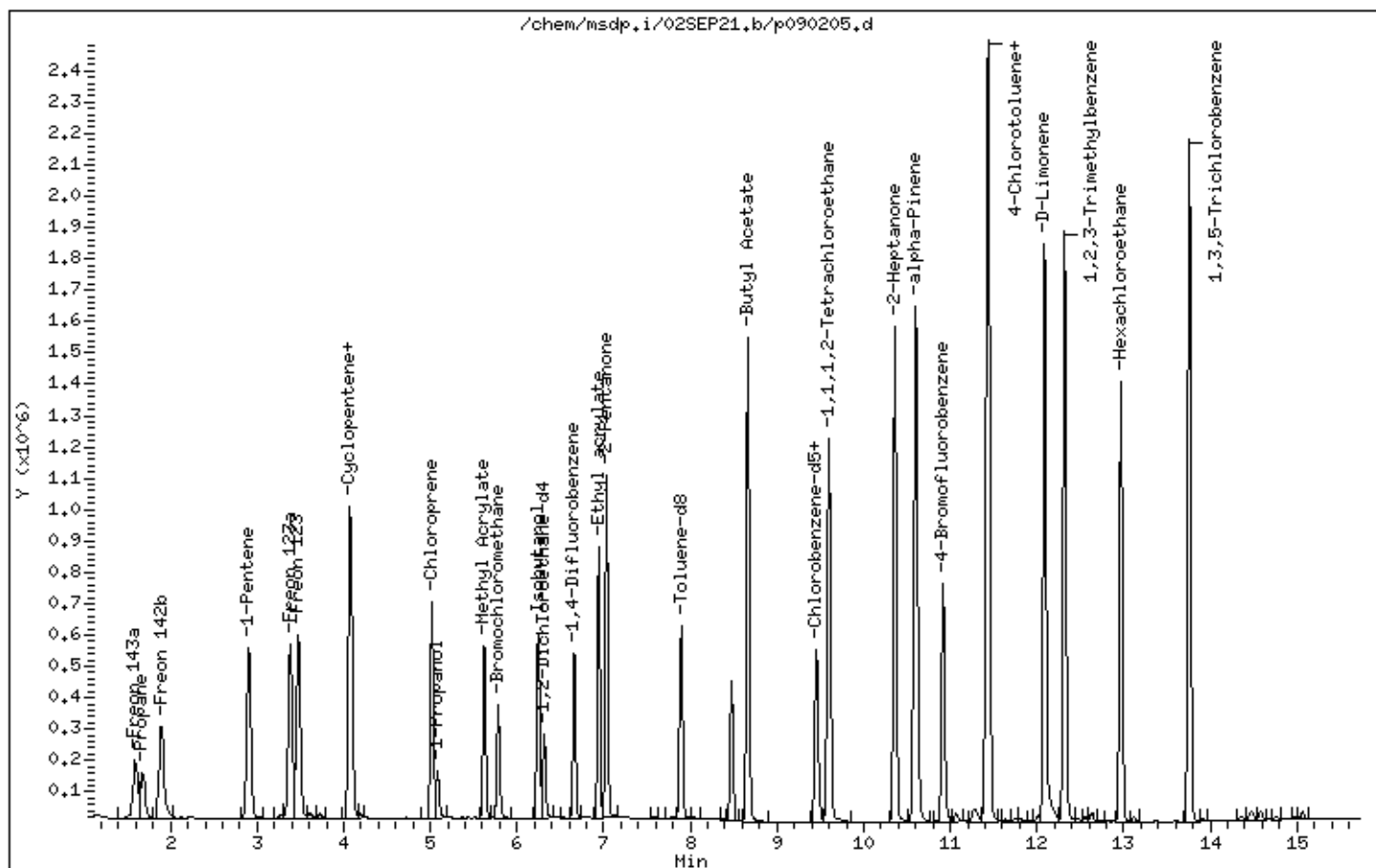
Instrument: msdp.i

Sample Info: 50mL 3018-2127

Operator: LD

Column phase: RTX-624

Column diameter: 0,25



## **Shipping/Receiving Documents**

## **Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page**

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Discrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Air Toxics, Ltd. at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

**Please note** : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

Sample SG-VW21A-06 was placed on hold at your request.





Analysis Request /Canister Chain of Custody

180 Blue Ravine Rd. Suite B, Folsom, CA 95630  
Phone (800) 985-5955; Fax (916) 351-8279

PID: \_\_\_\_\_  
For Laboratory Use Only  
Workorder #: 2108676

page--of--  
1 / 1

Client: AELDM  
Project Name: SMD 59E JF  
Project Manager: Andy Skyeard  
Sampler: Jesse Brown  
Site Name: \_\_\_\_\_  
Project #: 60832795.6

Special Instructions/Notes:  
SG-VW21A-08 ON HOLD  
pending results of SG-VW21A-05

Turnaround Time (Rush surcharges may apply)  
Standard: 5 day TA (specify)  
Canister Vacuum/Pressure: \_\_\_\_\_  
Lab Use Only: \_\_\_\_\_  
Requested Analyses: \_\_\_\_\_

Lab ID	Field Sample Identification (Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N <sub>2</sub> / He	Requested Analyses
				Date	Time	Date	Time					
Q1A	SG-VW21A-05	LL704	13491	8/30/14	1040	8/30/14	1059	-30	-5			ON HOLD
	SG-VW21A-08	LL2444	2121	9/20/14	1101	9/20/14	1105	-30	-5			X TO-15

Relinquished by: (Signature/Affiliation) [Signature] Date 8/30/14 Time 1155  
Relinquished by: (Signature/Affiliation) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Relinquished by: (Signature/Affiliation) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
Relinquished by: (Signature/Affiliation) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Shipper Name: FAD Custody Seals Intact? Yes  No  None   
Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples. D.O.T Hotline (800) 467-4922

**SAMPLE RECEIPT SUMMARY**

**WORKORDER 2108676A**

**Client**

Mr. Robert Kohlhardt  
 AECOM  
 2020 L Street, Suite 400  
 Sacramento, CA 95811

**Phone**

916-679-2000

**Fax**

916-679-2900

**Date Promised:** 09/07/21 5:00 pm

**Date Completed:**

**Date Received:** 8/30/21

**PO#:**

**Project#:** 60132793.6 SMUD 59th St

**Total \$:** \$ 253.50

**Logged By:** CH

**Sales Rep:** DaV

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
01A	SG-VW21A-05	TO-15	8/30/2021	\$172.50
Misc. Charges 1 Liter Summa Canister (2) @ \$20.00 each., Shipment 140902				\$40.00
EATL Flow controller (2) @ \$15.00 each., Shipment 140902				\$30.00
eCVP (1) @ \$3.00 each.				\$3.00
Fitting w/ Pink Ferrule (2) @ \$4.00 each.				\$8.00

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.  
 Atlas Project Name/Profile#: SMUD 59th Street Corporation Yard/25677

**BILL TO:** Mr. Jerry Montgomery  
 SWPPQueen  
 7202 Gloria Drive #25  
 Sacramento, CA 95831

Analysis Code: TO-14A

**REMARKS:** A 15% surcharge is applied for a 5 day turnaround time.

**TERMS:**

Reporting Method: TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**SAMPLE RECEIPT SUMMARY**

**WORKORDER 2108676B**

**Client**

Mr. Robert Kohlhardt  
 AECOM  
 2020 L Street, Suite 400  
 Sacramento, CA 95811

**Phone**

916-679-2000

**Fax**

916-679-2900

**Date Promised:** 09/07/21 5:00 pm

**Date Completed:**

**Date Received:** 8/30/21

**PO#:**

**Project#:** 60132793.6 SMUD 59th St

**Total \$:** \$ 5.00

**Logged By:** CH

**Sales Rep:** DaV

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
02A(on hold)	SG-VW21A-06	TO-15	8/30/2021	\$0.00
Misc. Charges eCVP (1) @ \$5.00 each.				\$5.00

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.  
 Atlas Project Name/Profile#: SMUD 59th Street Corporation Yard/25677

**BILL TO:** Mr. Jerry Montgomery  
 SWPPQueen  
 7202 Gloria Drive #25  
 Sacramento, CA 95831

Analysis Code: TO-14A

**REMARKS:** A 15% surcharge is applied for a 5 day turnaround time.

**TERMS:**

Reporting Method: TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

## **Other Records**

# Air Toxics Ltd.

## File Results

Data File: File Information: p090222.d  
Sample #: 2108676A-01A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.19

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	100	(8975621.30465151 - 6626458.1476672 / 49033)

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p090222.d

Sample #: 2108676A-01A

Client ID:

Spike Level: 0

Dilution Factor: 2.19

Compounds	RT	Peak Area	10
<input type="checkbox"/> Unknown Peak 1.2547	1.255	61461	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.5066	1.507	2793286	<input type="checkbox"/>
<input type="checkbox"/> 1,1-Difluoroethane	1.716	2032578	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 1.8844	1.884	81958	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.0318	2.032	74987	<input type="checkbox"/>
<input type="checkbox"/> Unknown Peak 2.2395	2.240	48051	<input type="checkbox"/>
<input type="checkbox"/> Freon 11	2.891	15431	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethanol	3.250	117228	<input type="checkbox"/>
<input type="checkbox"/> Acetone	3.729	19084	<input type="checkbox"/>
<input type="checkbox"/> Carbon Disulfide	3.837	68531	<input type="checkbox"/>
<input type="checkbox"/> 2-Propanol	3.901	38215	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1234	4.123	27761	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.3956	4.396	48018	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	4.696	385800	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3268	5.327	72435	<input type="checkbox"/>
<input type="checkbox"/> 2-Butanone (Methyl Ethyl Ketone)	5.563	33182	<input type="checkbox"/>
<input checked="" type="checkbox"/> Tetrahydrofuran	5.785	2250	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	5.785	971712	<input type="checkbox"/>
<input type="checkbox"/> Chloroform	5.843	8890	<input type="checkbox"/>
<input type="checkbox"/> 1,1,1-Trichloroethane	5.971	38295	<input type="checkbox"/>
<input checked="" type="checkbox"/> Benzene	6.301	5952	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	6.315	563994	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	6.659	1085371	<input type="checkbox"/>
<input type="checkbox"/> Trichloroethene	6.867	80372	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.9671	6.967	12955	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1247	7.125	26371	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.576	7.576	27346	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	7.891	1293272	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene	7.948	104269	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3782	8.378	12847	<input type="checkbox"/>
<input type="checkbox"/> Tetrachloroethene	8.464	681467	<input type="checkbox"/>
<input type="checkbox"/> 2-Hexanone	8.586	53671	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.7579	8.758	63595	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9083	8.908	38634	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.2163	9.216	33501	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	9.460	1448237	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	9.567	34001	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	9.711	69845	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.075	10.076	21871	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	10.233	27082	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.376	10.377	18279	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.498	10.499	29839	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.598	10.599	41569	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	10.921	1780530	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.021	11.021	27212	<input type="checkbox"/>
<input checked="" type="checkbox"/> Propylbenzene	11.150	12908	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	11.251	85693	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,3,5-Trimethylbenzene	11.358	28374	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.415	11.415	30396	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.615	11.616	58678	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	11.817	78450	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.931	11.931	16006	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: p090222.d

Sample #: 2108676A-01A

Client ID:

Spike Level: 0

Dilution Factor: 2.19

	Compounds	RT	Peak Area	10
	Unknown Peak 12.088	12.089	54464	
	Unknown Peak 12.153	12.153	69110	
	Unknown Peak 12.317	12.318	41936	
	Unknown Peak 12.454	12.454	21320	
	Unknown Peak 12.532	12.533	11523	
	Unknown Peak 12.604	12.604	41521	
	Unknown Peak 12.812	12.812	21050	
	Unknown Peak 12.905	12.905	14539	
	Unknown Peak 12.984	12.984	105811	
	Unknown Peak 13.163	13.163	12454	
	Unknown Peak 13.313	13.314	11561	
	Unknown Peak 13.363	13.364	68081	
	Unknown Peak 13.471	13.471	14290	
	Unknown Peak 13.528	13.528	67327	
	Unknown Peak 13.628	13.629	14620	
	Unknown Peak 13.736	13.736	10375	
	Unknown Peak 13.793	13.794	16082	
	Unknown Peak 13.965	13.965	24728	
	Unknown Peak 14.130	14.130	15974	
	Unknown Peak 14.230	14.230	15300	
	Unknown Peak 14.509	14.510	27215	
	Unknown Peak 14.731	14.732	36695	
	Unknown Peak 14.910	14.911	14654	
	Unknown Peak 15.154	15.155	25981	
	Unknown Peak 15.269	15.269	32340	
	Unknown Peak 15.340	15.341	17073	
	Unknown Peak 15.455	15.455	17336	

*Air Toxics Ltd.*

Curve Response Factors  
p090206.d

Compound	Ave. RF	% RSD
TPH	49033	0.0011

w 9/2/2



*Air Toxics Ltd.*

File Response Factors

Data File: p090206.d  
Sample #: 3234-83  
Client ID: Calib  
Spike Level: 500  
Dilution Factor: 1

Compound	RF	RT
TPH	49033.527636940	

# Air Toxics Ltd.

## List of Selected Compounds

Data File: p090206.d  
 Sample #: 3234-83  
 Client ID: Calib  
 Spike Level: 500  
 Dilution Factor: 1

	Compounds	% Area	RT	Peak Area	10
<input checked="" type="checkbox"/>	Unknown Peak 1.5345	0.29	1.535	95267	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Butane	0.56	2.025	186259	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.2394	0.05	2.239	16586	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Isopentane	3.22	2.633	1073397	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 2.9700	1.15	2.970	382533	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.1706	0.17	3.171	57860	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Ethanol	1.48	3.242	492151	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.3926	0.37	3.393	123768	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.5287	0.14	3.529	47375	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.0803	1.54	4.080	511939	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.1089	1.39	4.109	463510	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.4026	0.65	4.403	216182	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.6175	0.08	4.618	26182	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Hexane	0.73	4.696	242017	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.8181	0.07	4.818	22641	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.8826	0.10	4.883	33155	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.9112	0.12	4.911	39255	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.0043	0.05	5.004	17635	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.0831	0.09	5.083	28659	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.2264	1.34	5.226	447727	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.3267	0.56	5.327	185439	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.384	0.08	5.384	24982	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	2.82	5.778	938990	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Tetrahydrofuran	0.63	5.893	211207	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Cyclohexane	1.55	5.964	515518	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.0573	0.71	6.057	237317	<input type="checkbox"/>
<input type="checkbox"/>	2,2,4-Trimethylpentane	6.39	6.287	2128482	<input type="checkbox"/>
<input type="checkbox"/>	Benzene	0.07	6.301	22807	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	16.70	6.315	5558967	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Heptane	0.82	6.451	274620	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.5945	0.26	6.595	86148	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	3.76	6.666	1251224	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.7808	0.12	6.781	40917	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.8166	0.10	6.817	33253	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.9383	1.38	6.938	460672	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Methylcyclohexane	2.24	6.974	744898	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.053	0.89	7.053	297819	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.1246	0.19	7.125	62766	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.1676	0.15	7.168	49128	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromodichloromethane	4.71	7.304	1569650	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.4111	7.18	7.411	2390582	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.5759	0.87	7.576	290281	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Methyl-2-pentanone	1.85	7.705	616091	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.7979	0.34	7.798	114142	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	4.47	7.891	1487627	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene	4.13	7.948	1374914	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.0343	0.30	8.034	101505	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.1489	0.23	8.149	75605	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.2420	0.65	8.242	216518	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.3853	0.15	8.385	48282	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.5142	0.10	8.514	33292	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.7219	0.06	8.722	19509	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: p090206.d  
Sample #: 3234-83  
Client ID: Calib  
Spike Level: 500  
Dilution Factor: 1

	Compounds	% Area	RT	Peak Area	10
✓	Unknown Peak 8.8939	0.04	8.894	13107	
✓	Unknown Peak 8.9726	0.11	8.973	35956	
✓	Unknown Peak 9.1159	0.08	9.116	25286	
✓	Unknown Peak 9.2305	0.06	9.231	19608	
✓	Unknown Peak 9.3666	0.08	9.367	27740	
✓	Chlorobenzene-d5	4.52	9.460	1506340	
✓	Ethyl Benzene	0.79	9.567	263642	
✓	m,p-Xylene	2.51	9.710	834933	
✓	Unknown Peak 9.9468	0.04	9.947	14398	
✓	o-Xylene	0.86	10.226	284807	
✓	Cumene	0.23	10.649	77947	
✓	Unknown Peak 10.734	0.25	10.735	82193	
✓	4-Bromofluorobenzene	5.65	10.921	1881657	
✓	Propylbenzene	0.16	11.150	51720	
✓	4-Ethyltoluene	1.32	11.258	439144	
✓	1,3,5-Trimethylbenzene	0.38	11.358	126053	
✓	Unknown Peak 11.623	0.51	11.623	170259	
✓	1,2,4-Trimethylbenzene	0.97	11.816	322566	
✓	Unknown Peak 11.945	0.42	11.945	140411	
✓	Unknown Peak 12.110	0.34	12.110	114530	
✓	Unknown Peak 12.239	0.50	12.239	166268	
✓	Unknown Peak 12.317	0.25	12.318	83361	
✓	Unknown Peak 12.475	0.19	12.475	63990	
✓	Unknown Peak 12.547	0.23	12.547	75870	
✓	Unknown Peak 12.597	0.18	12.597	61126	
✓	Unknown Peak 12.647	0.13	12.647	44705	
✓	Unknown Peak 12.740	0.07	12.740	22272	
✓	Unknown Peak 12.819	0.05	12.819	18031	
✓	Unknown Peak 12.919	0.07	12.920	24821	
✓	Unknown Peak 12.955	0.10	12.955	31737	
✓	Unknown Peak 13.034	0.12	13.034	41205	
✓	Unknown Peak 13.127	0.06	13.127	21498	
✓	Unknown Peak 13.184	0.07	13.185	21788	
✓	Unknown Peak 13.377	0.07	13.378	23109	
✓	Unknown Peak 13.521	0.20	13.521	65313	
✓	Unknown Peak 13.771	0.03	13.772	10866	
✓	Unknown Peak 13.836	0.06	13.836	21416	
✓	Unknown Peak 14.015	0.10	14.015	32450	
✓	Unknown Peak 14.545	0.08	14.546	26211	
✓	Unknown Peak 14.803	0.06	14.803	18931	

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure ("Hg)} * (14.7\text{psi}/30\text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
0.0	1.14	1.34	1.68	2.02
0.2	1.14	1.35	1.69	2.03
0.4	1.15	1.36	1.70	2.05
0.5	1.16	1.36	1.71	2.05
0.6	1.16	1.37	1.71	2.06
0.8	1.17	1.38	1.73	2.08
1.0	1.18	1.39	1.74	2.09
1.2	1.18	1.40	1.75	2.10
1.4	1.19	1.40	1.76	2.12
1.5	1.20	1.41	1.77	2.13
1.6	1.20	1.42	1.77	2.13
1.8	1.21	1.42	1.79	2.15
2.0	1.22	1.44	1.80	2.16
2.2	1.23	1.45	1.81	2.18
2.4	1.23	1.46	1.83	2.20
2.5	1.24	1.46	1.83	2.20
2.6	1.24	1.47	1.84	2.21
2.8	1.25	1.48	1.85	2.23
3.0	1.26	1.49	1.87	2.24
3.2	1.27	1.50	1.88	2.26
3.4	1.28	1.51	1.90	2.28
3.5	1.29	1.52	1.90	2.29
3.6	1.29	1.52	1.91	2.30
3.8	1.30	1.53	1.92	2.31
4.0	1.31	1.55	1.94	2.33
4.2	1.32	1.56	1.95	2.35
4.4	1.33	1.57	1.97	2.37
4.5	1.34	1.58	1.98	2.38
4.6	1.34	1.58	1.98	2.39
4.8	1.35	1.60	2.00	2.40
5.0	1.36	1.61	2.02	2.42
5.2	1.37	1.62	2.03	2.44
5.4	1.39	1.63	2.05	2.46
5.5	1.39	1.64	2.06	2.47
5.6	1.40	1.65	2.07	2.48
5.8	1.41	1.66	2.08	2.50
6.0	1.42	1.68	2.10	2.52
6.2	1.43	1.69	2.12	2.55
6.4	1.44	1.70	2.14	2.57
6.5	1.45	1.71	2.15	2.58
6.6	1.46	1.72	2.15	2.59
6.8	1.47	1.73	2.17	2.61
7.0	1.48	1.75	2.19	2.64
7.2	1.49	1.76	2.21	2.66
7.4	1.51	1.78	2.23	2.68
7.5	1.51	1.79	2.24	2.69
7.6	1.52	1.79	2.25	2.70

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
7.7	1.53	1.80	2.26	2.72
7.8	1.54	1.81	2.27	2.73
8.0	1.55	1.83	2.29	2.76
8.2	1.56	1.84	2.31	2.78
8.4	1.58	1.86	2.33	2.81
8.5	1.59	1.87	2.34	2.82
8.6	1.59	1.88	2.36	2.83
8.8	1.61	1.90	2.38	2.86
9.0	1.62	1.91	2.40	2.89
9.2	1.64	1.93	2.42	2.91
9.4	1.65	1.95	2.45	2.94
9.5	1.66	1.96	2.46	2.96
9.6	1.67	1.97	2.47	2.97
9.8	1.69	1.99	2.50	3.00
10.0	1.70	2.01	2.52	3.03
10.2	1.72	2.03	2.55	3.06
10.4	1.74	2.05	2.57	3.09
10.5	1.75	2.06	2.59	3.11
10.6	1.76	2.07	2.60	3.12
10.8	1.78	2.09	2.63	3.16
11.0	1.79	2.12	2.65	3.19
11.2	1.81	2.14	2.68	3.22
11.4	1.83	2.16	2.71	3.26
11.5	1.84	2.17	2.72	3.28
11.6	1.85	2.18	2.74	3.29
11.8	1.87	2.21	2.77	3.33
12.0	1.89	2.23	2.80	3.37
12.2	1.91	2.26	2.83	3.40
12.4	1.94	2.28	2.86	3.44
12.5	1.95	2.30	2.88	3.46
12.6	1.96	2.31	2.90	3.48
12.8	1.98	2.34	2.93	3.52
13.0	2.00	2.36	2.97	3.56
13.2	2.03	2.39	3.00	3.61
13.4	2.05	2.42	3.04	3.65
13.5	2.07	2.44	3.06	3.67
13.6	2.08	2.45	3.07	3.70
13.8	2.10	2.48	3.11	3.74
14.0	2.13	2.51	3.15	3.79
14.2	2.16	2.54	3.19	3.84
14.4	2.18	2.58	3.23	3.88
14.5	2.20	2.59	3.25	3.91
14.6	2.21	2.61	3.27	3.94
14.8	2.24	2.64	3.32	3.99
15.0	2.27	2.68	3.36	4.04
15.2	2.30	2.72	3.41	4.10
15.4	2.33	2.75	3.45	4.15

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
15.5	<b>2.35</b>	2.77	<b>3.48</b>	4.18
15.6	<b>2.37</b>	2.79	<b>3.50</b>	4.21
15.8	<b>2.40</b>	2.83	<b>3.55</b>	4.27
16.0	<b>2.43</b>	2.87	<b>3.60</b>	4.33
16.2	<b>2.47</b>	2.91	<b>3.65</b>	4.39
16.4	<b>2.51</b>	2.96	<b>3.71</b>	4.46
16.5	<b>2.52</b>	2.98	<b>3.73</b>	4.49
16.6	<b>2.54</b>	3.00	<b>3.76</b>	4.52
16.8	<b>2.58</b>	3.05	<b>3.82</b>	4.59
17.0	<b>2.62</b>	3.09	<b>3.88</b>	4.66
17.2	<b>2.66</b>	3.14	<b>3.94</b>	4.74
17.4	<b>2.70</b>	3.19	<b>4.00</b>	4.81
17.5	<b>2.73</b>	3.22	<b>4.03</b>	4.85
17.6	<b>2.75</b>	3.24	<b>4.07</b>	4.89
17.8	<b>2.79</b>	3.30	<b>4.13</b>	4.97
18.0	<b>2.84</b>	3.35	<b>4.20</b>	5.05
18.2	<b>2.89</b>	3.41	<b>4.27</b>	5.14
18.4	<b>2.94</b>	3.47	<b>4.35</b>	5.22
18.5	<b>2.96</b>	3.50	<b>4.38</b>	5.27
18.6	<b>2.99</b>	3.53	<b>4.42</b>	5.32
18.8	<b>3.04</b>	3.59	<b>4.50</b>	5.41
19.0	<b>3.10</b>	3.65	<b>4.58</b>	5.51
19.2	<b>3.16</b>	3.72	<b>4.67</b>	5.61
19.4	<b>3.22</b>	3.79	<b>4.76</b>	5.72
19.5	<b>3.25</b>	3.83	<b>4.80</b>	5.77
19.6	<b>3.28</b>	3.87	<b>4.85</b>	5.83
19.8	<b>3.34</b>	3.94	<b>4.94</b>	5.94
20.0	<b>3.41</b>	4.02	<b>5.04</b>	6.06
20.2	<b>3.48</b>	4.10	<b>5.14</b>	6.18
20.4	<b>3.55</b>	4.19	<b>5.25</b>	6.31
20.5	<b>3.59</b>	4.23	<b>5.31</b>	6.38
20.6	<b>3.63</b>	4.28	<b>5.36</b>	6.45
20.8	<b>3.70</b>	4.37	<b>5.48</b>	6.59
21.0	<b>3.79</b>	4.47	<b>5.60</b>	6.73
21.2	<b>3.87</b>	4.57	<b>5.73</b>	6.89
21.4	<b>3.96</b>	4.67	<b>5.86</b>	7.05
21.5	<b>4.01</b>	4.73	<b>5.93</b>	7.13
21.6	<b>4.06</b>	4.79	<b>6.00</b>	7.22
21.8	<b>4.16</b>	4.90	<b>6.15</b>	7.39
22.0	<b>4.26</b>	5.03	<b>6.30</b>	7.58
22.4	<b>4.48</b>	5.29	<b>6.63</b>	7.98

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
22.5	<b>4.54</b>	5.36	<b>6.72</b>	8.08
22.6	<b>4.61</b>	5.43	<b>6.81</b>	8.19
22.8	<b>4.73</b>	5.58	<b>7.00</b>	8.42
23.0	<b>4.87</b>	5.74	<b>7.20</b>	8.66
23.2	<b>5.01</b>	5.91	<b>7.41</b>	8.91
23.4	<b>5.16</b>	6.09	<b>7.64</b>	9.18
23.5	<b>5.24</b>	6.19	<b>7.76</b>	9.32
23.6	<b>5.33</b>	6.28	<b>7.88</b>	9.47
23.8	<b>5.50</b>	6.48	<b>8.13</b>	9.78
24.0	<b>5.68</b>	6.70	<b>8.40</b>	10.10
24.2	<b>5.88</b>	6.93	<b>8.69</b>	10.45
24.4	<b>6.09</b>	7.18	<b>9.00</b>	10.82
24.5	<b>6.20</b>	7.31	<b>9.17</b>	11.02
24.6	<b>6.31</b>	7.45	<b>9.33</b>	11.22
24.8	<b>6.55</b>	7.73	<b>9.69</b>	11.66
25.0	<b>6.82</b>	8.04	<b>10.08</b>	12.12
25.2	<b>7.10</b>	8.38	<b>10.50</b>	12.63
25.4	<b>7.41</b>	8.74	<b>10.96</b>	13.18
25.5	<b>7.57</b>	8.93	<b>11.20</b>	13.47
25.6	<b>7.75</b>	9.14	<b>11.46</b>	13.78
25.8	<b>8.11</b>	9.57	<b>12.00</b>	14.43
26.0	<b>8.52</b>	10.05	<b>12.60</b>	15.15
26.2	<b>8.97</b>	10.58	<b>13.27</b>	15.95
26.4	<b>9.47</b>	11.17	<b>14.00</b>	16.84
26.5	<b>9.74</b>	11.49	<b>14.40</b>	17.32
26.6	<b>10.02</b>	11.82	<b>14.83</b>	17.83
26.8	<b>10.65</b>	12.56	<b>15.75</b>	18.94
27.0	<b>11.36</b>	13.40	<b>16.80</b>	20.20
27.2	<b>12.17</b>	14.36	<b>18.00</b>	21.65
27.4	<b>13.11</b>	15.46	<b>19.39</b>	23.31
27.5	<b>13.63</b>	16.08	<b>20.16</b>	24.24
27.6	<b>14.20</b>	16.75	<b>21.00</b>	25.26
27.8	<b>15.49</b>	18.27	<b>22.91</b>	27.55
28.0	<b>17.04</b>	20.10	<b>25.20</b>	30.31
28.2	<b>18.93</b>	22.34	<b>28.00</b>	33.67
28.4	<b>21.30</b>	25.13	<b>31.51</b>	37.88
28.5	<b>22.72</b>	26.80	<b>33.61</b>	40.41
28.6	<b>24.34</b>	28.72	<b>36.01</b>	43.29
28.8	<b>28.40</b>	33.50	<b>42.01</b>	50.51
29.0	<b>34.08</b>	40.20	<b>50.41</b>	60.61

**Method:TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)**

<b>CAS Number</b>	<b>Compound</b>	<b>Rpt. Limit(ppbv)</b>
630-20-6	1,1,1,2-Tetrachloroethane	2.0
71-55-6	1,1,1-Trichloroethane	0.5
79-34-5	1,1,2,2-Tetrachloroethane	0.5
79-00-5	1,1,2-Trichloroethane	0.5
75-34-3	1,1-Dichloroethane	0.5
75-35-4	1,1-Dichloroethene	0.5
75-37-6	1,1-Difluoroethane	2.0
96-18-4	1,2,3-Trichloropropane	2.0
120-82-1	1,2,4-Trichlorobenzene	2.0
95-63-6	1,2,4-Trimethylbenzene	0.5
96-12-8	1,2-Dibromo-3-chloropropane	2.0
106-93-4	1,2-Dibromoethane (EDB)	0.5
95-50-1	1,2-Dichlorobenzene	0.5
107-06-2	1,2-Dichloroethane	0.5
78-87-5	1,2-Dichloropropane	0.5
108-67-8	1,3,5-Trimethylbenzene	0.5
106-99-0	1,3-Butadiene	0.5
541-73-1	1,3-Dichlorobenzene	0.5
106-46-7	1,4-Dichlorobenzene	0.5
123-91-1	1,4-Dioxane	2.0
540-84-1	2,2,4-Trimethylpentane	0.5
78-93-3	2-Butanone (Methyl Ethyl Ketone)	2.0
591-78-6	2-Hexanone	2.0
67-63-0	2-Propanol	2.0
107-05-1	3-Chloropropene	2.0
622-96-8	4-Ethyltoluene	0.5
108-10-1	4-Methyl-2-pentanone	0.5
67-64-1	Acetone	5.0
107-02-8	Acrolein	2.0
107-13-1	Acrylonitrile	2.0
100-44-7	alpha-Chlorotoluene	0.5
71-43-2	Benzene	0.5

75-27-4 Bromodichloromethane 0.5  
 Method:TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)

CAS Number	Compound	Rpt. Limit(ppbv)
75-25-2	Bromoform	0.5
74-83-9	Bromomethane	5.0
75-15-0	Carbon Disulfide	2.0
56-23-5	Carbon Tetrachloride	0.5
108-90-7	Chlorobenzene	0.5
75-00-3	Chloroethane	2.0
67-66-3	Chloroform	0.5
74-87-3	Chloromethane	5.0
156-59-2	cis-1,2-Dichloroethene	0.5
10061-01-5	cis-1,3-Dichloropropene	0.5
98-82-8	Cumene	0.5
110-82-7	Cyclohexane	0.5
124-48-1	Dibromochloromethane	0.5
74-95-3	Dibromomethane	2.0
64-17-5	Ethanol	5.0
141-78-6	Ethyl Acetate	2.0
100-41-4	Ethyl Benzene	0.5
637-92-3	Ethyl-tert-butyl ether	2.0
75-69-4	Freon 11	0.5
76-13-1	Freon 113	0.5
76-14-2	Freon 114	0.5
75-71-8	Freon 12	0.5
811-97-2	Freon 134a	2.0
142-82-5	Heptane	0.5
87-68-3	Hexachlorobutadiene	2.0
67-72-1	Hexachloroethane	2.0
110-54-3	Hexane	0.5
74-88-4	Iodomethane	5.0
108-20-3	Isopropyl ether	2.0
108-38-3	m,p-Xylene	0.5
1634-04-4	Methyl tert-butyl ether	2.0
75-09-2	Methylene Chloride	5.0
91-20-3	Naphthalene	1.0
95-47-6	o-Xylene	0.5
103-65-1	Propylbenzene	0.5

115-07-1	Propylene	2.0
100-42-5	Styrene	0.5
994-05-8	tert-Amyl methyl ether	2.0
75-65-0	tert-Butyl alcohol	2.0
127-18-4	Tetrachloroethene	0.5
109-99-9	Tetrahydrofuran	0.5
108-88-3	Toluene	0.5
9999-9999-038	TPH ref. to Gasoline (MW=100)	50.0
156-60-5	trans-1,2-Dichloroethene	0.5
10061-02-6	trans-1,3-Dichloropropene	0.5
79-01-6	Trichloroethene	0.5
108-05-4	Vinyl Acetate	2.0
593-60-2	Vinyl Bromide	2.0
75-01-4	Vinyl Chloride	0.5

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	Surrogate	Method Limits
17060-07-0	1,2-Dichloroethane-d4	70-130
460-00-4	4-Bromofluorobenzene	70-130
2037-26-5	Toluene-d8	70-130



Eurofins Air Toxics		Data Review Checklist			Release Date: 10/22/19
Workorder #	2108676A	Form F1.27	Revision #17	Revision Date: 10/22/19	Page 1 of 2

S	S	S	S	D	<b>Section 1 – Spec Out</b>
1	2	3	4		Initials/Instrument/Date
					S1: MSDP LD 9/2/21
					S2:
					S3:
					S4:
/					Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria
/					Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder
NA					Manual Integrations included and approved
/					Chain of Custody verified for special comments/notes and analyses requested (add comments below)
/					Non-standard Target sublist verified (MDL, LOD, RL, control limits, etc.)
/					Verified standard expiration dates

Profile, analyses, reporting, special notes and unusual circumstances: ST: GC - 2 out CCV, 4 out US, 3 out USD, UB - 09d.

A	A	A	A	D	<b>Section 2 – Sample Analysis</b>
1	2	3	4		Initials/Date
					A1: LD 9/3/21
					A2:
					A3:
					A4:
/					IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, Canister #s Verified and dilution ranges are met per SOP (ex. Over-ranged/overdiluted)
NA					a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument
NA					Manual Integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply)
/					12/24 Hr clock time & Hold Time met for all samples
NA					Re-analysis of sample(s) has been evaluated for comparability and/or sample(s) has/have been checked for trends (Inf/Eff), field dups/trip blanks, samples following bad loads on auto samplers have been verified (system blks, confirmation runs)
/					All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)

Analytical and special notes: ATLOA - Full load.

D	D	D	D	T	3	<b>Section 3 – Target Data Reduction</b>	Technical Review Needed?	T:
1	2	3	4			Initials/Instrument/Date	Circle one: Yes/No	
						D1: LD 9/7/21		
						D2:		
						D3:		
						D4:		
						CAR #	(if applicable)	
						Spectra Verified (documentation of spectral defense included if applicable)		
						TICs resemble reference spectra/ TICs between sample dups. are consistent (if applicable)		
						Lab Narrative is correct		
						TPH/NMOC calculations complete and included in folder		

Special notes:

A	3	<b>Section 4- Atlas Data Entry</b>	Lumen verified and included in folder	Circle one: Yes/No
	T	Initials/Date:	3 <sup>rd</sup> Tier:	
		LD 9/7/21	(needed only for DOD or per client request)	
/		Sample Discrepancy Report (SDR) complete and approved (if applicable)		
/		Manually entered results are checked		
/		At least one result per sample is verified against Target quant sheets		
/		Appropriate data qualifier flags are applied		
/		Final Invoice is correct/ Final PDF report, COC and EDD reviewed and correct		

Special Notes:

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply  
 Note (2) 3<sup>rd</sup> Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Eurofins Air Toxics  Reissued	Data Review Checklist			Release Date: 10/22/19
	Form F1.27	Revision #17	Revision Date: 10/22/19	Page 2 of 2

<b>Workorder # :</b>					<b>Reason for Reissue:</b>						
<b>W</b>	<b>T</b>	<b>3T</b>	<b>Q</b>								
				Reissue Request form Present							
				Client or QA or Lab contact present with reason for reissue							
				Review all affected data							
				Report header has correct R1, R2 etc							
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)							
				Date for Reissue in Report Header matches date in Lab Narrative							
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)							
				Corrective Action issued - #							
				The reissued workorder has been approved by QA Manager or a Technical Director							
<b>Additional Comments:</b>											
<b>Write Up</b> (Initials/Date)			<b>Tech Review</b> (Initials/Date)			<b>*3<sup>rd</sup> Tier Review</b> <i>* 3<sup>rd</sup> Tier Report Review is for DoD &amp; Client Specific projects only</i> (Initials/Date)			<b>QA Review</b> (Initials/Date)		

<b>Workorder # :</b>					<b>Reason for Reissue:</b>						
<b>W</b>	<b>T</b>	<b>3T</b>	<b>Q</b>								
				Reissue Request form Present							
				Client or QA or Lab contact present with reason for reissue							
				Review all affected data							
				Report header has correct R1, R2 etc							
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)							
				Date for Reissue in Report Header matches date in Lab Narrative							
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)							
				Corrective Action issued - #							
				The reissued workorder has been approved by QA Manager or a Technical Director							
<b>Additional Comments:</b>											
<b>Write Up</b> (Initials/Date)			<b>Tech Review</b> (Initials/Date)			<b>*3<sup>rd</sup> Tier Review</b> <i>* 3<sup>rd</sup> Tier Report Review is for DoD &amp; Client Specific projects only</i> (Initials/Date)			<b>QA Review</b> (Initials/Date)		

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply  
Note (2) 3<sup>rd</sup> Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

**Not Applicable**



eurofins

Air Toxics

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# Electronic Comprehensive Validation Package (eCVP)

*Vera Belitsky*

Vera Belitsky

09-15-2021

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**WORK ORDER #: 2108676B**

Work Order Summary

<b>CLIENT:</b>	Mr. Robert Kohlhardt AECOM 2020 L Street, Suite 400 Sacramento, CA 95811	<b>BILL TO:</b>	Mr. Jerry Montgomery SWPPQueen 7202 Gloria Drive #25 Sacramento, CA 95831
<b>PHONE:</b>	916-679-2000	<b>P.O. #</b>	
<b>FAX:</b>	916-679-2900	<b>PROJECT #</b>	60132793.6 SMUD 59th St
<b>DATE RECEIVED:</b>	08/30/2021	<b>CONTACT:</b>	Monica Tran
<b>DATE COMPLETED:</b>	09/14/2021		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
02A	SG-VW21A-06	TO-15	7.3 "Hg	10 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 09/14/21

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

**LABORATORY NARRATIVE  
EPA Method TO-15  
AECOM  
Workorder# 2108676B**

One 1 Liter Summa Canister sample was received on August 30, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

**Receiving Notes**

Sample SG-VW21A-06 was placed on hold per the client's request.

Sample SG-VW21A-06 was removed from "Hold" and placed on "Active" status per client request on 9/7/21.

**Analytical Notes**

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

The US EPA released a document on December 17, 2010 outlining possible data quality concerns for Acrolein measured by EPA Method TO-15. As a result, Acrolein is reported as estimated. Please refer to EPA document titled "Data Quality Evaluation Guidelines for Ambient Air Acrolein Measurements December 17, 2010" located on-line at [www.epa.gov/ttn/amtic/airtox.html](http://www.epa.gov/ttn/amtic/airtox.html) for complete details.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

**Definition of Data Qualifying Flags**

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.



File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



<b>Table 1</b>								
Client	Lab	Date	Date	Date	Sample Holding	Date	Sample Extract Holding	Sample
Sample ID	Sample ID	Collected	Received	Extracted	Time	Analyzed	Time	Condition
					(Days)		(Days)	
SG-VW21A-06	2108676B-02A	08/30/2021	08/30/2021	NA	10	09/09/2021	NA	GOOD
Lab Blank	2108676B-03A	NA	NA	NA	NA	09/09/2021	NA	GOOD
CCV	2108676B-04A	NA	NA	NA	NA	09/09/2021	NA	GOOD
LCS	2108676B-05A	NA	NA	NA	NA	09/09/2021	NA	GOOD
LCSD	2108676B-05AA	NA	NA	NA	NA	09/09/2021	NA	GOOD

## **Sample Results and Raw Data**

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	SG-VW21A-06	<b>Date/Time Analyzed:</b>	9/9/21 07:42 PM
<b>Lab ID:</b>	2108676B-02A	<b>Dilution Factor:</b>	2.22
<b>Date/Time Collected:</b>	8/30/21 11:25 AM	<b>Instrument/Filename:</b>	msd3.i / 3090917
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	630-20-6	1.1	D	30	Not Detected
1,1,1-Trichloroethane	71-55-6	0.73	3.0	6.0	5.2 J
1,1,2,2-Tetrachloroethane	79-34-5	0.59	4.6	7.6	Not Detected
1,1,2-Trichloroethane	79-00-5	0.82	3.6	6.0	Not Detected
1,1-Dichloroethane	75-34-3	0.59	2.2	4.5	Not Detected
1,1-Dichloroethene	75-35-4	0.92	2.6	4.4	Not Detected
1,1-Difluoroethane	75-37-6	2.3	D	12	48
1,2,3-Trichloropropane	96-18-4	2.0	D	27	Not Detected
1,2,4-Trichlorobenzene	120-82-1	3.7	20	33	Not Detected
1,2,4-Trimethylbenzene	95-63-6	2.0	3.3	5.4	9.2
1,2-Dibromo-3-chloropropane	96-12-8	4.1	D	43	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.72	5.1	8.5	Not Detected
1,2-Dichlorobenzene	95-50-1	0.57	4.0	6.7	Not Detected
1,2-Dichloroethane	107-06-2	0.90	2.7	4.5	Not Detected
1,2-Dichloropropane	78-87-5	1.7	3.1	5.1	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.85	3.3	5.4	3.7 J
1,3-Butadiene	106-99-0	0.81	1.5	2.4	Not Detected
1,3-Dichlorobenzene	541-73-1	0.85	4.0	6.7	Not Detected
1,4-Dichlorobenzene	106-46-7	0.43	4.0	6.7	Not Detected
1,4-Dioxane	123-91-1	0.79	4.0	16	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.40	3.1	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	2.3	8.2	13	4.9 J
2-Hexanone	591-78-6	1.5	11	18	Not Detected
2-Propanol	67-63-0	0.73	6.8	11	8.7 J

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	SG-VW21A-06	<b>Date/Time Analyzed:</b>	9/9/21 07:42 PM
<b>Lab ID:</b>	2108676B-02A	<b>Dilution Factor:</b>	2.22
<b>Date/Time Collected:</b>	8/30/21 11:25 AM	<b>Instrument/Filename:</b>	msd3.i / 3090917
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
3-Chloropropene	107-05-1	1.4	3.5	14	Not Detected
4-Ethyltoluene	622-96-8	1.4	3.3	5.4	7.1
4-Methyl-2-pentanone	108-10-1	0.68	2.7	4.5	Not Detected
Acetone	67-64-1	1.9	6.6	26	18 J
Acrolein	107-02-8	3.1	D	10	Not Detected
Acrylonitrile	107-13-1	0.91	D	9.6	Not Detected
alpha-Chlorotoluene	100-44-7	0.46	3.4	5.7	Not Detected
Benzene	71-43-2	0.27	2.1	3.5	2.6 J
Bromodichloromethane	75-27-4	1.4	3.7	7.4	Not Detected
Bromoform	75-25-2	0.99	6.9	11	Not Detected
Bromomethane	74-83-9	1.9	11	43	Not Detected
Carbon Disulfide	75-15-0	3.2	8.6	14	6.1 J
Carbon Tetrachloride	56-23-5	1.1	4.2	7.0	Not Detected
Chlorobenzene	108-90-7	0.45	2.6	5.1	Not Detected
Chloroethane	75-00-3	2.4	7.3	12	Not Detected
Chloroform	67-66-3	0.64	2.7	5.4	8.6
Chloromethane	74-87-3	2.4	5.7	23	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.79	2.6	4.4	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.73	3.0	5.0	Not Detected
Cumene	98-82-8	0.70	3.3	5.4	Not Detected
Cyclohexane	110-82-7	0.82	2.3	3.8	Not Detected
Dibromochloromethane	124-48-1	1.3	5.7	9.4	Not Detected
Dibromomethane	74-95-3	1.5	D	32	Not Detected
Ethanol	64-17-5	2.3	5.2	21	4.6 J

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	SG-VW21A-06	<b>Date/Time Analyzed:</b>	9/9/21 07:42 PM
<b>Lab ID:</b>	2108676B-02A	<b>Dilution Factor:</b>	2.22
<b>Date/Time Collected:</b>	8/30/21 11:25 AM	<b>Instrument/Filename:</b>	msd3.i / 3090917
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Acetate	141-78-6	4.6	D	16	Not Detected
Ethyl Benzene	100-41-4	0.81	2.9	4.8	1.9 J
Ethyl-tert-butyl ether	637-92-3	1.4	D	18	Not Detected
Freon 11	75-69-4	0.72	3.7	6.2	1.4 J
Freon 113	76-13-1	1.3	5.1	8.5	Not Detected
Freon 114	76-14-2	1.1	4.6	7.8	Not Detected
Freon 12	75-71-8	0.99	3.3	5.5	17
Freon 134a	811-97-2	2.5	D	18	Not Detected
Heptane	142-82-5	0.81	2.7	4.5	Not Detected
Hexachlorobutadiene	87-68-3	5.2	30	47	Not Detected
Hexachloroethane	67-72-1	NA	D	43	Not Detected
Hexane	110-54-3	0.72	2.3	3.9	31
Iodomethane	74-88-4	3.5	D	64	Not Detected
Isopropyl ether	108-20-3	1.2	D	18	Not Detected
m,p-Xylene	108-38-3	2.6	2.9	4.8	7.4
Methyl tert-butyl ether	1634-04-4	0.98	4.0	16	Not Detected
Methylene Chloride	75-09-2	2.2	9.6	38	Not Detected
Naphthalene	91-20-3	0.76	1.4	12	Not Detected
o-Xylene	95-47-6	1.3	2.9	4.8	3.6 J
Propylbenzene	103-65-1	0.89	3.3	5.4	1.6 J
Propylene	115-07-1	1.4	4.8	7.6	Not Detected
Styrene	100-42-5	0.55	2.8	4.7	Not Detected
tert-Amyl methyl ether	994-05-8	2.7	D	18	Not Detected
tert-Butyl alcohol	75-65-0	1.2	D	13	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	SG-VW21A-06	<b>Date/Time Analyzed:</b>	9/9/21 07:42 PM
<b>Lab ID:</b>	2108676B-02A	<b>Dilution Factor:</b>	2.22
<b>Date/Time Collected:</b>	8/30/21 11:25 AM	<b>Instrument/Filename:</b>	msd3.i / 3090917
<b>Media:</b>	1 Liter Summa Canister		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	1.3	4.5	7.5	150
Tetrahydrofuran	109-99-9	0.71	2.0	3.3	Not Detected
Toluene	108-88-3	1.0	2.5	4.2	12
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	450	530
trans-1,2-Dichloroethene	156-60-5	1.8	2.6	4.4	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.69	3.0	5.0	Not Detected
Trichloroethene	79-01-6	0.75	3.6	6.0	20
Vinyl Acetate	108-05-4	3.1	9.8	16	Not Detected
Vinyl Bromide	593-60-2	1.6	D	19	Not Detected
Vinyl Chloride	75-01-4	1.1	1.7	2.8	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	89
4-Bromofluorobenzene	460-00-4	70-130	95
Toluene-d8	2037-26-5	70-130	108

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/09SEP21.b/3090917.d  
 Lab Smp Id: 2108676B-02A  
 Inj Date : 09-SEP-2021 19:42  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL O0843  
 Misc Info : 7.3 Hg->10 psi  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/09SEP21.b/321q0812b.m  
 Meth Date : 10-Sep-2021 14:44 ugdc Quant Type: ISTD  
 Cal Date : 02-SEP-2021 10:33 Cal File: 3090203.d  
 Als bottle: 9  
 Dil Factor: 2.22000  
 Integrator: HP RTE Compound Sublist: AEC25677.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO
				( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.858	5.858	(1.000)	130	180377	25.0000	80.00- 120.00	100.00
5.858	5.858	(1.000)	128	138399		47.29- 107.29	76.73
5.858	5.858	(1.000)	49	292275		122.83- 182.83	162.04
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.750	6.750	(1.000)	114	646712	25.0000	80.00- 120.00	100.00
6.750	6.750	(1.000)	88	96512		0.00- 45.09	14.92
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.207	9.207	(1.000)	117	665975	25.0000	80.00- 120.00	100.00
9.207	9.207	(1.000)	82	344233		23.62- 83.62	51.69
-----							
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0							
6.404	6.404	(1.093)	65	223673	22.2567	22.257 80.00- 120.00	100.00
6.404	6.404	(1.093)	67	114479		20.51- 80.51	51.18
-----							
§ 134 Toluene-d8 CAS #: 2037-26-5							
7.967	7.968	(1.180)	98	704628	27.0367	27.037 80.00- 120.00	100.00
7.967	7.968	(1.180)	70	76660		0.00- 42.00	10.88

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)							
7.967	7.968	(1.180)	100	467182		37.14- 97.14	66.30
-----							
§ 170 4-Bromofluorobenzene							
						CAS #: 460-00-4	
10.202	10.195	(1.108)	174	413296	23.7356	23.736 80.00- 120.00	100.00
10.195	10.195	(1.107)	95	506588		92.25- 152.25	122.57
10.202	10.195	(1.108)	176	383470		63.07- 123.07	92.78
-----							
7 1,1-Difluoroethane							
						CAS #: 75-37-6	
1.632	1.633	(0.279)	65	25558	8.01861	17.801 80.00- 120.00	100.00
1.632	1.633	(0.279)	51	39721		217.13- 277.13	155.42
1.632	1.647	(0.279)	47	9364		48.77- 108.77	36.64
-----							
8 Freon 12							
						CAS #: 75-71-8	
1.688	1.661	(0.288)	85	22215	1.55249	3.446 80.00- 120.00	100.00
1.688	1.661	(0.288)	87	8095		2.35- 62.35	36.44
-----							
33 Freon 11							
						CAS #: 75-69-4	
2.878	2.892	(0.491)	101	1838	0.11559	0.2566 80.00- 120.00	100.00(a)
2.878	2.892	(0.491)	103	1631		36.55- 96.55	88.72
-----							
39 Ethanol							
						CAS #: 64-17-5	
3.325	3.270	(0.568)	46	1389	1.10921	2.462 80.00- 120.00	100.00(a)
3.325	3.270	(0.568)	45	2771		213.29- 273.29	199.48
-----							
47 Acetone							
						CAS #: 67-64-1	
3.801	3.773	(0.649)	58	11127	3.33914	7.413 80.00- 120.00	100.00(a)
3.801	3.773	(0.649)	43	38774		325.09- 385.09	348.45
-----							
48 Carbon Disulfide							
						CAS #: 75-15-0	
3.843	3.857	(0.656)	76	13353	0.88654	1.968 80.00- 120.00	100.00(a)
-----							
52 2-Propanol							
						CAS #: 67-63-0	
4.011	3.941	(0.685)	45	20525	1.59607	3.543 80.00- 120.00	100.00(a)
3.997	3.941	(0.682)	43	6576		0.00- 49.76	32.04
-----							
67 Hexane							
						CAS #: 110-54-3	
4.739	4.753	(0.809)	57	43225	3.95785	8.786 80.00- 120.00	100.00
4.739	4.753	(0.809)	43	29672		36.74- 96.74	68.65
4.739	4.753	(0.809)	86	5261		0.00- 43.22	12.17
-----							
86 2-Butanone							
						CAS #: 78-93-3	
5.676	5.648	(0.969)	72	2189	0.75230	1.670 80.00- 120.00	100.00(a)
5.662	5.648	(0.967)	43	14460		1111.25-1171.25	660.29
5.676	5.648	(0.969)	57	1351		11.22- 71.22	61.71
-----							



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
92 Chloroform					CAS #: 67-66-3			
5.914	5.914	(1.010)	83	10103	0.79190	1.758	80.00- 120.00	100.00
5.914	5.914	(1.010)	85	5896			34.29- 94.29	58.36
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
6.040	6.054	(1.031)	97	5952	0.42978	0.9541	80.00- 120.00	100.00(a)
6.054	6.054	(1.033)	99	3778			34.55- 94.55	63.49
102 Benzene					CAS #: 71-43-2			
6.376	6.376	(0.945)	78	6199	0.36956	0.8204	80.00- 120.00	100.00(a)
6.376	6.376	(0.945)	77	2402			0.00- 53.48	38.75
111 Trichloroethene					CAS #: 79-01-6			
6.943	6.950	(1.029)	95	13584	1.65669	3.678	80.00- 120.00	100.00
6.943	6.950	(1.029)	130	15216			79.68- 139.68	112.01
6.943	6.943	(1.029)	97	8687			34.74- 94.74	63.95
137 Toluene					CAS #: 108-88-3			
8.025	8.025	(1.189)	91	30662	1.37567	3.054	80.00- 120.00	100.00
8.025	8.025	(1.189)	92	17422			28.13- 88.13	56.82
142 Tetrachloroethene					CAS #: 127-18-4			
8.462	8.462	(0.919)	166	120760	9.84714	21.861	80.00- 120.00	100.00
8.462	8.462	(0.919)	129	92891			48.51- 108.51	76.92
8.462	8.462	(0.919)	131	90750			45.64- 105.64	75.15
155 Ethyl Benzene					CAS #: 100-41-4			
9.271	9.278	(1.007)	106	2055	0.19864	0.4410	80.00- 120.00	100.00(a)
9.278	9.278	(1.008)	91	7524			282.43- 342.43	366.12
158 m,p-Xylene					CAS #: 108-38-3			
9.371	9.371	(1.018)	106	9717	0.76474	1.698	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	19779			169.66- 229.66	203.54
164 o-Xylene					CAS #: 95-47-6			
9.722	9.722	(1.056)	106	4522	0.37533	0.8332	80.00- 120.00	100.00(a)
9.722	9.722	(1.056)	91	10399			180.55- 240.55	229.96
178 Propylbenzene					CAS #: 103-65-1			
10.360	10.360	(1.125)	120	1581	0.14392	0.3195	80.00- 120.00	100.00(a)
10.360	10.353	(1.125)	91	5744			385.23- 445.23	363.22
10.367	10.360	(1.126)	105	218			0.00- 46.02	13.83
183 4-Ethyltoluene					CAS #: 622-96-8			
10.431	10.453	(1.133)	120	7755	0.65385	1.452	80.00- 120.00	100.00
10.431	10.453	(1.133)	105	24827			295.29- 355.29	320.13

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
185 1,3,5-Trimethylbenzene				CAS #: 108-67-8				
10.503	10.503	(1.141)	120	5582	0.33738	0.7490	80.00- 120.00	100.00(a)
10.503	10.503	(1.141)	105	11871			176.14- 236.14	212.65
-----								
190 1,2,4-Trimethylbenzene				CAS #: 95-63-6				
10.833	10.833	(1.177)	105	26983	0.84032	1.866	80.00- 120.00	100.00
10.833	10.833	(1.177)	120	12720			17.12- 77.12	47.14
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3090917.d  
Lab Smp Id: 2108676B-02A  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/09SEP21.b/321q0812b.m  
Misc Info: 7.3 Hg->10 psi

Calibration Date: 09-SEP-2021  
Calibration Time: 11:39  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	194770	116862	272678	180377	-7.39
108 1,4-Difluorobenze	712592	427555	997629	646712	-9.25
153 Chlorobenzene-d5	710524	426314	994734	665975	-6.27

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 09SEP21  
Sample Matrix: GAS Fraction: VOA  
Lab Smp Id: 2108676B-02A  
Level: LOW Operator: LD  
Data Type: MS DATA SampleType: SAMPLE  
SpikeList File: AT20\_new.spk Quant Type: ISTD  
Sublist File: AEC25677.sub  
Method File: /chem/msd3.i/09SEP21.b/321q0812b.m  
Misc Info: 7.3 Hg->10 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	22.257	89.03	70-130
\$ 134 Toluene-d8	25.000	27.037	108.15	70-130
\$ 170 4-Bromofluorobenz	25.000	23.736	94.94	70-130

Date : 09-SEP-2021 19:42

Client ID:

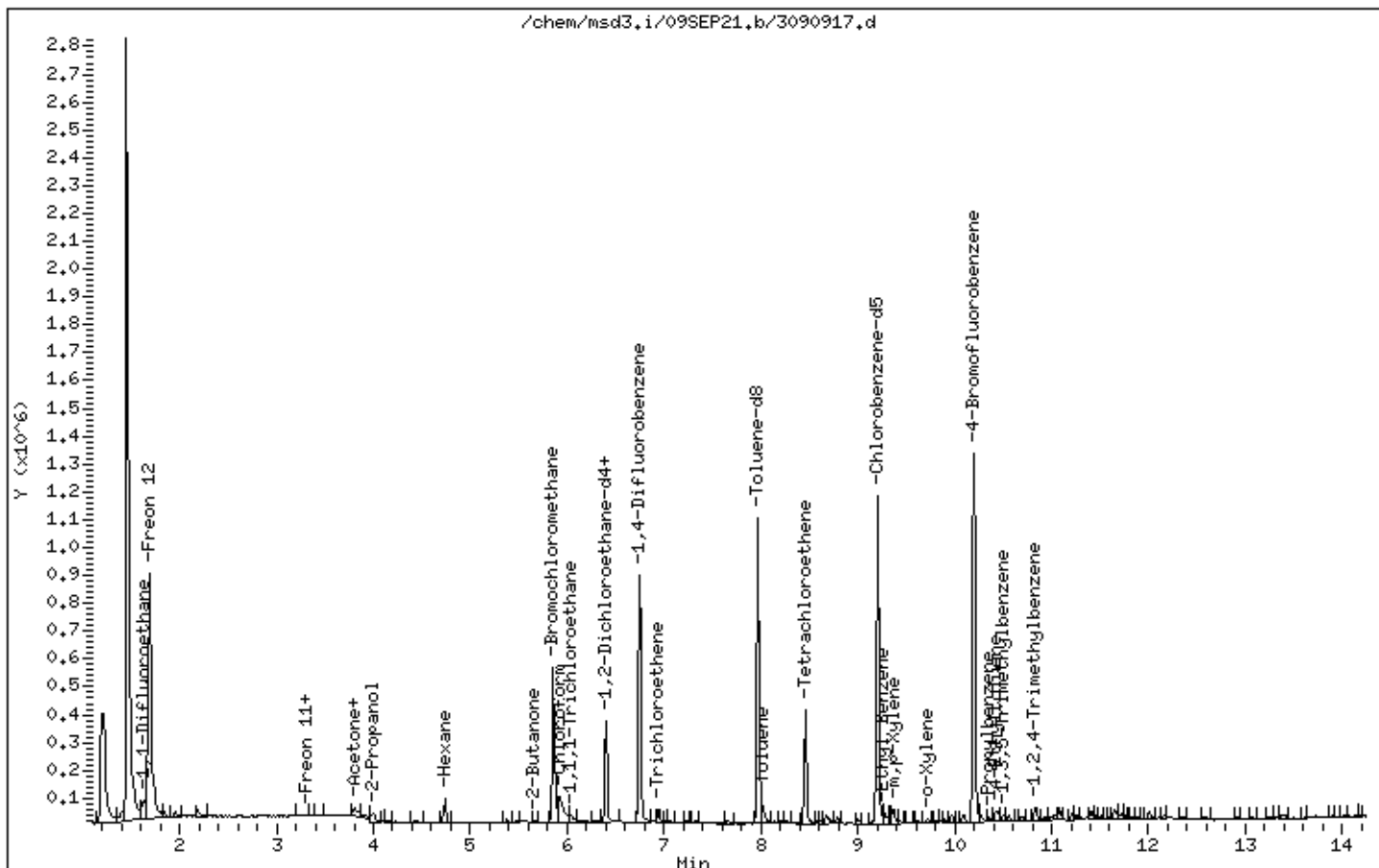
Instrument: msd3,i

Sample Info: 200mL 00843

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

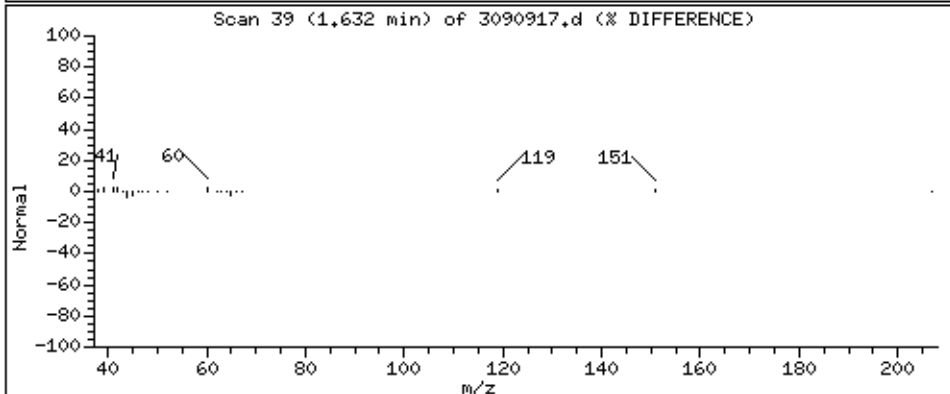
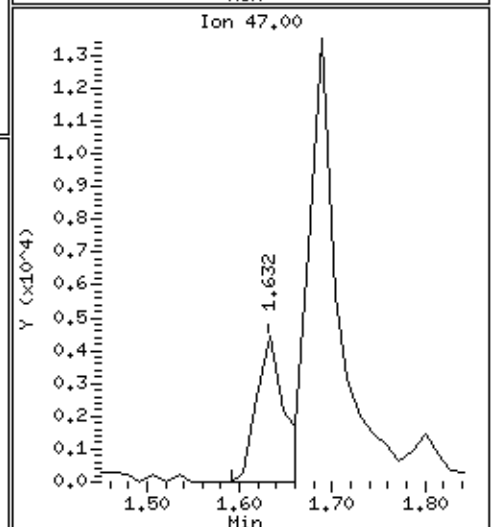
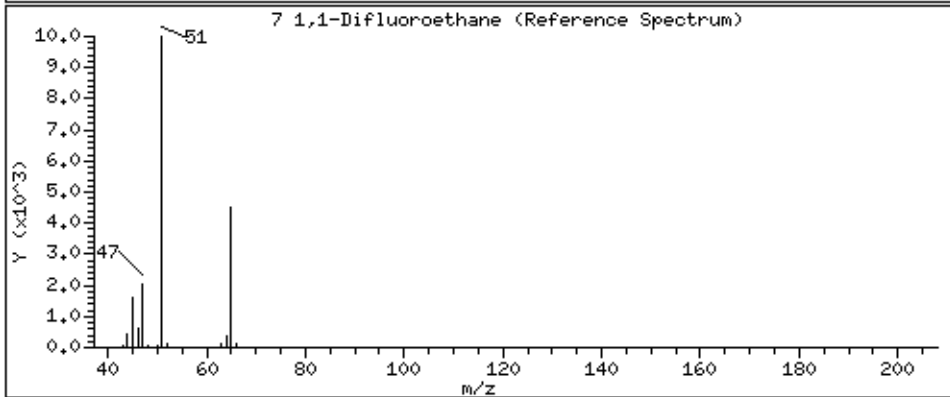
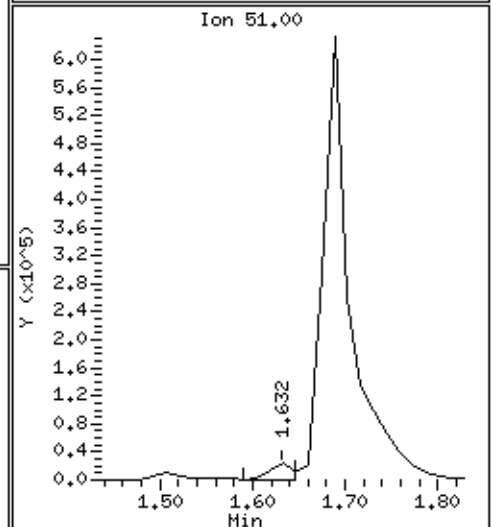
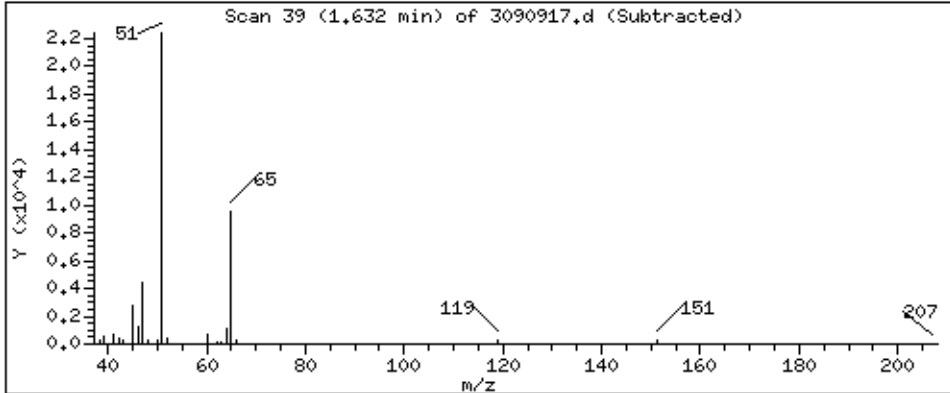
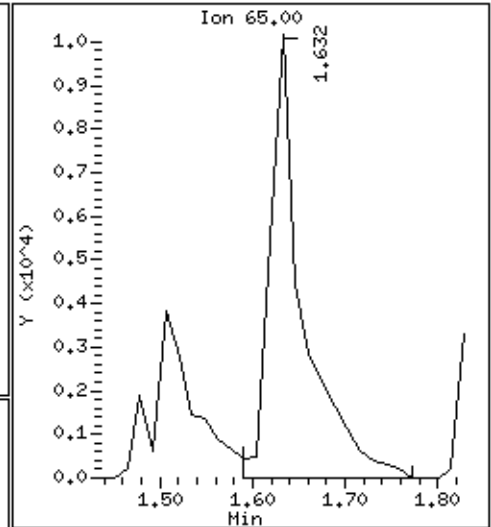
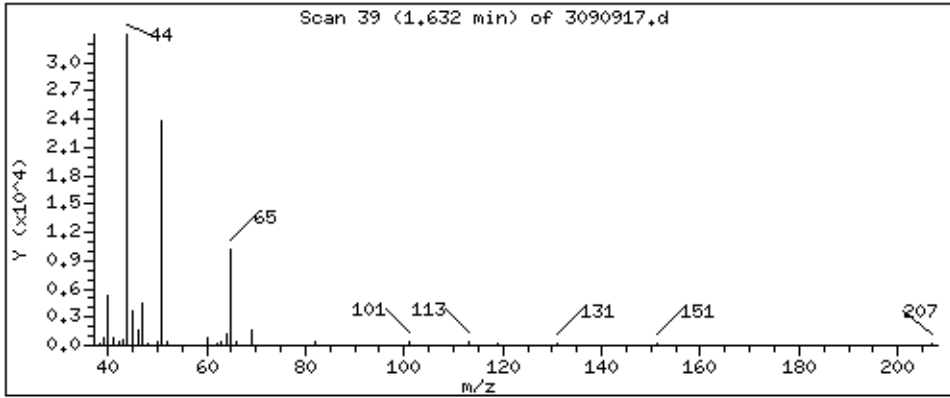
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

7 1,1-Difluoroethane

Concentration: 17,801 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

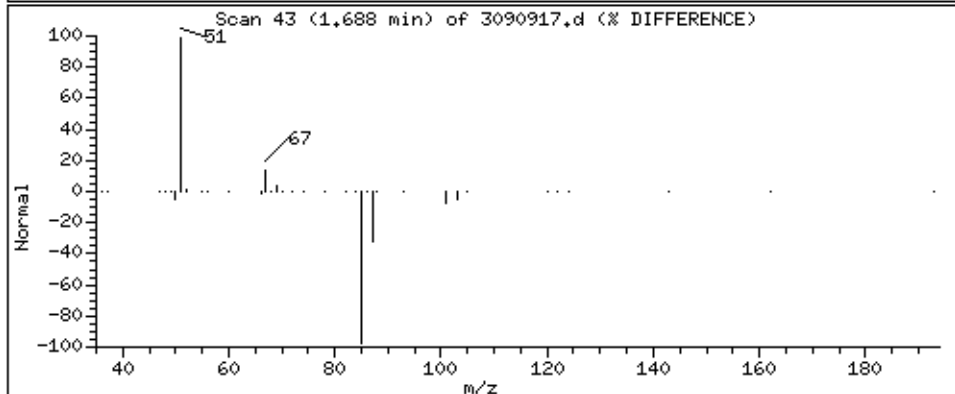
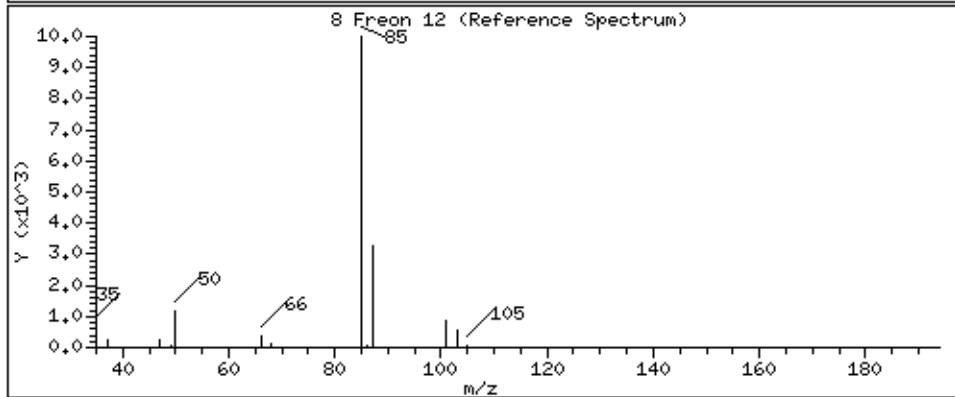
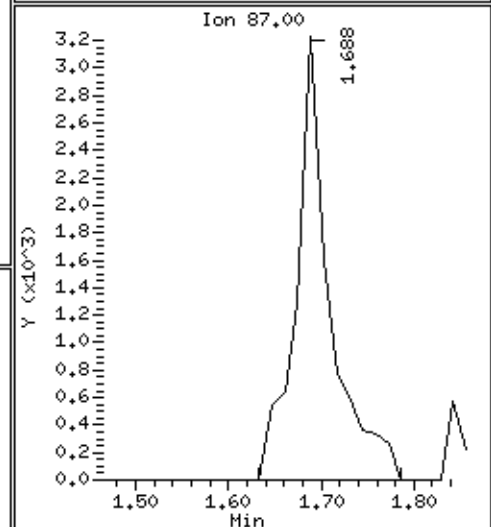
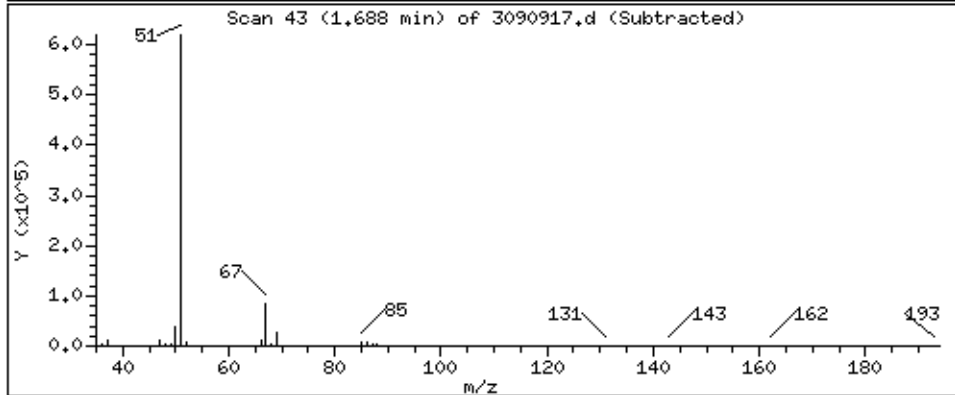
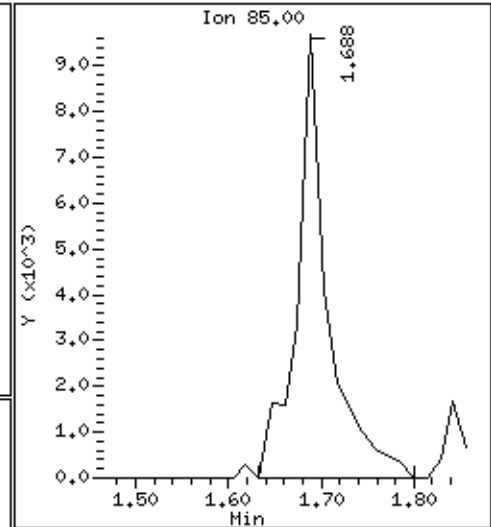
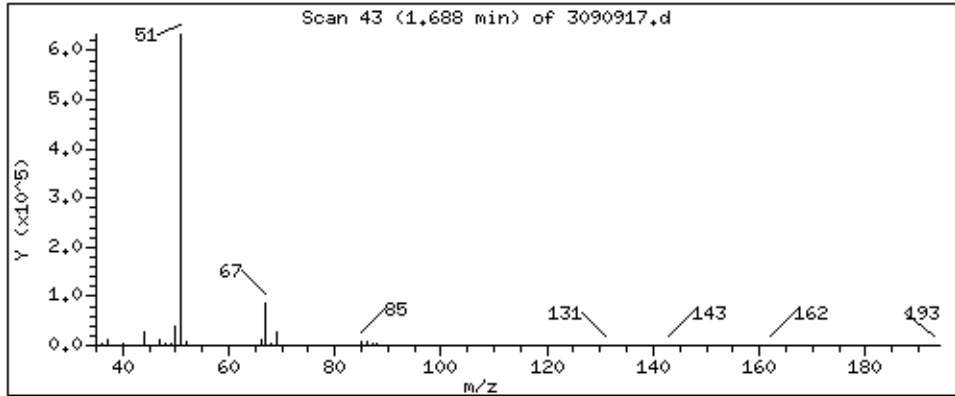
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

8 Freon 12

Concentration: 3,446 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

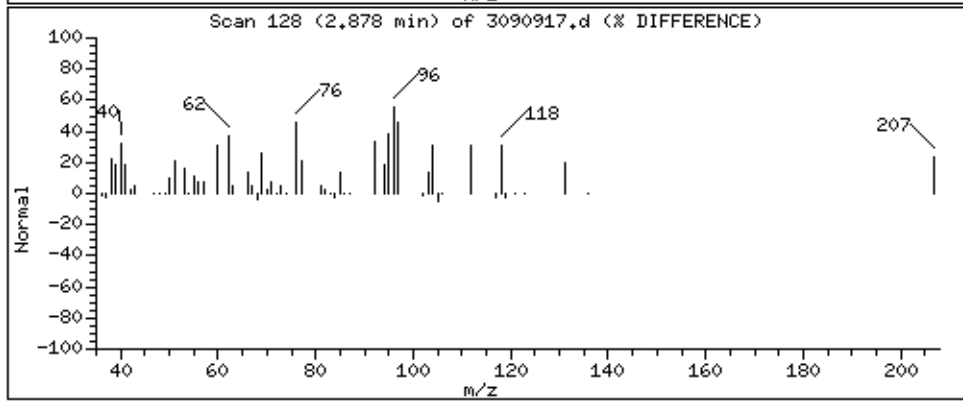
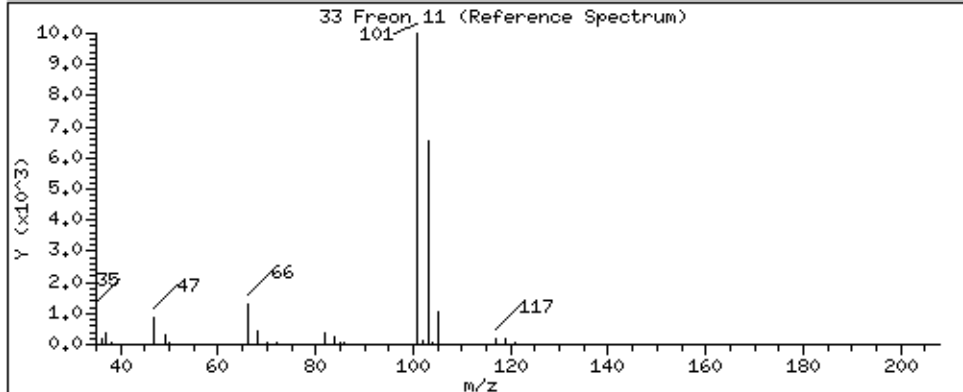
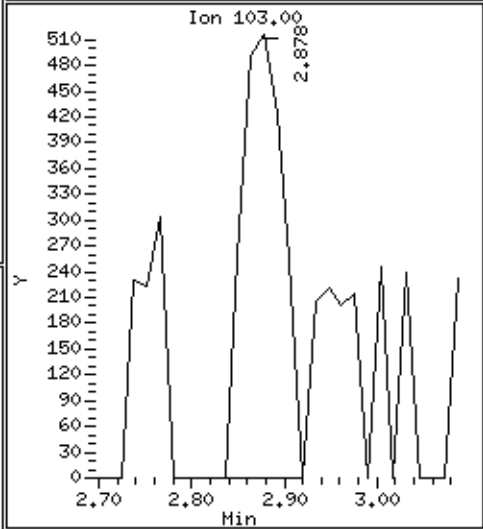
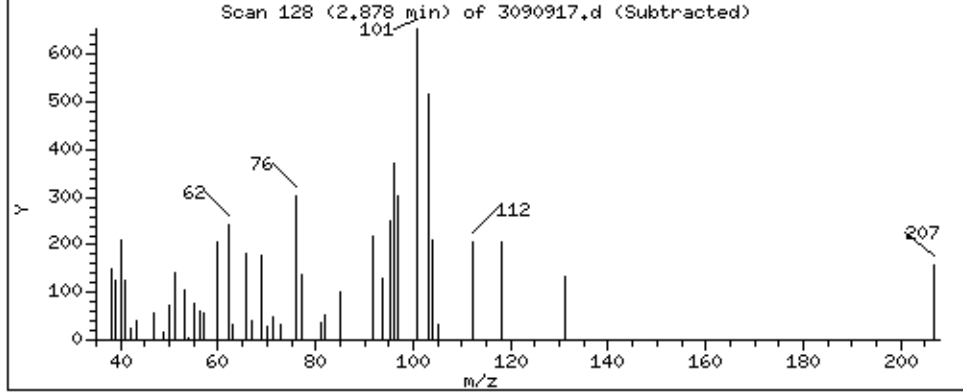
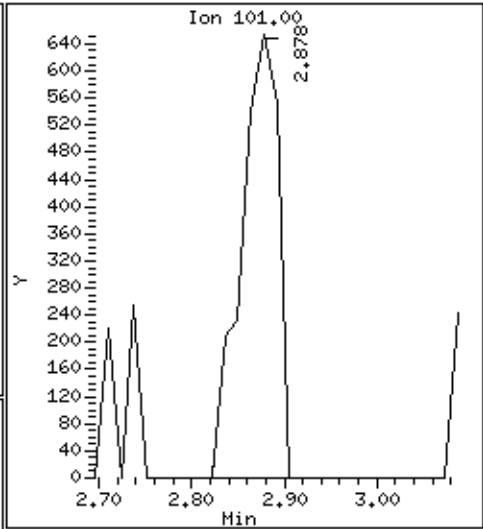
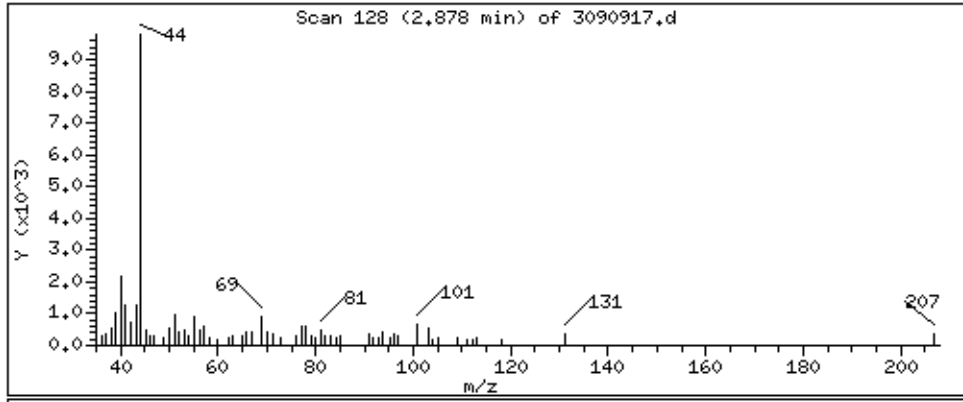
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

33 Freon 11

Concentration: 0.2566 PPBV





Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

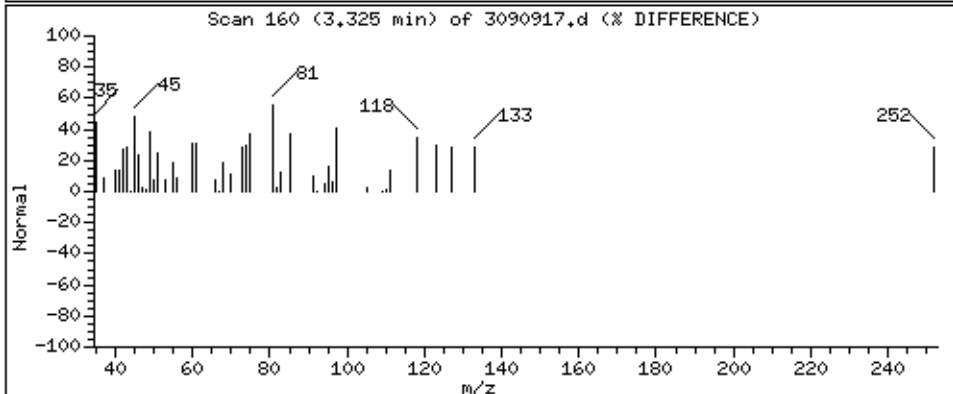
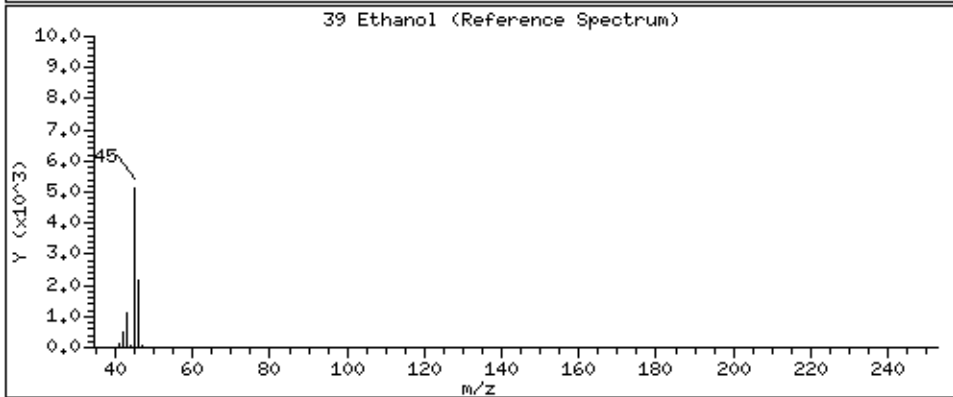
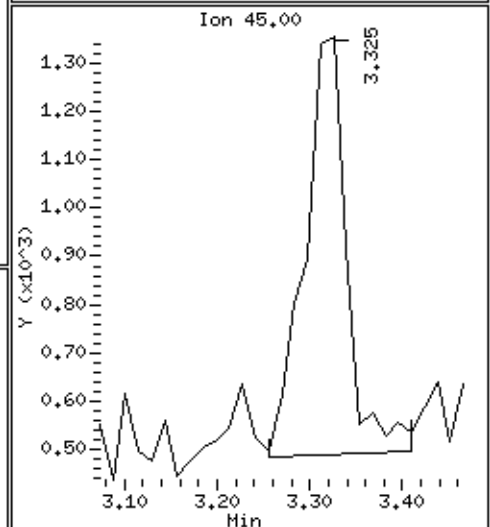
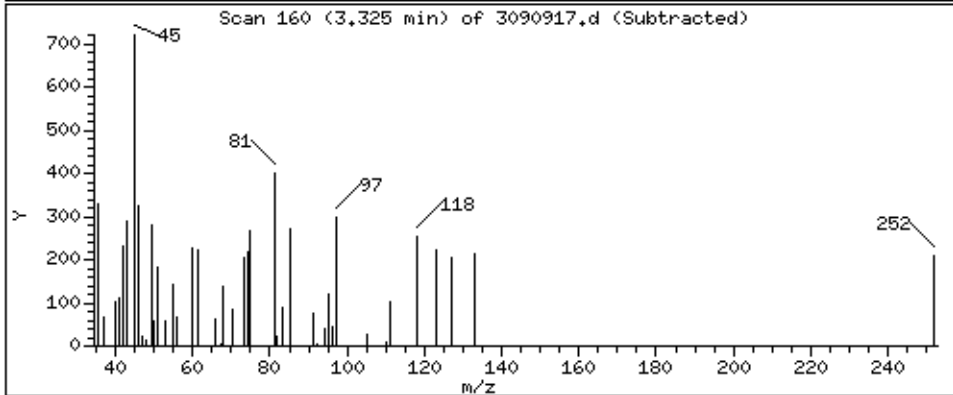
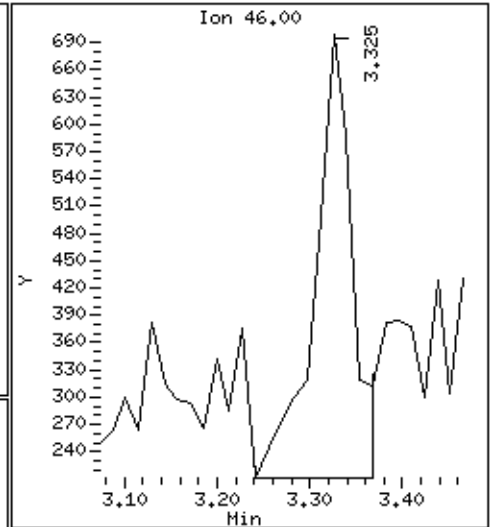
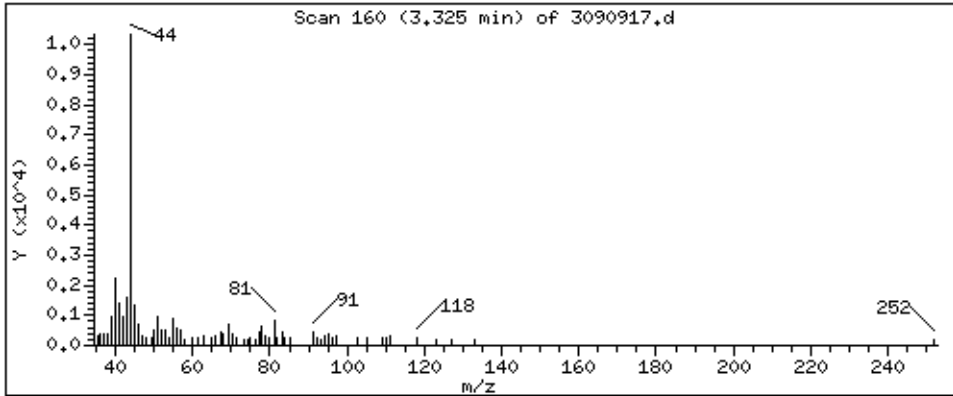
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

39 Ethanol

Concentration: 2.462 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

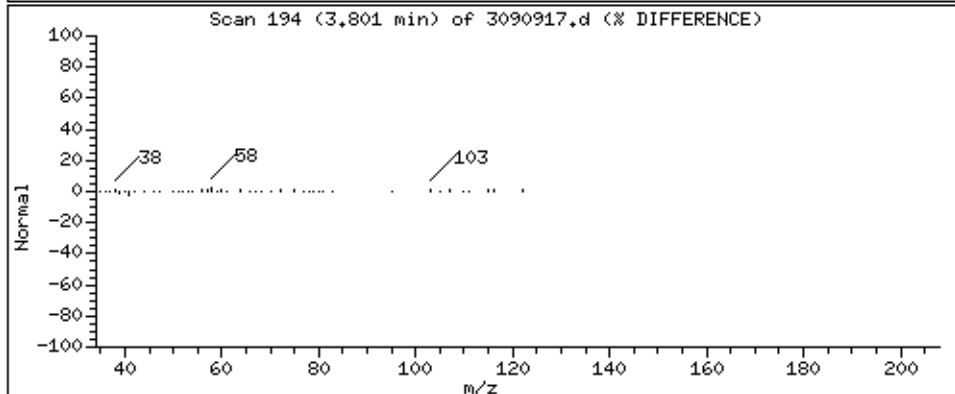
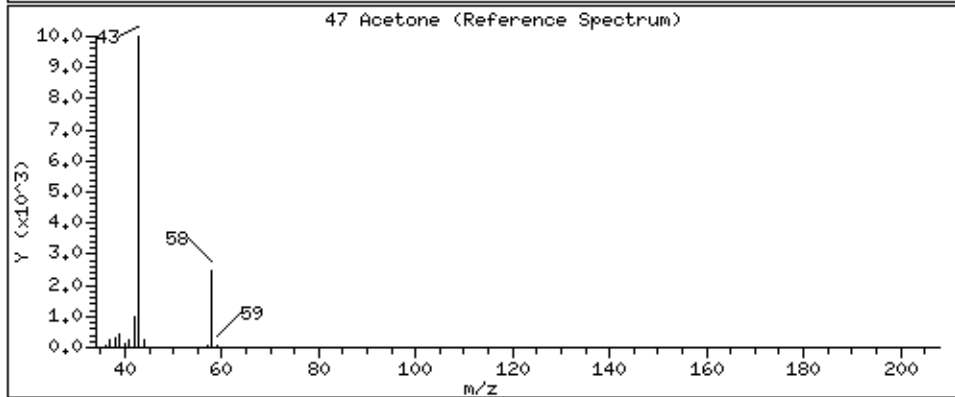
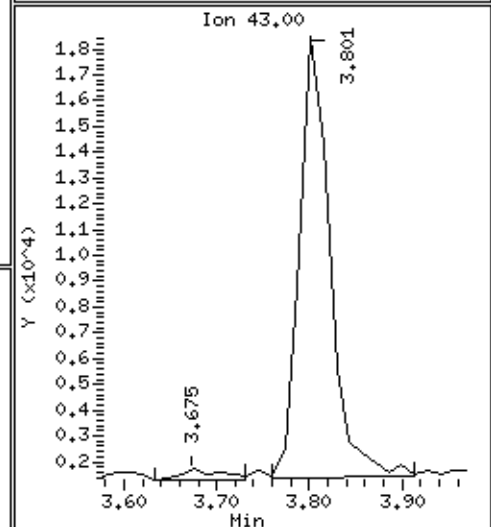
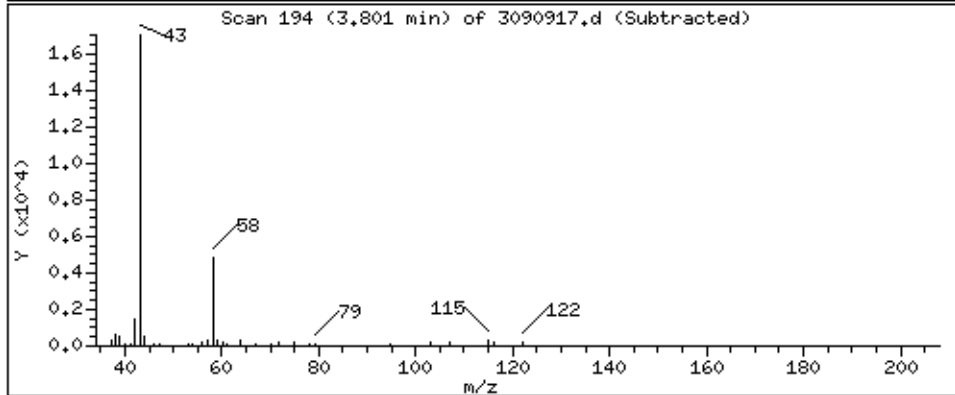
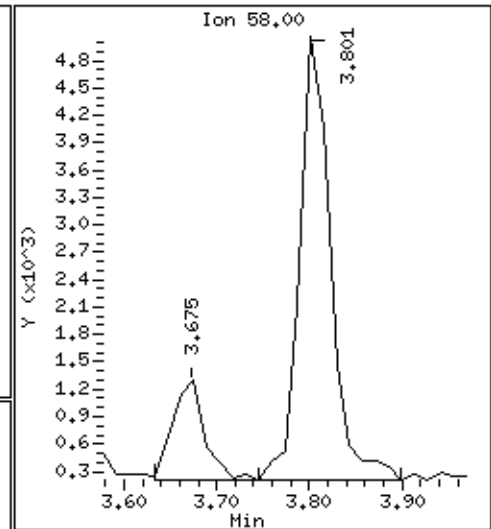
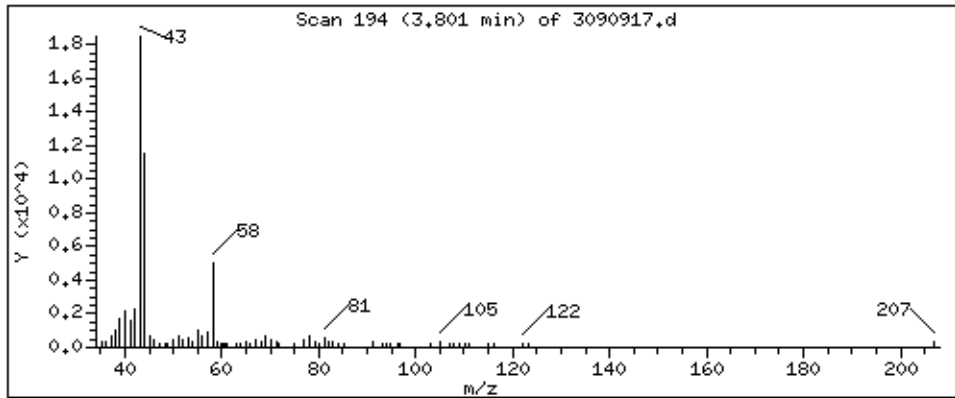
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

47 Acetone

Concentration: 7.413 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

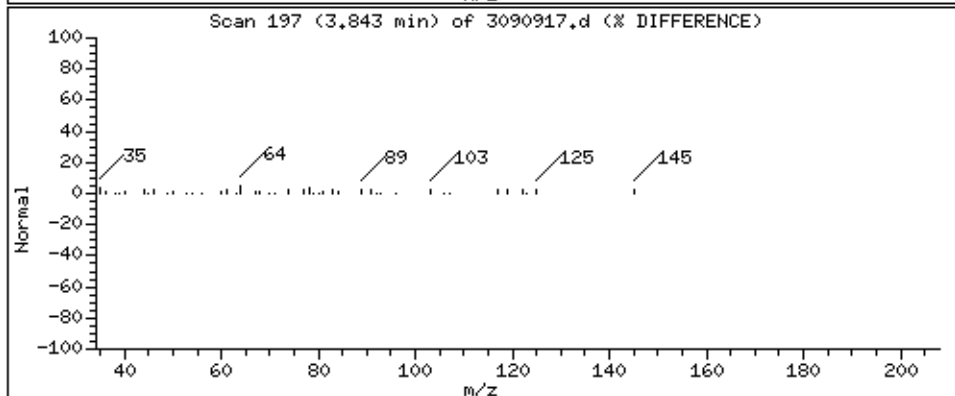
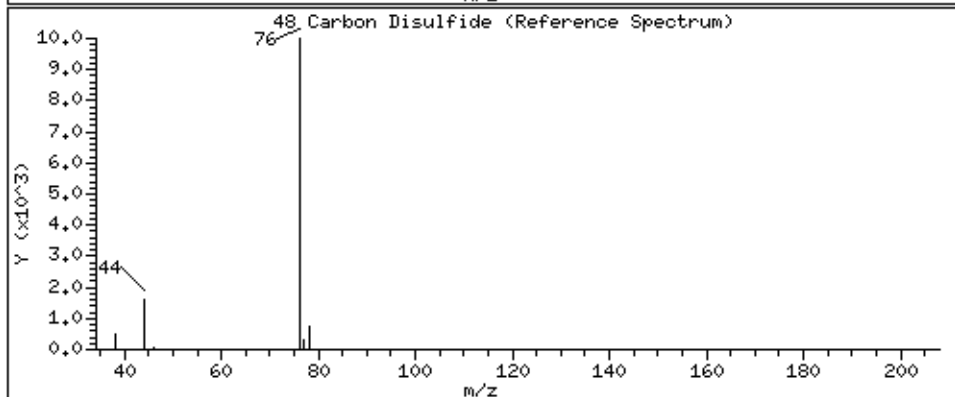
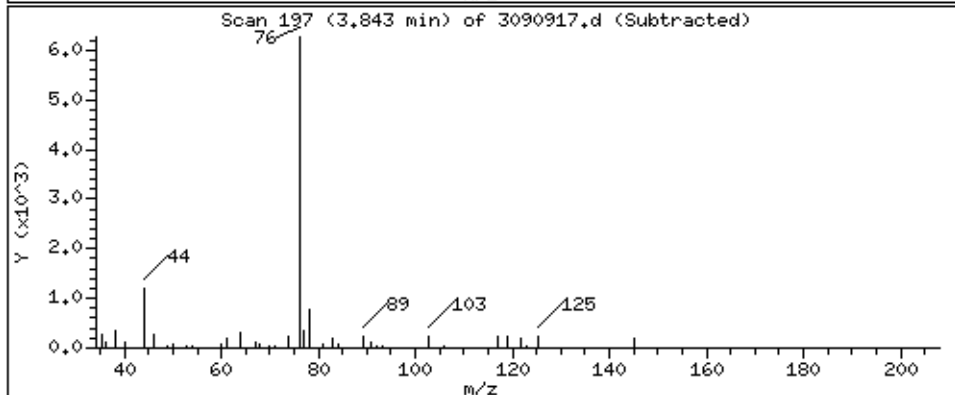
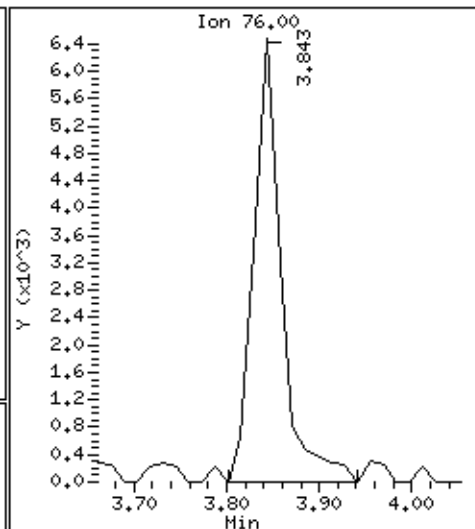
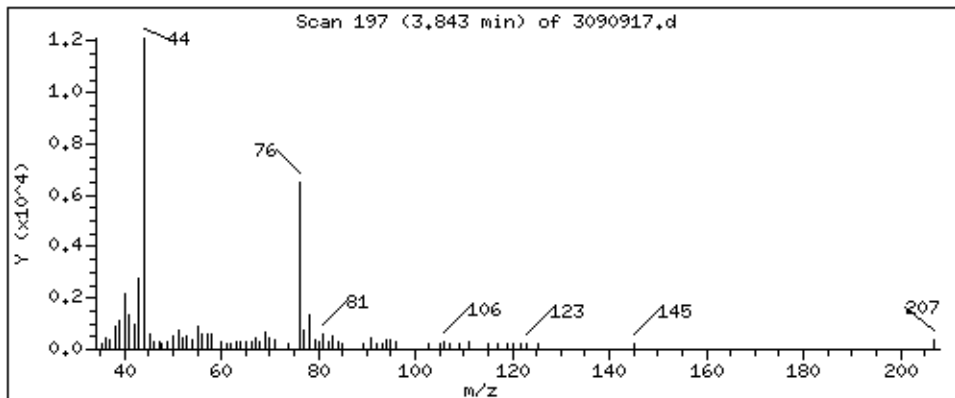
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

48 Carbon Disulfide

Concentration: 1,968 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

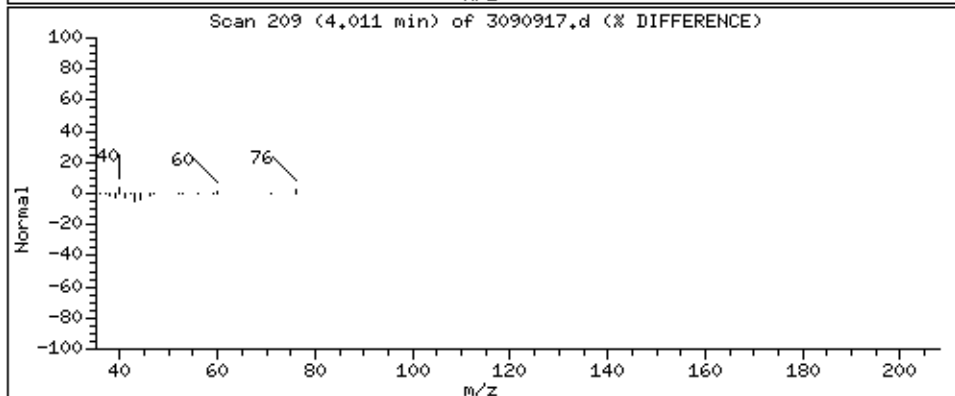
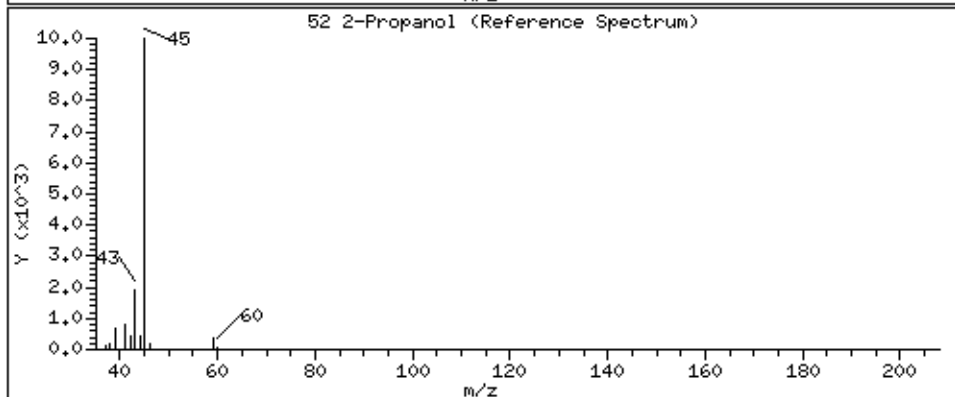
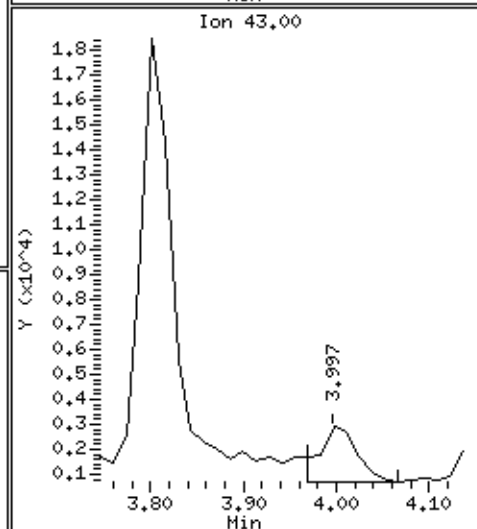
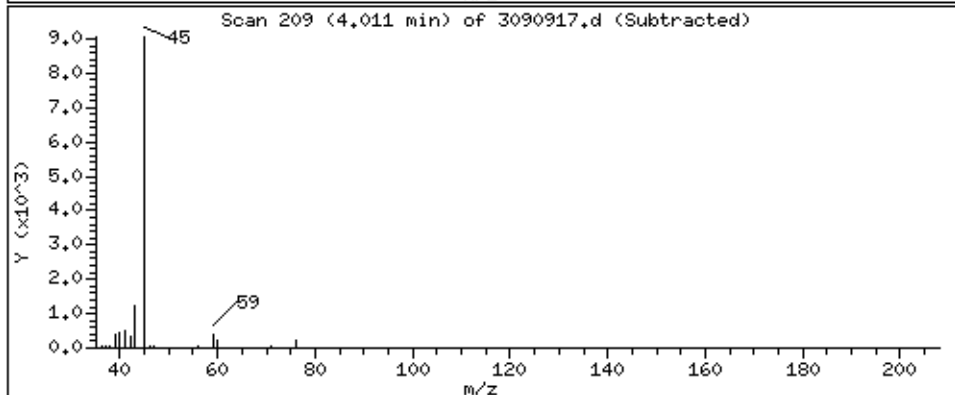
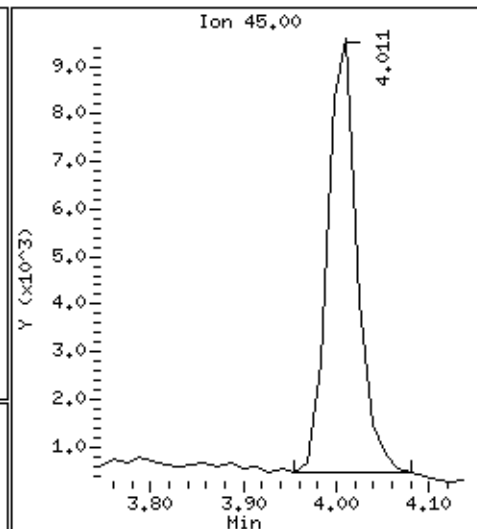
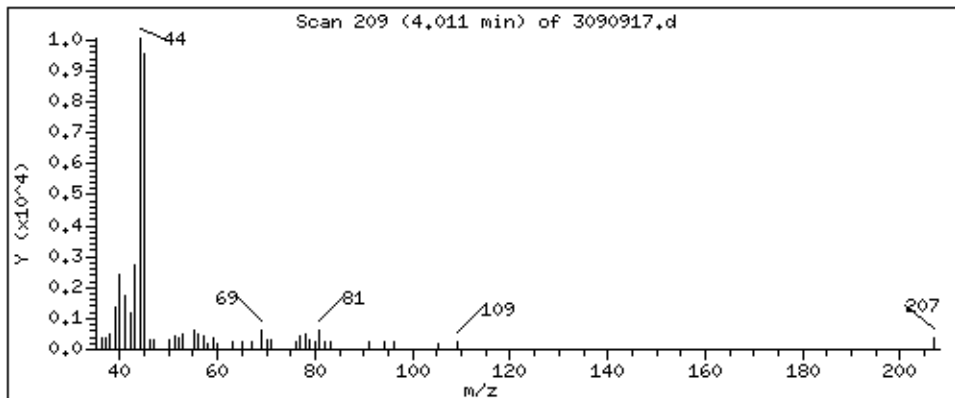
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 3,543 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

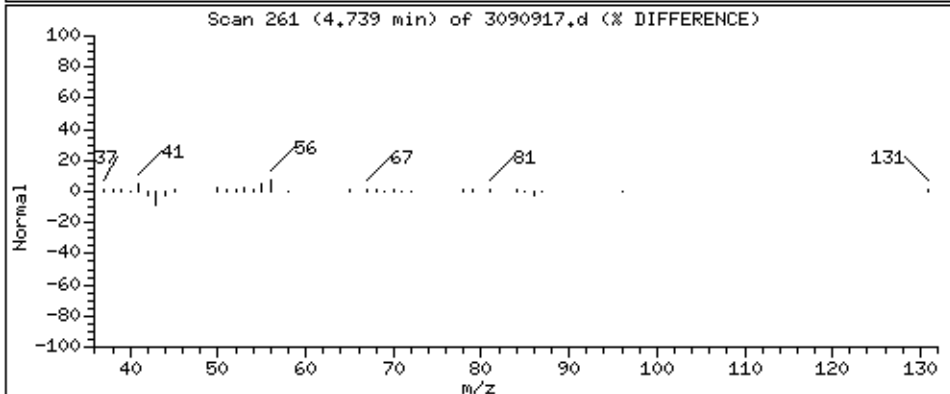
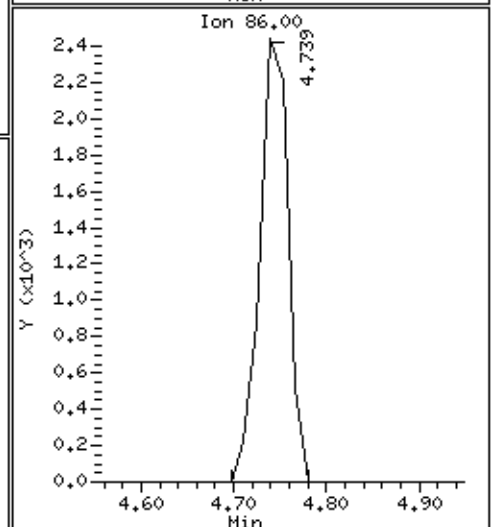
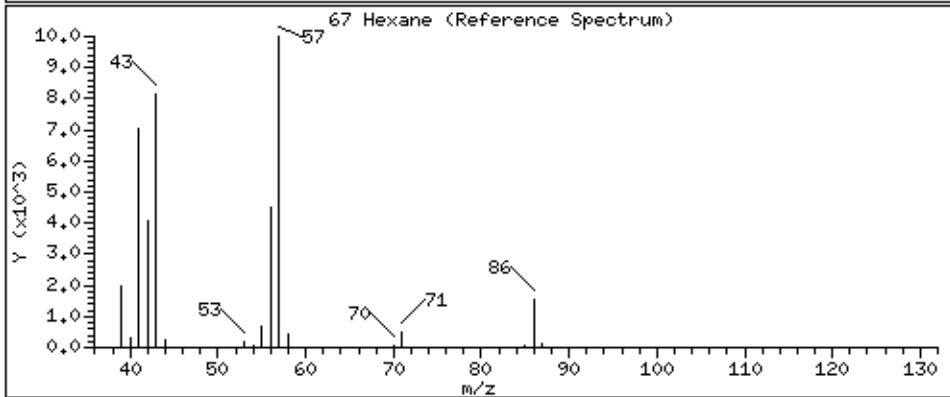
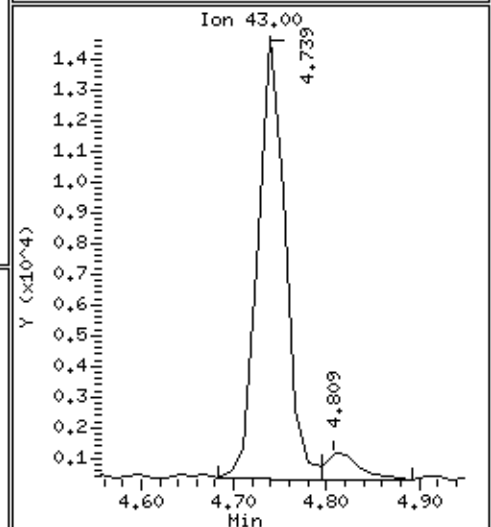
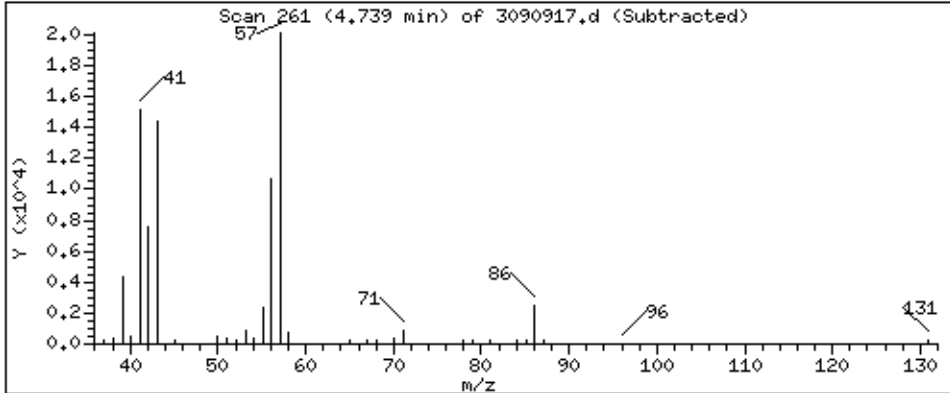
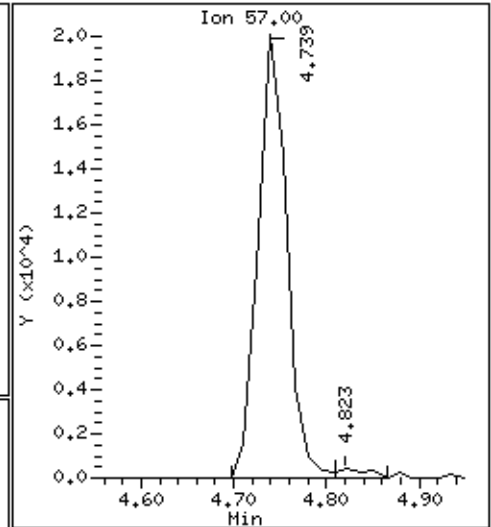
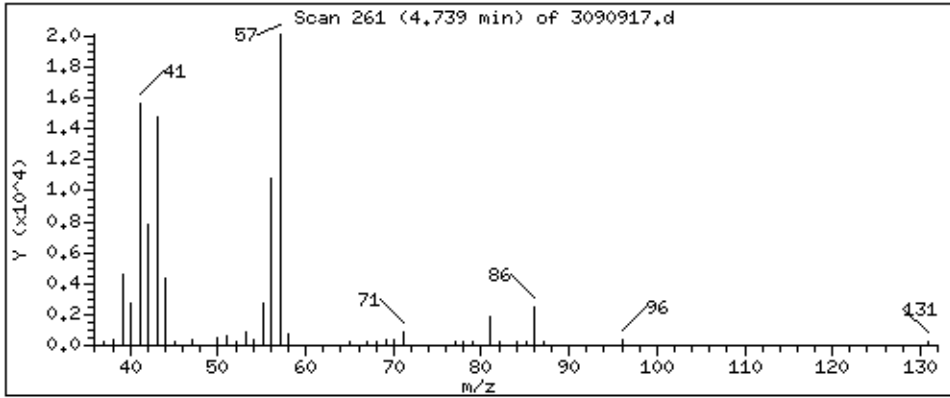
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

67 Hexane

Concentration: 8.786 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

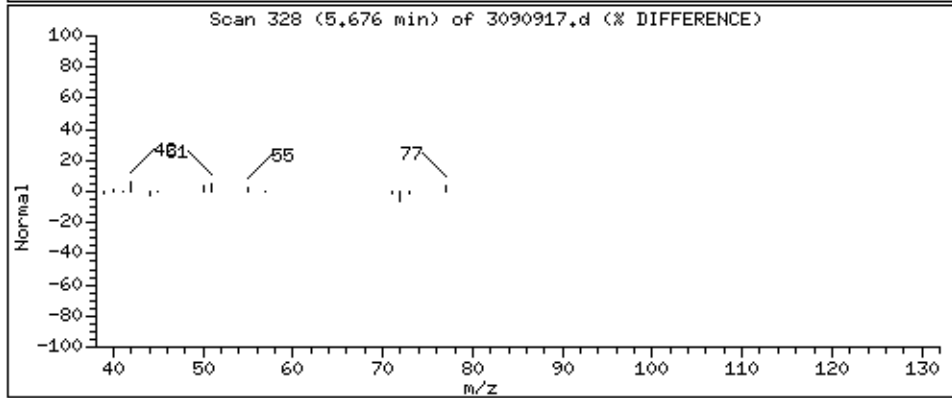
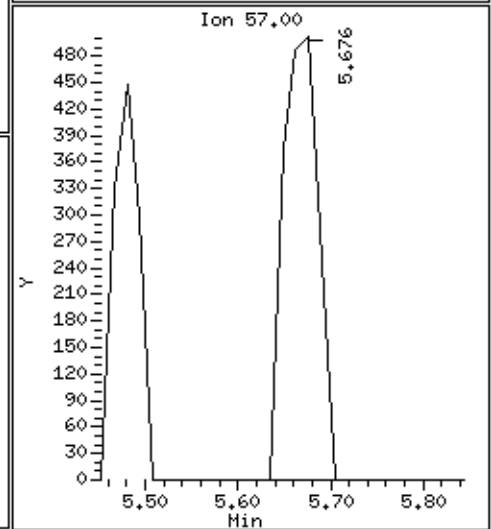
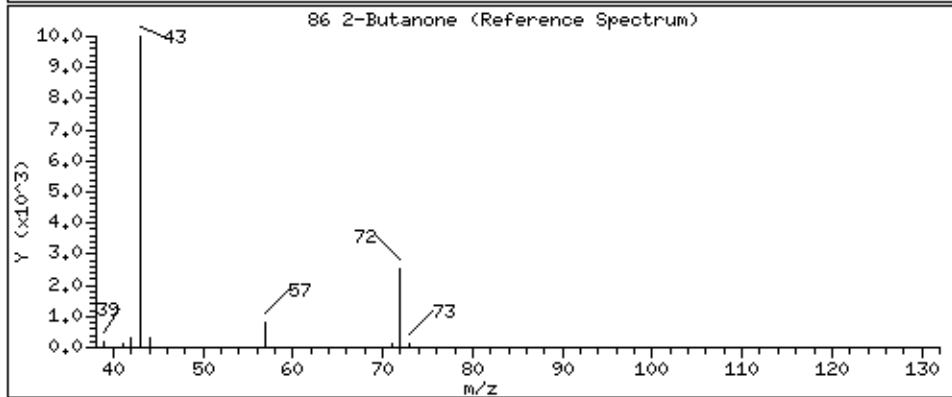
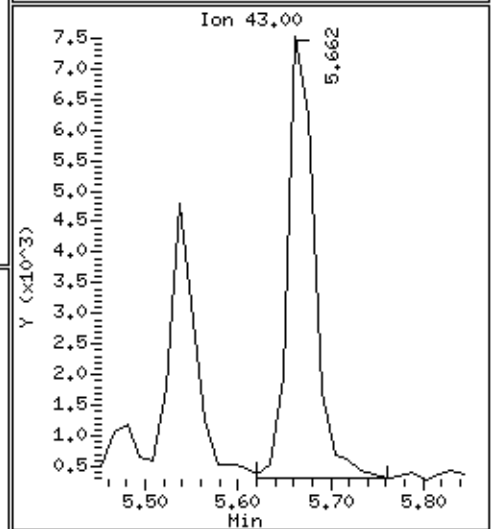
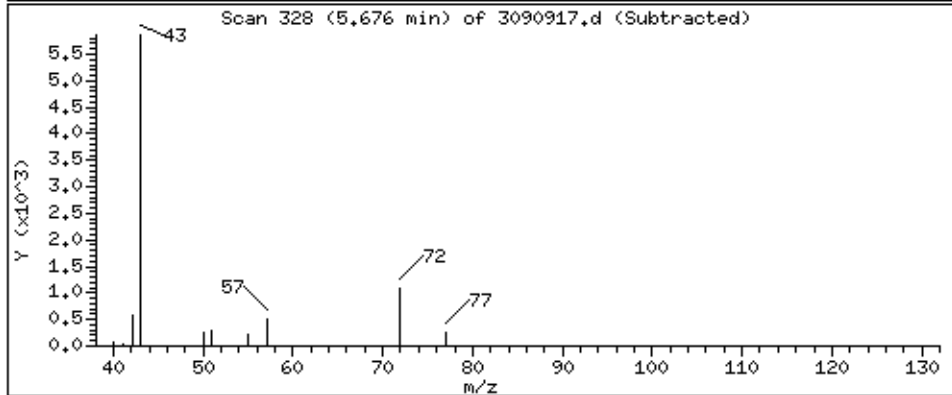
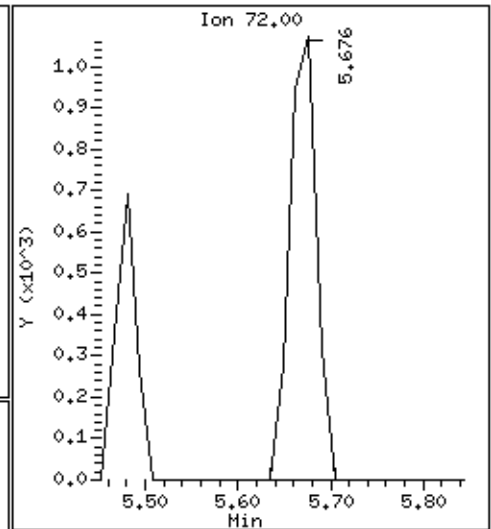
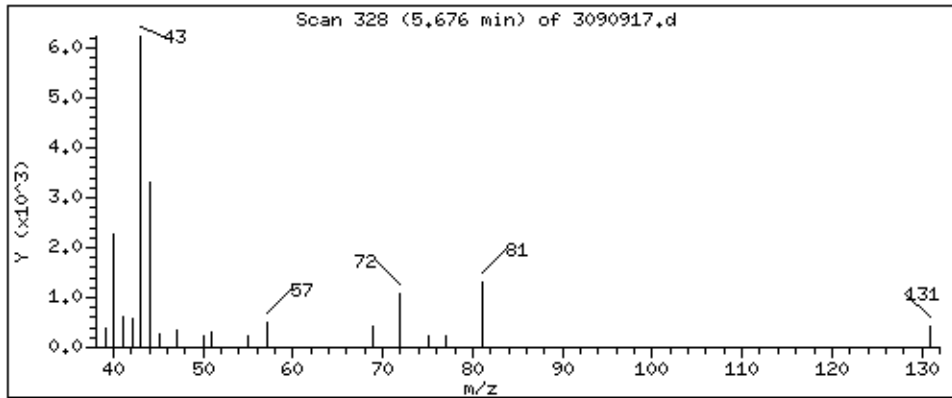
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

86 2-Butanone

Concentration: 1,670 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3.i

Sample Info: 200mL 00843

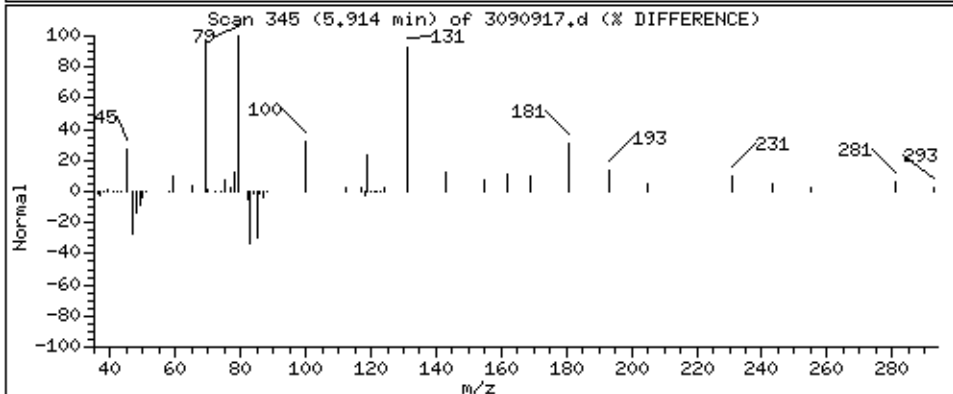
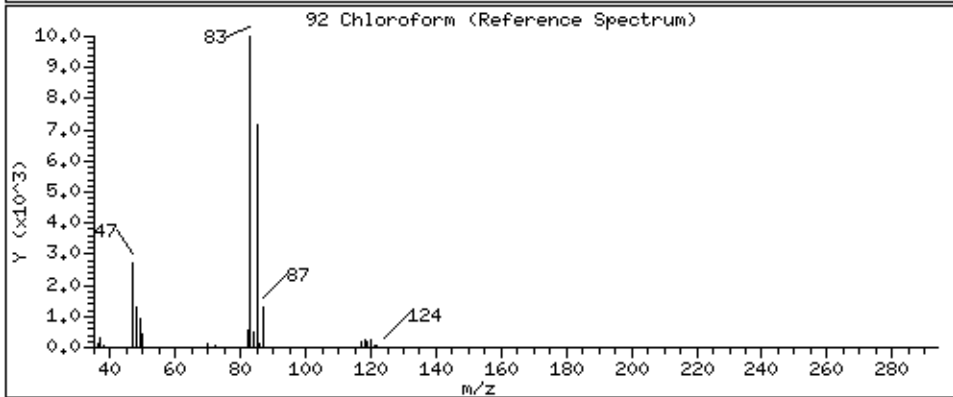
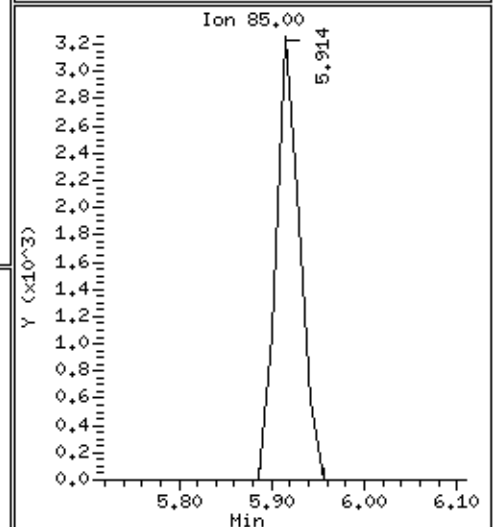
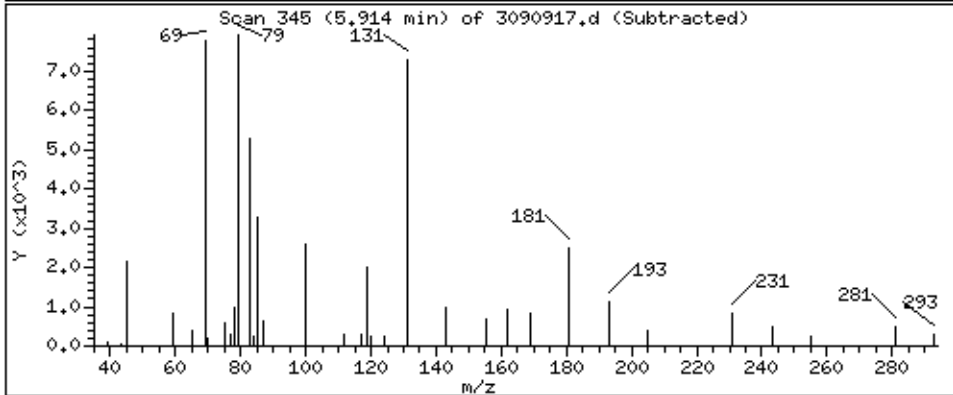
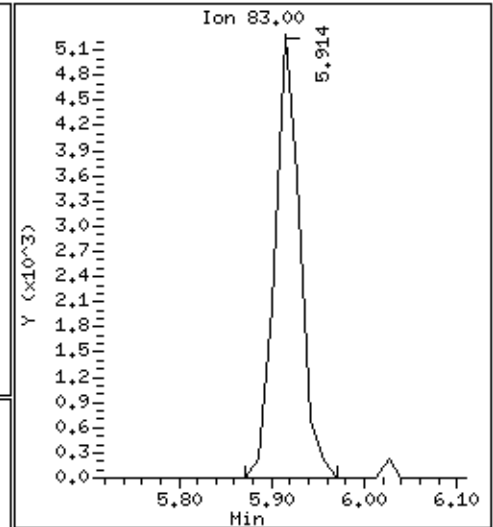
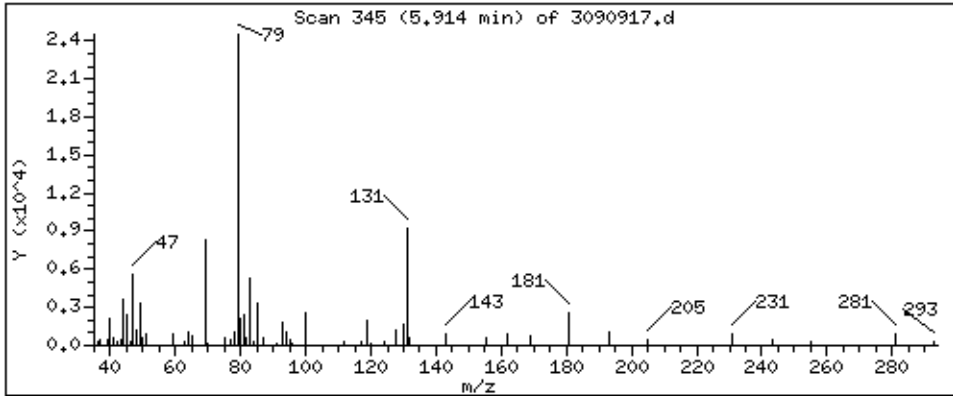
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

92 Chloroform

Concentration: 1,758 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

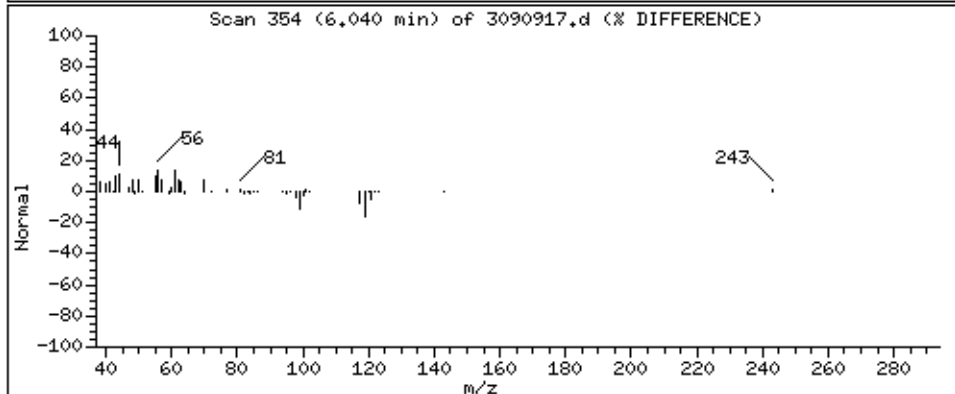
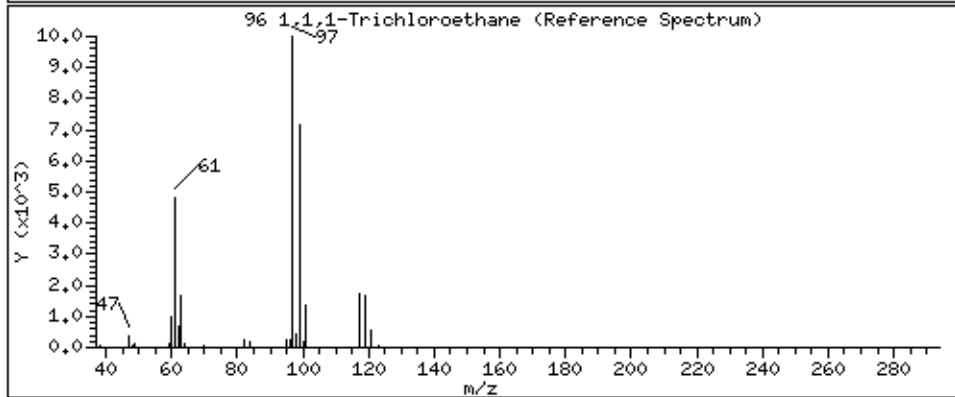
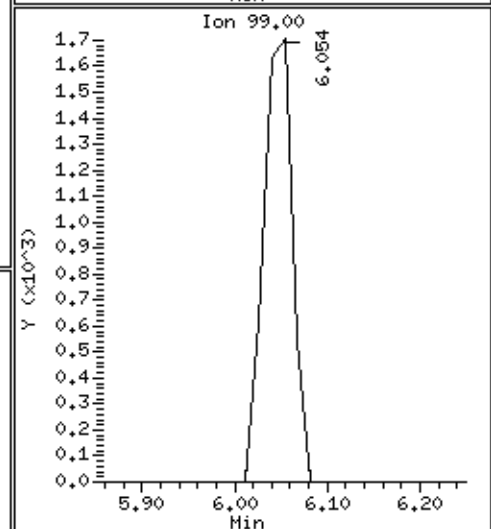
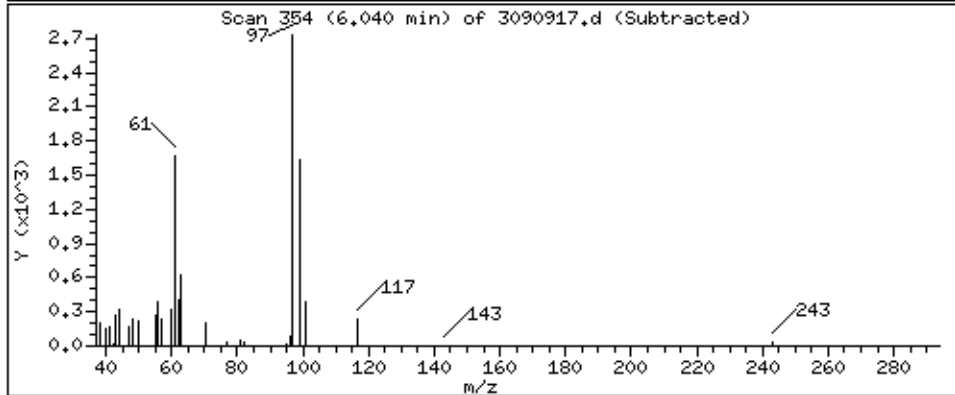
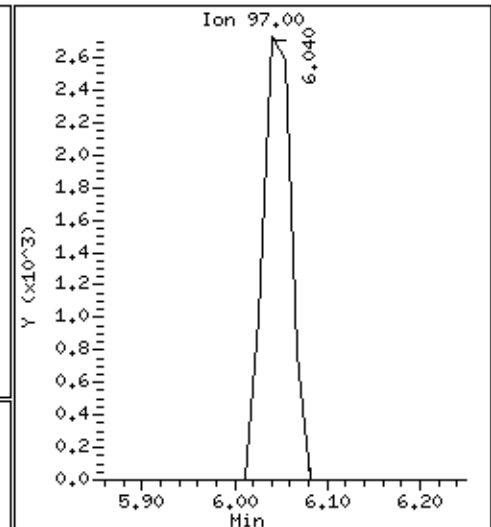
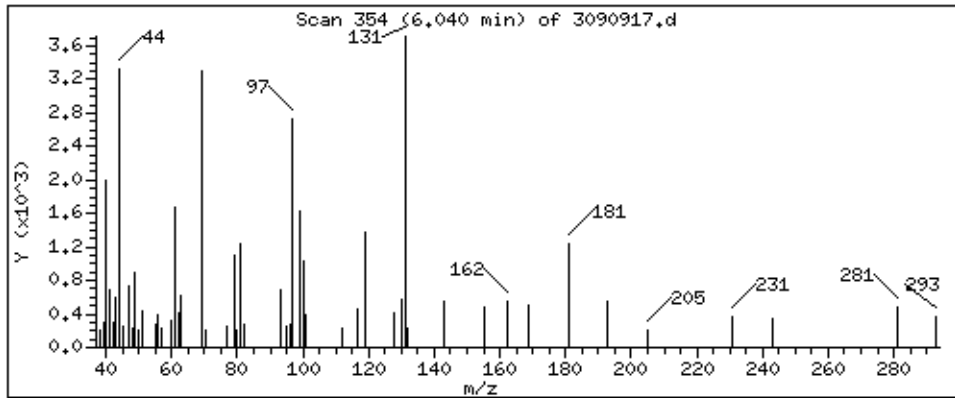
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

96 1,1,1-Trichloroethane

Concentration: 0.9541 PPBV





Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

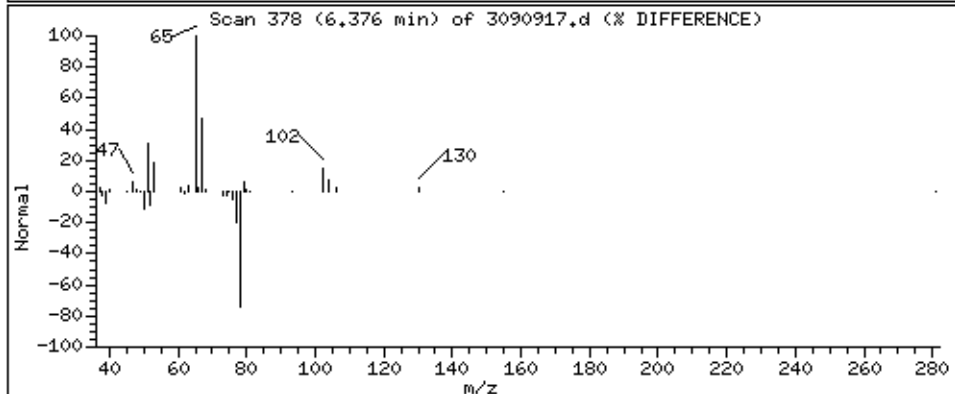
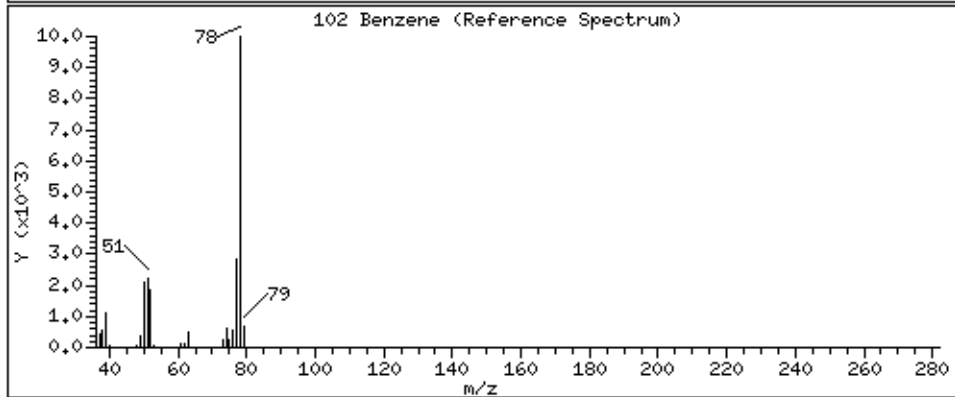
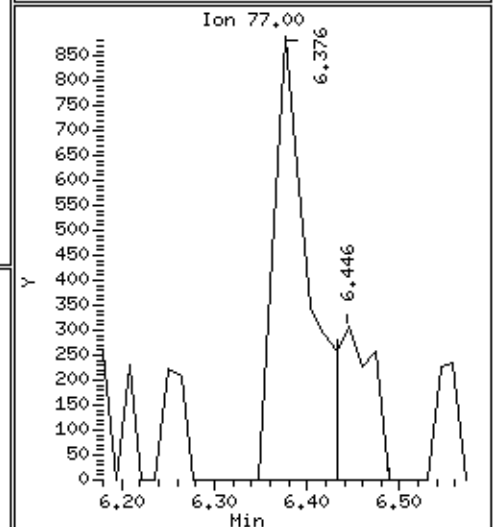
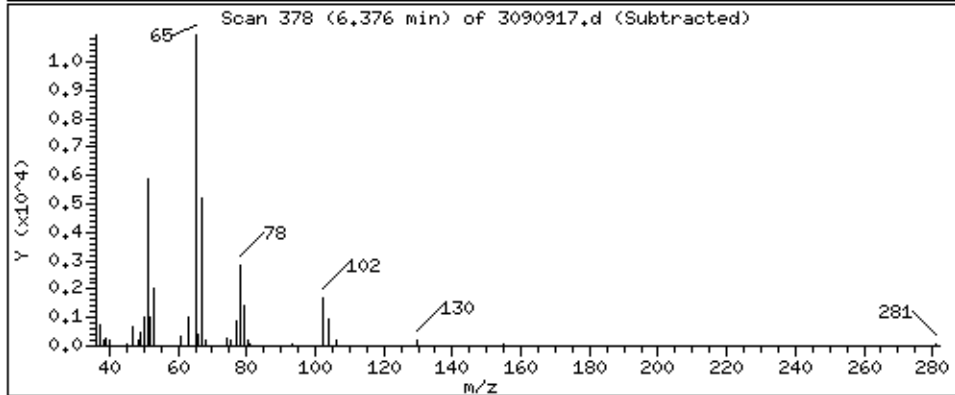
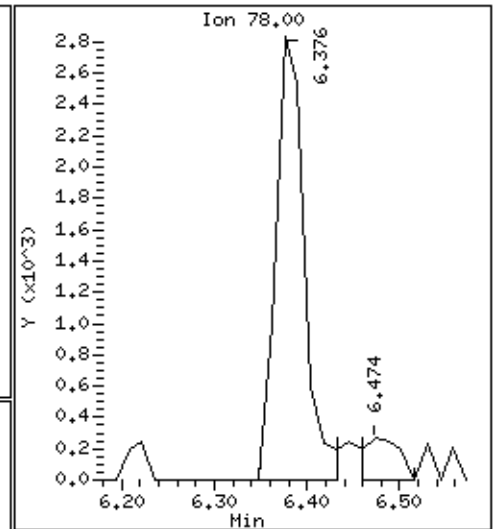
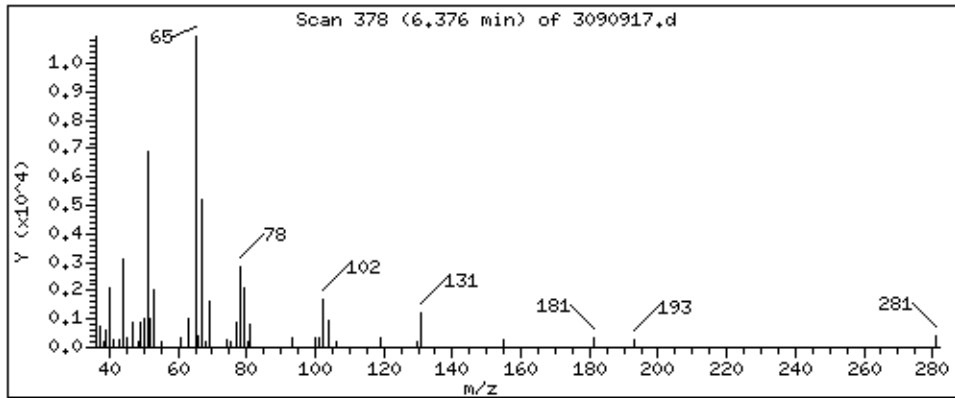
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

102 Benzene

Concentration: 0.8204 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

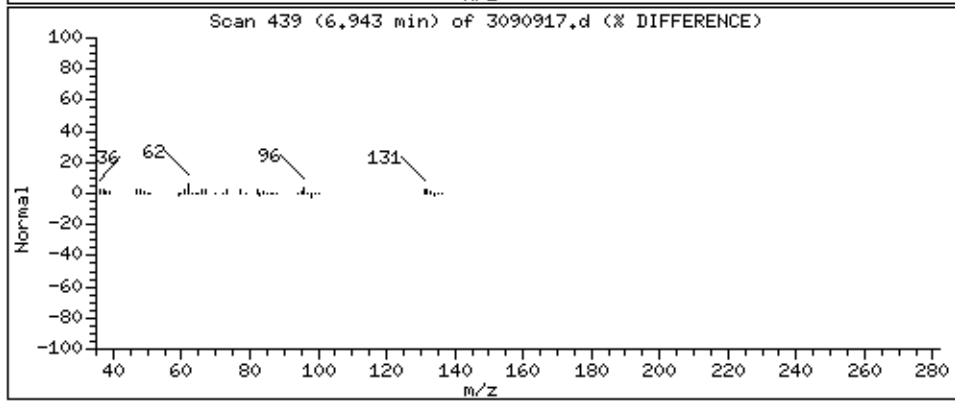
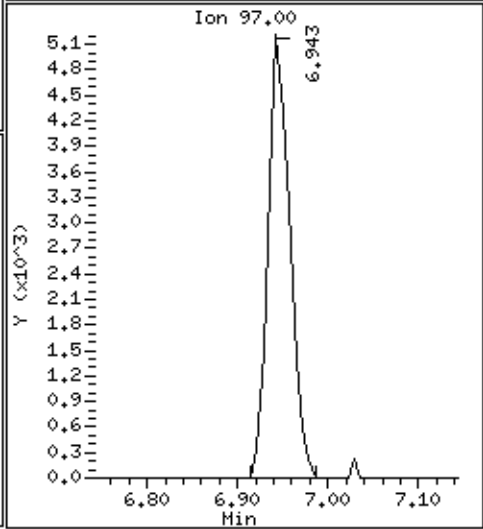
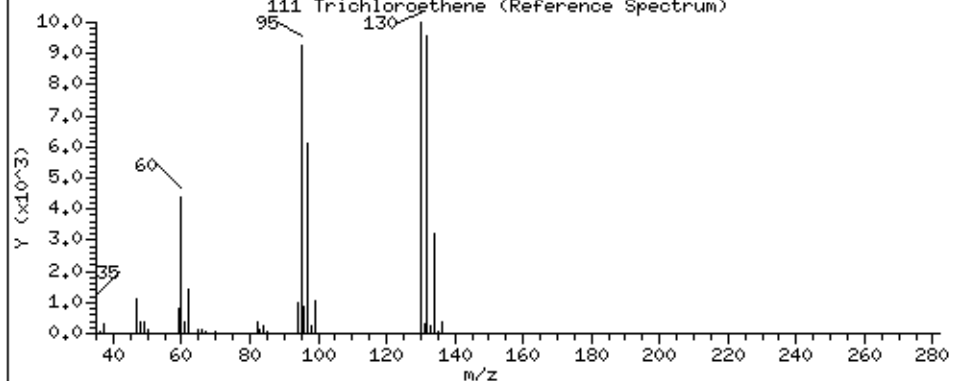
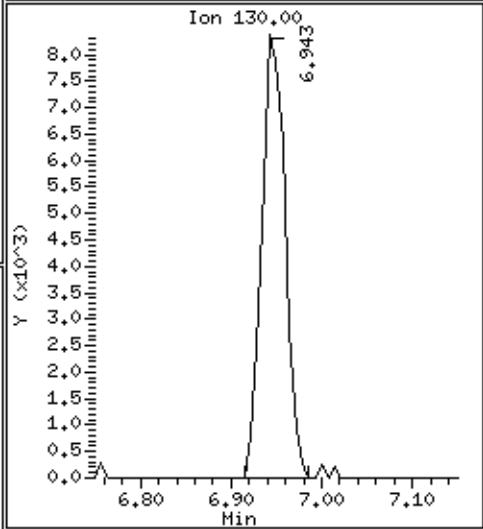
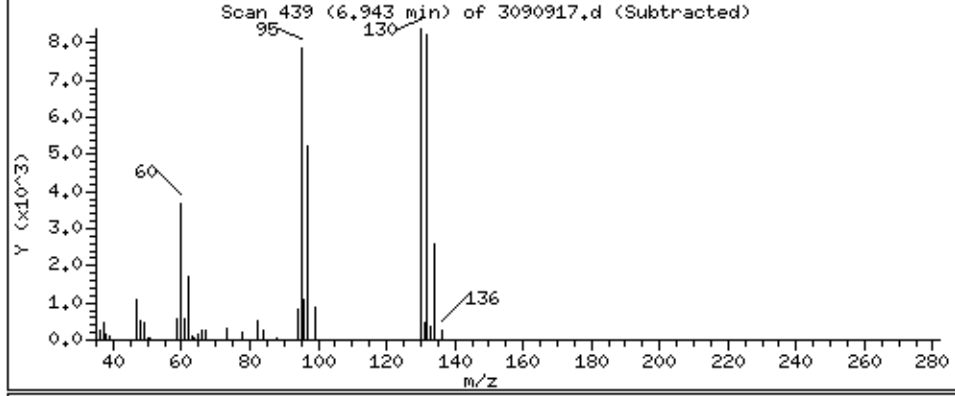
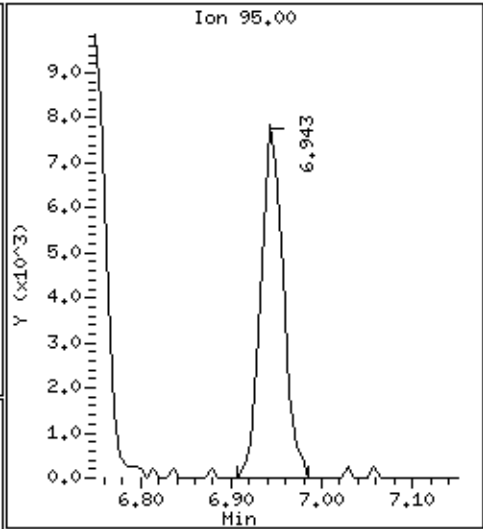
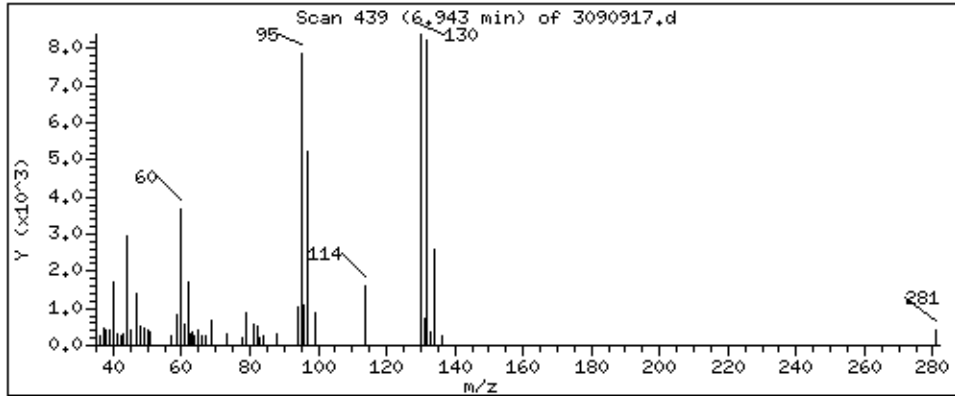
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

111 Trichloroethene

Concentration: 3,678 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

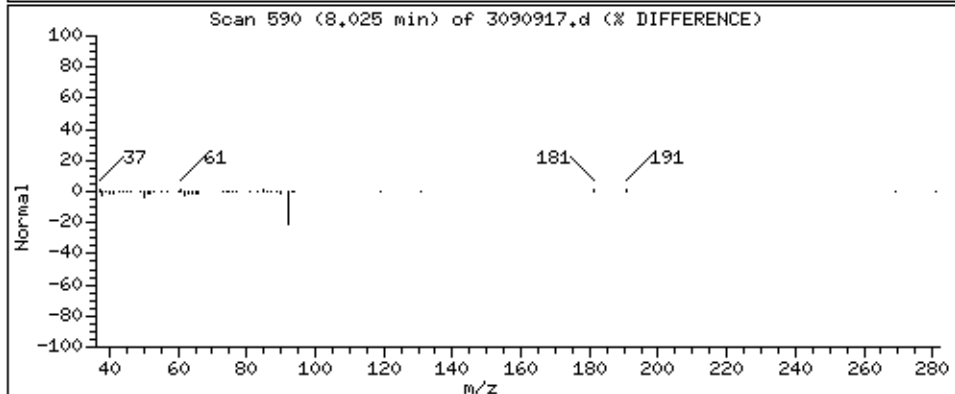
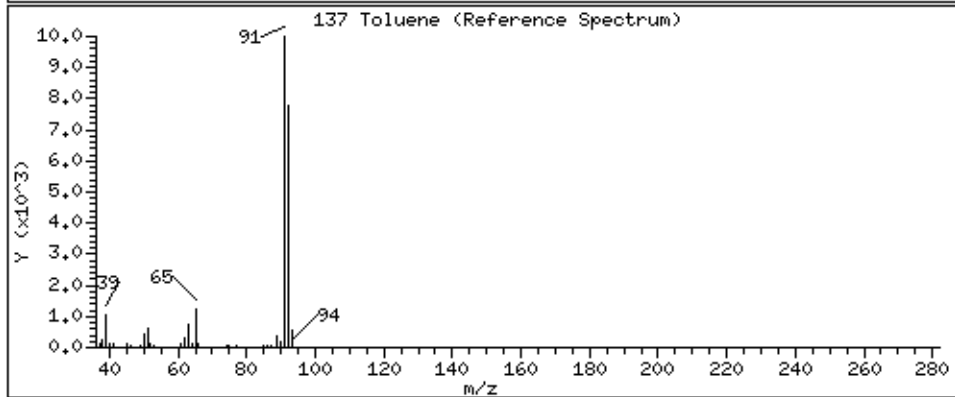
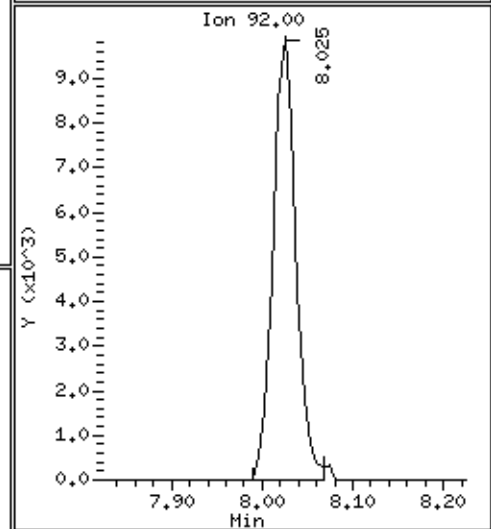
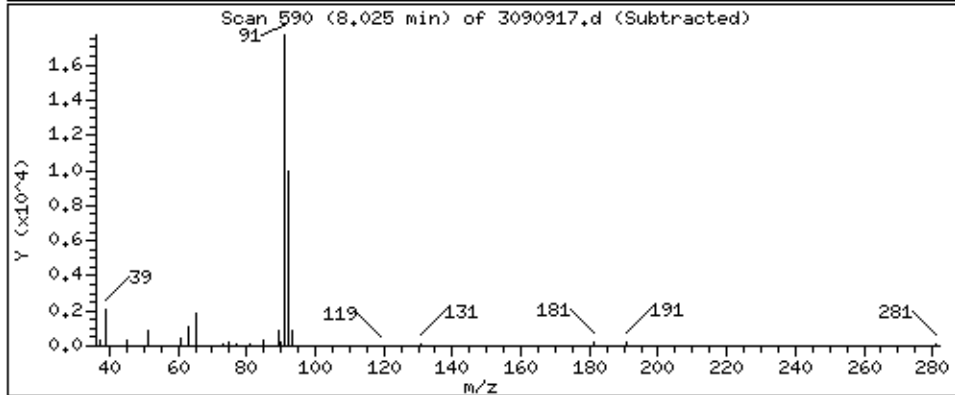
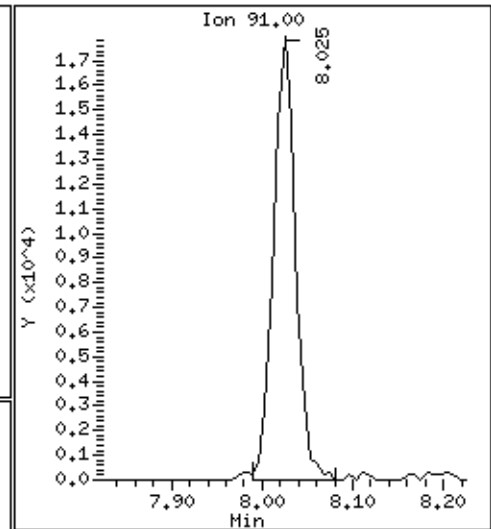
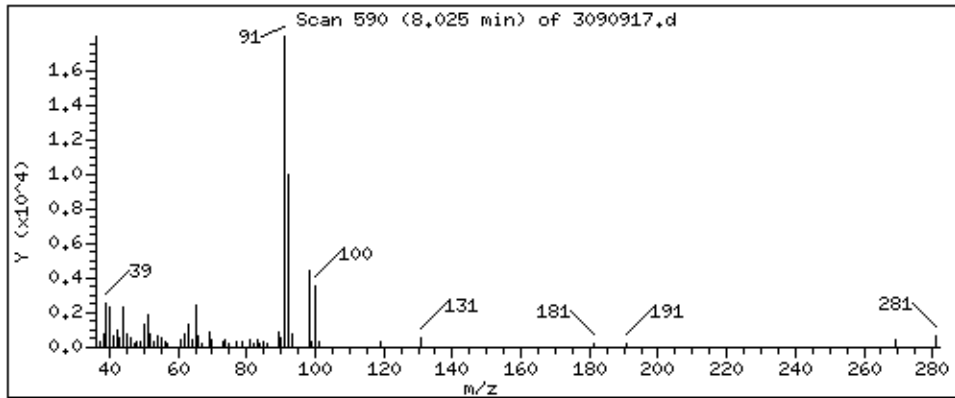
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

137 Toluene

Concentration: 3.054 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

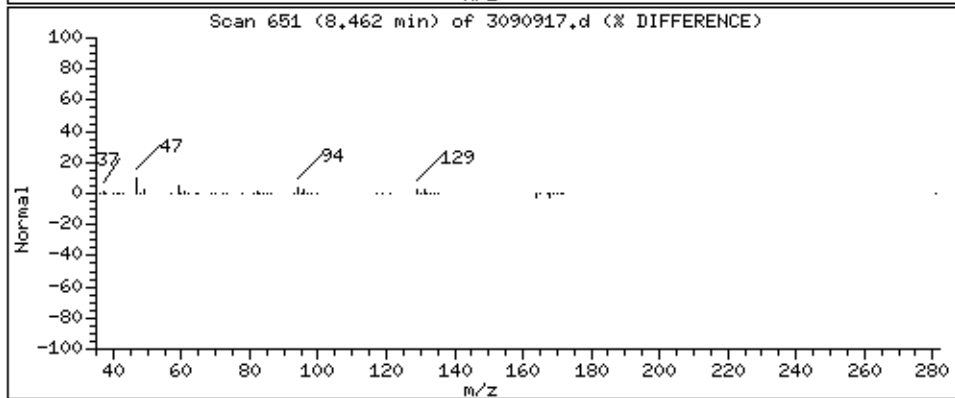
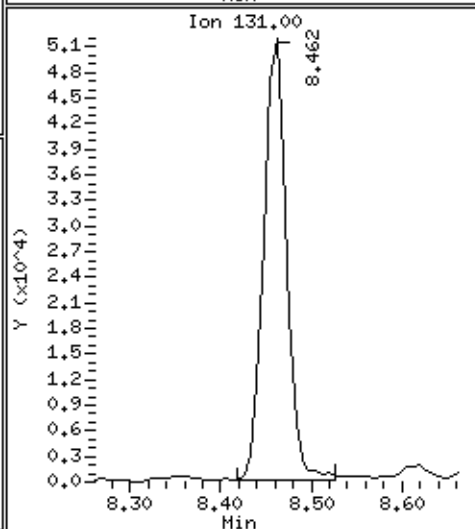
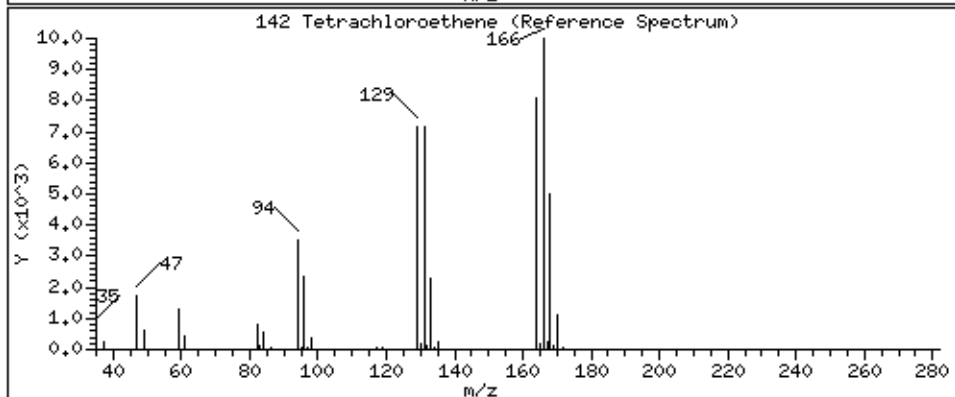
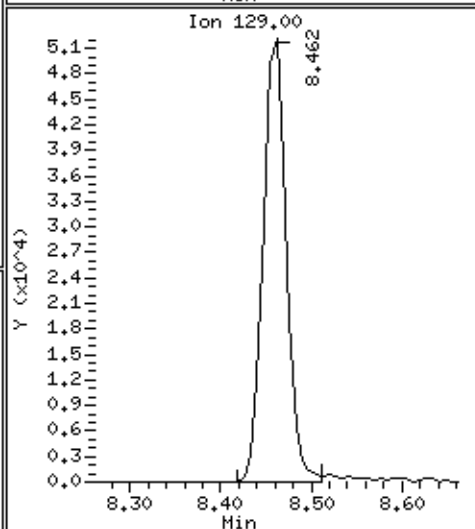
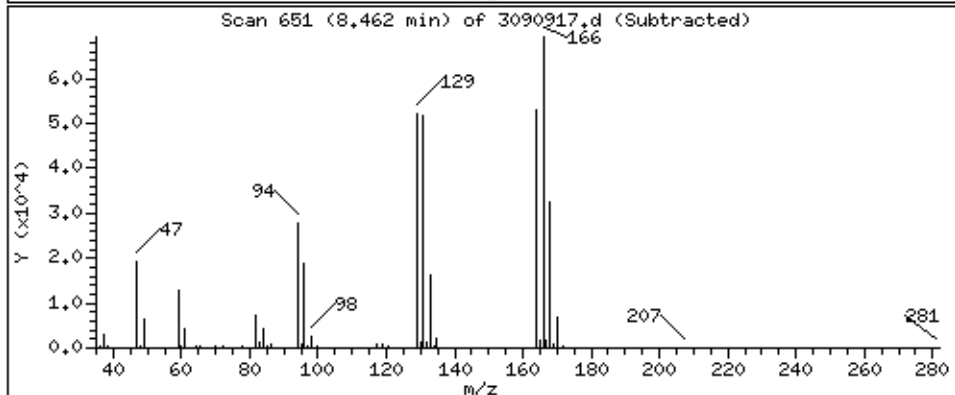
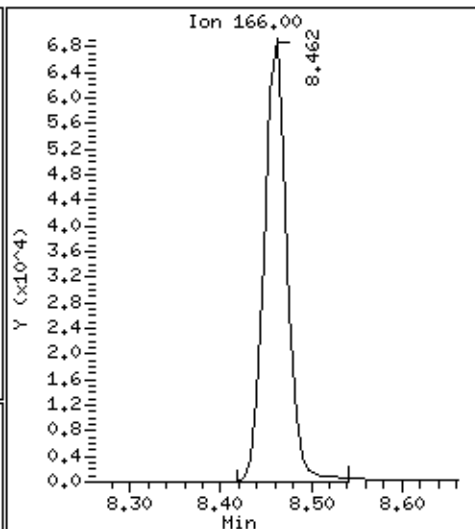
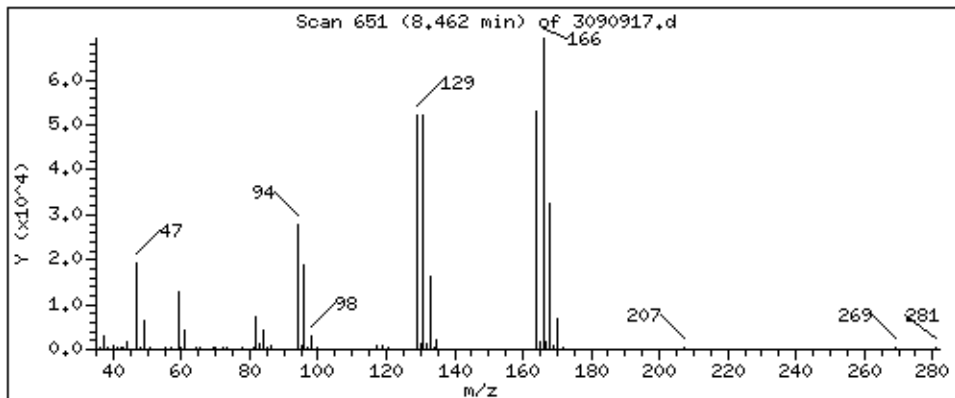
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

142 Tetrachloroethene

Concentration: 21,861 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

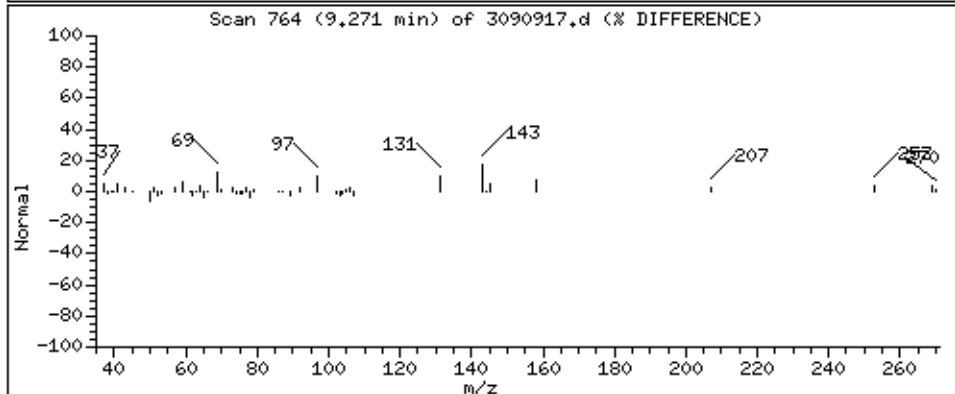
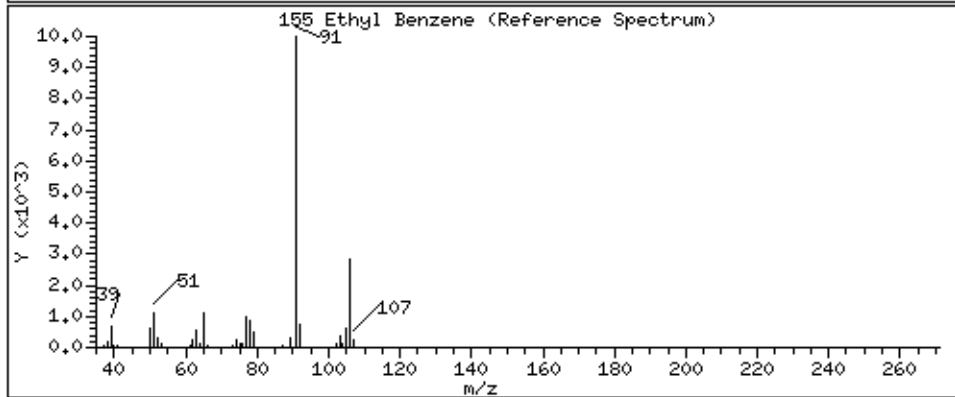
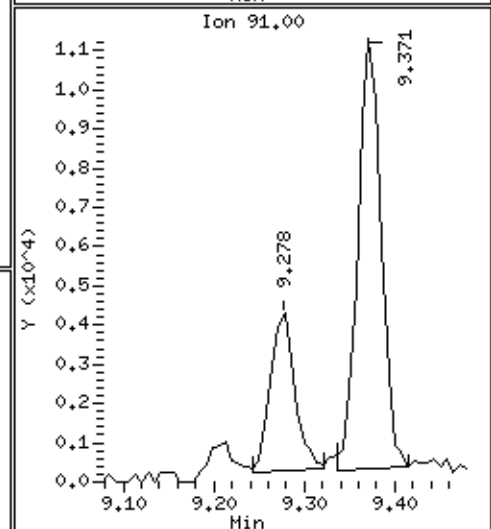
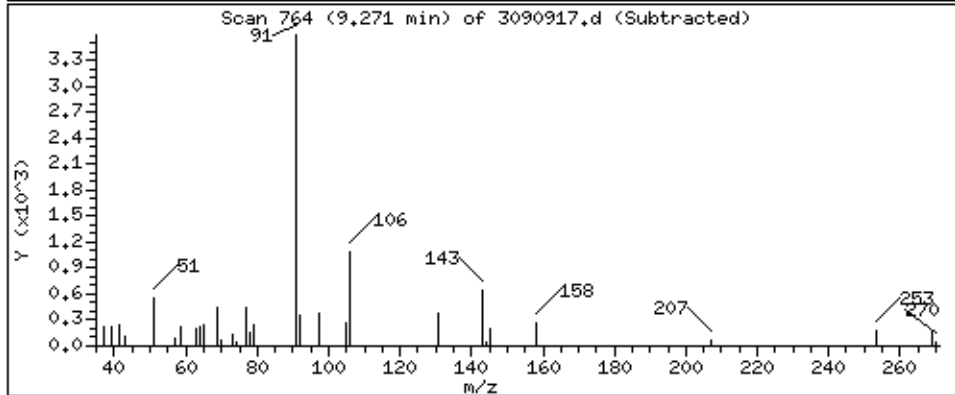
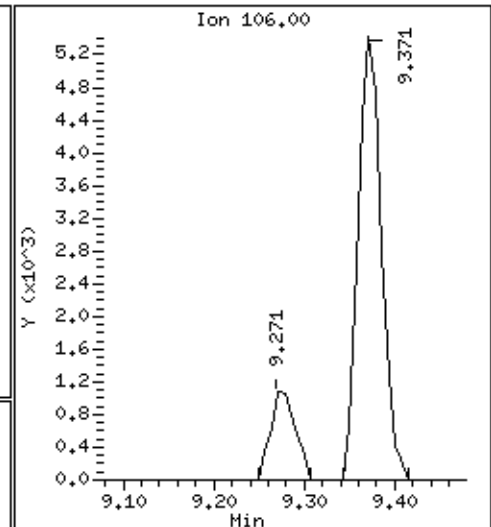
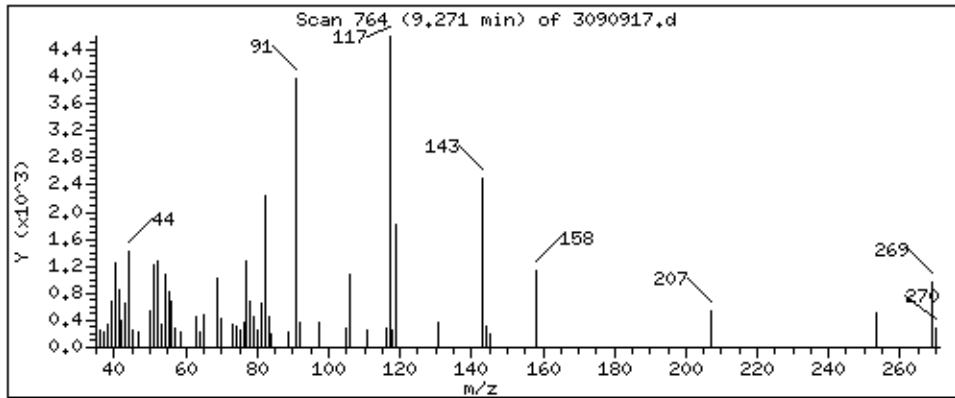
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

155 Ethyl Benzene

Concentration: 0.4410 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3.i

Sample Info: 200mL 00843

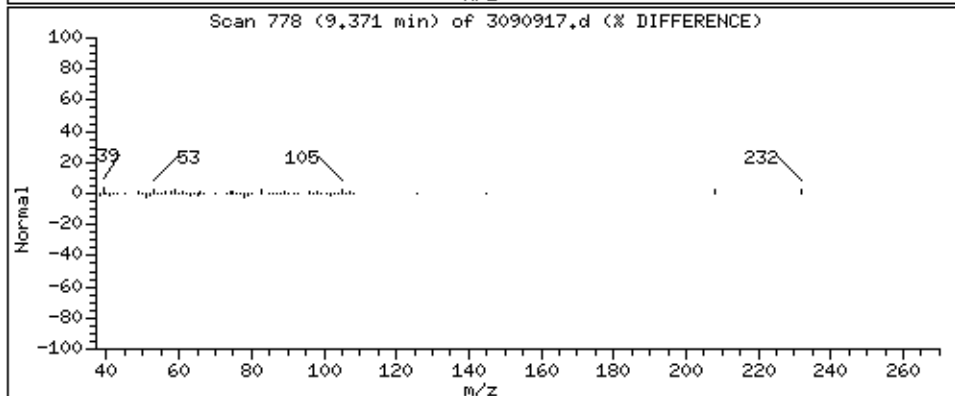
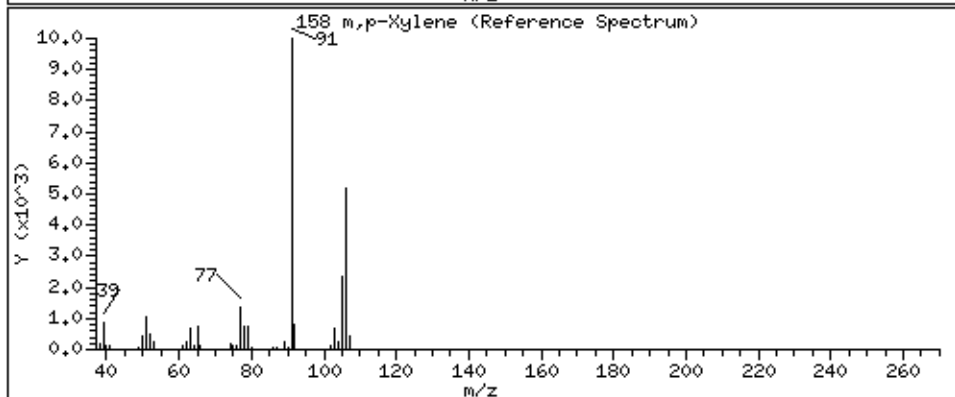
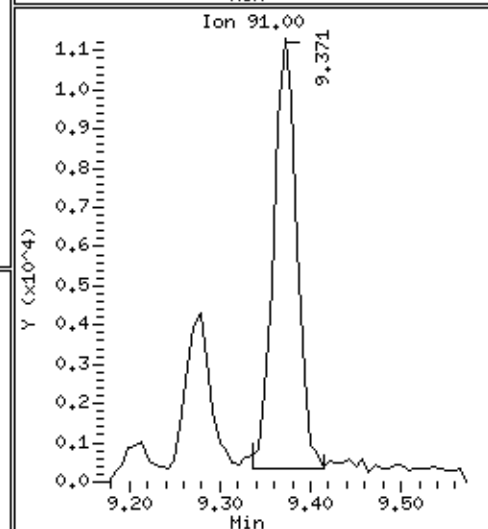
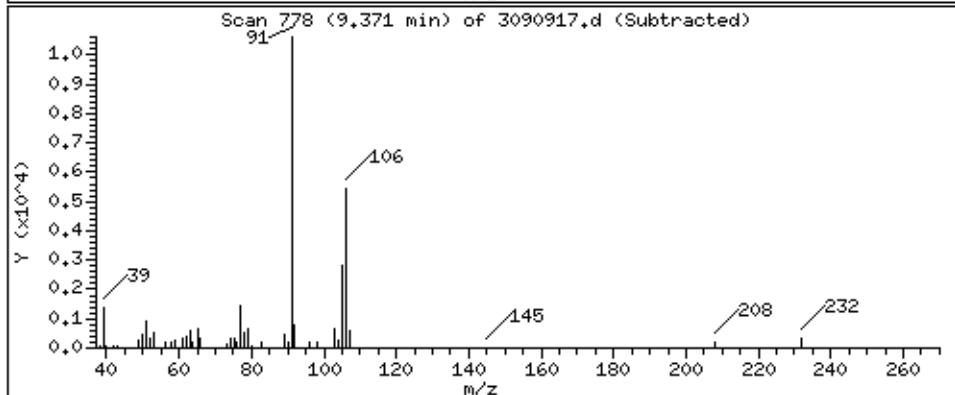
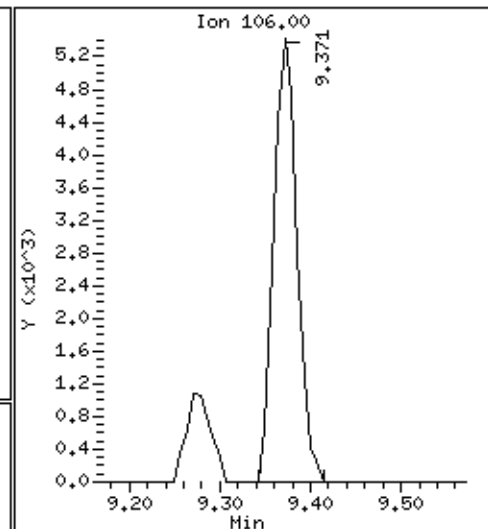
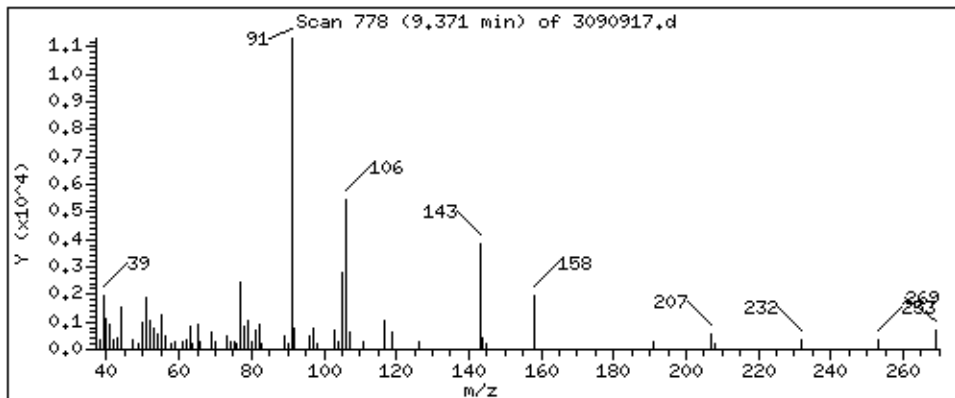
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

158 m,p-Xylene

Concentration: 1,698 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

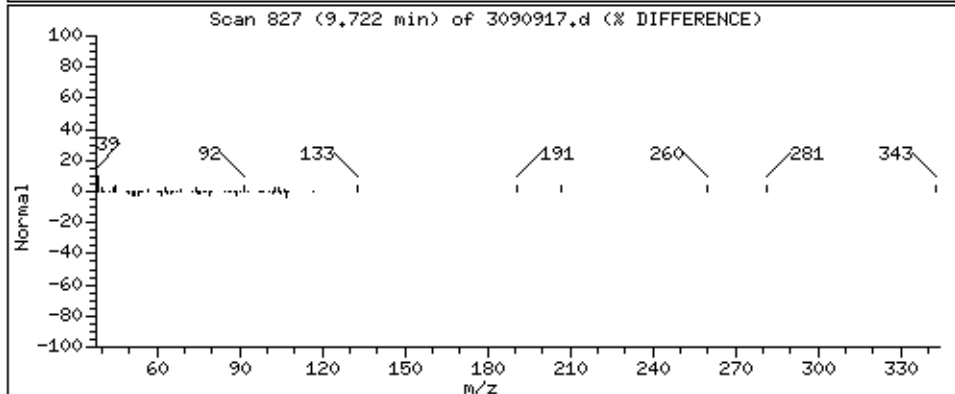
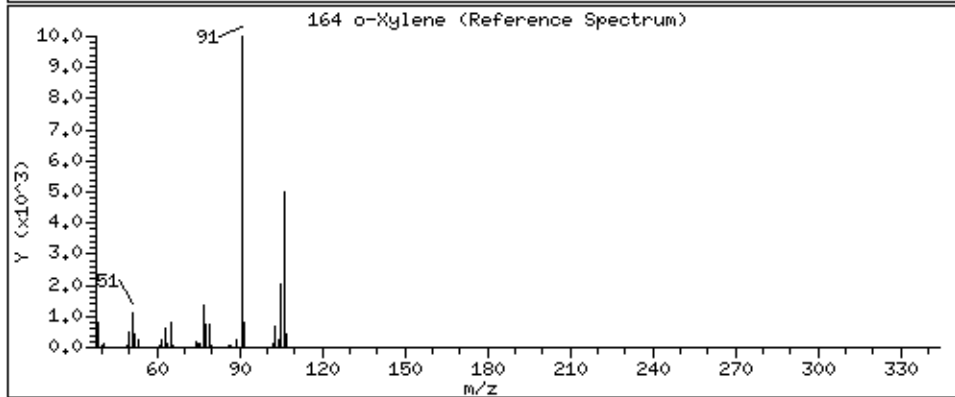
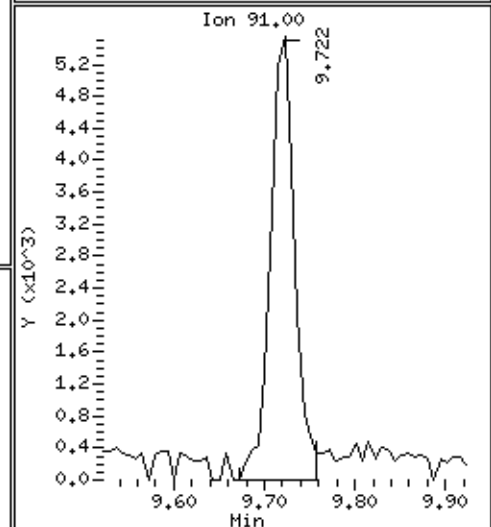
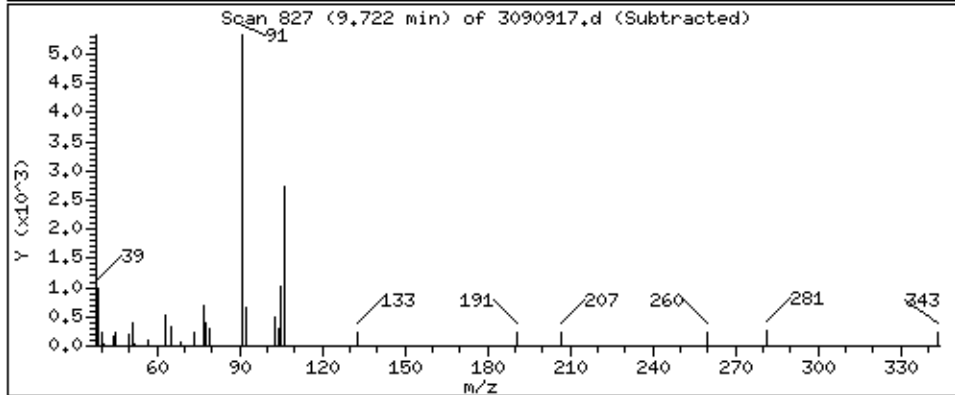
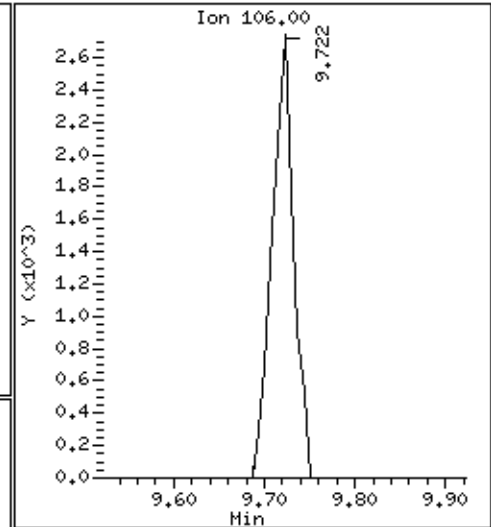
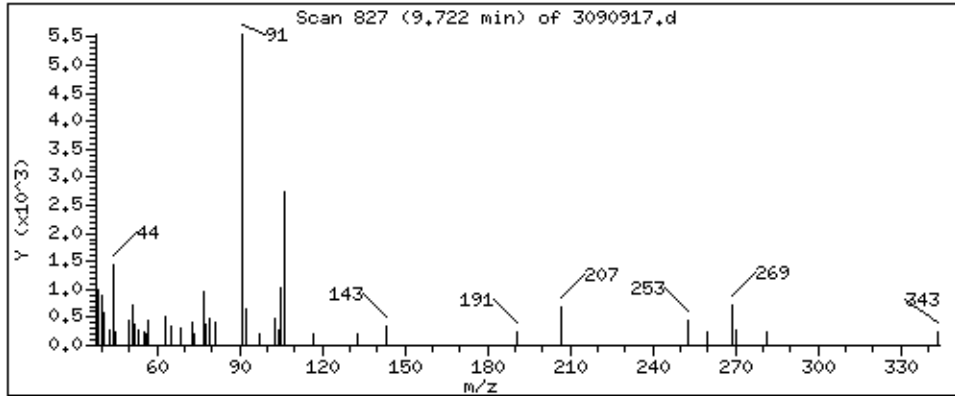
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

164 o-Xylene

Concentration: 0.8332 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

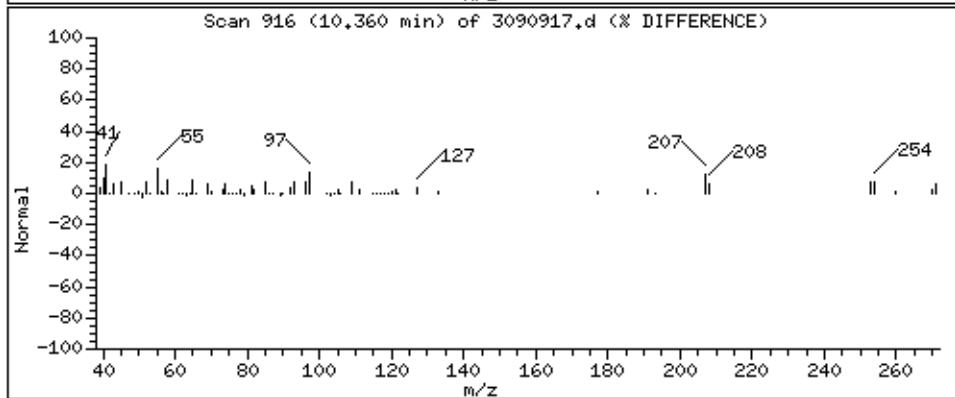
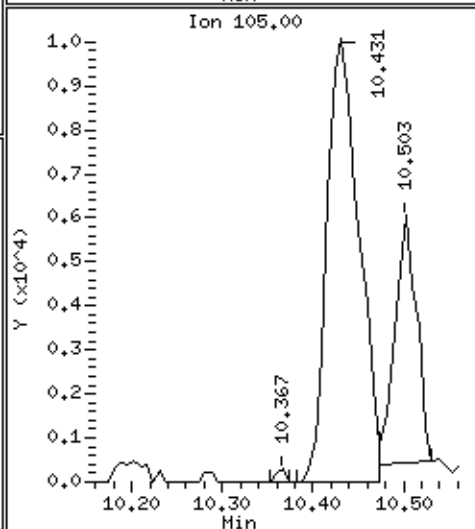
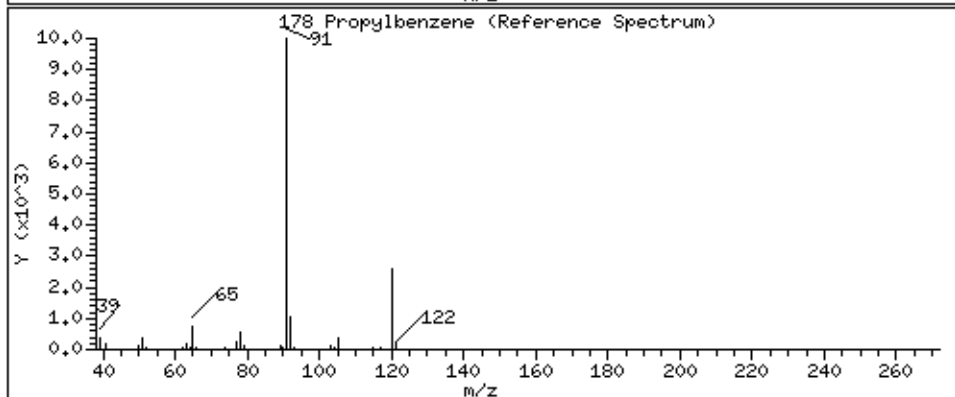
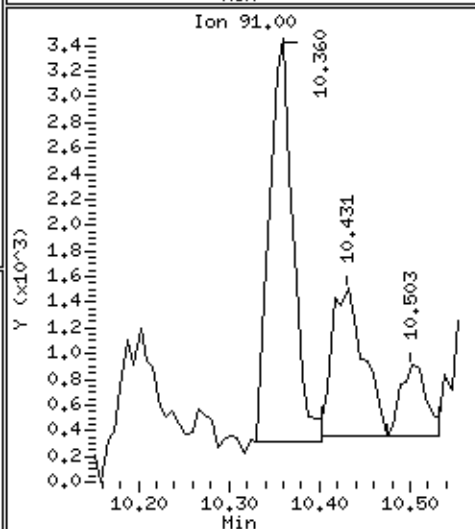
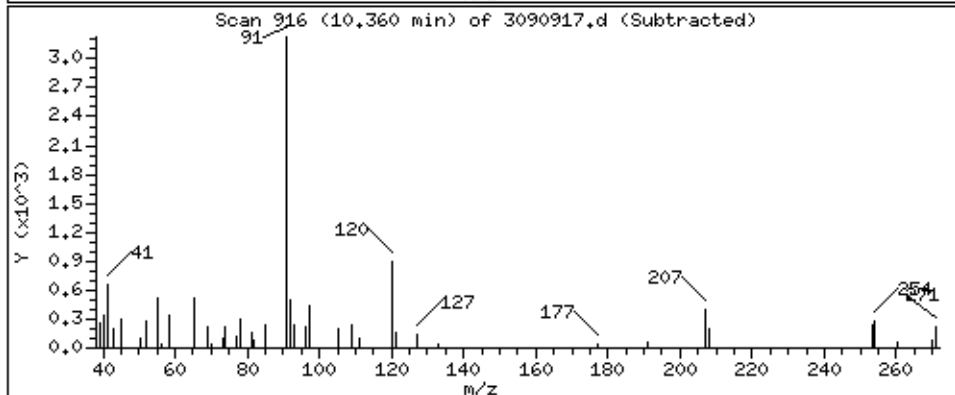
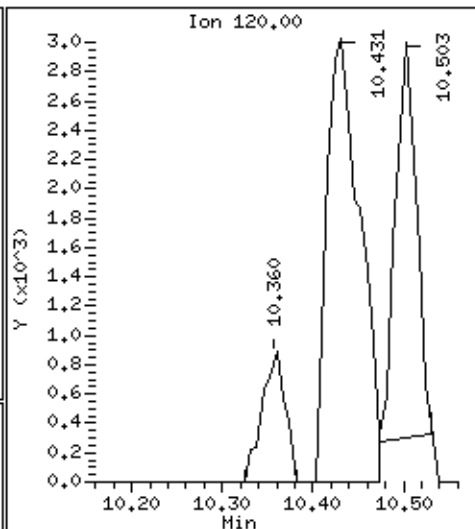
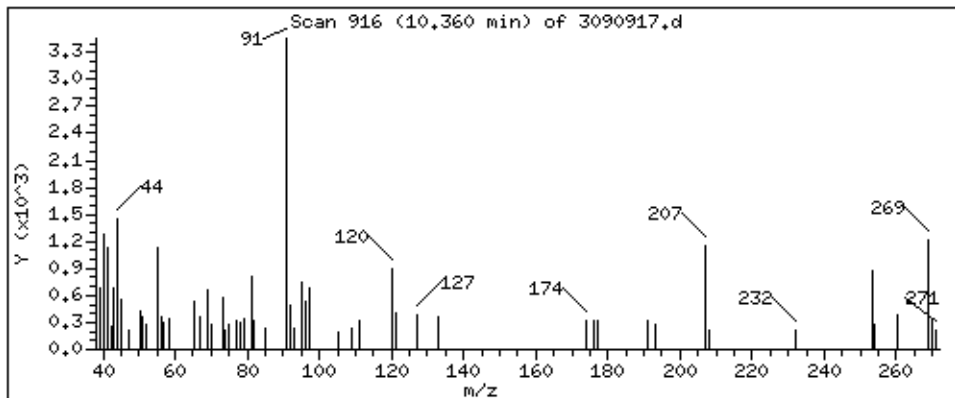
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

178 Propylbenzene

Concentration: 0.3195 PPBV





Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

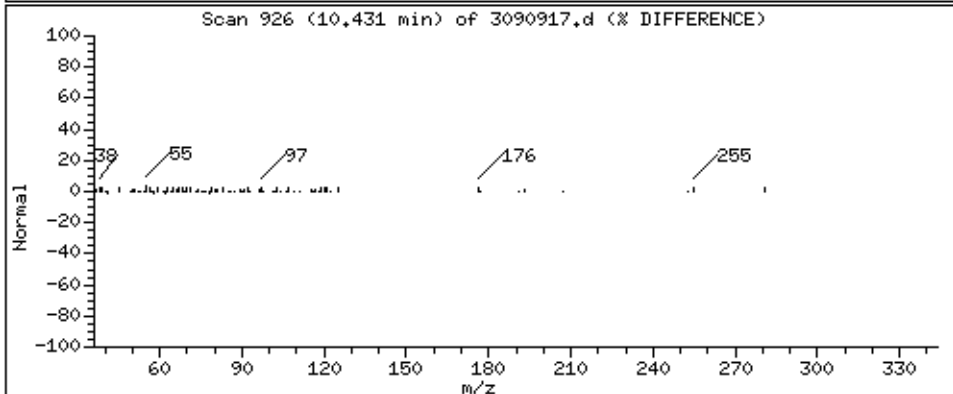
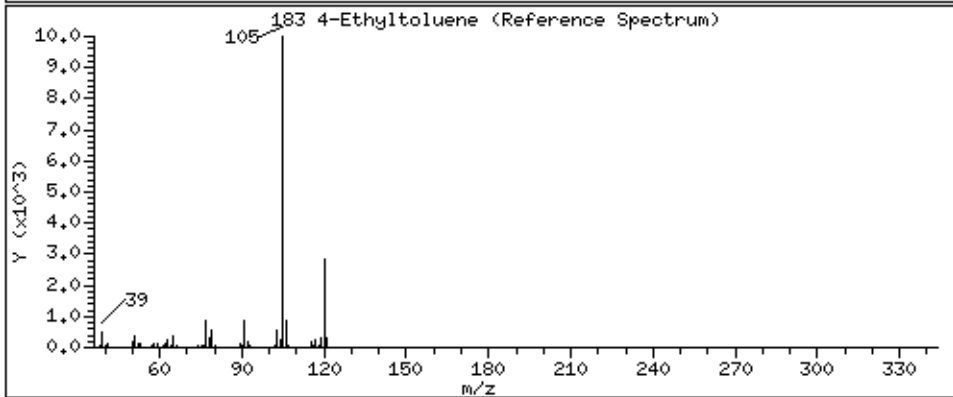
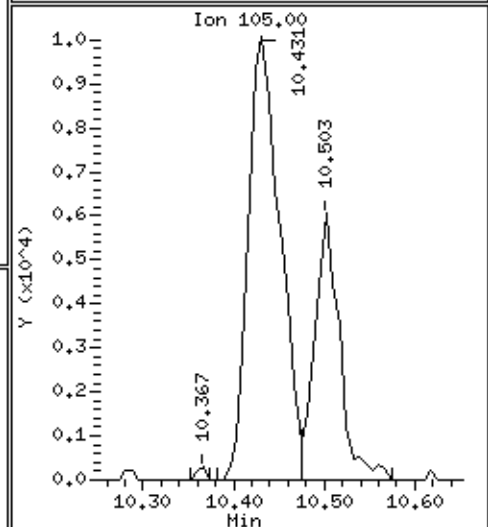
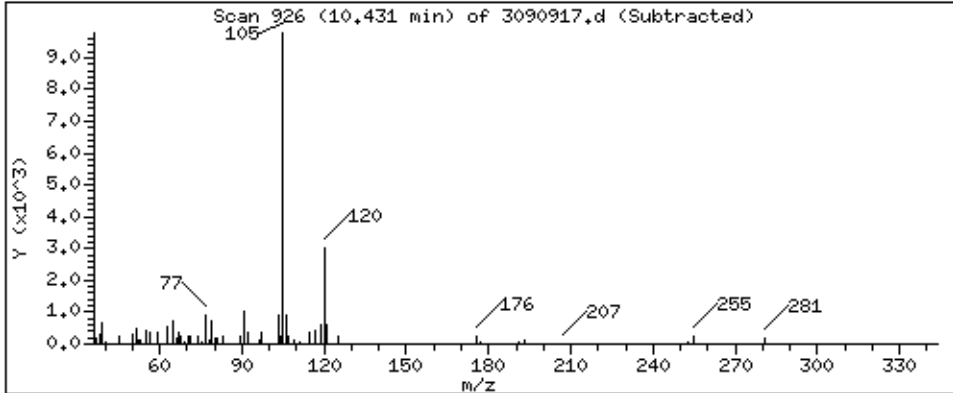
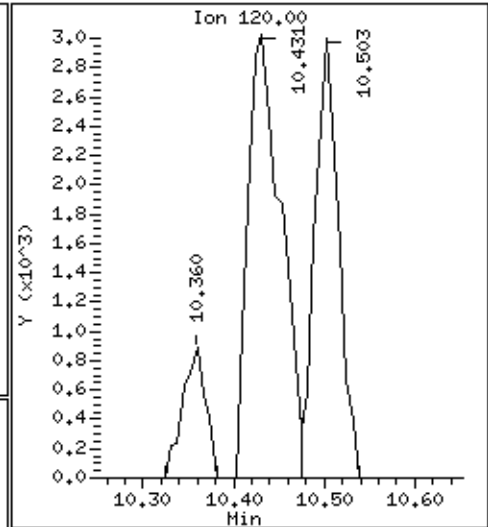
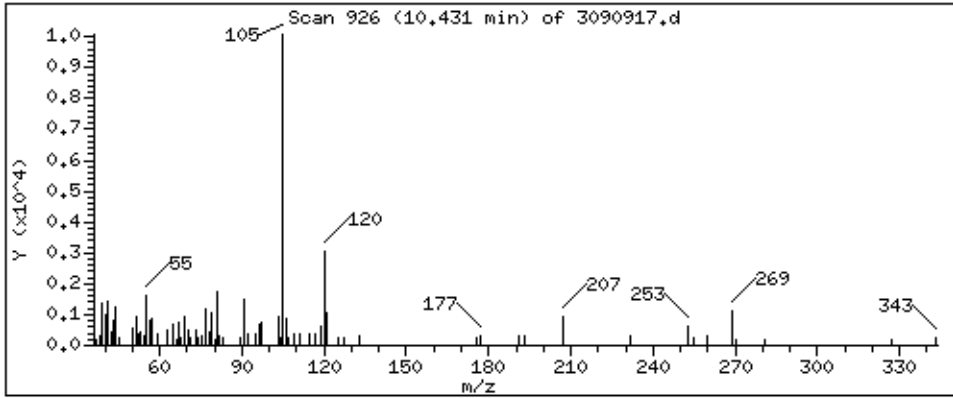
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

183 4-Ethyltoluene

Concentration: 1.452 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

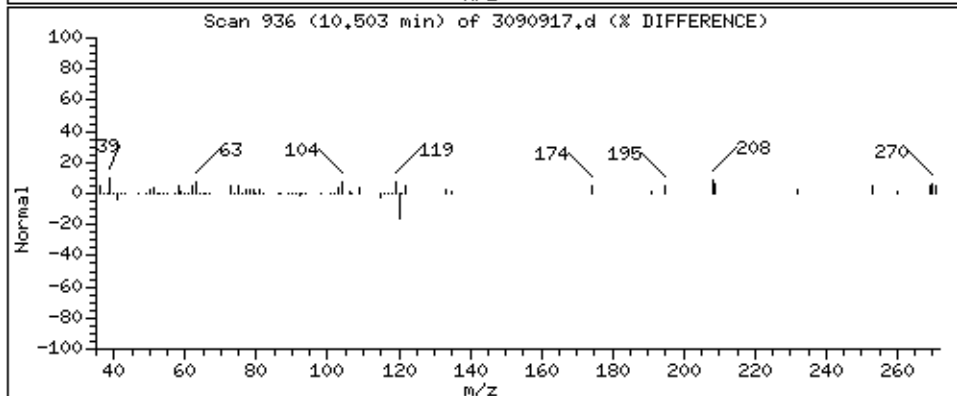
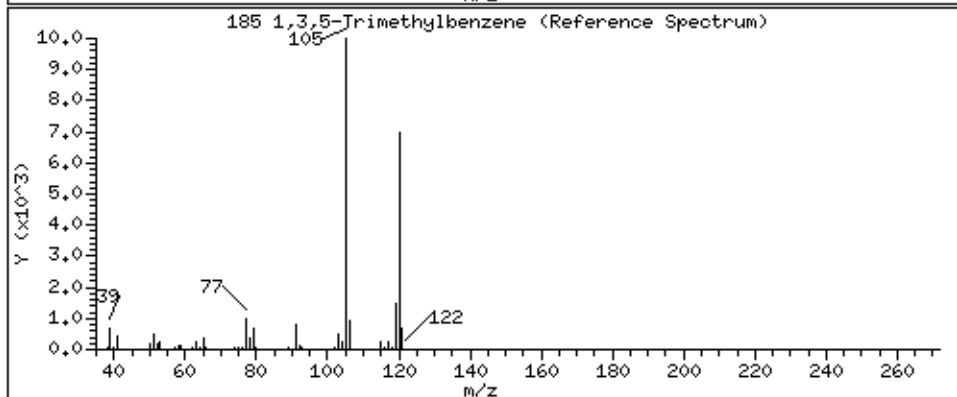
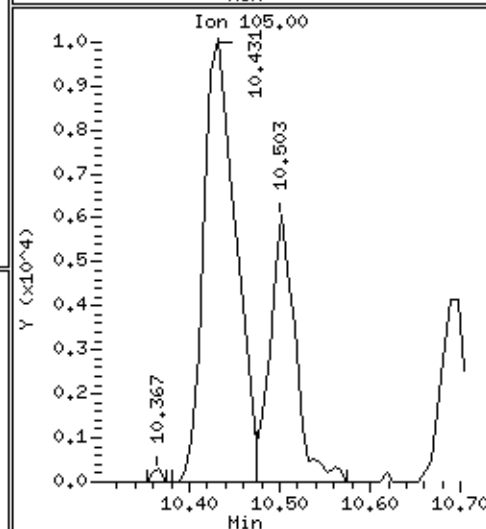
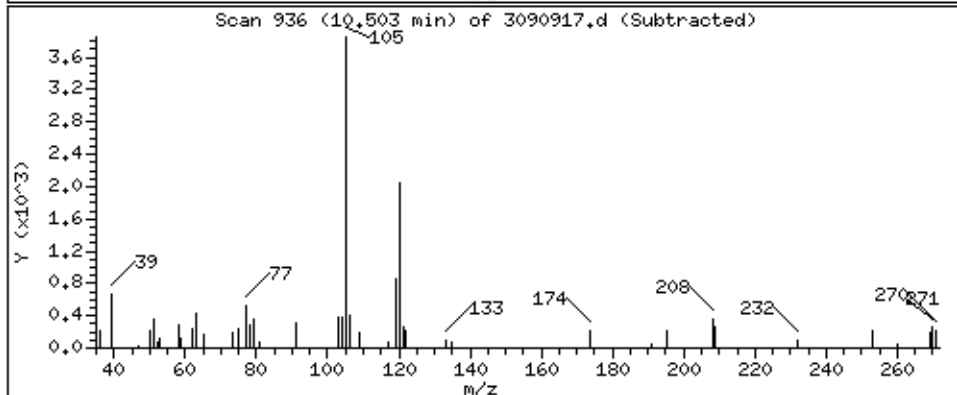
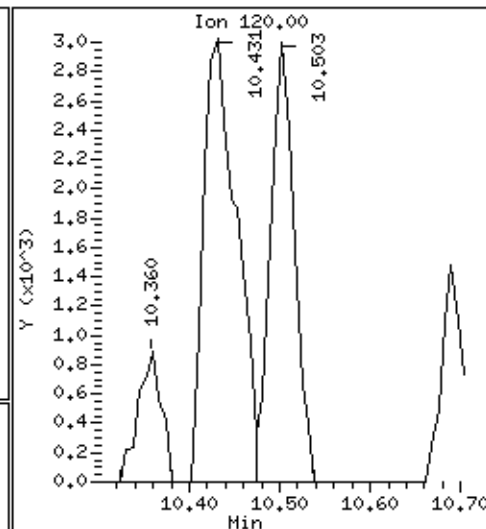
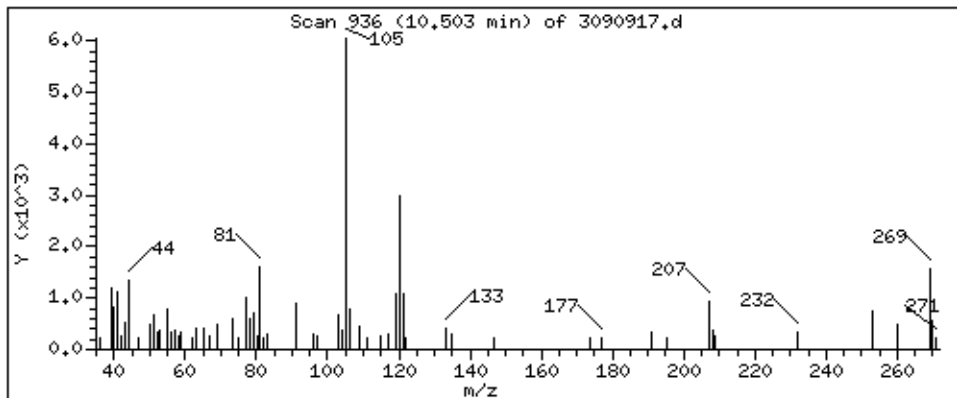
Operator: LD

Column phase: RTX-624

Column diameter: 0,25

185 1,3,5-Trimethylbenzene

Concentration: 0,7490 PPBV



Date : 09-SEP-2021 19:42

Client ID:

Instrument: msd3,i

Sample Info: 200mL 00843

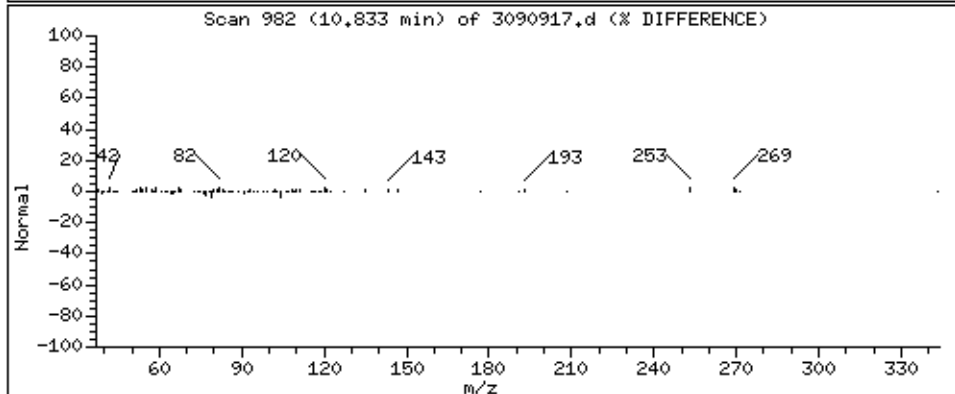
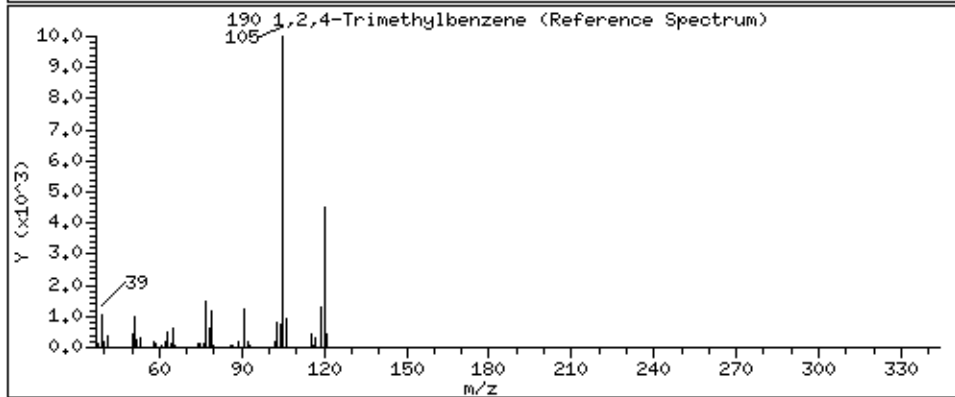
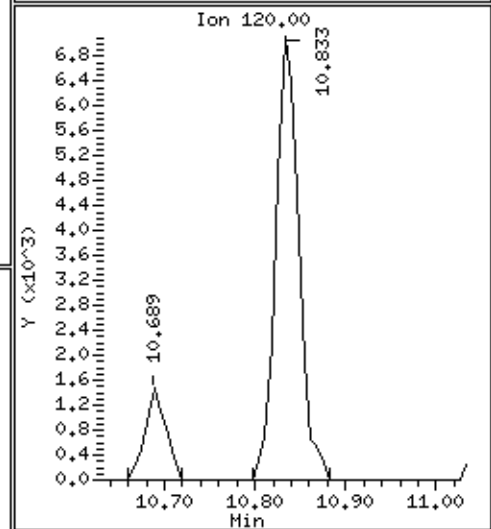
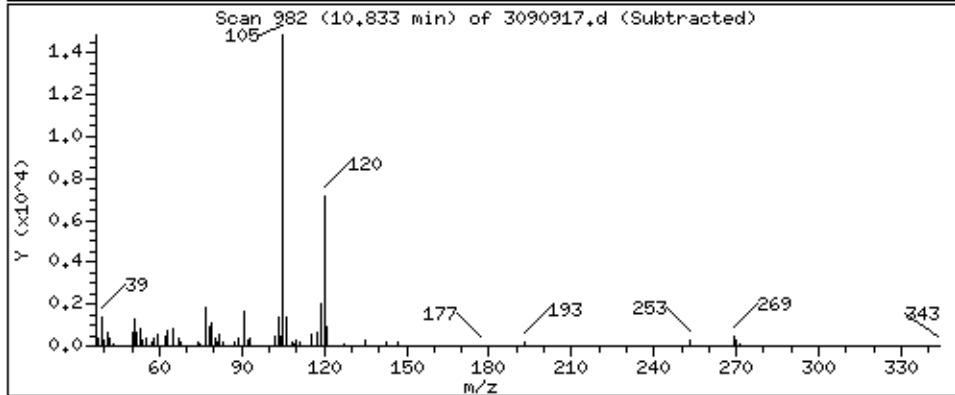
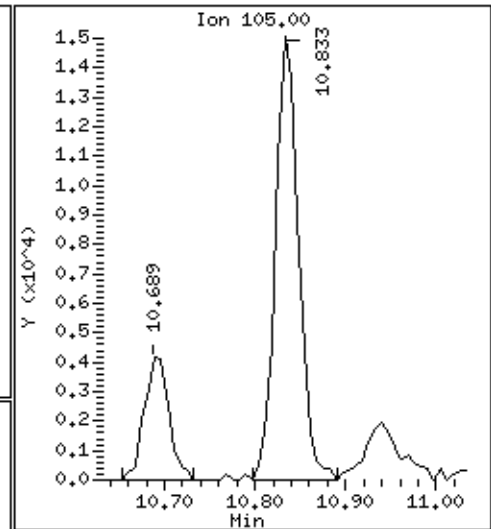
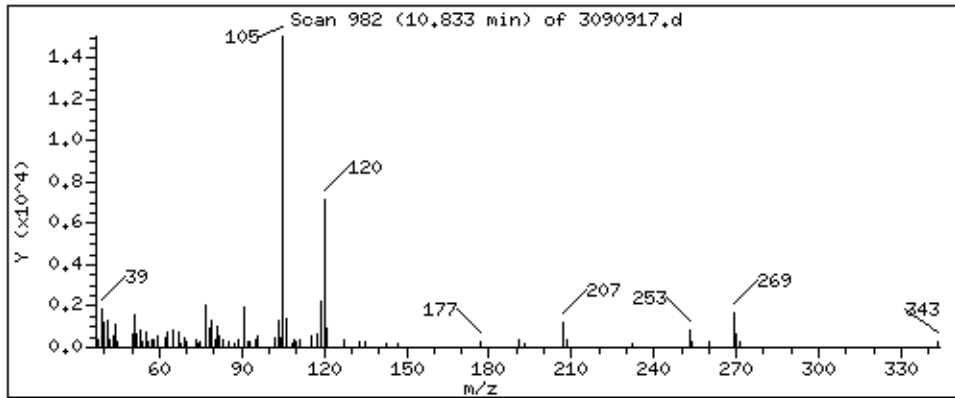
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

190 1,2,4-Trimethylbenzene

Concentration: 1,866 PPBV



## **QC Results and Raw Data**

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	9/9/21 02:33 PM
<b>Lab ID:</b>	2108676B-03A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090908c
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1,2-Tetrachloroethane	630-20-6	0.51	D	14	Not Detected
1,1,1-Trichloroethane	71-55-6	0.33	1.4	2.7	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.27	2.0	3.4	Not Detected
1,1,2-Trichloroethane	79-00-5	0.37	1.6	2.7	Not Detected
1,1-Dichloroethane	75-34-3	0.26	1.0	2.0	Not Detected
1,1-Dichloroethene	75-35-4	0.41	1.2	2.0	Not Detected
1,1-Difluoroethane	75-37-6	1.0	D	5.4	Not Detected
1,2,3-Trichloropropane	96-18-4	0.92	D	12	Not Detected
1,2,4-Trichlorobenzene	120-82-1	1.7	9.3	15	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.91	1.5	2.4	Not Detected
1,2-Dibromo-3-chloropropane	96-12-8	1.8	D	19	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.32	2.3	3.8	Not Detected
1,2-Dichlorobenzene	95-50-1	0.26	1.8	3.0	Not Detected
1,2-Dichloroethane	107-06-2	0.41	1.2	2.0	Not Detected
1,2-Dichloropropane	78-87-5	0.78	1.4	2.3	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.38	1.5	2.4	Not Detected
1,3-Butadiene	106-99-0	0.36	0.66	1.1	Not Detected
1,3-Dichlorobenzene	541-73-1	0.38	1.8	3.0	Not Detected
1,4-Dichlorobenzene	106-46-7	0.19	1.8	3.0	Not Detected
1,4-Dioxane	123-91-1	0.36	1.8	7.2	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.18	1.4	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	1.0	3.7	5.9	Not Detected
2-Hexanone	591-78-6	0.70	5.1	8.2	Not Detected
2-Propanol	67-63-0	0.33	3.1	4.9	0.66 J

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	9/9/21 02:33 PM
<b>Lab ID:</b>	2108676B-03A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090908c
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
3-Chloropropene	107-05-1	0.64	1.6	6.3	Not Detected
4-Ethyltoluene	622-96-8	0.62	1.5	2.4	Not Detected
4-Methyl-2-pentanone	108-10-1	0.31	1.2	2.0	Not Detected
Acetone	67-64-1	0.85	3.0	12	Not Detected
Acrolein	107-02-8	1.4	D	4.6	Not Detected
Acrylonitrile	107-13-1	0.41	D	4.3	Not Detected
alpha-Chlorotoluene	100-44-7	0.21	1.6	2.6	Not Detected
Benzene	71-43-2	0.12	0.96	1.6	Not Detected
Bromodichloromethane	75-27-4	0.64	1.7	3.4	Not Detected
Bromoform	75-25-2	0.44	3.1	5.2	Not Detected
Bromomethane	74-83-9	0.87	4.8	19	Not Detected
Carbon Disulfide	75-15-0	1.5	3.9	6.2	Not Detected
Carbon Tetrachloride	56-23-5	0.51	1.9	3.1	Not Detected
Chlorobenzene	108-90-7	0.20	1.2	2.3	Not Detected
Chloroethane	75-00-3	1.1	3.3	5.3	Not Detected
Chloroform	67-66-3	0.29	1.2	2.4	Not Detected
Chloromethane	74-87-3	1.1	2.6	10	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.36	1.2	2.0	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.33	1.4	2.3	Not Detected
Cumene	98-82-8	0.31	1.5	2.4	Not Detected
Cyclohexane	110-82-7	0.37	1.0	1.7	Not Detected
Dibromochloromethane	124-48-1	0.59	2.6	4.2	Not Detected
Dibromomethane	74-95-3	0.69	D	14	Not Detected
Ethanol	64-17-5	1.0	2.4	9.4	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	9/9/21 02:33 PM
<b>Lab ID:</b>	2108676B-03A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090908c
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Acetate	141-78-6	2.1	D	7.2	Not Detected
Ethyl Benzene	100-41-4	0.36	1.3	2.2	Not Detected
Ethyl-tert-butyl ether	637-92-3	0.62	D	8.4	Not Detected
Freon 11	75-69-4	0.32	1.7	2.8	Not Detected
Freon 113	76-13-1	0.60	2.3	3.8	Not Detected
Freon 114	76-14-2	0.48	2.1	3.5	Not Detected
Freon 12	75-71-8	0.45	1.5	2.5	Not Detected
Freon 134a	811-97-2	1.1	D	8.3	Not Detected
Heptane	142-82-5	0.37	1.2	2.0	Not Detected
Hexachlorobutadiene	87-68-3	2.4	13	21	Not Detected
Hexachloroethane	67-72-1	NA	D	19	Not Detected
Hexane	110-54-3	0.33	1.0	1.8	Not Detected
Iodomethane	74-88-4	1.6	D	29	Not Detected
Isopropyl ether	108-20-3	0.56	D	8.4	Not Detected
m,p-Xylene	108-38-3	1.2	1.3	2.2	Not Detected
Methyl tert-butyl ether	1634-04-4	0.44	1.8	7.2	Not Detected
Methylene Chloride	75-09-2	0.99	4.3	17	Not Detected
Naphthalene	91-20-3	0.34	0.66	5.2	Not Detected
o-Xylene	95-47-6	0.58	1.3	2.2	Not Detected
Propylbenzene	103-65-1	0.40	1.5	2.4	Not Detected
Propylene	115-07-1	0.65	2.2	3.4	Not Detected
Styrene	100-42-5	0.25	1.3	2.1	Not Detected
tert-Amyl methyl ether	994-05-8	1.2	D	8.4	Not Detected
tert-Butyl alcohol	75-65-0	0.55	D	6.1	Not Detected

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	9/9/21 02:33 PM
<b>Lab ID:</b>	2108676B-03A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090908c
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	127-18-4	0.60	2.0	3.4	Not Detected
Tetrahydrofuran	109-99-9	0.32	0.88	1.5	Not Detected
Toluene	108-88-3	0.46	1.1	1.9	Not Detected
TPH ref. to Gasoline (MW=100)	9999-9999-038	NA	D	200	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.82	1.2	2.0	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.31	1.4	2.3	Not Detected
Trichloroethene	79-01-6	0.34	1.6	2.7	Not Detected
Vinyl Acetate	108-05-4	1.4	4.4	7.0	Not Detected
Vinyl Bromide	593-60-2	0.71	D	8.7	Not Detected
Vinyl Chloride	75-01-4	0.50	0.77	1.3	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	97
Toluene-d8	2037-26-5	70-130	104



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/09SEP21.b/3090908c.d  
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
Inj Date : 09-SEP-2021 14:33  
Operator : LD Inst ID: msd3.i  
Smp Info : 200mL 35157  
Misc Info : Humid  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/09SEP21.b/321q0812b.m  
Meth Date : 09-Sep-2021 16:27 lk8g Quant Type: ISTD  
Cal Date : 02-SEP-2021 10:33 Cal File: 3090203.d  
Als bottle: 12  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AEC25677.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO
				ON-COL	FINAL		
==	=====	=====	=====	( PPBV)	( PPBV)	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.858	5.858	(1.000)	130	209496	25.0000	80.00- 120.00	100.00
5.858	5.858	(1.000)	128	163525		47.29- 107.29	78.06
5.858	5.858	(1.000)	49	336967		122.83- 182.83	160.85
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.750	6.750	(1.000)	114	769198	25.0000	80.00- 120.00	100.00
6.750	6.750	(1.000)	88	117481		0.00- 45.09	15.27
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.207	9.207	(1.000)	117	762992	25.0000	80.00- 120.00	100.00
9.207	9.207	(1.000)	82	406388		23.62- 83.62	53.26
-----							
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0							
6.404	6.404	(1.093)	65	274652	23.5307	23.531 80.00- 120.00	100.00
6.404	6.404	(1.093)	67	137908		20.51- 80.51	50.21
-----							
§ 134 Toluene-d8 CAS #: 2037-26-5							
7.967	7.968	(1.180)	98	805089	25.9723	25.972 80.00- 120.00	100.00
7.967	7.968	(1.180)	70	87312		0.00- 42.00	10.85

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.967	7.968	(1.180)	100	546922			37.14- 97.14	67.93
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.202	10.195	(1.108)	174	483041	24.2137	24.214	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	594693			92.25- 152.25	123.11
10.202	10.195	(1.108)	176	445750			63.07- 123.07	92.28
-----								
52 2-Propanol								
						CAS #: 67-63-0		
3.955	3.941	(0.675)	45	3990	0.26715	0.2671	80.00- 120.00	100.00(a)
3.955	3.941	(0.675)	43	1838			0.00- 49.76	46.08
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3090908c.d  
Lab Smp Id: Lab Blank  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/09SEP21.b/321q0812b.m  
Misc Info: Humid

Calibration Date: 09-SEP-2021  
Calibration Time: 11:39  
Client Smp ID: Lab Blank  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	194770	116862	272678	209496	7.56
108 1,4-Difluorobenze	712592	427555	997629	769198	7.94
153 Chlorobenzene-d5	710524	426314	994734	762992	7.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Report Date: 09-Sep-2021 16:28

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 09SEP21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: Lab Blank Client Smp ID: Lab Blank  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: SAMPLE  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AEC25677.sub  
 Method File: /chem/msd3.i/09SEP21.b/321q0812b.m  
 Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	23.531	94.12	70-130
\$ 134 Toluene-d8	25.000	25.972	103.89	70-130
\$ 170 4-Bromofluorobenz	25.000	24.214	96.85	70-130

Date : 09-SEP-2021 14:33

Client ID: Lab Blank

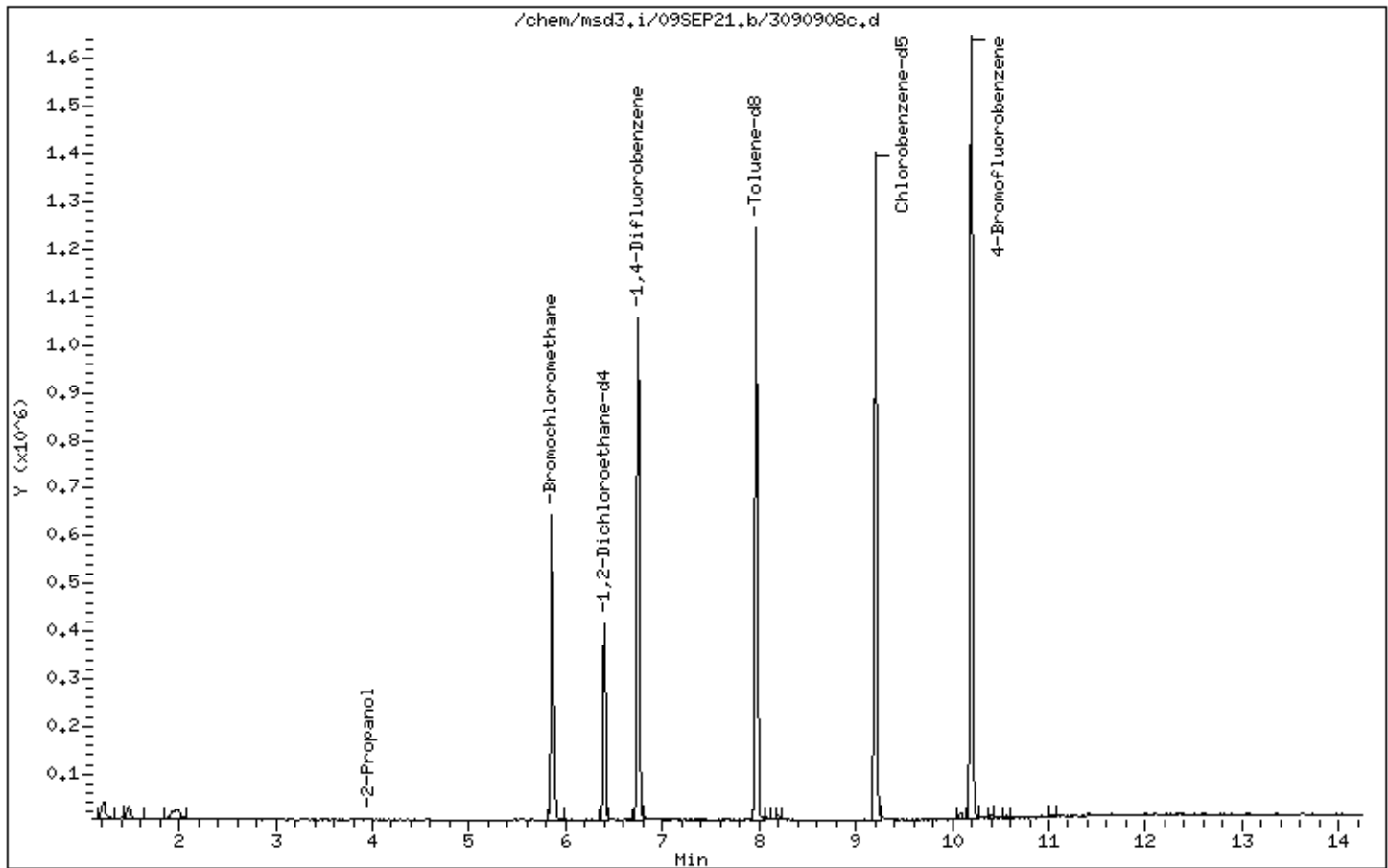
Instrument: msd3,i

Sample Info: 200mL 35157

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



Date : 09-SEP-2021 14:33

Client ID: Lab Blank

Instrument: msd3,i

Sample Info: 200mL 35157

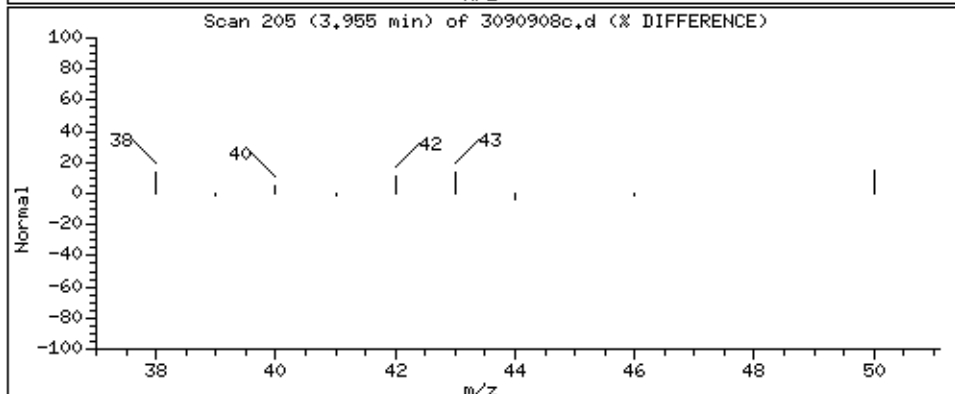
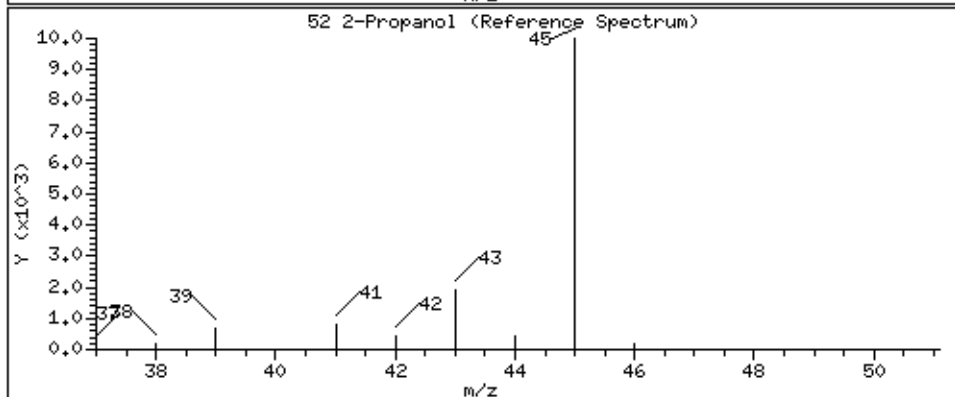
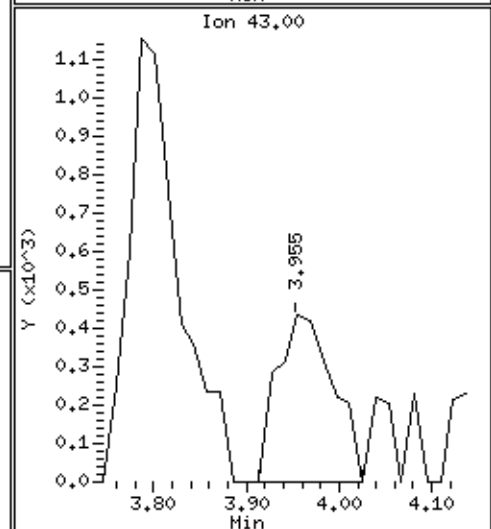
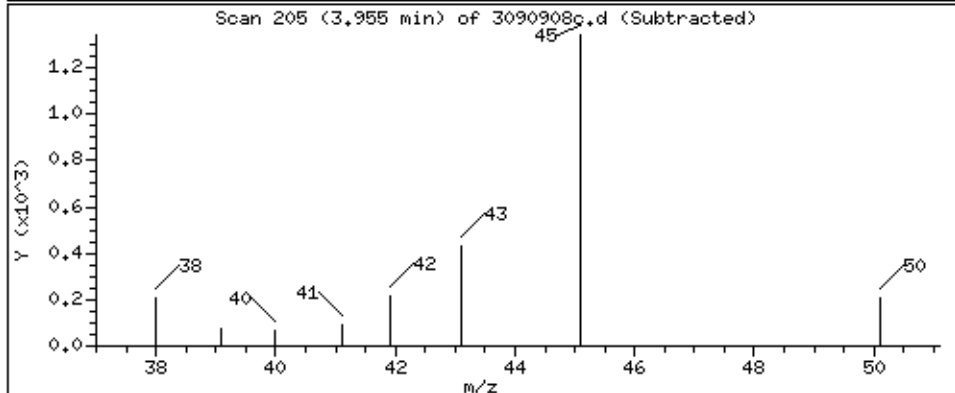
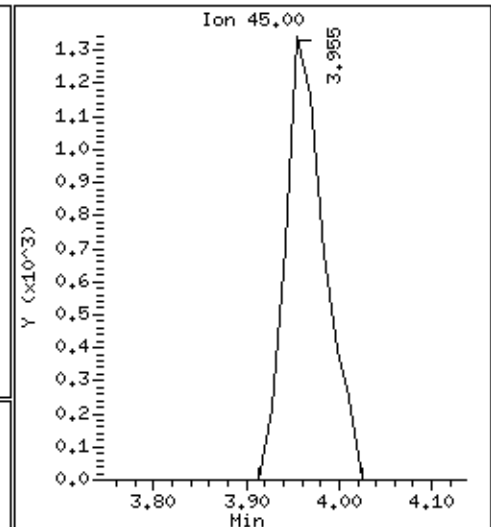
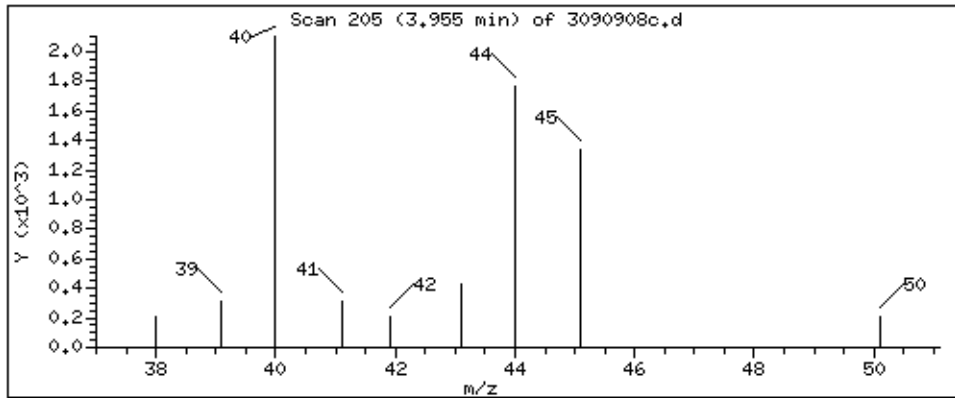
Operator: LD

Column phase: RTX-624

Column diameter: 0.25

52 2-Propanol

Concentration: 0.2671 PPBV



**LEVEL-IV VALIDATABLE**  
**MODIFIED EPA METHOD TO-15**  
**SURROGATE RECOVERY FORM**

Lab Name : Eurofins Air Toxics, LLC \_\_\_\_\_ SDG No. :2108676B

CLIENT SAMPLE NO.		SURROGATE % RECOVERY						
						TOTAL		
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#	OUT
1	SG-VW21A-06	89		108		95		
2	Lab Blank	94		104		97		
3	CCV	92		105		100		
4	LCS	89		106		100		
5	LCSD	91		105		99		

Surrogate Recovery Limits

1,2-Dichloroethane-d4	70 - 130
Toluene-d8	70 - 130
4-Bromofluorobenzene	70 - 130

\* Designates Values Outside of QC limits

**LEVEL-IV VALIDATABLE**  
**MODIFIED EPA METHOD TO-15**  
**INTERNAL STANDARD AREA AND RT SUMMARY**

Lab Name : Eurofins Air Toxics, LLC File ID: 3090903.d Date : 2021-09-09 11:39:00 SDG No. : 2108676B

		Bromochloromethane	RT	1,4-Difluorobenzene	RT	Chlorobenzene-d5	RT
24-HOUR CCV		194770	5.86	712592	6.75	710524	9.21
UPPER LIMIT		272678	6.19	997628	7.08	994733	9.54
LOWER LIMIT		116862	5.53	427555	6.42	426314	8.88
<b>CLIENT SAMPLE NO.</b>							
1	SG-VW21A-06	180377	5.86	646712	6.75	665975	9.21
2	Lab Blank	209496	5.86	769198	6.75	762992	9.21
3	CCV	194770	5.86	712592	6.75	710524	9.21
4	LCS	217543	5.86	800957	6.74	794198	9.21
5	LCSD	201014	5.86	745602	6.75	726122	9.21

Area Upper Limit = +40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT

Area Lower Limit = -40% of internal standard area

RT Lower Limit = -0.33 minutes of internal standard RT

\* Designates Values Outside of QC limits



SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab File ID: 3090904.d & 3090905.d

Lab Sample ID: 05A & 05AA

CAS Number	Compound	Original	Duplicate	Result Less Than	
		Amount	Amount	RPD	5X RL
71-55-6	1,1,1-Trichloroethane	91	91	0	
79-34-5	1,1,2,2-Tetrachloroethane	100	101	1.00	
79-00-5	1,1,2-Trichloroethane	98	100	2.0	
75-34-3	1,1-Dichloroethane	93	94	1.1	
75-35-4	1,1-Dichloroethene	88	87	1.1	
120-82-1	1,2,4-Trichlorobenzene	99	105	5.9	
95-63-6	1,2,4-Trimethylbenzene	104	105	0.96	
106-93-4	1,2-Dibromoethane (EDB)	98	98	0	
95-50-1	1,2-Dichlorobenzene	100	101	1.00	
107-06-2	1,2-Dichloroethane	88	87	1.1	
78-87-5	1,2-Dichloropropane	107	106	0.94	
108-67-8	1,3,5-Trimethylbenzene	101	102	0.99	
106-99-0	1,3-Butadiene	66	78	17	
541-73-1	1,3-Dichlorobenzene	101	103	2.0	
106-46-7	1,4-Dichlorobenzene	101	102	0.99	
123-91-1	1,4-Dioxane	94	89	5.5	
540-84-1	2,2,4-Trimethylpentane	108	108	0	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	98	96	2.1	
591-78-6	2-Hexanone	89	88	1.1	
67-63-0	2-Propanol	97	93	4.2	
107-05-1	3-Chloropropene	90	89	1.1	
622-96-8	4-Ethyltoluene	103	103	0	
108-10-1	4-Methyl-2-pentanone	100	98	2.0	
67-64-1	Acetone	94	93	1.1	
100-44-7	alpha-Chlorotoluene	101	102	0.99	
71-43-2	Benzene	99	98	1.0	
75-27-4	Bromodichloromethane	98	96	2.1	
75-25-2	Bromoform	100	100	0	
74-83-9	Bromomethane	85	86	1.2	
75-15-0	Carbon Disulfide	94	94	0	
56-23-5	Carbon Tetrachloride	97	98	1.0	
108-90-7	Chlorobenzene	101	101	0	
75-00-3	Chloroethane	94	92	2.2	
67-66-3	Chloroform	94	94	0	
74-87-3	Chloromethane	83	84	1.2	
156-59-2	cis-1,2-Dichloroethene	97	98	1.0	

10061-01-5	cis-1,3-Dichloropropene	104	102	1.9
98-82-8	Cumene	101	102	0.99
110-82-7	Cyclohexane	99	100	1.0
124-48-1	Dibromochloromethane	98	99	1.0
64-17-5	Ethanol	75	72	4.1
100-41-4	Ethyl Benzene	102	103	0.98
75-69-4	Freon 11	85	84	1.2
76-13-1	Freon 113	88	88	0
76-14-2	Freon 114	88	86	2.3
75-71-8	Freon 12	85	84	1.2
142-82-5	Heptane	92	84	9.1
87-68-3	Hexachlorobutadiene	106	114	7.3
110-54-3	Hexane	100	101	1.00
108-38-3	m,p-Xylene	104	104	0
1634-04-4	Methyl tert-butyl ether	91	91	0
75-09-2	Methylene Chloride	95	95	0
91-20-3	Naphthalene	88	92	4.4
95-47-6	o-Xylene	102	103	0.98
103-65-1	Propylbenzene	101	101	0
115-07-1	Propylene	92	92	0
100-42-5	Styrene	102	103	0.98
127-18-4	Tetrachloroethene	98	99	1.0
109-99-9	Tetrahydrofuran	100	101	1.00
108-88-3	Toluene	104	103	0.97
156-60-5	trans-1,2-Dichloroethene	93	94	1.1
10061-02-6	trans-1,3-Dichloropropene	96	96	0
79-01-6	Trichloroethene	100	100	0
108-05-4	Vinyl Acetate	94	99	5.2
75-01-4	Vinyl Chloride	71	78	9.4

## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 12-AUG-2021 16:21  
 End Cal Date : 02-SEP-2021 10:33  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/msd3.i/02SEP21.b/3090203.d  
 Level 2: /chem/msd3.i/12AUG21.b/3081202x.d  
 Level 3: /chem/msd3.i/12AUG21.b/3081212.d  
 Level 5: /chem/msd3.i/12AUG21.b/3081215.d  
 Level 6: /chem/msd3.i/12AUG21.b/3081216.d  
 Level 7: /chem/msd3.i/12AUG21.b/3081217.d  
 Level 8: /chem/msd3.i/12AUG21.b/3081218.d  
 Level 9: /chem/msd3.i/12AUG21.b/3081219.d  
 Level 10: /chem/msd3.i/12AUG21.b/3081220.d  
 Level 11: /chem/msd3.i/12AUG21.b/3081221.d

Compound	0.20000 Level 1	0.30000 Level 2	0.40000 Level 3	0.80000 Level 5	2.000 Level 6	5.000 Level 7	RRF	% RSD
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	0.53779	0.52335	0.49966	0.44634	0.55996	0.52138	0.51475	7.574
4 Freon 134a	0.73450	0.68638	0.67493	0.66915	0.83288	0.73651	0.72428	7.787
5 Propylene	0.71379	0.68783	0.68511	0.67933	0.74116	0.74452	0.70862	4.098

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 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
6 Propane	+++++	+++++	+++++	+++++	0.25777	0.26733		
	0.27497	0.25786	0.25635	0.24874			0.26050	3.543
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	0.49557	0.47331		
	0.44603	0.41889	0.41022	0.40653			0.44176	8.267
8 Freon 12	+++++	+++++	2.12323	2.08331	2.04532	2.04801		
	1.96165	1.88724	1.87949	1.83772			1.98325	5.366
9 Chlorodifluoromethane	+++++	+++++	+++++	0.33773	0.30757	0.25599		
	0.22230	0.20618	0.19882	0.19365			0.24603	23.123
10 Freon 114	+++++	+++++	1.75805	1.54242	1.55492	1.53233		
	1.47772	1.42152	1.41064	1.36276			1.50754	8.142
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
12 Isobutane	+++++	+++++	+++++	1.76300	1.55596	1.66106		
	1.61110	1.55884	1.56264	1.51834			1.60442	5.214
13 Freon 142b	+++++	+++++	+++++	+++++	1.70190	1.69698		
	1.67191	1.62847	1.61743	1.56131			1.64634	3.292
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
15 Chloromethane	+++++	+++++	+++++	+++++	0.99147	0.92927		
	0.84836	0.79272	0.80573	0.75594			0.85392	10.513
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 Butane	+++++	+++++	+++++	+++++	0.27677	0.22615		
	0.19399	0.17384	0.17310	0.16411			0.20133	21.421
19 Vinyl Chloride	+++++	+++++	1.31765	1.09005	0.98443	0.87521		
	0.83790	0.79844	0.78377	0.76650			0.93174	20.514
20 1,3-Butadiene	+++++	+++++	1.52810	1.25146	0.83587	0.75149		
	0.72114	0.70479	0.68987	0.67212			0.89435	35.613 <-
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
24 Bromomethane	+++++	+++++	+++++	+++++	0.82713	0.88085		
	0.62591	0.61623	0.62597	0.59678			0.69548	17.888
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	0.48287	0.42651		
	0.41976	0.39058	0.38368	0.38068			0.41401	9.361
31 Isopentane	+++++	+++++	+++++	+++++	1.12799	1.12239		
	1.11853	1.04772	1.03459	1.02226			1.07891	4.544
32 Vinyl Bromide	+++++	+++++	+++++	0.85782	0.80254	0.75788		
	0.75752	0.71373	0.70690	0.69200			0.75548	7.799

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 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
33 Freon 11	+++++	+++++	2.55704	2.28707	2.23293	2.21722		
	2.20578	2.05444	2.06717	2.00963			2.20391	7.886
34 Dichlorofluoromethane	+++++	+++++	+++++	1.85713	1.71002	1.74060		
	1.68449	1.61615	1.58526	1.55918			1.67898	6.133
35 Pentane	+++++	+++++	+++++	2.25830	1.81541	1.74399		
	1.72153	1.65163	1.64958	1.62102			1.78021	12.424
36 1-Pentene	+++++	+++++	+++++	+++++	0.95234	0.94160		
	0.96439	0.96847	0.95303	0.94387			0.95395	1.126
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	0.44293	0.39475	0.36229		
	0.35668	0.34079	0.34330	0.34071			0.36878	10.255
39 Ethanol	+++++	+++++	+++++	+++++	0.23833	0.19056		
	0.17012	0.14452	0.14994	0.14789			0.17356	20.862
40 Freon 123a	+++++	+++++	+++++	+++++	1.17232	1.19994		
	1.20528	1.16585	1.14943	1.11910			1.16865	2.751
41 Freon 123	+++++	+++++	+++++	+++++	1.63582	1.69569		
	1.70794	1.65086	1.61616	1.59592			1.65040	2.671

US32TAR1

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 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
42 Acrolein	+++++	+++++	+++++	+++++	0.29888	0.28587		
	0.27381	0.26866	0.26633	0.25876			0.27539	5.308
43 Freon 113	+++++	+++++	1.77755	1.50347	1.46862	1.44088		
	1.46605	1.35561	1.33576	1.32313			1.45888	9.976
44 1,1-Dichloroethene	+++++	+++++	1.07301	0.88511	0.81992	0.78672		
	0.76946	0.74598	0.73131	0.73437			0.81824	14.054
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	0.52973	0.47595		
	0.46870	0.44138	0.43484	0.42051			0.46185	8.503
48 Carbon Disulfide	+++++	+++++	+++++	+++++	2.27886	2.17226		
	2.10575	2.00535	1.99697	1.96624			2.08757	5.819
49 Iodomethane	+++++	+++++	+++++	+++++	1.68615	1.29270		
	2.20815	1.98640	1.84363	1.76334			1.79673	17.152
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++



## US32TAR1

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 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	2.00456	1.81155		
	1.78469	1.72361	1.71385	1.65576			1.78234	6.844
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	0.43673	0.37418	0.36229		
	0.35299	0.32826	0.33274	0.33411			0.36018	10.489
55 Cyclopentene	+++++	+++++	+++++	+++++	1.63877	1.70548		
	1.70766	1.72358	1.68703	1.66064			1.68719	1.898
56 Methyl Acetate	+++++	+++++	+++++	+++++	1.80141	1.80765		
	1.87078	1.84767	1.80179	1.73774			1.81117	2.527
57 Acetonitrile	+++++	+++++	+++++	+++++	0.85276	0.82190		
	0.79294	0.74648	0.76918	0.76021			0.79058	5.116
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	+++++	1.24267	1.23799		
	1.18420	1.11938	1.10751	1.07746			1.16153	6.052

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Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
61 1,2-Dichloro-1-fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	2.11941	2.16938		
	2.07560	1.99573	1.99417	1.99303			2.05789	3.679
63 Methyl tert-butyl ether	+++++	+++++	+++++	2.52491	2.23244	2.24619		
	2.26879	2.16012	2.13753	2.13127			2.24304	6.057
64 trans-1,2-Dichloroethene	+++++	+++++	0.56322	0.53912	0.53583	0.53085		
	0.51790	0.49565	0.48725	0.48687			0.51959	5.330
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
66 Acrylonitrile	+++++	+++++	0.89371	0.88128	0.72614	0.63776		
	0.61277	0.58792	0.57623	0.57965			0.68693	19.340
67 Hexane	+++++	+++++	1.65877	1.60232	1.58132	1.50457		
	1.47948	1.42288	1.42975	1.43035			1.51368	5.960
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

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Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	+++++	1.79920	1.74918	1.65426	1.64457	1.60891		
	1.55659	1.48322	1.47443	1.46295			1.60370	7.538
72 Isopropyl ether	+++++	+++++	+++++	+++++	3.35157	3.44052		
	3.43425	3.24841	3.22549	3.17411			3.31239	3.404
73 Vinyl Acetate	+++++	+++++	+++++	+++++	0.22969	0.19576		
	0.18838	0.19012	0.19547	0.19266			0.19868	7.784
74 Chloroprene	+++++	+++++	+++++	+++++	1.53051	1.48469		
	1.52563	1.53801	1.52937	1.52496			1.52219	1.245
75 1-Propanol	+++++	+++++	+++++	+++++	0.22557	0.20306		
	0.19941	0.20203	0.19843	0.19359			0.20368	5.511
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 12-AUG-2021 16:21  
 End Cal Date : 02-SEP-2021 10:33  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	3.03751	3.07073		
	3.11925	2.98762	2.94461	2.93813			3.01631	2.395
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	1.59303	1.55206	1.56311		
	1.53798	1.46702	1.45409	1.44147			1.51554	3.970
85 cis-1,2-Dichloroethene	+++++	+++++	0.62274	0.58265	0.55415	0.54561		
	0.53965	0.52341	0.52478	0.51477			0.55097	6.536
86 2-Butanone	+++++	+++++	+++++	+++++	0.42291	0.41608		
	0.40273	0.39271	0.39488	0.39040			0.40329	3.323

## US32TAR1

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 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
87 Ethyl Acetate	+++++	+++++	+++++	+++++	0.45080	0.39319		
	0.36330	0.36042	0.35110	0.34816			0.37783	10.366
88 Methyl Acrylate	+++++	+++++	+++++	+++++	1.78096	1.74523		
	1.81842	1.77796	1.76505	1.74354			1.77186	1.565
89 Tetrahydrofuran	+++++	+++++	1.59673	1.31225	1.27941	1.15402		
	1.12905	1.12322	1.11486	1.10552			1.22688	13.768
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
92 Chloroform	+++++	1.94180	1.88518	1.83529	1.79165	1.77895		
	1.71376	1.67678	1.65346	1.63729			1.76824	6.019
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
94 Cyclohexane	+++++	+++++	1.24573	1.17754	1.05005	1.06258		
	1.07094	1.02318	1.01595	1.01351			1.08243	7.805
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
96 1,1,1-Trichloroethane	+++++	2.09785	2.03105	1.98269	1.98454	1.92143		
	1.90226	1.79128	1.79715	1.76666			1.91943	6.041

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 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
97 Carbon Tetrachloride	+++++	+++++	1.84238	1.76801	1.91447	1.86931		
	1.97891	1.88308	1.88925	1.87692			1.87779	3.189
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	0.14373	0.13122	0.12672		
	0.12684	0.12585	0.12404	0.12139			0.12854	5.705
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	5.40557	5.13923	4.74505	4.74522		
	4.85045	4.65231	4.61351	4.54564			4.83712	6.056
102 Benzene	+++++	+++++	0.74294	0.74467	0.63245	0.64451		
	0.62810	0.60926	0.59826	0.58721			0.64843	9.521
103 Isobutanol	+++++	+++++	+++++	+++++	0.27644	0.27433		
	0.27161	0.26853	0.26135	0.25810			0.26840	2.717
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	0.17052	0.17087		
	0.17537	0.16722	0.16444	0.16242			0.16848	2.809
106 1,2-Dichloroethane	+++++	+++++	0.43458	0.42187	0.39553	0.39194		
	0.37795	0.36567	0.35599	0.34827			0.38648	7.929

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 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
107 Heptane	+++++	+++++	0.26936	0.26612	0.24111	0.25727		
	0.28306	0.24038	0.26139	0.20021			0.25236	10.065
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	0.23651	0.23789		
	0.21594	0.21787	0.21711	0.21690			0.22370	4.686
111 Trichloroethene	+++++	+++++	0.35934	0.34103	0.31682	0.31639		
	0.31100	0.29878	0.29771	0.29467			0.31697	7.164
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	0.04041	0.04166		
	0.04194	0.04223	0.04177	0.04059			0.04143	1.804
114 1,2-Dichloropropane	+++++	+++++	0.36039	0.29931	0.28737	0.28576		
	0.28427	0.27154	0.26876	0.26457			0.29025	10.529
115 2-Pentanone	+++++	+++++	+++++	+++++	0.81907	0.80125		
	0.86220	0.84250	0.82814	0.79843			0.82527	2.970
116 Methyl Methacrylate	+++++	+++++	+++++	0.28397	0.27131	0.27093		
	0.27275	0.25908	0.25858	0.25478			0.26734	3.855

US32TAR1

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Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
117 1,4-Dioxane	+++++	+++++	+++++	0.19842	0.18631	0.18391		
	0.18483	0.17377	0.17452	0.17031			0.18172	5.315
118 Dibromomethane	+++++	+++++	0.35217	0.33550	0.32681	0.30891		
	0.31031	0.30419	0.29802	0.29005			0.31574	6.583
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
122 Bromodichloromethane	+++++	0.56068	0.59413	0.55106	0.51716	0.52846		
	0.51955	0.50697	0.50013	0.49281			0.53011	6.177
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++



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Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
126 cis-1,3-Dichloropropene	+++++	+++++	0.47813	0.39842	0.40516	0.38950		
	0.39851	0.39116	0.38670	0.38175			0.40367	7.680
127 Methylcyclohexane	+++++	+++++	0.45724	0.41992	0.37798	0.38719		
	0.40943	0.38760	0.38387	0.37742			0.40008	6.900
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++	+++++			+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++	+++++			+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++	+++++			+++++	+++++
131 4-Methyl-2-pentanone	+++++	+++++	0.33290	0.30171	0.28601	0.27351		
	0.27528	0.26509	0.25832	0.25808			0.28136	9.039
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++	+++++			+++++	+++++
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++	+++++			+++++	+++++
136 Octane	+++++	+++++	0.35197	0.31874	0.27580	0.26937		
	0.29508	0.27708	0.26670	0.26364			0.28980	10.695

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Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
137 Toluene	+++++	+++++	0.97731	0.89238	0.85495	0.85458		
	0.87571	0.83077	0.81395	0.79331			0.86162	6.582
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
139 trans-1,3-Dichloropropene	+++++	+++++	0.53086	0.42304	0.40632	0.40354		
	0.42165	0.40449	0.40185	0.39202			0.42297	10.589
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	0.35448	0.33655	0.31389	0.30708		
	0.32023	0.30335	0.29881	0.29090			0.31566	6.656
142 Tetrachloroethene	+++++	+++++	0.52856	0.46360	0.46763	0.45553		
	0.46571	0.44138	0.43659	0.42387			0.46036	6.881
143 2-Hexanone	+++++	+++++	+++++	+++++	0.46863	0.45484		
	0.45600	0.43891	0.42982	0.42094			0.44486	4.049
144 1,3-Dichloropropane	+++++	+++++	0.56124	0.43376	0.41896	0.40574		
	0.41706	0.39543	0.38939	0.38396			0.42569	13.445
145 Butyl Acetate	+++++	+++++	+++++	+++++	0.34225	0.33976		
	0.35677	0.34603	0.34048	0.33555			0.34347	2.141

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	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
146 Dibromochloromethane	+++++	+++++	0.66551	0.63824	0.61876	0.61835		
	0.65097	0.62581	0.61884	0.60199			0.62981	3.263
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
148 1,2-Dibromoethane (EDB)	0.55496	0.50754	0.60273	0.52474	0.50196	0.49097		
	0.51383	0.49002	0.48532	0.47022			0.51423	7.586
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	0.54317	0.52852		
	0.53267	0.51382	0.50488	0.49624			0.51989	3.442
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
154 Chlorobenzene	+++++	0.85513	0.86146	0.80506	0.77267	0.76385		
	0.80047	0.75164	0.73474	0.71277			0.78420	6.511
155 Ethyl Benzene	+++++	+++++	0.42768	0.41282	0.37266	0.37978		
	0.40263	0.37966	0.37080	0.36088			0.38836	6.005

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	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
156 Nonane	+++++	+++++	+++++	0.86427	0.78354	0.77153		
	0.84135	0.76964	0.74320	0.70447			0.78257	7.013
157 1,1,1,2-Tetrachloroethane	+++++	+++++	0.46011	0.43318	0.40001	0.40842		
	0.46797	0.44424	0.43693	0.42953			0.43505	5.335
158 m,p-Xylene	+++++	+++++	0.52737	0.48667	0.46856	0.46502		
	0.49447	0.46916	0.45790	0.44668			0.47698	5.313
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
160 bis(chloromethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
163 2-Chloroethyl Vinyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
164 o-Xylene	+++++	+++++	0.49873	0.44663	0.45127	0.43746		
	0.47190	0.44419	0.43834	0.42970			0.45228	4.989

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	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
165 Styrene	0.80603	0.76733	0.75809	0.74348	0.74397	0.73266	0.78319	7.765
166 2-Heptanone	1.91157	1.88410	1.87817	1.85513	1.82191	1.82193	1.86214	1.931
167 Bromoform	0.61926	0.59660	0.58970	0.57567	0.57907	0.56759	0.59742	5.783
168 Cumene	1.50555	1.42407	1.37646	1.32249	1.41191	1.38473	1.43656	6.246
169 Cyclohexanone	0.61389	0.58083	0.56888	0.54716	0.72065	0.67157	0.65259	17.126
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	0.50603	0.49685	0.48336	0.47566	0.32474	0.34170	0.43806	18.733
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
175 1,1,2,2-Tetrachloroethane	+++++	+++++	0.78343	0.74117	0.71222	0.68108		
	0.71745	0.67471	0.65483	0.63756			0.70031	6.836
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	0.47729	0.46105	0.44891		
	0.48493	0.45361	0.44033	0.43116			0.45675	4.221
178 Propylbenzene	+++++	+++++	0.45550	0.42716	0.42019	0.39365		
	0.42756	0.40290	0.39154	0.38053			0.41238	5.982
179 1,2,3-Trichloropropane	+++++	+++++	0.26283	0.23472	0.22968	0.21141		
	0.23155	0.21610	0.21104	0.20452			0.22523	8.336
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
181 trans-1,4-Dichloro-2-butene	+++++	+++++	+++++	0.21310	0.18796	0.17779		
	0.18366	0.16875	0.16572	0.15855			0.17936	10.089
182 Decane	+++++	+++++	+++++	1.32928	0.96760	0.87819		
	0.94234	0.85790	0.82746	0.76292			0.93796	19.796
183 4-Ethyltoluene	+++++	+++++	0.49649	0.47667	0.43554	0.43266		
	0.46147	0.43231	0.41862	0.40810			0.44523	6.784

## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 12-AUG-2021 16:21  
 End Cal Date : 02-SEP-2021 10:33  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
184 2-Chlorotoluene	+++++	+++++	0.40655	0.38409	0.36693	0.36809		
	0.38546	0.35853	0.34972	0.34215			0.37019	5.689
185 1,3,5-Trimethylbenzene	+++++	+++++	0.66968	0.61232	0.62074	0.61130		
	0.65507	0.61073	0.59759	0.59123			0.62108	4.405
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	0.36788	0.36540		
	0.40971	0.39655	0.38118	0.37379			0.38242	4.561
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	0.65212	0.58837	0.59400	0.59576		
	0.65595	0.62824	0.62389	0.61188			0.61878	4.199
189 tert-Butylbenzene	+++++	+++++	+++++	1.24082	1.15212	1.13935		
	1.24702	1.15851	1.12289	1.08203			1.16325	5.203
190 1,2,4-Trimethylbenzene	+++++	+++++	1.33177	1.22227	1.16259	1.17673		
	1.26948	1.19373	1.16270	1.12386			1.20539	5.576
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
192 sec-Butylbenzene	+++++	+++++	0.43200	0.42650	0.37516	0.36939		
	0.39444	0.36839	0.35798	0.34967			0.38419	7.998

## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 12-AUG-2021 16:21  
 End Cal Date : 02-SEP-2021 10:33  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
193 bis(2-Chloroethyl) Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
194 p-Cymene	+++++	+++++	1.78846	1.64079	1.54447	1.53075		
	1.64754	1.54891	1.50974	1.44678			1.58218	6.715
195 1,3-Dichlorobenzene	+++++	+++++	0.92060	0.88870	0.87465	0.83479		
	0.89732	0.83469	0.82051	0.80529			0.85957	4.803
196 1,4-Dichlorobenzene	+++++	+++++	0.98666	0.87852	0.88004	0.85348		
	0.90363	0.85238	0.83492	0.81506			0.87559	6.028
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	0.47211	0.47436		
	0.54204	0.52785	0.51307	0.50314			0.50543	5.584
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	1.32240	1.18538	1.16323	1.15108		
	1.22648	1.17885	1.16819	1.14245			1.19226	4.904
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
201 Undecane	+++++	+++++	+++++	1.23380	1.08812	1.01792		
	1.09728	1.01456	0.98990	0.93524			1.05383	9.203



## US32TAR1

## INITIAL CALIBRATION DATA

Start Cal Date : 12-AUG-2021 16:21  
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 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
202 Butylbenzene	+++++	+++++	0.46882	0.45667	0.41416	0.41543		
	0.43827	0.40511	0.39862	0.38922			0.42329	6.716
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	0.90498	0.88203	0.82274	0.81385		
	0.86046	0.80660	0.79194	0.77843			0.83263	5.404
205 Hexachloroethane	+++++	+++++	+++++	+++++	0.26403	0.23760		
	0.36036	0.32306	0.31753	0.31308			0.30261	14.630
206 1,2-Dibromo-3-chloropropane	+++++	+++++	+++++	+++++	0.53065	0.51892		
	0.52907	0.50785	0.49816	0.48673			0.51190	3.422
207 Dodecane	+++++	+++++	1.05822	0.98857	0.90880	0.90878		
	0.96525	0.92887	0.90473	0.86418			0.94093	6.481
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	0.75095	0.73963		
	0.82333	0.78229	0.76565	0.74675			0.76810	4.041
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	0.73829	0.75416		
	0.88384	0.87331	0.85755	0.83652			0.82394	7.583

## US32TAR1

## INITIAL CALIBRATION DATA

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 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	0.71002	0.66782	0.64576		
	0.65017	0.63495	0.61851	0.60493			0.64745	5.329
214 beta-Pinene	+++++	+++++	+++++	+++++	0.54151	0.53036		
	0.67946	0.65113	0.63417	0.59457			0.60520	9.978
215 Hexachlorobutadiene	+++++	+++++	+++++	0.49962	0.46757	0.46752		
	0.48336	0.46306	0.45184	0.43985			0.46755	4.199
216 Naphthalene	+++++	+++++	+++++	2.13893	1.88697	1.80653		
	1.68885	1.66568	1.66426	1.63632			1.78393	10.139
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++			+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 12-AUG-2021 16:21  
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 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	0.63389	0.62486	0.61694		
	0.60906	0.58618	0.57674	0.56264			0.60147	4.424
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
225 4-Ethyl-1,2-dimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
228 1,2,4,5-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		+++++

US32TAR1

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 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
M 234 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
M 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
M 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
M 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 12-AUG-2021 16:21  
 End Cal Date : 02-SEP-2021 10:33  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
238 Total Volatile Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++		+++++
239 TPH reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		+++++
240 TPH reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		+++++
241 TPH reference to Gasoline	+++++	+++++	+++++	+++++	+++++	+++++		+++++
242 TPH reference MineralSpirits	+++++	+++++	+++++	+++++	+++++	+++++		+++++
243 TPH reference to Stoddard	+++++	+++++	+++++	+++++	+++++	+++++		+++++
244 TVOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++		+++++
245 TVOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++		+++++
246 TVOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++		+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 12-AUG-2021 16:21  
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 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
247 TVOC reference to Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

Start Cal Date : 12-AUG-2021 16:21  
 End Cal Date : 02-SEP-2021 10:33  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref C5 + C6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref Dodecan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,2,3-TMB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1

INITIAL CALIBRATION DATA

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 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 10-Sep-2021 09:03 ugdc  
 Curve Type : Average

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	—	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7	RRF	
	20.000	50.000	100.000	200.000				
	Level 8	Level 9	Level 10	Level 11				
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
266 C10-C12 Aromatic 1,2,4,5-TMB	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
267 C10-C12 Aromatic Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
\$ 104 1,2-Dichloroethane-d4	1.39482	1.39254	1.42001	1.39176	1.39476	1.39246		
	1.38374	1.36918	1.36382	1.42564			1.39287	1.376
\$ 133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++		+++++
	+++++	+++++	+++++	+++++			+++++	+++++
\$ 134 Toluene-d8	0.97357	1.00567	1.01231	1.00975	1.00934	1.01397		
	1.00503	1.01619	1.01583	1.01312			1.00748	1.243
\$ 170 4-Bromofluorobenzene	0.62236	0.65983	0.65279	0.64406	0.65657	0.65445		
	0.66257	0.66456	0.66367	0.65561			0.65365	1.923



Report Date: 10-Sep-2021 10:01

### Calibration History

Method : /chem/msd3.i/02SEP21.b/321q0812b.m  
Start Cal Date: 12-AUG-2021 16:21  
End Cal Date : 02-SEP-2021 10:33

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
02-SEP-2021 10:33	Level1	/chem/msd3.i/02SEP21.b/3090203.d
Cal Level: 2 , Cal Amount: 0.30000		
12-AUG-2021 16:21	12EDBcrv	/chem/msd3.i/12AUG21.b/3081202x.d
12-AUG-2021 16:21	AT20_Level2	/chem/msd3.i/12AUG21.b/3081202.d
Cal Level: 3 , Cal Amount: 0.40000		
12-AUG-2021 20:58	AT20spICAL_lv3	/chem/msd3.i/12AUG21.b/3081212.d
12-AUG-2021 16:48	AT20_Level3	/chem/msd3.i/12AUG21.b/3081203.d
Cal Level: 5 , Cal Amount: 0.80000		
12-AUG-2021 23:13	AT20spICAL_lv3	/chem/msd3.i/12AUG21.b/3081215.d
12-AUG-2021 17:15	AT20_Level5	/chem/msd3.i/12AUG21.b/3081204.d
Cal Level: 6 , Cal Amount: 2.00000		
12-AUG-2021 23:40	AT20spICAL	/chem/msd3.i/12AUG21.b/3081216.d
12-AUG-2021 17:41	AT20ICAL	/chem/msd3.i/12AUG21.b/3081205.d
Cal Level: 7 , Cal Amount: 5.00000		
13-AUG-2021 00:09	AT20spICAL	/chem/msd3.i/12AUG21.b/3081217.d
12-AUG-2021 18:11	AT20ICAL	/chem/msd3.i/12AUG21.b/3081206.d
Cal Level: 8 , Cal Amount: 20.00000		
13-AUG-2021 00:36	AT20spICAL	/chem/msd3.i/12AUG21.b/3081218.d
12-AUG-2021 18:37	AT20ICAL	/chem/msd3.i/12AUG21.b/3081207.d

Cal Level: 9 , Cal Amount: 50.00000		
13-AUG-2021 01:04	AT20spICAL	/chem/msd3.i/12AUG21.b/3081219.d
12-AUG-2021 19:05	AT20ICAL	/chem/msd3.i/12AUG21.b/3081208.d

Cal Level: 10, Cal Amount: 100.00000		
13-AUG-2021 01:31	AT20spICAL	/chem/msd3.i/12AUG21.b/3081220.d
12-AUG-2021 19:32	AT20ICAL	/chem/msd3.i/12AUG21.b/3081209.d

Cal Level: 11, Cal Amount: 200.00000		
13-AUG-2021 02:00	AT20spICAL	/chem/msd3.i/12AUG21.b/3081221.d
12-AUG-2021 20:01	AT20ICAL	/chem/msd3.i/12AUG21.b/3081210.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 9

Ccal Level: 9 , Ccal Amount: 50.000		
02-SEP-2021 11:00	AT20_new	/chem/msd3.i/02SEP21.b/3090204.d

US32TAR1

INITIAL CALIBRATION DATA

*up 9/3/21*

Start Cal Date : 12-AUG-2021 16:21  
 End Cal Date : 02-SEP-2021 10:33  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.60  
 Integrator : HP RTE  
 Method file : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Cal Date : 03-Sep-2021 15:45 lk8g  
 Curve Type : Average

Calibration File Names:

Level 1: /chem/msd3.i/02SEP21.b/3090203.d  
 Level 2: /chem/msd3.i/12AUG21.b/3081202x.d  
 Level 3: /chem/msd3.i/12AUG21.b/3081212.d  
 Level 5: /chem/msd3.i/12AUG21.b/3081215.d  
 Level 6: /chem/msd3.i/12AUG21.b/3081216.d  
 Level 7: /chem/msd3.i/12AUG21.b/3081217.d  
 Level 8: /chem/msd3.i/12AUG21.b/3081218.d  
 Level 9: /chem/msd3.i/12AUG21.b/3081219.d  
 Level 10: /chem/msd3.i/12AUG21.b/3081220.d  
 Level 11: /chem/msd3.i/12AUG21.b/3081221.d

*gd 9/3/21*

Compound	0.20000	0.30000	0.40000	0.80000	2.000	5.000	---	RRF	% RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7			
	20.000	50.000	100.000	200.000					
	Level 8	Level 9	Level 10	Level 11					
1 Dimethyl Ether	++++	++++	++++	++++	++++	++++		++++	++++
2 1,1-Dichloro-1-Fluoroethane	++++	++++	++++	++++	++++	++++		++++	++++
3 Freon 143a	++++	++++	++++	++++	0.55996	0.52138			
	0.53779	0.52335	0.49966	0.44634				0.51475	7.574
4 Freon 134a	++++	++++	++++	0.83288	0.73560	0.73651			
	0.73450	0.68638	0.67493	0.66915				0.72428	7.787
5 Propylene	++++	++++	++++	++++	0.74116	0.74452			
	0.71379	0.68783	0.68511	0.67933				0.70862	4.098

## Initial Calibration Narrative

### 321Q0812B.m

A multi-point TO-15 initial calibration was analyzed on MSD-3 on 08/12/2021.

**ICAL: 1 out. 1,3 Butadiene @ 35.6%.**

Naph: 10.1%RSD.

**ICV: 1 out. Cyclohexanone @ 58.9%. File: 3081224**

Naph Recovery: 73.5%R.

**DOD QSM: 1 out. Cyclohexanone @ 58.9%. File: 3081224a.**

**RCP: Multiple Non-RCP compounds out: See file 3081224c.**

**DODsp (PID 23339): 1 out. Cyclohexanone @ 58.9%. File: 3081224d.**

**1,2-Dibromoethane (EDB) only:**

**ICV: 0 out. File: 3090205.**

**DOD QSM: 0 out File: 3090205c.**

**RCP: 0 out. See file 3090205d.**

**DODsp (PID 23339): 0 out. File: 3090205e.**

The concentrations for Ethanol, Acrolein, 1,2,4-Trichlorobenzene, Naphthalene, 1,2,3-Trichlorobenzene, and Hexachlorobutadiene were adjusted in the ICV due to the certified concentration exceeding more than 15% of the nominal concentration.

An 8-point ICAL for AT20 supplemental compounds was analyzed on MSD-3 on 08/12/2021.

An additional 0.2ppbv point was analyzed on MSD-3 on 09/02/2021.

**ICAL: 0 out.**

**NO ICV for AT20 supplemental compounds except 1,1,1,2-Tetrachloroethane.**

**The low point spike verification file is 3081203x for BTEXS.**

The concentrations for Dodecane, 1,2,4-TCB, Hexachlorobutadiene, 1,2,3-TCB, and Naphthalene were adjusted in the calibration due to the certified concentration exceeding more than 15% of the nominal concentration.

-Dodecane was curved at 0.4944ppbv → 247.2ppbv.

-1,2,4-TCB was curved at 1.0072ppbv → 251.8ppbv

-Hexachlorobutadiene was curved at 1.0296ppbv → 257.4ppbv

-1,2,3-TCB was curved at 1.0648ppbv → 266.2ppbv

-Naphthalene was curved at 0.10160ppbv → 25.4ppbv\*

\*The secondary mass ion peak, 127amu, for Naphthalene shows baseline interference at the special reporting limit of 0.10160 ppbv. Identification of Naphthalene is however reliable at the lowest concentrations based on the presence and abundance ratio of the primary ion. The spectrum of Naphthalene in this ICAL point will be used as the reference to determine the ion ratio target in the samples for this ICAL.

The following compounds were calibrated down to 0.3ppbv:

1,1-Dichloroethane

Chloroform

1,1,1-Trichloroethane

Bromodichloroethane

Chlorobenzene

BFB tune file:

1. 3081201.
2. 3090202

The AT20MDL Expires 6/8/22.

The MDL for 1,1,1,2-PCE expires 05/05/22.



Use	File #	Enter/Scan Sample Ius	Canister#	Cart Pos.	Pressure	Amount	DF	Verify Load	Loaded Init.	Date Analyzed	Time	Review Init	Comments
		MSD3											
BFB Tune Verification: (216704/732768) * 100 = 93.09%													
Method TO-15/TO-14 SOP# 6													
	3234-66	11/2/2021											
	Exp. Date:	11/2/2021											
	195418	Surrogate # 3234-66											
	668438	CCV											
	630301	CCV SP 1 #											
		CCV SP 2 #											
		CCV SP 3 #											
		CCV SP 4 #											
Verified CCV vs. ICAL midpoint (-40%): LD													
Method: 321q0812a.m													
V	3090202	BFB Tune Check	3234-66	12	36mg	200ml	1.00	LD	LD	09/02/21	0950	LD	Exp. 11/2/21.
V	3090203	ICAL Level 1	3018-2235	10	0.2ppbv(1.0ppbv)	40ml	1.00	LD	LD	09/02/21	1033	LD	Exp. 11/18/21.
V	3090204	CCV	3018-2213A	13	50ppbv (100ppbv)	100ml	1.00	LD	LD	09/02/21	1100	LD	Exp. 11/6/21; 1 out AT-20
V	3090205	LCS	3018-2169	14	50ppbv (200ppbv)	50ml	1.00	LD	LD	09/02/21	1128	LD	Exp. 10/25/21; 2 out AT-20. ICV.
V	3090206	LCS	3018-2169	14	50ppbv (200ppbv)	50ml	1.00	LD	LD	09/02/21	1155	LD	Exp. 10/25/21; RPD ok
V	3090207	Lab Blank	35157	10	Humid	200ml	1.00	LD	LD	09/02/21	1240	LD	leg validation
V	3090208	IDOC	N1781	12	1.0ppbv(5.0ppbv)	40ml	1.00	LD	LD	09/02/21	1348	LD	gn/2
V	3090209	IDOC	N1781	12	2.0ppbv(5.0ppbv)	80ml	1.00	LD	LD	09/02/21	1415	LD	gn/2
V	3090210	System Blank	35157	10	Humid	200ml	1.00	LD	LD	09/02/21	1444	LD	
V	3090211	2108678-01A	3004	1	28.5 Hg->10 psi	200ml	1.00	DF	LD	09/02/21	1544	DF	trip blank DF=1.00
V	3090212	2108678-02A	S1495	2	6.5 Hg->10 psi	200ml	2.14	DF	LD	09/02/21	1613	DF	
V	3090213	2108678-03A	O1051	3	5.0 Hg->10 psi	200ml	2.02	DF	LD	09/02/21	1642	DF	
V	3090214	2108678-04A	111780	4	5.5 Hg->10 psi	200ml	2.06	DF	LD	09/02/21	1711	DF	green dot PI=6.9psi PF=3.8psi
V	3090215	2108678-05A	O0819	5	5.5 Hg->10 psi	200ml	2.06	DF	LD	09/02/21	1740	DF	
V	3090216	2108678-06A	S1488	6	7.0 Hg->10 psi	200ml	2.19	DF	LD	09/02/21	1810	DF	
V	3090217	2108678-07A	N1982	7	7.0 Hg->10 psi	200ml	2.19	DF	LD	09/02/21	1839	DF	
V	3090218	2108678-08A	N1450	8	6.5 Hg->10 psi	200ml	2.14	DF	LD	09/02/21	1908	DF	
V	3090219	2108678-09A	O1032	9	3.0 Hg->10 psi	200ml	1.87	DF	LD	09/02/21	1937	DF	
V	3090220	2108698-01A	5584	1	6.5 Hg->1.8 psi	200ml	1.43	LD	DF	09/02/21	2158	LD	
V	3090221	2108698-02A	O211	2	7.3 Hg->1.9 psi	200ml	1.49	LD	DF	09/02/21	2227	LD	
V	3090222	2108698-03A	N2781	3	9.2 Hg->1.9 psi	200ml	1.63	LD	DF	09/02/21	2256	LD	"E" Ethanol>400
V	3090223	2108678-10A	S1669	4	5.5 Hg->10 psi	200ml	2.06	LD	DF	09/02/21	2325	LD	Ethanol ND
V	3090224	2108678-11A	N3120	5	7.0 Hg->10 psi	50ml	8.77	LD	DF	09/02/21	2353	LD	dil TC
V	3090225	2108678-12A	N5570	6	2.5 Hg->10 psi	200ml	1.83	LD	DF	09/03/21	0022	LD	
V	3090226	2108678-15A	111621	7	4.0 Hg->10 psi	30ml	12.9	LD	DF	09/03/21	0049	LD	dil TC
V	3090227	2108678-16A	O0782	8	7.0 Hg->10 psi	160ml	2.74	LD	DF	09/03/21	0118	LD	dil TC
V	3090228	2108697B-04A	N2594	9	6.5 Hg->10 psi	200ml	2.14	LD	DF	09/03/21	0147	LD	
V	3090229	2108697B-05A	N2583	10	5.5 Hg->10 psi	200ml	2.06	LD	DF	09/03/21	0216	LD	
V	3090230	2108697B-06A	111774	11	7.5 Hg->10 psi	200ml	2.24	LD	DF	09/03/21	0246	LD	

gd 9/3/21

# IS and Associated Target Compounds and Surr. Instruction #: 11.20

Modified EPA Methods TO-14A/TO-15  
Internal Standard and Associated Target Compounds and Surrogates

<b>Bromochloromethane*</b>
<b>Target Compounds:</b>
Freon 12
Freon 114
Chloromethane
Vinyl Chloride
1,3-Butadiene
Bromomethane
Chloroethane
Freon 11
Ethanol
Freon 113
1,1-Dichloroethene
Acetone
2-Propanol
Carbon Disulfide
3-Chloropropene
Methylene Chloride
Methyl tert-butyl ether
trans-1,2-Dichloroethene
Hexane
1,1-Dichloroethane
2-Butanone (Methyl Ethyl Ketone)
cis-1,2-Dichloroethene
Tetrahydrofuran
Chloroform
1,1,1-Trichloroethane
Cyclohexane
Carbon Tetrachloride
2,2,4-Trimethylpentane
<b>Surrogates:</b>
1,2-Dichloroethane-d4

<b>1,4-Difluorobenzene</b>
<b>Target Compounds:</b>
Benzene
1,2-Dichloroethane
Heptane
Trichloroethene
1,2-Dichloropropane
1,4-Dioxane
Bromodichloromethane
cis-1,3-Dichloropropene
4-Methyl-2-pentanone
Toluene
<b>Surrogates:</b>
Toluene-d8

<b>Chlorobenzene-d5</b>
<b>Target Compounds:</b>
trans-1,3-Dichloropropene
1,1,2-Trichloroethane
Tetrachloroethene
2-Hexanone
Dibromochloromethane
1,2-Dibromoethane (EDB)
Chlorobenzene
Ethyl Benzene
m,p-Xylene
o-Xylene
Styrene
Bromoform
Cumene
1,1,2,2-Tetrachloroethane
Propylbenzene
4-Ethyltoluene
1,3,5-Trimethylbenzene
1,2,4-Trimethylbenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
alpha-Chlorotoluene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobutadiene
<b>Surrogates:</b>
Bromofluorobenzene

\*Note: If Bromochloromethane (BCM) is required as a target compound, the internal standard mix is blended without BCM. Compounds and surrogates assigned to BCM are re-assigned to 1,4-Difluorobenzene for calibration and subsequent quantitation.



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/02SEP21.b/3090203.d  
 Lab Smp Id: ICAL Level  
 Inj Date : 02-SEP-2021 10:33  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 40mL 3018-2235  
 Misc Info : 0.2ppbv(1.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Meth Date : 03-Sep-2021 15:45 lk8g Quant Type: ISTD  
 Cal Date : 02-SEP-2021 10:33 Cal File: 3090203.d  
 Als bottle: 10 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: Level1.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.858	5.858	(1.000)	130	236087	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	179465			47.29- 107.29	76.02
5.858	5.858	(1.000)	49	383747			122.83- 182.83	162.54
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.742	6.750	(1.000)	114	826573	25.0000		80.00- 120.00	100.00
6.742	6.750	(1.000)	88	124604			0.00- 45.09	15.07
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.206	(1.000)	117	744201	25.0000		80.00- 120.00	100.00
9.207	9.206	(1.000)	82	402721			23.62- 83.62	54.11
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.390	6.404	(1.091)	65	329299	25.0000	25.035	80.00- 120.00	100.00
6.390	6.404	(1.091)	67	161026			20.51- 80.51	48.90
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.967	7.967	(1.182)	98	804727	25.0000	24.159	80.00- 120.00	100.00
7.967	7.967	(1.182)	70	93076			0.00- 42.00	11.57

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 134 Toluene-d8 (continued)									
7.967	7.967	(1.182)	100	540647			37.14- 97.14	67.18	
-----									
\$ 170 4-Bromofluorobenzene									
						CAS #: 460-00-4			
10.195	10.202	(1.107)	174	463164	25.0000	23.804	80.00- 120.00	100.00	
10.195	10.202	(1.107)	95	563438			92.25- 152.25	121.65	
10.195	10.202	(1.107)	176	426341			63.07- 123.07	92.05	
-----									
148 1,2-Dibromoethane (EDB)									
						CAS #: 106-93-4			
8.856	8.855	(0.962)	107	3304	0.20000	0.2158	80.00- 120.00	100.00(a)	
8.856	8.855	(0.962)	109	3257			64.74- 124.74	98.58	
-----									

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3090203.d  
 Lab Smp Id: ICAL Level  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/02SEP21.b/321q0812b.m  
 Misc Info: 0.2ppbv(1.0ppbv)

Calibration Date: 02-SEP-2021  
 Calibration Time: 10:33  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	236087	141652	330522	236087	0.00
108 1,4-Difluorobenze	826573	495944	1157202	826573	0.00
153 Chlorobenzene-d5	744201	446521	1041881	744201	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	0.00
108 1,4-Difluorobenze	6.74	6.41	7.07	6.74	0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

Date : 02-SEP-2021 10:33

Client ID:

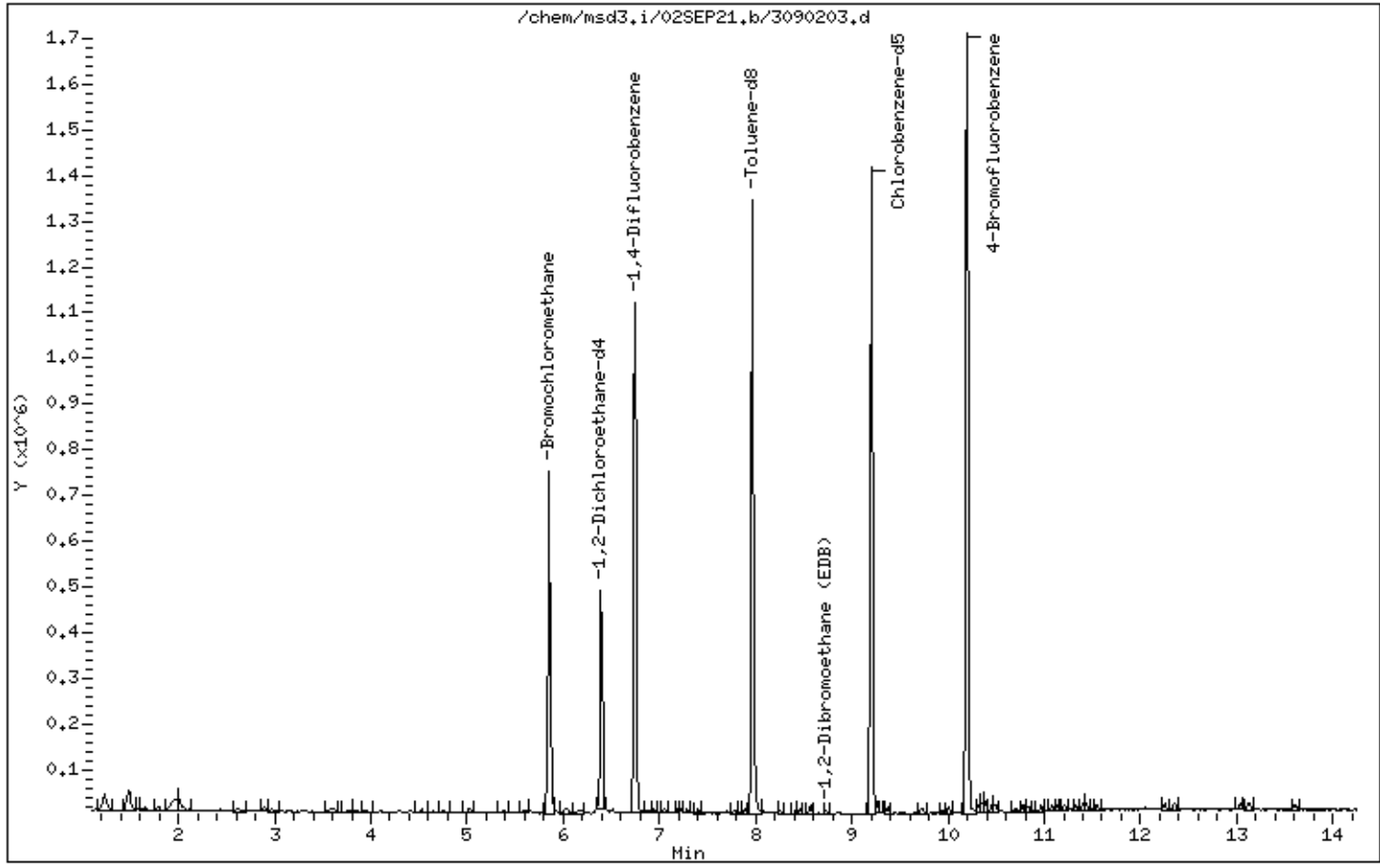
Instrument: msd3,i

Sample Info: 40mL 3018-2235

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081202.d  
 Lab Smp Id: ICAL Level #2  
 Inj Date : 12-AUG-2021 16:21  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 12ml 3018-2220  
 Misc Info : 0.3ppbv(5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
 Meth Date : 13-Aug-2021 08:08 ugdc Quant Type: ISTD  
 Cal Date : 12-AUG-2021 16:21 Cal File: 3081202.d  
 Als bottle: 1 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20\_Level2.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
71 1,1-Dichloroethane CAS #: 75-34-3							
5.047	5.047	(0.861)	63	4416 0.30000	0.3289	80.00- 120.00	100.00(a)
5.047	5.047	(0.861)	65	1606		0.56- 60.56	36.37
-----							
* 90 Bromochloromethane CAS #: 74-97-5							
5.858	5.858	(1.000)	130	204535 25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	157418		47.29- 107.29	76.96
5.858	5.858	(1.000)	49	315013		122.83- 182.83	154.01
-----							
92 Chloroform CAS #: 67-66-3							
5.914	5.914	(1.010)	83	4766 0.30000	0.3220	80.00- 120.00	100.00(a)
5.914	5.914	(1.010)	85	3012		34.29- 94.29	63.20
-----							
96 1,1,1-Trichloroethane CAS #: 71-55-6							
6.040	6.054	(1.031)	97	5149 0.30000	0.3236	80.00- 120.00	100.00(a)
6.054	6.054	(1.033)	99	3439		34.55- 94.55	66.79
-----							
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0							
6.404	6.404	(1.093)	65	284823 25.0000	25.211	80.00- 120.00	100.00
6.404	6.404	(1.093)	67	136327		20.51- 80.51	47.86
-----							

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene								
				CAS #: 540-36-3				
6.750	6.750	(1.000)	114	720556	25.0000		80.00- 120.00	100.00
6.750	6.750	(1.000)	88	108254			0.00- 45.09	15.02
-----								
122 Bromodichloromethane								
				CAS #: 75-27-4				
7.402	7.409	(1.097)	83	4848	0.30000	0.3151	80.00- 120.00	100.00(a)
7.402	7.409	(1.097)	85	3364			33.85- 93.85	69.39
-----								
\$ 134 Toluene-d8								
				CAS #: 2037-26-5				
7.968	7.967	(1.180)	98	724638	25.0000	24.870	80.00- 120.00	100.00
7.968	7.967	(1.180)	70	83508			0.00- 42.00	11.52
7.968	7.967	(1.180)	100	487729			37.14- 97.14	67.31
-----								
* 153 Chlorobenzene-d5								
				CAS #: 3114-55-4				
9.207	9.207	(1.000)	117	674163	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	362771			23.62- 83.62	53.81
-----								
154 Chlorobenzene								
				CAS #: 108-90-7				
9.228	9.235	(1.002)	112	6918	0.30000	0.3193	80.00- 120.00	100.00(a)
9.235	9.235	(1.003)	114	2841			2.19- 62.19	41.07
9.207	9.228	(1.000)	77	12027			23.66- 83.66	173.85
-----								
\$ 170 4-Bromofluorobenzene								
				CAS #: 460-00-4				
10.202	10.202	(1.108)	174	444833	25.0000	24.911	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	541163			92.25- 152.25	121.66
10.202	10.202	(1.108)	176	411839			63.07- 123.07	92.58

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081202.d  
 Lab Smp Id: ICAL Level #2  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 0.3ppbv(5.0ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	204535	-11.03
108 1,4-Difluorobenze	822152	493291	1151013	720556	-12.36
153 Chlorobenzene-d5	775771	465463	1086079	674163	-13.10

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

Date : 12-AUG-2021 16:21

Client ID:

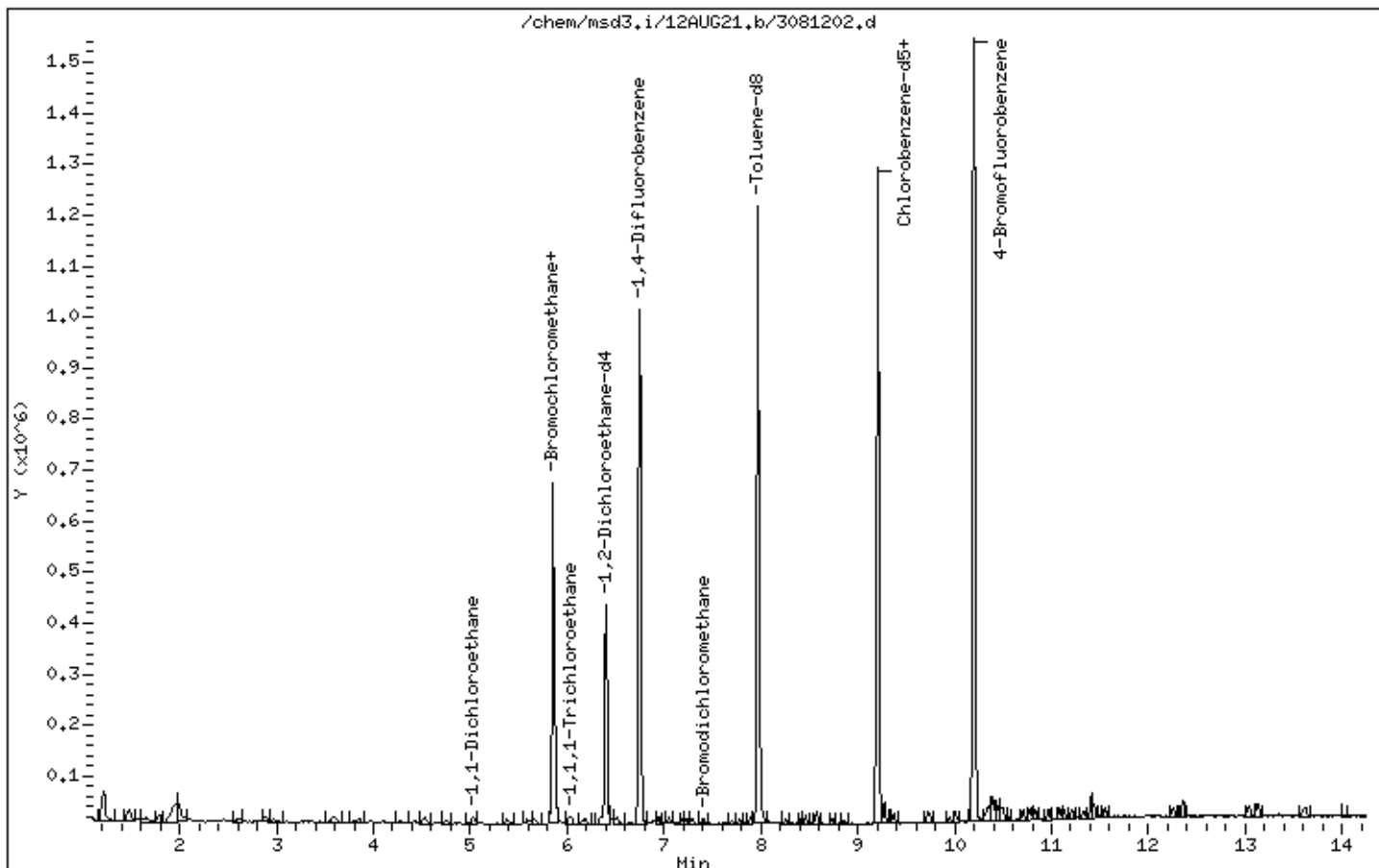
Instrument: msd3,i

Sample Info: 12ml 3018-2220

Operator: LD

Column phase: RTX-624

Column diameter: 0.25





US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081202x.d  
Lab Smp Id: ICAL Level #2  
Inj Date : 12-AUG-2021 16:21  
Operator : LD  
Smp Info : 12ml 3018-2220  
Misc Info : 0.3ppbv(5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/02SEP21.b/321q0812b.m  
Meth Date : 03-Sep-2021 15:41 lk8g  
Cal Date : 12-AUG-2021 16:21  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1  
Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3081202x.d  
Calibration Sample, Level: 2  
Compound Sublist: 12EDBcrv.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.858	5.858	(1.000)	130	204535	25.0000		80.00- 120.00 100.00
5.858	5.858	(1.000)	128	157418			47.29- 107.29 76.96
5.858	5.858	(1.000)	49	315013			122.83- 182.83 154.01
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.750	6.750	(1.000)	114	720556	25.0000		80.00- 120.00 100.00
6.750	6.750	(1.000)	88	108254			0.00- 45.09 15.02
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.207	9.206	(1.000)	117	674163	25.0000		80.00- 120.00 100.00
9.207	9.206	(1.000)	82	362771			23.62- 83.62 53.81
-----							
148 1,2-Dibromoethane (EDB) CAS #: 106-93-4							
8.856	8.855	(0.962)	107	4106	0.30000	0.2987	80.00- 120.00 100.00(a)
8.856	8.855	(0.962)	109	4517			64.74- 124.74 110.01
-----							

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081202x.d  
 Lab Smp Id: ICAL Level #2  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/02SEP21.b/321q0812b.m  
 Misc Info: 0.3ppbv(5.0ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 16:21  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	204535	122721	286349	204535	0.00
108 1,4-Difluorobenze	720556	432334	1008778	720556	0.00
153 Chlorobenzene-d5	674163	404498	943828	674163	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

Date : 12-AUG-2021 16:21

Client ID:

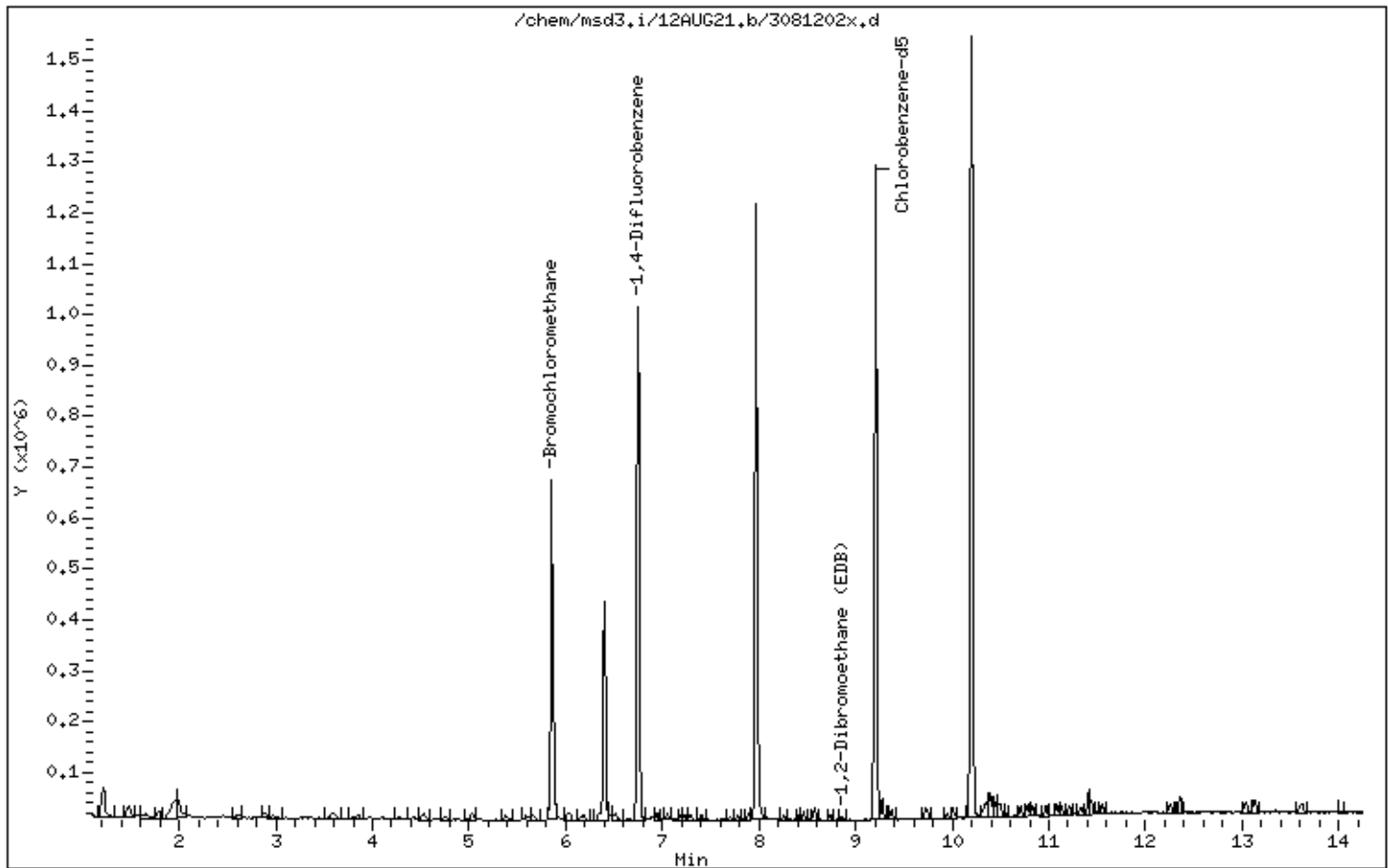
Instrument: msd3,i

Sample Info: 12ml 3018-2220

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081203.d  
Lab Smp Id: ICAL Level #3  
Inj Date : 12-AUG-2021 16:48  
Operator : LD  
Smp Info : 16ml 3018-2220  
Misc Info : 0.4ppbv(5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 08:08 ugdc  
Cal Date : 12-AUG-2021 16:48  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3081203.d  
Calibration Sample, Level: 3  
Compound Sublist: AT20\_Level13.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
8 Freon 12 CAS #: 75-71-8								
1.647	1.661	(0.281)	85	8384 0.40000	0.4235	80.00- 120.00	100.00(a)	
1.647	1.661	(0.281)	87	3252		2.35- 62.35	38.79	
-----								
10 Freon 114 CAS #: 76-14-2								
1.787	1.800	(0.305)	135	6942 0.40000	0.4423	80.00- 120.00	100.00(a)	
1.800	1.800	(0.307)	137	2231		2.06- 62.06	32.14	
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.010	2.010	(0.343)	62	5203 0.40000	0.4981	80.00- 120.00	100.00(a)	
2.010	2.010	(0.343)	64	2568		0.32- 60.32	49.36	
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.038	2.038	(0.348)	54	6034 0.40000	0.5475	80.00- 120.00	100.00	
2.038	2.038	(0.348)	39	6637		72.94- 132.94	109.99	
-----								
33 Freon 11 CAS #: 75-69-4								
2.892	2.892	(0.494)	101	10097 0.40000	0.4436	80.00- 120.00	100.00(a)	
2.878	2.892	(0.491)	103	6410		36.55- 96.55	63.48	
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	====	=====	=====	=====	=====	=====
43 Freon 113						CAS #: 76-13-1		
3.591	3.591	(0.613)	151	7019	0.40000	0.4539	80.00- 120.00	100.00(a)
3.591	3.591	(0.613)	153	4458			34.03- 94.03	63.51
3.591	3.591	(0.613)	101	8174			89.72- 149.72	116.46
-----								
44 1,1-Dichloroethene						CAS #: 75-35-4		
3.619	3.619	(0.618)	96	4237	0.40000	0.4719	80.00- 120.00	100.00(a)
3.619	3.619	(0.618)	98	2307			32.85- 92.85	54.45
3.619	3.619	(0.618)	61	6751			165.91- 225.91	159.33
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.543	4.543	(0.775)	98	2224	0.40000	0.4255	80.00- 120.00	100.00(a)
4.543	4.543	(0.775)	61	6502			236.85- 296.85	292.36
4.543	4.543	(0.775)	96	3663			126.72- 186.72	164.70
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.655	4.655	(0.795)	52	3529	0.40000	0.4826	80.00- 120.00	100.00(a)
4.655	4.655	(0.795)	53	3577			88.92- 148.92	101.36
-----								
67 Hexane						CAS #: 110-54-3		
4.753	4.753	(0.811)	57	6550	0.40000	0.4306	80.00- 120.00	100.00(a)
4.753	4.753	(0.811)	43	4298			36.74- 96.74	65.62
4.753	4.753	(0.811)	86	902			0.00- 43.22	13.77
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
5.033	5.047	(0.859)	63	6907	0.40000	0.4172	80.00- 120.00	100.00(a)
5.047	5.047	(0.861)	65	2355			0.56- 60.56	34.10
-----								
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.620	5.620	(0.959)	98	2459	0.40000	0.4347	80.00- 120.00	100.00(a)
5.620	5.620	(0.959)	96	4165			121.91- 181.91	169.38
5.620	5.620	(0.959)	61	8283			313.72- 373.72	336.84
-----								
* 90 Bromochloromethane						CAS #: 74-97-5		
5.858	5.858	(1.000)	130	246794	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	191795			47.29- 107.29	77.71
5.858	5.858	(1.000)	49	383630			122.83- 182.83	155.45
-----								
89 Tetrahydrofuran						CAS #: 109-99-9		
5.858	5.858	(1.000)	42	6305	0.40000	0.4696	80.00- 120.00	100.00(a)
5.858	5.858	(1.000)	71	1345			0.09- 60.09	21.33
5.872	5.858	(1.002)	72	1953			2.13- 62.13	30.98
-----								
92 Chloroform						CAS #: 67-66-3		
5.914	5.914	(1.010)	83	7444	0.40000	0.4110	80.00- 120.00	100.00(a)
5.914	5.914	(1.010)	85	4903			34.29- 94.29	65.87
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
94 Cyclohexane						CAS #: 110-82-7		
6.026	6.026	(1.029)	84	4919	0.40000	0.4392	80.00- 120.00	100.00(a)
6.026	6.026	(1.029)	56	7361			116.85- 176.85	149.64
6.026	6.026	(1.029)	41	4765			57.77- 117.77	96.87
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
6.040	6.054	(1.031)	97	8020	0.40000	0.4117	80.00- 120.00	100.00(a)
6.040	6.054	(1.031)	99	5299			34.55- 94.55	66.07
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.152	6.166	(1.050)	119	7275	0.40000	0.3956	80.00- 120.00	100.00(a)
6.152	6.166	(1.050)	117	7730			74.20- 134.20	106.25
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.348	6.348	(1.084)	57	21345	0.40000	0.4300	80.00- 120.00	100.00(a)
6.348	6.348	(1.084)	56	8022			1.14- 61.14	37.58
6.348	6.348	(1.084)	41	6240			0.00- 59.12	29.23
102 Benzene						CAS #: 71-43-2		
6.376	6.376	(0.946)	78	10594	0.40000	0.4395	80.00- 120.00	100.00(a)
6.376	6.376	(0.946)	77	2675			0.00- 53.48	25.25
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.390	6.404	(1.091)	65	350451	25.0000	25.468	80.00- 120.00	100.00
6.390	6.404	(1.091)	67	169698			20.51- 80.51	48.42
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.460	6.474	(0.958)	62	6197	0.40000	0.4344	80.00- 120.00	100.00(a)
6.460	6.474	(0.958)	64	1969			1.41- 61.41	31.77
107 Heptane						CAS #: 142-82-5		
6.516	6.516	(0.966)	71	3841	0.40000	0.4227	80.00- 120.00	100.00(a)
6.502	6.516	(0.964)	43	8560			146.45- 206.45	222.86
6.502	6.516	(0.964)	57	4659			90.20- 150.20	121.30
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.743	6.750	(1.000)	114	891224	25.0000		80.00- 120.00	100.00
6.743	6.750	(1.000)	88	133521			0.00- 45.09	14.98
111 Trichloroethene						CAS #: 79-01-6		
6.943	6.943	(1.030)	95	5124	0.40000	0.4368	80.00- 120.00	100.00(a)
6.943	6.950	(1.030)	130	5526			79.68- 139.68	107.85
6.943	6.943	(1.030)	97	2991			34.74- 94.74	58.37
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.187	7.187	(1.066)	63	5139	0.40000	0.4562	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
114 1,2-Dichloropropane (continued)								
7.187	7.187	(1.066)	62	3580			40.55- 100.55	69.66
7.187	7.187	(1.066)	41	4456			36.07- 96.07	86.71
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.294	7.294	(0.792)	174	4734	0.40000	0.4292	80.00- 120.00	100.00(a)
7.294	7.294	(0.792)	93	4745			66.88- 126.88	100.23
7.294	7.294	(0.792)	95	3886			49.90- 109.90	82.09
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.402	7.409	(1.098)	83	8472	0.40000	0.4290	80.00- 120.00	100.00(a)
7.402	7.409	(1.098)	85	5058			33.85- 93.85	59.70
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.781	7.781	(1.154)	75	6818	0.40000	0.4400	80.00- 120.00	100.00(a)
7.781	7.781	(1.154)	77	2651			1.50- 61.50	38.88
7.774	7.781	(1.153)	39	5503			43.12- 103.12	80.71
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
7.043	7.051	(1.045)	83	6520	0.40000	0.4330	80.00- 120.00	100.00(a)
7.051	7.051	(1.046)	98	2941			17.10- 77.10	45.11
7.051	7.051	(1.046)	55	8176			71.11- 131.11	125.40
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.889	7.889	(1.170)	58	4747	0.40000	0.4454	80.00- 120.00	100.00(a)
7.889	7.889	(1.170)	43	14237			247.84- 307.84	299.92
7.889	7.889	(1.170)	85	2062			8.73- 68.73	43.44
-----								
\$ 134 Toluene-d8						CAS #: 2037-26-5		
7.968	7.967	(1.182)	98	902192	25.0000	25.023	80.00- 120.00	100.00
7.968	7.967	(1.182)	70	105605			0.00- 42.00	11.71
7.968	7.967	(1.182)	100	611161			37.14- 97.14	67.74
-----								
137 Toluene						CAS #: 108-88-3		
8.025	8.025	(1.190)	91	13936	0.40000	0.4324	80.00- 120.00	100.00(a)
8.025	8.025	(1.190)	92	8028			28.13- 88.13	57.61
-----								
136 Octane						CAS #: 111-65-9		
8.003	8.010	(1.187)	57	5019	0.40000	0.4476	80.00- 120.00	100.00(a)
8.003	8.010	(1.187)	85	4657			67.77- 127.77	92.79
8.003	8.010	(1.187)	43	12038			225.27- 285.27	239.85
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.254	8.254	(0.897)	75	7136	0.40000	0.4540	80.00- 120.00	100.00(a)
8.254	8.254	(0.897)	77	2542			1.93- 61.93	35.62
8.254	8.254	(0.897)	39	4829			38.37- 98.37	67.67
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.412	8.419	(0.914)	97	4765	0.40000	0.4311	80.00- 120.00	100.00(a)
8.412	8.419	(0.914)	99	2943			31.66- 91.66	61.76
8.419	8.419	(0.914)	83	4150			55.24- 115.24	87.09
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.462	8.462	(0.919)	166	7105	0.40000	0.4360	80.00- 120.00	100.00(a)
8.455	8.462	(0.918)	129	5279			48.51- 108.51	74.30
8.462	8.462	(0.919)	131	5055			45.64- 105.64	71.15
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.569	8.569	(1.271)	76	8003	0.40000	0.4693	80.00- 120.00	100.00(a)
8.569	8.569	(1.271)	41	10093			96.83- 156.83	126.12
8.569	8.569	(1.271)	78	2619			2.46- 62.46	32.73
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.734	8.734	(0.949)	129	8946	0.40000	0.4123	80.00- 120.00	100.00(a)
8.734	8.734	(0.949)	127	7461			47.05- 107.05	83.40
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.856	8.856	(0.962)	107	8102	0.40000	0.4412	80.00- 120.00	100.00(a)
8.856	8.856	(0.962)	109	6950			64.74- 124.74	85.78
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.207	9.207	(1.000)	117	840141	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	451959			23.62- 83.62	53.80
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.235	9.235	(1.003)	112	11580	0.40000	0.4188	80.00- 120.00	100.00(a)
9.228	9.235	(1.002)	114	4021			2.19- 62.19	34.72
9.207	9.228	(1.000)	77	15357			23.66- 83.66	132.62
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.278	9.278	(1.008)	106	5749	0.40000	0.4238	80.00- 120.00	100.00(a)
9.271	9.278	(1.007)	91	18238			282.43- 342.43	317.24
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.371	9.371	(1.018)	106	7089	0.40000	0.4234	80.00- 120.00	100.00(a)
9.371	9.371	(1.018)	91	14473			169.66- 229.66	204.16
-----								
164 o-Xylene						CAS #: 95-47-6		
9.715	9.722	(1.055)	106	6704	0.40000	0.4231	80.00- 120.00	100.00(a)
9.715	9.722	(1.055)	91	15376			180.55- 240.55	229.36
-----								
165 Styrene						CAS #: 100-42-5		
9.737	9.737	(1.058)	104	12366	0.40000	0.4362	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
165 Styrene (continued)								
9.737	9.737	(1.058)	78	6377			18.65- 78.65	51.57
-----								
167 Bromoform						CAS #: 75-25-2		
9.944	9.944	(1.080)	173	9050	0.40000	0.4241	80.00- 120.00	100.00(a)
9.944	9.944	(1.080)	171	4395			21.64- 81.64	48.56
-----								
168 Cumene						CAS #: 98-82-8		
10.009	10.009	(1.087)	105	21686	0.40000	0.4249	80.00- 120.00	100.00(a)
10.009	10.009	(1.087)	120	5972			0.00- 57.04	27.54
10.002	10.009	(1.086)	51	3344			0.00- 41.95	15.42
-----								
\$ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.195	10.202	(1.107)	174	548439	25.0000	24.762	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	668797			92.25- 152.25	121.95
10.195	10.202	(1.107)	176	505405			63.07- 123.07	92.15
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
10.317	10.317	(1.121)	83	10531	0.40000	0.4298	80.00- 120.00	100.00(a)
10.317	10.317	(1.121)	85	6893			34.44- 94.44	65.45
-----								
178 Propylbenzene						CAS #: 103-65-1		
10.353	10.360	(1.124)	120	6123	0.40000	0.4245	80.00- 120.00	100.00(a)
10.353	10.360	(1.124)	91	25398	0.40000	0.4243	385.23- 445.23	414.80
10.346	10.360	(1.124)	105	1143			0.00- 46.02	18.67
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
10.381	10.389	(1.128)	110	3533	0.40000	0.4390	80.00- 120.00	100.00(a)
10.381	10.381	(1.128)	75	10281			301.57- 361.57	291.00
10.389	10.381	(1.128)	61	3535			54.32- 114.32	100.06
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
10.453	10.453	(1.135)	120	6674	0.40000	0.4276	80.00- 120.00	100.00(a)
10.453	10.453	(1.135)	105	21829			295.29- 355.29	327.08
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
10.482	10.482	(1.138)	126	5465	0.40000	0.4251	80.00- 120.00	100.00(a)
10.482	10.482	(1.138)	91	20817			325.01- 385.01	380.91
10.482	10.482	(1.138)	65	2557			19.90- 79.90	46.79
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
10.503	10.503	(1.141)	120	9002	0.40000	0.4184	80.00- 120.00	100.00(a)
10.503	10.503	(1.141)	105	19334			176.14- 236.14	214.77
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.704	10.704	(1.163)	118	8766	0.40000	0.4075	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
188 alpha Methyl Styrene (continued)								
10.704	10.704	(1.163)	103	5206			26.69- 86.69	59.39
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
10.833	10.833	(1.177)	105	17902	0.40000	0.4219	80.00- 120.00	100.00(a)
10.833	10.833	(1.177)	120	8484			17.12- 77.12	47.39
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
10.969	10.969	(1.191)	134	5807	0.40000	0.4318	80.00- 120.00	100.00(a)
10.969	10.969	(1.191)	105	26744			438.96- 498.96	460.55
10.969	10.969	(1.191)	91	5500			44.37- 104.37	94.71
-----								
194 p-Cymene CAS #: 99-87-6								
11.083	11.083	(1.204)	119	24041	0.40000	0.4287	80.00- 120.00	100.00(a)
11.083	11.083	(1.204)	134	6277			0.00- 56.91	26.11
11.083	11.083	(1.204)	91	6003			0.00- 53.86	24.97
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
11.126	11.134	(1.208)	146	12375	0.40000	0.4196	80.00- 120.00	100.00(a)
11.134	11.134	(1.209)	148	7914			33.78- 93.78	63.95
11.126	11.134	(1.208)	111	5350			11.40- 71.40	43.23
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
11.212	11.212	(1.218)	146	13263	0.40000	0.4292	80.00- 120.00	100.00(a)
11.212	11.212	(1.218)	148	8658			33.73- 93.73	65.28
11.205	11.212	(1.217)	111	5158			9.40- 69.40	38.89
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
11.327	11.334	(1.230)	91	17776	0.40000	0.4230	80.00- 120.00	100.00(a)
11.327	11.334	(1.230)	126	3894			0.00- 52.58	21.91
-----								
202 Butylbenzene CAS #: 104-51-8								
11.434	11.434	(1.242)	134	6302	0.40000	0.4292	80.00- 120.00	100.00(a)
11.434	11.434	(1.242)	91	22552			322.91- 382.91	357.85
11.434	11.434	(1.242)	92	11276			155.43- 215.43	178.93
-----								
204 1,2-Dichlorobenzene CAS #: 95-50-1								
11.549	11.549	(1.254)	146	12165	0.40000	0.4230	80.00- 120.00	100.00(a)
11.549	11.549	(1.254)	148	7676			33.66- 93.66	63.10
11.549	11.549	(1.254)	111	5657			12.36- 72.36	46.50
-----								
207 Dodecane CAS #: 112-40-3								
12.358	12.358	(1.342)	57	17582	0.49440	0.5266	80.00- 120.00	100.00(a)
12.358	12.358	(1.342)	43	15437			56.62- 116.62	87.80
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081203.d  
 Lab Smp Id: ICAL Level #3  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 0.4ppbv(5.0ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	246794	7.35
108 1,4-Difluorobenze	822152	493291	1151013	891224	8.40
153 Chlorobenzene-d5	775771	465463	1086079	840141	8.30

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.74	-0.11
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

Date : 12-AUG-2021 16:48

Client ID:

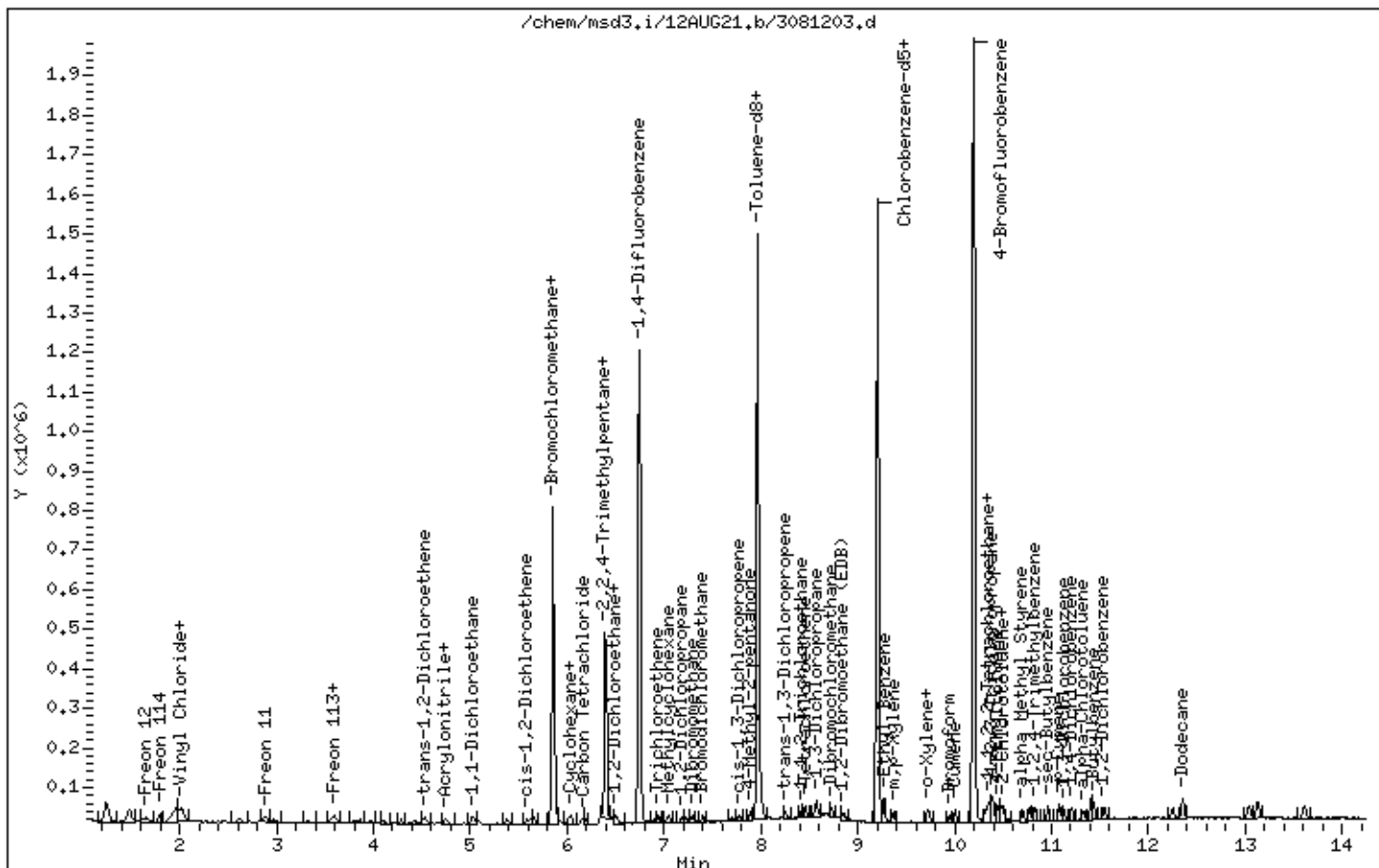
Instrument: msd3,i

Sample Info: 16ml 3018-2220

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081212.d  
 Lab Smp Id: ICAL Level #3  
 Inj Date : 12-AUG-2021 20:58  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 16ml #3018-2128  
 Misc Info : 0.4ppbv(5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
 Meth Date : 13-Aug-2021 12:38 ugdc Quant Type: ISTD  
 Cal Date : 12-AUG-2021 20:58 Cal File: 3081212.d  
 Als bottle: 2 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL\_lv3.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane								CAS #: 74-97-5
5.858	5.858	(1.000)	130	213097	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	168237			47.29- 107.29	78.95
5.858	5.858	(1.000)	49	319961			122.83- 182.83	150.15
* 108 1,4-Difluorobenzene								CAS #: 540-36-3
6.750	6.750	(1.000)	114	767939	25.0000		80.00- 120.00	100.00
6.750	6.750	(1.000)	88	116088			0.00- 45.09	15.12
* 153 Chlorobenzene-d5								CAS #: 3114-55-4
9.214	9.207	(1.000)	117	713825	25.0000		80.00- 120.00	100.00
9.214	9.207	(1.000)	82	383774			23.62- 83.62	53.76
157 1,1,1,2-Tetrachloroethane								CAS #: 630-20-6
9.300	9.300	(1.009)	131	5255	0.40000	0.4070	80.00- 120.00	100.00(a)
9.214	9.207	(1.000)	117	713825			38.22- 98.22	13583.73
9.300	9.293	(1.009)	95	2215			7.54- 67.54	42.15

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081212.d  
 Lab Smp Id: ICAL Level #3  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 0.4ppbv(5.0ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	213097	-7.31
108 1,4-Difluorobenze	822152	493291	1151013	767939	-6.59
153 Chlorobenzene-d5	775771	465463	1086079	713825	-7.99

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.08

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.

Date : 12-AUG-2021 20:58

Client ID:

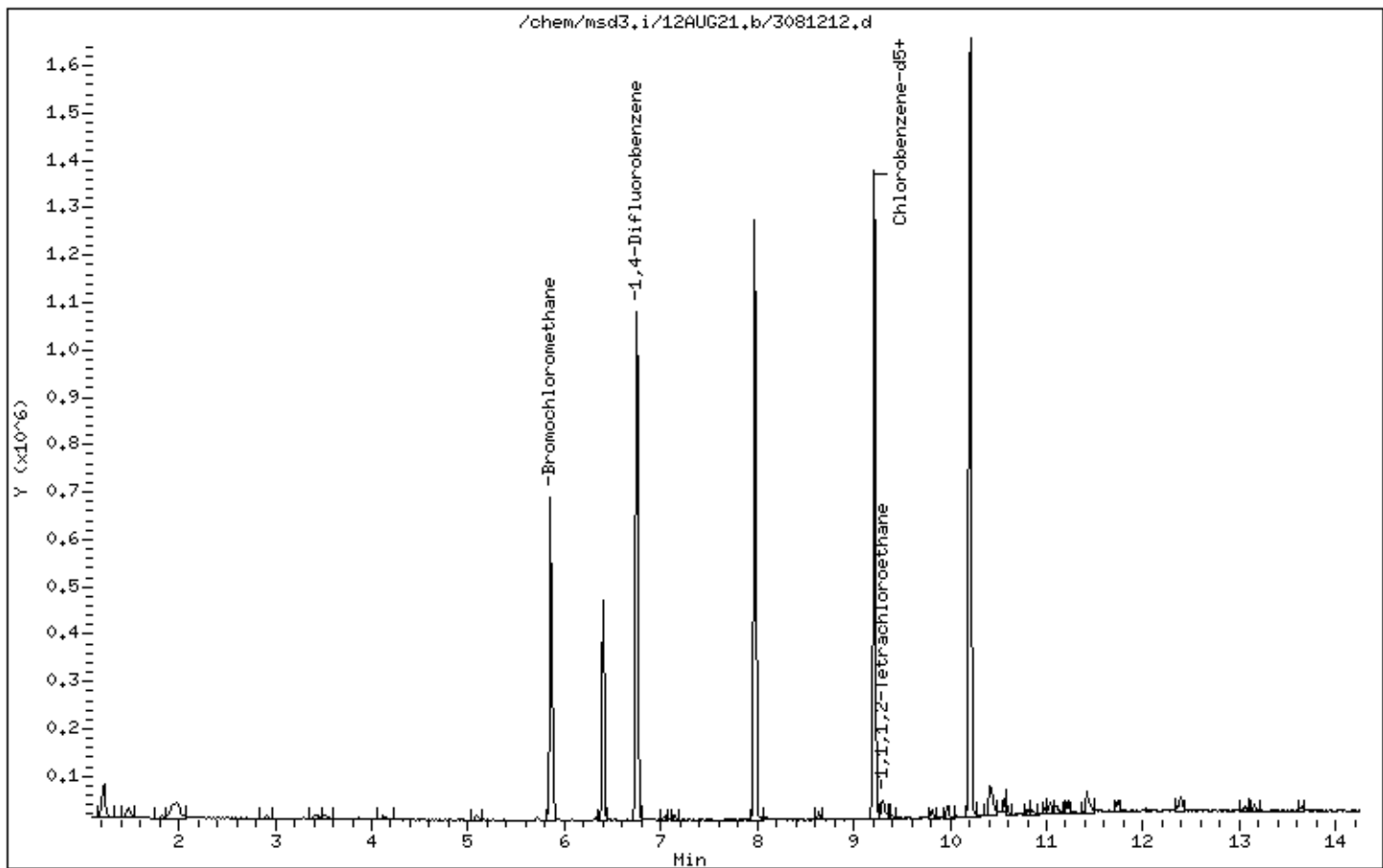
Instrument: msd3,i

Sample Info: 16ml #3018-2128

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081204.d  
Lab Smp Id: ICAL Level #5  
Inj Date : 12-AUG-2021 17:15  
Operator : LD  
Smp Info : 32ml 3018-2220  
Misc Info : 0.8ppbv(5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 08:08 ugdc  
Cal Date : 12-AUG-2021 17:15  
Als bottle: 1  
Dil Factor: 1.00000  
Integrator: HP RTE  
Sample Matrix: AIR  
Processing Host: us32tar1

Inst ID: msd3.i  
Quant Type: ISTD  
Cal File: 3081204.d  
Calibration Sample, Level: 5  
Compound Sublist: AT20\_Level15.sub

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.563	1.577	(0.267)	83	5645	0.80000	0.8771	80.00- 120.00	100.00
1.563	1.577	(0.267)	69	4836			50.75- 110.75	85.67
1.577	1.577	(0.269)	51	1097			0.00- 49.76	19.43
-----								
8 Freon 12 CAS #: 75-71-8								
1.647	1.661	(0.281)	85	14120	0.80000	0.8205	80.00- 120.00	100.00
1.647	1.661	(0.281)	87	4575			2.35- 62.35	32.40
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.675	1.689	(0.286)	67	2289	0.80000	0.9935	80.00- 120.00	100.00
1.688	1.689	(0.288)	51	10651			710.68- 770.68	465.31
-----								
10 Freon 114 CAS #: 76-14-2								
1.786	1.800	(0.305)	135	10454	0.80000	0.7840	80.00- 120.00	100.00(a)
1.786	1.800	(0.305)	137	3616			2.06- 62.06	34.59
-----								
12 Isobutane CAS #: 75-28-5								
1.800	1.800	(0.307)	43	11949	0.80000	0.8492	80.00- 120.00	100.00
1.800	1.800	(0.307)	42	3877			2.70- 62.70	32.45

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
12 Isobutane (continued)								
1.814	1.800	(0.310)	58	745			0.00- 33.44	6.23
-----								
19 Vinyl Chloride						CAS #: 75-01-4		
2.010	2.010	(0.343)	62	7388	0.80000	0.8160	80.00- 120.00	100.00
2.010	2.010	(0.343)	64	3103			0.32- 60.32	42.00
-----								
20 1,3-Butadiene						CAS #: 106-99-0		
2.038	2.038	(0.348)	54	8482	0.80000	0.8620	80.00- 120.00	100.00
2.038	2.038	(0.348)	39	8257			72.94- 132.94	97.35
-----								
32 Vinyl Bromide						CAS #: 593-60-2		
2.836	2.836	(0.484)	106	5814	0.80000	0.8733	80.00- 120.00	100.00
2.836	2.836	(0.484)	108	5230			63.01- 123.01	89.96
-----								
33 Freon 11						CAS #: 75-69-4		
2.892	2.892	(0.494)	101	15501	0.80000	0.7957	80.00- 120.00	100.00(a)
2.892	2.892	(0.494)	103	10146			36.55- 96.55	65.45
-----								
34 Dichlorofluoromethane						CAS #: 75-43-4		
2.892	2.906	(0.494)	67	12587	0.80000	0.8555	80.00- 120.00	100.00
2.892	2.906	(0.494)	69	4606			1.82- 61.82	36.59
-----								
35 Pentane						CAS #: 109-66-0		
2.976	2.976	(0.508)	43	15306	0.80000	0.9241	80.00- 120.00	100.00
2.976	2.976	(0.508)	57	3204			0.00- 45.52	20.93
2.990	2.976	(0.510)	72	1228			0.00- 38.25	8.02
-----								
38 Ethyl Ether						CAS #: 60-29-7		
3.326	3.326	(0.568)	74	3002	0.80000	0.9042	80.00- 120.00	100.00
3.326	3.326	(0.568)	59	4869			143.51- 203.51	162.19
3.326	3.326	(0.568)	45	8370			143.53- 203.53	278.81
-----								
43 Freon 113						CAS #: 76-13-1		
3.591	3.591	(0.613)	151	10190	0.80000	0.7782	80.00- 120.00	100.00(a)
3.591	3.591	(0.613)	153	6881			34.03- 94.03	67.53
3.577	3.591	(0.611)	101	12726			89.72- 149.72	124.89
-----								
44 1,1-Dichloroethene						CAS #: 75-35-4		
3.619	3.619	(0.618)	96	5999	0.80000	0.7856	80.00- 120.00	100.00(a)
3.619	3.619	(0.618)	98	3771			32.85- 92.85	62.86
3.619	3.619	(0.618)	61	11109			165.91- 225.91	185.18
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.109	4.109	(0.701)	76	2960	0.80000	0.9134	80.00- 120.00	100.00
4.109	4.109	(0.701)	41	9005			344.92- 404.92	304.22
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.529	4.515	(0.773)	73	17113	0.80000	0.8623	80.00- 120.00	100.00
4.529	4.515	(0.773)	57	5089			0.00- 58.27	29.74
4.529	4.515	(0.773)	41	4501			0.00- 58.78	26.30
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.543	4.543	(0.775)	98	3654	0.80000	0.8097	80.00- 120.00	100.00
4.543	4.543	(0.775)	61	10084			236.85- 296.85	275.97
4.543	4.543	(0.775)	96	6594			126.72- 186.72	180.46
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.655	4.655	(0.795)	52	5973	0.80000	0.8951	80.00- 120.00	100.00
4.655	4.655	(0.795)	53	6028			88.92- 148.92	100.92
-----								
67 Hexane						CAS #: 110-54-3		
4.753	4.753	(0.811)	57	10860	0.80000	0.8210	80.00- 120.00	100.00
4.753	4.753	(0.811)	43	7144			36.74- 96.74	65.78
4.767	4.753	(0.814)	86	1431			0.00- 43.22	13.18
-----								
71 1,1-Dichloroethane						CAS #: 75-34-3		
5.047	5.047	(0.861)	63	11212	0.80000	0.7918	80.00- 120.00	100.00(a)
5.047	5.047	(0.861)	65	3684			0.56- 60.56	32.86
-----								
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.592	5.592	(0.955)	77	10797	0.80000	0.8329	80.00- 120.00	100.00
5.592	5.592	(0.955)	79	3755			2.43- 62.43	34.78
5.592	5.592	(0.955)	97	2510			0.00- 53.03	23.25
-----								
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.634	5.620	(0.962)	98	3949	0.80000	0.8089	80.00- 120.00	100.00
5.620	5.620	(0.959)	96	6111			121.91- 181.91	154.75
5.620	5.620	(0.959)	61	11308			313.72- 373.72	286.35
-----								
* 90 Bromochloromethane						CAS #: 74-97-5		
5.858	5.858	(1.000)	130	211802	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	165667			47.29- 107.29	78.22
5.858	5.858	(1.000)	49	325377			122.83- 182.83	153.62
-----								
89 Tetrahydrofuran						CAS #: 109-99-9		
5.872	5.858	(1.002)	42	8894	0.80000	0.7811	80.00- 120.00	100.00(a)
5.872	5.858	(1.002)	71	2425			0.09- 60.09	27.27
5.872	5.858	(1.002)	72	2986			2.13- 62.13	33.57
-----								
92 Chloroform						CAS #: 67-66-3		
5.914	5.914	(1.010)	83	12439	0.80000	0.8002	80.00- 120.00	100.00
5.914	5.914	(1.010)	85	7925			34.29- 94.29	63.71
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
94 Cyclohexane						CAS #: 110-82-7		
6.026	6.026	(1.029)	84	7981	0.80000	0.8200	80.00- 120.00	100.00
6.026	6.026	(1.029)	56	11723			116.85- 176.85	146.89
6.026	6.026	(1.029)	41	6278			57.77- 117.77	78.66
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
6.054	6.054	(1.033)	97	13438	0.80000	0.8028	80.00- 120.00	100.00
6.054	6.054	(1.033)	99	8248			34.55- 94.55	61.38
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.166	6.166	(1.053)	119	11983	0.80000	0.7724	80.00- 120.00	100.00(a)
6.166	6.166	(1.053)	117	12642			74.20- 134.20	105.50
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.194	6.194	(0.918)	110	3469	0.80000	0.8530	80.00- 120.00	100.00
6.194	6.194	(0.918)	75	8848			229.39- 289.39	255.06
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.362	6.348	(1.086)	57	34832	0.80000	0.8116	80.00- 120.00	100.00
6.348	6.348	(1.084)	56	11848			1.14- 61.14	34.01
6.348	6.348	(1.084)	41	10427			0.00- 59.12	29.94
102 Benzene						CAS #: 71-43-2		
6.390	6.376	(0.947)	78	17973	0.80000	0.8523	80.00- 120.00	100.00
6.390	6.376	(0.947)	77	4128			0.00- 53.48	22.97
§ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.404	6.404	(1.093)	65	294778	25.0000	24.971	80.00- 120.00	100.00
6.404	6.404	(1.093)	67	144187			20.51- 80.51	48.91
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.474	6.474	(0.959)	62	10182	0.80000	0.8285	80.00- 120.00	100.00
6.474	6.474	(0.959)	64	3002			1.41- 61.41	29.48
107 Heptane						CAS #: 142-82-5		
6.516	6.516	(0.965)	71	6423	0.80000	0.8232	80.00- 120.00	100.00
6.516	6.516	(0.965)	43	13041			146.45- 206.45	203.04
6.516	6.516	(0.965)	57	6932			90.20- 150.20	107.92
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.750	6.750	(1.000)	114	754232	25.0000		80.00- 120.00	100.00
6.750	6.750	(1.000)	88	114980			0.00- 45.09	15.24
111 Trichloroethene						CAS #: 79-01-6		
6.950	6.943	(1.030)	95	8231	0.80000	0.8192	80.00- 120.00	100.00
6.950	6.950	(1.030)	130	8310			79.68- 139.68	100.96

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
111 Trichloroethene (continued)								
6.950	6.943	(1.030)	97	5310			34.74- 94.74	64.51
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.187	7.187	(1.065)	63	7224	0.80000	0.7714	80.00- 120.00	100.00(a)
7.187	7.187	(1.065)	62	5040			40.55- 100.55	69.77
7.187	7.187	(1.065)	41	5361			36.07- 96.07	74.21
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.237	7.230	(0.786)	69	6475	0.80000	0.8367	80.00- 120.00	100.00
7.230	7.230	(0.785)	41	11654			160.67- 220.67	179.98
7.230	7.230	(0.785)	100	2653			11.33- 71.33	40.97
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.280	7.273	(1.079)	88	4789	0.80000	0.8530	80.00- 120.00	100.00
7.273	7.273	(1.077)	58	4622			56.19- 116.19	96.51
7.280	7.273	(1.079)	57	1755			0.00- 59.32	36.65
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.301	7.294	(0.793)	174	7650	0.80000	0.8118	80.00- 120.00	100.00
7.294	7.294	(0.792)	93	8091			66.88- 126.88	105.76
7.294	7.294	(0.792)	95	6177			49.90- 109.90	80.75
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.409	7.409	(1.098)	83	13300	0.80000	0.7969	80.00- 120.00	100.00(a)
7.409	7.409	(1.098)	85	8711			33.85- 93.85	65.50
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.781	7.781	(1.153)	75	9616	0.80000	0.7543	80.00- 120.00	100.00(a)
7.788	7.781	(1.154)	77	3615			1.50- 61.50	37.59
7.781	7.781	(1.153)	39	7929			43.12- 103.12	82.46
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
7.058	7.051	(1.046)	83	10135	0.80000	0.7968	80.00- 120.00	100.00(a)
7.051	7.051	(1.045)	98	4925			17.10- 77.10	48.59
7.058	7.051	(1.046)	55	10791			71.11- 131.11	106.47
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.889	7.889	(1.169)	58	7282	0.80000	0.8048	80.00- 120.00	100.00
7.889	7.889	(1.169)	43	20984			247.84- 307.84	288.16
7.889	7.889	(1.169)	85	2937			8.73- 68.73	40.33
-----								
§ 134 Toluene-d8						CAS #: 2037-26-5		
7.967	7.967	(1.180)	98	761584	25.0000	24.970	80.00- 120.00	100.00
7.967	7.967	(1.180)	70	88505			0.00- 42.00	11.62
7.967	7.967	(1.180)	100	511619			37.14- 97.14	67.18
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
137 Toluene						CAS #: 108-88-3		
8.025	8.025	(1.189)	91	21538	0.80000	0.7931	80.00- 120.00	100.00(a)
8.025	8.025	(1.189)	92	12666			28.13- 88.13	58.81
-----								
136 Octane						CAS #: 111-65-9		
8.010	8.010	(1.187)	57	7693	0.80000	0.8071	80.00- 120.00	100.00
8.010	8.010	(1.187)	85	6624			67.77- 127.77	86.10
8.010	8.010	(1.187)	43	18715			225.27- 285.27	243.27
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.254	8.254	(0.897)	75	9646	0.80000	0.7474	80.00- 120.00	100.00(a)
8.254	8.254	(0.897)	77	3881			1.93- 61.93	40.23
8.254	8.254	(0.897)	39	6776			38.37- 98.37	70.25
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.419	8.419	(0.914)	97	7674	0.80000	0.8123	80.00- 120.00	100.00
8.419	8.419	(0.914)	99	4767			31.66- 91.66	62.12
8.419	8.419	(0.914)	83	6518			55.24- 115.24	84.94
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.462	8.462	(0.919)	166	10571	0.80000	0.7762	80.00- 120.00	100.00(a)
8.462	8.462	(0.919)	129	8317			48.51- 108.51	78.68
8.462	8.462	(0.919)	131	8822			45.64- 105.64	83.45
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.569	8.569	(1.270)	76	10469	0.80000	0.7487	80.00- 120.00	100.00(a)
8.576	8.569	(1.271)	41	13485			96.83- 156.83	128.81
8.569	8.569	(1.270)	78	4044			2.46- 62.46	38.63
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.734	8.734	(0.949)	129	14553	0.80000	0.7938	80.00- 120.00	100.00(a)
8.734	8.734	(0.949)	127	12392			47.05- 107.05	85.15
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.856	8.856	(0.962)	107	11965	0.80000	0.7786	80.00- 120.00	100.00(a)
8.863	8.856	(0.963)	109	11328			64.74- 124.74	94.68
-----								
* 153 Chlorobenzene-d5						CAS #: 3114-55-4		
9.207	9.207	(1.000)	117	712559	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	380065			23.62- 83.62	53.34
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.235	9.235	(1.003)	112	18357	0.80000	0.7870	80.00- 120.00	100.00(a)
9.228	9.235	(1.002)	114	5845			2.19- 62.19	31.84
9.228	9.228	(1.002)	77	18578			23.66- 83.66	101.20
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
155 Ethyl Benzene						CAS #: 100-41-4		
9.278	9.278	(1.008)	106	9413	0.80000	0.8120	80.00- 120.00	100.00
9.278	9.278	(1.008)	91	29367			282.43- 342.43	311.98
-----								
156 Nonane						CAS #: 111-84-2		
9.278	9.278	(1.008)	43	19707	0.80000	0.8463	80.00- 120.00	100.00
9.278	9.278	(1.008)	57	16200			55.73- 115.73	82.20
9.278	9.278	(1.008)	85	5638			0.00- 58.99	28.61
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.371	9.371	(1.018)	106	11097	0.80000	0.7875	80.00- 120.00	100.00(a)
9.371	9.371	(1.018)	91	23066			169.66- 229.66	207.86
-----								
164 o-Xylene						CAS #: 95-47-6		
9.722	9.722	(1.056)	106	10184	0.80000	0.7714	80.00- 120.00	100.00(a)
9.722	9.722	(1.056)	91	22158			180.55- 240.55	217.58
-----								
165 Styrene						CAS #: 100-42-5		
9.744	9.737	(1.058)	104	18105	0.80000	0.7680	80.00- 120.00	100.00(a)
9.737	9.737	(1.058)	78	9528			18.65- 78.65	52.63
-----								
167 Bromoform						CAS #: 75-25-2		
9.944	9.944	(1.080)	173	13185	0.80000	0.7509	80.00- 120.00	100.00(a)
9.944	9.944	(1.080)	171	7337			21.64- 81.64	55.65
-----								
168 Cumene						CAS #: 98-82-8		
10.009	10.009	(1.087)	105	33154	0.80000	0.7770	80.00- 120.00	100.00(a)
10.009	10.009	(1.087)	120	9121			0.00- 57.04	27.51
10.009	10.009	(1.087)	51	5505			0.00- 41.95	16.60
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.188	10.188	(1.107)	55	19727	0.80000	0.9573	80.00- 120.00	100.00
10.188	10.188	(1.107)	98	5586			8.59- 68.59	28.32
10.188	10.188	(1.107)	42	12798			46.18- 106.18	64.88
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.202	10.202	(1.108)	174	458933	25.0000	24.571	80.00- 120.00	100.00
10.202	10.195	(1.108)	95	565203			92.25- 152.25	123.16
10.202	10.202	(1.108)	176	430920			63.07- 123.07	93.90
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
10.324	10.317	(1.121)	83	16900	0.80000	0.8088	80.00- 120.00	100.00
10.317	10.317	(1.121)	85	11138			34.44- 94.44	65.91
-----								
177 Bromobenzene						CAS #: 108-86-1		
10.346	10.338	(1.124)	156	10883	0.80000	0.8203	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
177 Bromobenzene (continued)								
10.338	10.346	(1.123)	158	10916			67.20- 127.20	100.30
10.346	10.338	(1.124)	77	19427			131.36- 191.36	178.51
-----								
178 Propylbenzene								
							CAS #: 103-65-1	
10.360	10.360	(1.125)	120	9740	0.80000	0.7974	80.00- 120.00	100.00(a)
10.360	10.360	(1.125)	91	39821	0.80000	0.7895	385.23- 445.23	408.84
10.360	10.360	(1.125)	105	1841			0.00- 46.02	18.90
-----								
179 1,2,3-Trichloropropane								
							CAS #: 96-18-4	
10.389	10.389	(1.128)	110	5352	0.80000	0.7894	80.00- 120.00	100.00(a)
10.381	10.381	(1.128)	75	17619			301.57- 361.57	329.20
10.381	10.381	(1.128)	61	4650			54.32- 114.32	86.88
-----								
181 trans-1,4-Dichloro-2-butene								
							CAS #: 110-57-6	
10.381	10.374	(1.128)	53	4859	0.80000	0.8929	80.00- 120.00	100.00
10.374	10.374	(1.127)	89	3050			40.38- 100.38	62.77
10.381	10.381	(1.128)	75	17619			394.61- 454.61	362.61
-----								
182 Decane								
							CAS #: 124-18-5	
10.396	10.396	(1.129)	57	30310	0.80000	0.9724	80.00- 120.00	100.00
10.396	10.396	(1.129)	71	10098			2.98- 62.98	33.32
10.403	10.396	(1.130)	142	1556			0.00- 35.12	5.13
-----								
183 4-Ethyltoluene								
							CAS #: 622-96-8	
10.453	10.453	(1.135)	120	10869	0.80000	0.8140	80.00- 120.00	100.00
10.453	10.453	(1.135)	105	34482			295.29- 355.29	317.25
-----								
184 2-Chlorotoluene								
							CAS #: 95-49-8	
10.482	10.482	(1.138)	126	8758	0.80000	0.8022	80.00- 120.00	100.00
10.482	10.482	(1.138)	91	31169			325.01- 385.01	355.89
10.482	10.482	(1.138)	65	4661			19.90- 79.90	53.22
-----								
185 1,3,5-Trimethylbenzene								
							CAS #: 108-67-8	
10.503	10.503	(1.141)	120	13962	0.80000	0.7764	80.00- 120.00	100.00(a)
10.503	10.503	(1.141)	105	27656			176.14- 236.14	198.08
-----								
188 alpha Methyl Styrene								
							CAS #: 98-83-9	
10.711	10.704	(1.163)	118	13416	0.80000	0.7556	80.00- 120.00	100.00(a)
10.704	10.704	(1.163)	103	8189			26.69- 86.69	61.04
-----								
189 tert-Butylbenzene								
							CAS #: 98-06-6	
10.783	10.783	(1.171)	119	28293	0.80000	0.8274	80.00- 120.00	100.00
10.783	10.783	(1.171)	134	7373			0.00- 54.52	26.06
10.783	10.783	(1.171)	91	17702			34.68- 94.68	62.57
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
10.833	10.833	(1.177)	105	27870	0.80000	0.7827	80.00- 120.00	100.00(a)
10.833	10.833	(1.177)	120	12901			17.12- 77.12	46.29
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
10.969	10.969	(1.191)	134	9725	0.80000	0.8343	80.00- 120.00	100.00
10.969	10.969	(1.191)	105	41914			438.96- 498.96	430.99
10.969	10.969	(1.191)	91	6907			44.37- 104.37	71.02
-----								
194 p-Cymene						CAS #: 99-87-6		
11.083	11.083	(1.204)	119	37413	0.80000	0.7910	80.00- 120.00	100.00(a)
11.083	11.083	(1.204)	134	10220			0.00- 56.91	27.32
11.083	11.083	(1.204)	91	9535			0.00- 53.86	25.49
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
11.133	11.134	(1.209)	146	20264	0.80000	0.8067	80.00- 120.00	100.00
11.133	11.134	(1.209)	148	12977			33.78- 93.78	64.04
11.133	11.134	(1.209)	111	8516			11.40- 71.40	42.03
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
11.212	11.212	(1.218)	146	20032	0.80000	0.7759	80.00- 120.00	100.00(a)
11.212	11.212	(1.218)	148	13566			33.73- 93.73	67.72
11.212	11.212	(1.218)	111	8071			9.40- 69.40	40.29
-----								
199 alpha-Chlorotoluene						CAS #: 100-44-7		
11.327	11.334	(1.230)	91	27029	0.80000	0.7717	80.00- 120.00	100.00(a)
11.334	11.334	(1.231)	126	6491			0.00- 52.58	24.01
-----								
201 Undecane						CAS #: 1120-21-4		
11.406	11.406	(1.239)	57	28133	0.80000	0.8780	80.00- 120.00	100.00
11.406	11.406	(1.239)	43	26388			62.03- 122.03	93.80
-----								
202 Butylbenzene						CAS #: 104-51-8		
11.434	11.434	(1.242)	134	10413	0.80000	0.8237	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	35753			322.91- 382.91	343.35
11.434	11.434	(1.242)	92	18477			155.43- 215.43	177.44
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
11.549	11.549	(1.254)	146	20112	0.80000	0.8162	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	12245			33.66- 93.66	60.88
11.549	11.549	(1.254)	111	8146			12.36- 72.36	40.50
-----								
207 Dodecane						CAS #: 112-40-3		
12.358	12.358	(1.342)	57	27861	0.98880	0.9855	80.00- 120.00	100.00
12.358	12.358	(1.342)	43	24598			56.62- 116.62	88.29
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
13.039	13.039	(1.416)	180	20383	1.00720	1.063	80.00- 120.00	100.00
13.039	13.039	(1.416)	182	18227			64.88- 124.88	89.42
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
13.132	13.132	(1.426)	225	14662	1.02960	1.069	80.00- 120.00	100.00
13.132	13.132	(1.426)	223	9398			33.46- 93.46	64.10
-----								
216 Naphthalene						CAS #: 91-20-3		
13.347	13.340	(1.450)	128	6194	0.10160	0.1142	80.00- 120.00	100.00(a)
13.354	13.340	(1.450)	127	758			0.00- 43.71	12.24
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
13.612	13.619	(1.478)	180	19238	1.06480	1.106	80.00- 120.00	100.00
13.612	13.619	(1.478)	182	18804			66.23- 126.23	97.74
13.612	13.612	(1.478)	145	7326			5.93- 65.93	38.08
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081204.d  
 Lab Smp Id: ICAL Level #5  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 0.8ppbv(5.0ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	211802	-7.87
108 1,4-Difluorobenze	822152	493291	1151013	754232	-8.26
153 Chlorobenzene-d5	775771	465463	1086079	712559	-8.15

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Date : 12-AUG-2021 17:15

Client ID:

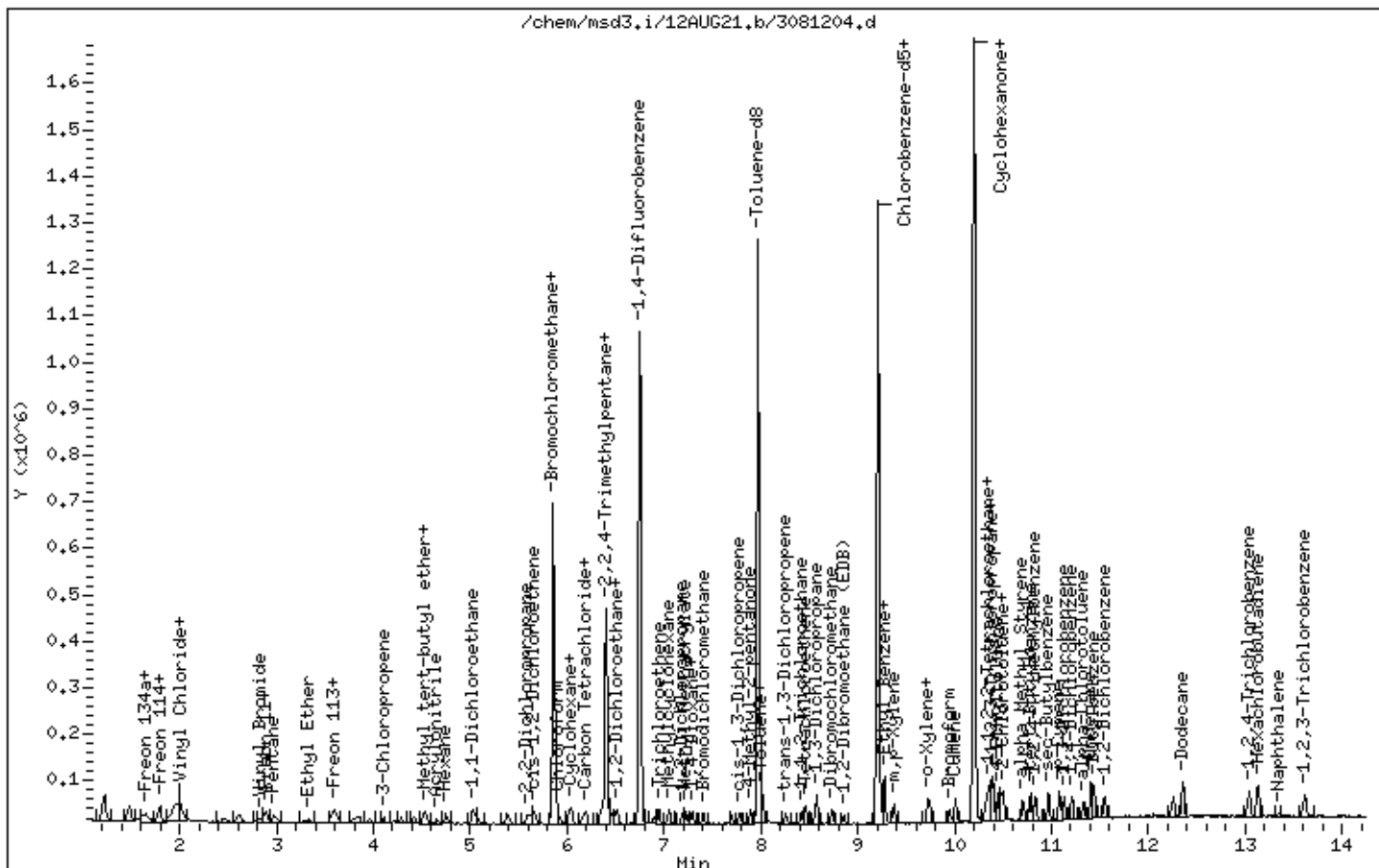
Instrument: msd3,i

Sample Info: 32ml 3018-2220

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081215.d  
 Lab Smp Id: ICAL Level #5  
 Inj Date : 12-AUG-2021 23:13  
 Operator : gh Inst ID: msd3.i  
 Smp Info : 32ml #3018-2128  
 Misc Info : 0.8ppbv(5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
 Meth Date : 13-Aug-2021 12:38 ugdc Quant Type: ISTD  
 Cal Date : 12-AUG-2021 23:13 Cal File: 3081215.d  
 Als bottle: 2 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL\_lv3.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.858	5.858	(1.000)	130	225138	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	174184			47.29- 107.29	77.37
5.858	5.858	(1.000)	49	348204			122.83- 182.83	154.66
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.750	6.750	(1.000)	114	819585	25.0000		80.00- 120.00	100.00
6.750	6.750	(1.000)	88	123968			0.00- 45.09	15.13
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	764913	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	406464			23.62- 83.62	53.14
-----								
157 1,1,1,2-Tetrachloroethane CAS #: 630-20-6								
9.300	9.300	(1.010)	131	10603	0.80000	0.7773	80.00- 120.00	100.00(a)
9.207	9.207	(1.000)	117	764913			38.22- 98.22	7214.12
9.300	9.293	(1.010)	95	4262			7.54- 67.54	40.20
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081215.d  
 Lab Smp Id: ICAL Level #5  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 0.8ppbv(5.0ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	225138	-2.07
108 1,4-Difluorobenze	822152	493291	1151013	819585	-0.31
153 Chlorobenzene-d5	775771	465463	1086079	764913	-1.40

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Date : 12-AUG-2021 23:13

Client ID:

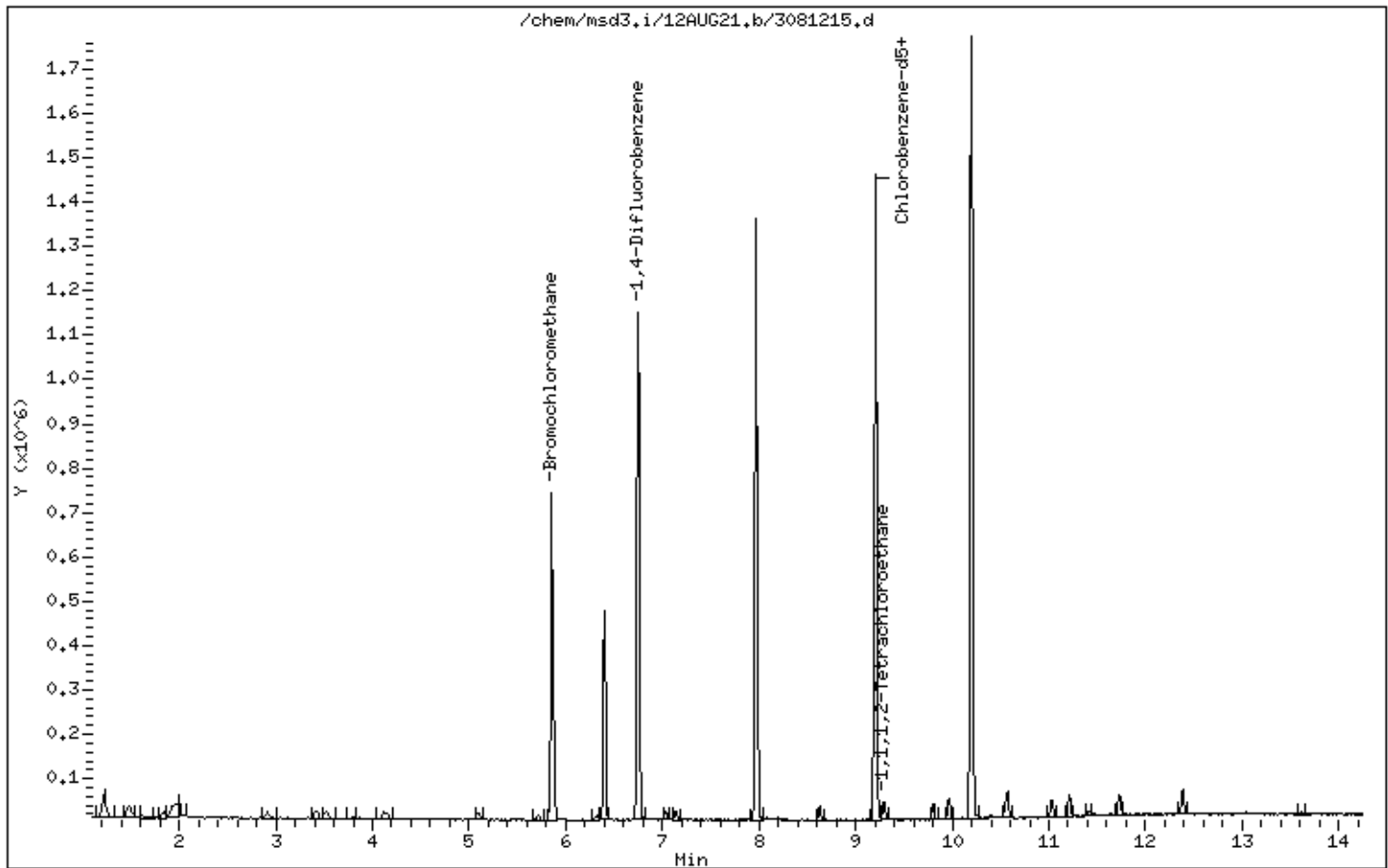
Instrument: msd3,i

Sample Info: 32ml #3018-2128

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081205.d  
Lab Smp Id: ICAL Level #6  
Inj Date : 12-AUG-2021 17:41  
Operator : LD Inst ID: msd3.i  
Smp Info : 80ml 3018-2220  
Misc Info : 2.0ppbv(5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 15:04 ugdc Quant Type: ISTD  
Cal Date : 12-AUG-2021 23:40 Cal File: 3081216.d  
Als bottle: 1 Calibration Sample, Level: 6  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	CAL-AMT	ON-COL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2									
1.576	1.577	(0.269)	83	13374	2.00000	2.031	80.00-	120.00	100.00
1.576	1.577	(0.269)	69	12421			50.75-	110.75	92.87
1.576	1.577	(0.269)	51	2708			0.00-	49.76	20.25
-----									
5 Propylene CAS #: 115-07-1									
1.618	1.619	(0.276)	41	13475	2.00000	2.092	80.00-	120.00	100.00
1.618	1.619	(0.276)	42	9279			36.66-	96.66	68.86
1.618	1.619	(0.276)	39	9747			44.11-	104.11	72.33
-----									
7 1,1-Difluoroethane CAS #: 75-37-6									
1.632	1.633	(0.279)	65	9010	2.00000	2.244	80.00-	120.00	100.00
1.632	1.633	(0.279)	51	18341			217.13-	277.13	203.56
1.646	1.633	(0.281)	47	7706			48.77-	108.77	85.53
-----									
8 Freon 12 CAS #: 75-71-8									
1.660	1.661	(0.283)	85	37186	2.00000	2.062	80.00-	120.00	100.00
1.660	1.661	(0.283)	87	12467			2.35-	62.35	33.53
-----									
9 Chlorodifluoromethane CAS #: 75-45-6									
1.688	1.689	(0.288)	67	5592	2.00000	2.500	80.00-	120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.688	1.689	(0.288)	51	31334			710.68- 770.68	560.34
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.800	1.800	(0.307)	135	28270	2.00000	2.063	80.00- 120.00	100.00
1.800	1.800	(0.307)	137	9036			2.06- 62.06	31.96
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.814	1.800	(0.310)	43	28289	2.00000	1.940	80.00- 120.00	100.00(a)
1.814	1.800	(0.310)	42	10650			2.70- 62.70	37.65
1.814	1.800	(0.310)	58	1423			0.00- 33.44	5.03
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.884	1.884	(0.322)	50	18026	2.00000	2.322	80.00- 120.00	100.00
1.898	1.884	(0.324)	52	9726			3.38- 63.38	53.96
-----								
18 Butane								
						CAS #: 106-97-8		
1.968	1.968	(0.336)	58	5032	2.00000	2.749	80.00- 120.00	100.00
1.968	1.968	(0.336)	43	30776			760.51- 820.51	611.61
-----								
19 Vinyl Chloride								
						CAS #: 75-01-4		
2.010	2.010	(0.343)	62	17898	2.00000	2.113	80.00- 120.00	100.00
2.010	2.010	(0.343)	64	6300			0.32- 60.32	35.20
-----								
20 1,3-Butadiene								
						CAS #: 106-99-0		
2.038	2.038	(0.348)	54	15197	2.00000	1.869	80.00- 120.00	100.00
2.038	2.038	(0.348)	39	15930			72.94- 132.94	104.82
-----								
24 Bromomethane								
						CAS #: 74-83-9		
2.458	2.458	(0.420)	94	15038	2.00000	2.378	80.00- 120.00	100.00
2.458	2.458	(0.420)	96	13854			63.18- 123.18	92.13
-----								
30 Chloroethane								
						CAS #: 75-00-3		
2.598	2.598	(0.443)	64	8779	2.00000	2.333	80.00- 120.00	100.00
2.598	2.598	(0.443)	66	2820			1.10- 61.10	32.12
2.612	2.598	(0.446)	49	3789			5.46- 65.46	43.16
-----								
31 Isopentane								
						CAS #: 78-78-4		
2.626	2.626	(0.448)	43	20508	2.00000	2.091	80.00- 120.00	100.00
2.626	2.626	(0.448)	57	14316			36.12- 96.12	69.81
-----								
32 Vinyl Bromide								
						CAS #: 593-60-2		
2.836	2.836	(0.484)	106	14591	2.00000	2.124	80.00- 120.00	100.00
2.836	2.836	(0.484)	108	12733			63.01- 123.01	87.27
-----								
33 Freon 11								
						CAS #: 75-69-4		
2.892	2.892	(0.494)	101	40597	2.00000	2.026	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.892	2.892	(0.494)	103	27172			36.55- 96.55	66.93
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.906	2.906	(0.496)	67	31090	2.00000	2.037	80.00- 120.00	100.00
2.906	2.906	(0.496)	69	10961			1.82- 61.82	35.26
-----								
35 Pentane CAS #: 109-66-0								
2.976	2.976	(0.508)	43	33006	2.00000	2.040	80.00- 120.00	100.00
2.976	2.976	(0.508)	57	5824			0.00- 45.52	17.65
2.976	2.976	(0.508)	72	3141			0.00- 38.25	9.52
-----								
39 Ethanol CAS #: 64-17-5								
3.297	3.284	(0.563)	46	4333	2.00000	2.746	80.00- 120.00	100.00
3.325	3.284	(0.568)	45	18892			213.29- 273.29	436.00
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.325	3.326	(0.568)	74	7177	2.00000	2.141	80.00- 120.00	100.00
3.325	3.326	(0.568)	59	12311			143.51- 203.51	171.53
3.325	3.326	(0.568)	45	18892			143.53- 203.53	263.23
-----								
42 Acrolein CAS #: 107-02-8								
3.591	3.591	(0.613)	55	5434	2.00000	2.171	80.00- 120.00	100.00
3.591	3.591	(0.613)	56	7792			104.02- 164.02	143.39
-----								
43 Freon 113 CAS #: 76-13-1								
3.591	3.591	(0.613)	151	26701	2.00000	2.013	80.00- 120.00	100.00
3.591	3.591	(0.613)	153	17658			34.03- 94.03	66.13
3.591	3.591	(0.613)	101	31723			89.72- 149.72	118.81
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.619	3.619	(0.618)	96	14907	2.00000	2.004	80.00- 120.00	100.00
3.619	3.619	(0.618)	98	9305			32.85- 92.85	62.42
3.619	3.619	(0.618)	61	29161			165.91- 225.91	195.62
-----								
47 Acetone CAS #: 67-64-1								
3.801	3.787	(0.649)	58	9631	2.00000	2.294	80.00- 120.00	100.00
3.801	3.787	(0.649)	43	32433			325.09- 385.09	336.76
-----								
49 Iodomethane CAS #: 74-88-4								
3.829	3.829	(0.654)	142	30656	2.00000	1.877	80.00- 120.00	100.00(a)
3.829	3.829	(0.654)	127	14641			16.98- 76.98	47.76
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.857	3.857	(0.658)	76	41432	2.00000	2.183	80.00- 120.00	100.00
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.955	3.941	(0.675)	45	36445	2.00000	2.249	80.00- 120.00	100.00
3.955	3.941	(0.675)	43	7744			0.00- 49.76	21.25
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.109	4.109	(0.701)	76	6803	2.00000	2.078	80.00- 120.00	100.00
4.109	4.109	(0.701)	41	23850			344.92- 404.92	350.58
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.221	4.221	(0.721)	41	15504	2.00000	2.157	80.00- 120.00	100.00
4.221	4.221	(0.721)	40	8758			24.08- 84.08	56.49
4.235	4.221	(0.723)	38	1952			0.00- 42.84	12.59
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.291	4.291	(0.732)	49	22593	2.00000	2.140	80.00- 120.00	100.00
4.291	4.291	(0.732)	84	13498			27.95- 87.95	59.74
4.291	4.291	(0.732)	51	8056			0.78- 60.78	35.66
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.417	4.417	(0.754)	59	38533	2.00000	2.060	80.00- 120.00	100.00
4.417	4.417	(0.754)	41	9332			0.00- 52.58	24.22
4.417	4.417	(0.754)	57	4976			0.00- 40.94	12.91
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.515	4.515	(0.771)	73	40588	2.00000	1.990	80.00- 120.00	100.00
4.515	4.515	(0.771)	57	12863			0.00- 58.27	31.69
4.515	4.515	(0.771)	41	11372			0.00- 58.78	28.02
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.543	4.543	(0.775)	98	9742	2.00000	2.062	80.00- 120.00	100.00
4.543	4.543	(0.775)	61	26161			236.85- 296.85	268.54
4.543	4.543	(0.775)	96	15552			126.72- 186.72	159.64
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.655	4.655	(0.795)	52	13202	2.00000	2.114	80.00- 120.00	100.00
4.655	4.655	(0.795)	53	14552			88.92- 148.92	110.23
-----								
67 Hexane						CAS #: 110-54-3		
4.753	4.753	(0.811)	57	28750	2.00000	2.089	80.00- 120.00	100.00
4.753	4.753	(0.811)	43	18901			36.74- 96.74	65.74
4.753	4.753	(0.811)	86	3693			0.00- 43.22	12.85
-----								
72 Isopropyl ether						CAS #: 108-20-3		
5.032	5.019	(0.859)	45	60935	2.00000	2.024	80.00- 120.00	100.00
5.032	5.019	(0.859)	87	13245			0.00- 51.44	21.74
5.032	5.019	(0.859)	59	7023			0.00- 40.81	11.53

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
71 1,1-Dichloroethane						CAS #: 75-34-3		
5.046	5.047	(0.861)	63	29900	2.00000	2.051	80.00- 120.00	100.00
5.046	5.047	(0.861)	65	9463			0.56- 60.56	31.65
73 Vinyl Acetate						CAS #: 108-05-4		
5.088	5.089	(0.869)	86	4176	2.00000	2.312	80.00- 120.00	100.00
5.088	5.089	(0.869)	43	49097			1473.01-1533.01	1175.69
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.382	5.382	(0.919)	59	55225	2.00000	2.014	80.00- 120.00	100.00
5.382	5.382	(0.919)	87	19106			4.28- 64.28	34.60
5.382	5.382	(0.919)	41	12670			0.00- 49.94	22.94
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.592	5.592	(0.955)	77	28218	2.00000	2.048	80.00- 120.00	100.00
5.592	5.592	(0.955)	79	9124			2.43- 62.43	32.33
5.592	5.592	(0.955)	97	6360			0.00- 53.03	22.54
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.620	5.620	(0.959)	98	10075	2.00000	2.012	80.00- 120.00	100.00
5.620	5.620	(0.959)	96	15888			121.91- 181.91	157.70
5.620	5.620	(0.959)	61	29887			313.72- 373.72	296.65
86 2-Butanone						CAS #: 78-93-3		
5.662	5.648	(0.967)	72	7689	2.00000	2.097	80.00- 120.00	100.00
5.662	5.648	(0.967)	43	84000			1111.25-1171.25	1092.47
5.662	5.648	(0.967)	57	3577			11.22- 71.22	46.52
87 Ethyl Acetate						CAS #: 141-78-6		
5.662	5.662	(0.967)	45	8196	2.00000	2.386	80.00- 120.00	100.00
5.620	5.620	(0.959)	61	29887			469.17- 529.17	364.65
5.662	5.662	(0.967)	70	3852			29.38- 89.38	47.00
89 Tetrahydrofuran						CAS #: 109-99-9		
5.858	5.858	(1.000)	42	23261	2.00000	2.086	80.00- 120.00	100.00
5.872	5.858	(1.002)	71	7021			0.09- 60.09	30.18
5.872	5.858	(1.002)	72	7243			2.13- 62.13	31.14
* 90 Bromochloromethane						CAS #: 74-97-5		
5.858	5.858	(1.000)	130	227263	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	175886			47.29- 107.29	77.39
5.858	5.858	(1.000)	49	346258			122.83- 182.83	152.36
92 Chloroform						CAS #: 67-66-3		
5.914	5.914	(1.010)	83	32574	2.00000	2.026	80.00- 120.00	100.00
5.914	5.914	(1.010)	85	21701			34.29- 94.29	66.62

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
94 Cyclohexane						CAS #: 110-82-7		
6.026	6.026	(1.029)	84	19091	2.00000	1.940	80.00- 120.00	100.00
6.026	6.026	(1.029)	56	28779			116.85- 176.85	150.75
6.026	6.026	(1.029)	41	16955			57.77- 117.77	88.81
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
6.054	6.054	(1.033)	97	36081	2.00000	2.068	80.00- 120.00	100.00
6.054	6.054	(1.033)	99	23258			34.55- 94.55	64.46
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.166	6.166	(1.053)	119	34807	2.00000	2.039	80.00- 120.00	100.00
6.166	6.166	(1.053)	117	35616			74.20- 134.20	102.32
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.194	6.194	(0.918)	110	8586	2.00000	2.042	80.00- 120.00	100.00
6.194	6.194	(0.918)	75	22329			229.39- 289.39	260.06
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.362	6.348	(1.086)	57	86270	2.00000	1.962	80.00- 120.00	100.00
6.362	6.348	(1.086)	56	30314			1.14- 61.14	35.14
6.348	6.348	(1.084)	41	25022			0.00- 59.12	29.00
102 Benzene						CAS #: 71-43-2		
6.390	6.376	(0.947)	78	41384	2.00000	1.951	80.00- 120.00	100.00
6.376	6.376	(0.945)	77	10430			0.00- 53.48	25.20
§ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.404	6.404	(1.093)	65	316977	25.0000	25.038	80.00- 120.00	100.00
6.404	6.404	(1.093)	67	154166			20.51- 80.51	48.64
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.446	6.446	(0.955)	87	11158	2.00000	2.024	80.00- 120.00	100.00
6.446	6.446	(0.955)	73	44193			363.80- 423.80	396.07
6.446	6.446	(0.955)	55	16433			97.13- 157.13	147.28
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.460	6.474	(0.957)	62	25881	2.00000	2.047	80.00- 120.00	100.00
6.474	6.474	(0.959)	64	8805			1.41- 61.41	34.02
107 Heptane						CAS #: 142-82-5		
6.516	6.516	(0.965)	71	15777	2.00000	1.911	80.00- 120.00	100.00
6.516	6.516	(0.965)	43	33810			146.45- 206.45	214.30
6.516	6.516	(0.965)	57	20862			90.20- 150.20	132.23
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.750	6.750	(1.000)	114	817924	25.0000		80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene (continued)								
6.750	6.750	(1.000)	88	123918			0.00- 45.09	15.15
-----								
110 n-Butanol						CAS #: 71-36-3		
6.893	6.893	(1.021)	56	15476	2.00000	2.114	80.00- 120.00	100.00
6.893	6.886	(1.021)	41	11291			44.46- 104.46	72.96
6.893	6.886	(1.021)	43	9554			28.14- 88.14	61.73
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.943	6.943	(1.029)	95	20731	2.00000	1.999	80.00- 120.00	100.00
6.950	6.943	(1.030)	130	21954			79.68- 139.68	105.90
6.943	6.943	(1.029)	97	13770			34.74- 94.74	66.42
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
7.050	7.051	(1.045)	83	24733	2.00000	1.890	80.00- 120.00	100.00(a)
7.058	7.051	(1.046)	98	12001			17.10- 77.10	48.52
7.050	7.051	(1.045)	55	27797			71.11- 131.11	112.39
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.187	7.187	(1.065)	63	18804	2.00000	1.980	80.00- 120.00	100.00
7.187	7.187	(1.065)	62	13116			40.55- 100.55	69.75
7.187	7.187	(1.065)	41	14595			36.07- 96.07	77.62
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.229	7.230	(0.785)	69	16613	2.00000	2.030	80.00- 120.00	100.00
7.229	7.230	(0.785)	41	30447			160.67- 220.67	183.27
7.229	7.230	(0.785)	100	6958			11.33- 71.33	41.88
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.272	7.273	(1.077)	88	12191	2.00000	2.050	80.00- 120.00	100.00
7.272	7.273	(1.077)	58	10212			56.19- 116.19	83.77
7.280	7.273	(1.079)	57	4320			0.00- 59.32	35.44
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.301	7.294	(0.793)	174	20011	2.00000	2.070	80.00- 120.00	100.00
7.294	7.294	(0.792)	93	19034			66.88- 126.88	95.12
7.294	7.294	(0.792)	95	16501			49.90- 109.90	82.46
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.409	7.409	(1.098)	83	33840	2.00000	1.951	80.00- 120.00	100.00
7.409	7.409	(1.098)	85	22077			33.85- 93.85	65.24
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.702	7.702	(1.141)	63	35542	2.00000	2.090	80.00- 120.00	100.00
7.702	7.702	(1.141)	65	10852			0.05- 60.05	30.53
7.702	7.702	(1.141)	144	3954			0.00- 40.91	11.12
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.781	7.781	(1.153)	75	26511	2.00000	2.007	80.00- 120.00	100.00
7.781	7.781	(1.153)	77	8917			1.50- 61.50	33.64
7.781	7.781	(1.153)	39	19985			43.12- 103.12	75.38
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.888	7.889	(1.169)	58	18715	2.00000	2.033	80.00- 120.00	100.00
7.888	7.889	(1.169)	43	51851			247.84- 307.84	277.06
7.888	7.889	(1.169)	85	7100			8.73- 68.73	37.94
-----								
\$ 134 Toluene-d8						CAS #: 2037-26-5		
7.967	7.967	(1.180)	98	825560	25.0000	24.953	80.00- 120.00	100.00
7.967	7.967	(1.180)	70	98810			0.00- 42.00	11.97
7.967	7.967	(1.180)	100	556902			37.14- 97.14	67.46
-----								
136 Octane						CAS #: 111-65-9		
8.003	8.010	(1.186)	57	18047	2.00000	1.903	80.00- 120.00	100.00
8.010	8.010	(1.187)	85	17395			67.77- 127.77	96.39
8.010	8.010	(1.187)	43	47669			225.27- 285.27	264.14
-----								
137 Toluene						CAS #: 108-88-3		
8.025	8.025	(1.189)	91	55943	2.00000	1.984	80.00- 120.00	100.00
8.025	8.025	(1.189)	92	32646			28.13- 88.13	58.36
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.254	8.254	(0.897)	75	24880	2.00000	1.921	80.00- 120.00	100.00
8.254	8.254	(0.897)	77	8818			1.93- 61.93	35.44
8.254	8.254	(0.897)	39	19416			38.37- 98.37	78.04
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.419	8.419	(0.914)	97	19220	2.00000	1.989	80.00- 120.00	100.00
8.419	8.419	(0.914)	99	12231			31.66- 91.66	63.64
8.419	8.419	(0.914)	83	17248			55.24- 115.24	89.74
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.462	8.462	(0.919)	166	28634	2.00000	2.032	80.00- 120.00	100.00
8.462	8.462	(0.919)	129	22526			48.51- 108.51	78.67
8.462	8.462	(0.919)	131	20830			45.64- 105.64	72.75
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.569	8.569	(1.270)	76	27414	2.00000	1.968	80.00- 120.00	100.00(a)
8.569	8.569	(1.270)	41	34084			96.83- 156.83	124.33
8.569	8.569	(1.270)	78	9830			2.46- 62.46	35.86
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.576	8.576	(0.932)	58	28695	2.00000	2.107	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone (continued)								
8.576	8.576	(0.932)	43	57622			169.24- 229.24	200.81
8.583	8.576	(0.932)	100	5456			0.00- 48.72	19.01
-----								
146 Dibromochloromethane CAS #: 124-48-1								
8.734	8.734	(0.949)	129	37888	2.00000	1.965	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	29859			47.05- 107.05	78.81
-----								
148 1,2-Dibromoethane (EDB) CAS #: 106-93-4								
8.855	8.856	(0.962)	107	30736	2.00000	1.968	80.00- 120.00	100.00
8.855	8.856	(0.962)	109	29347			64.74- 124.74	95.48
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.206	9.207	(1.000)	117	765402	25.0000		80.00- 120.00	100.00
9.206	9.207	(1.000)	82	412337			23.62- 83.62	53.87
-----								
154 Chlorobenzene CAS #: 108-90-7								
9.235	9.235	(1.003)	112	47312	2.00000	1.970	80.00- 120.00	100.00
9.235	9.235	(1.003)	114	15615			2.19- 62.19	33.00
9.228	9.235	(1.002)	77	33767			23.66- 83.66	71.37
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.278	9.278	(1.008)	106	22819	2.00000	1.919	80.00- 120.00	100.00
9.278	9.278	(1.008)	91	73948			282.43- 342.43	324.06
-----								
156 Nonane CAS #: 111-84-2								
9.278	9.278	(1.008)	43	47978	2.00000	2.002	80.00- 120.00	100.00
9.278	9.278	(1.008)	57	40321			55.73- 115.73	84.04
9.278	9.278	(1.008)	85	14165			0.00- 58.99	29.52
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.371	9.371	(1.018)	106	28691	2.00000	1.965	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	59731			169.66- 229.66	208.19
-----								
164 o-Xylene CAS #: 95-47-6								
9.722	9.722	(1.056)	106	27632	2.00000	1.996	80.00- 120.00	100.00
9.722	9.722	(1.056)	91	57810			180.55- 240.55	209.21
-----								
165 Styrene CAS #: 100-42-5								
9.737	9.737	(1.058)	104	45555	2.00000	1.900	80.00- 120.00	100.00
9.737	9.737	(1.058)	78	22518			18.65- 78.65	49.43
-----								
167 Bromoform CAS #: 75-25-2								
9.944	9.944	(1.080)	173	35458	2.00000	1.938	80.00- 120.00	100.00
9.951	9.944	(1.081)	171	18474			21.64- 81.64	52.10
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.009	10.009	(1.087)	105	86454	2.00000	1.966	80.00- 120.00	100.00
10.009	10.009	(1.087)	120	23366			0.00- 57.04	27.03
10.009	10.009	(1.087)	51	12017			0.00- 41.95	13.90
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.188	10.188	(1.107)	55	44127	2.00000	2.208	80.00- 120.00	100.00(a)
10.188	10.188	(1.107)	98	15718			8.59- 68.59	35.62
10.188	10.188	(1.107)	42	31007			46.18- 106.18	70.27
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.202	10.202	(1.108)	174	502537	25.0000	24.979	80.00- 120.00	100.00
10.195	10.202	(1.107)	95	616523			92.25- 152.25	122.68
10.202	10.202	(1.108)	176	463920			63.07- 123.07	92.32
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
10.317	10.317	(1.121)	83	43611	2.00000	2.034	80.00- 120.00	100.00
10.317	10.317	(1.121)	85	28069			34.44- 94.44	64.36
-----								
177 Bromobenzene						CAS #: 108-86-1		
10.338	10.338	(1.123)	156	28231	2.00000	2.019	80.00- 120.00	100.00
10.338	10.346	(1.123)	158	29222			67.20- 127.20	103.51
10.338	10.338	(1.123)	77	49360			131.36- 191.36	174.84
-----								
178 Propylbenzene						CAS #: 103-65-1		
10.360	10.360	(1.125)	120	25729	2.00000	2.038	80.00- 120.00	100.00
10.360	10.360	(1.125)	91	103476	2.00000	1.984	385.23- 445.23	402.18
10.360	10.360	(1.125)	105	4386			0.00- 46.02	17.05
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
10.381	10.374	(1.128)	53	11509	2.00000	2.096	80.00- 120.00	100.00
10.374	10.374	(1.127)	89	7536			40.38- 100.38	65.48
10.381	10.374	(1.128)	75	43127			394.61- 454.61	374.72
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
10.381	10.389	(1.128)	110	14064	2.00000	2.040	80.00- 120.00	100.00
10.381	10.381	(1.128)	75	43133			301.57- 361.57	306.69
10.381	10.381	(1.128)	61	11911			54.32- 114.32	84.69
-----								
182 Decane						CAS #: 124-18-5		
10.396	10.396	(1.129)	57	59248	2.00000	2.063	80.00- 120.00	100.00
10.396	10.396	(1.129)	71	20588			2.98- 62.98	34.75
10.396	10.396	(1.129)	142	3107			0.00- 35.12	5.24
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
10.453	10.453	(1.135)	120	26669	2.00000	1.956	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
10.453	10.453	(1.135)	105	87264			295.29- 355.29	327.21
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
10.482	10.482	(1.138)	126	22468	2.00000	1.982	80.00- 120.00	100.00
10.482	10.482	(1.138)	91	80403			325.01- 385.01	357.86
10.482	10.482	(1.138)	65	15805			19.90- 79.90	70.34
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
10.503	10.503	(1.141)	120	38009	2.00000	1.999	80.00- 120.00	100.00
10.503	10.503	(1.141)	105	79197			176.14- 236.14	208.36
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
10.704	10.704	(1.163)	118	36372	2.00000	1.920	80.00- 120.00	100.00
10.704	10.704	(1.163)	103	21560			26.69- 86.69	59.28
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
10.782	10.783	(1.171)	119	70547	2.00000	1.981	80.00- 120.00	100.00
10.782	10.783	(1.171)	134	18304			0.00- 54.52	25.95
10.782	10.783	(1.171)	91	47986			34.68- 94.68	68.02
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
10.832	10.833	(1.177)	105	71188	2.00000	1.929	80.00- 120.00	100.00
10.832	10.833	(1.177)	120	33186			17.12- 77.12	46.62
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
10.969	10.969	(1.191)	134	22972	2.00000	1.953	80.00- 120.00	100.00
10.969	10.969	(1.191)	105	106845			438.96- 498.96	465.11
10.969	10.969	(1.191)	91	17938			44.37- 104.37	78.09
-----								
194 p-Cymene CAS #: 99-87-6								
11.083	11.083	(1.204)	119	94571	2.00000	1.952	80.00- 120.00	100.00
11.083	11.083	(1.204)	134	26066			0.00- 56.91	27.56
11.076	11.083	(1.203)	91	22412			0.00- 53.86	23.70
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
11.133	11.134	(1.209)	146	53557	2.00000	2.035	80.00- 120.00	100.00
11.133	11.134	(1.209)	148	33570			33.78- 93.78	62.68
11.133	11.134	(1.209)	111	21505			11.40- 71.40	40.15
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
11.212	11.212	(1.218)	146	53887	2.00000	2.010	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	33890			33.73- 93.73	62.89
11.212	11.212	(1.218)	111	21267			9.40- 69.40	39.47
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
11.327	11.334	(1.230)	91	71227	2.00000	1.951	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
11.334	11.334	(1.231)	126	16637			0.00- 52.58	23.36
-----								
201 Undecane						CAS #: 1120-21-4		
11.406	11.406	(1.239)	57	66628	2.00000	2.065	80.00- 120.00	100.00
11.406	11.406	(1.239)	43	62040			62.03- 122.03	93.11
-----								
202 Butylbenzene						CAS #: 104-51-8		
11.434	11.434	(1.242)	134	25360	2.00000	1.957	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	92954			322.91- 382.91	366.54
11.434	11.434	(1.242)	92	47245			155.43- 215.43	186.30
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
11.549	11.549	(1.254)	146	50378	2.00000	1.976	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	32312			33.66- 93.66	64.14
11.549	11.549	(1.254)	111	21179			12.36- 72.36	42.04
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
12.258	12.258	(1.331)	157	32493	2.00000	2.073	80.00- 120.00	100.00
12.258	12.258	(1.331)	75	27844			56.77- 116.77	85.69
12.258	12.258	(1.331)	155	24769			48.17- 108.17	76.23
-----								
207 Dodecane						CAS #: 112-40-3		
12.358	12.358	(1.342)	57	68781	2.47200	2.388	80.00- 120.00	100.00
12.358	12.358	(1.342)	43	61873			56.62- 116.62	89.96
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
13.039	13.039	(1.416)	180	51483	2.51800	2.597	80.00- 120.00	100.00
13.039	13.039	(1.416)	182	48277			64.88- 124.88	93.77
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
13.132	13.132	(1.426)	225	36847	2.57400	2.574	80.00- 120.00	100.00
13.132	13.132	(1.426)	223	25158			33.46- 93.46	68.28
-----								
216 Naphthalene						CAS #: 91-20-3		
13.340	13.340	(1.449)	128	14674	0.25400	0.2687	80.00- 120.00	100.00(a)
13.347	13.340	(1.450)	127	2489			0.00- 43.71	16.96
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
13.619	13.619	(1.479)	180	50926	2.66200	2.766	80.00- 120.00	100.00
13.612	13.619	(1.478)	182	47668			66.23- 126.23	93.60
13.619	13.612	(1.479)	145	18040			5.93- 65.93	35.42
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081205.d  
 Lab Smp Id: ICAL Level #6  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 2.0ppbv(5.0ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	227263	-1.15
108 1,4-Difluorobenze	822152	493291	1151013	817924	-0.51
153 Chlorobenzene-d5	775771	465463	1086079	765402	-1.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.



Date : 12-AUG-2021 17:41

Client ID:

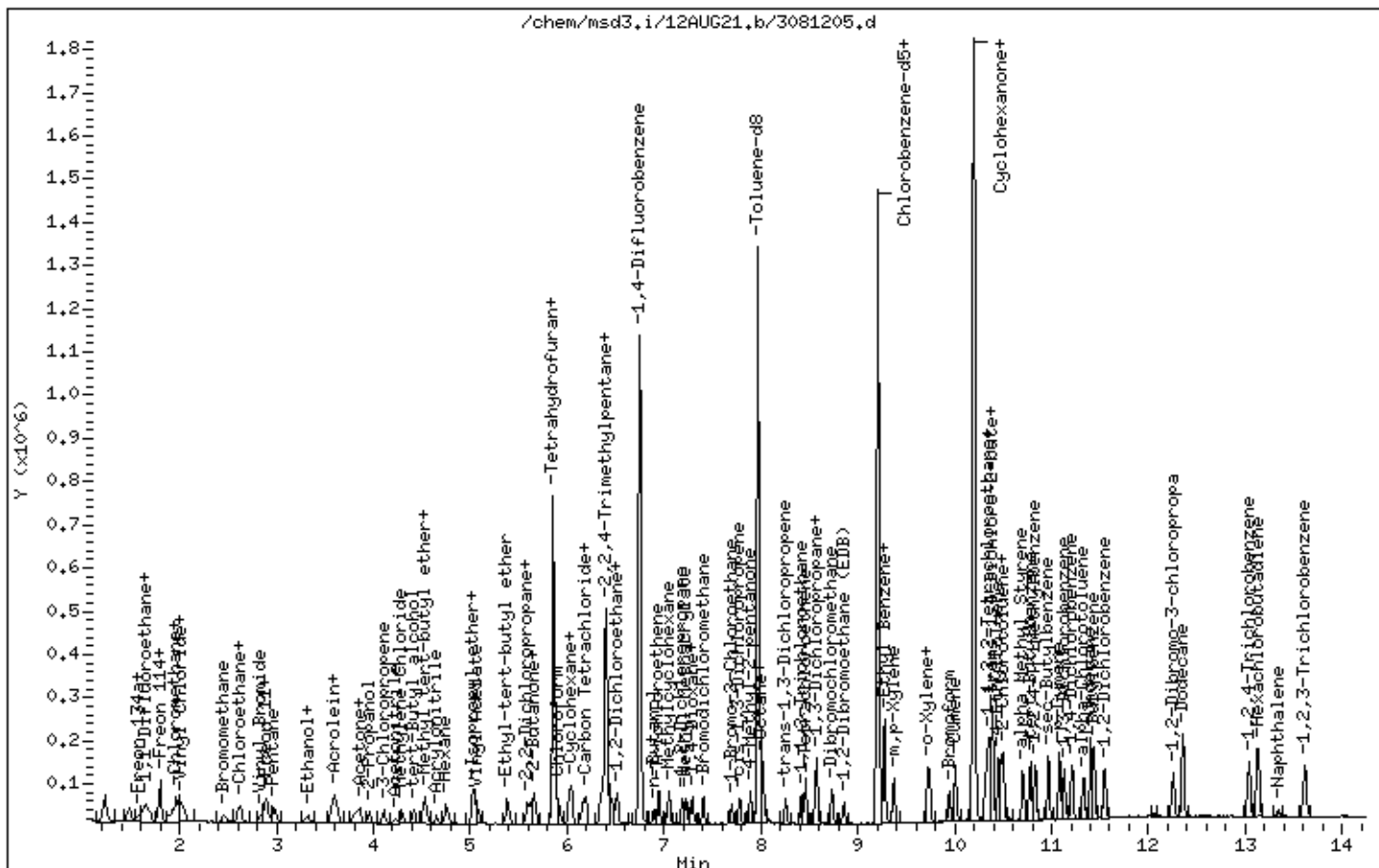
Instrument: msd3,i

Sample Info: 80ml 3018-2220

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081216.d  
 Lab Smp Id: ICAL Level #6  
 Inj Date : 12-AUG-2021 23:40  
 Operator : gh Inst ID: msd3.i  
 Smp Info : 80ml #3018-2128  
 Misc Info : 2.0ppbv(5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
 Meth Date : 13-Aug-2021 12:38 ugdc Quant Type: ISTD  
 Cal Date : 12-AUG-2021 23:40 Cal File: 3081216.d  
 Als bottle: 2 Calibration Sample, Level: 6  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.858	5.858	(1.000)	130	245710	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	190234			47.29- 107.29	77.42
5.858	5.858	(1.000)	49	373526			122.83- 182.83	152.02
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.750	6.750	(1.000)	114	887513	25.0000		80.00- 120.00	100.00
6.750	6.750	(1.000)	88	133966			0.00- 45.09	15.09
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	826789	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	444660			23.62- 83.62	53.78
-----								
3 Freon 143a CAS #: 420-46-2								
1.521	1.520	(0.260)	65	11007	2.00000	2.068	80.00- 120.00	100.00
1.521	1.520	(0.260)	69	24457			217.09- 277.09	222.19
1.521	1.520	(0.260)	64	3265			0.00- 55.87	29.66
-----								
6 Propane CAS #: 74-98-6								
1.619	1.618	(0.276)	43	5067	2.00000	2.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.619	1.618	(0.276)	39	4561			41.62- 101.62	90.01
1.619	1.618	(0.276)	41	3301			22.97- 82.97	65.15
-----								
13 Freon 142b CAS #: 75-68-3								
1.842	1.842	(0.315)	65	33454	2.00000	2.044	80.00- 120.00	100.00
1.842	1.842	(0.315)	45	10801			0.00- 58.17	32.29
-----								
36 1-Pentene CAS #: 109-67-1								
2.906	2.920	(0.496)	55	18720	2.00000	1.983	80.00- 120.00	100.00(a)
2.920	2.920	(0.498)	42	24807			99.17- 159.17	132.52
-----								
40 Freon 123a CAS #: 354-23-4								
3.424	3.423	(0.584)	117	23044	2.00000	2.006	80.00- 120.00	100.00(a)
3.424	3.423	(0.584)	67	30775			103.13- 163.13	133.55
-----								
41 Freon 123 CAS #: 306-83-2								
3.522	3.521	(0.601)	83	32155	2.00000	1.991	80.00- 120.00	100.00(a)
3.522	3.521	(0.601)	133	7919			0.00- 51.81	24.63
3.522	3.521	(0.601)	85	22312			37.13- 97.13	69.39
-----								
55 Cyclopentene CAS #: 142-29-0								
4.123	4.123	(0.704)	67	32213	2.00000	1.950	80.00- 120.00	100.00(a)
4.123	4.123	(0.704)	68	13021			7.90- 67.90	40.42
4.123	4.123	(0.704)	53	9308			0.00- 54.87	28.90
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.151	4.151	(0.709)	43	35410	2.00000	1.975	80.00- 120.00	100.00(a)
4.151	4.151	(0.709)	74	6060			0.00- 47.15	17.11
-----								
74 Chloroprene CAS #: 126-99-8								
5.089	5.088	(0.869)	53	30085	2.00000	1.995	80.00- 120.00	100.00(a)
5.089	5.102	(0.869)	88	12408			12.33- 72.33	41.24
5.089	5.088	(0.869)	50	9511			0.00- 57.62	31.61
-----								
75 1-Propanol CAS #: 71-23-8								
5.159	5.158	(0.881)	59	4434	2.00000	2.110	80.00- 120.00	100.00
5.159	5.158	(0.881)	42	5258			53.89- 113.89	118.58
5.159	5.158	(0.881)	41	2714			24.09- 84.09	61.21
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.718	5.718	(0.976)	55	35008	2.00000	2.002	80.00- 120.00	100.00(a)
5.718	5.718	(0.976)	85	4599			0.00- 43.24	13.14
5.718	5.718	(0.976)	58	3232			0.00- 38.83	9.23
-----								
103 Isobutanol CAS #: 78-83-1								
6.320	6.320	(1.079)	39	5434	2.00000	2.029	80.00- 120.00	100.00(a)

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.320	6.320	(1.079)	43	17964			327.69- 387.69	330.59
6.320	6.320	(1.079)	41	13092			237.56- 297.56	240.93
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
7.029	7.036	(0.763)	99	2673	2.00000	1.956	80.00- 120.00	100.00(a)
7.036	7.036	(0.764)	45	4595			124.67- 184.67	171.90
7.036	7.036	(0.764)	55	42957			1601.30-1661.30	1607.07
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.137	7.129	(0.775)	43	54176	2.00000	1.972	80.00- 120.00	100.00(a)
7.137	7.129	(0.775)	58	4372			0.00- 37.25	8.07
7.137	7.136	(0.775)	86	8061			0.00- 45.08	14.88
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.627	8.626	(1.278)	56	24300	2.00000	1.989	80.00- 120.00	100.00(a)
8.627	8.626	(1.278)	73	8628			5.16- 65.16	35.51
8.627	8.626	(1.278)	43	60924			214.00- 274.00	250.72
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.300	9.300	(1.010)	131	26458	2.00000	1.842	80.00- 120.00	100.00(a)
9.207	9.207	(1.000)	117	826789			38.22- 98.22	3124.91
9.293	9.293	(1.009)	95	10000			7.54- 67.54	37.80
-----								
166 2-Heptanone						CAS #: 110-43-0		
9.801	9.801	(1.673)	58	35813	2.00000	1.966	80.00- 120.00	100.00(a)
9.801	9.801	(1.673)	43	61384			133.36- 193.36	171.40
-----								
172 D-Limonene						CAS #: 5989-27-5		
11.026	11.033	(1.198)	68	21479	2.00000	1.581	80.00- 120.00	100.00(a)
11.026	11.033	(1.198)	93	17463			42.08- 102.08	81.30
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
10.582	10.582	(1.149)	126	24333	2.00000	1.925	80.00- 120.00	100.00(a)
10.575	10.575	(1.149)	91	78377			305.94- 365.94	322.10
10.575	10.575	(1.149)	63	11306			15.44- 75.44	46.46
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
11.212	11.212	(1.218)	120	31227	2.00000	1.888	80.00- 120.00	100.00(a)
11.212	11.212	(1.218)	105	73819			206.43- 266.43	236.39
11.212	11.212	(1.218)	77	9771			0.00- 58.29	31.29
-----								
205 Hexachloroethane						CAS #: 67-72-1		
11.728	11.728	(1.274)	201	17464	2.00000	1.799	80.00- 120.00	100.00(a)
11.728	11.728	(1.274)	117	23186			109.77- 169.77	132.76
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
12.387	12.387	(1.345)	180	49670	2.00000	1.959	80.00- 120.00	100.00(a)
12.387	12.387	(1.345)	182	45922			65.79- 125.79	92.45
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.966	9.973	(1.082)	93	48833	2.00000	1.832	80.00- 120.00	100.00(a)
9.973	9.973	(1.083)	77	15809			0.13- 60.13	32.37
-----								
214 beta-Pinene						CAS #: 127-91-3		
10.553	10.560	(1.146)	93	35817	2.00000	1.816	80.00- 120.00	100.00(a)
10.575	10.575	(1.149)	91	78377			145.95- 205.95	218.83
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081216.d  
 Lab Smp Id: ICAL Level #6  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 2.0ppbv(5.0ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	245710	6.88
108 1,4-Difluorobenze	822152	493291	1151013	887513	7.95
153 Chlorobenzene-d5	775771	465463	1086079	826789	6.58

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

Date : 12-AUG-2021 23:40

Client ID:

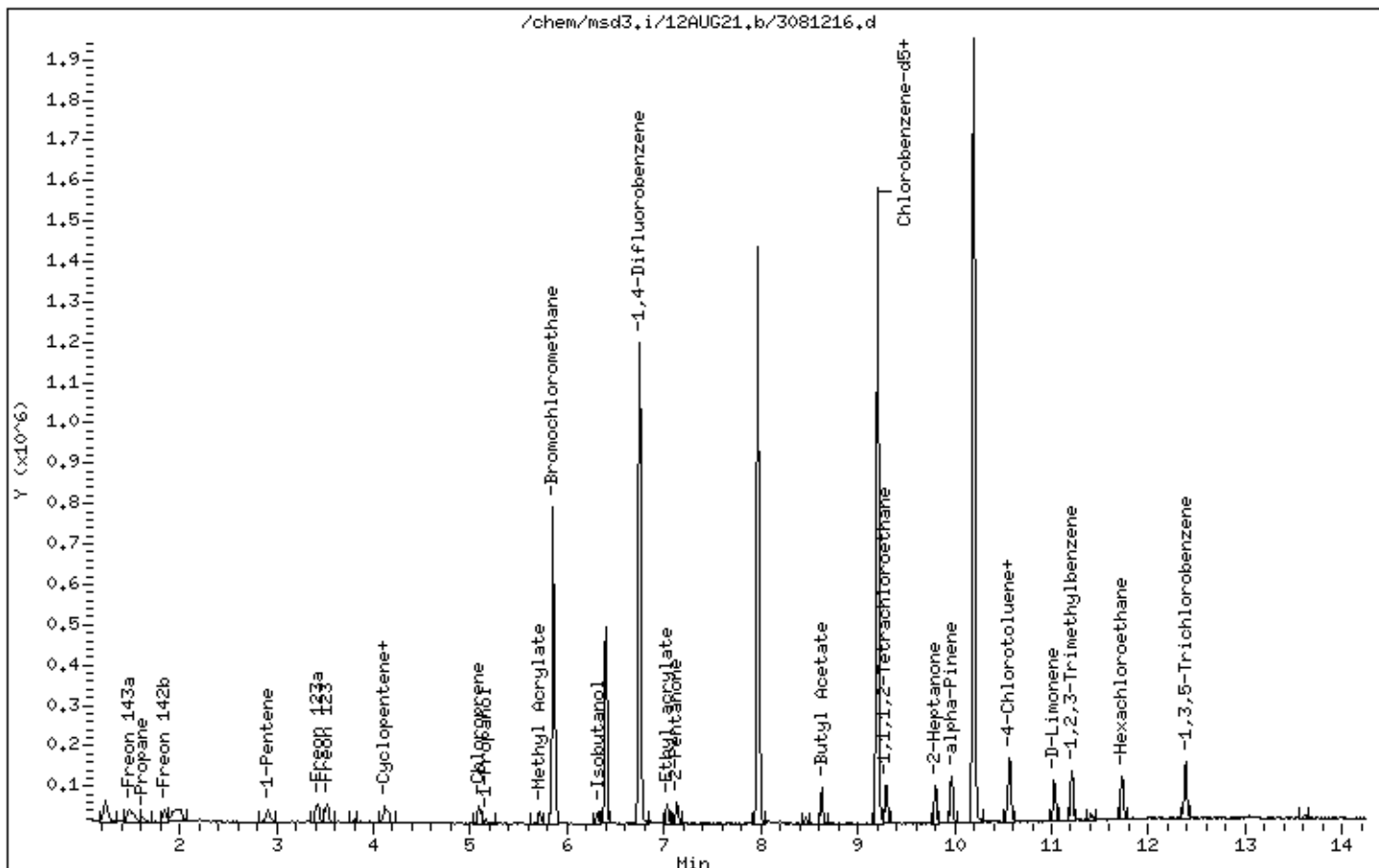
Instrument: msd3,i

Sample Info: 80ml #3018-2128

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081206.d  
 Lab Smp Id: ICAL Level #7  
 Inj Date : 12-AUG-2021 18:11  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200ml 3018-2220  
 Misc Info : 5.0ppbv(5.0ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
 Meth Date : 13-Aug-2021 08:08 ugdc Quant Type: ISTD  
 Cal Date : 12-AUG-2021 18:11 Cal File: 3081206.d  
 Als bottle: 1 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.591	1.577	(0.271)	83	30437	5.00000	4.924	80.00- 120.00	100.00
1.577	1.577	(0.268)	69	25144			50.75- 110.75	82.61
1.507	1.577	(0.257)	51	186			0.00- 49.76	0.61
-----								
5 Propylene CAS #: 115-07-1								
1.619	1.619	(0.276)	41	30768	5.00000	5.138	80.00- 120.00	100.00
1.619	1.619	(0.276)	42	20085			36.66- 96.66	65.28
1.619	1.619	(0.276)	39	22222			44.11- 104.11	72.22
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.647	1.633	(0.280)	65	19560	5.00000	5.116	80.00- 120.00	100.00
1.703	1.633	(0.290)	51	85146			217.13- 277.13	435.31
1.661	1.633	(0.283)	47	15580			48.77- 108.77	79.65
-----								
8 Freon 12 CAS #: 75-71-8								
1.661	1.661	(0.283)	85	84636	5.00000	5.026	80.00- 120.00	100.00
1.661	1.661	(0.283)	87	26921			2.35- 62.35	31.81
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.703	1.689	(0.290)	67	10579	5.00000	4.623	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.703	1.689	(0.290)	51	92835			710.68- 770.68	877.54
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.801	1.800	(0.307)	135	63325	5.00000	4.906	80.00- 120.00	100.00
1.801	1.800	(0.307)	137	19802			2.06- 62.06	31.27
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.815	1.800	(0.309)	43	68645	5.00000	5.080	80.00- 120.00	100.00
1.815	1.800	(0.309)	42	22133			2.70- 62.70	32.24
1.815	1.800	(0.309)	58	3086			0.00- 33.44	4.50
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.898	1.884	(0.323)	50	38403	5.00000	5.137	80.00- 120.00	100.00
1.898	1.884	(0.323)	52	14845			3.38- 63.38	38.66
-----								
18 Butane								
						CAS #: 106-97-8		
1.968	1.968	(0.335)	58	9346	5.00000	5.012	80.00- 120.00	100.00
1.968	1.968	(0.335)	43	64298			760.51- 820.51	687.97
-----								
19 Vinyl Chloride								
						CAS #: 75-01-4		
2.010	2.010	(0.342)	62	36169	5.00000	4.319	80.00- 120.00	100.00
2.010	2.010	(0.342)	64	12296			0.32- 60.32	34.00
-----								
20 1,3-Butadiene								
						CAS #: 106-99-0		
2.052	2.038	(0.349)	54	31056	5.00000	3.704	80.00- 120.00	100.00
2.052	2.038	(0.349)	39	31710			72.94- 132.94	102.11
-----								
24 Bromomethane								
						CAS #: 74-83-9		
2.458	2.458	(0.419)	94	36402	5.00000	5.685	80.00- 120.00	100.00
2.458	2.458	(0.419)	96	33138			63.18- 123.18	91.03
-----								
30 Chloroethane								
						CAS #: 75-00-3		
2.612	2.598	(0.445)	64	17626	5.00000	4.921	80.00- 120.00	100.00
2.612	2.598	(0.445)	66	6162			1.10- 61.10	34.96
2.612	2.598	(0.445)	49	7455			5.46- 65.46	42.30
-----								
31 Isopentane								
						CAS #: 78-78-4		
2.626	2.626	(0.447)	43	46384	5.00000	5.105	80.00- 120.00	100.00
2.626	2.626	(0.447)	57	31676			36.12- 96.12	68.29
-----								
32 Vinyl Bromide								
						CAS #: 593-60-2		
2.850	2.836	(0.485)	106	31320	5.00000	4.840	80.00- 120.00	100.00
2.850	2.836	(0.485)	108	29188			63.01- 123.01	93.19
-----								
33 Freon 11								
						CAS #: 75-69-4		
2.892	2.892	(0.492)	101	91629	5.00000	4.884	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.892	2.892	(0.492)	103	61002			36.55- 96.55	66.57
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.906	2.906	(0.495)	67	71932	5.00000	5.028	80.00- 120.00	100.00
2.906	2.906	(0.495)	69	23194			1.82- 61.82	32.24
-----								
35 Pentane CAS #: 109-66-0								
2.976	2.976	(0.507)	43	72072	5.00000	4.670	80.00- 120.00	100.00
2.976	2.976	(0.507)	57	11803			0.00- 45.52	16.38
2.976	2.976	(0.507)	72	6548			0.00- 38.25	9.09
-----								
39 Ethanol CAS #: 64-17-5								
3.298	3.284	(0.562)	46	7875	5.00000	4.985	80.00- 120.00	100.00
3.326	3.284	(0.566)	45	37552			213.29- 273.29	476.85
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.326	3.326	(0.566)	74	14972	5.00000	4.703	80.00- 120.00	100.00
3.326	3.326	(0.566)	59	25425			143.51- 203.51	169.82
3.326	3.326	(0.566)	45	38389			143.53- 203.53	256.41
-----								
42 Acrolein CAS #: 107-02-8								
3.591	3.591	(0.612)	55	11814	5.00000	5.025	80.00- 120.00	100.00
3.605	3.591	(0.614)	56	17822			104.02- 164.02	150.85
-----								
43 Freon 113 CAS #: 76-13-1								
3.591	3.591	(0.612)	151	59546	5.00000	4.774	80.00- 120.00	100.00
3.591	3.591	(0.612)	153	37931			34.03- 94.03	63.70
3.591	3.591	(0.612)	101	71596			89.72- 149.72	120.24
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.619	3.619	(0.616)	96	32512	5.00000	4.562	80.00- 120.00	100.00
3.633	3.619	(0.619)	98	20944			32.85- 92.85	64.42
3.619	3.619	(0.616)	61	65640			165.91- 225.91	201.89
-----								
47 Acetone CAS #: 67-64-1								
3.801	3.787	(0.647)	58	19669	5.00000	4.934	80.00- 120.00	100.00
3.801	3.787	(0.647)	43	70560			325.09- 385.09	358.74
-----								
49 Iodomethane CAS #: 74-88-4								
3.843	3.829	(0.654)	142	53422	5.00000	3.905	80.00- 120.00	100.00
3.843	3.829	(0.654)	127	25725			16.98- 76.98	48.15
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.871	3.857	(0.659)	76	89771	5.00000	5.047	80.00- 120.00	100.00
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.969	3.941	(0.676)	45	74864	5.00000	4.905	80.00- 120.00	100.00
3.969	3.941	(0.676)	43	16230			0.00- 49.76	21.68
54 3-Chloropropene						CAS #: 107-05-1		
4.109	4.109	(0.700)	76	14972	5.00000	4.826	80.00- 120.00	100.00
4.109	4.109	(0.700)	41	52824			344.92- 404.92	352.82
57 Acetonitrile						CAS #: 75-05-8		
4.235	4.221	(0.721)	41	33966	5.00000	5.092	80.00- 120.00	100.00
4.235	4.221	(0.721)	40	19592			24.08- 84.08	57.68
4.235	4.221	(0.721)	38	4127			0.00- 42.84	12.15
59 Methylene Chloride						CAS #: 75-09-2		
4.305	4.291	(0.733)	49	51161	5.00000	5.158	80.00- 120.00	100.00
4.305	4.291	(0.733)	84	29030			27.95- 87.95	56.74
4.305	4.291	(0.733)	51	15242			0.78- 60.78	29.79
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.417	4.417	(0.752)	59	89652	5.00000	5.178	80.00- 120.00	100.00
4.417	4.417	(0.752)	41	20520			0.00- 52.58	22.89
4.417	4.417	(0.752)	57	10317			0.00- 40.94	11.51
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.529	4.515	(0.771)	73	92826	5.00000	4.902	80.00- 120.00	100.00
4.529	4.515	(0.771)	57	27138			0.00- 58.27	29.24
4.529	4.515	(0.771)	41	27712			0.00- 58.78	29.85
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.543	4.543	(0.774)	98	21938	5.00000	4.980	80.00- 120.00	100.00
4.543	4.543	(0.774)	61	58637			236.85- 296.85	267.29
4.543	4.543	(0.774)	96	34812			126.72- 186.72	158.68
66 Acrylonitrile						CAS #: 107-13-1		
4.655	4.655	(0.793)	52	26356	5.00000	4.278	80.00- 120.00	100.00
4.655	4.655	(0.793)	53	32047			88.92- 148.92	121.59
67 Hexane						CAS #: 110-54-3		
4.753	4.753	(0.809)	57	62178	5.00000	4.841	80.00- 120.00	100.00
4.753	4.753	(0.809)	43	40582			36.74- 96.74	65.27
4.753	4.753	(0.809)	86	8350			0.00- 43.22	13.43
72 Isopropyl ether						CAS #: 108-20-3		
5.033	5.019	(0.857)	45	142183	5.00000	5.140	80.00- 120.00	100.00
5.033	5.033	(0.857)	87	29713			0.00- 51.44	20.90
5.033	5.019	(0.857)	59	15669			0.00- 40.81	11.02

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
71 1,1-Dichloroethane						CAS #: 75-34-3		
5.047	5.047	(0.859)	63	66490	5.00000	4.856	80.00- 120.00	100.00
5.047	5.047	(0.859)	65	20525			0.56- 60.56	30.87
-----								
73 Vinyl Acetate						CAS #: 108-05-4		
5.089	5.089	(0.867)	86	8090	5.00000	4.770	80.00- 120.00	100.00
5.089	5.075	(0.867)	43	113940			1473.01-1533.01	1408.41
-----								
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.382	5.382	(0.917)	59	126901	5.00000	5.064	80.00- 120.00	100.00
5.396	5.382	(0.919)	87	43869			4.28- 64.28	34.57
5.382	5.382	(0.917)	41	26052			0.00- 49.94	20.53
-----								
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.592	5.592	(0.952)	77	64597	5.00000	5.062	80.00- 120.00	100.00
5.592	5.592	(0.952)	79	20294			2.43- 62.43	31.42
5.592	5.592	(0.952)	97	14846			0.00- 53.03	22.98
-----								
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.634	5.620	(0.959)	98	22548	5.00000	4.822	80.00- 120.00	100.00
5.634	5.620	(0.959)	96	34705			121.91- 181.91	153.92
5.634	5.620	(0.959)	61	78906			313.72- 373.72	349.95
-----								
86 2-Butanone						CAS #: 78-93-3		
5.662	5.648	(0.964)	72	17195	5.00000	5.067	80.00- 120.00	100.00
5.662	5.662	(0.964)	43	195967			1111.25-1171.25	1139.67
5.662	5.648	(0.964)	57	7902			11.22- 71.22	45.96
-----								
87 Ethyl Acetate						CAS #: 141-78-6		
5.662	5.662	(0.964)	45	16249	5.00000	4.897	80.00- 120.00	100.00
5.634	5.620	(0.959)	61	78906			469.17- 529.17	485.61
5.662	5.662	(0.964)	70	9971			29.38- 89.38	61.36
-----								
89 Tetrahydrofuran						CAS #: 109-99-9		
5.872	5.858	(1.000)	42	47691	5.00000	4.462	80.00- 120.00	100.00
5.872	5.858	(1.000)	71	14706			0.09- 60.09	30.84
5.872	5.858	(1.000)	72	16666			2.13- 62.13	34.95
-----								
* 90 Bromochloromethane						CAS #: 74-97-5		
5.872	5.858	(1.000)	130	206630	25.0000		80.00- 120.00	100.00
5.872	5.858	(1.000)	128	160169			47.29- 107.29	77.51
5.858	5.858	(1.000)	49	312487			122.83- 182.83	151.23
-----								
92 Chloroform						CAS #: 67-66-3		
5.914	5.914	(1.007)	83	73517	5.00000	4.892	80.00- 120.00	100.00
5.914	5.914	(1.007)	85	46522			34.29- 94.29	63.28
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
94 Cyclohexane						CAS #: 110-82-7		
6.026	6.026	(1.026)	84	43912	5.00000	4.778	80.00- 120.00	100.00
6.026	6.026	(1.026)	56	65429			116.85- 176.85	149.00
6.026	6.026	(1.026)	41	37904			57.77- 117.77	86.32
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
6.054	6.054	(1.031)	97	79405	5.00000	4.881	80.00- 120.00	100.00
6.054	6.054	(1.031)	99	50910			34.55- 94.55	64.11
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.166	6.166	(1.050)	119	77251	5.00000	5.037	80.00- 120.00	100.00
6.166	6.166	(1.050)	117	81932			74.20- 134.20	106.06
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.194	6.194	(0.918)	110	18873	5.00000	4.804	80.00- 120.00	100.00
6.194	6.194	(0.918)	75	51213			229.39- 289.39	271.36
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.362	6.348	(1.083)	57	196101	5.00000	4.805	80.00- 120.00	100.00
6.362	6.348	(1.083)	56	60762			1.14- 61.14	30.99
6.362	6.348	(1.083)	41	59643			0.00- 59.12	30.41
102 Benzene						CAS #: 71-43-2		
6.390	6.376	(0.947)	78	95990	5.00000	4.776	80.00- 120.00	100.00
6.390	6.376	(0.947)	77	23349			0.00- 53.48	24.32
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.404	6.404	(1.091)	65	287725	25.0000	24.982	80.00- 120.00	100.00
6.404	6.404	(1.091)	67	136861			20.51- 80.51	47.57
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.446	6.446	(0.955)	87	25449	5.00000	5.039	80.00- 120.00	100.00
6.446	6.446	(0.955)	73	98016			363.80- 423.80	385.15
6.446	6.432	(0.955)	55	33103			97.13- 157.13	130.08
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.474	6.474	(0.959)	62	58374	5.00000	4.876	80.00- 120.00	100.00
6.474	6.474	(0.959)	64	18829			1.41- 61.41	32.26
107 Heptane						CAS #: 142-82-5		
6.516	6.516	(0.965)	71	38317	5.00000	5.048	80.00- 120.00	100.00
6.516	6.516	(0.965)	43	85238			146.45- 206.45	222.45
6.516	6.516	(0.965)	57	47944			90.20- 150.20	125.12
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.750	6.750	(1.000)	114	744672	25.0000		80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene (continued)								
6.750	6.750	(1.000)	88	111620			0.00- 45.09	14.99
-----								
110 n-Butanol						CAS #: 71-36-3		
6.893	6.893	(1.021)	56	35430	5.00000	5.154	80.00- 120.00	100.00
6.893	6.886	(1.021)	41	27036			44.46- 104.46	76.31
6.893	6.886	(1.021)	43	20349			28.14- 88.14	57.43
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.950	6.943	(1.030)	95	47122	5.00000	4.846	80.00- 120.00	100.00
6.950	6.950	(1.030)	130	51551			79.68- 139.68	109.40
6.950	6.943	(1.030)	97	30640			34.74- 94.74	65.02
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
7.058	7.051	(1.046)	83	57666	5.00000	4.768	80.00- 120.00	100.00
7.058	7.051	(1.046)	98	26919			17.10- 77.10	46.68
7.058	7.051	(1.046)	55	60673			71.11- 131.11	105.21
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.194	7.187	(1.066)	63	42559	5.00000	4.749	80.00- 120.00	100.00
7.194	7.187	(1.066)	62	30010			40.55- 100.55	70.51
7.194	7.187	(1.066)	41	31749			36.07- 96.07	74.60
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.237	7.230	(0.786)	69	38285	5.00000	4.993	80.00- 120.00	100.00
7.230	7.230	(0.785)	41	68694			160.67- 220.67	179.43
7.237	7.230	(0.786)	100	15088			11.33- 71.33	39.41
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.280	7.273	(1.079)	88	27390	5.00000	4.954	80.00- 120.00	100.00
7.273	7.273	(1.077)	58	24395			56.19- 116.19	89.07
7.280	7.273	(1.079)	57	8773			0.00- 59.32	32.03
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.301	7.294	(0.793)	174	43651	5.00000	4.745	80.00- 120.00	100.00
7.301	7.294	(0.793)	93	42901			66.88- 126.88	98.28
7.301	7.294	(0.793)	95	35375			49.90- 109.90	81.04
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.409	7.409	(1.098)	83	78706	5.00000	4.865	80.00- 120.00	100.00
7.409	7.409	(1.098)	85	49778			33.85- 93.85	63.25
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.702	7.702	(1.141)	63	78715	5.00000	5.000	80.00- 120.00	100.00
7.702	7.702	(1.141)	65	23793			0.05- 60.05	30.23
7.710	7.702	(1.142)	144	8407			0.00- 40.91	10.68
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.788	7.781	(1.154)	75	58010	5.00000	4.722	80.00- 120.00	100.00
7.781	7.781	(1.153)	77	19526			1.50- 61.50	33.66
7.781	7.781	(1.153)	39	42167			43.12- 103.12	72.69
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.889	7.889	(1.169)	58	40735	5.00000	4.686	80.00- 120.00	100.00
7.889	7.889	(1.169)	43	115597			247.84- 307.84	283.78
7.896	7.889	(1.170)	85	16369			8.73- 68.73	40.18
-----								
\$ 134 Toluene-d8						CAS #: 2037-26-5		
7.975	7.967	(1.181)	98	755078	25.0000	25.068	80.00- 120.00	100.00
7.975	7.967	(1.181)	70	99554			0.00- 42.00	13.18
7.975	7.967	(1.181)	100	502742			37.14- 97.14	66.58
-----								
136 Octane						CAS #: 111-65-9		
8.011	8.010	(1.187)	57	40119	5.00000	4.511	80.00- 120.00	100.00
8.011	8.010	(1.187)	85	40305			67.77- 127.77	100.46
8.011	8.010	(1.187)	43	105380			225.27- 285.27	262.67
-----								
137 Toluene						CAS #: 108-88-3		
8.025	8.025	(1.189)	91	127277	5.00000	4.844	80.00- 120.00	100.00
8.025	8.025	(1.189)	92	73040			28.13- 88.13	57.39
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.261	8.254	(0.897)	75	57023	5.00000	4.653	80.00- 120.00	100.00
8.261	8.254	(0.897)	77	18839			1.93- 61.93	33.04
8.261	8.254	(0.897)	39	40289			38.37- 98.37	70.65
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.419	8.419	(0.914)	97	43392	5.00000	4.752	80.00- 120.00	100.00
8.419	8.419	(0.914)	99	26766			31.66- 91.66	61.68
8.419	8.419	(0.914)	83	38003			55.24- 115.24	87.58
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.462	8.462	(0.919)	166	64369	5.00000	4.832	80.00- 120.00	100.00
8.462	8.462	(0.919)	129	51738			48.51- 108.51	80.38
8.462	8.462	(0.919)	131	48591			45.64- 105.64	75.49
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.569	8.569	(1.270)	76	60429	5.00000	4.579	80.00- 120.00	100.00
8.569	8.569	(1.270)	41	77186			96.83- 156.83	127.73
8.569	8.569	(1.270)	78	20583			2.46- 62.46	34.06
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.576	8.576	(0.932)	58	64272	5.00000	5.008	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone (continued)								
8.576	8.576	(0.932)	43	131037			169.24- 229.24	203.88
8.576	8.576	(0.932)	100	11615			0.00- 48.72	18.07
-----								
146 Dibromochloromethane CAS #: 124-48-1								
8.734	8.734	(0.949)	129	87377	5.00000	4.882	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	66603			47.05- 107.05	76.22
-----								
148 1,2-Dibromoethane (EDB) CAS #: 106-93-4								
8.863	8.856	(0.963)	107	69377	5.00000	4.702	80.00- 120.00	100.00
8.863	8.856	(0.963)	109	64935			64.74- 124.74	93.60
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	706535	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	376479			23.62- 83.62	53.29
-----								
154 Chlorobenzene CAS #: 108-90-7								
9.235	9.235	(1.003)	112	107938	5.00000	4.764	80.00- 120.00	100.00
9.235	9.235	(1.003)	114	35444			2.19- 62.19	32.84
9.235	9.228	(1.003)	77	66391			23.66- 83.66	61.51
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.278	9.278	(1.008)	106	53665	5.00000	4.813	80.00- 120.00	100.00
9.278	9.278	(1.008)	91	166884			282.43- 342.43	310.97
-----								
156 Nonane CAS #: 111-84-2								
9.278	9.278	(1.008)	43	109022	5.00000	4.839	80.00- 120.00	100.00
9.278	9.278	(1.008)	57	91498			55.73- 115.73	83.93
9.278	9.278	(1.008)	85	30602			0.00- 58.99	28.07
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.379	9.371	(1.019)	106	65711	5.00000	4.810	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	131077			169.66- 229.66	199.47
-----								
164 o-Xylene CAS #: 95-47-6								
9.722	9.722	(1.056)	106	61816	5.00000	4.800	80.00- 120.00	100.00
9.722	9.722	(1.056)	91	131584			180.55- 240.55	212.86
-----								
165 Styrene CAS #: 100-42-5								
9.737	9.737	(1.058)	104	103530	5.00000	4.628	80.00- 120.00	100.00
9.737	9.737	(1.058)	78	52159			18.65- 78.65	50.38
-----								
167 Bromoform CAS #: 75-25-2								
9.945	9.944	(1.080)	173	80205	5.00000	4.738	80.00- 120.00	100.00
9.945	9.944	(1.080)	171	41265			21.64- 81.64	51.45
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.009	10.009	(1.087)	105	195672	5.00000	4.750	80.00- 120.00	100.00
10.009	10.009	(1.087)	120	53550			0.00- 57.04	27.37
10.009	10.009	(1.087)	51	24258			0.00- 41.95	12.40
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.188	10.188	(1.107)	55	94898	5.00000	4.732	80.00- 120.00	100.00(a)
10.188	10.188	(1.107)	98	34025			8.59- 68.59	35.85
10.188	10.188	(1.107)	42	69535			46.18- 106.18	73.27
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.202	10.202	(1.108)	174	462392	25.0000	24.965	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	566709			92.25- 152.25	122.56
10.202	10.202	(1.108)	176	433124			63.07- 123.07	93.67
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
10.317	10.317	(1.121)	83	96242	5.00000	4.739	80.00- 120.00	100.00
10.317	10.317	(1.121)	85	62545			34.44- 94.44	64.99
-----								
177 Bromobenzene						CAS #: 108-86-1		
10.346	10.338	(1.124)	156	63434	5.00000	4.877	80.00- 120.00	100.00
10.346	10.346	(1.124)	158	62742			67.20- 127.20	98.91
10.338	10.338	(1.123)	77	133190			131.36- 191.36	209.97
-----								
178 Propylbenzene						CAS #: 103-65-1		
10.360	10.360	(1.125)	120	55626	5.00000	4.688	80.00- 120.00	100.00
10.360	10.360	(1.125)	91	238583	5.00000	4.859	385.23- 445.23	428.91
10.360	10.360	(1.125)	105	9199			0.00- 46.02	16.54
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
10.381	10.374	(1.128)	53	25123	5.00000	4.756	80.00- 120.00	100.00
10.374	10.374	(1.127)	89	16833			40.38- 100.38	67.00
10.381	10.381	(1.128)	75	98574			394.61- 454.61	392.37
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
10.381	10.389	(1.128)	110	29874	5.00000	4.577	80.00- 120.00	100.00
10.381	10.381	(1.128)	75	97951			301.57- 361.57	327.88
10.381	10.381	(1.128)	61	28397			54.32- 114.32	95.06
-----								
182 Decane						CAS #: 124-18-5		
10.396	10.396	(1.129)	57	124095	5.00000	4.355	80.00- 120.00	100.00
10.396	10.396	(1.129)	71	41818			2.98- 62.98	33.70
10.396	10.396	(1.129)	142	6060			0.00- 35.12	4.88
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
10.453	10.453	(1.135)	120	61138	5.00000	4.757	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
10.453	10.453	(1.135)	105	205774			295.29- 355.29	336.57
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
10.482	10.482	(1.138)	126	52014	5.00000	4.884	80.00- 120.00	100.00
10.482	10.482	(1.138)	91	180888			325.01- 385.01	347.77
10.482	10.482	(1.138)	65	23773			19.90- 79.90	45.71
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
10.503	10.503	(1.141)	120	86381	5.00000	4.891	80.00- 120.00	100.00
10.503	10.503	(1.141)	105	169144			176.14- 236.14	195.81
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
10.711	10.704	(1.163)	118	84185	5.00000	4.870	80.00- 120.00	100.00
10.711	10.704	(1.163)	103	48451			26.69- 86.69	57.55
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
10.783	10.783	(1.171)	119	160998	5.00000	4.858	80.00- 120.00	100.00
10.783	10.783	(1.171)	134	40223			0.00- 54.52	24.98
10.783	10.783	(1.171)	91	109375			34.68- 94.68	67.94
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
10.833	10.833	(1.177)	105	166280	5.00000	4.833	80.00- 120.00	100.00
10.833	10.833	(1.177)	120	77726			17.12- 77.12	46.74
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
10.969	10.969	(1.191)	134	52197	5.00000	4.684	80.00- 120.00	100.00
10.969	10.969	(1.191)	105	240713			438.96- 498.96	461.16
10.969	10.969	(1.191)	91	38005			44.37- 104.37	72.81
-----								
194 p-Cymene CAS #: 99-87-6								
11.083	11.083	(1.204)	119	216306	5.00000	4.752	80.00- 120.00	100.00
11.083	11.083	(1.204)	134	57558			0.00- 56.91	26.61
11.083	11.083	(1.204)	91	53108			0.00- 53.86	24.55
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
11.134	11.134	(1.209)	146	117961	5.00000	4.794	80.00- 120.00	100.00
11.134	11.134	(1.209)	148	75646			33.78- 93.78	64.13
11.134	11.134	(1.209)	111	49025			11.40- 71.40	41.56
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
11.212	11.212	(1.218)	146	120603	5.00000	4.794	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	75878			33.73- 93.73	62.92
11.212	11.212	(1.218)	111	47747			9.40- 69.40	39.59
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
11.334	11.334	(1.231)	91	162656	5.00000	4.795	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
11.334	11.334	(1.231)	126	37261			0.00- 52.58	22.91
-----								
201 Undecane CAS #: 1120-21-4								
11.406	11.406	(1.239)	57	143839	5.00000	4.675	80.00- 120.00	100.00
11.406	11.406	(1.239)	43	136406			62.03- 122.03	94.83
-----								
202 Butylbenzene CAS #: 104-51-8								
11.434	11.434	(1.242)	134	58703	5.00000	4.808	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	206999			322.91- 382.91	352.62
11.434	11.434	(1.242)	92	105908			155.43- 215.43	180.41
-----								
204 1,2-Dichlorobenzene CAS #: 95-50-1								
11.549	11.549	(1.254)	146	115002	5.00000	4.810	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	74460			33.66- 93.66	64.75
11.549	11.549	(1.254)	111	49328			12.36- 72.36	42.89
-----								
206 1,2-Dibromo-3-chloropropane CAS #: 96-12-8								
12.258	12.258	(1.331)	157	73327	5.00000	4.998	80.00- 120.00	100.00
12.258	12.258	(1.331)	75	65016			56.77- 116.77	88.67
12.258	12.258	(1.331)	155	55380			48.17- 108.17	75.52
-----								
207 Dodecane CAS #: 112-40-3								
12.358	12.358	(1.342)	57	158723	6.18000	5.858	80.00- 120.00	100.00
12.358	12.358	(1.342)	43	139026			56.62- 116.62	87.59
-----								
213 1,2,4-Trichlorobenzene CAS #: 120-82-1								
13.039	13.039	(1.416)	180	114885	6.29500	6.116	80.00- 120.00	100.00
13.039	13.039	(1.416)	182	110671			64.88- 124.88	96.33
-----								
215 Hexachlorobutadiene CAS #: 87-68-3								
13.132	13.132	(1.426)	225	85024	6.43500	6.341	80.00- 120.00	100.00
13.132	13.132	(1.426)	223	53685			33.46- 93.46	63.14
-----								
216 Naphthalene CAS #: 91-20-3								
13.340	13.340	(1.449)	128	32420	0.63500	0.6120	80.00- 120.00	100.00
13.340	13.340	(1.449)	127	5184			0.00- 43.71	15.99
-----								
222 1,2,3-Trichlorobenzene CAS #: 87-61-6								
13.619	13.619	(1.479)	180	116033	6.65500	6.671	80.00- 120.00	100.00
13.619	13.619	(1.479)	182	110858			66.23- 126.23	95.54
13.619	13.612	(1.479)	145	40961			5.93- 65.93	35.30
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
AREA AND RT SUMMARY

Instrument ID: msd3.i  
Lab File ID: 3081206.d  
Lab Smp Id: ICAL Level #7  
Analysis Type: VOA  
Quant Type: ISTD  
Operator: LD  
Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
Misc Info: 5.0ppbv(5.0ppbv)

Calibration Date: 12-AUG-2021  
Calibration Time: 19:05  
Level: LOW  
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	206630	-10.12
108 1,4-Difluorobenze	822152	493291	1151013	744672	-9.42
153 Chlorobenzene-d5	775771	465463	1086079	706535	-8.92

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.87	0.24
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

Date : 12-AUG-2021 18:11

Client ID:

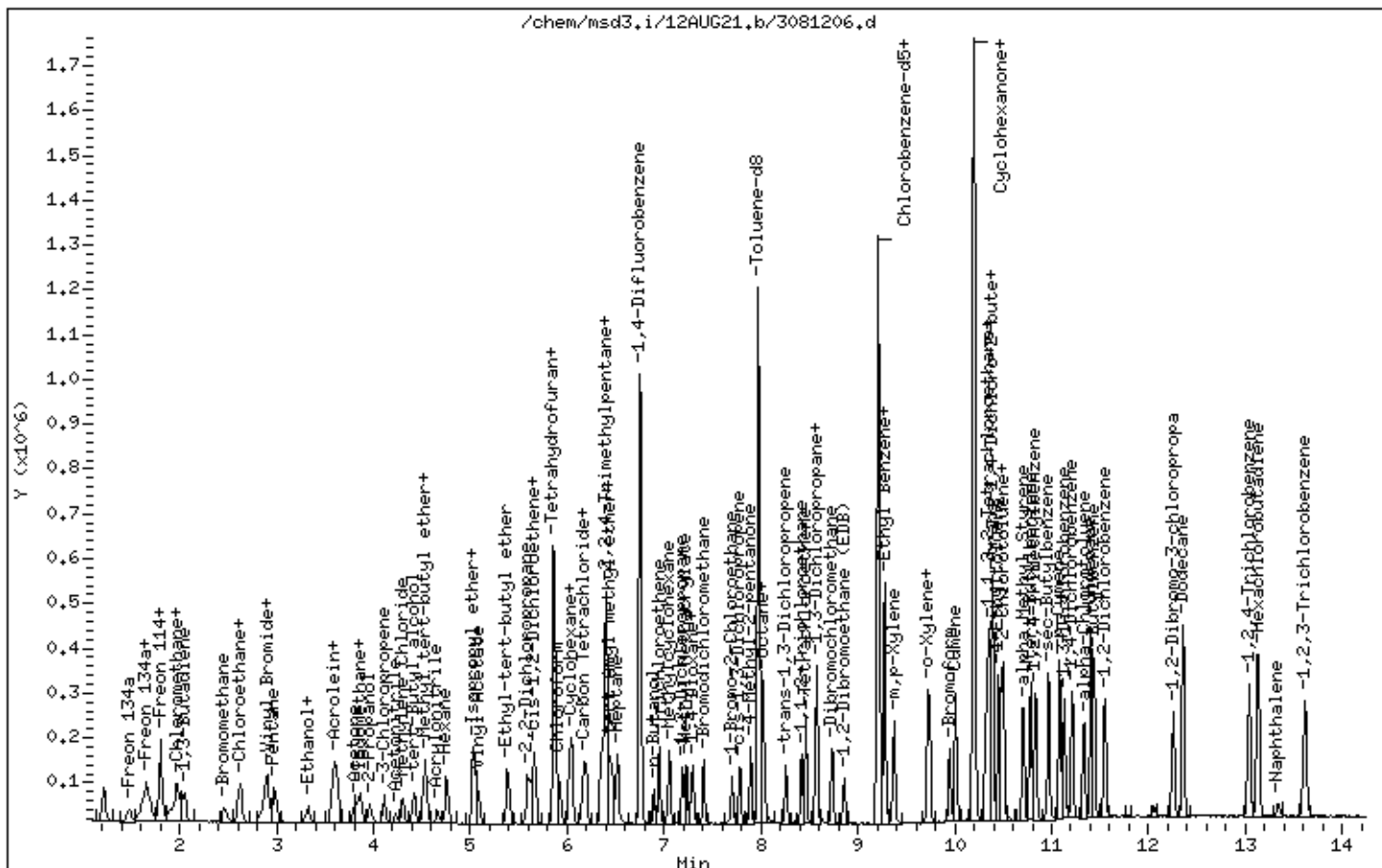
Instrument: msd3,i

Sample Info: 200ml 3018-2220

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081217.d  
Lab Smp Id: ICAL Level #7  
Inj Date : 13-AUG-2021 00:09  
Operator : gh Inst ID: msd3.i  
Smp Info : 200ml #3018-2128  
Misc Info : 5.0ppbv(5.0ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 12:38 ugdc Quant Type: ISTD  
Cal Date : 13-AUG-2021 00:09 Cal File: 3081217.d  
Als bottle: 2 Calibration Sample, Level: 7  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.872	5.858	(1.000)	130	213482	25.0000		80.00- 120.00	100.00
5.872	5.858	(1.000)	128	168028			47.29- 107.29	78.71
5.858	5.858	(1.000)	49	334660			122.83- 182.83	156.76
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.750	6.750	(1.000)	114	784277	25.0000		80.00- 120.00	100.00
6.750	6.750	(1.000)	88	117918			0.00- 45.09	15.04
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	733807	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	394059			23.62- 83.62	53.70
-----								
3 Freon 143a CAS #: 420-46-2								
1.535	1.520	(0.261)	65	22261	5.00000	4.874	80.00- 120.00	100.00
1.521	1.520	(0.259)	69	50627			217.09- 277.09	227.42
1.535	1.520	(0.261)	64	6266			0.00- 55.87	28.15
-----								
6 Propane CAS #: 74-98-6								
1.619	1.618	(0.276)	43	11414	5.00000	5.121	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.633	1.618	(0.278)	39	8791			41.62- 101.62	77.02
1.619	1.618	(0.276)	41	7463			22.97- 82.97	65.38
-----								
13 Freon 142b								
						CAS #: 75-68-3		
1.842	1.842	(0.314)	65	72455	5.00000	5.063	80.00- 120.00	100.00
1.842	1.842	(0.314)	45	18395			0.00- 58.17	25.39
-----								
36 1-Pentene								
						CAS #: 109-67-1		
2.920	2.920	(0.497)	55	40203	5.00000	4.934	80.00- 120.00	100.00(a)
2.920	2.920	(0.497)	42	54560			99.17- 159.17	135.71
-----								
40 Freon 123a								
						CAS #: 354-23-4		
3.423	3.423	(0.583)	117	51233	5.00000	5.087	80.00- 120.00	100.00(a)
3.423	3.423	(0.583)	67	65762			103.13- 163.13	128.36
-----								
41 Freon 123								
						CAS #: 306-83-2		
3.521	3.521	(0.600)	83	72400	5.00000	5.105	80.00- 120.00	100.00
3.521	3.521	(0.600)	133	16301			0.00- 51.81	22.52
3.521	3.521	(0.600)	85	46879			37.13- 97.13	64.75
-----								
55 Cyclopentene								
						CAS #: 142-29-0		
4.123	4.123	(0.702)	67	72818	5.00000	5.048	80.00- 120.00	100.00
4.123	4.123	(0.702)	68	27291			7.90- 67.90	37.48
4.123	4.123	(0.702)	53	19523			0.00- 54.87	26.81
-----								
56 Methyl Acetate								
						CAS #: 79-20-9		
4.165	4.151	(0.709)	43	77180	5.00000	4.969	80.00- 120.00	100.00(a)
4.165	4.151	(0.709)	74	13165			0.00- 47.15	17.06
-----								
74 Chloroprene								
						CAS #: 126-99-8		
5.102	5.088	(0.869)	53	63391	5.00000	4.891	80.00- 120.00	100.00
5.102	5.102	(0.869)	88	25786			12.33- 72.33	40.68
5.102	5.088	(0.869)	50	19839			0.00- 57.62	31.30
-----								
75 1-Propanol								
						CAS #: 71-23-8		
5.172	5.158	(0.881)	59	8670	5.00000	4.830	80.00- 120.00	100.00
5.158	5.158	(0.878)	42	8555			53.89- 113.89	98.67
5.158	5.158	(0.878)	41	4938			24.09- 84.09	56.96
-----								
88 Methyl Acrylate								
						CAS #: 96-33-3		
5.718	5.718	(0.974)	55	74515	5.00000	4.935	80.00- 120.00	100.00(a)
5.718	5.718	(0.974)	85	10565			0.00- 43.24	14.18
5.718	5.718	(0.974)	58	6758			0.00- 38.83	9.07
-----								
103 Isobutanol								
						CAS #: 78-83-1		
6.320	6.320	(1.076)	39	11713	5.00000	5.022	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.320	6.320	(1.076)	43	40059			327.69- 387.69	342.00
6.320	6.320	(1.076)	41	29859			237.56- 297.56	254.92
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
7.036	7.036	(0.764)	99	6114	5.00000	5.027	80.00- 120.00	100.00
7.036	7.036	(0.764)	45	10010			124.67- 184.67	163.72
7.036	7.036	(0.764)	55	96182			1601.30-1661.30	1573.14
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.136	7.129	(0.775)	43	117593	5.00000	4.880	80.00- 120.00	100.00
7.136	7.129	(0.775)	58	8941			0.00- 37.25	7.60
7.136	7.136	(0.775)	86	17669			0.00- 45.08	15.03
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.626	8.626	(1.278)	56	53293	5.00000	4.957	80.00- 120.00	100.00(a)
8.626	8.626	(1.278)	73	18844			5.16- 65.16	35.36
8.634	8.626	(1.279)	43	131803			214.00- 274.00	247.32
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.300	9.300	(1.010)	131	59940	5.00000	4.758	80.00- 120.00	100.00
9.207	9.207	(1.000)	117	733807			38.22- 98.22	1224.24
9.293	9.293	(1.009)	95	22920			7.54- 67.54	38.24
-----								
166 2-Heptanone						CAS #: 110-43-0		
9.801	9.801	(1.669)	58	77790	5.00000	4.944	80.00- 120.00	100.00
9.801	9.801	(1.669)	43	139409			133.36- 193.36	179.21
-----								
172 D-Limonene						CAS #: 5989-27-5		
11.033	11.033	(1.198)	68	50149	5.00000	4.406	80.00- 120.00	100.00
11.033	11.033	(1.198)	93	36616			42.08- 102.08	73.01
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
10.582	10.582	(1.149)	126	53627	5.00000	4.851	80.00- 120.00	100.00
10.575	10.575	(1.149)	91	169965			305.94- 365.94	316.94
10.575	10.575	(1.149)	63	24457			15.44- 75.44	45.61
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
11.212	11.212	(1.218)	120	69618	5.00000	4.826	80.00- 120.00	100.00(a)
11.212	11.212	(1.218)	105	165079			206.43- 266.43	237.12
11.212	11.212	(1.218)	77	19879			0.00- 58.29	28.55
-----								
205 Hexachloroethane						CAS #: 67-72-1		
11.735	11.728	(1.275)	201	34870	5.00000	4.322	80.00- 120.00	100.00
11.728	11.728	(1.274)	117	47661			109.77- 169.77	136.68
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
12.387	12.387	(1.345)	180	108549	5.00000	4.881	80.00- 120.00	100.00
12.387	12.387	(1.345)	182	102960			65.79- 125.79	94.85
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.973	9.973	(1.083)	93	110681	5.00000	4.782	80.00- 120.00	100.00
9.966	9.973	(1.082)	77	34990			0.13- 60.13	31.61
-----								
214 beta-Pinene						CAS #: 127-91-3		
10.560	10.560	(1.147)	93	77837	5.00000	4.617	80.00- 120.00	100.00
10.575	10.575	(1.149)	91	169965			145.95- 205.95	218.36
-----								

QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081217.d  
 Lab Smp Id: ICAL Level #7  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 5.0ppbv(5.0ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	213482	-7.14
108 1,4-Difluorobenze	822152	493291	1151013	784277	-4.61
153 Chlorobenzene-d5	775771	465463	1086079	733807	-5.41

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.87	0.24
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Date : 13-AUG-2021 00:09

Client ID:

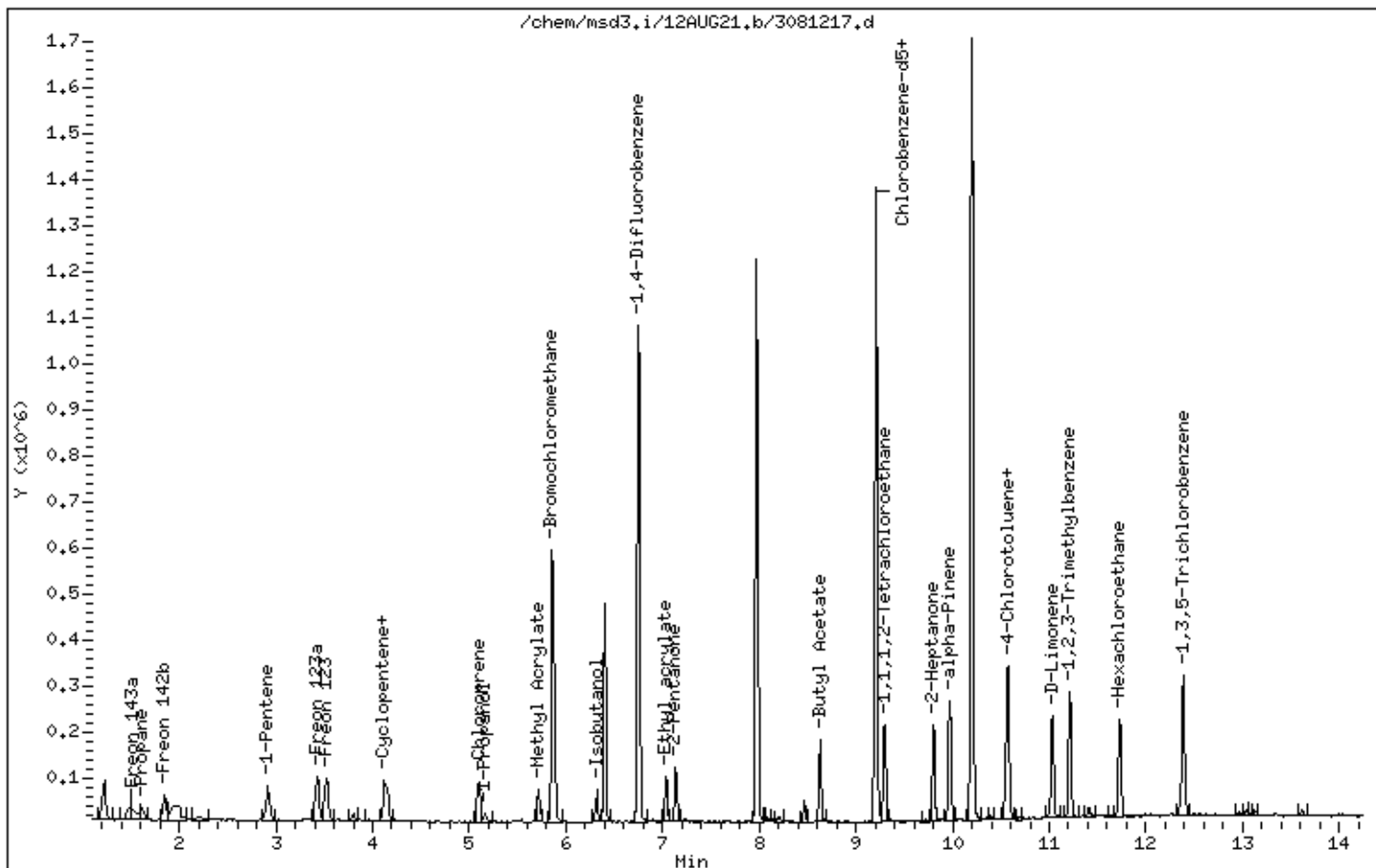
Instrument: msd3,i

Sample Info: 200ml #3018-2128

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081207.d  
Lab Smp Id: ICAL Level #8  
Inj Date : 12-AUG-2021 18:37  
Operator : LD Inst ID: msd3.i  
Smp Info : 20ml 3018-2213  
Misc Info : 20ppbv(200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 08:08 ugdc Quant Type: ISTD  
Cal Date : 12-AUG-2021 18:37 Cal File: 3081207.d  
Als bottle: 13 Calibration Sample, Level: 8  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.562	1.577	(0.267)	83	130288 20.0000	19.713	80.00- 120.00	100.00	
1.562	1.577	(0.267)	69	106559		50.75- 110.75	81.79	
1.562	1.577	(0.267)	51	27718		0.00- 49.76	21.27	
-----								
5 Propylene CAS #: 115-07-1								
1.618	1.619	(0.276)	41	126615 20.0000	19.777	80.00- 120.00	100.00	
1.618	1.619	(0.276)	42	85109		36.66- 96.66	67.22	
1.618	1.619	(0.276)	39	94986		44.11- 104.11	75.02	
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.632	1.633	(0.279)	65	79119 20.0000	19.458	80.00- 120.00	100.00	
1.632	1.633	(0.279)	51	206701		217.13- 277.13	261.25	
1.632	1.633	(0.279)	47	62553		48.77- 108.77	79.06	
-----								
8 Freon 12 CAS #: 75-71-8								
1.646	1.661	(0.281)	85	347963 20.0000	19.376	80.00- 120.00	100.00	
1.646	1.661	(0.281)	87	108732		2.35- 62.35	31.25	
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.688	1.689	(0.288)	67	39433 20.0000	16.717	80.00- 120.00	100.00	

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.688	1.689	(0.288)	51	273129			710.68- 770.68	692.64
-----								
10 Freon 114 CAS #: 76-14-2								
1.786	1.800	(0.305)	135	262123	20.0000	19.094	80.00- 120.00	100.00
1.786	1.800	(0.305)	137	83887			2.06- 62.06	32.00
-----								
12 Isobutane CAS #: 75-28-5								
1.800	1.800	(0.307)	43	285782	20.0000	19.768	80.00- 120.00	100.00
1.800	1.800	(0.307)	42	94188			2.70- 62.70	32.96
1.800	1.800	(0.307)	58	9934			0.00- 33.44	3.48
-----								
15 Chloromethane CAS #: 74-87-3								
1.884	1.884	(0.322)	50	150485	20.0000	19.054	80.00- 120.00	100.00
1.884	1.884	(0.322)	52	50750			3.38- 63.38	33.72
-----								
18 Butane CAS #: 106-97-8								
1.968	1.968	(0.336)	58	34410	20.0000	17.822	80.00- 120.00	100.00
1.968	1.968	(0.336)	43	260570			760.51- 820.51	757.25
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.010	2.010	(0.343)	62	148630	20.0000	17.031	80.00- 120.00	100.00
2.010	2.010	(0.343)	64	45366			0.32- 60.32	30.52
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.038	2.038	(0.348)	54	127918	20.0000	14.938	80.00- 120.00	100.00
2.038	2.038	(0.348)	39	137610			72.94- 132.94	107.58
-----								
24 Bromomethane CAS #: 74-83-9								
2.458	2.458	(0.420)	94	111026	20.0000	16.973	80.00- 120.00	100.00
2.458	2.458	(0.420)	96	105398			63.18- 123.18	94.93
-----								
30 Chloroethane CAS #: 75-00-3								
2.584	2.598	(0.441)	64	74459	20.0000	19.527	80.00- 120.00	100.00
2.584	2.598	(0.441)	66	23124			1.10- 61.10	31.06
2.584	2.598	(0.441)	49	26622			5.46- 65.46	35.75
-----								
31 Isopentane CAS #: 78-78-4								
2.626	2.626	(0.448)	43	198409	20.0000	20.260	80.00- 120.00	100.00
2.626	2.626	(0.448)	57	128769			36.12- 96.12	64.90
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.836	2.836	(0.484)	106	134372	20.0000	19.476	80.00- 120.00	100.00
2.836	2.836	(0.484)	108	125101			63.01- 123.01	93.10
-----								
33 Freon 11 CAS #: 75-69-4								
2.892	2.892	(0.494)	101	391269	20.0000	19.528	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.892	2.892	(0.494)	103	252754			36.55- 96.55	64.60
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.892	2.906	(0.494)	67	298800	20.0000	19.568	80.00- 120.00	100.00
2.892	2.906	(0.494)	69	96314			1.82- 61.82	32.23
-----								
35 Pentane CAS #: 109-66-0								
2.976	2.976	(0.508)	43	305371	20.0000	18.731	80.00- 120.00	100.00
2.976	2.976	(0.508)	57	47341			0.00- 45.52	15.50
2.976	2.976	(0.508)	72	25656			0.00- 38.25	8.40
-----								
39 Ethanol CAS #: 64-17-5								
3.269	3.284	(0.558)	46	30176	20.0000	18.304	80.00- 120.00	100.00
3.269	3.284	(0.558)	45	67779			213.29- 273.29	224.61
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.325	3.326	(0.568)	74	63269	20.0000	18.798	80.00- 120.00	100.00
3.325	3.326	(0.568)	59	110145			143.51- 203.51	174.09
3.325	3.326	(0.568)	45	103518			143.53- 203.53	163.62
-----								
42 Acrolein CAS #: 107-02-8								
3.591	3.591	(0.613)	55	48570	20.0000	19.433	80.00- 120.00	100.00
3.591	3.591	(0.613)	56	67873			104.02- 164.02	139.74
-----								
43 Freon 113 CAS #: 76-13-1								
3.591	3.591	(0.613)	151	260052	20.0000	19.521	80.00- 120.00	100.00
3.591	3.591	(0.613)	153	165286			34.03- 94.03	63.56
3.591	3.591	(0.613)	101	312174			89.72- 149.72	120.04
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.619	3.619	(0.618)	96	136490	20.0000	18.176	80.00- 120.00	100.00
3.619	3.619	(0.618)	98	87725			32.85- 92.85	64.27
3.619	3.619	(0.618)	61	272521			165.91- 225.91	199.66
-----								
47 Acetone CAS #: 67-64-1								
3.787	3.787	(0.646)	58	83140	20.0000	19.572	80.00- 120.00	100.00
3.787	3.787	(0.646)	43	291609			325.09- 385.09	350.74
-----								
49 Iodomethane CAS #: 74-88-4								
3.829	3.829	(0.654)	142	391689	20.0000	24.626	80.00- 120.00	100.00
3.829	3.829	(0.654)	127	182665			16.98- 76.98	46.64
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.857	3.857	(0.658)	76	373525	20.0000	19.675	80.00- 120.00	100.00
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.955	3.941	(0.675)	45	316574	20.0000	19.493	80.00- 120.00	100.00
3.955	3.941	(0.675)	43	65403			0.00- 49.76	20.66
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.109	4.109	(0.701)	76	62614	20.0000	19.035	80.00- 120.00	100.00
4.109	4.109	(0.701)	41	225950			344.92- 404.92	360.86
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.221	4.221	(0.721)	41	140655	20.0000	19.737	80.00- 120.00	100.00
4.221	4.221	(0.721)	40	72924			24.08- 84.08	51.85
4.221	4.221	(0.721)	38	16703			0.00- 42.84	11.88
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.291	4.291	(0.732)	49	210058	20.0000	19.802	80.00- 120.00	100.00
4.291	4.291	(0.732)	84	120534			27.95- 87.95	57.38
4.291	4.291	(0.732)	51	63435			0.78- 60.78	30.20
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.417	4.417	(0.754)	59	368177	20.0000	19.862	80.00- 120.00	100.00
4.417	4.417	(0.754)	41	87210			0.00- 52.58	23.69
4.417	4.417	(0.754)	57	42679			0.00- 40.94	11.59
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.515	4.515	(0.771)	73	402445	20.0000	19.845	80.00- 120.00	100.00
4.515	4.515	(0.771)	57	113834			0.00- 58.27	28.29
4.515	4.515	(0.771)	41	117068			0.00- 58.78	29.09
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.543	4.543	(0.775)	98	91867	20.0000	19.528	80.00- 120.00	100.00
4.543	4.543	(0.775)	61	247690			236.85- 296.85	269.62
4.543	4.543	(0.775)	96	142703			126.72- 186.72	155.34
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.655	4.655	(0.795)	52	108695	20.0000	16.944	80.00- 120.00	100.00
4.655	4.655	(0.795)	53	128479			88.92- 148.92	118.20
-----								
67 Hexane						CAS #: 110-54-3		
4.753	4.753	(0.811)	57	262435	20.0000	19.195	80.00- 120.00	100.00
4.753	4.753	(0.811)	43	175608			36.74- 96.74	66.91
4.753	4.753	(0.811)	86	33620			0.00- 43.22	12.81
-----								
72 Isopropyl ether						CAS #: 108-20-3		
5.018	5.019	(0.857)	45	609179	20.0000	20.389	80.00- 120.00	100.00
5.032	5.033	(0.859)	87	129258			0.00- 51.44	21.22
5.018	5.019	(0.857)	59	66873			0.00- 40.81	10.98
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
71 1,1-Dichloroethane			CAS #: 75-34-3					
5.046	5.047	(0.861)	63	276113	20.0000	18.956	80.00- 120.00	100.00
5.046	5.047	(0.861)	65	81644			0.56- 60.56	29.57
73 Vinyl Acetate			CAS #: 108-05-4					
5.088	5.089	(0.869)	86	33416	20.0000	18.746	80.00- 120.00	100.00
5.074	5.075	(0.866)	43	523676			1473.01-1533.01	1567.14
79 Ethyl-tert-butyl ether			CAS #: 637-92-3					
5.382	5.382	(0.919)	59	553303	20.0000	20.429	80.00- 120.00	100.00
5.382	5.382	(0.919)	87	188809			4.28- 64.28	34.12
5.382	5.382	(0.919)	41	114855			0.00- 49.94	20.76
84 2,2-Dichloropropane			CAS #: 594-20-7					
5.592	5.592	(0.955)	77	272811	20.0000	19.940	80.00- 120.00	100.00
5.592	5.592	(0.955)	79	90246			2.43- 62.43	33.08
5.592	5.592	(0.955)	97	62148			0.00- 53.03	22.78
85 cis-1,2-Dichloroethene			CAS #: 156-59-2					
5.620	5.620	(0.959)	98	95725	20.0000	19.226	80.00- 120.00	100.00
5.620	5.620	(0.959)	96	145258			121.91- 181.91	151.75
5.620	5.620	(0.959)	61	330522			313.72- 373.72	345.28
86 2-Butanone			CAS #: 78-93-3					
5.648	5.648	(0.964)	72	71438	20.0000	19.712	80.00- 120.00	100.00
5.662	5.662	(0.967)	43	813326			1111.25-1171.25	1138.51
5.648	5.648	(0.964)	57	29859			11.22- 71.22	41.80
87 Ethyl Acetate			CAS #: 141-78-6					
5.662	5.662	(0.967)	45	64444	20.0000	18.539	80.00- 120.00	100.00
5.620	5.620	(0.959)	61	330522			469.17- 529.17	512.88
5.662	5.662	(0.967)	70	39111			29.38- 89.38	60.69
89 Tetrahydrofuran			CAS #: 109-99-9					
5.858	5.858	(1.000)	42	200275	20.0000	17.840	80.00- 120.00	100.00
5.858	5.858	(1.000)	71	62708			0.09- 60.09	31.31
5.858	5.858	(1.000)	72	67895			2.13- 62.13	33.90
* 90 Bromochloromethane	CAS #: 74-97-5							
5.858	5.858	(1.000)	130	221729	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	174589			47.29- 107.29	78.74
5.858	5.858	(1.000)	49	350076			122.83- 182.83	157.88
92 Chloroform			CAS #: 67-66-3					
5.914	5.914	(1.010)	83	303993	20.0000	19.006	80.00- 120.00	100.00
5.914	5.914	(1.010)	85	196640			34.29- 94.29	64.69

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
94 Cyclohexane						CAS #: 110-82-7		
6.026	6.026	(1.029)	84	189967	20.0000	19.384	80.00- 120.00	100.00
6.026	6.026	(1.029)	56	276675			116.85- 176.85	145.64
6.026	6.026	(1.029)	41	168575			57.77- 117.77	88.74
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
6.054	6.054	(1.033)	97	337429	20.0000	19.423	80.00- 120.00	100.00
6.054	6.054	(1.033)	99	217725			34.55- 94.55	64.52
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.166	6.166	(1.053)	119	351026	20.0000	21.097	80.00- 120.00	100.00
6.166	6.166	(1.053)	117	368067			74.20- 134.20	104.85
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.194	6.194	(0.918)	110	80582	20.0000	19.384	80.00- 120.00	100.00
6.194	6.194	(0.918)	75	208773			229.39- 289.39	259.08
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.362	6.348	(1.086)	57	860388	20.0000	19.705	80.00- 120.00	100.00
6.362	6.348	(1.086)	56	271651			1.14- 61.14	31.57
6.362	6.348	(1.086)	41	254071			0.00- 59.12	29.53
102 Benzene						CAS #: 71-43-2		
6.376	6.376	(0.945)	78	399034	20.0000	18.834	80.00- 120.00	100.00
6.376	6.376	(0.945)	77	94526			0.00- 53.48	23.69
§ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.404	6.404	(1.093)	65	306815	25.0000	24.850	80.00- 120.00	100.00
6.404	6.404	(1.093)	67	157360			20.51- 80.51	51.29
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.446	6.446	(0.955)	87	111415	20.0000	20.512	80.00- 120.00	100.00
6.446	6.446	(0.955)	73	435297			363.80- 423.80	390.70
6.446	6.432	(0.955)	55	143153			97.13- 157.13	128.49
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.460	6.474	(0.957)	62	240116	20.0000	18.996	80.00- 120.00	100.00
6.474	6.474	(0.959)	64	74519			1.41- 61.41	31.03
107 Heptane						CAS #: 142-82-5		
6.516	6.516	(0.965)	71	179830	20.0000	21.812	80.00- 120.00	100.00
6.516	6.516	(0.965)	43	389803			146.45- 206.45	216.76
6.516	6.516	(0.965)	57	202512			90.20- 150.20	112.61
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.750	6.750	(1.000)	114	794129	25.0000		80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene (continued)								
6.750	6.750	(1.000)	88	120572			0.00- 45.09	15.18
-----								
110 n-Butanol			CAS #: 71-36-3					
6.886	6.893	(1.020)	56	137190	20.0000	19.021	80.00- 120.00	100.00
6.886	6.886	(1.020)	41	105201			44.46- 104.46	76.68
6.893	6.886	(1.021)	43	81058			28.14- 88.14	59.08
-----								
111 Trichloroethene			CAS #: 79-01-6					
6.943	6.943	(1.029)	95	197579	20.0000	19.204	80.00- 120.00	100.00
6.950	6.950	(1.030)	130	214698			79.68- 139.68	108.66
6.943	6.943	(1.029)	97	127836			34.74- 94.74	64.70
-----								
127 Methylcyclohexane			CAS #: 108-87-2					
7.050	7.051	(1.045)	83	260112	20.0000	20.141	80.00- 120.00	100.00
7.050	7.051	(1.045)	98	122406			17.10- 77.10	47.06
7.050	7.051	(1.045)	55	261464			71.11- 131.11	100.52
-----								
114 1,2-Dichloropropane			CAS #: 78-87-5					
7.187	7.187	(1.065)	63	180599	20.0000	19.072	80.00- 120.00	100.00
7.187	7.187	(1.065)	62	126045			40.55- 100.55	69.79
7.187	7.187	(1.065)	41	120699			36.07- 96.07	66.83
-----								
116 Methyl Methacrylate			CAS #: 80-62-6					
7.230	7.230	(0.785)	69	162802	20.0000	20.084	80.00- 120.00	100.00
7.230	7.230	(0.785)	41	303061			160.67- 220.67	186.15
7.230	7.230	(0.785)	100	65213			11.33- 71.33	40.06
-----								
117 1,4-Dioxane			CAS #: 123-91-1					
7.273	7.273	(1.077)	88	117425	20.0000	19.934	80.00- 120.00	100.00
7.273	7.273	(1.077)	58	99967			56.19- 116.19	85.13
7.273	7.273	(1.077)	57	32237			0.00- 59.32	27.45
-----								
118 Dibromomethane			CAS #: 74-95-3					
7.294	7.294	(0.792)	174	185223	20.0000	19.215	80.00- 120.00	100.00
7.294	7.294	(0.792)	93	182079			66.88- 126.88	98.30
7.294	7.294	(0.792)	95	150613			49.90- 109.90	81.31
-----								
122 Bromodichloromethane			CAS #: 75-27-4					
7.409	7.409	(1.098)	83	330071	20.0000	19.253	80.00- 120.00	100.00
7.409	7.409	(1.098)	85	210848			33.85- 93.85	63.88
-----								
151 1-Bromo-2-Chloroethane			CAS #: 107-04-0					
7.702	7.702	(1.141)	63	338410	20.0000	20.118	80.00- 120.00	100.00
7.702	7.702	(1.141)	65	101956			0.05- 60.05	30.13
7.702	7.702	(1.141)	144	37283			0.00- 40.91	11.02
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.781	7.781	(1.153)	75	253174	20.0000	19.432	80.00- 120.00	100.00
7.781	7.781	(1.153)	77	81903			1.50- 61.50	32.35
7.781	7.781	(1.153)	39	187537			43.12- 103.12	74.07
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.889	7.889	(1.169)	58	174888	20.0000	19.045	80.00- 120.00	100.00
7.889	7.889	(1.169)	43	487997			247.84- 307.84	279.03
7.889	7.889	(1.169)	85	66742			8.73- 68.73	38.16
-----								
\$ 134 Toluene-d8						CAS #: 2037-26-5		
7.967	7.967	(1.180)	98	798120	25.0000	24.869	80.00- 120.00	100.00
7.967	7.967	(1.180)	70	91933			0.00- 42.00	11.52
7.967	7.967	(1.180)	100	540418			37.14- 97.14	67.71
-----								
136 Octane						CAS #: 111-65-9		
8.010	8.010	(1.187)	57	187466	20.0000	19.803	80.00- 120.00	100.00
8.010	8.010	(1.187)	85	183444			67.77- 127.77	97.85
8.010	8.010	(1.187)	43	484299			225.27- 285.27	258.34
-----								
137 Toluene						CAS #: 108-88-3		
8.025	8.025	(1.189)	91	556342	20.0000	19.881	80.00- 120.00	100.00
8.025	8.025	(1.189)	92	323103			28.13- 88.13	58.08
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.254	8.254	(0.897)	75	251680	20.0000	19.537	80.00- 120.00	100.00
8.254	8.254	(0.897)	77	79307			1.93- 61.93	31.51
8.254	8.254	(0.897)	39	173511			38.37- 98.37	68.94
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.419	8.419	(0.914)	97	191144	20.0000	19.853	80.00- 120.00	100.00
8.419	8.419	(0.914)	99	117027			31.66- 91.66	61.22
8.419	8.419	(0.914)	83	163372			55.24- 115.24	85.47
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.462	8.462	(0.919)	166	277979	20.0000	19.800	80.00- 120.00	100.00
8.462	8.462	(0.919)	129	220497			48.51- 108.51	79.32
8.462	8.462	(0.919)	131	210231			45.64- 105.64	75.63
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.569	8.569	(1.270)	76	264961	20.0000	19.014	80.00- 120.00	100.00
8.569	8.569	(1.270)	41	335056			96.83- 156.83	126.45
8.569	8.569	(1.270)	78	85712			2.46- 62.46	32.35
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.576	8.576	(0.932)	58	272182	20.0000	20.062	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone (continued)								
8.576	8.576	(0.932)	43	551466			169.24- 229.24	202.61
8.576	8.576	(0.932)	100	50863			0.00- 48.72	18.69
-----								
146 Dibromochloromethane CAS #: 124-48-1								
8.734	8.734	(0.949)	129	388562	20.0000	20.462	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	300014			47.05- 107.05	77.21
-----								
148 1,2-Dibromoethane (EDB) CAS #: 106-93-4								
8.856	8.856	(0.962)	107	306701	20.0000	19.736	80.00- 120.00	100.00
8.856	8.856	(0.962)	109	288019			64.74- 124.74	93.91
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	746118	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	398460			23.62- 83.62	53.40
-----								
154 Chlorobenzene CAS #: 108-90-7								
9.235	9.235	(1.003)	112	477797	20.0000	19.975	80.00- 120.00	100.00
9.235	9.235	(1.003)	114	152253			2.19- 62.19	31.87
9.235	9.228	(1.003)	77	258791			23.66- 83.66	54.16
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.278	9.278	(1.008)	106	240325	20.0000	20.341	80.00- 120.00	100.00
9.278	9.278	(1.008)	91	747035			282.43- 342.43	310.84
-----								
156 Nonane CAS #: 111-84-2								
9.278	9.278	(1.008)	43	502199	20.0000	20.876	80.00- 120.00	100.00
9.278	9.278	(1.008)	57	427000			55.73- 115.73	85.03
9.278	9.278	(1.008)	85	142742			0.00- 58.99	28.42
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.371	9.371	(1.018)	106	295144	20.0000	20.382	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	592422			169.66- 229.66	200.72
-----								
164 o-Xylene CAS #: 95-47-6								
9.722	9.722	(1.056)	106	281675	20.0000	20.591	80.00- 120.00	100.00
9.722	9.722	(1.056)	91	597422			180.55- 240.55	212.10
-----								
165 Styrene CAS #: 100-42-5								
9.737	9.737	(1.058)	104	481116	20.0000	20.303	80.00- 120.00	100.00
9.737	9.737	(1.058)	78	237166			18.65- 78.65	49.29
-----								
167 Bromoform CAS #: 75-25-2								
9.944	9.944	(1.080)	173	369631	20.0000	20.562	80.00- 120.00	100.00
9.944	9.944	(1.080)	171	189171			21.64- 81.64	51.18
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT ( PPBV)	ON-COL ( PPBV)		
==	=====	=====	====	=====	=====	=====	=====	=====
168 Cumene					CAS #: 98-82-8			
10.009	10.009	(1.087)	105	898655	20.0000	20.545	80.00- 120.00	100.00
10.009	10.009	(1.087)	120	242756			0.00- 57.04	27.01
10.009	10.009	(1.087)	51	112740			0.00- 41.95	12.55
-----								
169 Cyclohexanone					CAS #: 108-94-1			
10.188	10.188	(1.107)	55	366425	20.0000	17.783	80.00- 120.00	100.00
10.188	10.188	(1.107)	98	138486			8.59- 68.59	37.79
10.188	10.188	(1.107)	42	280835			46.18- 106.18	76.64
-----								
§ 170 4-Bromofluorobenzene					CAS #: 460-00-4			
10.202	10.202	(1.108)	174	494352	25.0000	25.235	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	602471			92.25- 152.25	121.87
10.202	10.202	(1.108)	176	458747			63.07- 123.07	92.80
-----								
175 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
10.317	10.317	(1.121)	83	428241	20.0000	19.975	80.00- 120.00	100.00
10.317	10.317	(1.121)	85	275598			34.44- 94.44	64.36
-----								
177 Bromobenzene					CAS #: 108-86-1			
10.345	10.338	(1.124)	156	289453	20.0000	20.850	80.00- 120.00	100.00
10.345	10.346	(1.124)	158	282524			67.20- 127.20	97.61
10.338	10.338	(1.123)	77	491124			131.36- 191.36	169.67
-----								
178 Propylbenzene					CAS #: 103-65-1			
10.360	10.360	(1.125)	120	255211	20.0000	20.304	80.00- 120.00	100.00
10.360	10.360	(1.125)	91	1068556	20.0000	20.504	385.23- 445.23	418.70
10.360	10.360	(1.125)	105	41445			0.00- 46.02	16.24
-----								
181 trans-1,4-Dichloro-2-butene					CAS #: 110-57-6			
10.374	10.374	(1.127)	53	109623	20.0000	19.721	80.00- 120.00	100.00
10.374	10.374	(1.127)	89	74770			40.38- 100.38	68.21
10.381	10.381	(1.128)	75	454626			394.61- 454.61	414.72
-----								
179 1,2,3-Trichloropropane					CAS #: 96-18-4			
10.381	10.389	(1.128)	110	138212	20.0000	20.044	80.00- 120.00	100.00
10.381	10.381	(1.128)	75	454626			301.57- 361.57	328.93
10.381	10.381	(1.128)	61	116932			54.32- 114.32	84.60
-----								
182 Decane					CAS #: 124-18-5			
10.396	10.396	(1.129)	57	562477	20.0000	18.940	80.00- 120.00	100.00
10.396	10.396	(1.129)	71	186547			2.98- 62.98	33.17
10.396	10.396	(1.129)	142	27798			0.00- 35.12	4.94
-----								
183 4-Ethyltoluene					CAS #: 622-96-8			
10.453	10.453	(1.135)	120	275451	20.0000	20.246	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
10.453	10.453	(1.135)	105	896910			295.29- 355.29	325.62
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
10.482	10.482	(1.138)	126	230076	20.0000	20.380	80.00- 120.00	100.00
10.482	10.482	(1.138)	91	812550			325.01- 385.01	353.17
10.482	10.482	(1.138)	65	116110			19.90- 79.90	50.47
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
10.503	10.503	(1.141)	120	391009	20.0000	20.797	80.00- 120.00	100.00
10.503	10.503	(1.141)	105	798920			176.14- 236.14	204.32
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.711	10.704	(1.163)	118	391530	20.0000	21.191	80.00- 120.00	100.00
10.704	10.704	(1.163)	103	221279			26.69- 86.69	56.52
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
10.782	10.783	(1.171)	119	744340	20.0000	21.001	80.00- 120.00	100.00
10.782	10.783	(1.171)	134	182727			0.00- 54.52	24.55
10.782	10.783	(1.171)	91	488914			34.68- 94.68	65.68
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
10.833	10.833	(1.177)	105	757744	20.0000	20.708	80.00- 120.00	100.00
10.833	10.833	(1.177)	120	353227			17.12- 77.12	46.62
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
10.969	10.969	(1.191)	134	235438	20.0000	20.006	80.00- 120.00	100.00
10.969	10.969	(1.191)	105	1104177			438.96- 498.96	468.99
10.969	10.969	(1.191)	91	177392			44.37- 104.37	75.35
-----								
194 p-Cymene						CAS #: 99-87-6		
11.083	11.083	(1.204)	119	983409	20.0000	20.380	80.00- 120.00	100.00
11.083	11.083	(1.204)	134	266741			0.00- 56.91	27.12
11.083	11.083	(1.204)	91	231847			0.00- 53.86	23.58
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
11.133	11.134	(1.209)	146	535607	20.0000	20.507	80.00- 120.00	100.00
11.133	11.134	(1.209)	148	338320			33.78- 93.78	63.17
11.133	11.134	(1.209)	111	218207			11.40- 71.40	40.74
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
11.212	11.212	(1.218)	146	539373	20.0000	20.250	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	340304			33.73- 93.73	63.09
11.212	11.212	(1.218)	111	210534			9.40- 69.40	39.03
-----								
199 alpha-Chlorotoluene						CAS #: 100-44-7		
11.334	11.334	(1.231)	91	732078	20.0000	20.364	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
11.334	11.334	(1.231)	126	165252			0.00- 52.58	22.57
-----								
201 Undecane CAS #: 1120-21-4								
11.406	11.406	(1.239)	57	654959	20.0000	20.127	80.00- 120.00	100.00
11.406	11.406	(1.239)	43	601282			62.03- 122.03	91.80
-----								
202 Butylbenzene CAS #: 104-51-8								
11.434	11.434	(1.242)	134	261602	20.0000	20.240	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	912916			322.91- 382.91	348.97
11.434	11.434	(1.242)	92	479550			155.43- 215.43	183.31
-----								
204 1,2-Dichlorobenzene CAS #: 95-50-1								
11.549	11.549	(1.254)	146	513605	20.0000	20.283	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	325783			33.66- 93.66	63.43
11.549	11.549	(1.254)	111	214722			12.36- 72.36	41.81
-----								
206 1,2-Dibromo-3-chloropropane CAS #: 96-12-8								
12.258	12.258	(1.331)	157	315796	20.0000	20.285	80.00- 120.00	100.00
12.258	12.258	(1.331)	75	274391			56.77- 116.77	86.89
12.258	12.258	(1.331)	155	244395			48.17- 108.17	77.39
-----								
207 Dodecane CAS #: 112-40-3								
12.358	12.358	(1.342)	57	712125	24.7200	24.862	80.00- 120.00	100.00
12.358	12.358	(1.342)	43	626377			56.62- 116.62	87.96
-----								
213 1,2,4-Trichlorobenzene CAS #: 120-82-1								
13.039	13.039	(1.416)	180	488599	25.1800	24.740	80.00- 120.00	100.00
13.039	13.039	(1.416)	182	470108			64.88- 124.88	96.22
-----								
215 Hexachlorobutadiene CAS #: 87-68-3								
13.132	13.132	(1.426)	225	371319	25.7400	26.126	80.00- 120.00	100.00
13.132	13.132	(1.426)	223	235844			33.46- 93.46	63.52
-----								
216 Naphthalene CAS #: 91-20-3								
13.340	13.340	(1.449)	128	128024	2.54000	2.335	80.00- 120.00	100.00
13.340	13.340	(1.449)	127	17802			0.00- 43.71	13.91
-----								
222 1,2,3-Trichlorobenzene CAS #: 87-61-6								
13.619	13.619	(1.479)	180	483877	26.6200	26.398	80.00- 120.00	100.00
13.612	13.619	(1.478)	182	459600			66.23- 126.23	94.98
13.612	13.612	(1.478)	145	171343			5.93- 65.93	35.41
-----								



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081207.d  
 Lab Smp Id: ICAL Level #8  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 20ppbv(200ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	221729	-3.56
108 1,4-Difluorobenze	822152	493291	1151013	794129	-3.41
153 Chlorobenzene-d5	775771	465463	1086079	746118	-3.82

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Date : 12-AUG-2021 18:37

Client ID:

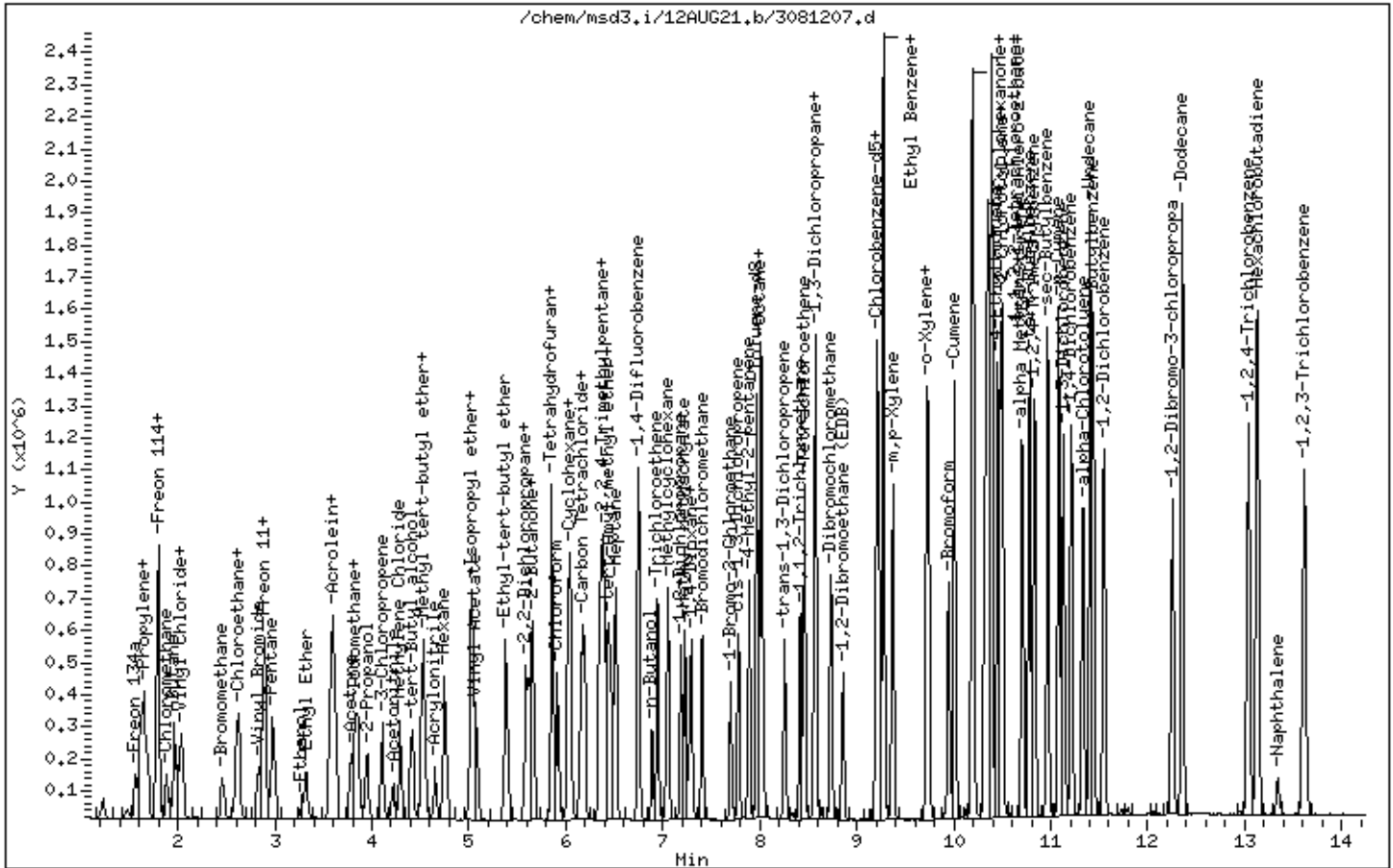
Instrument: msd3,i

Sample Info: 20ml 3018-2213

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081218.d  
Lab Smp Id: ICAL Level #8  
Inj Date : 13-AUG-2021 00:36  
Operator : gh Inst ID: msd3.i  
Smp Info : 20ml #3018-2127  
Misc Info : 20ppbv(200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 12:38 ugdc Quant Type: ISTD  
Cal Date : 13-AUG-2021 00:36 Cal File: 3081218.d  
Als bottle: 3 Calibration Sample, Level: 8  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.858	5.858	(1.000)	130	230809	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	181116			47.29- 107.29	78.47
5.858	5.858	(1.000)	49	349767			122.83- 182.83	151.54
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.750	6.750	(1.000)	114	831865	25.0000		80.00- 120.00	100.00
6.750	6.750	(1.000)	88	124384			0.00- 45.09	14.95
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	769798	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	411401			23.62- 83.62	53.44
-----								
3 Freon 143a CAS #: 420-46-2								
1.506	1.520	(0.257)	65	99302	20.0000	20.081	80.00- 120.00	100.00
1.506	1.520	(0.257)	69	234422			217.09- 277.09	236.07
1.506	1.520	(0.257)	64	24839			0.00- 55.87	25.01
-----								
6 Propane CAS #: 74-98-6								
1.618	1.618	(0.276)	43	50772	20.0000	20.793	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.618	1.618	(0.276)	39	36582			41.62- 101.62	72.05
1.618	1.618	(0.276)	41	27554			22.97- 82.97	54.27
-----								
13 Freon 142b CAS #: 75-68-3								
1.842	1.842	(0.314)	65	308714	20.0000	19.965	80.00- 120.00	100.00
1.842	1.842	(0.314)	45	88875			0.00- 58.17	28.79
-----								
36 1-Pentene CAS #: 109-67-1								
2.920	2.920	(0.498)	55	178071	20.0000	20.161	80.00- 120.00	100.00
2.906	2.920	(0.496)	42	241407			99.17- 159.17	135.57
-----								
40 Freon 123a CAS #: 354-23-4								
3.423	3.423	(0.584)	117	222552	20.0000	20.328	80.00- 120.00	100.00
3.423	3.423	(0.584)	67	287399			103.13- 163.13	129.14
-----								
41 Freon 123 CAS #: 306-83-2								
3.521	3.521	(0.601)	83	315366	20.0000	20.423	80.00- 120.00	100.00
3.521	3.521	(0.601)	133	74000			0.00- 51.81	23.46
3.521	3.521	(0.601)	85	208372			37.13- 97.13	66.07
-----								
55 Cyclopentene CAS #: 142-29-0								
4.123	4.123	(0.704)	67	315315	20.0000	20.163	80.00- 120.00	100.00
4.123	4.123	(0.704)	68	120431			7.90- 67.90	38.19
4.123	4.123	(0.704)	53	81642			0.00- 54.87	25.89
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.151	4.151	(0.709)	43	345434	20.0000	20.425	80.00- 120.00	100.00
4.151	4.151	(0.709)	74	57588			0.00- 47.15	16.67
-----								
74 Chloroprene CAS #: 126-99-8								
5.088	5.088	(0.869)	53	281703	20.0000	20.078	80.00- 120.00	100.00
5.088	5.102	(0.869)	88	117403			12.33- 72.33	41.68
5.088	5.088	(0.869)	50	83378			0.00- 57.62	29.60
-----								
75 1-Propanol CAS #: 71-23-8								
5.158	5.158	(0.881)	59	36821	20.0000	19.219	80.00- 120.00	100.00
5.158	5.158	(0.881)	42	33787			53.89- 113.89	91.76
5.158	5.158	(0.881)	41	21541			24.09- 84.09	58.50
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.704	5.718	(0.974)	55	335766	20.0000	20.424	80.00- 120.00	100.00
5.718	5.718	(0.976)	85	43868			0.00- 43.24	13.07
5.704	5.718	(0.974)	58	28995			0.00- 38.83	8.64
-----								
103 Isobutanol CAS #: 78-83-1								
6.320	6.320	(1.079)	39	50152	20.0000	19.918	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.320	6.320	(1.079)	43	170154			327.69- 387.69	339.28
6.320	6.320	(1.079)	41	131767			237.56- 297.56	262.74
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
7.036	7.036	(0.764)	99	25829	20.0000	20.184	80.00- 120.00	100.00
7.029	7.036	(0.763)	45	41845			124.67- 184.67	162.01
7.036	7.036	(0.764)	55	435181			1601.30-1661.30	1684.85
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.129	7.129	(0.774)	43	530978	20.0000	20.744	80.00- 120.00	100.00
7.136	7.129	(0.775)	58	39486			0.00- 37.25	7.44
7.136	7.136	(0.775)	86	77188			0.00- 45.08	14.54
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.626	8.626	(1.278)	56	237426	20.0000	20.610	80.00- 120.00	100.00
8.626	8.626	(1.278)	73	83105			5.16- 65.16	35.00
8.626	8.626	(1.278)	43	602428			214.00- 274.00	253.73
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.292	9.300	(1.009)	131	288195	20.0000	21.484	80.00- 120.00	100.00
9.207	9.207	(1.000)	117	769798			38.22- 98.22	267.11
9.300	9.293	(1.010)	95	106347			7.54- 67.54	36.90
-----								
166 2-Heptanone						CAS #: 110-43-0		
9.801	9.801	(1.673)	58	352966	20.0000	20.556	80.00- 120.00	100.00
9.801	9.801	(1.673)	43	618243			133.36- 193.36	175.16
-----								
172 D-Limonene						CAS #: 5989-27-5		
11.033	11.033	(1.198)	68	311631	20.0000	24.251	80.00- 120.00	100.00
11.033	11.033	(1.198)	93	228626			42.08- 102.08	73.36
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
10.575	10.582	(1.149)	126	252314	20.0000	21.290	80.00- 120.00	100.00
10.575	10.575	(1.149)	91	814202			305.94- 365.94	322.69
10.575	10.575	(1.149)	63	118721			15.44- 75.44	47.05
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
11.212	11.212	(1.218)	120	333811	20.0000	21.506	80.00- 120.00	100.00
11.212	11.212	(1.218)	105	784527			206.43- 266.43	235.02
11.212	11.212	(1.218)	77	93733			0.00- 58.29	28.08
-----								
205 Hexachloroethane						CAS #: 67-72-1		
11.728	11.728	(1.274)	201	221922	20.0000	24.327	80.00- 120.00	100.00
11.728	11.728	(1.274)	117	308052			109.77- 169.77	138.81
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
-----								
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
12.387	12.387	(1.345)	180	507037	20.0000	21.273	80.00- 120.00	100.00
12.387	12.387	(1.345)	182	481584			65.79- 125.79	94.98
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.966	9.973	(1.082)	93	544302	20.0000	21.759	80.00- 120.00	100.00
9.966	9.973	(1.082)	77	165592			0.13- 60.13	30.42
-----								
214 beta-Pinene						CAS #: 127-91-3		
10.560	10.560	(1.147)	93	418437	20.0000	22.625	80.00- 120.00	100.00
10.575	10.575	(1.149)	91	814202			145.95- 205.95	194.58
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081218.d  
 Lab Smp Id: ICAL Level #8  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 20ppbv(200ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	230809	0.39
108 1,4-Difluorobenze	822152	493291	1151013	831865	1.18
153 Chlorobenzene-d5	775771	465463	1086079	769798	-0.77

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Date : 13-AUG-2021 00:36

Client ID:

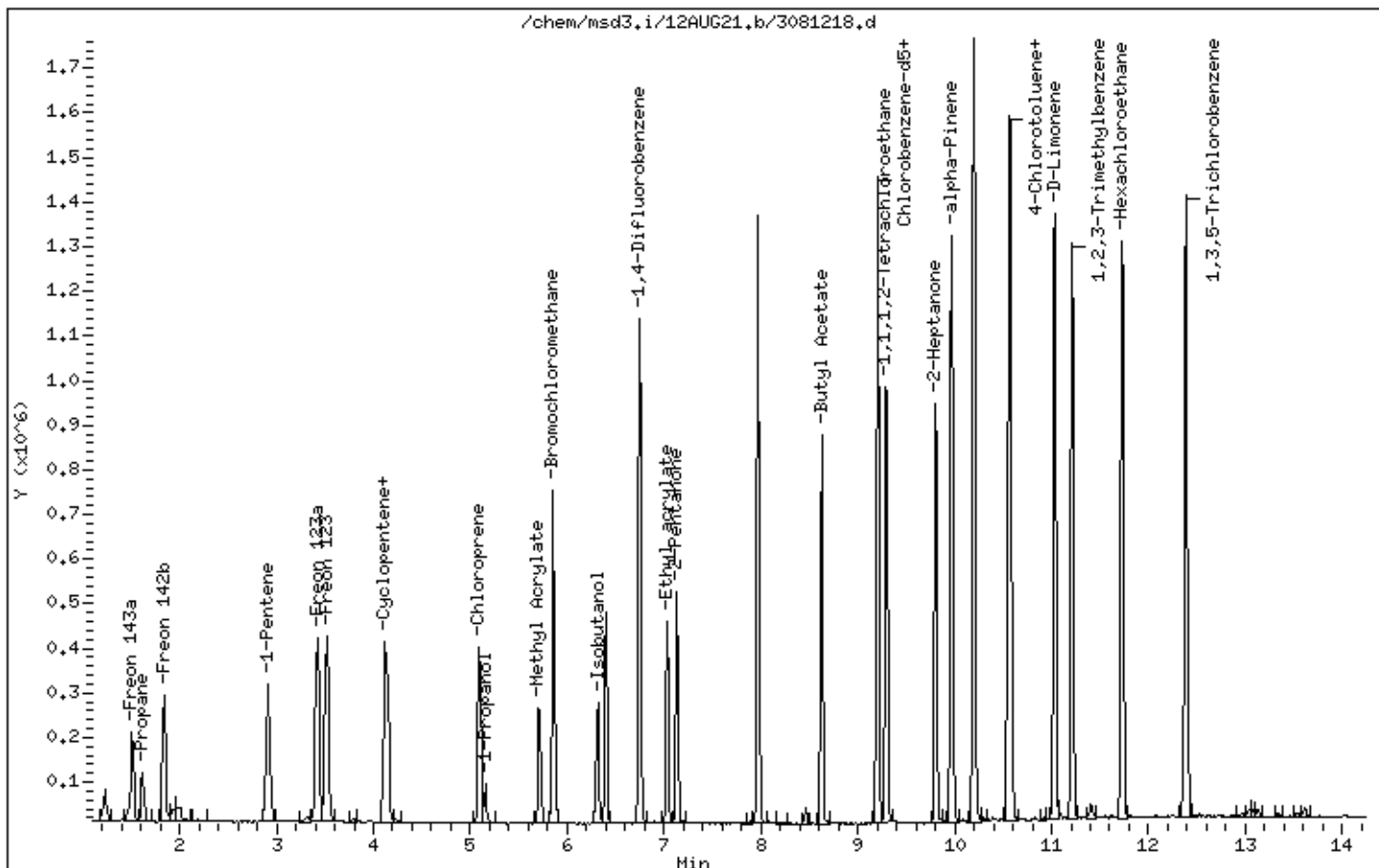
Instrument: msd3,i

Sample Info: 20ml #3018-2127

Operator: gh

Column phase: RTX-624

Column diameter: 0.25





US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081208.d  
Lab Smp Id: ICAL Level #9  
Inj Date : 12-AUG-2021 19:05  
Operator : LD Inst ID: msd3.i  
Smp Info : 50ml 3018-2213  
Misc Info : 50ppbv(200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 07:57 ugdc Quant Type: ISTD  
Cal Date : 12-AUG-2021 19:05 Cal File: 3081208.d  
Als bottle: 13 Calibration Sample, Level: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	( PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a			CAS #: 811-97-2					
1.577	1.577	(0.269)	83	315602	50.0000	50.000	80.00- 120.00	100.00
1.577	1.577	(0.269)	69	254864			50.75- 110.75	80.75
1.577	1.577	(0.269)	51	62377			0.00- 49.76	19.76
5 Propylene			CAS #: 115-07-1					
1.619	1.619	(0.276)	41	316270	50.0000	50.000	80.00- 120.00	100.00
1.619	1.619	(0.276)	42	210833			36.66- 96.66	66.66
1.619	1.619	(0.276)	39	234398			44.11- 104.11	74.11
7 1,1-Difluoroethane			CAS #: 75-37-6					
1.633	1.633	(0.279)	65	192609	50.0000	50.000	80.00- 120.00	100.00
1.633	1.633	(0.279)	51	476003			217.13- 277.13	247.13
1.633	1.633	(0.279)	47	151718			48.77- 108.77	78.77
8 Freon 12			CAS #: 75-71-8					
1.661	1.661	(0.283)	85	867763	50.0000	50.000	80.00- 120.00	100.00
1.661	1.661	(0.283)	87	280705			2.35- 62.35	32.35
9 Chlorodifluoromethane			CAS #: 75-45-6					
1.689	1.689	(0.288)	67	94802	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.689	1.689	(0.288)	51	702180			710.68- 770.68	740.68
-----								
10 Freon 114 CAS #: 76-14-2								
1.800	1.800	(0.307)	135	653625	50.0000	50.000	80.00- 120.00	100.00
1.800	1.800	(0.307)	137	209561			2.06- 62.06	32.06
-----								
12 Isobutane CAS #: 75-28-5								
1.800	1.800	(0.307)	43	716763	50.0000	50.000	80.00- 120.00	100.00
1.800	1.800	(0.307)	42	234370			2.70- 62.70	32.70
1.800	1.800	(0.307)	58	24676			0.00- 33.44	3.44
-----								
15 Chloromethane CAS #: 74-87-3								
1.884	1.884	(0.322)	50	364497	50.0000	50.000	80.00- 120.00	100.00
1.884	1.884	(0.322)	52	121676			3.38- 63.38	33.38
-----								
18 Butane CAS #: 106-97-8								
1.968	1.968	(0.336)	58	79934	50.0000	50.000	80.00- 120.00	100.00
1.968	1.968	(0.336)	43	631887			760.51- 820.51	790.51
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.010	2.010	(0.343)	62	367129	50.0000	50.000	80.00- 120.00	100.00
2.010	2.010	(0.343)	64	111323			0.32- 60.32	30.32
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.038	2.038	(0.348)	54	324066	50.0000	50.000	80.00- 120.00	100.00
2.038	2.038	(0.348)	39	333594			72.94- 132.94	102.94
-----								
24 Bromomethane CAS #: 74-83-9								
2.458	2.458	(0.420)	94	283348	50.0000	50.000	80.00- 120.00	100.00
2.458	2.458	(0.420)	96	264027			63.18- 123.18	93.18
-----								
30 Chloroethane CAS #: 75-00-3								
2.598	2.598	(0.443)	64	179590	50.0000	50.000	80.00- 120.00	100.00
2.598	2.598	(0.443)	66	55860			1.10- 61.10	31.10
2.598	2.598	(0.443)	49	63685			5.46- 65.46	35.46
-----								
31 Isopentane CAS #: 78-78-4								
2.626	2.626	(0.448)	43	481746	50.0000	50.000	80.00- 120.00	100.00
2.626	2.626	(0.448)	57	318528			36.12- 96.12	66.12
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.836	2.836	(0.484)	106	328179	50.0000	50.000	80.00- 120.00	100.00
2.836	2.836	(0.484)	108	305230			63.01- 123.01	93.01
-----								
33 Freon 11 CAS #: 75-69-4								
2.892	2.892	(0.494)	101	944642	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.892	2.892	(0.494)	103	628662			36.55- 96.55	66.55
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.906	2.906	(0.496)	67	743117	50.0000	50.000	80.00- 120.00	100.00
2.906	2.906	(0.496)	69	236434			1.82- 61.82	31.82
-----								
35 Pentane CAS #: 109-66-0								
2.976	2.976	(0.508)	43	759428	50.0000	50.000	80.00- 120.00	100.00
2.976	2.976	(0.508)	57	117897			0.00- 45.52	15.52
2.976	2.976	(0.508)	72	62651			0.00- 38.25	8.25
-----								
39 Ethanol CAS #: 64-17-5								
3.284	3.284	(0.561)	46	66451	50.0000	50.000	80.00- 120.00	100.00
3.284	3.284	(0.561)	45	161668			213.29- 273.29	243.29
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.326	3.326	(0.568)	74	156697	50.0000	50.000	80.00- 120.00	100.00
3.326	3.326	(0.568)	59	271887			143.51- 203.51	173.51
3.326	3.326	(0.568)	45	271918			143.53- 203.53	173.53
-----								
42 Acrolein CAS #: 107-02-8								
3.591	3.591	(0.613)	55	123531	50.0000	50.000	80.00- 120.00	100.00
3.591	3.591	(0.613)	56	165556			104.02- 164.02	134.02
-----								
43 Freon 113 CAS #: 76-13-1								
3.591	3.591	(0.613)	151	623319	50.0000	50.000	80.00- 120.00	100.00
3.591	3.591	(0.613)	153	399129			34.03- 94.03	64.03
3.591	3.591	(0.613)	101	746223			89.72- 149.72	119.72
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.619	3.619	(0.618)	96	343006	50.0000	50.000	80.00- 120.00	100.00
3.619	3.619	(0.618)	98	215581			32.85- 92.85	62.85
3.619	3.619	(0.618)	61	671967			165.91- 225.91	195.91
-----								
47 Acetone CAS #: 67-64-1								
3.787	3.787	(0.646)	58	202949	50.0000	50.000	80.00- 120.00	100.00
3.787	3.787	(0.646)	43	720649			325.09- 385.09	355.09
-----								
49 Iodomethane CAS #: 74-88-4								
3.829	3.829	(0.654)	142	913360	50.0000	50.000	80.00- 120.00	100.00
3.829	3.829	(0.654)	127	429065			16.98- 76.98	46.98
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.857	3.857	(0.658)	76	922071	50.0000	50.000	80.00- 120.00	100.00
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.941	3.941	(0.673)	45	792528	50.0000	50.000	80.00- 120.00	100.00
3.941	3.941	(0.673)	43	156566			0.00- 49.76	19.76
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.109	4.109	(0.701)	76	150936	50.0000	50.000	80.00- 120.00	100.00
4.109	4.109	(0.701)	41	565886			344.92- 404.92	374.92
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.221	4.221	(0.721)	41	343235	50.0000	50.000	80.00- 120.00	100.00
4.221	4.221	(0.721)	40	185627			24.08- 84.08	54.08
4.221	4.221	(0.721)	38	44072			0.00- 42.84	12.84
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.291	4.291	(0.732)	49	514699	50.0000	50.000	80.00- 120.00	100.00
4.291	4.291	(0.732)	84	298248			27.95- 87.95	57.95
4.291	4.291	(0.732)	51	158438			0.78- 60.78	30.78
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.417	4.417	(0.754)	59	917650	50.0000	50.000	80.00- 120.00	100.00
4.417	4.417	(0.754)	41	207223			0.00- 52.58	22.58
4.417	4.417	(0.754)	57	100374			0.00- 40.94	10.94
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.515	4.515	(0.771)	73	993238	50.0000	50.000	80.00- 120.00	100.00
4.515	4.515	(0.771)	57	280823			0.00- 58.27	28.27
4.515	4.515	(0.771)	41	285833			0.00- 58.78	28.78
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.543	4.543	(0.775)	98	227905	50.0000	50.000	80.00- 120.00	100.00
4.543	4.543	(0.775)	61	608155			236.85- 296.85	266.85
4.543	4.543	(0.775)	96	357170			126.72- 186.72	156.72
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.655	4.655	(0.795)	52	270328	50.0000	50.000	80.00- 120.00	100.00
4.655	4.655	(0.795)	53	321471			88.92- 148.92	118.92
-----								
67 Hexane						CAS #: 110-54-3		
4.753	4.753	(0.811)	57	654247	50.0000	50.000	80.00- 120.00	100.00
4.753	4.753	(0.811)	43	436625			36.74- 96.74	66.74
4.753	4.753	(0.811)	86	86485			0.00- 43.22	13.22
-----								
72 Isopropyl ether						CAS #: 108-20-3		
5.019	5.019	(0.857)	45	1493637	50.0000	50.000	80.00- 120.00	100.00
5.033	5.033	(0.859)	87	320192			0.00- 51.44	21.44
5.019	5.019	(0.857)	59	161529			0.00- 40.81	10.81
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
71 1,1-Dichloroethane			CAS #: 75-34-3					
5.047	5.047	(0.861)	63	681992	50.0000	50.000	80.00- 120.00	100.00
5.047	5.047	(0.861)	65	208404			0.56- 60.56	30.56
73 Vinyl Acetate			CAS #: 108-05-4					
5.089	5.089	(0.869)	86	87418	50.0000	50.000	80.00- 120.00	100.00
5.075	5.075	(0.866)	43	1313898			1473.01-1533.01	1503.01
79 Ethyl-tert-butyl ether			CAS #: 637-92-3					
5.382	5.382	(0.919)	59	1373727	50.0000	50.000	80.00- 120.00	100.00
5.382	5.382	(0.919)	87	470934			4.28- 64.28	34.28
5.382	5.382	(0.919)	41	273916			0.00- 49.94	19.94
84 2,2-Dichloropropane			CAS #: 594-20-7					
5.592	5.592	(0.955)	77	674545	50.0000	50.000	80.00- 120.00	100.00
5.592	5.592	(0.955)	79	218777			2.43- 62.43	32.43
5.592	5.592	(0.955)	97	155357			0.00- 53.03	23.03
85 cis-1,2-Dichloroethene			CAS #: 156-59-2					
5.620	5.620	(0.959)	98	240666	50.0000	50.000	80.00- 120.00	100.00
5.620	5.620	(0.959)	96	365588			121.91- 181.91	151.91
5.620	5.620	(0.959)	61	827229			313.72- 373.72	343.72
86 2-Butanone			CAS #: 78-93-3					
5.648	5.648	(0.964)	72	180571	50.0000	50.000	80.00- 120.00	100.00
5.662	5.662	(0.967)	43	2060762			1111.25-1171.25	1141.25
5.648	5.648	(0.964)	57	74429			11.22- 71.22	41.22
87 Ethyl Acetate			CAS #: 141-78-6					
5.662	5.662	(0.967)	45	165721	50.0000	50.000	80.00- 120.00	100.00
5.620	5.620	(0.959)	61	827229			469.17- 529.17	499.17
5.662	5.662	(0.967)	70	98402			29.38- 89.38	59.38
89 Tetrahydrofuran			CAS #: 109-99-9					
5.858	5.858	(1.000)	42	516463	50.0000	50.000	80.00- 120.00	100.00
5.858	5.858	(1.000)	71	155417			0.09- 60.09	30.09
5.858	5.858	(1.000)	72	165955			2.13- 62.13	32.13
* 90 Bromochloromethane	CAS #: 74-97-5							
5.858	5.858	(1.000)	130	229903	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	177703			47.29- 107.29	77.29
5.858	5.858	(1.000)	49	351358			122.83- 182.83	152.83
92 Chloroform			CAS #: 67-66-3					
5.914	5.914	(1.010)	83	770994	50.0000	50.000	80.00- 120.00	100.00
5.914	5.914	(1.010)	85	495661			34.29- 94.29	64.29

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
94 Cyclohexane						CAS #: 110-82-7		
6.026	6.026	(1.029)	84	470463	50.0000	50.000	80.00- 120.00	100.00
6.026	6.026	(1.029)	56	690890			116.85- 176.85	146.85
6.026	6.026	(1.029)	41	412907			57.77- 117.77	87.77
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
6.054	6.054	(1.033)	97	823642	50.0000	50.000	80.00- 120.00	100.00
6.054	6.054	(1.033)	99	531654			34.55- 94.55	64.55
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.166	6.166	(1.053)	119	865850	50.0000	50.000	80.00- 120.00	100.00
6.166	6.166	(1.053)	117	902221			74.20- 134.20	104.20
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.194	6.194	(0.918)	110	206943	50.0000	50.000	80.00- 120.00	100.00
6.194	6.194	(0.918)	75	536792			229.39- 289.39	259.39
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.348	6.348	(1.084)	57	2139161	50.0000	50.000	80.00- 120.00	100.00
6.348	6.348	(1.084)	56	666064			1.14- 61.14	31.14
6.348	6.348	(1.084)	41	622947			0.00- 59.12	29.12
-----								
102 Benzene						CAS #: 71-43-2		
6.376	6.376	(0.945)	78	1001813	50.0000	50.000	80.00- 120.00	100.00
6.376	6.376	(0.945)	77	235249			0.00- 53.48	23.48
-----								
§ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.404	6.404	(1.093)	65	314778	25.0000	25.000	80.00- 120.00	100.00
6.404	6.404	(1.093)	67	158993			20.51- 80.51	50.51
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.446	6.446	(0.955)	87	274965	50.0000	50.000	80.00- 120.00	100.00
6.446	6.446	(0.955)	73	1082809			363.80- 423.80	393.80
6.432	6.432	(0.953)	55	349558			97.13- 157.13	127.13
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.474	6.474	(0.959)	62	601269	50.0000	50.000	80.00- 120.00	100.00
6.474	6.474	(0.959)	64	188832			1.41- 61.41	31.41
-----								
107 Heptane						CAS #: 142-82-5		
6.516	6.516	(0.965)	71	395258	50.0000	50.000	80.00- 120.00	100.00
6.516	6.516	(0.965)	43	697429			146.45- 206.45	176.45
6.516	6.516	(0.965)	57	475098			90.20- 150.20	120.20
-----								
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.750	6.750	(1.000)	114	822152	25.0000		80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene (continued)								
6.750	6.750	(1.000)	88	124069			0.00- 45.09	15.09
-----								
110 n-Butanol			CAS #: 71-36-3					
6.893	6.893	(1.021)	56	358242	50.0000	50.000	80.00- 120.00	100.00
6.886	6.886	(1.020)	41	266741			44.46- 104.46	74.46
6.886	6.886	(1.020)	43	208298			28.14- 88.14	58.14
-----								
111 Trichloroethene			CAS #: 79-01-6					
6.943	6.943	(1.029)	95	491289	50.0000	50.000	80.00- 120.00	100.00
6.950	6.950	(1.030)	130	538869			79.68- 139.68	109.68
6.943	6.943	(1.029)	97	318084			34.74- 94.74	64.74
-----								
127 Methylcyclohexane			CAS #: 108-87-2					
7.051	7.051	(1.045)	83	637336	50.0000	50.000	80.00- 120.00	100.00
7.051	7.051	(1.045)	98	300192			17.10- 77.10	47.10
7.051	7.051	(1.045)	55	644396			71.11- 131.11	101.11
-----								
114 1,2-Dichloropropane			CAS #: 78-87-5					
7.187	7.187	(1.065)	63	446498	50.0000	50.000	80.00- 120.00	100.00
7.187	7.187	(1.065)	62	314991			40.55- 100.55	70.55
7.187	7.187	(1.065)	41	294987			36.07- 96.07	66.07
-----								
116 Methyl Methacrylate			CAS #: 80-62-6					
7.230	7.230	(0.785)	69	401974	50.0000	50.000	80.00- 120.00	100.00
7.230	7.230	(0.785)	41	766436			160.67- 220.67	190.67
7.230	7.230	(0.785)	100	166126			11.33- 71.33	41.33
-----								
117 1,4-Dioxane			CAS #: 123-91-1					
7.273	7.273	(1.077)	88	285735	50.0000	50.000	80.00- 120.00	100.00
7.273	7.273	(1.077)	58	246266			56.19- 116.19	86.19
7.273	7.273	(1.077)	57	83786			0.00- 59.32	29.32
-----								
118 Dibromomethane			CAS #: 74-95-3					
7.294	7.294	(0.792)	174	471969	50.0000	50.000	80.00- 120.00	100.00
7.294	7.294	(0.792)	93	457243			66.88- 126.88	96.88
7.294	7.294	(0.792)	95	377126			49.90- 109.90	79.90
-----								
122 Bromodichloromethane			CAS #: 75-27-4					
7.409	7.409	(1.098)	83	833614	50.0000	50.000	80.00- 120.00	100.00
7.409	7.409	(1.098)	85	532243			33.85- 93.85	63.85
-----								
151 1-Bromo-2-Chloroethane			CAS #: 107-04-0					
7.702	7.702	(1.141)	63	844882	50.0000	50.000	80.00- 120.00	100.00
7.702	7.702	(1.141)	65	253914			0.05- 60.05	30.05
7.702	7.702	(1.141)	144	92191			0.00- 40.91	10.91
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.781	7.781	(1.153)	75	643191	50.0000	50.000	80.00- 120.00	100.00
7.781	7.781	(1.153)	77	202579			1.50- 61.50	31.50
7.781	7.781	(1.153)	39	470303			43.12- 103.12	73.12
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.889	7.889	(1.169)	58	435892	50.0000	50.000	80.00- 120.00	100.00
7.889	7.889	(1.169)	43	1211090			247.84- 307.84	277.84
7.889	7.889	(1.169)	85	168841			8.73- 68.73	38.73
-----								
\$ 134 Toluene-d8						CAS #: 2037-26-5		
7.967	7.967	(1.180)	98	835464	25.0000	25.000	80.00- 120.00	100.00
7.967	7.967	(1.180)	70	100255			0.00- 42.00	12.00
7.967	7.967	(1.180)	100	560958			37.14- 97.14	67.14
-----								
136 Octane						CAS #: 111-65-9		
8.010	8.010	(1.187)	57	455601	50.0000	50.000	80.00- 120.00	100.00
8.010	8.010	(1.187)	85	445451			67.77- 127.77	97.77
8.010	8.010	(1.187)	43	1162997			225.27- 285.27	255.27
-----								
137 Toluene						CAS #: 108-88-3		
8.025	8.025	(1.189)	91	1366045	50.0000	50.000	80.00- 120.00	100.00
8.025	8.025	(1.189)	92	794073			28.13- 88.13	58.13
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.254	8.254	(0.897)	75	627586	50.0000	50.000	80.00- 120.00	100.00
8.254	8.254	(0.897)	77	200383			1.93- 61.93	31.93
8.254	8.254	(0.897)	39	429066			38.37- 98.37	68.37
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.419	8.419	(0.914)	97	470666	50.0000	50.000	80.00- 120.00	100.00
8.419	8.419	(0.914)	99	290208			31.66- 91.66	61.66
8.419	8.419	(0.914)	83	401208			55.24- 115.24	85.24
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.462	8.462	(0.919)	166	684812	50.0000	50.000	80.00- 120.00	100.00
8.462	8.462	(0.919)	129	537617			48.51- 108.51	78.51
8.462	8.462	(0.919)	131	518001			45.64- 105.64	75.64
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.569	8.569	(1.270)	76	650206	50.0000	50.000	80.00- 120.00	100.00
8.569	8.569	(1.270)	41	824670			96.83- 156.83	126.83
8.569	8.569	(1.270)	78	211060			2.46- 62.46	32.46
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.576	8.576	(0.932)	58	680988	50.0000	50.000	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO	
				CAL-AMT	ON-COL			
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone (continued)								
8.576	8.576	(0.932)	43	1356798		169.24- 229.24	199.24	
8.576	8.576	(0.932)	100	127495		0.00- 48.72	18.72	
-----								
146 Dibromochloromethane CAS #: 124-48-1								
8.734	8.734	(0.949)	129	970978	50.0000	50.000	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	748141			47.05- 107.05	77.05
-----								
148 1,2-Dibromoethane (EDB) CAS #: 106-93-4								
8.856	8.856	(0.962)	107	760286	50.0000	50.000	80.00- 120.00	100.00
8.856	8.856	(0.962)	109	720277			64.74- 124.74	94.74
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	775771	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	415985			23.62- 83.62	53.62
-----								
154 Chlorobenzene CAS #: 108-90-7								
9.235	9.235	(1.003)	112	1166195	50.0000	50.000	80.00- 120.00	100.00
9.235	9.235	(1.003)	114	375370			2.19- 62.19	32.19
9.228	9.228	(1.002)	77	625766			23.66- 83.66	53.66
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.278	9.278	(1.008)	106	589052	50.0000	50.000	80.00- 120.00	100.00
9.278	9.278	(1.008)	91	1840360			282.43- 342.43	312.43
-----								
156 Nonane CAS #: 111-84-2								
9.278	9.278	(1.008)	43	1194124	50.0000	50.000	80.00- 120.00	100.00
9.278	9.278	(1.008)	57	1023749			55.73- 115.73	85.73
9.278	9.278	(1.008)	85	346146			0.00- 58.99	28.99
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.371	9.371	(1.018)	106	727916	50.0000	50.000	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	1453384			169.66- 229.66	199.66
-----								
164 o-Xylene CAS #: 95-47-6								
9.722	9.722	(1.056)	106	689174	50.0000	50.000	80.00- 120.00	100.00
9.722	9.722	(1.056)	91	1451084			180.55- 240.55	210.55
-----								
165 Styrene CAS #: 100-42-5								
9.737	9.737	(1.058)	104	1190552	50.0000	50.000	80.00- 120.00	100.00
9.737	9.737	(1.058)	78	579246			18.65- 78.65	48.65
-----								
167 Bromoform CAS #: 75-25-2								
9.944	9.944	(1.080)	173	925650	50.0000	50.000	80.00- 120.00	100.00
9.944	9.944	(1.080)	171	478009			21.64- 81.64	51.64
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.009	10.009	(1.087)	105	2209506	50.0000	50.000	80.00- 120.00	100.00
10.009	10.009	(1.087)	120	597523			0.00- 57.04	27.04
10.009	10.009	(1.087)	51	264134			0.00- 41.95	11.95
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.188	10.188	(1.107)	55	901175	50.0000	50.000	80.00- 120.00	100.00
10.188	10.188	(1.107)	98	347795			8.59- 68.59	38.59
10.188	10.188	(1.107)	42	686542			46.18- 106.18	76.18
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.202	10.202	(1.108)	174	515547	25.0000	25.000	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	630265			92.25- 152.25	122.25
10.202	10.202	(1.108)	176	479840			63.07- 123.07	93.07
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
10.317	10.317	(1.121)	83	1046843	50.0000	50.000	80.00- 120.00	100.00
10.317	10.317	(1.121)	85	674592			34.44- 94.44	64.44
-----								
177 Bromobenzene						CAS #: 108-86-1		
10.338	10.338	(1.123)	156	703802	50.0000	50.000	80.00- 120.00	100.00
10.346	10.346	(1.124)	158	684112			67.20- 127.20	97.20
10.338	10.338	(1.123)	77	1135654			131.36- 191.36	161.36
-----								
178 Propylbenzene						CAS #: 103-65-1		
10.360	10.360	(1.125)	120	625114	50.0000	50.000	80.00- 120.00	100.00
10.360	10.360	(1.125)	91	2595662	50.0000	50.000	385.23- 445.23	415.23
10.360	10.360	(1.125)	105	100130			0.00- 46.02	16.02
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
10.374	10.374	(1.127)	53	261822	50.0000	50.000	80.00- 120.00	100.00
10.374	10.374	(1.127)	89	184277			40.38- 100.38	70.38
10.381	10.381	(1.128)	75	1111715			394.61- 454.61	424.61
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
10.389	10.389	(1.128)	110	335290	50.0000	50.000	80.00- 120.00	100.00
10.381	10.381	(1.128)	75	1111715			301.57- 361.57	331.57
10.381	10.381	(1.128)	61	282711			54.32- 114.32	84.32
-----								
182 Decane						CAS #: 124-18-5		
10.396	10.396	(1.129)	57	1331062	50.0000	50.000	80.00- 120.00	100.00
10.396	10.396	(1.129)	71	438969			2.98- 62.98	32.98
10.396	10.396	(1.129)	142	68107			0.00- 35.12	5.12
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
10.453	10.453	(1.135)	120	670747	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
10.453	10.453	(1.135)	105	2181880			295.29- 355.29	325.29
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
10.482	10.482	(1.138)	126	556277	50.0000	50.000	80.00- 120.00	100.00
10.482	10.482	(1.138)	91	1974855			325.01- 385.01	355.01
10.482	10.482	(1.138)	65	277603			19.90- 79.90	49.90
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
10.503	10.503	(1.141)	120	947576	50.0000	50.000	80.00- 120.00	100.00
10.503	10.503	(1.141)	105	1953360			176.14- 236.14	206.14
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.704	10.704	(1.163)	118	974737	50.0000	50.000	80.00- 120.00	100.00
10.704	10.704	(1.163)	103	552587			26.69- 86.69	56.69
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
10.783	10.783	(1.171)	119	1797476	50.0000	50.000	80.00- 120.00	100.00
10.783	10.783	(1.171)	134	440704			0.00- 54.52	24.52
10.783	10.783	(1.171)	91	1162526			34.68- 94.68	64.68
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
10.833	10.833	(1.177)	105	1852118	50.0000	50.000	80.00- 120.00	100.00
10.833	10.833	(1.177)	120	872750			17.12- 77.12	47.12
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
10.969	10.969	(1.191)	134	571569	50.0000	50.000	80.00- 120.00	100.00
10.969	10.969	(1.191)	105	2680404			438.96- 498.96	468.96
10.969	10.969	(1.191)	91	425101			44.37- 104.37	74.37
-----								
194 p-Cymene						CAS #: 99-87-6		
11.083	11.083	(1.204)	119	2403196	50.0000	50.000	80.00- 120.00	100.00
11.083	11.083	(1.204)	134	646626			0.00- 56.91	26.91
11.083	11.083	(1.204)	91	573402			0.00- 53.86	23.86
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
11.134	11.134	(1.209)	146	1295055	50.0000	50.000	80.00- 120.00	100.00
11.134	11.134	(1.209)	148	826035			33.78- 93.78	63.78
11.134	11.134	(1.209)	111	536098			11.40- 71.40	41.40
-----								
196 1,4-Dichlorobenzene						CAS #: 106-46-7		
11.212	11.212	(1.218)	146	1322504	50.0000	50.000	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	842856			33.73- 93.73	63.73
11.212	11.212	(1.218)	111	521120			9.40- 69.40	39.40
-----								
199 alpha-Chlorotoluene						CAS #: 100-44-7		
11.334	11.334	(1.231)	91	1829042	50.0000	50.000	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
11.334	11.334	(1.231)	126	413028			0.00- 52.58	22.58
-----								
201 Undecane						CAS #: 1120-21-4		
11.406	11.406	(1.239)	57	1574132	50.0000	50.000	80.00- 120.00	100.00
11.406	11.406	(1.239)	43	1448659			62.03- 122.03	92.03
-----								
202 Butylbenzene						CAS #: 104-51-8		
11.434	11.434	(1.242)	134	628539	50.0000	50.000	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	2218182			322.91- 382.91	352.91
11.434	11.434	(1.242)	92	1165520			155.43- 215.43	185.43
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
11.549	11.549	(1.254)	146	1251476	50.0000	50.000	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	796682			33.66- 93.66	63.66
11.549	11.549	(1.254)	111	530135			12.36- 72.36	42.36
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
12.258	12.258	(1.331)	157	787948	50.0000	50.000	80.00- 120.00	100.00
12.258	12.258	(1.331)	75	683687			56.77- 116.77	86.77
12.258	12.258	(1.331)	155	615909			48.17- 108.17	78.17
-----								
207 Dodecane						CAS #: 112-40-3		
12.358	12.358	(1.342)	57	1781296	61.8000	61.800	80.00- 120.00	100.00
12.358	12.358	(1.342)	43	1542933			56.62- 116.62	86.62
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
13.039	13.039	(1.416)	180	1240309	62.9500	62.950	80.00- 120.00	100.00
13.039	13.039	(1.416)	182	1176867			64.88- 124.88	94.88
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
13.132	13.132	(1.426)	225	924664	64.3500	64.350	80.00- 120.00	100.00
13.132	13.132	(1.426)	223	586776			33.46- 93.46	63.46
-----								
216 Naphthalene						CAS #: 91-20-3		
13.340	13.340	(1.449)	128	328215	6.35000	6.350	80.00- 120.00	100.00
13.340	13.340	(1.449)	127	45000			0.00- 43.71	13.71
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
13.619	13.619	(1.479)	180	1210522	66.5500	66.550	80.00- 120.00	100.00
13.619	13.619	(1.479)	182	1164904			66.23- 126.23	96.23
13.612	13.612	(1.478)	145	434958			5.93- 65.93	35.93
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081208.d  
 Lab Smp Id: ICAL Level #9  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 50ppbv(200ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	229903	0.00
108 1,4-Difluorobenze	822152	493291	1151013	822152	0.00
153 Chlorobenzene-d5	775771	465463	1086079	775771	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

Date : 12-AUG-2021 19:05

Client ID:

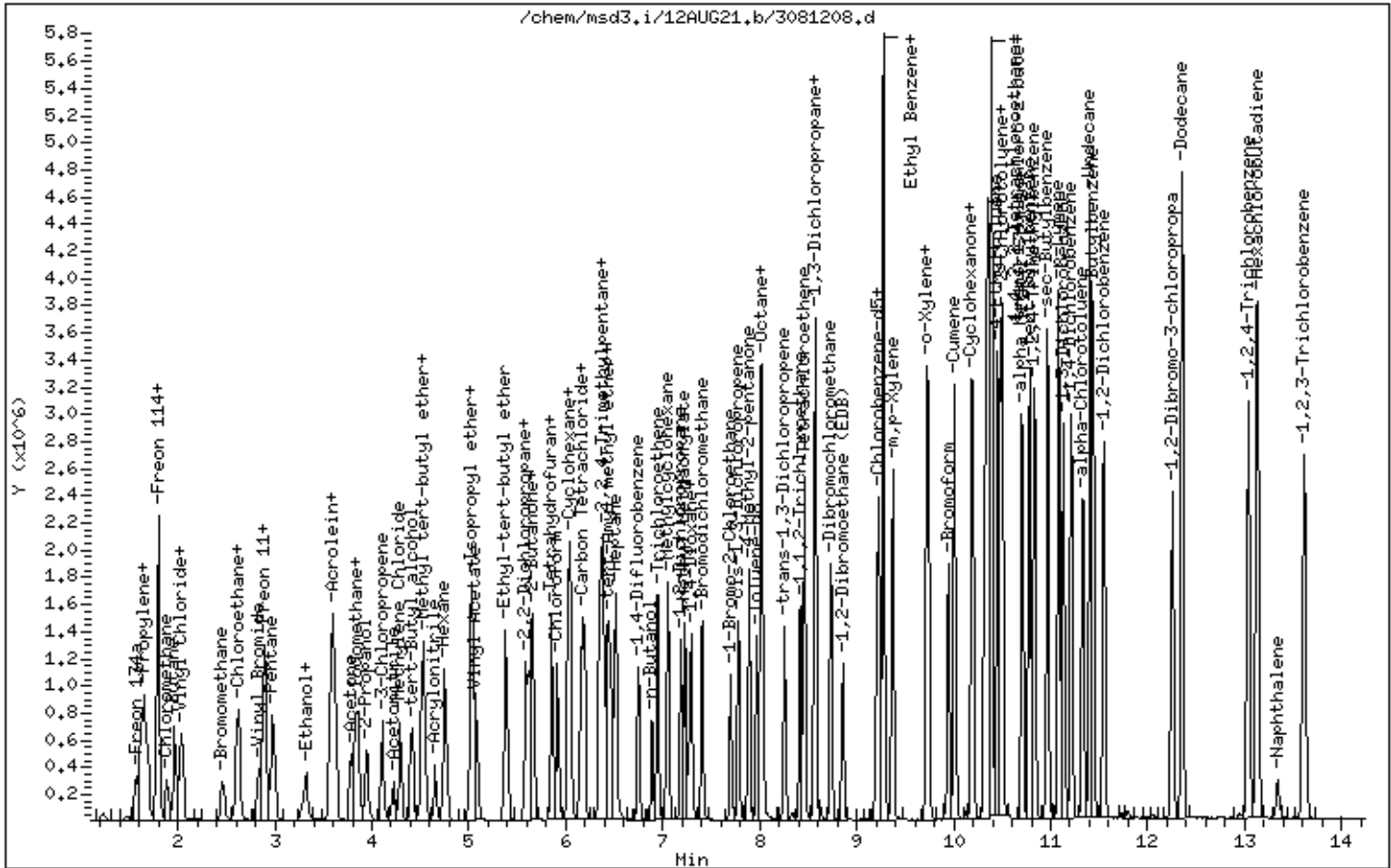
Instrument: msd3,i

Sample Info: 50ml 3018-2213

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081219.d  
Lab Smp Id: ICAL Level #9  
Inj Date : 13-AUG-2021 01:04  
Operator : gh Inst ID: msd3.i  
Smp Info : 50ml #3018-2127  
Misc Info : 50ppbv(200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 12:32 ugdc Quant Type: ISTD  
Cal Date : 13-AUG-2021 01:04 Cal File: 3081219.d  
Als bottle: 3 Calibration Sample, Level: 9  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90	Bromochloromethane			CAS #: 74-97-5			
5.858	5.858	(1.000)	130	241046	25.0000		80.00- 120.00 100.00
5.858	5.858	(1.000)	128	187741			47.29- 107.29 77.89
5.858	5.858	(1.000)	49	366468			122.83- 182.83 152.03
-----							
* 108	1,4-Difluorobenzene			CAS #: 540-36-3			
6.750	6.750	(1.000)	114	870120	25.0000		80.00- 120.00 100.00
6.750	6.750	(1.000)	88	131104			0.00- 45.09 15.07
-----							
* 153	Chlorobenzene-d5			CAS #: 3114-55-4			
9.207	9.207	(1.000)	117	807251	25.0000		80.00- 120.00 100.00
9.207	9.207	(1.000)	82	433208			23.62- 83.62 53.66
-----							
3	Freon 143a			CAS #: 420-46-2			
1.520	1.520	(0.260)	65	252302	50.0000	50.000	80.00- 120.00 100.00
1.520	1.520	(0.260)	69	589108			217.09- 277.09 233.49
1.520	1.520	(0.260)	64	61363			0.00- 55.87 24.32
-----							
6	Propane			CAS #: 74-98-6			
1.618	1.618	(0.276)	43	124313	50.0000	50.000	80.00- 120.00 100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.618	1.618	(0.276)	39	91538			41.62- 101.62	73.64
1.618	1.618	(0.276)	41	69433			22.97- 82.97	55.85
-----								
13 Freon 142b CAS #: 75-68-3								
1.842	1.842	(0.314)	65	785073	50.0000	50.000	80.00- 120.00	100.00
1.842	1.842	(0.314)	45	222468			0.00- 58.17	28.34
-----								
36 1-Pentene CAS #: 109-67-1								
2.920	2.920	(0.498)	55	466892	50.0000	50.000	80.00- 120.00	100.00
2.920	2.920	(0.498)	42	623371			99.17- 159.17	133.52
-----								
40 Freon 123a CAS #: 354-23-4								
3.423	3.423	(0.584)	117	562046	50.0000	50.000	80.00- 120.00	100.00
3.423	3.423	(0.584)	67	726215			103.13- 163.13	129.21
-----								
41 Freon 123 CAS #: 306-83-2								
3.521	3.521	(0.601)	83	795866	50.0000	50.000	80.00- 120.00	100.00
3.521	3.521	(0.601)	133	186340			0.00- 51.81	23.41
3.521	3.521	(0.601)	85	531087			37.13- 97.13	66.73
-----								
55 Cyclopentene CAS #: 142-29-0								
4.123	4.123	(0.704)	67	830926	50.0000	50.000	80.00- 120.00	100.00
4.123	4.123	(0.704)	68	314261			7.90- 67.90	37.82
4.123	4.123	(0.704)	53	212188			0.00- 54.87	25.54
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.151	4.151	(0.709)	43	890748	50.0000	50.000	80.00- 120.00	100.00
4.151	4.151	(0.709)	74	146758			0.00- 47.15	16.48
-----								
74 Chloroprene CAS #: 126-99-8								
5.088	5.088	(0.869)	53	741460	50.0000	50.000	80.00- 120.00	100.00
5.102	5.102	(0.871)	88	310167			12.33- 72.33	41.83
5.088	5.088	(0.869)	50	214896			0.00- 57.62	28.98
-----								
75 1-Propanol CAS #: 71-23-8								
5.158	5.158	(0.881)	59	97396	50.0000	50.000	80.00- 120.00	100.00
5.158	5.158	(0.881)	42	86020			53.89- 113.89	88.32
5.158	5.158	(0.881)	41	58724			24.09- 84.09	60.29
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.718	5.718	(0.976)	55	857142	50.0000	50.000	80.00- 120.00	100.00
5.718	5.718	(0.976)	85	115123			0.00- 43.24	13.43
5.718	5.718	(0.976)	58	74903			0.00- 38.83	8.74
-----								
103 Isobutanol CAS #: 78-83-1								
6.320	6.320	(1.079)	39	129458	50.0000	50.000	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.320	6.320	(1.079)	43	439538			327.69- 387.69	339.52
6.320	6.320	(1.079)	41	338132			237.56- 297.56	261.19
-----								
113 Ethyl acrylate						CAS #: 140-88-5		
7.036	7.036	(0.764)	99	68173	50.0000	50.000	80.00- 120.00	100.00
7.036	7.036	(0.764)	45	107268			124.67- 184.67	157.35
7.036	7.036	(0.764)	55	1126493			1601.30-1661.30	1652.40
-----								
115 2-Pentanone						CAS #: 107-87-9		
7.129	7.129	(0.774)	43	1360220	50.0000	50.000	80.00- 120.00	100.00
7.129	7.129	(0.774)	58	103496			0.00- 37.25	7.61
7.136	7.136	(0.775)	86	197438			0.00- 45.08	14.52
-----								
145 Butyl Acetate						CAS #: 123-86-4		
8.626	8.626	(1.278)	56	602176	50.0000	50.000	80.00- 120.00	100.00
8.626	8.626	(1.278)	73	208701			5.16- 65.16	34.66
8.626	8.626	(1.278)	43	1528502			214.00- 274.00	253.83
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.300	9.300	(1.010)	131	717230	50.0000	50.000	80.00- 120.00	100.00
9.207	9.207	(1.000)	117	807251			38.22- 98.22	112.55
9.293	9.293	(1.009)	95	267022			7.54- 67.54	37.23
-----								
166 2-Heptanone						CAS #: 110-43-0		
9.801	9.801	(1.673)	58	908309	50.0000	50.000	80.00- 120.00	100.00
9.801	9.801	(1.673)	43	1571782			133.36- 193.36	173.04
-----								
172 D-Limonene						CAS #: 5989-27-5		
11.033	11.033	(1.198)	68	802168	50.0000	50.000	80.00- 120.00	100.00
11.033	11.033	(1.198)	93	595228			42.08- 102.08	74.20
-----								
186 4-Chlorotoluene						CAS #: 106-43-4		
10.582	10.582	(1.149)	126	640236	50.0000	50.000	80.00- 120.00	100.00
10.575	10.575	(1.149)	91	2054544			305.94- 365.94	320.90
10.575	10.575	(1.149)	63	296776			15.44- 75.44	46.35
-----								
197 1,2,3-Trimethylbenzene						CAS #: 526-73-8		
11.212	11.212	(1.218)	120	852217	50.0000	50.000	80.00- 120.00	100.00
11.212	11.212	(1.218)	105	1970886			206.43- 266.43	231.27
11.212	11.212	(1.218)	77	233890			0.00- 58.29	27.44
-----								
205 Hexachloroethane						CAS #: 67-72-1		
11.728	11.728	(1.274)	201	521586	50.0000	50.000	80.00- 120.00	100.00
11.728	11.728	(1.274)	117	721252			109.77- 169.77	138.28
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
12.387	12.387	(1.345)	180	1263006	50.0000	50.000	80.00- 120.00	100.00
12.387	12.387	(1.345)	182	1205836			65.79- 125.79	95.47
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.973	9.973	(1.083)	93	1409960	50.0000	50.000	80.00- 120.00	100.00
9.973	9.973	(1.083)	77	425078			0.13- 60.13	30.15
-----								
214 beta-Pinene						CAS #: 127-91-3		
10.560	10.560	(1.147)	93	1051257	50.0000	50.000	80.00- 120.00	100.00
10.575	10.575	(1.149)	91	2054544			145.95- 205.95	195.44
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081219.d  
 Lab Smp Id: ICAL Level #9  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 50ppbv(200ppbv)

Calibration Date: 13-AUG-2021  
 Calibration Time: 01:04  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	241046	144628	337464	241046	0.00
108 1,4-Difluorobenze	870120	522072	1218168	870120	0.00
153 Chlorobenzene-d5	807251	484351	1130151	807251	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

Date : 13-AUG-2021 01:04

Client ID:

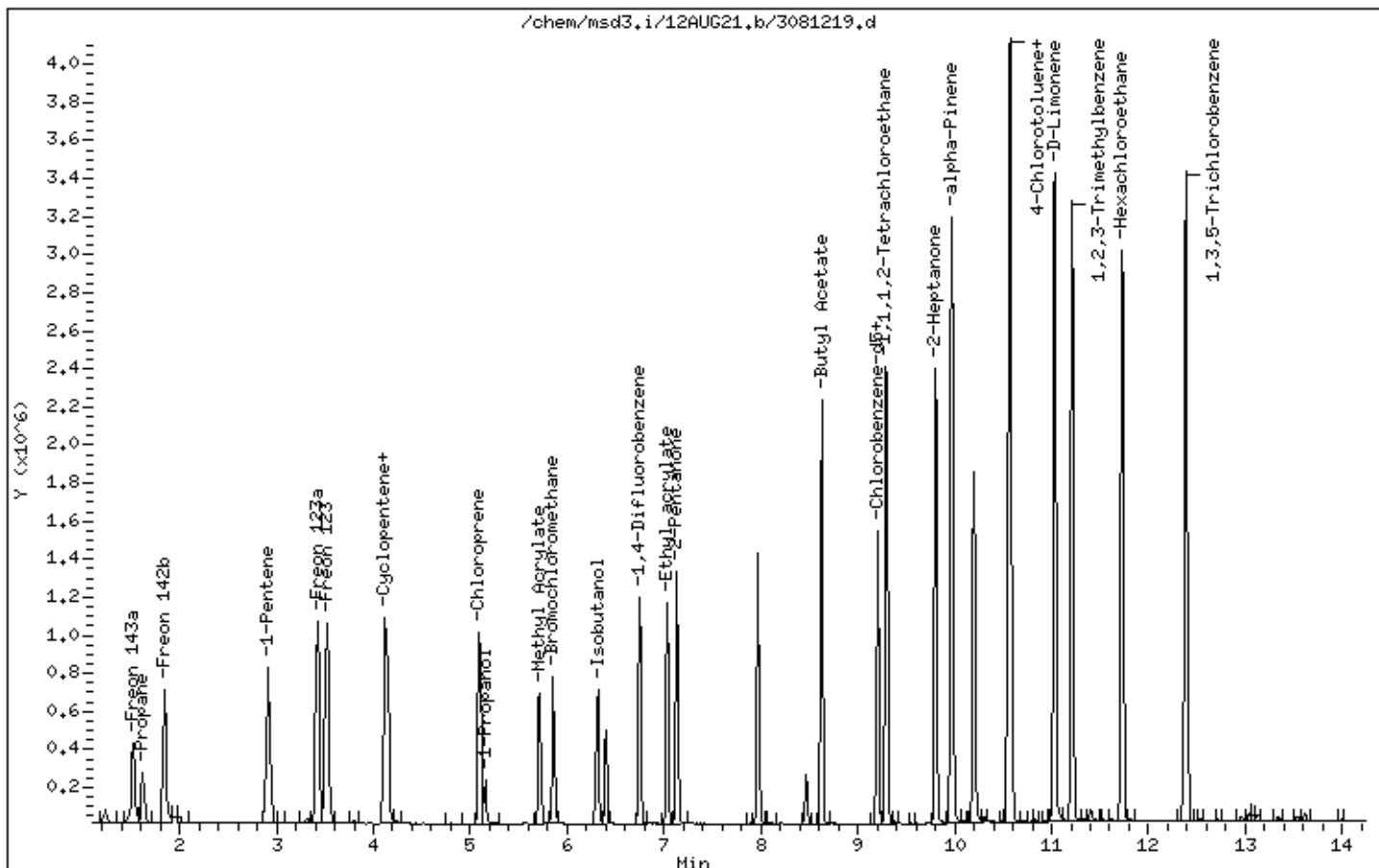
Instrument: msd3,i

Sample Info: 50ml #3018-2127

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081209.d  
Lab Smp Id: ICAL Level #10  
Inj Date : 12-AUG-2021 19:32  
Operator : LD Inst ID: msd3.i  
Smp Info : 100ml 3018-2213  
Misc Info : 100ppbv(200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 08:08 ugdc Quant Type: ISTD  
Cal Date : 12-AUG-2021 19:32 Cal File: 3081209.d  
Als bottle: 13 Calibration Sample, Level: 10  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	(PPBV)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2								
1.576	1.577	(0.269)	83	604645	100.000	92.019	80.00- 120.00	100.00
1.576	1.577	(0.269)	69	494340			50.75- 110.75	81.76
1.576	1.577	(0.269)	51	103526			0.00- 49.76	17.12
-----								
5 Propylene CAS #: 115-07-1								
1.618	1.619	(0.276)	41	613766	100.000	95.889	80.00- 120.00	100.00
1.618	1.619	(0.276)	42	403498			36.66- 96.66	65.74
1.618	1.619	(0.276)	39	456829			44.11- 104.11	74.43
-----								
7 1,1-Difluoroethane CAS #: 75-37-6								
1.632	1.633	(0.279)	65	367504	100.000	91.404	80.00- 120.00	100.00
1.632	1.633	(0.279)	51	816284			217.13- 277.13	222.12
1.646	1.633	(0.281)	47	295403			48.77- 108.77	80.38
-----								
8 Freon 12 CAS #: 75-71-8								
1.660	1.661	(0.283)	85	1683759	100.000	93.785	80.00- 120.00	100.00
1.660	1.661	(0.283)	87	545164			2.35- 62.35	32.38
-----								
9 Chlorodifluoromethane CAS #: 75-45-6								
1.688	1.689	(0.288)	67	178112	100.000	78.039	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.688	1.689	(0.288)	51	1484292			710.68- 770.68	833.35
-----								
10 Freon 114 CAS #: 76-14-2								
1.800	1.800	(0.307)	135	1263736	100.000	92.306	80.00- 120.00	100.00
1.800	1.800	(0.307)	137	408896			2.06- 62.06	32.36
-----								
12 Isobutane CAS #: 75-28-5								
1.814	1.800	(0.310)	43	1399910	100.000	96.533	80.00- 120.00	100.00
1.814	1.800	(0.310)	42	459198			2.70- 62.70	32.80
1.814	1.800	(0.310)	58	47050			0.00- 33.44	3.36
-----								
15 Chloromethane CAS #: 74-87-3								
1.884	1.884	(0.322)	50	721819	100.000	92.240	80.00- 120.00	100.00
1.884	1.884	(0.322)	52	231683			3.38- 63.38	32.10
-----								
18 Butane CAS #: 106-97-8								
1.968	1.968	(0.336)	58	155073	100.000	82.914	80.00- 120.00	100.00
1.968	1.968	(0.336)	43	1210323			760.51- 820.51	780.49
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.010	2.010	(0.343)	62	702144	100.000	82.040	80.00- 120.00	100.00
2.010	2.010	(0.343)	64	207527			0.32- 60.32	29.56
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.052	2.038	(0.350)	54	618025	100.000	74.492	80.00- 120.00	100.00
2.038	2.038	(0.348)	39	632247			72.94- 132.94	102.30
-----								
24 Bromomethane CAS #: 74-83-9								
2.458	2.458	(0.420)	94	560784	100.000	87.522	80.00- 120.00	100.00
2.458	2.458	(0.420)	96	523846			63.18- 123.18	93.41
-----								
30 Chloroethane CAS #: 75-00-3								
2.598	2.598	(0.443)	64	343724	100.000	91.205	80.00- 120.00	100.00
2.598	2.598	(0.443)	66	105593			1.10- 61.10	30.72
2.598	2.598	(0.443)	49	118849			5.46- 65.46	34.58
-----								
31 Isopentane CAS #: 78-78-4								
2.626	2.626	(0.448)	43	926846	100.000	94.895	80.00- 120.00	100.00
2.626	2.626	(0.448)	57	608489			36.12- 96.12	65.65
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.836	2.836	(0.484)	106	633279	100.000	92.276	80.00- 120.00	100.00
2.836	2.836	(0.484)	108	590084			63.01- 123.01	93.18
-----								
33 Freon 11 CAS #: 75-69-4								
2.892	2.892	(0.494)	101	1851895	100.000	92.629	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.892	2.892	(0.494)	103	1205140			36.55- 96.55	65.08
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.906	2.906	(0.496)	67	1420170	100.000	93.308	80.00- 120.00	100.00
2.906	2.906	(0.496)	69	445107			1.82- 61.82	31.34
-----								
35 Pentane CAS #: 109-66-0								
2.976	2.976	(0.508)	43	1477795	100.000	91.302	80.00- 120.00	100.00
2.976	2.976	(0.508)	57	223740			0.00- 45.52	15.14
2.976	2.976	(0.508)	72	120216			0.00- 38.25	8.13
-----								
39 Ethanol CAS #: 64-17-5								
3.283	3.284	(0.560)	46	134327	100.000	83.911	80.00- 120.00	100.00
3.283	3.284	(0.560)	45	297689			213.29- 273.29	221.62
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.325	3.326	(0.568)	74	307549	100.000	91.925	80.00- 120.00	100.00
3.325	3.326	(0.568)	59	531078			143.51- 203.51	172.68
3.325	3.326	(0.568)	45	537526			143.53- 203.53	174.78
-----								
42 Acrolein CAS #: 107-02-8								
3.591	3.591	(0.613)	55	238592	100.000	95.557	80.00- 120.00	100.00
3.591	3.591	(0.613)	56	328977			104.02- 164.02	137.88
-----								
43 Freon 113 CAS #: 76-13-1								
3.591	3.591	(0.613)	151	1196653	100.000	90.359	80.00- 120.00	100.00
3.591	3.591	(0.613)	153	767585			34.03- 94.03	64.14
3.591	3.591	(0.613)	101	1435513			89.72- 149.72	119.96
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.619	3.619	(0.618)	96	655153	100.000	88.087	80.00- 120.00	100.00
3.619	3.619	(0.618)	98	415805			32.85- 92.85	63.47
3.619	3.619	(0.618)	61	1302534			165.91- 225.91	198.81
-----								
47 Acetone CAS #: 67-64-1								
3.787	3.787	(0.646)	58	389560	100.000	92.496	80.00- 120.00	100.00
3.787	3.787	(0.646)	43	1382716			325.09- 385.09	354.94
-----								
49 Iodomethane CAS #: 74-88-4								
3.843	3.829	(0.656)	142	1651631	100.000	102.23	80.00- 120.00	100.00
3.843	3.829	(0.656)	127	767674			16.98- 76.98	46.48
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.857	3.857	(0.658)	76	1789007	100.000	94.561	80.00- 120.00	100.00
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.955	3.941	(0.675)	45	1535368	100.000	94.811	80.00- 120.00	100.00
3.955	3.941	(0.675)	43	301142			0.00- 49.76	19.61
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.109	4.109	(0.701)	76	298085	100.000	91.278	80.00- 120.00	100.00
4.109	4.109	(0.701)	41	1104294			344.92- 404.92	370.46
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.221	4.221	(0.721)	41	689078	100.000	96.552	80.00- 120.00	100.00
4.221	4.221	(0.721)	40	356374			24.08- 84.08	51.72
4.221	4.221	(0.721)	38	84114			0.00- 42.84	12.21
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.291	4.291	(0.732)	49	992176	100.000	93.988	80.00- 120.00	100.00
4.291	4.291	(0.732)	84	562747			27.95- 87.95	56.72
4.291	4.291	(0.732)	51	296150			0.78- 60.78	29.85
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.417	4.417	(0.754)	59	1786499	100.000	96.297	80.00- 120.00	100.00
4.417	4.417	(0.754)	41	397618			0.00- 52.58	22.26
4.417	4.417	(0.754)	57	200199			0.00- 40.94	11.21
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.515	4.515	(0.771)	73	1914929	100.000	94.511	80.00- 120.00	100.00
4.515	4.515	(0.771)	57	543640			0.00- 58.27	28.39
4.515	4.515	(0.771)	41	551969			0.00- 58.78	28.82
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.543	4.543	(0.775)	98	436507	100.000	92.940	80.00- 120.00	100.00
4.543	4.543	(0.775)	61	1176989			236.85- 296.85	269.64
4.543	4.543	(0.775)	96	687583			126.72- 186.72	157.52
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.655	4.655	(0.795)	52	516225	100.000	82.054	80.00- 120.00	100.00
4.655	4.655	(0.795)	53	614443			88.92- 148.92	119.03
-----								
67 Hexane						CAS #: 110-54-3		
4.753	4.753	(0.811)	57	1280858	100.000	93.718	80.00- 120.00	100.00
4.753	4.753	(0.811)	43	850975			36.74- 96.74	66.44
4.753	4.753	(0.811)	86	165108			0.00- 43.22	12.89
-----								
72 Isopropyl ether						CAS #: 108-20-3		
5.018	5.019	(0.857)	45	2889587	100.000	96.570	80.00- 120.00	100.00
5.032	5.033	(0.859)	87	616543			0.00- 51.44	21.34
5.032	5.019	(0.859)	59	308106			0.00- 40.81	10.66
-----								



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
71 1,1-Dichloroethane						CAS #: 75-34-3		
5.046	5.047	(0.861)	63	1320881	100.000	90.941	80.00- 120.00	100.00
5.046	5.047	(0.861)	65	397780			0.56- 60.56	30.11
73 Vinyl Acetate						CAS #: 108-05-4		
5.088	5.089	(0.869)	86	175117	100.000	97.793	80.00- 120.00	100.00
5.074	5.075	(0.866)	43	2566223			1473.01-1533.01	1465.43
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.382	5.382	(0.919)	59	2637954	100.000	97.119	80.00- 120.00	100.00
5.382	5.382	(0.919)	87	918563			4.28- 64.28	34.82
5.382	5.382	(0.919)	41	524963			0.00- 49.94	19.90
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.592	5.592	(0.955)	77	1302664	100.000	95.171	80.00- 120.00	100.00
5.592	5.592	(0.955)	79	422505			2.43- 62.43	32.43
5.592	5.592	(0.955)	97	297221			0.00- 53.03	22.82
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.620	5.620	(0.959)	98	470125	100.000	94.360	80.00- 120.00	100.00
5.620	5.620	(0.959)	96	704833			121.91- 181.91	149.92
5.620	5.620	(0.959)	61	1606827			313.72- 373.72	341.79
86 2-Butanone						CAS #: 78-93-3		
5.648	5.648	(0.964)	72	353757	100.000	97.294	80.00- 120.00	100.00
5.662	5.662	(0.967)	43	3951952			1111.25-1171.25	1117.14
5.648	5.648	(0.964)	57	143266			11.22- 71.22	40.50
87 Ethyl Acetate						CAS #: 141-78-6		
5.662	5.662	(0.967)	45	314537	100.000	91.489	80.00- 120.00	100.00
5.620	5.620	(0.959)	61	1606827			469.17- 529.17	510.85
5.662	5.662	(0.967)	70	190391			29.38- 89.38	60.53
89 Tetrahydrofuran						CAS #: 109-99-9		
5.858	5.858	(1.000)	42	998761	100.000	89.603	80.00- 120.00	100.00
5.858	5.858	(1.000)	71	305757			0.09- 60.09	30.61
5.858	5.858	(1.000)	72	317658			2.13- 62.13	31.81
* 90 Bromochloromethane						CAS #: 74-97-5		
5.858	5.858	(1.000)	130	223965	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	174233			47.29- 107.29	77.79
5.858	5.858	(1.000)	49	343905			122.83- 182.83	153.55
92 Chloroform						CAS #: 67-66-3		
5.914	5.914	(1.010)	83	1481268	100.000	92.651	80.00- 120.00	100.00
5.914	5.914	(1.010)	85	962912			34.29- 94.29	65.01

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
94 Cyclohexane						CAS #: 110-82-7		
6.026	6.026	(1.029)	84	910145	100.000	93.011	80.00- 120.00	100.00
6.026	6.026	(1.029)	56	1328827			116.85- 176.85	146.00
6.026	6.026	(1.029)	41	784758			57.77- 117.77	86.22
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
6.054	6.054	(1.033)	97	1609998	100.000	92.707	80.00- 120.00	100.00
6.054	6.054	(1.033)	99	1023081			34.55- 94.55	63.55
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.166	6.166	(1.053)	119	1692501	100.000	100.60	80.00- 120.00	100.00
6.166	6.166	(1.053)	117	1763433			74.20- 134.20	104.19
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.194	6.194	(0.918)	110	402755	100.000	95.613	80.00- 120.00	100.00
6.194	6.194	(0.918)	75	1047403			229.39- 289.39	260.06
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.362	6.348	(1.086)	57	4133059	100.000	94.563	80.00- 120.00	100.00
6.348	6.348	(1.084)	56	1290062			1.14- 61.14	31.21
6.348	6.348	(1.084)	41	1197349			0.00- 59.12	28.97
102 Benzene						CAS #: 71-43-2		
6.390	6.376	(0.947)	78	1942478	100.000	91.035	80.00- 120.00	100.00
6.390	6.376	(0.947)	77	465705			0.00- 53.48	23.97
§ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.404	6.404	(1.093)	65	305447	25.0000	24.555	80.00- 120.00	100.00
6.404	6.404	(1.093)	67	170908			20.51- 80.51	55.95
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.446	6.446	(0.955)	87	533934	100.000	96.910	80.00- 120.00	100.00
6.432	6.446	(0.953)	73	2093521			363.80- 423.80	392.09
6.432	6.432	(0.953)	55	672259			97.13- 157.13	125.91
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.474	6.474	(0.959)	62	1155866	100.000	90.829	80.00- 120.00	100.00
6.474	6.474	(0.959)	64	363748			1.41- 61.41	31.47
107 Heptane						CAS #: 142-82-5		
6.516	6.516	(0.965)	71	848711	100.000	100.61	80.00- 120.00	100.00
6.516	6.516	(0.965)	43	1348356			146.45- 206.45	158.87
6.516	6.516	(0.965)	57	965704			90.20- 150.20	113.78
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.750	6.750	(1.000)	114	811726	25.0000		80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene (continued)								
6.750	6.750	(1.000)	88	122478			0.00- 45.09	15.09
-----								
110 n-Butanol					CAS #: 71-36-3			
6.893	6.893	(1.021)	56	704926	100.000	96.464	80.00- 120.00	100.00
6.893	6.886	(1.021)	41	522570			44.46- 104.46	74.13
6.893	6.886	(1.021)	43	413805			28.14- 88.14	58.70
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.950	6.943	(1.030)	95	966637	100.000	92.990	80.00- 120.00	100.00
6.950	6.950	(1.030)	130	1047476			79.68- 139.68	108.36
6.950	6.943	(1.030)	97	624243			34.74- 94.74	64.58
-----								
127 Methylcyclohexane					CAS #: 108-87-2			
7.050	7.051	(1.045)	83	1246392	100.000	95.178	80.00- 120.00	100.00
7.050	7.051	(1.045)	98	578405			17.10- 77.10	46.41
7.050	7.051	(1.045)	55	1255809			71.11- 131.11	100.76
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.187	7.187	(1.065)	63	872630	100.000	91.441	80.00- 120.00	100.00
7.187	7.187	(1.065)	62	613654			40.55- 100.55	70.32
7.187	7.187	(1.065)	41	649408			36.07- 96.07	74.42
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.230	7.230	(0.785)	69	794230	100.000	95.971	80.00- 120.00	100.00
7.230	7.230	(0.785)	41	1420959			160.67- 220.67	178.91
7.230	7.230	(0.785)	100	331389			11.33- 71.33	41.72
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.273	7.273	(1.077)	88	566650	100.000	95.040	80.00- 120.00	100.00
7.273	7.273	(1.077)	58	476527			56.19- 116.19	84.10
7.273	7.273	(1.077)	57	161663			0.00- 59.32	28.53
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.301	7.294	(0.793)	174	915355	100.000	93.301	80.00- 120.00	100.00
7.294	7.294	(0.792)	93	883189			66.88- 126.88	96.49
7.294	7.294	(0.792)	95	729464			49.90- 109.90	79.69
-----								
122 Bromodichloromethane					CAS #: 75-27-4			
7.409	7.409	(1.098)	83	1623890	100.000	93.524	80.00- 120.00	100.00
7.409	7.409	(1.098)	85	1051767			33.85- 93.85	64.77
-----								
151 1-Bromo-2-Chloroethane					CAS #: 107-04-0			
7.702	7.702	(1.141)	63	1639281	100.000	96.237	80.00- 120.00	100.00
7.702	7.702	(1.141)	65	496302			0.05- 60.05	30.28
7.702	7.702	(1.141)	144	180067			0.00- 40.91	10.98
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.781	7.781	(1.153)	75	1255573	100.000	95.059	80.00- 120.00	100.00
7.781	7.781	(1.153)	77	398078			1.50- 61.50	31.70
7.781	7.781	(1.153)	39	902397			43.12- 103.12	71.87
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.889	7.889	(1.169)	58	838749	100.000	90.738	80.00- 120.00	100.00
7.889	7.889	(1.169)	43	2332873			247.84- 307.84	278.14
7.889	7.889	(1.169)	85	327847			8.73- 68.73	39.09
-----								
\$ 134 Toluene-d8						CAS #: 2037-26-5		
7.967	7.967	(1.180)	98	824578	25.0000	25.119	80.00- 120.00	100.00
7.967	7.967	(1.180)	70	87651			0.00- 42.00	10.63
7.967	7.967	(1.180)	100	556718			37.14- 97.14	67.52
-----								
136 Octane						CAS #: 111-65-9		
8.010	8.010	(1.187)	57	865953	100.000	90.858	80.00- 120.00	100.00
8.010	8.010	(1.187)	85	867428			67.77- 127.77	100.17
8.010	8.010	(1.187)	43	2221534			225.27- 285.27	256.54
-----								
137 Toluene						CAS #: 108-88-3		
8.025	8.025	(1.189)	91	2642832	100.000	93.410	80.00- 120.00	100.00
8.025	8.025	(1.189)	92	1540142			28.13- 88.13	58.28
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.254	8.254	(0.897)	75	1234292	100.000	94.024	80.00- 120.00	100.00
8.254	8.254	(0.897)	77	388174			1.93- 61.93	31.45
8.254	8.254	(0.897)	39	841804			38.37- 98.37	68.20
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.419	8.419	(0.914)	97	917778	100.000	93.611	80.00- 120.00	100.00
8.419	8.419	(0.914)	99	564788			31.66- 91.66	61.54
8.419	8.419	(0.914)	83	786245			55.24- 115.24	85.67
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.462	8.462	(0.919)	166	1340991	100.000	93.776	80.00- 120.00	100.00
8.462	8.462	(0.919)	129	1055281			48.51- 108.51	78.69
8.462	8.462	(0.919)	131	1019744			45.64- 105.64	76.04
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.569	8.569	(1.270)	76	1264325	100.000	90.210	80.00- 120.00	100.00
8.569	8.569	(1.270)	41	1584639			96.83- 156.83	125.33
8.569	8.569	(1.270)	78	416068			2.46- 62.46	32.91
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.576	8.576	(0.932)	58	1320176	100.000	95.592	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone (continued)								
8.576	8.576	(0.932)	43	2630553			169.24- 229.24	199.26
8.576	8.576	(0.932)	100	248874			0.00- 48.72	18.85
-----								
146 Dibromochloromethane CAS #: 124-48-1								
8.734	8.734	(0.949)	129	1900765	100.000	97.642	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	1480641			47.05- 107.05	77.90
-----								
148 1,2-Dibromoethane (EDB) CAS #: 106-93-4								
8.856	8.856	(0.962)	107	1490644	100.000	94.117	80.00- 120.00	100.00
8.856	8.856	(0.962)	109	1402968			64.74- 124.74	94.12
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	767872	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	411016			23.62- 83.62	53.53
-----								
154 Chlorobenzene CAS #: 108-90-7								
9.235	9.235	(1.003)	112	2256749	100.000	92.638	80.00- 120.00	100.00
9.235	9.235	(1.003)	114	729883			2.19- 62.19	32.34
9.235	9.228	(1.003)	77	1200686			23.66- 83.66	53.20
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.278	9.278	(1.008)	106	1138909	100.000	94.522	80.00- 120.00	100.00
9.278	9.278	(1.008)	91	3533324			282.43- 342.43	310.24
-----								
156 Nonane CAS #: 111-84-2								
9.278	9.278	(1.008)	43	2282718	100.000	93.415	80.00- 120.00	100.00
9.278	9.278	(1.008)	57	1967753			55.73- 115.73	86.20
9.278	9.278	(1.008)	85	670320			0.00- 58.99	29.36
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.371	9.371	(1.018)	106	1406441	100.000	95.137	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	2802458			169.66- 229.66	199.26
-----								
164 o-Xylene CAS #: 95-47-6								
9.722	9.722	(1.056)	106	1346341	100.000	96.232	80.00- 120.00	100.00
9.722	9.722	(1.056)	91	2824386			180.55- 240.55	209.78
-----								
165 Styrene CAS #: 100-42-5								
9.737	9.737	(1.058)	104	2328449	100.000	96.098	80.00- 120.00	100.00
9.737	9.737	(1.058)	78	1131255			18.65- 78.65	48.58
-----								
167 Bromoform CAS #: 75-25-2								
9.944	9.944	(1.080)	173	1811244	100.000	98.196	80.00- 120.00	100.00
9.944	9.944	(1.080)	171	931553			21.64- 81.64	51.43
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.009	10.009	(1.087)	105	4227785	100.000	94.742	80.00- 120.00	100.00
10.009	10.009	(1.087)	120	1158081			0.00- 57.04	27.39
10.009	10.009	(1.087)	51	510771			0.00- 41.95	12.08
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.188	10.188	(1.107)	55	1747294	100.000	84.886	80.00- 120.00	100.00
10.188	10.188	(1.107)	98	674306			8.59- 68.59	38.59
10.188	10.188	(1.107)	42	1323997			46.18- 106.18	75.77
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.202	10.202	(1.108)	174	509615	25.0000	25.242	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	614226			92.25- 152.25	120.53
10.202	10.202	(1.108)	176	474547			63.07- 123.07	93.12
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
10.317	10.317	(1.121)	83	2011313	100.000	92.325	80.00- 120.00	100.00
10.317	10.317	(1.121)	85	1299373			34.44- 94.44	64.60
-----								
177 Bromobenzene						CAS #: 108-86-1		
10.345	10.338	(1.124)	156	1352478	100.000	95.513	80.00- 120.00	100.00
10.345	10.346	(1.124)	158	1307572			67.20- 127.20	96.68
10.338	10.338	(1.123)	77	2182788			131.36- 191.36	161.39
-----								
178 Propylbenzene						CAS #: 103-65-1		
10.360	10.360	(1.125)	120	1202597	100.000	93.909	80.00- 120.00	100.00
10.360	10.360	(1.125)	91	4946593	100.000	93.263	385.23- 445.23	411.33
10.360	10.360	(1.125)	105	189875			0.00- 46.02	15.79
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
10.374	10.374	(1.127)	53	509012	100.000	90.643	80.00- 120.00	100.00
10.374	10.374	(1.127)	89	356106			40.38- 100.38	69.96
10.381	10.381	(1.128)	75	2153087			394.61- 454.61	422.99
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
10.388	10.389	(1.128)	110	648218	100.000	92.486	80.00- 120.00	100.00
10.381	10.381	(1.128)	75	2153078			301.57- 361.57	332.15
10.381	10.381	(1.128)	61	541666			54.32- 114.32	83.56
-----								
182 Decane						CAS #: 124-18-5		
10.396	10.396	(1.129)	57	2541540	100.000	85.559	80.00- 120.00	100.00
10.396	10.396	(1.129)	71	844825			2.98- 62.98	33.24
10.396	10.396	(1.129)	142	129554			0.00- 35.12	5.10
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
10.453	10.453	(1.135)	120	1285772	100.000	92.915	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
10.453	10.453	(1.135)	105	4352876			295.29- 355.29	338.54
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
10.482	10.482	(1.138)	126	1074165	100.000	93.459	80.00- 120.00	100.00
10.482	10.482	(1.138)	91	3813531			325.01- 385.01	355.02
10.482	10.482	(1.138)	65	543989			19.90- 79.90	50.64
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
10.503	10.503	(1.141)	120	1835495	100.000	95.562	80.00- 120.00	100.00
10.503	10.503	(1.141)	105	3593141			176.14- 236.14	195.76
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
10.711	10.704	(1.163)	118	1916270	100.000	100.67	80.00- 120.00	100.00
10.704	10.704	(1.163)	103	1083628			26.69- 86.69	56.55
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
10.782	10.783	(1.171)	119	3448941	100.000	95.420	80.00- 120.00	100.00
10.782	10.783	(1.171)	134	856121			0.00- 54.52	24.82
10.782	10.783	(1.171)	91	2294775			34.68- 94.68	66.54
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
10.833	10.833	(1.177)	105	3571205	100.000	95.535	80.00- 120.00	100.00
10.833	10.833	(1.177)	120	1695972			17.12- 77.12	47.49
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
10.969	10.969	(1.191)	134	1099531	100.000	91.997	80.00- 120.00	100.00
10.969	10.969	(1.191)	105	5163080			438.96- 498.96	469.57
10.969	10.969	(1.191)	91	825657			44.37- 104.37	75.09
-----								
194 p-Cymene CAS #: 99-87-6								
11.083	11.083	(1.204)	119	4637150	100.000	94.269	80.00- 120.00	100.00
11.083	11.083	(1.204)	134	1255126			0.00- 56.91	27.07
11.083	11.083	(1.204)	91	1100771			0.00- 53.86	23.74
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
11.133	11.134	(1.209)	146	2520200	100.000	94.603	80.00- 120.00	100.00
11.133	11.134	(1.209)	148	1604410			33.78- 93.78	63.66
11.133	11.134	(1.209)	111	1037226			11.40- 71.40	41.16
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
11.212	11.212	(1.218)	146	2564443	100.000	94.423	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	1635551			33.73- 93.73	63.78
11.212	11.212	(1.218)	111	1013710			9.40- 69.40	39.53
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
11.334	11.334	(1.231)	91	3588081	100.000	97.400	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
11.334	11.334	(1.231)	126	810870			0.00- 52.58	22.60
-----								
201 Undecane						CAS #: 1120-21-4		
11.406	11.406	(1.239)	57	3040457	100.000	92.204	80.00- 120.00	100.00
11.406	11.406	(1.239)	43	2781285			62.03- 122.03	91.48
-----								
202 Butylbenzene						CAS #: 104-51-8		
11.434	11.434	(1.242)	134	1224367	100.000	93.103	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	4295019			322.91- 382.91	350.80
11.434	11.434	(1.242)	92	2265932			155.43- 215.43	185.07
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
11.549	11.549	(1.254)	146	2432446	100.000	94.237	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	1544310			33.66- 93.66	63.49
11.549	11.549	(1.254)	111	1035304			12.36- 72.36	42.56
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
12.258	12.258	(1.331)	157	1530086	100.000	96.369	80.00- 120.00	100.00
12.258	12.258	(1.331)	75	1327484			56.77- 116.77	86.76
12.258	12.258	(1.331)	155	1194364			48.17- 108.17	78.06
-----								
207 Dodecane						CAS #: 112-40-3		
12.358	12.358	(1.342)	57	3434680	123.600	117.48	80.00- 120.00	100.00
12.358	12.358	(1.342)	43	2968457			56.62- 116.62	86.43
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
13.039	13.039	(1.416)	180	2391766	125.900	118.97	80.00- 120.00	100.00
13.039	13.039	(1.416)	182	2285691			64.88- 124.88	95.56
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
13.132	13.132	(1.426)	225	1786134	128.700	123.16	80.00- 120.00	100.00
13.132	13.132	(1.426)	223	1141701			33.46- 93.46	63.92
-----								
216 Naphthalene						CAS #: 91-20-3		
13.340	13.340	(1.449)	128	649192	12.7000	11.687	80.00- 120.00	100.00
13.340	13.340	(1.449)	127	85824			0.00- 43.71	13.22
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
13.619	13.619	(1.479)	180	2357813	133.100	126.27	80.00- 120.00	100.00
13.619	13.619	(1.479)	182	2259754			66.23- 126.23	95.84
13.612	13.612	(1.478)	145	845515			5.93- 65.93	35.86
-----								



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081209.d  
 Lab Smp Id: ICAL Level #10  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 100ppbv(200ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	223965	-2.58
108 1,4-Difluorobenze	822152	493291	1151013	811726	-1.27
153 Chlorobenzene-d5	775771	465463	1086079	767872	-1.02

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Date : 12-AUG-2021 19:32

Client ID:

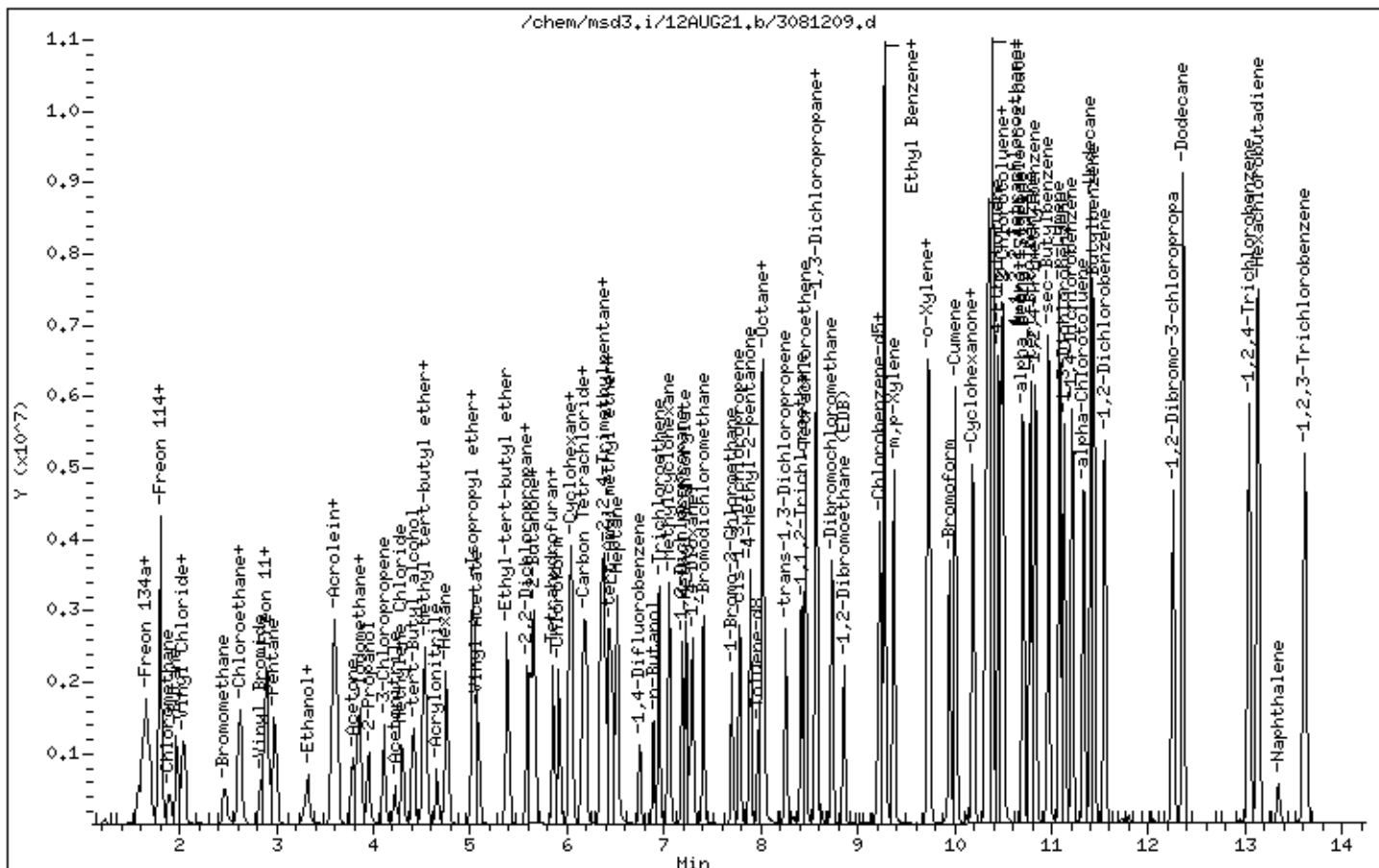
Instrument: msd3,i

Sample Info: 100ml 3018-2213

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081220.d  
 Lab Smp Id: ICAL Level #10  
 Inj Date : 13-AUG-2021 01:31  
 Operator : gh Inst ID: msd3.i  
 Smp Info : 100ml #3018-2127  
 Misc Info : 100ppbv(200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
 Meth Date : 13-Aug-2021 12:38 ugdc Quant Type: ISTD  
 Cal Date : 13-AUG-2021 01:31 Cal File: 3081220.d  
 Als bottle: 3 Calibration Sample, Level: 10  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.858	5.858	(1.000)	130	237670	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	183398			47.29- 107.29	77.16
5.858	5.858	(1.000)	49	358427			122.83- 182.83	150.81
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.750	6.750	(1.000)	114	859336	25.0000		80.00- 120.00	100.00
6.750	6.750	(1.000)	88	130058			0.00- 45.09	15.13
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.206	9.207	(1.000)	117	800223	25.0000		80.00- 120.00	100.00
9.206	9.207	(1.000)	82	428489			23.62- 83.62	53.55
-----								
3 Freon 143a CAS #: 420-46-2								
1.520	1.520	(0.260)	65	475017	100.000	94.556	80.00- 120.00	100.00
1.520	1.520	(0.260)	69	1132785			217.09- 277.09	238.47
1.520	1.520	(0.260)	64	114943			0.00- 55.87	24.20
-----								
6 Propane CAS #: 74-98-6								
1.618	1.618	(0.276)	43	243703	100.000	97.524	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.618	1.618	(0.276)	39	175638			41.62- 101.62	72.07
1.618	1.618	(0.276)	41	135519			22.97- 82.97	55.61
-----								
13 Freon 142b CAS #: 75-68-3								
1.842	1.842	(0.314)	65	1537657	100.000	97.240	80.00- 120.00	100.00
1.842	1.842	(0.314)	45	435393			0.00- 58.17	28.32
-----								
36 1-Pentene CAS #: 109-67-1								
2.920	2.920	(0.498)	55	906024	100.000	99.693	80.00- 120.00	100.00
2.920	2.920	(0.498)	42	1206211			99.17- 159.17	133.13
-----								
40 Freon 123a CAS #: 354-23-4								
3.423	3.423	(0.584)	117	1092738	100.000	97.528	80.00- 120.00	100.00
3.423	3.423	(0.584)	67	1406838			103.13- 163.13	128.74
-----								
41 Freon 123 CAS #: 306-83-2								
3.521	3.521	(0.601)	83	1536452	100.000	97.283	80.00- 120.00	100.00
3.521	3.521	(0.601)	133	354550			0.00- 51.81	23.08
3.521	3.521	(0.601)	85	1031268			37.13- 97.13	67.12
-----								
55 Cyclopentene CAS #: 142-29-0								
4.123	4.123	(0.704)	67	1603824	100.000	99.676	80.00- 120.00	100.00
4.123	4.123	(0.704)	68	607103			7.90- 67.90	37.85
4.123	4.123	(0.704)	53	411672			0.00- 54.87	25.67
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.151	4.151	(0.709)	43	1712926	100.000	98.682	80.00- 120.00	100.00
4.151	4.151	(0.709)	74	281420			0.00- 47.15	16.43
-----								
74 Chloroprene CAS #: 126-99-8								
5.088	5.088	(0.869)	53	1453940	100.000	100.51	80.00- 120.00	100.00
5.102	5.102	(0.871)	88	603756			12.33- 72.33	41.53
5.088	5.088	(0.869)	50	414651			0.00- 57.62	28.52
-----								
75 1-Propanol CAS #: 71-23-8								
5.158	5.158	(0.881)	59	188640	100.000	96.464	80.00- 120.00	100.00
5.158	5.158	(0.881)	42	170779			53.89- 113.89	90.53
5.158	5.158	(0.881)	41	111189			24.09- 84.09	58.94
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.718	5.718	(0.976)	55	1677993	100.000	99.298	80.00- 120.00	100.00
5.718	5.718	(0.976)	85	222690			0.00- 43.24	13.27
5.718	5.718	(0.976)	58	143823			0.00- 38.83	8.57
-----								
103 Isobutanol CAS #: 78-83-1								
6.320	6.320	(1.079)	39	248464	100.000	96.635	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.320	6.320	(1.079)	43	876382			327.69- 387.69	352.72
6.320	6.320	(1.079)	41	655942			237.56- 297.56	264.00
-----								
113 Ethyl acrylate								
							CAS #: 140-88-5	
7.036	7.036	(0.764)	99	133698	100.000	100.40	80.00- 120.00	100.00
7.036	7.036	(0.764)	45	214381			124.67- 184.67	160.35
7.036	7.036	(0.764)	55	2203828			1601.30-1661.30	1648.36
-----								
115 2-Pentanone								
							CAS #: 107-87-9	
7.129	7.129	(0.774)	43	2650800	100.000	99.700	80.00- 120.00	100.00
7.129	7.129	(0.774)	58	200154			0.00- 37.25	7.55
7.136	7.136	(0.775)	86	390140			0.00- 45.08	14.72
-----								
145 Butyl Acetate								
							CAS #: 123-86-4	
8.626	8.626	(1.278)	56	1170343	100.000	98.673	80.00- 120.00	100.00
8.626	8.626	(1.278)	73	408666			5.16- 65.16	34.92
8.626	8.626	(1.278)	43	2977426			214.00- 274.00	254.41
-----								
157 1,1,1,2-Tetrachloroethane								
							CAS #: 630-20-6	
9.300	9.300	(1.010)	131	1398561	100.000	100.25	80.00- 120.00	100.00
9.206	9.207	(1.000)	117	800223			38.22- 98.22	57.22
9.300	9.293	(1.010)	95	518237			7.54- 67.54	37.06
-----								
166 2-Heptanone								
							CAS #: 110-43-0	
9.801	9.801	(1.673)	58	1785535	100.000	100.78	80.00- 120.00	100.00
9.801	9.801	(1.673)	43	3057106			133.36- 193.36	171.22
-----								
172 D-Limonene								
							CAS #: 5989-27-5	
11.033	11.033	(1.198)	68	1547184	100.000	112.27	80.00- 120.00	100.00
11.033	11.033	(1.198)	93	1147630			42.08- 102.08	74.18
-----								
186 4-Chlorotoluene								
							CAS #: 106-43-4	
10.582	10.582	(1.149)	126	1220116	100.000	99.228	80.00- 120.00	100.00
10.575	10.575	(1.149)	91	3925876			305.94- 365.94	321.76
10.575	10.575	(1.149)	63	561051			15.44- 75.44	45.98
-----								
197 1,2,3-Trimethylbenzene								
							CAS #: 526-73-8	
11.212	11.212	(1.218)	120	1642278	100.000	101.42	80.00- 120.00	100.00
11.212	11.212	(1.218)	105	3779654			206.43- 266.43	230.15
11.212	11.212	(1.218)	77	445341			0.00- 58.29	27.12
-----								
205 Hexachloroethane								
							CAS #: 67-72-1	
11.735	11.728	(1.275)	201	1016389	100.000	105.66	80.00- 120.00	100.00
11.728	11.728	(1.274)	117	1405103			109.77- 169.77	138.24
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
12.387	12.387	(1.345)	180	2450776	100.000	99.130	80.00- 120.00	100.00
12.387	12.387	(1.345)	182	2332044			65.79- 125.79	95.16
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.973	9.973	(1.083)	93	2744910	100.000	104.40	80.00- 120.00	100.00
9.973	9.973	(1.083)	77	823092			0.13- 60.13	29.99
-----								
214 beta-Pinene						CAS #: 127-91-3		
10.560	10.560	(1.147)	93	2029911	100.000	104.42	80.00- 120.00	100.00
10.575	10.575	(1.149)	91	3925876			145.95- 205.95	193.40
-----								

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081220.d  
 Lab Smp Id: ICAL Level #10  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 100ppbv(200ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	237670	3.38
108 1,4-Difluorobenze	822152	493291	1151013	859336	4.52
153 Chlorobenzene-d5	775771	465463	1086079	800223	3.15

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Date : 13-AUG-2021 01:31

Client ID:

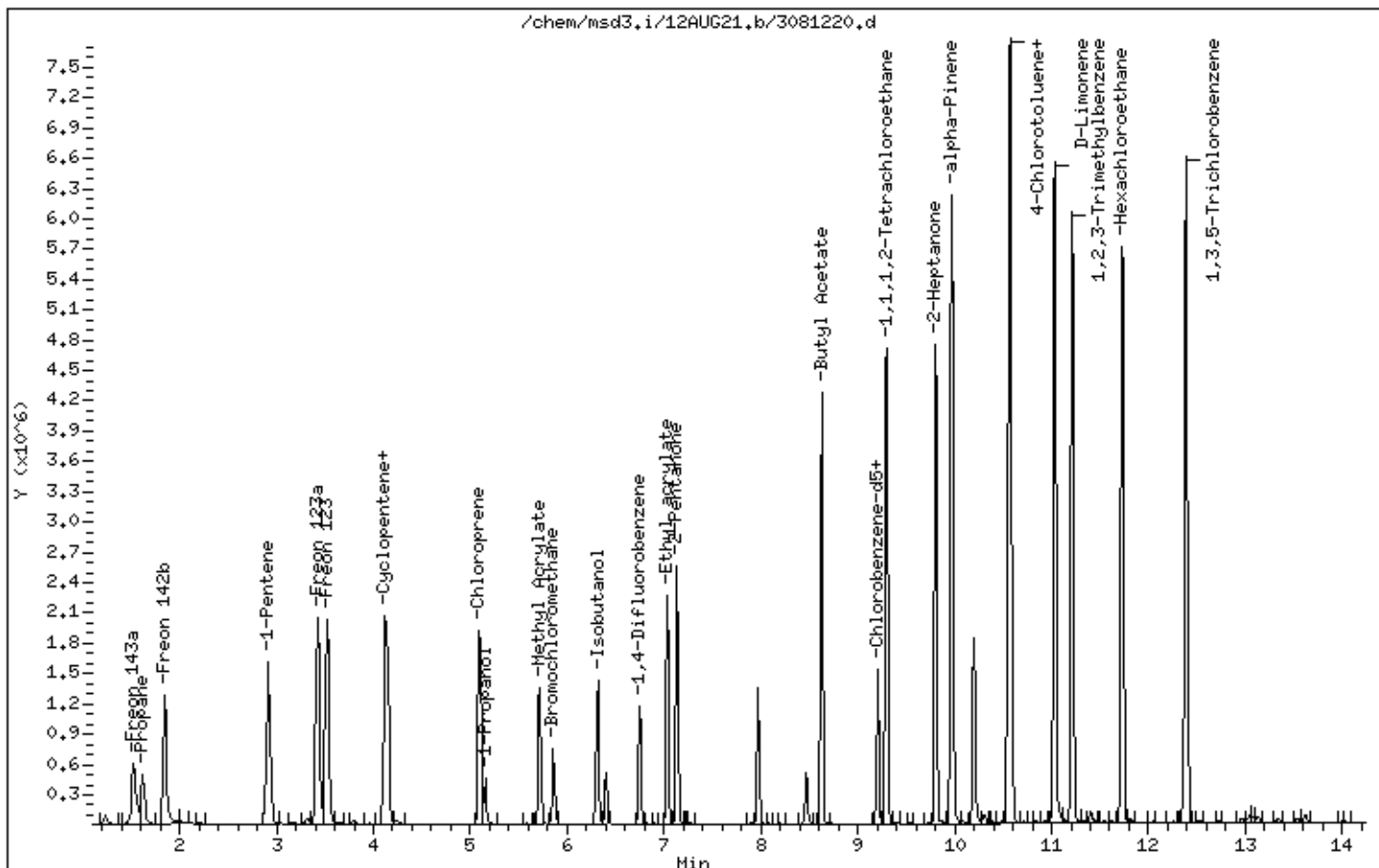
Instrument: msd3,i

Sample Info: 100ml #3018-2127

Operator: gh

Column phase: RTX-624

Column diameter: 0.25





US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081210.d  
Lab Smp Id: ICAL Level #11  
Inj Date : 12-AUG-2021 20:01  
Operator : LD Inst ID: msd3.i  
Smp Info : 200ml 3018-2213  
Misc Info : 200ppbv(200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 08:08 ugdc Quant Type: ISTD  
Cal Date : 12-AUG-2021 20:01 Cal File: 3081210.d  
Als bottle: 13 Calibration Sample, Level: 11  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20ICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
4 Freon 134a CAS #: 811-97-2							
1.591	1.577	(0.271)	83	1258865	200.000	184.78 80.00- 120.00	100.00
1.591	1.577	(0.271)	69	1021759		50.75- 110.75	81.17
1.493	1.577	(0.254)	51	103		0.00- 49.76	0.01
-----							
5 Propylene CAS #: 115-07-1							
1.619	1.619	(0.276)	41	1278020	200.000	191.73 80.00- 120.00	100.00
1.619	1.619	(0.276)	42	854423		36.66- 96.66	66.86
1.619	1.619	(0.276)	39	943677		44.11- 104.11	73.84
-----							
7 1,1-Difluoroethane CAS #: 75-37-6							
1.647	1.633	(0.280)	65	764800	200.000	184.05 80.00- 120.00	100.00
1.703	1.633	(0.290)	51	4014425		217.13- 277.13	524.90
1.661	1.633	(0.283)	47	586022		48.77- 108.77	76.62
-----							
8 Freon 12 CAS #: 75-71-8							
1.661	1.661	(0.283)	85	3457283	200.000	185.32 80.00- 120.00	100.00
1.661	1.661	(0.283)	87	1114479		2.35- 62.35	32.24
-----							
9 Chlorodifluoromethane CAS #: 75-45-6							
1.703	1.689	(0.290)	67	364303	200.000	157.41 80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
9 Chlorodifluoromethane (continued)								
1.703	1.689	(0.290)	51	4426600			710.68- 770.68	1215.09
-----								
10 Freon 114 CAS #: 76-14-2								
1.800	1.800	(0.307)	135	2563738	200.000	180.79	80.00- 120.00	100.00
1.800	1.800	(0.307)	137	822292			2.06- 62.06	32.07
-----								
12 Isobutane CAS #: 75-28-5								
1.814	1.800	(0.309)	43	2856429	200.000	189.27	80.00- 120.00	100.00
1.814	1.800	(0.309)	42	922755			2.70- 62.70	32.30
1.814	1.800	(0.309)	58	94251			0.00- 33.44	3.30
-----								
15 Chloromethane CAS #: 74-87-3								
1.898	1.884	(0.323)	50	1422149	200.000	177.05	80.00- 120.00	100.00
1.898	1.884	(0.323)	52	447696			3.38- 63.38	31.48
-----								
18 Butane CAS #: 106-97-8								
1.982	1.968	(0.338)	58	308735	200.000	163.03	80.00- 120.00	100.00
1.982	1.968	(0.338)	43	2437629			760.51- 820.51	789.55
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.010	2.010	(0.342)	62	1442009	200.000	164.53	80.00- 120.00	100.00
2.010	2.010	(0.342)	64	431964			0.32- 60.32	29.96
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.052	2.038	(0.349)	54	1264451	200.000	150.30	80.00- 120.00	100.00
2.052	2.038	(0.349)	39	1307358			72.94- 132.94	103.39
-----								
24 Bromomethane CAS #: 74-83-9								
2.472	2.458	(0.421)	94	1122712	200.000	171.62	80.00- 120.00	100.00
2.472	2.458	(0.421)	96	1051900			63.18- 123.18	93.69
-----								
30 Chloroethane CAS #: 75-00-3								
2.612	2.598	(0.445)	64	716168	200.000	183.90	80.00- 120.00	100.00
2.612	2.598	(0.445)	66	216733			1.10- 61.10	30.26
2.612	2.598	(0.445)	49	240386			5.46- 65.46	33.57
-----								
31 Isopentane CAS #: 78-78-4								
2.626	2.626	(0.447)	43	1923172	200.000	189.50	80.00- 120.00	100.00
2.626	2.626	(0.447)	57	1274220			36.12- 96.12	66.26
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.850	2.836	(0.485)	106	1301849	200.000	183.19	80.00- 120.00	100.00
2.850	2.836	(0.485)	108	1220502			63.01- 123.01	93.75
-----								
33 Freon 11 CAS #: 75-69-4								
2.892	2.892	(0.492)	101	3780702	200.000	182.37	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
33 Freon 11 (continued)								
2.892	2.892	(0.492)	103	2481926			36.55- 96.55	65.65
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.920	2.906	(0.497)	67	2933263	200.000	185.73	80.00- 120.00	100.00
2.920	2.906	(0.497)	69	927636			1.82- 61.82	31.62
-----								
35 Pentane CAS #: 109-66-0								
2.976	2.976	(0.507)	43	3049598	200.000	182.12	80.00- 120.00	100.00
2.976	2.976	(0.507)	57	469789			0.00- 45.52	15.40
2.990	2.976	(0.509)	72	250872			0.00- 38.25	8.23
-----								
39 Ethanol CAS #: 64-17-5								
3.284	3.284	(0.559)	46	278232	200.000	170.42	80.00- 120.00	100.00
3.326	3.284	(0.566)	45	1548446			213.29- 273.29	556.53
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.326	3.326	(0.566)	74	640979	200.000	184.78	80.00- 120.00	100.00
3.326	3.326	(0.566)	59	1108406			143.51- 203.51	172.92
3.326	3.326	(0.566)	45	1553041			143.53- 203.53	242.29
-----								
42 Acrolein CAS #: 107-02-8								
3.591	3.591	(0.612)	55	486800	200.000	187.92	80.00- 120.00	100.00
3.591	3.591	(0.612)	56	673776			104.02- 164.02	138.41
-----								
43 Freon 113 CAS #: 76-13-1								
3.591	3.591	(0.612)	151	2489181	200.000	181.39	80.00- 120.00	100.00
3.591	3.591	(0.612)	153	1586938			34.03- 94.03	63.75
3.591	3.591	(0.612)	101	2987563			89.72- 149.72	120.02
-----								
44 1,1-Dichloroethene CAS #: 75-35-4								
3.619	3.619	(0.616)	96	1381559	200.000	179.50	80.00- 120.00	100.00
3.619	3.619	(0.616)	98	864005			32.85- 92.85	62.54
3.619	3.619	(0.616)	61	2665531			165.91- 225.91	192.94
-----								
47 Acetone CAS #: 67-64-1								
3.787	3.787	(0.645)	58	791092	200.000	182.10	80.00- 120.00	100.00
3.787	3.787	(0.645)	43	2823991			325.09- 385.09	356.97
-----								
49 Iodomethane CAS #: 74-88-4								
3.843	3.829	(0.654)	142	3317353	200.000	196.28	80.00- 120.00	100.00
3.843	3.829	(0.654)	127	1533765			16.98- 76.98	46.23
-----								
48 Carbon Disulfide CAS #: 75-15-0								
3.871	3.857	(0.659)	76	3699071	200.000	188.38	80.00- 120.00	100.00
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 2-Propanol						CAS #: 67-63-0		
3.955	3.941	(0.674)	45	3114958	200.000	185.80	80.00- 120.00	100.00
3.955	3.941	(0.674)	43	612702			0.00- 49.76	19.67
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.123	4.109	(0.702)	76	628560	200.000	185.52	80.00- 120.00	100.00
4.109	4.109	(0.700)	41	2290886			344.92- 404.92	364.47
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.221	4.221	(0.719)	41	1430178	200.000	192.32	80.00- 120.00	100.00
4.221	4.221	(0.719)	40	732206			24.08- 84.08	51.20
4.221	4.221	(0.719)	38	168138			0.00- 42.84	11.76
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.305	4.291	(0.733)	49	2027004	200.000	185.52	80.00- 120.00	100.00
4.305	4.291	(0.733)	84	1176849			27.95- 87.95	58.06
4.305	4.291	(0.733)	51	617168			0.78- 60.78	30.45
-----								
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.417	4.417	(0.752)	59	3749471	200.000	193.70	80.00- 120.00	100.00
4.417	4.417	(0.752)	41	811334			0.00- 52.58	21.64
4.417	4.417	(0.752)	57	407136			0.00- 40.94	10.86
-----								
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.515	4.515	(0.769)	73	4009541	200.000	190.03	80.00- 120.00	100.00
4.515	4.515	(0.769)	57	1141722			0.00- 58.27	28.48
4.515	4.515	(0.769)	41	1137067			0.00- 58.78	28.36
-----								
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.543	4.543	(0.774)	98	915945	200.000	187.41	80.00- 120.00	100.00
4.543	4.543	(0.774)	61	2449134			236.85- 296.85	267.39
4.543	4.543	(0.774)	96	1438480			126.72- 186.72	157.05
-----								
66 Acrylonitrile						CAS #: 107-13-1		
4.655	4.655	(0.793)	52	1090497	200.000	168.76	80.00- 120.00	100.00
4.655	4.655	(0.793)	53	1262198			88.92- 148.92	115.75
-----								
67 Hexane						CAS #: 110-54-3		
4.753	4.753	(0.809)	57	2690897	200.000	188.99	80.00- 120.00	100.00
4.753	4.753	(0.809)	43	1778202			36.74- 96.74	66.08
4.753	4.753	(0.809)	86	351923			0.00- 43.22	13.08
-----								
72 Isopropyl ether						CAS #: 108-20-3		
5.019	5.019	(0.855)	45	5971406	200.000	191.65	80.00- 120.00	100.00
5.033	5.033	(0.857)	87	1294261			0.00- 51.44	21.67
5.019	5.019	(0.855)	59	641368			0.00- 40.81	10.74
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
71 1,1-Dichloroethane				CAS #: 75-34-3				
5.047	5.047	(0.859)	63	2752225	200.000	182.45	80.00- 120.00	100.00
5.047	5.047	(0.859)	65	835368			0.56- 60.56	30.35
73 Vinyl Acetate				CAS #: 108-05-4				
5.089	5.089	(0.867)	86	362452	200.000	193.94	80.00- 120.00	100.00
5.089	5.075	(0.867)	43	5421839			1473.01-1533.01	1495.88
79 Ethyl-tert-butyl ether				CAS #: 637-92-3				
5.382	5.382	(0.917)	59	5527462	200.000	194.82	80.00- 120.00	100.00
5.382	5.382	(0.917)	87	1919711			4.28- 64.28	34.73
5.382	5.382	(0.917)	41	1081077			0.00- 49.94	19.56
84 2,2-Dichloropropane				CAS #: 594-20-7				
5.592	5.592	(0.952)	77	2711824	200.000	190.23	80.00- 120.00	100.00
5.592	5.592	(0.952)	79	874999			2.43- 62.43	32.27
5.592	5.592	(0.952)	97	621815			0.00- 53.03	22.93
85 cis-1,2-Dichloroethene				CAS #: 156-59-2				
5.634	5.620	(0.959)	98	968426	200.000	186.86	80.00- 120.00	100.00
5.634	5.620	(0.959)	96	1461902			121.91- 181.91	150.96
5.620	5.620	(0.957)	61	3338584			313.72- 373.72	344.74
86 2-Butanone				CAS #: 78-93-3				
5.648	5.648	(0.962)	72	734462	200.000	193.61	80.00- 120.00	100.00
5.662	5.662	(0.964)	43	8114894			1111.25-1171.25	1104.88
5.648	5.648	(0.962)	57	299393			11.22- 71.22	40.76
87 Ethyl Acetate				CAS #: 141-78-6				
5.662	5.662	(0.964)	45	654987	200.000	184.29	80.00- 120.00	100.00
5.620	5.620	(0.957)	61	3338584			469.17- 529.17	509.72
5.662	5.662	(0.964)	70	396586			29.38- 89.38	60.55
89 Tetrahydrofuran				CAS #: 109-99-9				
5.858	5.858	(0.998)	42	2079810	200.000	180.22	80.00- 120.00	100.00
5.858	5.858	(0.998)	71	636114			0.09- 60.09	30.59
5.858	5.858	(0.998)	72	673160			2.13- 62.13	32.37
* 90 Bromochloromethane						CAS #: 74-97-5		
5.872	5.858	(1.000)	130	235161	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	182937			47.29- 107.29	77.79
5.858	5.858	(1.000)	49	348520			122.83- 182.83	148.20
92 Chloroform				CAS #: 67-66-3				
5.914	5.914	(1.007)	83	3080219	200.000	185.19	80.00- 120.00	100.00
5.914	5.914	(1.007)	85	1998169			34.29- 94.29	64.87

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
94 Cyclohexane						CAS #: 110-82-7		
6.026	6.026	(1.026)	84	1906713	200.000	187.26	80.00- 120.00	100.00
6.026	6.026	(1.026)	56	2777620			116.85- 176.85	145.68
6.026	6.026	(1.026)	41	1633285			57.77- 117.77	85.66
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
6.054	6.054	(1.031)	97	3323590	200.000	184.08	80.00- 120.00	100.00
6.054	6.054	(1.031)	99	2127262			34.55- 94.55	64.00
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.166	6.166	(1.050)	119	3531035	200.000	199.91	80.00- 120.00	100.00
6.166	6.166	(1.050)	117	3668202			74.20- 134.20	103.88
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.194	6.194	(0.918)	110	837153	200.000	188.87	80.00- 120.00	100.00
6.194	6.194	(0.918)	75	2179815			229.39- 289.39	260.38
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.348	6.348	(1.081)	57	8551652	200.000	187.95	80.00- 120.00	100.00
6.348	6.348	(1.081)	56	2697205			1.14- 61.14	31.54
6.348	6.348	(1.081)	41	2504976			0.00- 59.12	29.29
102 Benzene						CAS #: 71-43-2		
6.390	6.376	(0.947)	78	4049556	200.000	181.12	80.00- 120.00	100.00
6.390	6.376	(0.947)	77	953056			0.00- 53.48	23.53
§ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0		
6.404	6.404	(1.091)	65	335254	25.0000	25.592	80.00- 120.00	100.00
6.404	6.404	(1.091)	67	180208			20.51- 80.51	53.75
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.432	6.446	(0.953)	87	1120095	200.000	192.81	80.00- 120.00	100.00
6.432	6.446	(0.953)	73	4381638			363.80- 423.80	391.18
6.432	6.432	(0.953)	55	1382616			97.13- 157.13	123.44
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.474	6.474	(0.959)	62	2401800	200.000	180.23	80.00- 120.00	100.00
6.474	6.474	(0.959)	64	739428			1.41- 61.41	30.79
107 Heptane						CAS #: 142-82-5		
6.516	6.516	(0.965)	71	1380726	200.000	158.67	80.00- 120.00	100.00
6.516	6.516	(0.965)	43	2798871			146.45- 206.45	202.71
6.516	6.516	(0.965)	57	1471836			90.20- 150.20	106.60
* 108 1,4-Difluorobenzene						CAS #: 540-36-3		
6.750	6.750	(1.000)	114	862040	25.0000		80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 108 1,4-Difluorobenzene (continued)								
6.750	6.750	(1.000)	88	130625			0.00- 45.09	15.15
-----								
110 n-Butanol					CAS #: 71-36-3			
6.893	6.893	(1.021)	56	1495843	200.000	193.92	80.00- 120.00	100.00
6.886	6.886	(1.020)	41	1116545			44.46- 104.46	74.64
6.886	6.886	(1.020)	43	872485			28.14- 88.14	58.33
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.950	6.943	(1.030)	95	2032138	200.000	185.93	80.00- 120.00	100.00
6.950	6.950	(1.030)	130	2193289			79.68- 139.68	107.93
6.950	6.943	(1.030)	97	1306813			34.74- 94.74	64.31
-----								
127 Methylcyclohexane					CAS #: 108-87-2			
7.051	7.051	(1.045)	83	2602789	200.000	188.67	80.00- 120.00	100.00
7.051	7.051	(1.045)	98	1215169			17.10- 77.10	46.69
7.051	7.051	(1.045)	55	2625486			71.11- 131.11	100.87
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.187	7.187	(1.065)	63	1824591	200.000	182.31	80.00- 120.00	100.00
7.187	7.187	(1.065)	62	1285718			40.55- 100.55	70.47
7.187	7.187	(1.065)	41	1338150			36.07- 96.07	73.34
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.230	7.230	(0.785)	69	1676937	200.000	190.60	80.00- 120.00	100.00
7.230	7.230	(0.785)	41	2963060			160.67- 220.67	176.69
7.230	7.230	(0.785)	100	696753			11.33- 71.33	41.55
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.273	7.273	(1.077)	88	1174490	200.000	187.43	80.00- 120.00	100.00
7.273	7.273	(1.077)	58	1005037			56.19- 116.19	85.57
7.273	7.273	(1.077)	57	335672			0.00- 59.32	28.58
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.301	7.294	(0.793)	174	1909072	200.000	183.72	80.00- 120.00	100.00
7.294	7.294	(0.792)	93	1828844			66.88- 126.88	95.80
7.294	7.294	(0.792)	95	1518582			49.90- 109.90	79.55
-----								
122 Bromodichloromethane					CAS #: 75-27-4			
7.409	7.409	(1.098)	83	3398603	200.000	185.93	80.00- 120.00	100.00
7.409	7.409	(1.098)	85	2183823			33.85- 93.85	64.26
-----								
151 1-Bromo-2-Chloroethane					CAS #: 107-04-0			
7.702	7.702	(1.141)	63	3422262	200.000	190.90	80.00- 120.00	100.00
7.702	7.702	(1.141)	65	1044695			0.05- 60.05	30.53
7.702	7.702	(1.141)	144	378935			0.00- 40.91	11.07
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.781	7.781	(1.153)	75	2632702	200.000	189.14	80.00- 120.00	100.00
7.781	7.781	(1.153)	77	837802			1.50- 61.50	31.82
7.781	7.781	(1.153)	39	1893198			43.12- 103.12	71.91
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.889	7.889	(1.169)	58	1779804	200.000	183.45	80.00- 120.00	100.00
7.889	7.889	(1.169)	43	4876723			247.84- 307.84	274.00
7.889	7.889	(1.169)	85	690579			8.73- 68.73	38.80
-----								
\$ 134 Toluene-d8						CAS #: 2037-26-5		
7.975	7.967	(1.181)	98	873353	25.0000	25.046	80.00- 120.00	100.00
7.967	7.967	(1.180)	70	92351			0.00- 42.00	10.57
7.967	7.967	(1.180)	100	597874			37.14- 97.14	68.46
-----								
136 Octane						CAS #: 111-65-9		
8.010	8.010	(1.187)	57	1818167	200.000	181.95	80.00- 120.00	100.00
8.010	8.010	(1.187)	85	1787756			67.77- 127.77	98.33
8.010	8.010	(1.187)	43	4575596			225.27- 285.27	251.66
-----								
137 Toluene						CAS #: 108-88-3		
8.025	8.025	(1.189)	91	5470897	200.000	184.14	80.00- 120.00	100.00
8.025	8.025	(1.189)	92	3219409			28.13- 88.13	58.85
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.254	8.254	(0.897)	75	2580269	200.000	185.36	80.00- 120.00	100.00
8.254	8.254	(0.897)	77	816708			1.93- 61.93	31.65
8.254	8.254	(0.897)	39	1742153			38.37- 98.37	67.52
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.419	8.419	(0.914)	97	1914692	200.000	184.31	80.00- 120.00	100.00
8.419	8.419	(0.914)	99	1187414			31.66- 91.66	62.02
8.419	8.419	(0.914)	83	1635165			55.24- 115.24	85.40
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.462	8.462	(0.919)	166	2789860	200.000	184.15	80.00- 120.00	100.00
8.462	8.462	(0.919)	129	2197530			48.51- 108.51	78.77
8.462	8.462	(0.919)	131	2123732			45.64- 105.64	76.12
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.569	8.569	(1.270)	76	2647914	200.000	180.39	80.00- 120.00	100.00
8.569	8.569	(1.270)	41	3249538			96.83- 156.83	122.72
8.569	8.569	(1.270)	78	862824			2.46- 62.46	32.59
-----								
143 2-Hexanone						CAS #: 591-78-6		
8.576	8.576	(0.932)	58	2770615	200.000	189.25	80.00- 120.00	100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone (continued)								
8.576	8.576	(0.932)	43	5393622			169.24- 229.24	194.67
8.576	8.576	(0.932)	100	526577			0.00- 48.72	19.01
-----								
146 Dibromochloromethane CAS #: 124-48-1								
8.734	8.734	(0.949)	129	3962290	200.000	191.17	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	3087998			47.05- 107.05	77.93
-----								
148 1,2-Dibromoethane (EDB) CAS #: 106-93-4								
8.856	8.856	(0.962)	107	3094947	200.000	184.41	80.00- 120.00	100.00
8.856	8.856	(0.962)	109	2919071			64.74- 124.74	94.32
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	822744	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	438417			23.62- 83.62	53.29
-----								
154 Chlorobenzene CAS #: 108-90-7								
9.235	9.235	(1.003)	112	4691421	200.000	181.78	80.00- 120.00	100.00
9.235	9.235	(1.003)	114	1523977			2.19- 62.19	32.48
9.235	9.228	(1.003)	77	2513797			23.66- 83.66	53.58
-----								
155 Ethyl Benzene CAS #: 100-41-4								
9.278	9.278	(1.008)	106	2375322	200.000	185.85	80.00- 120.00	100.00
9.278	9.278	(1.008)	91	7281545			282.43- 342.43	306.55
-----								
156 Nonane CAS #: 111-84-2								
9.278	9.278	(1.008)	43	4636786	200.000	180.04	80.00- 120.00	100.00
9.278	9.278	(1.008)	57	4006955			55.73- 115.73	86.42
9.278	9.278	(1.008)	85	1358577			0.00- 58.99	29.30
-----								
158 m,p-Xylene CAS #: 108-38-3								
9.371	9.371	(1.018)	106	2940024	200.000	187.30	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	5846272			169.66- 229.66	198.85
-----								
164 o-Xylene CAS #: 95-47-6								
9.722	9.722	(1.056)	106	2828293	200.000	190.02	80.00- 120.00	100.00
9.722	9.722	(1.056)	91	5904356			180.55- 240.55	208.76
-----								
165 Styrene CAS #: 100-42-5								
9.744	9.737	(1.058)	104	4893518	200.000	189.86	80.00- 120.00	100.00
9.737	9.737	(1.058)	78	2383424			18.65- 78.65	48.71
-----								
167 Bromoform CAS #: 75-25-2								
9.944	9.944	(1.080)	173	3789024	200.000	192.72	80.00- 120.00	100.00
9.944	9.944	(1.080)	171	1965411			21.64- 81.64	51.87
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
168 Cumene						CAS #: 98-82-8		
10.009	10.009	(1.087)	105	8704547	200.000	184.12	80.00- 120.00	100.00
10.009	10.009	(1.087)	120	2433340			0.00- 57.04	27.95
10.009	10.009	(1.087)	51	1056901			0.00- 41.95	12.14
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.188	10.188	(1.107)	55	3601371	200.000	167.69	80.00- 120.00	100.00
10.188	10.188	(1.107)	98	1401916			8.59- 68.59	38.93
10.188	10.188	(1.107)	42	2731799			46.18- 106.18	75.85
-----								
§ 170 4-Bromofluorobenzene						CAS #: 460-00-4		
10.202	10.202	(1.108)	174	539399	25.0000	24.942	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	661880			92.25- 152.25	122.71
10.202	10.202	(1.108)	176	505222			63.07- 123.07	93.66
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
10.317	10.317	(1.121)	83	4196406	200.000	182.08	80.00- 120.00	100.00
10.317	10.317	(1.121)	85	2716409			34.44- 94.44	64.73
-----								
177 Bromobenzene						CAS #: 108-86-1		
10.346	10.338	(1.124)	156	2837869	200.000	188.79	80.00- 120.00	100.00
10.346	10.346	(1.124)	158	2753027			67.20- 127.20	97.01
10.338	10.338	(1.123)	77	4522079			131.36- 191.36	159.35
-----								
178 Propylbenzene						CAS #: 103-65-1		
10.360	10.360	(1.125)	120	2504598	200.000	184.55	80.00- 120.00	100.00
10.360	10.360	(1.125)	91	10117949	200.000	180.52	385.23- 445.23	403.97
10.360	10.360	(1.125)	105	397635			0.00- 46.02	15.88
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
10.374	10.374	(1.127)	53	1043556	200.000	176.79	80.00- 120.00	100.00
10.374	10.374	(1.127)	89	741767			40.38- 100.38	71.08
10.381	10.381	(1.128)	75	4283906			394.61- 454.61	410.51
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
10.389	10.389	(1.128)	110	1346166	200.000	181.61	80.00- 120.00	100.00
10.381	10.381	(1.128)	75	4248666			301.57- 361.57	315.61
10.381	10.381	(1.128)	61	1129500			54.32- 114.32	83.90
-----								
182 Decane						CAS #: 124-18-5		
10.396	10.396	(1.129)	57	5021512	200.000	162.68	80.00- 120.00	100.00
10.396	10.396	(1.129)	71	1695253			2.98- 62.98	33.76
10.396	10.396	(1.129)	142	257135			0.00- 35.12	5.12
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
10.453	10.453	(1.135)	120	2686117	200.000	183.32	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
183 4-Ethyltoluene (continued)								
10.453	10.453	(1.135)	105	8906643			295.29- 355.29	331.58
-----								
184 2-Chlorotoluene CAS #: 95-49-8								
10.482	10.482	(1.138)	126	2251984	200.000	184.85	80.00- 120.00	100.00
10.482	10.482	(1.138)	91	7959888			325.01- 385.01	353.46
10.482	10.482	(1.138)	65	1151398			19.90- 79.90	51.13
-----								
185 1,3,5-Trimethylbenzene CAS #: 108-67-8								
10.503	10.503	(1.141)	120	3891472	200.000	190.39	80.00- 120.00	100.00
10.503	10.503	(1.141)	105	7564464			176.14- 236.14	194.39
-----								
188 alpha Methyl Styrene CAS #: 98-83-9								
10.711	10.704	(1.163)	118	4027385	200.000	197.77	80.00- 120.00	100.00
10.704	10.704	(1.163)	103	2285456			26.69- 86.69	56.75
-----								
189 tert-Butylbenzene CAS #: 98-06-6								
10.783	10.783	(1.171)	119	7121892	200.000	186.04	80.00- 120.00	100.00
10.783	10.783	(1.171)	134	1808239			0.00- 54.52	25.39
10.783	10.783	(1.171)	91	4730063			34.68- 94.68	66.42
-----								
190 1,2,4-Trimethylbenzene CAS #: 95-63-6								
10.833	10.833	(1.177)	105	7397180	200.000	186.47	80.00- 120.00	100.00
10.833	10.833	(1.177)	120	3562581			17.12- 77.12	48.16
-----								
192 sec-Butylbenzene CAS #: 135-98-8								
10.969	10.969	(1.191)	134	2301498	200.000	182.03	80.00- 120.00	100.00
10.969	10.969	(1.191)	105	10577876			438.96- 498.96	459.61
10.969	10.969	(1.191)	91	1718098			44.37- 104.37	74.65
-----								
194 p-Cymene CAS #: 99-87-6								
11.083	11.083	(1.204)	119	9522614	200.000	182.88	80.00- 120.00	100.00
11.083	11.083	(1.204)	134	2636382			0.00- 56.91	27.69
11.083	11.083	(1.204)	91	2331262			0.00- 53.86	24.48
-----								
195 1,3-Dichlorobenzene CAS #: 541-73-1								
11.134	11.134	(1.209)	146	5300353	200.000	187.37	80.00- 120.00	100.00
11.134	11.134	(1.209)	148	3384308			33.78- 93.78	63.85
11.134	11.134	(1.209)	111	2176265			11.40- 71.40	41.06
-----								
196 1,4-Dichlorobenzene CAS #: 106-46-7								
11.212	11.212	(1.218)	146	5364693	200.000	186.17	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	3414806			33.73- 93.73	63.65
11.212	11.212	(1.218)	111	2139448			9.40- 69.40	39.88
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
11.334	11.334	(1.231)	91	7519569	200.000	191.64	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
199 alpha-Chlorotoluene (continued)								
11.334	11.334	(1.231)	126	1724459			0.00- 52.58	22.93
-----								
201 Undecane						CAS #: 1120-21-4		
11.406	11.406	(1.239)	57	6155724	200.000	177.49	80.00- 120.00	100.00
11.406	11.406	(1.239)	43	5577973			62.03- 122.03	90.61
-----								
202 Butylbenzene						CAS #: 104-51-8		
11.434	11.434	(1.242)	134	2561804	200.000	183.90	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	8825583			322.91- 382.91	344.51
11.434	11.434	(1.242)	92	4723061			155.43- 215.43	184.36
-----								
204 1,2-Dichlorobenzene						CAS #: 95-50-1		
11.549	11.549	(1.254)	146	5123608	200.000	186.98	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	3273582			33.66- 93.66	63.89
11.549	11.549	(1.254)	111	2184426			12.36- 72.36	42.63
-----								
206 1,2-Dibromo-3-chloropropane						CAS #: 96-12-8		
12.258	12.258	(1.331)	157	3203657	200.000	190.17	80.00- 120.00	100.00
12.258	12.258	(1.331)	75	2784723			56.77- 116.77	86.92
12.258	12.258	(1.331)	155	2496876			48.17- 108.17	77.94
-----								
207 Dodecane						CAS #: 112-40-3		
12.358	12.358	(1.342)	57	7030343	247.200	227.04	80.00- 120.00	100.00(A)
12.358	12.358	(1.342)	43	6017644			56.62- 116.62	85.60
-----								
213 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
13.039	13.039	(1.416)	180	5012891	251.800	235.26	80.00- 120.00	100.00(A)
13.039	13.039	(1.416)	182	4795690			64.88- 124.88	95.67
-----								
215 Hexachlorobutadiene						CAS #: 87-68-3		
13.132	13.132	(1.426)	225	3725992	257.400	242.15	80.00- 120.00	100.00(A)
13.132	13.132	(1.426)	223	2373028			33.46- 93.46	63.69
-----								
216 Naphthalene						CAS #: 91-20-3		
13.340	13.340	(1.449)	128	1367814	25.4000	23.298	80.00- 120.00	100.00
13.340	13.340	(1.449)	127	177976			0.00- 43.71	13.01
-----								
222 1,2,3-Trichlorobenzene						CAS #: 87-61-6		
13.619	13.619	(1.479)	180	4929026	266.200	249.01	80.00- 120.00	100.00(A)
13.619	13.619	(1.479)	182	4691093			66.23- 126.23	95.17
13.619	13.612	(1.479)	145	1789608			5.93- 65.93	36.31
-----								

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081210.d  
 Lab Smp Id: ICAL Level #11  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: LD  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 200ppbv(200ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	235161	2.29
108 1,4-Difluorobenze	822152	493291	1151013	862040	4.85
153 Chlorobenzene-d5	775771	465463	1086079	822744	6.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.87	0.24
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Date : 12-AUG-2021 20:01

Client ID:

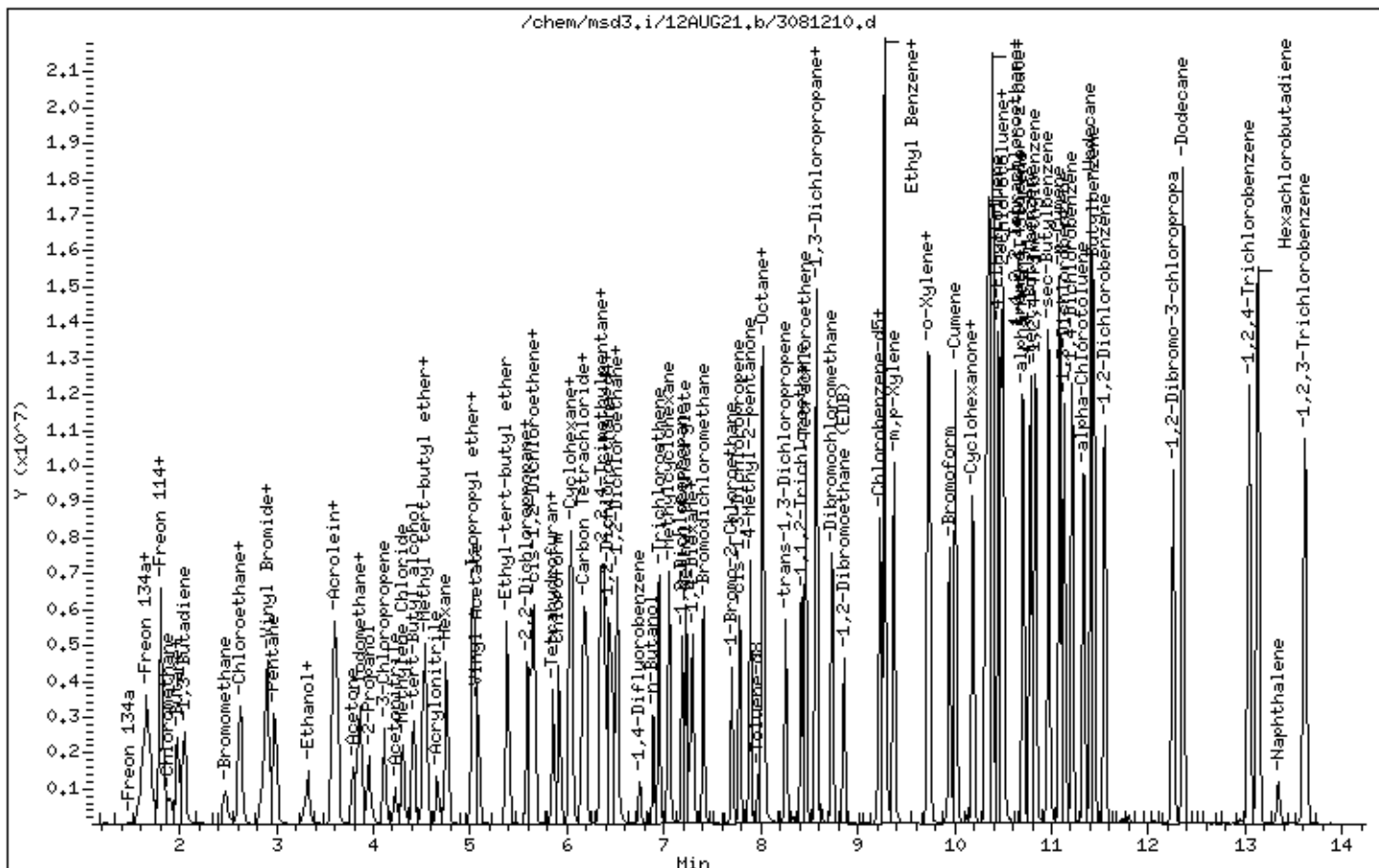
Instrument: msd3,i

Sample Info: 200ml 3018-2213

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081221.d  
Lab Smp Id: ICAL Level #11  
Inj Date : 13-AUG-2021 02:00  
Operator : gh Inst ID: msd3.i  
Smp Info : 200ml #3018-2127  
Misc Info : 200ppbv(200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
Meth Date : 13-Aug-2021 12:38 ugdc Quant Type: ISTD  
Cal Date : 13-AUG-2021 02:00 Cal File: 3081221.d  
Als bottle: 3 Calibration Sample, Level: 11  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spICAL.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS							
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.858	5.858	(1.000)	130	243356	25.0000		80.00- 120.00 100.00
5.858	5.858	(1.000)	128	188140			47.29- 107.29 77.31
5.858	5.858	(1.000)	49	361888			122.83- 182.83 148.71
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.750	6.750	(1.000)	114	887948	25.0000		80.00- 120.00 100.00
6.750	6.750	(1.000)	88	136194			0.00- 45.09 15.34
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.207	9.207	(1.000)	117	827873	25.0000		80.00- 120.00 100.00
9.207	9.207	(1.000)	82	439568			23.62- 83.62 53.10
-----							
3 Freon 143a CAS #: 420-46-2							
1.535	1.520	(0.262)	65	868956	200.000	173.42	80.00- 120.00 100.00
1.535	1.520	(0.262)	69	2057906			217.09- 277.09 236.83
1.535	1.520	(0.262)	64	206256			0.00- 55.87 23.74
-----							
6 Propane CAS #: 74-98-6							
1.619	1.618	(0.276)	43	484253	200.000	190.97	80.00- 120.00 100.00



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
6 Propane (continued)								
1.619	1.618	(0.276)	39	356294			41.62- 101.62	73.58
1.619	1.618	(0.276)	41	272529			22.97- 82.97	56.28
-----								
13 Freon 142b CAS #: 75-68-3								
1.842	1.842	(0.315)	65	3039640	200.000	189.67	80.00- 120.00	100.00
1.842	1.842	(0.315)	45	866003			0.00- 58.17	28.49
-----								
36 1-Pentene CAS #: 109-67-1								
2.920	2.920	(0.498)	55	1837569	200.000	197.89	80.00- 120.00	100.00
2.920	2.920	(0.498)	42	2452770			99.17- 159.17	133.48
-----								
40 Freon 123a CAS #: 354-23-4								
3.424	3.423	(0.584)	117	2178720	200.000	191.52	80.00- 120.00	100.00
3.424	3.423	(0.584)	67	2814268			103.13- 163.13	129.17
-----								
41 Freon 123 CAS #: 306-83-2								
3.521	3.521	(0.601)	83	3107012	200.000	193.40	80.00- 120.00	100.00
3.521	3.521	(0.601)	133	713752			0.00- 51.81	22.97
3.521	3.521	(0.601)	85	2046463			37.13- 97.13	65.87
-----								
55 Cyclopentene CAS #: 142-29-0								
4.123	4.123	(0.704)	67	3233012	200.000	196.85	80.00- 120.00	100.00
4.123	4.123	(0.704)	68	1225601			7.90- 67.90	37.91
4.123	4.123	(0.704)	53	825405			0.00- 54.87	25.53
-----								
56 Methyl Acetate CAS #: 79-20-9								
4.151	4.151	(0.709)	43	3383123	200.000	191.89	80.00- 120.00	100.00
4.151	4.151	(0.709)	74	559654			0.00- 47.15	16.54
-----								
74 Chloroprene CAS #: 126-99-8								
5.089	5.088	(0.869)	53	2968857	200.000	200.36	80.00- 120.00	100.00(A)
5.103	5.102	(0.871)	88	1234057			12.33- 72.33	41.57
5.089	5.088	(0.869)	50	845293			0.00- 57.62	28.47
-----								
75 1-Propanol CAS #: 71-23-8								
5.159	5.158	(0.881)	59	376894	200.000	190.09	80.00- 120.00	100.00
5.159	5.158	(0.881)	42	336012			53.89- 113.89	89.15
5.159	5.158	(0.881)	41	224518			24.09- 84.09	59.57
-----								
88 Methyl Acrylate CAS #: 96-33-3								
5.718	5.718	(0.976)	55	3394404	200.000	196.80	80.00- 120.00	100.00
5.718	5.718	(0.976)	85	452426			0.00- 43.24	13.33
5.718	5.718	(0.976)	58	293115			0.00- 38.83	8.64
-----								
103 Isobutanol CAS #: 78-83-1								
6.320	6.320	(1.079)	39	502488	200.000	192.33	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	AMOUNTS		TARGET RANGE	RATIO	
				CAL-AMT	ON-COL			
==	=====	=====	=====	=====	=====	=====	=====	=====
103 Isobutanol (continued)								
6.320	6.320	(1.079)	43	1787703		327.69- 387.69	355.77	
6.320	6.320	(1.079)	41	1329710		237.56- 297.56	264.63	
-----								
113 Ethyl acrylate								
						CAS #: 140-88-5		
7.036	7.036	(0.764)	99	268857	200.000	195.95 80.00- 120.00	100.00	
7.036	7.036	(0.764)	45	429287		124.67- 184.67	159.67	
7.036	7.036	(0.764)	55	4454742		1601.30-1661.30	1656.92	
-----								
115 2-Pentanone								
						CAS #: 107-87-9		
7.137	7.129	(0.775)	43	5288016	200.000	193.50 80.00- 120.00	100.00	
7.129	7.129	(0.774)	58	402999		0.00- 37.25	7.62	
7.137	7.136	(0.775)	86	774431		0.00- 45.08	14.65	
-----								
145 Butyl Acetate								
						CAS #: 123-86-4		
8.626	8.626	(1.278)	56	2383605	200.000	195.39 80.00- 120.00	100.00	
8.626	8.626	(1.278)	73	832912		5.16- 65.16	34.94	
8.626	8.626	(1.278)	43	5972614		214.00- 274.00	250.57	
-----								
157 1,1,1,2-Tetrachloroethane								
						CAS #: 630-20-6		
9.300	9.300	(1.010)	131	2844775	200.000	197.46 80.00- 120.00	100.00	
9.207	9.207	(1.000)	117	827873		38.22- 98.22	29.10	
9.300	9.293	(1.010)	95	1050455		7.54- 67.54	36.93	
-----								
166 2-Heptanone								
						CAS #: 110-43-0		
9.801	9.801	(1.673)	58	3611664	200.000	199.25 80.00- 120.00	100.00	
9.801	9.801	(1.673)	43	6120860		133.36- 193.36	169.47	
-----								
172 D-Limonene								
						CAS #: 5989-27-5		
11.033	11.033	(1.198)	68	3150257	200.000	217.17 80.00- 120.00	100.00(A)	
11.033	11.033	(1.198)	93	2332115		42.08- 102.08	74.03	
-----								
186 4-Chlorotoluene								
						CAS #: 106-43-4		
10.582	10.582	(1.149)	126	2475612	200.000	195.49 80.00- 120.00	100.00	
10.575	10.575	(1.149)	91	7857970		305.94- 365.94	317.42	
10.575	10.575	(1.149)	63	1121819		15.44- 75.44	45.31	
-----								
197 1,2,3-Trimethylbenzene								
						CAS #: 526-73-8		
11.212	11.212	(1.218)	120	3332275	200.000	199.09 80.00- 120.00	100.00	
11.212	11.212	(1.218)	105	7601630		206.43- 266.43	228.12	
11.212	11.212	(1.218)	77	903472		0.00- 58.29	27.11	
-----								
205 Hexachloroethane								
						CAS #: 67-72-1		
11.735	11.728	(1.275)	201	2073555	200.000	206.92 80.00- 120.00	100.00(A)	
11.728	11.728	(1.274)	117	2881506		109.77- 169.77	138.96	
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
208 1,3,5-Trichlorobenzene						CAS #: 108-70-3		
12.387	12.387	(1.345)	180	4945707	200.000	194.44	80.00- 120.00	100.00
12.387	12.387	(1.345)	182	4701216			65.79- 125.79	95.06
-----								
210 alpha-Pinene						CAS #: 80-56-8		
9.973	9.973	(1.083)	93	5540291	200.000	203.05	80.00- 120.00	100.00(A)
9.973	9.973	(1.083)	77	1658923			0.13- 60.13	29.94
-----								
214 beta-Pinene						CAS #: 127-91-3		
10.560	10.560	(1.147)	93	3937799	200.000	196.48	80.00- 120.00	100.00
10.575	10.575	(1.149)	91	7857970			145.95- 205.95	199.55
-----								

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i  
 Lab File ID: 3081221.d  
 Lab Smp Id: ICAL Level #11  
 Analysis Type: VOA  
 Quant Type: ISTD  
 Operator: gh  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 200ppbv(200ppbv)

Calibration Date: 12-AUG-2021  
 Calibration Time: 19:05  
 Level: LOW  
 Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	243356	5.85
108 1,4-Difluorobenze	822152	493291	1151013	887948	8.00
153 Chlorobenzene-d5	775771	465463	1086079	827873	6.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

Date : 13-AUG-2021 02:00

Client ID:

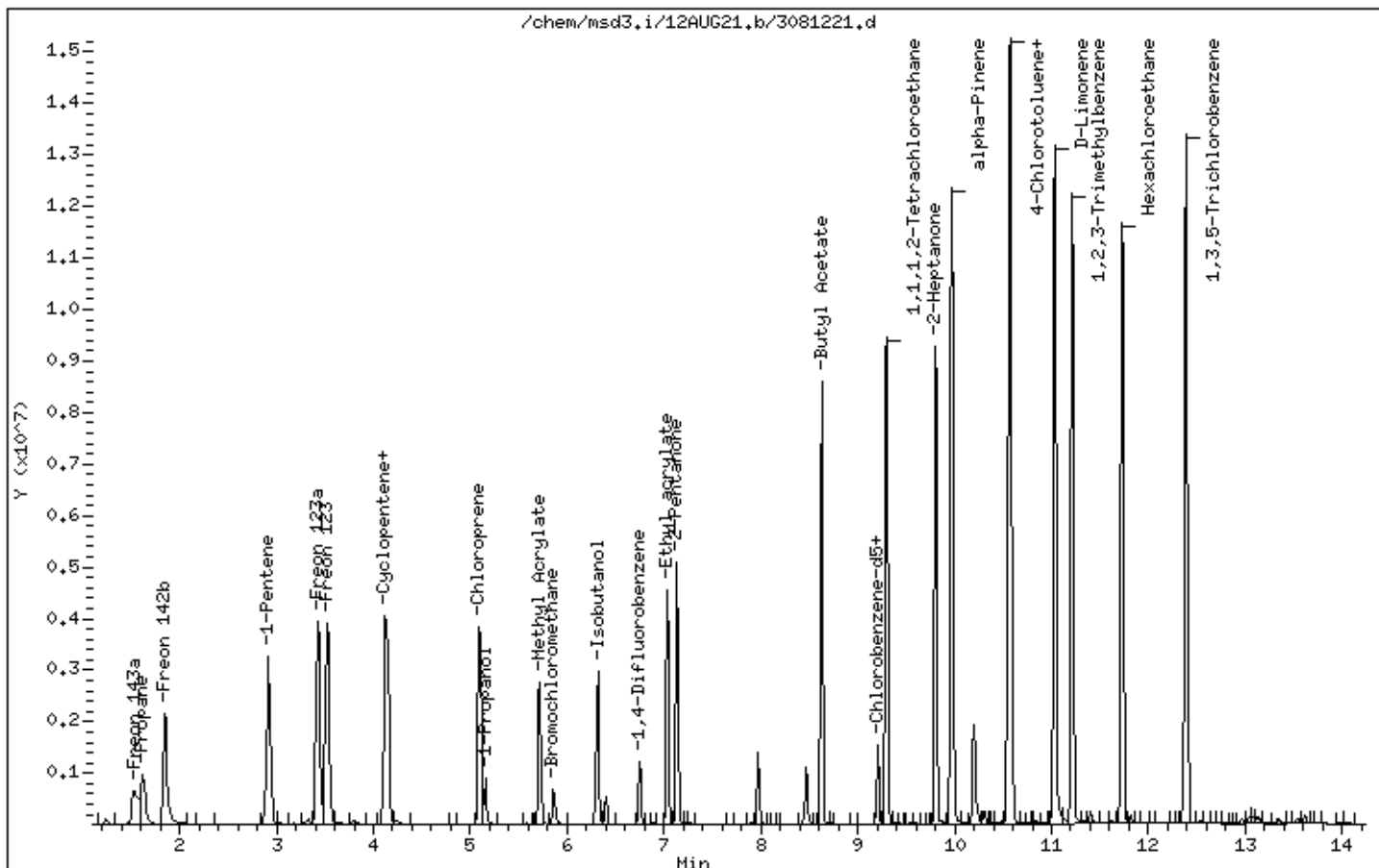
Instrument: msd3,i

Sample Info: 200ml #3018-2127

Operator: gh

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/12AUG21.b/3081224.d  
 Lab Smp Id: ICV Client Smp ID: ICV  
 Inj Date : 13-AUG-2021 08:56  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 50ml 3018-2200  
 Misc Info : 50ppbv(200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/12AUG21.b/321q0812a.m  
 Meth Date : 13-Aug-2021 15:15 ugdc Quant Type: ISTD  
 Cal Date : 12-AUG-2021 23:40 Cal File: 3081216.d  
 Als bottle: 14 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.858	5.858	(1.000)	130	224837	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	174122			47.29- 107.29	77.44
5.858	5.858	(1.000)	49	341056			122.83- 182.83	151.69
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.750	6.750	(1.000)	114	803057	25.0000		80.00- 120.00	100.00
6.750	6.750	(1.000)	88	121004			0.00- 45.09	15.07
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	747713	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	401540			23.62- 83.62	53.70
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.404	6.404	(1.093)	65	308015	24.5924	24.592	80.00- 120.00	100.00
6.404	6.404	(1.093)	67	155069			20.51- 80.51	50.34
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.967	7.967	(1.180)	98	803951	24.7495	24.750	80.00- 120.00	100.00
7.967	7.967	(1.180)	70	95920			0.00- 42.00	11.93

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.967	7.967	(1.180)	100	542899			37.14- 97.14	67.53
-----								
\$ 170 4-Bromofluorobenzene								
							CAS #: 460-00-4	
10.202	10.202	(1.108)	174	496561	25.2657	25.266	80.00- 120.00	100.00
10.195	10.202	(1.107)	95	605463			92.25- 152.25	121.93
10.202	10.202	(1.108)	176	463532			63.07- 123.07	93.35
-----								
4 Freon 134a								
							CAS #: 811-97-2	
1.576	1.577	(0.269)	83	319217	49.0063	49.006	80.00- 120.00	100.00
1.576	1.577	(0.269)	69	258695			50.75- 110.75	81.04
1.562	1.577	(0.267)	51	66200			0.00- 49.76	20.74
-----								
5 Propylene								
							CAS #: 115-07-1	
1.618	1.619	(0.276)	41	300574	47.1636	47.164	80.00- 120.00	100.00
1.618	1.619	(0.276)	42	200376			36.66- 96.66	66.66
1.618	1.619	(0.276)	39	220914			44.11- 104.11	73.50
-----								
7 1,1-Difluoroethane								
							CAS #: 75-37-6	
1.632	1.633	(0.279)	65	187609	47.2214	47.221	80.00- 120.00	100.00
1.632	1.633	(0.279)	51	485843			217.13- 277.13	258.97
1.632	1.633	(0.279)	47	146817			48.77- 108.77	78.26
-----								
8 Freon 12								
							CAS #: 75-71-8	
1.660	1.661	(0.283)	85	829356	46.4983	46.498	80.00- 120.00	100.00
1.660	1.661	(0.283)	87	269922			2.35- 62.35	32.55
-----								
9 Chlorodifluoromethane								
							CAS #: 75-45-6	
1.688	1.689	(0.288)	67	87907	39.7285	39.728	80.00- 120.00	100.00
1.688	1.689	(0.288)	51	639127			710.68- 770.68	727.05
-----								
10 Freon 114								
							CAS #: 76-14-2	
1.800	1.800	(0.307)	135	622896	45.9428	45.943	80.00- 120.00	100.00
1.800	1.800	(0.307)	137	199179			2.06- 62.06	31.98
-----								
12 Isobutane								
							CAS #: 75-28-5	
1.800	1.800	(0.307)	43	684487	47.4372	47.437	80.00- 120.00	100.00
1.800	1.800	(0.307)	42	223783			2.70- 62.70	32.69
1.800	1.800	(0.307)	58	23391			0.00- 33.44	3.42
-----								
15 Chloromethane								
							CAS #: 74-87-3	
1.884	1.884	(0.322)	50	343333	44.7067	44.707	80.00- 120.00	100.00
1.884	1.884	(0.322)	52	113222			3.38- 63.38	32.98
-----								
18 Butane								
							CAS #: 106-97-8	
1.968	1.968	(0.336)	58	75564	41.7335	41.734	80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
1.968	1.968	(0.336)	43	597993		760.51- 820.51	791.37		
-----									
19 Vinyl Chloride CAS #: 75-01-4									
2.010	2.010	(0.343)	62	343859	41.0351	41.035	80.00- 120.00	100.00	
2.010	2.010	(0.343)	64	104498			0.32- 60.32	30.39	
-----									
20 1,3-Butadiene CAS #: 106-99-0									
2.038	2.038	(0.348)	54	300912	37.4112	37.411	80.00- 120.00	100.00	
2.038	2.038	(0.348)	39	313529			72.94- 132.94	104.19	
-----									
24 Bromomethane CAS #: 74-83-9									
2.458	2.458	(0.420)	94	270813	43.2970	43.297	80.00- 120.00	100.00	
2.458	2.458	(0.420)	96	256078			63.18- 123.18	94.56	
-----									
30 Chloroethane CAS #: 75-00-3									
2.598	2.598	(0.443)	64	170935	45.9081	45.908	80.00- 120.00	100.00	
2.598	2.598	(0.443)	66	54526			1.10- 61.10	31.90	
2.598	2.598	(0.443)	49	59817			5.46- 65.46	34.99	
-----									
31 Isopentane CAS #: 78-78-4									
2.626	2.626	(0.448)	43	452381	46.6219	46.622	80.00- 120.00	100.00	
2.626	2.626	(0.448)	57	301382			36.12- 96.12	66.62	
-----									
32 Vinyl Bromide CAS #: 593-60-2									
2.836	2.836	(0.484)	106	304710	44.8471	44.847	80.00- 120.00	100.00	
2.836	2.836	(0.484)	108	282255			63.01- 123.01	92.63	
-----									
33 Freon 11 CAS #: 75-69-4									
2.892	2.892	(0.494)	101	903969	45.6070	45.607	80.00- 120.00	100.00	
2.892	2.892	(0.494)	103	589091			36.55- 96.55	65.17	
-----									
34 Dichlorofluoromethane CAS #: 75-43-4									
2.892	2.906	(0.494)	67	700980	46.4230	46.423	80.00- 120.00	100.00	
2.892	2.906	(0.494)	69	219792			1.82- 61.82	31.35	
-----									
35 Pentane CAS #: 109-66-0									
2.976	2.976	(0.508)	43	691502	43.1912	43.191	80.00- 120.00	100.00	
2.976	2.976	(0.508)	57	106453			0.00- 45.52	15.39	
2.976	2.976	(0.508)	72	56888			0.00- 38.25	8.23	
-----									
38 Ethyl Ether CAS #: 60-29-7									
3.325	3.326	(0.568)	74	154256	46.5102	46.510	80.00- 120.00	100.00	
3.325	3.326	(0.568)	59	263032			143.51- 203.51	170.52	
3.325	3.326	(0.568)	45	288693			143.53- 203.53	187.15	
-----									



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.269	3.284	(0.558)	46	65384	41.8886	41.888	80.00- 120.00	100.00
3.269	3.284	(0.558)	45	116682			213.29- 273.29	178.46
42 Acrolein					CAS #: 107-02-8			
3.591	3.591	(0.613)	55	121856	49.2014	49.201	80.00- 120.00	100.00
3.591	3.591	(0.613)	56	166139			104.02- 164.02	136.34
43 Freon 113					CAS #: 76-13-1			
3.591	3.591	(0.613)	151	594605	45.3190	45.319	80.00- 120.00	100.00
3.591	3.591	(0.613)	153	380663			34.03- 94.03	64.02
3.591	3.591	(0.613)	101	716372			89.72- 149.72	120.48
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.619	3.619	(0.618)	96	333338	45.2979	45.298	80.00- 120.00	100.00
3.619	3.619	(0.618)	98	207648			32.85- 92.85	62.29
3.619	3.619	(0.618)	61	655421			165.91- 225.91	196.62
47 Acetone					CAS #: 67-64-1			
3.787	3.787	(0.646)	58	183521	44.1831	44.183	80.00- 120.00	100.00
3.787	3.787	(0.646)	43	659152			325.09- 385.09	359.17
48 Carbon Disulfide					CAS #: 75-15-0			
3.857	3.857	(0.658)	76	876327	46.6763	46.676	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.829	3.829	(0.654)	142	872698	54.0075	54.007	80.00- 120.00	100.00
3.829	3.829	(0.654)	127	406955			16.98- 76.98	46.63
52 2-Propanol					CAS #: 67-63-0			
3.941	3.941	(0.673)	45	754305	47.0576	47.058	80.00- 120.00	100.00
3.941	3.941	(0.673)	43	150930			0.00- 49.76	20.01
54 3-Chloropropene					CAS #: 107-05-1			
4.109	4.109	(0.701)	76	142267	43.9188	43.919	80.00- 120.00	100.00
4.109	4.109	(0.701)	41	529054			344.92- 404.92	371.87
57 Acetonitrile					CAS #: 75-05-8			
4.221	4.221	(0.721)	41	310128	43.6182	43.618	80.00- 120.00	100.00
4.221	4.221	(0.721)	40	163247			24.08- 84.08	52.64
4.221	4.221	(0.721)	38	38818			0.00- 42.84	12.52
59 Methylene Chloride					CAS #: 75-09-2			
4.291	4.291	(0.732)	49	482035	46.1444	46.144	80.00- 120.00	100.00
4.291	4.291	(0.732)	84	277775			27.95- 87.95	57.63
4.291	4.291	(0.732)	51	145764			0.78- 60.78	30.24

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
4.403	4.417	(0.752)	59	842680	45.5316	45.532	80.00- 120.00	100.00
4.403	4.417	(0.752)	41	190673			0.00- 52.58	22.63
4.403	4.417	(0.752)	57	95138			0.00- 40.94	11.29
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
4.515	4.515	(0.771)	73	940063	46.6007	46.601	80.00- 120.00	100.00
4.515	4.515	(0.771)	57	264191			0.00- 58.27	28.10
4.515	4.515	(0.771)	41	272957			0.00- 58.78	29.04
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
4.543	4.543	(0.775)	98	213682	45.7278	45.728	80.00- 120.00	100.00
4.543	4.543	(0.775)	61	577520			236.85- 296.85	270.27
4.543	4.543	(0.775)	96	337463			126.72- 186.72	157.93
66 Acrylonitrile					CAS #: 107-13-1			
4.655	4.655	(0.795)	52	251655	40.7346	40.735	80.00- 120.00	100.00
4.655	4.655	(0.795)	53	298234			88.92- 148.92	118.51
67 Hexane					CAS #: 110-54-3			
4.753	4.753	(0.811)	57	623653	45.8122	45.812	80.00- 120.00	100.00
4.753	4.753	(0.811)	43	414981			36.74- 96.74	66.54
4.753	4.753	(0.811)	86	82315			0.00- 43.22	13.20
71 1,1-Dichloroethane					CAS #: 75-34-3			
5.046	5.047	(0.861)	63	632930	43.8838	43.884	80.00- 120.00	100.00
5.046	5.047	(0.861)	65	193733			0.56- 60.56	30.61
72 Isopropyl ether					CAS #: 108-20-3			
5.018	5.019	(0.857)	45	1384444	46.4736	46.474	80.00- 120.00	100.00
5.018	5.019	(0.857)	87	295000			0.00- 51.44	21.31
5.018	5.019	(0.857)	59	146450			0.00- 40.81	10.58
73 Vinyl Acetate					CAS #: 108-05-4			
5.074	5.089	(0.866)	86	83986	47.0026	47.003	80.00- 120.00	100.00
5.074	5.089	(0.866)	43	1218885			1473.01-1533.01	1451.30
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
5.382	5.382	(0.919)	59	1279420	47.1639	47.164	80.00- 120.00	100.00
5.382	5.382	(0.919)	87	442123			4.28- 64.28	34.56
5.382	5.382	(0.919)	41	256652			0.00- 49.94	20.06
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.592	5.592	(0.955)	77	627722	46.0546	46.055	80.00- 120.00	100.00
5.592	5.592	(0.955)	79	202737			2.43- 62.43	32.30
5.592	5.592	(0.955)	97	143255			0.00- 53.03	22.82

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.620	5.620	(0.959)	98	224687	45.3444	45.344	80.00- 120.00	100.00
5.620	5.620	(0.959)	96	345344			121.91- 181.91	153.70
5.620	5.620	(0.959)	61	771714			313.72- 373.72	343.46
-----								
86 2-Butanone					CAS #: 78-93-3			
5.648	5.648	(0.964)	72	162028	44.6733	44.673	80.00- 120.00	100.00
5.662	5.648	(0.967)	43	1811422			1111.25-1171.25	1117.97
5.648	5.648	(0.964)	57	64176			11.22- 71.22	39.61
-----								
87 Ethyl Acetate					CAS #: 141-78-6			
5.662	5.662	(0.967)	45	142397	41.9063	41.906	80.00- 120.00	100.00
5.620	5.620	(0.959)	61	771714			469.17- 529.17	541.95
5.662	5.662	(0.967)	70	86907			29.38- 89.38	61.03
-----								
89 Tetrahydrofuran					CAS #: 109-99-9			
5.858	5.858	(1.000)	42	474835	43.0340	43.034	80.00- 120.00	100.00
5.858	5.858	(1.000)	71	145907			0.09- 60.09	30.73
5.858	5.858	(1.000)	72	152050			2.13- 62.13	32.02
-----								
92 Chloroform					CAS #: 67-66-3			
5.914	5.914	(1.010)	83	712026	44.7741	44.774	80.00- 120.00	100.00
5.914	5.914	(1.010)	85	460918			34.29- 94.29	64.73
-----								
94 Cyclohexane					CAS #: 110-82-7			
6.026	6.026	(1.029)	84	441497	45.3522	45.352	80.00- 120.00	100.00
6.026	6.026	(1.029)	56	645917			116.85- 176.85	146.30
6.026	6.026	(1.029)	41	389835			57.77- 117.77	88.30
-----								
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
6.054	6.054	(1.033)	97	786524	45.5629	45.563	80.00- 120.00	100.00
6.054	6.054	(1.033)	99	499663			34.55- 94.55	63.53
-----								
97 Carbon Tetrachloride					CAS #: 56-23-5			
6.166	6.166	(1.053)	119	812773	48.1276	48.128	80.00- 120.00	100.00
6.166	6.166	(1.053)	117	852264			74.20- 134.20	104.86
-----								
99 1,1-Dichloropropene					CAS #: 563-58-6			
6.194	6.194	(0.918)	110	189212	45.8244	45.824	80.00- 120.00	100.00
6.194	6.194	(0.918)	75	498874			229.39- 289.39	263.66
-----								
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
6.348	6.348	(1.084)	57	1988657	45.7136	45.714	80.00- 120.00	100.00
6.348	6.348	(1.084)	56	623588			1.14- 61.14	31.36
6.348	6.348	(1.084)	41	588722			0.00- 59.12	29.60
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
6.376	6.376	(0.945)	78	944769	45.3586	45.358	80.00- 120.00	100.00
6.376	6.376	(0.945)	77	222154			0.00- 53.48	23.51
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.446	6.446	(0.955)	87	255234	47.1622	47.162	80.00- 120.00	100.00
6.432	6.446	(0.953)	73	994814			363.80- 423.80	389.77
6.432	6.446	(0.953)	55	330155			97.13- 157.13	129.35
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.474	6.474	(0.959)	62	565192	45.5267	45.527	80.00- 120.00	100.00
6.474	6.474	(0.959)	64	174937			1.41- 61.41	30.95
-----								
107 Heptane					CAS #: 142-82-5			
6.516	6.516	(0.965)	71	371051	45.7718	45.772	80.00- 120.00	100.00
6.516	6.516	(0.965)	43	727080			146.45- 206.45	195.95
6.516	6.516	(0.965)	57	388610			90.20- 150.20	104.73
-----								
110 n-Butanol					CAS #: 71-36-3			
6.886	6.893	(1.020)	56	313850	43.6758	43.676	80.00- 120.00	100.00
6.886	6.886	(1.020)	41	234239			44.46- 104.46	74.63
6.886	6.886	(1.020)	43	181725			28.14- 88.14	57.90
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.943	6.943	(1.029)	95	464068	45.5784	45.578	80.00- 120.00	100.00
6.950	6.943	(1.030)	130	503014			79.68- 139.68	108.39
6.943	6.943	(1.029)	97	301626			34.74- 94.74	65.00
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.187	7.187	(1.065)	63	419611	45.0062	45.006	80.00- 120.00	100.00
7.187	7.187	(1.065)	62	294439			40.55- 100.55	70.17
7.187	7.187	(1.065)	41	274370			36.07- 96.07	65.39
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.230	7.230	(0.785)	69	359988	45.0219	45.022	80.00- 120.00	100.00
7.230	7.230	(0.785)	41	676518			160.67- 220.67	187.93
7.230	7.230	(0.785)	100	147882			11.33- 71.33	41.08
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.272	7.273	(1.077)	88	240389	41.1808	41.181	80.00- 120.00	100.00
7.272	7.273	(1.077)	58	207064			56.19- 116.19	86.14
7.265	7.273	(1.076)	57	69508			0.00- 59.32	28.91
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.294	7.294	(0.792)	174	435799	46.1483	46.148	80.00- 120.00	100.00
7.294	7.294	(0.792)	93	425948			66.88- 126.88	97.74

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
7.294	7.294	(0.792)	95	344691			49.90- 109.90	79.09
-----								
122 Bromodichloromethane					CAS #: 75-27-4			
7.409	7.409	(1.098)	83	768424	45.1265	45.126	80.00- 120.00	100.00
7.409	7.409	(1.098)	85	496684			33.85- 93.85	64.64
-----								
126 cis-1,3-Dichloropropene					CAS #: 10061-01-5			
7.781	7.781	(1.153)	75	601447	46.3840	46.384	80.00- 120.00	100.00
7.781	7.781	(1.153)	77	194744			1.50- 61.50	32.38
7.781	7.781	(1.153)	39	437954			43.12- 103.12	72.82
-----								
127 Methylcyclohexane					CAS #: 108-87-2			
7.050	7.051	(1.045)	83	590908	45.9796	45.980	80.00- 120.00	100.00
7.050	7.051	(1.045)	98	278899			17.10- 77.10	47.20
7.050	7.051	(1.045)	55	598602			71.11- 131.11	101.30
-----								
131 4-Methyl-2-pentanone					CAS #: 108-10-1			
7.889	7.889	(1.169)	58	372186	41.1798	41.180	80.00- 120.00	100.00
7.889	7.889	(1.169)	43	1034610			247.84- 307.84	277.98
7.889	7.889	(1.169)	85	143975			8.73- 68.73	38.68
-----								
137 Toluene					CAS #: 108-88-3			
8.025	8.025	(1.189)	91	1264239	45.6779	45.678	80.00- 120.00	100.00
8.025	8.025	(1.189)	92	736789			28.13- 88.13	58.28
-----								
136 Octane					CAS #: 111-65-9			
8.010	8.010	(1.187)	57	423655	45.5101	45.510	80.00- 120.00	100.00
8.010	8.010	(1.187)	85	410053			67.77- 127.77	96.79
8.010	8.010	(1.187)	43	1069719			225.27- 285.27	252.50
-----								
139 trans-1,3-Dichloropropene					CAS #: 10061-02-6			
8.254	8.254	(0.897)	75	586834	46.3883	46.388	80.00- 120.00	100.00
8.254	8.254	(0.897)	77	185117			1.93- 61.93	31.55
8.254	8.254	(0.897)	39	402275			38.37- 98.37	68.55
-----								
141 1,1,2-Trichloroethane					CAS #: 79-00-5			
8.419	8.419	(0.914)	97	434887	46.0640	46.064	80.00- 120.00	100.00
8.419	8.419	(0.914)	99	266856			31.66- 91.66	61.36
8.411	8.419	(0.914)	83	361511			55.24- 115.24	83.13
-----								
142 Tetrachloroethene					CAS #: 127-18-4			
8.462	8.462	(0.919)	166	645957	46.9152	46.915	80.00- 120.00	100.00
8.462	8.462	(0.919)	129	503592			48.51- 108.51	77.96
8.462	8.462	(0.919)	131	487698			45.64- 105.64	75.50
-----								

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6		
8.576	8.576	(0.932)	58	511990	38.4811	38.481	80.00- 120.00	100.00
8.576	8.576	(0.932)	43	1023813			169.24- 229.24	199.97
8.576	8.576	(0.932)	100	97473			0.00- 48.72	19.04
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.569	8.569	(1.270)	76	588598	43.0443	43.044	80.00- 120.00	100.00
8.569	8.569	(1.270)	41	709491			96.83- 156.83	120.54
8.569	8.569	(1.270)	78	193381			2.46- 62.46	32.85
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.734	8.734	(0.949)	129	895062	47.5170	47.517	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	694838			47.05- 107.05	77.63
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.856	8.856	(0.962)	107	702056	46.0290	46.029	80.00- 120.00	100.00
8.856	8.856	(0.962)	109	669300			64.74- 124.74	95.33
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.702	7.702	(1.141)	63	772845	46.2784	46.278	80.00- 120.00	100.00
7.702	7.702	(1.141)	65	232412			0.05- 60.05	30.07
7.702	7.702	(1.141)	144	85169			0.00- 40.91	11.02
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.235	9.235	(1.003)	112	1080210	46.0560	46.056	80.00- 120.00	100.00
9.235	9.235	(1.003)	114	346873			2.19- 62.19	32.11
9.235	9.235	(1.003)	77	580173			23.66- 83.66	53.71
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.278	9.278	(1.008)	106	551011	47.4381	47.438	80.00- 120.00	100.00
9.278	9.278	(1.008)	91	1712074			282.43- 342.43	310.72
-----								
156 Nonane						CAS #: 111-84-2		
9.278	9.278	(1.008)	43	1101015	47.0408	47.041	80.00- 120.00	100.00
9.278	9.278	(1.008)	57	938331			55.73- 115.73	85.22
9.278	9.278	(1.008)	85	320292			0.00- 58.99	29.09
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.300	9.300	(1.010)	131	528033	40.5815	40.582	80.00- 120.00	100.00
9.207	9.207	(1.000)	117	747713			38.22- 98.22	141.60
9.300	9.293	(1.010)	95	197784			7.54- 67.54	37.46
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.371	9.371	(1.018)	106	681591	47.7783	47.778	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	1357260			169.66- 229.66	199.13

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene					CAS #: 95-47-6			
9.722	9.722	(1.056)	106	637564	47.1330	47.133	80.00- 120.00	100.00
9.722	9.722	(1.056)	91	1337489			180.55- 240.55	209.78
-----								
165 Styrene					CAS #: 100-42-5			
9.737	9.737	(1.058)	104	1084712	46.3077	46.308	80.00- 120.00	100.00
9.737	9.737	(1.058)	78	526454			18.65- 78.65	48.53
-----								
167 Bromoform					CAS #: 75-25-2			
9.944	9.944	(1.080)	173	846314	47.3647	47.365	80.00- 120.00	100.00
9.944	9.944	(1.080)	171	438028			21.64- 81.64	51.76
-----								
168 Cumene					CAS #: 98-82-8			
10.009	10.009	(1.087)	105	1992715	46.3796	46.380	80.00- 120.00	100.00
10.009	10.009	(1.087)	120	540175			0.00- 57.04	27.11
10.009	10.009	(1.087)	51	240420			0.00- 41.95	12.06
-----								
169 Cyclohexanone					CAS #: 108-94-1			
10.188	10.188	(1.107)	55	574973	29.4587	29.459	80.00- 120.00	100.00(R)
10.188	10.188	(1.107)	98	221735			8.59- 68.59	38.56
10.188	10.188	(1.107)	42	437889			46.18- 106.18	76.16
-----								
175 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
10.317	10.317	(1.121)	83	943371	45.0401	45.040	80.00- 120.00	100.00
10.317	10.317	(1.121)	85	606821			34.44- 94.44	64.32
-----								
177 Bromobenzene					CAS #: 108-86-1			
10.345	10.338	(1.124)	156	641869	46.9860	46.986	80.00- 120.00	100.00
10.345	10.346	(1.124)	158	627538			67.20- 127.20	97.77
10.345	10.338	(1.124)	77	1036994			131.36- 191.36	161.56
-----								
178 Propylbenzene					CAS #: 103-65-1			
10.360	10.360	(1.125)	120	566062	45.8958	45.896	80.00- 120.00	100.00
10.360	10.360	(1.125)	91	2381079	46.7448	46.745	385.23- 445.23	420.64
10.360	10.360	(1.125)	105	91740			0.00- 46.02	16.21
-----								
179 1,2,3-Trichloropropane					CAS #: 96-18-4			
10.388	10.389	(1.128)	110	305566	45.3606	45.361	80.00- 120.00	100.00
10.381	10.381	(1.128)	75	1076144			301.57- 361.57	352.18
10.381	10.381	(1.128)	61	261485			54.32- 114.32	85.57
-----								
181 trans-1,4-Dichloro-2-butene					CAS #: 110-57-6			
10.374	10.374	(1.127)	53	305911	57.0263	57.026	80.00- 120.00	100.00
10.374	10.374	(1.127)	89	205105			40.38- 100.38	67.05
10.381	10.374	(1.128)	75	1076144			394.61- 454.61	351.78
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane					CAS #: 124-18-5			
10.396	10.396	(1.129)	57	1185092	42.2450	42.245	80.00- 120.00	100.00
10.396	10.396	(1.129)	71	390477			2.98- 62.98	32.95
10.396	10.396	(1.129)	142	61007			0.00- 35.12	5.15
-----					-----			
183 4-Ethyltoluene					CAS #: 622-96-8			
10.453	10.453	(1.135)	120	606816	45.5695	45.570	80.00- 120.00	100.00
10.453	10.453	(1.135)	105	2056387			295.29- 355.29	338.88
-----					-----			
184 2-Chlorotoluene					CAS #: 95-49-8			
10.482	10.482	(1.138)	126	506714	45.7660	45.766	80.00- 120.00	100.00
10.482	10.482	(1.138)	91	1790969			325.01- 385.01	353.45
10.482	10.482	(1.138)	65	225502			19.90- 79.90	44.50
-----					-----			
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
10.503	10.503	(1.141)	120	854746	46.0143	46.014	80.00- 120.00	100.00
10.503	10.503	(1.141)	105	1688759			176.14- 236.14	197.57
-----					-----			
188 alpha Methyl Styrene					CAS #: 98-83-9			
10.711	10.704	(1.163)	118	871054	47.0670	47.067	80.00- 120.00	100.00
10.704	10.704	(1.163)	103	495753			26.69- 86.69	56.91
-----					-----			
189 tert-Butylbenzene					CAS #: 98-06-6			
10.782	10.783	(1.171)	119	1599932	45.9869	45.987	80.00- 120.00	100.00
10.782	10.783	(1.171)	134	397626			0.00- 54.52	24.85
10.782	10.783	(1.171)	91	1060999			34.68- 94.68	66.32
-----					-----			
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
10.833	10.833	(1.177)	105	1672413	46.3897	46.390	80.00- 120.00	100.00
10.833	10.833	(1.177)	120	792093			17.12- 77.12	47.36
-----					-----			
192 sec-Butylbenzene					CAS #: 135-98-8			
10.969	10.969	(1.191)	134	509751	44.3626	44.363	80.00- 120.00	100.00
10.969	10.969	(1.191)	105	2408593			438.96- 498.96	472.50
10.969	10.969	(1.191)	91	384864			44.37- 104.37	75.50
-----					-----			
194 p-Cymene					CAS #: 99-87-6			
11.083	11.083	(1.204)	119	2132810	45.0714	45.071	80.00- 120.00	100.00
11.083	11.083	(1.204)	134	572836			0.00- 56.91	26.86
11.083	11.083	(1.204)	91	503259			0.00- 53.86	23.60
-----					-----			
195 1,3-Dichlorobenzene					CAS #: 541-73-1			
11.133	11.134	(1.209)	146	1160912	45.1568	45.157	80.00- 120.00	100.00
11.133	11.134	(1.209)	148	742652			33.78- 93.78	63.97
11.133	11.134	(1.209)	111	472771			11.40- 71.40	40.72
-----					-----			



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene CAS #: 106-46-7								
11.212	11.212	(1.218)	146	1182975	45.1732	45.173	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	758194			33.73- 93.73	64.09
11.212	11.212	(1.218)	111	469496			9.40- 69.40	39.69
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
11.334	11.334	(1.231)	91	1609680	45.1413	45.141	80.00- 120.00	100.00
11.334	11.334	(1.231)	126	362313			0.00- 52.58	22.51
-----								
201 Undecane CAS #: 1120-21-4								
11.406	11.406	(1.239)	57	1316433	41.7670	41.767	80.00- 120.00	100.00
11.406	11.406	(1.239)	43	1209592			62.03- 122.03	91.88
-----								
202 Butylbenzene CAS #: 104-51-8								
11.441	11.434	(1.243)	134	548099	43.2941	43.294	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	1937826			322.91- 382.91	353.55
11.434	11.434	(1.242)	92	1017750			155.43- 215.43	185.69
-----								
204 1,2-Dichlorobenzene CAS #: 95-50-1								
11.549	11.549	(1.254)	146	1097082	44.0547	44.055	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	701088			33.66- 93.66	63.90
11.549	11.549	(1.254)	111	464638			12.36- 72.36	42.35
-----								
206 1,2-Dibromo-3-chloropropane CAS #: 96-12-8								
12.258	12.258	(1.331)	157	659001	43.0437	43.044	80.00- 120.00	100.00
12.258	12.258	(1.331)	75	573190			56.77- 116.77	86.98
12.258	12.258	(1.331)	155	514271			48.17- 108.17	78.04
-----								
207 Dodecane CAS #: 112-40-3								
12.358	12.358	(1.342)	57	1243391	44.1832	44.183	80.00- 120.00	100.00
12.358	12.358	(1.342)	43	1081072			56.62- 116.62	86.95
-----								
213 1,2,4-Trichlorobenzene CAS #: 120-82-1								
13.046	13.039	(1.417)	180	956776	49.4091	49.409	80.00- 120.00	100.00
13.046	13.039	(1.417)	182	911386			64.88- 124.88	95.26
-----								
215 Hexachlorobutadiene CAS #: 87-68-3								
13.139	13.132	(1.427)	225	740377	52.9459	52.946	80.00- 120.00	100.00
13.139	13.132	(1.427)	223	468997			33.46- 93.46	63.35
-----								
216 Naphthalene CAS #: 91-20-3								
13.354	13.340	(1.450)	128	227648	4.26668	4.267	80.00- 120.00	100.00
13.354	13.340	(1.450)	127	30891			0.00- 43.71	13.57
-----								
222 1,2,3-Trichlorobenzene CAS #: 87-61-6								
13.633	13.619	(1.481)	180	844247	46.9310	46.931	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
13.633	13.619	(1.481)	182	815546			66.23- 126.23	96.60
13.633	13.612	(1.481)	145	302153			5.93- 65.93	35.79

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QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 12-AUG-2021
Lab File ID: 3081224.d	Calibration Time: 19:05
Lab Smp Id: ICV	Client Smp ID: ICV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/12AUG21.b/321q0812a.m	
Misc Info: 50ppbv(200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	229903	137942	321864	224837	-2.20
108 1,4-Difluorobenze	822152	493291	1151013	803057	-2.32
153 Chlorobenzene-d5	775771	465463	1086079	747713	-3.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Report Date: 13-Aug-2021 16:46

## US32TAR1

## RECOVERY REPORT

Client Name: Client SDG: 12AUG21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: ICV Client Smp ID: ICV  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: LCS  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AT20\_new.sub  
 Method File: /chem/msd3.i/12AUG21.b/321q0812a.m  
 Misc Info: 50ppbv(200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	49.006	98.01	70-130
5 Propylene	50.000	47.164	94.33	70-130
7 1,1-Difluoroethan	50.000	47.221	94.44	70-130
8 Freon 12	50.000	46.498	93.00	70-130
9 Chlorodifluoromet	50.000	39.728	79.46	70-130
10 Freon 114	50.000	45.943	91.89	70-130
12 Isobutane	50.000	47.437	94.87	70-130
15 Chloromethane	50.000	44.707	89.41	70-130
18 Butane	50.000	41.734	83.47	70-130
19 Vinyl Chloride	50.000	41.035	82.07	70-130
20 1,3-Butadiene	50.000	37.411	74.82	70-130
24 Bromomethane	50.000	43.297	86.59	70-130
30 Chloroethane	50.000	45.908	91.82	70-130
31 Isopentane	50.000	46.622	93.24	70-130
32 Vinyl Bromide	50.000	44.847	89.69	70-130
33 Freon 11	50.000	45.607	91.21	70-130
34 Dichlorofluoromet	50.000	46.423	92.85	70-130
35 Pentane	50.000	43.191	86.38	70-130
38 Ethyl Ether	50.000	46.510	93.02	70-130
39 Ethanol	58.000	41.888	72.22	70-130
42 Acrolein	58.000	49.201	84.83	70-130
43 Freon 113	50.000	45.319	90.64	70-130
44 1,1-Dichloroethen	50.000	45.298	90.60	70-130
47 Acetone	50.000	44.183	88.37	70-130
48 Carbon Disulfide	50.000	46.676	93.35	70-130
49 Iodomethane	50.000	54.007	108.01	70-130
52 2-Propanol	50.000	47.058	94.12	70-130
54 3-Chloropropene	50.000	43.919	87.84	70-130
57 Acetonitrile	50.000	43.618	87.24	70-130
59 Methylene Chlorid	50.000	46.144	92.29	70-130
62 tert-Butyl alcoho	50.000	45.532	91.06	70-130
63 Methyl tert-butyl	50.000	46.601	93.20	70-130
64 trans-1,2-Dichlor	50.000	45.728	91.46	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	40.735	81.47	70-130
67 Hexane	50.000	45.812	91.62	70-130
71 1,1-Dichloroethan	50.000	43.884	87.77	70-130
72 Isopropyl ether	50.000	46.474	92.95	70-130
73 Vinyl Acetate	50.000	47.003	94.01	70-130
79 Ethyl-tert-butyl	50.000	47.164	94.33	70-130
84 2,2-Dichloropropa	50.000	46.055	92.11	70-130
85 cis-1,2-Dichloroe	50.000	45.344	90.69	70-130
86 2-Butanone	50.000	44.673	89.35	70-130
87 Ethyl Acetate	50.000	41.906	83.81	70-130
89 Tetrahydrofuran	50.000	43.034	86.07	70-130
92 Chloroform	50.000	44.774	89.55	70-130
94 Cyclohexane	50.000	45.352	90.70	70-130
96 1,1,1-Trichloroet	50.000	45.563	91.13	70-130
99 1,1-Dichloroprop	50.000	45.824	91.65	70-130
97 Carbon Tetrachlor	50.000	48.128	96.26	70-130
101 2,2,4-Trimethylpe	50.000	45.714	91.43	70-130
102 Benzene	50.000	45.358	90.72	70-130
105 tert-Amyl methyl	50.000	47.162	94.32	70-130
106 1,2-Dichloroethan	50.000	45.527	91.05	70-130
107 Heptane	50.000	45.772	91.54	70-130
110 n-Butanol	50.000	43.676	87.35	70-130
111 Trichloroethene	50.000	45.578	91.16	70-130
118 Dibromomethane	50.000	46.148	92.30	70-130
127 Methylcyclohexane	50.000	45.980	91.96	70-130
114 1,2-Dichloropropa	50.000	45.006	90.01	70-130
116 Methyl Methacryla	50.000	45.022	90.04	70-130
117 1,4-Dioxane	50.000	41.181	82.36	70-130
122 Bromodichlorometh	50.000	45.126	90.25	70-130
126 cis-1,3-Dichlorop	50.000	46.384	92.77	70-130
131 4-Methyl-2-pentan	50.000	41.180	82.36	70-130
136 Octane	50.000	45.510	91.02	70-130
137 Toluene	50.000	45.678	91.36	70-130
139 trans-1,3-Dichlor	50.000	46.388	92.78	70-130
141 1,1,2-Trichloroet	50.000	46.064	92.13	70-130
142 Tetrachloroethene	50.000	46.915	93.83	70-130
143 2-Hexanone	50.000	38.481	76.96	70-130
144 1,3-Dichloropropa	50.000	43.044	86.09	70-130
146 Dibromochlorometh	50.000	47.517	95.03	70-130
148 1,2-Dibromoethane	50.000	46.029	92.06	70-130
151 1-Bromo-2-Chloroe	50.000	46.278	92.56	70-130
154 Chlorobenzene	50.000	46.056	92.11	70-130
155 Ethyl Benzene	50.000	47.438	94.88	70-130
156 Nonane	50.000	47.041	94.08	70-130
157 1,1,1,2-Tetrachlo	50.000	40.582	81.16	70-130
158 m,p-Xylene	50.000	47.778	95.56	70-130
164 o-Xylene	50.000	47.133	94.27	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	46.308	92.62	70-130
167 Bromoform	50.000	47.365	94.73	70-130
168 Cumene	50.000	46.380	92.76	70-130
169 Cyclohexanone	50.000	29.459	58.92*	70-130
175 1,1,2,2-Tetrachlo	50.000	45.040	90.08	70-130
177 Bromobenzene	50.000	46.986	93.97	70-130
178 Propylbenzene	50.000	45.896	91.79	70-130
179 1,2,3-Trichloropr	50.000	45.361	90.72	70-130
181 trans-1,4-Dichlor	50.000	57.026	114.05	70-130
182 Decane	50.000	42.245	84.49	70-130
183 4-Ethyltoluene	50.000	45.570	91.14	70-130
184 2-Chlorotoluene	50.000	45.766	91.53	70-130
185 1,3,5-Trimethylbe	50.000	46.014	92.03	70-130
188 alpha Methyl Styr	50.000	47.067	94.13	70-130
189 tert-Butylbenzene	50.000	45.987	91.97	70-130
190 1,2,4-Trimethylbe	50.000	46.390	92.78	70-130
192 sec-Butylbenzene	50.000	44.363	88.73	70-130
194 p-Cymene	50.000	45.071	90.14	70-130
195 1,3-Dichlorobenze	50.000	45.157	90.31	70-130
196 1,4-Dichlorobenze	50.000	45.173	90.35	70-130
199 alpha-Chlorotolue	50.000	45.141	90.28	70-130
201 Undecane	50.000	41.767	83.53	70-130
202 Butylbenzene	50.000	43.294	86.59	70-130
204 1,2-Dichlorobenze	50.000	44.055	88.11	70-130
206 1,2-Dibromo-3-chl	50.000	43.044	86.09	70-130
207 Dodecane	50.000	44.183	88.37	70-130
213 1,2,4-Trichlorobe	58.000	49.409	85.19	70-130
215 Hexachlorobutadie	58.000	52.946	91.29	70-130
216 Naphthalene	5.800	4.267	73.56	60-140
222 1,2,3-Trichlorobe	58.000	46.931	80.92	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.592	98.37	70-130
\$ 134 Toluene-d8	25.000	24.750	99.00	70-130
\$ 170 4-Bromofluorobenz	25.000	25.266	101.06	70-130

Date : 13-AUG-2021 08:56

Client ID: ICV

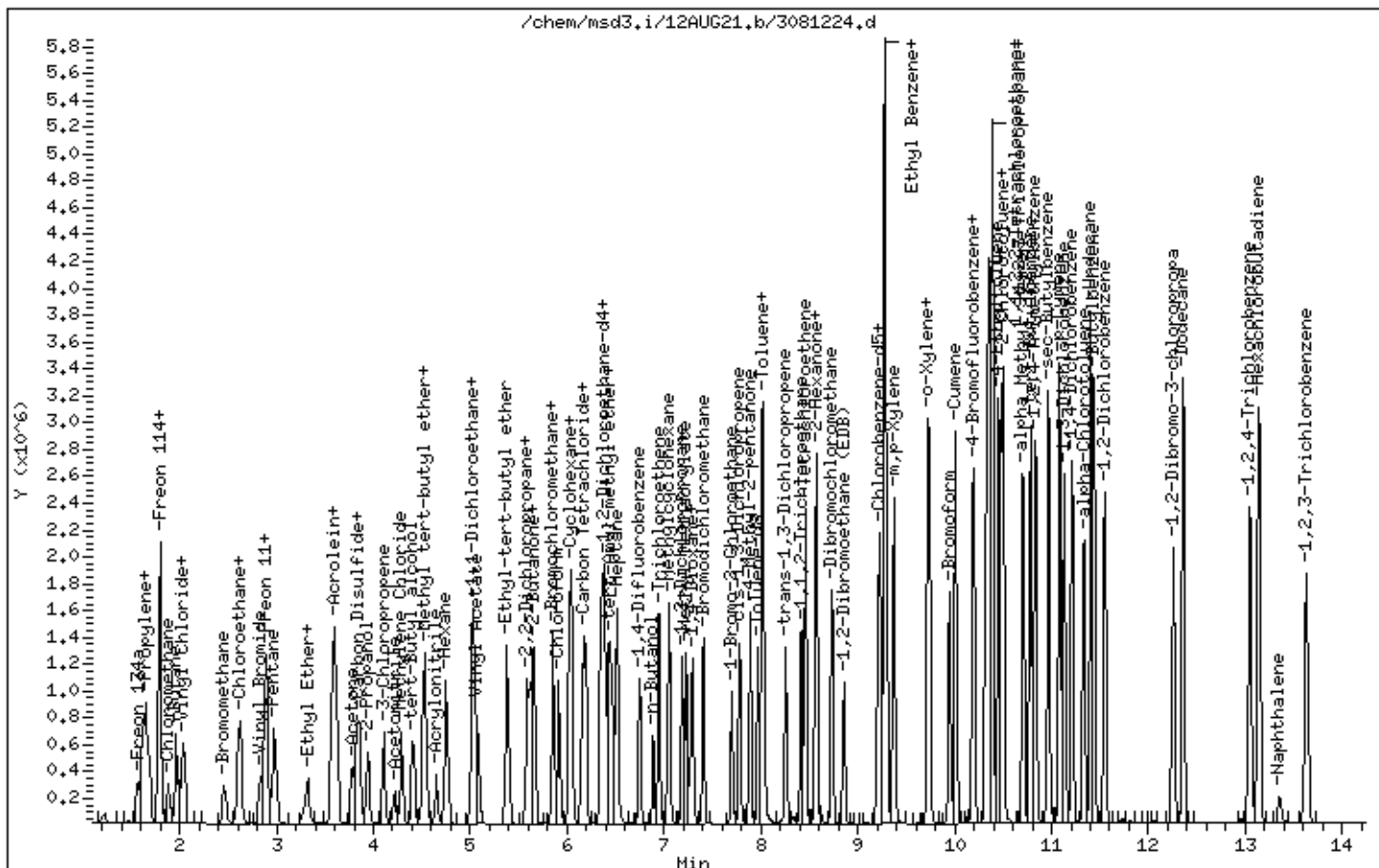
Instrument: msd3,i

Sample Info: 50ml 3018-2200

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/02SEP21.b/3090205.d  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Inj Date : 02-SEP-2021 11:28  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 50mL 3018-2169  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/02SEP21.b/321q0812b.m  
 Meth Date : 07-Sep-2021 15:20 ugdc Quant Type: ISTD  
 Cal Date : 02-SEP-2021 10:33 Cal File: 3090203.d  
 Als bottle: 14 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET RANGE	RATIO
					( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.858	5.858	(1.000)	130	254322	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	198512			47.29- 107.29	78.06
5.858	5.858	(1.000)	49	428735			122.83- 182.83	168.58
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.743	6.750	(1.000)	114	908573	25.0000		80.00- 120.00	100.00
6.743	6.750	(1.000)	88	136405			0.00- 45.09	15.01
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.206	(1.000)	117	835766	25.0000		80.00- 120.00	100.00
9.207	9.206	(1.000)	82	451176			23.62- 83.62	53.98
-----								
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.390	6.404	(1.091)	65	341922	24.1308	24.131	80.00- 120.00	100.00
6.390	6.404	(1.091)	67	183457			20.51- 80.51	53.65
-----								
\$ 134 Toluene-d8 CAS #: 2037-26-5								
7.968	7.967	(1.182)	98	953131	26.0314	26.031	80.00- 120.00	100.00
7.968	7.967	(1.182)	70	105978			0.00- 42.00	11.12



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
§ 134 Toluene-d8 (continued)								
7.968	7.967	(1.182)	100	646530			37.14- 97.14	67.83
-----								
§ 170 4-Bromofluorobenzene								
							CAS #: 460-00-4	
10.195	10.202	(1.107)	174	549741	25.1576	25.158	80.00- 120.00	100.00
10.195	10.202	(1.107)	95	672272			92.25- 152.25	122.29
10.195	10.202	(1.107)	176	510143			63.07- 123.07	92.80
-----								
4 Freon 134a								
							CAS #: 811-97-2	
1.577	1.576	(0.269)	83	369976	50.2138	50.214	80.00- 120.00	100.00
1.577	1.576	(0.269)	69	315697			50.75- 110.75	85.33
1.577	1.576	(0.269)	51	75768			0.00- 49.76	20.48
-----								
5 Propylene								
							CAS #: 115-07-1	
1.619	1.618	(0.276)	41	391910	54.3658	54.366	80.00- 120.00	100.00
1.619	1.618	(0.276)	42	258332			36.66- 96.66	65.92
1.619	1.618	(0.276)	39	279931			44.11- 104.11	71.43
-----								
7 1,1-Difluoroethane								
							CAS #: 75-37-6	
1.633	1.632	(0.279)	65	232433	51.7210	51.721	80.00- 120.00	100.00
1.633	1.632	(0.279)	51	573180			217.13- 277.13	246.60
1.633	1.646	(0.279)	47	168743			48.77- 108.77	72.60
-----								
8 Freon 12								
							CAS #: 75-71-8	
1.661	1.660	(0.283)	85	982871	48.7165	48.716	80.00- 120.00	100.00
1.661	1.660	(0.283)	87	318217			2.35- 62.35	32.38
-----								
9 Chlorodifluoromethane								
							CAS #: 75-45-6	
1.689	1.688	(0.288)	67	101910	40.7173	40.717	80.00- 120.00	100.00
1.689	1.688	(0.288)	51	854796			710.68- 770.68	838.78
-----								
10 Freon 114								
							CAS #: 76-14-2	
1.801	1.800	(0.307)	135	739185	48.1991	48.199	80.00- 120.00	100.00
1.801	1.800	(0.307)	137	239172			2.06- 62.06	32.36
-----								
12 Isobutane								
							CAS #: 75-28-5	
1.815	1.814	(0.310)	43	888064	54.4105	54.410	80.00- 120.00	100.00
1.815	1.814	(0.310)	42	295126			2.70- 62.70	33.23
1.801	1.800	(0.307)	58	28718			0.00- 33.44	3.23
-----								
15 Chloromethane								
							CAS #: 74-87-3	
1.884	1.884	(0.322)	50	429592	49.4535	49.454	80.00- 120.00	100.00
1.884	1.884	(0.322)	52	139379			3.38- 63.38	32.44
-----								
18 Butane								
							CAS #: 106-97-8	
1.968	1.968	(0.336)	58	84609	41.3115	41.311	80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)									
1.968	1.968	(0.336)	43	704866				760.51- 820.51	833.09
-----									
19 Vinyl Chloride CAS #: 75-01-4									
2.010	2.010	(0.343)	62	399879	42.1879	42.188		80.00- 120.00	100.00
2.010	2.010	(0.343)	64	121226				0.32- 60.32	30.32
-----									
20 1,3-Butadiene CAS #: 106-99-0									
2.038	2.052	(0.348)	54	385496	42.3708	42.371		80.00- 120.00	100.00
2.038	2.052	(0.348)	39	392860				72.94- 132.94	101.91
-----									
24 Bromomethane CAS #: 74-83-9									
2.458	2.458	(0.420)	94	329390	46.5568	46.557		80.00- 120.00	100.00
2.458	2.458	(0.420)	96	309015				63.18- 123.18	93.81
-----									
30 Chloroethane CAS #: 75-00-3									
2.598	2.598	(0.443)	64	216028	51.2923	51.292		80.00- 120.00	100.00
2.598	2.598	(0.443)	66	67427				1.10- 61.10	31.21
2.598	2.598	(0.443)	49	75859				5.46- 65.46	35.12
-----									
31 Isopentane CAS #: 78-78-4									
2.626	2.626	(0.448)	43	588234	53.5944	53.594		80.00- 120.00	100.00
2.626	2.626	(0.448)	57	378970				36.12- 96.12	64.43
-----									
32 Vinyl Bromide CAS #: 593-60-2									
2.836	2.836	(0.484)	106	358533	46.6509	46.651		80.00- 120.00	100.00
2.836	2.836	(0.484)	108	338192				63.01- 123.01	94.33
-----									
33 Freon 11 CAS #: 75-69-4									
2.892	2.892	(0.494)	101	1063958	47.4555	47.455		80.00- 120.00	100.00
2.892	2.892	(0.494)	103	695685				36.55- 96.55	65.39
-----									
34 Dichlorofluoromethane CAS #: 75-43-4									
2.906	2.906	(0.496)	67	853955	49.9973	49.997		80.00- 120.00	100.00
2.906	2.906	(0.496)	69	265105				1.82- 61.82	31.04
-----									
35 Pentane CAS #: 109-66-0									
2.976	2.976	(0.508)	43	898468	49.6121	49.612		80.00- 120.00	100.00
2.976	2.976	(0.508)	57	134990				0.00- 45.52	15.02
2.976	2.990	(0.508)	72	69516				0.00- 38.25	7.74
-----									
38 Ethyl Ether CAS #: 60-29-7									
3.326	3.325	(0.568)	74	187939	50.0965	50.096		80.00- 120.00	100.00
3.326	3.325	(0.568)	59	335045				143.51- 203.51	178.27
3.312	3.325	(0.565)	45	357641				143.53- 203.53	190.30
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.270	3.269	(0.558)	46	82014	46.4511	46.451	80.00- 120.00	100.00
3.270	3.269	(0.558)	45	165119			213.29- 273.29	201.33
42 Acrolein					CAS #: 107-02-8			
3.577	3.591	(0.611)	55	156839	55.9846	55.984	80.00- 120.00	100.00
3.577	3.591	(0.611)	56	214756			104.02- 164.02	136.93
43 Freon 113					CAS #: 76-13-1			
3.591	3.591	(0.613)	151	711767	47.9594	47.959	80.00- 120.00	100.00
3.591	3.591	(0.613)	153	455671			34.03- 94.03	64.02
3.591	3.591	(0.613)	101	860252			89.72- 149.72	120.86
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.619	3.619	(0.618)	96	407039	48.9005	48.900	80.00- 120.00	100.00
3.619	3.619	(0.618)	98	259289			32.85- 92.85	63.70
3.619	3.619	(0.618)	61	801678			165.91- 225.91	196.95
47 Acetone					CAS #: 67-64-1			
3.773	3.787	(0.644)	58	238644	50.7931	50.793	80.00- 120.00	100.00
3.773	3.787	(0.644)	43	822948			325.09- 385.09	344.84
48 Carbon Disulfide					CAS #: 75-15-0			
3.857	3.857	(0.658)	76	1100153	51.8045	51.804	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.829	3.829	(0.654)	142	1032243	56.4749	56.475	80.00- 120.00	100.00
3.829	3.829	(0.654)	127	470760			16.98- 76.98	45.61
52 2-Propanol					CAS #: 67-63-0			
3.941	3.941	(0.673)	45	951770	52.4926	52.493	80.00- 120.00	100.00
3.941	3.941	(0.673)	43	191535			0.00- 49.76	20.12
54 3-Chloropropene					CAS #: 107-05-1			
4.109	4.109	(0.701)	76	176569	48.1887	48.189	80.00- 120.00	100.00
4.109	4.109	(0.701)	41	693320			344.92- 404.92	392.66
57 Acetonitrile					CAS #: 75-05-8			
4.207	4.221	(0.718)	41	423519	52.6603	52.660	80.00- 120.00	100.00
4.207	4.221	(0.718)	40	222787			24.08- 84.08	52.60
4.207	4.221	(0.718)	38	48943			0.00- 42.84	11.56
59 Methylene Chloride					CAS #: 75-09-2			
4.291	4.291	(0.732)	49	620251	52.4918	52.492	80.00- 120.00	100.00
4.291	4.291	(0.732)	84	345646			27.95- 87.95	55.73
4.291	4.291	(0.732)	51	189343			0.78- 60.78	30.53

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol				CAS #: 75-65-0			
4.403	4.403	(0.752)	59	1026155	49.0170	49.017	80.00- 120.00 100.00
4.403	4.403	(0.752)	41	242858			0.00- 52.58 23.67
4.403	4.403	(0.752)	57	115552			0.00- 40.94 11.26
63 Methyl tert-butyl ether				CAS #: 1634-04-4			
4.515	4.515	(0.771)	73	1117576	48.9775	48.978	80.00- 120.00 100.00
4.515	4.515	(0.771)	57	335260			0.00- 58.27 30.00
4.515	4.515	(0.771)	41	346187			0.00- 58.78 30.98
64 trans-1,2-Dichloroethene				CAS #: 156-60-5			
4.543	4.543	(0.775)	98	262415	49.6461	49.646	80.00- 120.00 100.00
4.543	4.543	(0.775)	61	721783			236.85- 296.85 275.05
4.543	4.543	(0.775)	96	411638			126.72- 186.72 156.87
66 Acrylonitrile				CAS #: 107-13-1			
4.641	4.655	(0.792)	52	333325	47.6990	47.699	80.00- 120.00 100.00
4.641	4.655	(0.792)	53	399828			88.92- 148.92 119.95
67 Hexane				CAS #: 110-54-3			
4.753	4.753	(0.811)	57	801924	52.0781	52.078	80.00- 120.00 100.00
4.753	4.753	(0.811)	43	551876			36.74- 96.74 68.82
4.753	4.753	(0.811)	86	102634			0.00- 43.22 12.80
71 1,1-Dichloroethane				CAS #: 75-34-3			
5.033	5.046	(0.859)	63	805321	49.3630	49.363	80.00- 120.00 100.00
5.033	5.046	(0.859)	65	244184			0.56- 60.56 30.32
72 Isopropyl ether				CAS #: 108-20-3			
5.019	5.018	(0.857)	45	1797296	53.3377	53.338	80.00- 120.00 100.00
5.019	5.018	(0.857)	87	358030			0.00- 51.44 19.92
5.019	5.018	(0.857)	59	190010			0.00- 40.81 10.57
73 Vinyl Acetate				CAS #: 108-05-4			
5.075	5.088	(0.866)	86	102738	50.8312	50.831	80.00- 120.00 100.00
5.075	5.088	(0.866)	43	1534218			1473.01-1533.01 1493.33
79 Ethyl-tert-butyl ether				CAS #: 637-92-3			
5.382	5.382	(0.919)	59	1588343	51.7636	51.764	80.00- 120.00 100.00
5.382	5.382	(0.919)	87	527764			4.28- 64.28 33.23
5.382	5.382	(0.919)	41	334686			0.00- 49.94 21.07
84 2,2-Dichloropropane				CAS #: 594-20-7			
5.592	5.592	(0.955)	77	747260	48.4687	48.469	80.00- 120.00 100.00
5.592	5.592	(0.955)	79	242767			2.43- 62.43 32.49
5.592	5.592	(0.955)	97	175215			0.00- 53.03 23.45

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.620	5.634	(0.959)	98	277951	49.5904	49.590	80.00- 120.00	100.00
5.620	5.634	(0.959)	96	430326			121.91- 181.91	154.82
5.620	5.634	(0.959)	61	967510			313.72- 373.72	348.09
86 2-Butanone					CAS #: 78-93-3			
5.648	5.648	(0.964)	72	199594	48.6507	48.651	80.00- 120.00	100.00
5.648	5.648	(0.964)	43	2364166			1111.25-1171.25	1184.49
5.648	5.648	(0.964)	57	83858			11.22- 71.22	42.01
87 Ethyl Acetate					CAS #: 141-78-6			
5.648	5.662	(0.964)	45	191200	49.7450	49.745	80.00- 120.00	100.00
5.620	5.620	(0.959)	61	966796			469.17- 529.17	505.65
5.662	5.662	(0.967)	70	106027			29.38- 89.38	55.45
89 Tetrahydrofuran					CAS #: 109-99-9			
5.844	5.858	(0.998)	42	628261	50.3376	50.338	80.00- 120.00	100.00
5.844	5.858	(0.998)	71	180917			0.09- 60.09	28.80
5.844	5.858	(0.998)	72	188065			2.13- 62.13	29.93
92 Chloroform					CAS #: 67-66-3			
5.914	5.914	(1.010)	83	879148	48.8739	48.874	80.00- 120.00	100.00
5.914	5.914	(1.010)	85	571932			34.29- 94.29	65.06
94 Cyclohexane					CAS #: 110-82-7			
6.026	6.026	(1.029)	84	541248	49.1531	49.153	80.00- 120.00	100.00
6.026	6.026	(1.029)	56	838358			116.85- 176.85	154.89
6.026	6.026	(1.029)	41	490529			57.77- 117.77	90.63
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
6.040	6.054	(1.031)	97	953890	48.8519	48.852	80.00- 120.00	100.00
6.040	6.054	(1.031)	99	605203			34.55- 94.55	63.45
97 Carbon Tetrachloride					CAS #: 56-23-5			
6.166	6.166	(1.053)	119	969137	50.7334	50.733	80.00- 120.00	100.00
6.166	6.166	(1.053)	117	1021154			74.20- 134.20	105.37
99 1,1-Dichloropropene					CAS #: 563-58-6			
6.194	6.194	(0.919)	110	231645	49.5858	49.586	80.00- 120.00	100.00
6.194	6.194	(0.919)	75	607828			229.39- 289.39	262.40
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
6.348	6.362	(1.084)	57	2550231	51.8261	51.826	80.00- 120.00	100.00
6.348	6.362	(1.084)	56	841729			1.14- 61.14	33.01
6.348	6.362	(1.084)	41	726964			0.00- 59.12	28.51

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
6.376	6.390	(0.946)	78	1190932	50.5367	50.537	80.00- 120.00	100.00
6.376	6.390	(0.946)	77	277715			0.00- 53.48	23.32
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.432	6.446	(0.954)	87	312774	51.0826	51.082	80.00- 120.00	100.00
6.432	6.446	(0.954)	73	1231100			363.80- 423.80	393.61
6.432	6.446	(0.954)	55	418948			97.13- 157.13	133.95
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.460	6.474	(0.958)	62	689302	49.0757	49.076	80.00- 120.00	100.00
6.460	6.474	(0.958)	64	212856			1.41- 61.41	30.88
-----								
107 Heptane					CAS #: 142-82-5			
6.516	6.516	(0.966)	71	442076	48.2001	48.200	80.00- 120.00	100.00
6.516	6.516	(0.966)	43	1021532			146.45- 206.45	231.08
6.516	6.516	(0.966)	57	620091			90.20- 150.20	140.27
-----								
110 n-Butanol					CAS #: 71-36-3			
6.879	6.886	(1.020)	56	415228	51.0731	51.073	80.00- 120.00	100.00
6.879	6.886	(1.020)	41	318914			44.46- 104.46	76.80
6.879	6.886	(1.020)	43	245861			28.14- 88.14	59.21
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.943	6.950	(1.030)	95	579373	50.2946	50.295	80.00- 120.00	100.00
6.943	6.950	(1.030)	130	618765			79.68- 139.68	106.80
6.943	6.950	(1.030)	97	371017			34.74- 94.74	64.04
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.187	7.186	(1.066)	63	535016	50.7200	50.720	80.00- 120.00	100.00
7.187	7.186	(1.066)	62	378844			40.55- 100.55	70.81
7.187	7.186	(1.066)	41	378554			36.07- 96.07	70.76
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.223	7.229	(0.784)	69	445633	49.8613	49.861	80.00- 120.00	100.00
7.223	7.229	(0.784)	41	840251			160.67- 220.67	188.55
7.223	7.229	(0.784)	100	181514			11.33- 71.33	40.73
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.266	7.272	(1.078)	88	290140	43.9313	43.931	80.00- 120.00	100.00
7.266	7.272	(1.078)	58	261696			56.19- 116.19	90.20
7.266	7.272	(1.078)	57	87652			0.00- 59.32	30.21
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.294	7.301	(0.792)	174	527167	49.9422	49.942	80.00- 120.00	100.00
7.294	7.301	(0.792)	93	515788			66.88- 126.88	97.84

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	CONCENTRATIONS	
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)									
7.294	7.301	(0.792)	95	430455		49.90- 109.90	81.65		
-----									
122 Bromodichloromethane CAS #: 75-27-4									
7.402	7.409	(1.098)	83	955112	49.5760	49.576	80.00- 120.00	100.00	
7.402	7.409	(1.098)	85	617975		33.85-	93.85	64.70	
-----									
126 cis-1,3-Dichloropropene CAS #: 10061-01-5									
7.781	7.781	(1.154)	75	748435	51.0166	51.016	80.00- 120.00	100.00	
7.781	7.781	(1.154)	77	236568		1.50-	61.50	31.61	
7.774	7.781	(1.153)	39	528927		43.12-	103.12	70.67	
-----									
127 Methylcyclohexane CAS #: 108-87-2									
7.051	7.058	(1.046)	83	732733	50.3938	50.394	80.00- 120.00	100.00	
7.051	7.058	(1.046)	98	340681		17.10-	77.10	46.49	
7.051	7.058	(1.046)	55	785788		71.11-	131.11	107.24	
-----									
131 4-Methyl-2-pentanone CAS #: 108-10-1									
7.882	7.888	(1.169)	58	496351	48.5400	48.540	80.00- 120.00	100.00	
7.882	7.888	(1.169)	43	1376502		247.84-	307.84	277.32	
7.882	7.888	(1.169)	85	178444		8.73-	68.73	35.95	
-----									
137 Toluene CAS #: 108-88-3									
8.025	8.025	(1.190)	91	1610681	51.4367	51.437	80.00- 120.00	100.00	
8.018	8.025	(1.189)	92	936983		28.13-	88.13	58.17	
-----									
136 Octane CAS #: 111-65-9									
8.003	8.010	(1.187)	57	557065	52.8917	52.892	80.00- 120.00	100.00	
8.003	8.010	(1.187)	85	514349		67.77-	127.77	92.33	
8.003	8.010	(1.187)	43	1443067		225.27-	285.27	259.05	
-----									
139 trans-1,3-Dichloropropene CAS #: 10061-02-6									
8.254	8.254	(0.897)	75	732135	51.7767	51.777	80.00- 120.00	100.00	
8.254	8.254	(0.897)	77	234116		1.93-	61.93	31.98	
8.254	8.254	(0.897)	39	481899		38.37-	98.37	65.82	
-----									
141 1,1,2-Trichloroethane CAS #: 79-00-5									
8.412	8.419	(0.914)	97	555948	52.6828	52.683	80.00- 120.00	100.00	
8.412	8.419	(0.914)	99	344342		31.66-	91.66	61.94	
8.412	8.419	(0.914)	83	478928		55.24-	115.24	86.15	
-----									
142 Tetrachloroethene CAS #: 127-18-4									
8.455	8.462	(0.918)	166	803063	52.1807	52.181	80.00- 120.00	100.00	
8.455	8.462	(0.918)	129	631310		48.51-	108.51	78.61	
8.455	8.462	(0.918)	131	611248		45.64-	105.64	76.11	
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone					CAS #: 591-78-6			
8.569	8.576	(0.931)	58	676219	45.4699	45.470	80.00- 120.00	100.00
8.569	8.576	(0.931)	43	1354819			169.24- 229.24	200.35
8.576	8.576	(0.932)	100	121648			0.00- 48.72	17.99
-----					-----			
144 1,3-Dichloropropane					CAS #: 142-28-9			
8.562	8.569	(1.270)	76	753393	48.6974	48.697	80.00- 120.00	100.00
8.562	8.569	(1.270)	41	917902			96.83- 156.83	121.84
8.562	8.569	(1.270)	78	243509			2.46- 62.46	32.32
-----					-----			
146 Dibromochloromethane					CAS #: 124-48-1			
8.734	8.734	(0.949)	129	1126069	53.4824	53.482	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	869488			47.05- 107.05	77.21
-----					-----			
148 1,2-Dibromoethane (EDB)					CAS #: 106-93-4			
8.856	8.855	(0.962)	107	888609	51.6905	51.690	80.00- 120.00	100.00
8.856	8.855	(0.962)	109	836402			64.74- 124.74	94.12
-----					-----			
151 1-Bromo-2-Chloroethane					CAS #: 107-04-0			
7.695	7.702	(1.141)	63	1018491	53.9051	53.905	80.00- 120.00	100.00
7.695	7.702	(1.141)	65	303216			0.05- 60.05	29.77
7.695	7.702	(1.141)	144	104993			0.00- 40.91	10.31
-----					-----			
154 Chlorobenzene					CAS #: 108-90-7			
9.228	9.235	(1.002)	112	1335544	50.9432	50.943	80.00- 120.00	100.00
9.228	9.235	(1.002)	114	429457			2.19- 62.19	32.16
9.228	9.235	(1.002)	77	725559			23.66- 83.66	54.33
-----					-----			
155 Ethyl Benzene					CAS #: 100-41-4			
9.271	9.278	(1.007)	106	682967	52.6038	52.604	80.00- 120.00	100.00
9.271	9.278	(1.007)	91	2124870			282.43- 342.43	311.12
-----					-----			
156 Nonane					CAS #: 111-84-2			
9.271	9.278	(1.007)	43	1456703	55.6805	55.680	80.00- 120.00	100.00
9.271	9.278	(1.007)	57	1231833			55.73- 115.73	84.56
9.278	9.278	(1.008)	85	394475			0.00- 58.99	27.08
-----					-----			
157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6			
9.293	9.300	(1.009)	131	658177	45.2543	45.254	80.00- 120.00	100.00
9.207	9.206	(1.000)	117	835766			38.22- 98.22	126.98
9.293	9.292	(1.009)	95	244797			7.54- 67.54	37.19
-----					-----			
158 m,p-Xylene					CAS #: 108-38-3			
9.371	9.371	(1.018)	106	838011	52.5541	52.554	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	1667193			169.66- 229.66	198.95
-----					-----			



CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
==	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene						CAS #: 95-47-6		
9.715	9.722	(1.055)	106	779854	51.5781	51.578	80.00- 120.00	100.00
9.715	9.722	(1.055)	91	1646552			180.55- 240.55	211.14
-----								
165 Styrene						CAS #: 100-42-5		
9.737	9.737	(1.058)	104	1333644	50.9365	50.936	80.00- 120.00	100.00
9.737	9.737	(1.058)	78	647870			18.65- 78.65	48.58
-----								
167 Bromoform						CAS #: 75-25-2		
9.945	9.944	(1.080)	173	1026391	51.3909	51.391	80.00- 120.00	100.00
9.945	9.944	(1.080)	171	526468			21.64- 81.64	51.29
-----								
168 Cumene						CAS #: 98-82-8		
10.002	10.009	(1.086)	105	2440840	50.8242	50.824	80.00- 120.00	100.00
10.009	10.009	(1.087)	120	666094			0.00- 57.04	27.29
10.002	10.009	(1.086)	51	306325			0.00- 41.95	12.55
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.181	10.188	(1.106)	55	737327	33.7969	33.797	80.00- 120.00	100.00(R)
10.181	10.188	(1.106)	98	269940			8.59- 68.59	36.61
10.181	10.181	(1.106)	42	556635			46.18- 106.18	75.49
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
10.317	10.317	(1.121)	83	1174674	50.1746	50.175	80.00- 120.00	100.00
10.317	10.317	(1.121)	85	751475			34.44- 94.44	63.97
-----								
177 Bromobenzene						CAS #: 108-86-1		
10.338	10.345	(1.123)	156	784982	51.4082	51.408	80.00- 120.00	100.00
10.338	10.345	(1.123)	158	761690			67.20- 127.20	97.03
10.338	10.345	(1.123)	77	1344280			131.36- 191.36	171.25
-----								
178 Propylbenzene						CAS #: 103-65-1		
10.353	10.360	(1.124)	120	699903	50.7688	50.769	80.00- 120.00	100.00
10.353	10.360	(1.124)	91	2961427	52.0129	52.013	385.23- 445.23	423.12
10.353	10.360	(1.124)	105	112483			0.00- 46.02	16.07
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
10.381	10.381	(1.128)	110	382623	50.8154	50.815	80.00- 120.00	100.00
10.381	10.381	(1.128)	75	1378401			301.57- 361.57	360.25
10.381	10.381	(1.128)	61	340672			54.32- 114.32	89.04
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
10.374	10.374	(1.127)	53	428474	71.4586	71.459	80.00- 120.00	100.00(R)
10.367	10.374	(1.126)	89	265946			40.38- 100.38	62.07
10.381	10.374	(1.128)	75	1378401			394.61- 454.61	321.70
-----								

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane						CAS #: 124-18-5			
10.389	10.396	(1.128)	57	1585452	50.5622	50.562	80.00-	120.00	100.00
10.389	10.396	(1.128)	71	502305			2.98-	62.98	31.68
10.396	10.396	(1.129)	142	75127			0.00-	35.12	4.74
-----									
183 4-Ethyltoluene						CAS #: 622-96-8			
10.446	10.453	(1.135)	120	773955	51.9976	51.998	80.00-	120.00	100.00
10.446	10.453	(1.135)	105	2494474			295.29-	355.29	322.30
-----									
184 2-Chlorotoluene						CAS #: 95-49-8			
10.482	10.482	(1.138)	126	629207	50.8421	50.842	80.00-	120.00	100.00
10.475	10.482	(1.138)	91	2243976			325.01-	385.01	356.64
10.482	10.482	(1.138)	65	298891			19.90-	79.90	47.50
-----									
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
10.503	10.503	(1.141)	120	1043544	50.2593	50.259	80.00-	120.00	100.00
10.496	10.503	(1.140)	105	2129920			176.14-	236.14	204.10
-----									
188 alpha Methyl Styrene						CAS #: 98-83-9			
10.704	10.711	(1.163)	118	1072940	51.8677	51.868	80.00-	120.00	100.00
10.704	10.711	(1.163)	103	606505			26.69-	86.69	56.53
-----									
189 tert-Butylbenzene						CAS #: 98-06-6			
10.783	10.782	(1.171)	119	1954535	50.2604	50.260	80.00-	120.00	100.00
10.783	10.782	(1.171)	134	489931			0.00-	54.52	25.07
10.775	10.782	(1.170)	91	1285015			34.68-	94.68	65.75
-----									
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
10.833	10.832	(1.177)	105	2091362	51.8988	51.899	80.00-	120.00	100.00
10.833	10.832	(1.177)	120	999230			17.12-	77.12	47.78
-----									
192 sec-Butylbenzene						CAS #: 135-98-8			
10.969	10.969	(1.191)	134	631379	49.1586	49.158	80.00-	120.00	100.00
10.969	10.969	(1.191)	105	3006796			438.96-	498.96	476.23
10.969	10.969	(1.191)	91	481764			44.37-	104.37	76.30
-----									
194 p-Cymene						CAS #: 99-87-6			
11.076	11.083	(1.203)	119	2685639	50.7747	50.775	80.00-	120.00	100.00
11.076	11.083	(1.203)	134	713083			0.00-	56.91	26.55
11.076	11.083	(1.203)	91	629352			0.00-	53.86	23.43
-----									
195 1,3-Dichlorobenzene						CAS #: 541-73-1			
11.126	11.133	(1.208)	146	1448254	50.3987	50.399	80.00-	120.00	100.00
11.126	11.133	(1.208)	148	929782			33.78-	93.78	64.20
11.126	11.133	(1.208)	111	595606			11.40-	71.40	41.13
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene CAS #: 106-46-7								
11.212	11.212	(1.218)	146	1472131	50.2923	50.292	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	934872			33.73- 93.73	63.50
11.205	11.212	(1.217)	111	574350			9.40- 69.40	39.01
-----								
199 alpha-Chlorotoluene CAS #: 100-44-7								
11.327	11.327	(1.230)	91	2040397	51.1917	51.192	80.00- 120.00	100.00
11.327	11.327	(1.230)	126	453805			0.00- 52.58	22.24
-----								
201 Undecane CAS #: 1120-21-4								
11.399	11.406	(1.238)	57	1828728	51.9079	51.908	80.00- 120.00	100.00
11.399	11.406	(1.238)	43	1709495			62.03- 122.03	93.48
-----								
202 Butylbenzene CAS #: 104-51-8								
11.434	11.434	(1.242)	134	696864	49.2456	49.246	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	2477727			322.91- 382.91	355.55
11.434	11.434	(1.242)	92	1295655			155.43- 215.43	185.93
-----								
204 1,2-Dichlorobenzene CAS #: 95-50-1								
11.542	11.549	(1.254)	146	1380346	49.5897	49.590	80.00- 120.00	100.00
11.542	11.549	(1.254)	148	871858			33.66- 93.66	63.16
11.542	11.549	(1.254)	111	582574			12.36- 72.36	42.20
-----								
206 1,2-Dibromo-3-chloropropane CAS #: 96-12-8								
12.251	12.258	(1.331)	157	787200	46.0001	46.000	80.00- 120.00	100.00
12.251	12.258	(1.331)	75	699918			56.77- 116.77	88.91
12.251	12.258	(1.331)	155	616687			48.17- 108.17	78.34
-----								
207 Dodecane CAS #: 112-40-3								
12.351	12.358	(1.342)	57	1728338	54.9451	54.945	80.00- 120.00	100.00
12.351	12.358	(1.342)	43	1519061			56.62- 116.62	87.89
-----								
213 1,2,4-Trichlorobenzene CAS #: 120-82-1								
13.039	13.039	(1.416)	180	1176479	54.3540	54.354	80.00- 120.00	100.00
13.039	13.039	(1.416)	182	1124235			64.88- 124.88	95.56
-----								
215 Hexachlorobutadiene CAS #: 87-68-3								
13.125	13.132	(1.426)	225	924739	59.1628	59.163	80.00- 120.00	100.00
13.125	13.132	(1.426)	223	583125			33.46- 93.46	63.06
-----								
216 Naphthalene CAS #: 91-20-3								
13.340	13.340	(1.449)	128	283923	4.76077	4.761	80.00- 120.00	100.00
13.340	13.340	(1.449)	127	37030			0.00- 43.71	13.04
-----								
222 1,2,3-Trichlorobenzene CAS #: 87-61-6								
13.612	13.612	(1.478)	180	1067162	53.0726	53.073	80.00- 120.00	100.00

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO		
				ON-COL	FINAL				
==	=====	=====	=====	RESPONSE (	PPBV)	(	PPBV)	=====	=====
222 1,2,3-Trichlorobenzene (continued)									
13.612	13.612	(1.478)	182	1018702		66.23-	126.23		95.46
13.612	13.612	(1.478)	145	387602		5.93-	65.93		36.32

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 02-SEP-2021
Lab File ID: 3090205.d	Calibration Time: 11:00
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/02SEP21.b/321q0812b.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	195418	117251	273585	254322	30.14
108 1,4-Difluorobenze	668438	401063	935813	908573	35.92
153 Chlorobenzene-d5	630301	378181	882421	835766	32.60

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.74	-0.10
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 02SEP21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: LCS  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AT20\_new.sub  
 Method File: /chem/msd3.i/02SEP21.b/321q0812b.m  
 Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	50.214	100.43	70-130
5 Propylene	50.000	54.366	108.73	70-130
7 1,1-Difluoroethan	50.000	51.721	103.44	70-130
8 Freon 12	50.000	48.716	97.43	70-130
9 Chlorodifluoromet	50.000	40.717	81.43	70-130
10 Freon 114	50.000	48.199	96.40	70-130
12 Isobutane	50.000	54.410	108.82	70-130
15 Chloromethane	50.000	49.454	98.91	70-130
18 Butane	50.000	41.311	82.62	70-130
19 Vinyl Chloride	50.000	42.188	84.38	70-130
20 1,3-Butadiene	50.000	42.371	84.74	70-130
24 Bromomethane	50.000	46.557	93.11	70-130
30 Chloroethane	50.000	51.292	102.58	70-130
31 Isopentane	50.000	53.594	107.19	70-130
32 Vinyl Bromide	50.000	46.651	93.30	70-130
33 Freon 11	50.000	47.455	94.91	70-130
34 Dichlorofluoromet	50.000	49.997	99.99	70-130
35 Pentane	50.000	49.612	99.22	70-130
38 Ethyl Ether	50.000	50.096	100.19	70-130
39 Ethanol	58.000	46.451	80.09	70-130
42 Acrolein	58.000	55.984	96.53	70-130
43 Freon 113	50.000	47.959	95.92	70-130
44 1,1-Dichloroethen	50.000	48.900	97.80	70-130
47 Acetone	50.000	50.793	101.59	70-130
48 Carbon Disulfide	50.000	51.804	103.61	70-130
49 Iodomethane	50.000	56.475	112.95	70-130
52 2-Propanol	50.000	52.493	104.99	70-130
54 3-Chloropropene	50.000	48.189	96.38	70-130
57 Acetonitrile	50.000	52.660	105.32	70-130
59 Methylene Chlorid	50.000	52.492	104.98	70-130
62 tert-Butyl alcoho	50.000	49.017	98.03	70-130
63 Methyl tert-butyl	50.000	48.978	97.96	70-130
64 trans-1,2-Dichlor	50.000	49.646	99.29	70-130

Report Date: 08-Sep-2021 09:27

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	47.699	95.40	70-130
67 Hexane	50.000	52.078	104.16	70-130
71 1,1-Dichloroethan	50.000	49.363	98.73	70-130
72 Isopropyl ether	50.000	53.338	106.68	70-130
73 Vinyl Acetate	50.000	50.831	101.66	70-130
79 Ethyl-tert-butyl	50.000	51.764	103.53	70-130
84 2,2-Dichloropropa	50.000	48.469	96.94	70-130
85 cis-1,2-Dichloroe	50.000	49.590	99.18	70-130
86 2-Butanone	50.000	48.651	97.30	70-130
87 Ethyl Acetate	50.000	49.745	99.49	70-130
89 Tetrahydrofuran	50.000	50.338	100.68	70-130
92 Chloroform	50.000	48.874	97.75	70-130
94 Cyclohexane	50.000	49.153	98.31	70-130
96 1,1,1-Trichloroet	50.000	48.852	97.70	70-130
99 1,1-Dichloroprop	50.000	49.586	99.17	70-130
97 Carbon Tetrachlor	50.000	50.733	101.47	70-130
101 2,2,4-Trimethylpe	50.000	51.826	103.65	70-130
102 Benzene	50.000	50.537	101.07	70-130
105 tert-Amyl methyl	50.000	51.082	102.17	70-130
106 1,2-Dichloroethan	50.000	49.076	98.15	70-130
107 Heptane	50.000	48.200	96.40	70-130
110 n-Butanol	50.000	51.073	102.15	70-130
111 Trichloroethene	50.000	50.295	100.59	70-130
118 Dibromomethane	50.000	49.942	99.88	70-130
127 Methylcyclohexane	50.000	50.394	100.79	70-130
114 1,2-Dichloropropa	50.000	50.720	101.44	70-130
116 Methyl Methacryla	50.000	49.861	99.72	70-130
117 1,4-Dioxane	50.000	43.931	87.86	70-130
122 Bromodichlorometh	50.000	49.576	99.15	70-130
126 cis-1,3-Dichlorop	50.000	51.016	102.03	70-130
131 4-Methyl-2-pentan	50.000	48.540	97.08	70-130
136 Octane	50.000	52.892	105.78	70-130
137 Toluene	50.000	51.437	102.87	70-130
139 trans-1,3-Dichlor	50.000	51.777	103.55	70-130
141 1,1,2-Trichloroet	50.000	52.683	105.37	70-130
142 Tetrachloroethene	50.000	52.181	104.36	70-130
143 2-Hexanone	50.000	45.470	90.94	70-130
144 1,3-Dichloropropa	50.000	48.697	97.39	70-130
146 Dibromochlorometh	50.000	53.482	106.96	70-130
148 1,2-Dibromoethane	50.000	51.690	103.38	70-130
151 1-Bromo-2-Chloroe	50.000	53.905	107.81	70-130
154 Chlorobenzene	50.000	50.943	101.89	70-130
155 Ethyl Benzene	50.000	52.604	105.21	70-130
156 Nonane	50.000	55.680	111.36	70-130
157 1,1,1,2-Tetrachlo	50.000	45.254	90.51	70-130
158 m,p-Xylene	50.000	52.554	105.11	70-130
164 o-Xylene	50.000	51.578	103.16	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	50.936	101.87	70-130
167 Bromoform	50.000	51.391	102.78	70-130
168 Cumene	50.000	50.824	101.65	70-130
169 Cyclohexanone	50.000	33.797	67.59*	70-130
175 1,1,2,2-Tetrachlo	50.000	50.175	100.35	70-130
177 Bromobenzene	50.000	51.408	102.82	70-130
178 Propylbenzene	50.000	50.769	101.54	70-130
179 1,2,3-Trichloropr	50.000	50.815	101.63	70-130
181 trans-1,4-Dichlor	50.000	71.459	142.92*	70-130
182 Decane	50.000	50.562	101.12	70-130
183 4-Ethyltoluene	50.000	51.998	104.00	70-130
184 2-Chlorotoluene	50.000	50.842	101.68	70-130
185 1,3,5-Trimethylbe	50.000	50.259	100.52	70-130
188 alpha Methyl Styr	50.000	51.868	103.74	70-130
189 tert-Butylbenzene	50.000	50.260	100.52	70-130
190 1,2,4-Trimethylbe	50.000	51.899	103.80	70-130
192 sec-Butylbenzene	50.000	49.158	98.32	70-130
194 p-Cymene	50.000	50.775	101.55	70-130
195 1,3-Dichlorobenze	50.000	50.399	100.80	70-130
196 1,4-Dichlorobenze	50.000	50.292	100.58	70-130
199 alpha-Chlorotolue	50.000	51.192	102.38	70-130
201 Undecane	50.000	51.908	103.82	70-130
202 Butylbenzene	50.000	49.246	98.49	70-130
204 1,2-Dichlorobenze	50.000	49.590	99.18	70-130
206 1,2-Dibromo-3-chl	50.000	46.000	92.00	70-130
207 Dodecane	50.000	54.945	109.89	70-130
213 1,2,4-Trichlorobe	58.000	54.354	93.71	70-130
215 Hexachlorobutadie	58.000	59.163	102.00	70-130
216 Naphthalene	5.800	4.761	82.08	60-140
222 1,2,3-Trichlorobe	58.000	53.073	91.50	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	24.131	96.52	70-130
\$ 134 Toluene-d8	25.000	26.031	104.13	70-130
\$ 170 4-Bromofluorobenz	25.000	25.158	100.63	70-130



Date : 02-SEP-2021 11:28

Client ID: LCS

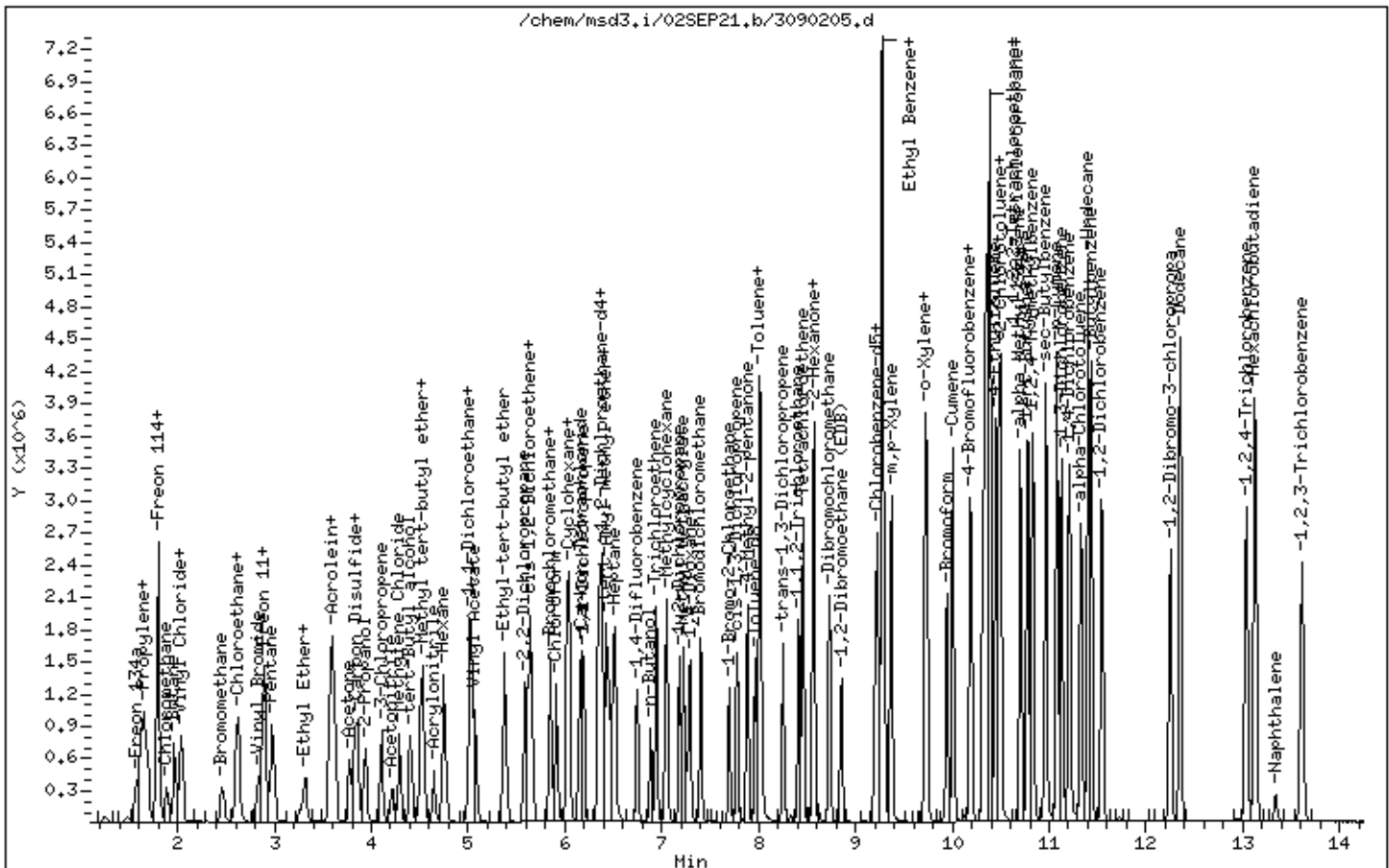
Instrument: msd3,i

Sample Info: 50mL 3018-2169

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



**MSD-3 MDL Case Narrative**

A Method Detection Limit study for select TA TO-15 specials was performed on 05/03/21, 05/04/24, and 05/05/21.

The MDL was performed at:

- 0.4ppbv(5.0ppbv->0.4ppbv) for 1,1,1,2-tetrachloroethane;16ml of #3018-1908

MDL verification was analyzed on 06/03/21:

- 3060308: (for 1,1,1,2-tetrachloroethane only). 5.0ppbv->0.25ppbv. 10ml of #3018-2078

No MDL values were taken from the MDL blank.

**MDL expires 5/05/22**

03MAY21: 1112PCE-md1.rpr

Report Date : 03-Jun-2021 08:29

METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

1,1,1,2-tetrachloroethane only

Page 1

FOISquad MPLNSD:  
Standard 3018-1908 (50ppbv)  
16ml load volume  
Spike concentration  
0.4ppbv

ID	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
FILENAME:	3050309	3050310	3050311	3050409	3050410	3050411	3050509	3050510	3050511			3050511
INI. DATE:	03-MAY-2021	03-MAY-2021	03-MAY-2021	04-MAY-2021	04-MAY-2021	04-MAY-2021	05-MAY-2021	05-MAY-2021	05-MAY-2021			05-MAY-2021
INI. TIME:	13:57	14:24	14:52	15:10	15:38	16:05	14:25	14:53	15:21			15:21

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_ Date: 6/3/21  
Reviewer 2 \_\_\_\_\_ Date: 6/3/21

The ratio of the mean recovered concentration & the MDL is between 1-20,  
MDL verification  
standard # 3018-2078 (50ppbv)  
10 ml volume file # 3060306  
spike concentration  
0.25 ppbv

X = 73.89  
2X = 147.78  
3X = 221.67  
4X = 295.56

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEV	MDL
135 1-Methoxy-2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	125000.001	250000.001	250000.001	250000.001	250000.001	250000.001	250000.001	250000.001	250000.001	250000.001	0.001	0.001
154 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,1,1,2-Tetrachloroeth	526.981	516.971	486.411	540.401	522.141	530.231	475.211	539.091	553.761	521.241	25.521	73.891
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV RL

MDL Blank

400/500/2600

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-Fluoroel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
64 trans-1,2-Dichloroethel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 90 Bromochloromethane	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	24697.90	24426.87	25043.25	25132.82	24889.42	25163.20	24848.38	25046.03	25137.35	24931.69	244.97	709.44
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 108 1,4-Difluorobenzene	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	24676.03	24895.10	24771.68	24765.70	24403.43	24714.67	24398.32	24695.85	24589.38	24656.69	166.82	483.12

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis(chloromethyl) Etbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromofluorobenzene	26453.98 26346.98 26114.19 26233.78 26044.32 26017.80 26203.48 25748.42 26019.91 26131.43	208.00	602.36	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 vert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 bis(2-Chloroethyl) Ethl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.1/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.1/03MAY21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Heptan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/03MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/03MAY21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Hel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

03MAY21: EPA LB1112PCE - md1.1p

MSD 3 Blank 1,1,1,2PCE MDL  
CAN # 35157

Report Date : 04-JUN-2021 10:42

US32TARI

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SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Spiked ID(s) Spiked Vol(s)

Method File: /chem/msd3.i/05MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/05MAY21.b  
Instrument Names: msd3.1

Student T 2.896 for 9 Replicates with 99% Confidence

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09
FILENAME:	3050306LB1112PCE	3050307LB1112PCE	3050308LB1112PCE	3050406LB1112PCE	3050407LB1112PCE	3050408LB1112PCE	3050409LB1112PCE	3050506LB1112PCE	3050507LB1112PCE
INJ.DATE:	03-MAY-2021	03-MAY-2021	04-MAY-2021	04-MAY-2021	04-MAY-2021	04-MAY-2021	05-MAY-2021	05-MAY-2021	05-MAY-2021
INJ.TIME:	11:47	13:00	13:29	14:13	14:42	12:40	13:28	13:58	

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
* 1 Bromochloromethane	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	1.00	0.000000
1,2-Dichloroethane-d4	123867.00	123965.00	125269.00	124324.00	125031.00	124883.00	124739.00	125158.00	125187.00	124713.67	534.92	0.000000	2.00	15.95	1549.11
* 3 1,4-Difluorobenzene	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	1.00	0.000000
4 Toluene-d8	124542.00	124548.00	125114.00	124548.00	124850.00	124479.00	124603.00	125251.00	125182.00	124790.78	313.26	0.000000	2.00	27.33	907.21
* 5 Chlorobenzene-d5	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	0.000000	2.00	1.00	0.000000
6 1,1,1,2-Tetrachloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
7 4-Bromofluorobenzene	125896.00	125913.00	125873.00	125941.00	126040.00	126188.00	126321.00	125639.00	125907.00	125968.67	196.25	0.000000	2.00	45.69	568.34

Reviewer 1 \_\_\_\_\_ Date: 6/4/21  
 Reviewer 2 \_\_\_\_\_ Date: 6/7/21

### MSD-3 MDL Case Narrative

A Method Detection Limit Study for TO-15 method was performed on 05/03/21, 05/04/24, and 05/05/21, 06/01/21, 06/02/22, 06/03/21, 06/04/21, 06/07/21 and 06/08/21.

#### **The MDL spikes were performed at:**

- 0.3 ppbv (5.0ppbv->0.3ppbv); spike load of 12mL of standard #3018-2045
- 0.4 ppbv (5.0ppbv->0.4ppbv); spike load of 16mL of standard #3018-2045
- 0.8 ppbv (5.0ppbv->0.8ppbv); spike load of 32ml of standard #3018-2045 and #3018-1973
- 2.0 ppbv (5.0ppbv->2.0ppbv); spike load of 80ml of standard #3018-2045 and #3018-1973

#### **The MDL verifications were analyzed on 6/15/21:**

- 3061507: (0.3ppbv spike compounds). 5.0ppbv->0.25ppbv; spike load of 10ml of standard #3018-1973
- 3061508: (0.4ppbv spike compounds). 5.0ppbv->0.30ppbv; spike load of 12ml of standard #3018-1973
- 3061509: (0.8ppbv RL compounds). 5.0ppbv->0.50ppbv; spike load of 20ml of standard #3018-1973
- 3061510: (2.0 ppbv RL compounds). 5.0ppbv->1.25ppbv; spike load of 50ml of standard #3018-1973
- 3061510a (Naph only). 5.0ppbv->0.125ppbv; spike load of 50ml of standard #3018-1973

#### **Notes:**

##### **1) The MDL values for the following compounds were taken from the MDL blank:**

- Toluene (0.12097ppbv)
- Tetrachloroethane (0.08847ppbv)
- m-p-Xylene (0.27315ppbv)
- o-Xylene (0.13368ppbv)
- 4-Ethyltoluene (0.12694ppbv)
- 1,3,5-Trimethylbenzene (0.07763ppbv)
- 1,2,4-Trimethylbenzene (0.18507ppbv)
- Acetone (0.35944ppbv)
- Carbon Disulfide (0.46909ppbv)

2) Dodecane mean recovered concentration and MDL ratio <1.

3) MDL verification for Naphthalene was less than 2-4X the MDL value.

4) The concentrations for Dodecane, 1,2,4-TCB, Hexachlorobutadiene, 1,2,3-TCB, and Naphthalene were adjusted in the MDL spikes due to the certified concentration exceeding more than 15% of the nominal concentration.

## **MDL expires 6/08/22**



01JUN21: 0.4ppbv-md1.rp

MSD-3T015 Quad MDL

Standard 3018-2045

Report Date : 04-Jun-2021 15:53

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US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

16 ml load volume

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.1

Spike concentration  
0.4ppbv

ID: MDL01 MDL02 MDL03 MDL04 MDL05 MDL06 MDL07 MDL08 MDL09  
 FILENAME: 3060109 3060110 3060111 3060209 3060210 3060211 3060312 3060313 3060314  
 INJ DATE: 01-JUN-2021 01-JUN-2021 01-JUN-2021 02-JUN-2021 02-JUN-2021 02-JUN-2021 03-JUN-2021 03-JUN-2021 03-JUN-2021  
 INJ TIME: 14:01 14:29 14:56 14:10 14:38 15:05 16:50 17:18 17:45  
 PPTV RL SPRL

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	454.29	450.99	459.72	449.89	450.96	521.90	520.12	437.40	476.88	469.13	31.20	90.37
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	470.39	474.93	474.26	523.77	487.91	489.27	456.20	442.84	499.62	479.91	23.84	69.05
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_ Date: 6/16/21  
 Reviewer 2 \_\_\_\_\_

MDL verification  
 Ratio of the mean  
 recovered concentration  
 and MDL values is

$\bar{X} = 90.78$   
 $2\bar{X} = 181.56$   
 $3\bar{X} = 272.34$   
 $4\bar{X} = 363.12$

Standard # 3018-1973 (5.0ppbv) between 1-20.  
 12 ml volume file # 3061508  
 spike concentration 0.300bv

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	520.09	567.60	562.12	528.99	641.59	506.36	653.03	614.57	703.97	588.70	68.09	197.20
20 1,3-Butadiene	538.14	632.50	627.40	629.38	532.48	659.05	526.06	637.99	669.42	605.83	56.97	164.99
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Freon 11	467.18	475.49	444.90	493.51	456.60	484.61	495.38	482.36	507.43	478.61	19.83	57.42
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV RL SPRCL

500 400  
500 400

500 400

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	490.98	485.04	500.151	532.821	449.701	514.811	533.101	480.821	478.981	496.271	27.181	18.721
44 1,1-Dichloroethene	471.231	417.051	403.581	502.551	401.291	415.871	413.261	466.251	453.201	438.251	36.011	104.271
45 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-Fluoro	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PRTV PL

SPL

500  
500

400  
800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
64 trans-1,2-Dichloroethel	434.58	437.36	418.44	594.77	392.87	379.26	366.41	352.78	407.49	420.44	71.59	207.331
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	460.96	500.76	523.53	501.36	329.25	401.49	385.40	412.03	485.66	444.49	65.47	189.58
67 Hexane	397.44	390.85	381.15	396.45	393.83	395.15	352.61	358.99	301.22	374.19	32.03	92.77
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 cis-1,2-Dichloroethene	406.23	339.12	394.79	410.43	459.76	386.12	407.07	400.11	391.34	399.44	31.16	90.23
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV RL  
SPL

500  
2000  
500  
800

500  
400

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	392.281	308.181	375.811	351.301	382.021	278.791	368.881	354.691	374.961	354.101	37.341	108.121
* 90 Bromochloromethane	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	0.001	0.001
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	421.161	433.621	432.471	402.301	353.961	357.571	385.821	409.641	331.391	391.991	37.051	107.301
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	441.861	416.571	401.451	496.611	437.541	450.661	466.791	463.291	457.401	448.021	28.171	81.571
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	366.021	354.981	374.911	364.341	345.241	369.911	351.321	336.421	342.331	356.161	13.371	38.721
102 Benzene	384.251	373.461	379.771	375.641	382.391	357.761	403.131	391.891	370.251	379.841	13.001	37.641
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 104 1,2-Dichloroethane-d4	126012.801	124530.931	125455.221	126543.261	127108.491	126931.371	127307.041	127270.321	127019.491	126464.321	953.121	2760.231
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 1,2-Dichloroethane	446.361	440.551	473.991	465.841	483.481	500.971	507.751	551.391	507.501	486.431	34.691	100.461
107 Heptane	324.961	372.591	369.771	307.081	314.821	300.271	322.251	312.991	378.201	333.661	30.851	89.341
* 108 1,4-Difluorobenzene	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	0.001	0.001
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

OPTV PL SPRL

500 800  
500 800  
500 400  
500 800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
111 Trichloroethene	432.98	412.78	434.49	426.79	398.78	467.28	457.60	449.98	423.39	433.78	21.72	62.9
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	424.16	543.68	543.45	628.55	524.98	560.69	610.59	571.80	548.48	550.71	58.07	168.16
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Dibromomethane	446.54	507.68	505.31	536.64	539.78	466.69	488.20	467.21	461.00	491.00	33.52	97.07
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	390.26	427.63	436.33	364.46	404.43	422.02	431.56	402.29	441.35	413.37	25.12	72.73
127 Methylcyclohexane	417.04	384.70	372.53	399.47	414.30	328.78	407.36	381.08	343.60	383.21	30.84	89.33
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	413.22	394.54	380.31	389.13	424.63	366.34	345.26	397.08	356.29	385.20	25.97	75.20
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	124812.98	125037.79	124745.78	124544.93	125002.36	124499.33	125124.77	125292.63	125011.02	124896.84	265.60	769.17

PRTV BL SPL MDL Blank

500 400  
500 400  
2000 400  
500 400  
2000 400  
80.81

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	377.73	417.60	441.05	395.95	398.25	394.68	417.99	394.54	399.15	404.11	18.51	53.61
137 Toluene	429.11	406.62	421.60	411.51	455.86	399.72	402.79	379.76	426.55	414.84	21.66	62.72
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloroprop	396.13	376.83	443.62	416.16	438.65	440.75	424.09	396.52	433.45	418.47	23.75	68.78
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	407.47	393.54	461.94	440.32	433.21	437.85	458.30	451.48	414.88	433.22	23.54	68.14
142 Tetrachloroethene	477.52	458.32	462.79	462.43	455.71	485.11	442.27	451.47	408.16	455.97	22.08	63.95
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	458.56	380.29	433.12	408.65	450.25	410.65	424.12	460.15	431.47	428.58	26.14	75.60
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	440.26	428.71	428.43	472.03	460.96	428.50	419.84	468.80	486.20	448.19	24.04	69.63
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (BDB)	417.98	426.05	414.82	421.18	435.58	444.67	448.51	411.32	408.04	425.35	14.55	42.14
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	0.00	0.00
154 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Ethyl Benzene	364.58	412.70	432.65	359.94	359.32	405.37	382.39	428.89	405.19	394.56	28.89	83.66
156 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	375.42	350.56	433.73	402.14	412.55	398.21	362.11	362.61	368.10	385.05	27.82	80.56

PPTV PL

SPL

MDL Blank

500

800

273,15

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	360.391	357.641	385.951	366.631	386.161	380.271	370.401	340.521	352.461	366.711	15.641	45.301
165 Styrene	364.411	347.641	373.591	377.481	380.051	357.021	333.961	350.601	321.001	356.201	20.091	58.191
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	426.941	444.591	437.911	458.931	427.021	434.011	459.301	458.581	464.411	445.741	14.901	43.141
168 Cumene	378.241	397.471	397.211	383.061	374.091	375.051	349.861	337.741	344.121	370.761	22.041	63.841
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromofluorobenzene	26228.511	26286.571	26715.371	26196.731	26575.591	26324.981	26555.741	26222.001	26548.371	26405.981	192.721	558.131
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	411.221	443.641	429.401	426.371	424.841	397.721	422.711	437.171	422.961	424.001	13.471	69.001
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	415.181	403.901	410.251	417.371	402.471	409.141	387.221	403.401	417.911	407.431	9.631	27.881
179 1,2,3-Trichloropropane	353.671	411.551	459.651	457.831	494.331	423.201	519.481	502.451	418.171	448.931	52.651	152.481
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV RL SPRL MDL Blank

133.6



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
183 4-Ethyltoluene	416.23	451.66	409.49	400.58	423.84	452.96	393.29	403.12	379.99	414.57	24.85	71.96
184 2-Chlorotoluene	399.81	443.34	404.82	459.95	412.16	455.86	417.43	432.16	434.47	428.89	21.74	62.95
185 1,3,5-Trimethylbenzene	386.43	396.74	425.00	409.73	396.70	401.73	440.80	357.16	387.96	400.25	23.91	69.24
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	368.66	361.27	347.68	364.57	378.24	362.63	327.92	352.95	373.95	359.76	15.26	44.18
189 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	371.01	404.88	382.39	386.33	381.42	368.31	349.08	354.63	367.82	373.98	16.98	49.18
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	374.76	355.04	391.28	426.93	393.20	338.76	390.14	364.61	386.77	380.17	25.60	74.12
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	395.01	369.71	354.29	381.01	387.47	358.95	362.91	369.07	330.28	367.63	19.36	56.08
195 1,3-Dichlorobenzene	420.15	448.97	452.39	479.41	459.18	441.28	450.12	496.82	465.52	457.09	22.09	63.92
196 1,4-Dichlorobenzene	436.69	444.02	449.75	444.21	448.35	427.96	448.94	422.21	457.05	442.13	11.18	32.39
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	387.37	418.08	392.75	402.39	415.91	404.49	414.03	404.91	376.73	401.85	13.92	40.31
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	377.98	409.21	399.32	376.58	371.53	391.53	321.56	388.79	377.51	379.33	24.85	71.97
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	459.79	458.84	436.36	432.09	432.68	452.83	459.30	470.11	467.48	452.16	14.76	42.75
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV PL SPRL MDL Blank  
 126.94  
 77.63  
 185.10  
 27.37

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Hel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

01JUN21: 0.3 ppbv -mdl.rpt

MSD3 TO15 Quad MDL

Standard 3018-2045

Report Date : 04-Jun-2021 14:34

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Page 1  
12 mL vial volume

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.1

Spike concentration  
0.3 ppbv

ID	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09
FILENAME:	3060106	3060107	3060108	3060206	3060207	3060208	3060309	3060310	3060311
INJ. DATE:	01-JUN-2021	01-JUN-2021	01-JUN-2021	02-JUN-2021	02-JUN-2021	02-JUN-2021	03-JUN-2021	03-JUN-2021	03-JUN-2021
INJ. TIME:	12:41	13:07	13:34	12:50	13:16	13:42	15:30	15:56	16:22

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_  
Date: \_\_\_\_\_  
Date: 6/16/21

Ratio of the mean

recovered concentration

and MDL value

MDL verification  
Standard # 3018-1973 (5.0 ppbv) is between

10ml volume file # 3061507 1-20,

$$\bar{X} = 64.88$$

$$2\bar{X} = 129.76$$

$$3\bar{X} = 194.64$$

$$4\bar{X} = 259.52$$

spike concentration 0.3 ppbv

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-Fluoroel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
64 trans-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	280.63	334.31	330.881	297.771	269.251	303.071	316.301	316.381	326.081	308.301	22.531	65.241
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 cis-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPV RL  
SPRL

500  
300



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 90 Bromochloromethane	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	332.421	287.991	325.031	322.591	329.861	365.621	317.231	340.281	326.411	327.491	20.451	59.211
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	376.391	307.031	323.451	312.861	337.841	322.481	318.641	338.311	316.451	328.161	20.871	60.451
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 104 1,2-Dichloroethane-d4	24732.82 24483.61 25193.83 26660.74 26303.99 26435.23 27396.85 27274.45 26821.81 26144.82	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1080.251	3128.411
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 108 1,4-Difluorobenzene	125000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00 25000.00	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	0.001	0.001
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

ppm RL SPR2

59.211 500 300  
60.451 500 300

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	331.20	340.69	267.31	336.16	334.24	360.49	378.74	377.83	341.91	340.95	33.09	95.82
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	125052.44	125009.73	124504.59	124843.88	125083.33	124789.81	125111.34	125186.81	125305.54	124987.50	240.58	696.71

PPTV RL SPR

500 300

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloropropyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
154 Chlorobenzene	334.43	330.38	345.54	321.64	328.85	348.25	311.55	354.66	354.62	336.66	15.09	43.69
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,1,1,2-Tetrachloroethyl	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV PL

SPRL

500

300

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis (chloromethyl) Ethel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromofluorobenzene	126639.07126542.32126711.43126659.23126349.17126729.05126446.99126674.80126523.06126586.12									129.201	374.171	
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/01JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/01JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Hel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref DI	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



04JUN21: 0.8ppbv - mdl.vp.

Report Date : 15-Jun-2021 11:33

US32TARI  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

ID	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	MDL08	MDL09
FILENAME:	3060406	3060407	3060408	3060707	3060708	3060709	3060808	3060809	3060810	3060809	3060810
INJ. DATE:	04-JUN-2021	04-JUN-2021	04-JUN-2021	07-JUN-2021	07-JUN-2021	07-JUN-2021	08-JUN-2021	08-JUN-2021	08-JUN-2021	08-JUN-2021	08-JUN-2021
INJ. TIME:	13:05	13:31	13:58	13:00	13:27	13:53	14:43	15:09	15:36	15:36	15:36

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	1020.23	880.17	1137.26	943.95	891.36	853.33	1032.03	892.71	1006.14	961.91	93.26
5 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	1361.40	1219.84	962.01	1224.96	1173.73	979.39	1194.48	1247.62	1008.83	1152.47	137.65
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	878.19	794.03	684.12	845.10	813.74	808.70	782.30	774.87	774.82	795.10	53.90
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_

Date: 6/16/21  
Date: 6/17/21

MSD-3 TO15 Standard MDL  
Standards 3018-2045  
3018-1973

32ml total volume

Spike concentration

ppbv pl  
sppl  
Naph a<sup>1</sup>

0.08

Ratio of the mean recovered concentration and MDL value is between 1-20 minus Dodecane.

MPL verification

Standard # 3018-1973 (5.0 ppbv)

20ml Volume File # 3061509

Spike concentration 0.50 ppbv

$\bar{X} = 181.36$   
 $2\bar{X} = 362.73$   
 $3\bar{X} = 544.08$   
 $4\bar{X} = 725.44$

398.631 2000 800  
270.08 2000 800  
156.08 2000 800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
18 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Vinyl Bromide	783.68	843.96	823.06	874.54	969.30	862.75	804.65	796.67	834.38	843.67	55.83	161.70
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
34 Dichlorofluoromethane	905.08	894.83	906.95	913.77	843.49	898.09	850.30	875.24	837.60	880.59	29.74	86.12
35 Pentane	740.14	744.53	796.56	870.47	692.97	855.75	768.27	787.27	794.77	783.42	55.81	161.84
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
38 Ethyl Ether	803.87	833.64	752.75	1085.11	920.17	831.38	749.95	878.33	685.15	837.82	116.75	338.12
39 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

pppr  
SPPL

2000 2000 800 800 2000 800 338.12 2000 800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
48 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	901.59	898.26	821.32	851.78	966.60	747.03	805.43	779.77	900.80	852.51	70.23	203.39
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-Fluoroel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Methyl tert-butyl ethel	778.85	724.05	719.70	833.74	759.76	807.87	747.85	783.09	830.76	776.18	42.32	122.57

PP1V PL SPL

2000 800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.1/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.1/04JUN21.b  
Inst ID: msd3.1

PPTV PL SPRV

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEV	MDL
64 trans-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
73 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	871.58	818.11	897.42	892.83	834.53	857.33	830.86	860.00	863.58	858.47	27.07	78.43
85 cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

2000 800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

PTV PL SPRZL

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCL	STD DEV	MDL
87 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 90 Bromochloromethane	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.001	0.001
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	899.88	905.84	829.55	980.05	897.19	789.24	789.83	884.79	788.68	862.78	67.06	194.21
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 104 1,2-Dichloroethane-d4	127490.57	126926.33	127656.30	127169.14	126370.11	126940.63	126165.27	126835.14	127387.76	126993.47	497.45	1440.61
105 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 108 1,4-Difluorobenzene	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	125000.00	0.001	0.001
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

2000 800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	655.66	687.48	633.20	608.87	671.67	722.86	704.74	698.78	655.65	670.99	36.45	665.57
117 1,4-Dioxane	772.62	846.73	843.41	798.64	795.20	863.42	854.90	857.64	796.94	825.50	34.20	99.05
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	124688.19	125025.38	124938.39	125296.89	125010.04	125129.01	124732.71	124853.10	124734.30	124934.22	203.48	589.28

PPTV PL SPRL

2000 800  
2000 800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
146 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
147 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 153 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
154 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Nonane	768.89	759.40	673.44	706.68	690.61	692.59	714.72	748.57	723.94	719.87	33.10	95.85
157 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PTV PL SPRL

2000 800

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis(chloromethyl) Ethel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 Cyclohexanone	717.421	667.631	709.261	677.521	710.731	716.141	753.631	864.921	825.561	738.091	66.241	191.82
170 4-Bromofluorobenzene	126725.291	26946.131	26904.461	26509.831	26650.791	26586.991	26867.071	26857.171	26525.591	26730.371	169.231	490.091
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	836.901	856.611	830.421	879.251	816.641	875.301	838.051	875.701	897.361	856.251	27.161	98.671
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	810.421	662.401	714.501	617.171	597.391	694.131	795.481	717.511	707.981	701.881	71.321	306.551
182 Decane	881.511	765.941	920.421	810.181	785.491	795.671	690.771	760.671	748.961	795.511	69.411	201.011

PPTV PL SPPL

2000 800

2000 800

2000 800  
2000 800



US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 tert-Butylbenzene	794.34	808.051	771.831	740.781	800.671	812.761	806.771	826.591	806.851	796.511	25.621	74.201
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	477.931	619.001	628.301	482.521	641.521	659.511	448.671	644.951	677.961	586.711	89.821	260.111
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

RTV PL

SPL

MP  
Blank

2000

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2000

800

94.31  
127.04  
up 6/11/2

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
206 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 Dodecane	140.321	409.601	509.311	198.461	454.371	517.471	291.671	482.121	574.241	397.511	152.331	441.141
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 Naphthalene	36.661	67.501	84.441	37.011	70.861	89.411	46.821	88.211	90.791	67.971	22.521	65.211
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

RL  
SPRL  
MOLBAM

2000  
800  
42,10

1000  
800  
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US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEV	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Hel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref DI	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,1	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

04JUN21:2.0ppbv-mdl.rp

MSD-3 TOLS Quad MDL Standards 3018-2045

Report Date : 15-Jun-2021 11:51

Page 1 3018 - 1973

US32TARI METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

80 ml load volume  
Spike concentration  
2.0ppbv

ID: MDL01 MDL02 MDL03 MDL04 MDL05 MDL06 MDL07 MDL08 MDL09  
FILENAME: 3060409 3060410 3060411 3060710 3060711 3060712 3060811 3060812 3060813  
INJ DATE: 04-JUN-2021 04-JUN-2021 04-JUN-2021 07-JUN-2021 07-JUN-2021 07-JUN-2021 08-JUN-2021 08-JUN-2021 08-JUN-2021  
INJ TIME: 14:24 14:51 15:18 14:20 14:47 15:14 16:03 16:30 16:57

PPTV RL SPRL

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 1,1-Dichloro-1-Fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Freon 133a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Propylene	1895.271	1886.721	2016.751	2124.371	2008.501	2054.541	2262.161	1965.021	1844.811	2006.461	130.511	377.951
6 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 1,1-Difluoroethane	1772.531	1771.551	2123.151	1910.861	1785.641	1982.541	1961.371	1901.371	2087.221	1921.801	130.911	379.111
8 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Chloromethane	2446.431	2396.331	2229.581	2457.741	2520.191	2184.141	1960.471	2164.841	2410.411	2307.791	182.911	529.721
16 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

2000 2000

5000 5000

Reviewer 1 \_\_\_\_\_ Date: 6/17/21  
Reviewer 2 \_\_\_\_\_

MDL Verification

Ratio of the mean recovered concentration

2X = 711.04 Standard # 3018 - 1973 (5.0ppbv)

3X = 1066.56 50 ml volume file # 3060810 and MDL value is between 1-20,

4X = 1422.08 Spike concentration 1.25ppbv

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
18 Butane	3183.451	2279.061	3026.361	2558.651	3212.021	2317.471	2489.831	2920.021	2728.771	2746.181	357.091	1034.131
19 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
20 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
21 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
22 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
23 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	224.221
24 Bromomethane	2395.511	2439.941	2380.811	2531.051	2511.351	2478.221	2328.681	2332.321	2346.021	2415.991	77.421	500
25 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
26 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
27 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
28 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
29 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
30 Chloroethane	1880.591	1938.871	2234.461	2059.511	2192.551	1963.371	2222.991	1965.711	1925.321	2042.601	139.231	403.201
31 Isopentane	1900.931	1823.401	1959.411	1734.971	1927.371	1869.931	1974.601	2015.101	1844.441	1894.461	86.541	250.611
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
33 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
34 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
35 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
37 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
38 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5000
39 Ethanol	2224.571	2056.441	2095.671	2045.091	1935.111	2001.721	1584.641	1981.081	1778.211	1966.951	187.501	443.011

PPTV PL SPRL

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
40 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Acrolein	2183.921	2172.731	1737.461	1732.351	1757.321	1896.961	1777.441	1555.181	1856.451	1852.201	207.711	601.531
43 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
45 2-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Acetone	2147.221	2237.761	2296.681	2131.301	2222.891	2159.671	2322.431	2173.111	2217.201	2212.031	66.271	191.921
48 Carbon Disulfide	1934.241	1985.161	2039.491	2049.091	2040.181	2100.171	2073.161	2126.951	1990.511	2037.661	60.161	174.231
49 Iodomethane	1589.111	1635.171	1581.921	1587.371	1613.221	1691.751	1811.641	1803.181	1757.051	1674.491	94.361	273.271
50 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
51 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
52 2-Propanol	1794.361	1822.541	1711.421	1791.571	1797.781	1796.451	1798.991	1857.551	1717.831	1787.611	46.311	134.121
53 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
54 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
55 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
57 Acetonitrile	2218.441	1733.461	1851.281	2534.211	2300.441	2012.331	1876.981	2324.731	2139.381	2110.141	261.611	157.621
58 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Methylene Chloride	2074.201	1893.471	1964.981	1963.631	1866.351	2124.241	1845.831	1971.891	1853.781	1950.931	98.091	284.071
60 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
61 1,2-Dichloro-1-fluoro-	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
62 tert-Butyl alcohol	1956.211	1860.611	2011.151	1914.121	2020.151	1968.711	2013.421	1901.201	1866.051	1945.741	62.861	182.051
63 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PTV PL SPL MDL Blank

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

RTV PL SPRL

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
64 trans-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
65 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
67 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
68 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
72 Isopropyl ether	1603.291	1674.621	1673.981	1668.641	1676.931	1665.611	1752.291	1740.611	1633.261	1676.581	46.471	134.571
73 Vinyl Acetate	1822.001	1897.091	1775.471	1954.361	1918.141	1849.381	1773.451	1506.561	1930.171	1825.181	136.371	394.941
74 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
75 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
76 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
77 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
78 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
79 Ethyl-tert-butyl ether	1680.621	1698.951	1744.651	1759.021	1820.781	1765.831	1823.591	1807.511	1728.221	1758.801	51.591	149.401
80 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
82 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
83 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
84 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
85 cis-1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
86 2-Butanone	1718.931	1997.911	1789.771	1970.411	1908.841	2026.981	1936.141	1728.271	2009.261	1898.501	121.651	352.311

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METHOD DETECTION LIMIT SUMMARY REPORT

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Inst ID: msd3.i

PPTV PL SPL

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
87 Ethyl Acetate	1716.251	1997.761	2140.831	2102.541	2320.201	1795.831	2259.671	2103.621	2003.391	2048.901	197.401	571.671
88 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
89 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 90 Bromochloromethane	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	25000.001	0.001	0.001
91 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
92 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
93 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
94 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
95 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
96 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
97 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
98 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
99 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
100 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
101 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
103 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
104 1,2-Dichloroethane-d4	127065.781	127211.111	127839.351	126921.861	127261.091	127437.371	127796.971	127288.391	127087.911	127323.311	317.071	918.221
105 tert-Amyl methyl ether	1898.821	1883.771	1874.831	2063.711	1929.811	2037.461	2151.641	2086.731	2020.481	1994.141	100.271	290.381
106 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
107 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 108 1,4-Difluorobenzene	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	0.001	0.001
109 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 n-Butanol	1805.091	1680.561	1702.491	1641.931	1728.461	1636.981	2012.851	1909.701	1958.211	1786.251	141.931	411.031

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METHOD DETECTION LIMIT SUMMARY REPORT

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Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
111 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
112 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
114 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
116 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
117 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
118 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
120 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
121 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
122 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
123 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
124 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
125 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
126 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
128 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
129 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
131 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
132 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
133 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Toluene-d8	25056.76	124865.10	125701.80	125100.41	124712.41	125001.62	125005.75	125024.33	125090.63	125062.09	269.46	780.36

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METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
135 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 trans-1,3-Dichloropropi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Hexanone	1468.291	1603.581	1609.321	1602.551	1560.391	1549.621	1655.201	1643.821	1638.501	1592.361	58.611	169.751
144 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
145 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
146 Dibromochloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
147 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
148 1,2-Dibromoethane (EDB)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
149 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
150 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
151 1-Bromo-2-Chloroethane	1973.651	1911.111	1988.341	1949.811	1904.011	1949.841	1903.351	1999.371	1964.311	1949.311	36.181	104.781
152 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
* 153 Chlorobenzene-d5	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	125000.001	0.001	0.001
154 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
155 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
156 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
157 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000
158 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	2000

QRTV RL SPR

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.1

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEVI	MDL
159 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 bis (chloromethyl) EtHe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
163 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
164 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 4-Bromofluorobenzene	26871.86 26931.67 26614.16 26384.82 26782.21 26706.69 26303.23 26768.32 26674.45 26670.82	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	209.70	607.29
171 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
177 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
178 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDI01	MDI02	MDI03	MDI04	MDI05	MDI06	MDI07	MDI08	MDI09	AVG	CONCI	STD	DEVI	MDL
183 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDI01	MDI02	MDI03	MDI04	MDI05	MDI06	MDI07	MDI08	MDI09	AVG CONC	STD DEVI	MDL
206 1,2-Dibromo-3-chloropr	1951.441	1947.161	1977.571	2027.391	2008.691	1987.451	2081.781	2090.321	2136.241	2023.121	66.361	192.191
207 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 1,2,4-Trichlorobenzene	2631.641	2783.531	2686.741	2587.931	2673.011	2725.711	2667.731	2760.521	2834.631	2705.721	77.711	225.051
214 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Hexachlorobutadiene	2747.791	2829.991	2973.421	2724.501	2871.601	2809.931	2783.771	2891.541	2843.951	2830.721	76.411	221.281
216 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1,2,3-Trichlorobenzene	2702.061	2769.931	2767.741	2604.141	2729.641	2813.981	2773.791	2903.831	2934.271	2777.711	100.041	289.721
223 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
229 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

PPTV  
RL  
SPL  
MDL Blank

2000  
2000  
2000  
2000

65.115  
45.73

2000 2000 87.49

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	MDL
230 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Trichlylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 234 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 235 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 236 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
IM 237 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
238 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
239 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
240 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference Minerals	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

US32TAR1  
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/04JUN21.b/321q0317a.m  
Batch File: /chem/msd3.i/04JUN21.b  
Inst ID: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONCI	STD DEVI	MDL
254 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C6-C8 Aliphatic ref Hel	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C8-C10 Aliphatic ref DI	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C10-C12 Aromatic Naphi	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++



03 MAY 21: EPA LB - MD1.rp

MSD-3 Blank MDL

Report Date : 17-JUN-2021 13:23

Page 1

Can# 35157

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/05MAY21.b/321q0317a.m

Spiked ID(s) Spiked Vol(s)

Batch File: /chem/msd3.i/05MAY21.b

Instrument Names: msd3.i

Student T 2.896 for 9 Replicates with 99% Confidence

ID	MDI01	MDI02	MDI03	MDI04	MDI05	MDI06	MDI07	MDI08	MDI09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
1	Freon 134a	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
2	Propylene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
3	1,1-Difluoroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
4	Freon 12	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
5	Chlorodifluoromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
6	Freon 114	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
7	Isobutane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
8	Chloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.00	1.00	0.000000
9	Butane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
10	Vinyl Chloride	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
11	1,3-Butadiene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
12	Bromomethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.00	1.00	0.000000
13	Chloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
14	Isopentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
15	Vinyl Bromide	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
16	Freon 11	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
17	Dichlorofluoromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
18	Pentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
19	Ethanol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.00	1.00	0.000000
20	Ethyl Ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
21	Acrolein	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000

Reviewer 1 Date: 6/17/21  
Reviewer 2 Date: 6/17/21

US32TARI

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/05MAY21.b/321q0317a.m  
Batch File: /chem/msd3.i/05MAY21.b  
Instrument Names: msd3.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
22 Freon 113	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
23 1,1-Dichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
24 Acetone	298.34	251.09	309.57	0.000000	359.44	92.36	167.90	235.09	194.44	212.03	113.07	0.000000	5.00	0.647	327.46
25 Iodomethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
26 Carbon Disulfide	339.14	319.54	300.16	139.62	136.38	122.01	154.39	119.39	122.79	194.82	94.71	0.000000	2.00	0.710	674.27
27 2-Propanol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	0.115	108.75
28 3-Chloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
29 Acetonitrile	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
30 Methylene Chloride	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	5.00	1.00	0.000000
31 tert-Butyl alcohol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
32 Methyl tert-butyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
33 trans-1,2-Dichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
34 Acrylonitrile	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
35 Hexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
36 Isopropyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
37 1,1-Dichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.300	1.00	0.000000
38 Vinyl Acetate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
39 Ethyl-tert-butyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
40 2,2-Dichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
41 cis-1,2-Dichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
42 2-Butanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
43 Ethyl Acetate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
44 Tetrahydrofuran	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
* 45 Bromochloromethane	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	0.000000	2.00	1.00	0.000000
46 Chloroform	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.300	1.00	0.000000
47 Cyclohexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
48 1,1,1-Trichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.300	1.00	0.000000
49 Carbon Tetrachloride	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000

PPTV

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

US32TAR1

SPIKED METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd3.i/05MAY21.b/321q0317a.m

Batch File: /chem/msd3.i/05MAY21.b

Instrument Names: msd3.i

PPTV

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	MDL09	AVG CONC	STD DEV	SPK AMT	RL	RATIO	MDL
50 1,1-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
51 2,2,4-Trimethylpentane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
52 Benzene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
53 1,2-Dichloroethane-d4	23867.00	123965.00	125269.00	124324.00	25031.00	124883.00	124739.00	125158.00	125187.00	124713.67	534.92	10.000000	2.00	15.95	1549.11
54 tert-Amyl methyl ether	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
55 1,2-Dichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
56 Heptane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
* 57 1,4-Difluorobenzene	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	2.00	1.00	0.000000
58 n-Butanol	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
59 Trichloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
60 Methylcyclohexane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
61 1,2-Dichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
62 Methyl Methacrylate	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
63 1,4-Dioxane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.800	1.00	0.000000
64 Dibromomethane	33.73	43.38	30.60	51.13	65.68	44.43	49.34	18.84	35.12	41.36	13.62	10.000000	0.400	1.05	39.45
65 Bromodichloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.300	1.00	0.000000
66 1-Bromo-2-Chloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
67 cis-1,3-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
68 4-Methyl-2-pentanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
69 Toluene-d8	124542.00	124548.00	125114.00	124548.00	124850.00	124479.00	124603.00	125251.00	125182.00	124790.78	313.26	10.000000	2.00	27.33	907.21
70 Toluene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.210	126.86
71 Octane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
72 trans-1,3-Dichloropropene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
73 1,1,2-Trichloroethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
74 Tetrachloroethene	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	0.270	97.85
75 1,3-Dichloropropane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
76 2-Hexanone	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	2.00	1.00	0.000000
77 Dibromochloromethane	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.400	1.00	0.000000
78 1,2-Dibromoethane (EDB)	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500	1.00	0.000000
* 79 Chlorobenzene-d5	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	2.00	1.00	0.000000



Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	9/9/21 11:39 AM
<b>Lab ID:</b>	2108676B-04A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090903
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1,2-Tetrachloroethane	630-20-6	102
1,1,1-Trichloroethane	71-55-6	88
1,1,2,2-Tetrachloroethane	79-34-5	99
1,1,2-Trichloroethane	79-00-5	97
1,1-Dichloroethane	75-34-3	92
1,1-Dichloroethene	75-35-4	84
1,1-Difluoroethane	75-37-6	88
1,2,3-Trichloropropane	96-18-4	95
1,2,4-Trichlorobenzene	120-82-1	86
1,2,4-Trimethylbenzene	95-63-6	100
1,2-Dibromo-3-chloropropane	96-12-8	96
1,2-Dibromoethane (EDB)	106-93-4	94
1,2-Dichlorobenzene	95-50-1	99
1,2-Dichloroethane	107-06-2	85
1,2-Dichloropropane	78-87-5	103
1,3,5-Trimethylbenzene	108-67-8	100
1,3-Butadiene	106-99-0	74
1,3-Dichlorobenzene	541-73-1	98
1,4-Dichlorobenzene	106-46-7	99
1,4-Dioxane	123-91-1	95
2,2,4-Trimethylpentane	540-84-1	104
2-Butanone (Methyl Ethyl Ketone)	78-93-3	96
2-Hexanone	591-78-6	92
2-Propanol	67-63-0	88

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	9/9/21 11:39 AM
<b>Lab ID:</b>	2108676B-04A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090903
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
3-Chloropropene	107-05-1	85
4-Ethyltoluene	622-96-8	98
4-Methyl-2-pentanone	108-10-1	98
Acetone	67-64-1	91
Acrolein	107-02-8	88
Acrylonitrile	107-13-1	88
alpha-Chlorotoluene	100-44-7	96
Benzene	71-43-2	96
Bromodichloromethane	75-27-4	94
Bromoform	75-25-2	96
Bromomethane	74-83-9	88
Carbon Disulfide	75-15-0	91
Carbon Tetrachloride	56-23-5	94
Chlorobenzene	108-90-7	97
Chloroethane	75-00-3	89
Chloroform	67-66-3	92
Chloromethane	74-87-3	85
cis-1,2-Dichloroethene	156-59-2	94
cis-1,3-Dichloropropene	10061-01-5	99
Cumene	98-82-8	98
Cyclohexane	110-82-7	95
Dibromochloromethane	124-48-1	95
Dibromomethane	74-95-3	92
Ethanol	64-17-5	82

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	9/9/21 11:39 AM
<b>Lab ID:</b>	2108676B-04A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090903
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Ethyl Acetate	141-78-6	97
Ethyl Benzene	100-41-4	98
Ethyl-tert-butyl ether	637-92-3	95
Freon 11	75-69-4	82
Freon 113	76-13-1	85
Freon 114	76-14-2	86
Freon 12	75-71-8	83
Freon 134a	811-97-2	83
Heptane	142-82-5	100
Hexachlorobutadiene	87-68-3	89
Hexachloroethane	67-72-1	106
Hexane	110-54-3	95
Iodomethane	74-88-4	90
Isopropyl ether	108-20-3	97
m,p-Xylene	108-38-3	98
Methyl tert-butyl ether	1634-04-4	86
Methylene Chloride	75-09-2	95
Naphthalene	91-20-3	74
o-Xylene	95-47-6	99
Propylbenzene	103-65-1	98
Propylene	115-07-1	90
Styrene	100-42-5	99
tert-Amyl methyl ether	994-05-8	95
tert-Butyl alcohol	75-65-0	87



EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	9/9/21 11:39 AM
<b>Lab ID:</b>	2108676B-04A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090903
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Tetrachloroethene	127-18-4	95
Tetrahydrofuran	109-99-9	97
Toluene	108-88-3	102
TPH ref. to Gasoline (MW=100)	9999-9999-038	100
trans-1,2-Dichloroethene	156-60-5	91
trans-1,3-Dichloropropene	10061-02-6	91
Trichloroethene	79-01-6	96
Vinyl Acetate	108-05-4	90
Vinyl Bromide	593-60-2	84
Vinyl Chloride	75-01-4	78

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	92
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	105

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/09SEP21.b/3090903.d  
 Lab Smp Id: CCV Client Smp ID: CCV  
 Inj Date : 09-SEP-2021 11:39  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 100mL 3018-2213A  
 Misc Info : 50ppbv (100ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/09SEP21.b/321q0812b.m  
 Meth Date : 10-Sep-2021 13:30 ugdc Quant Type: ISTD  
 Cal Date : 02-SEP-2021 10:33 Cal File: 3090203.d  
 Als bottle: 13 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5								
5.858	5.858	(1.000)	130	194770	25.0000		80.00- 120.00	100.00
5.858	5.858	(1.000)	128	148552			47.29- 107.29	76.27
5.858	5.858	(1.000)	49	312454			122.83- 182.83	160.42
-----								
* 108 1,4-Difluorobenzene CAS #: 540-36-3								
6.750	6.750	(1.000)	114	712592	25.0000		80.00- 120.00	100.00
6.750	6.750	(1.000)	88	107324			0.00- 45.09	15.06
-----								
* 153 Chlorobenzene-d5 CAS #: 3114-55-4								
9.207	9.207	(1.000)	117	710524	25.0000		80.00- 120.00	100.00
9.207	9.207	(1.000)	82	377671			23.62- 83.62	53.15
-----								
§ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0								
6.404	6.404	(1.093)	65	247662	25.0000	22.823	80.00- 120.00	100.00
6.404	6.404	(1.093)	67	143595			20.51- 80.51	57.98
-----								
§ 134 Toluene-d8 CAS #: 2037-26-5								
7.968	7.968	(1.180)	98	755890	25.0000	26.322	80.00- 120.00	100.00
7.968	7.968	(1.180)	70	88764			0.00- 42.00	11.74

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.968	7.968	(1.180)	100	508599			37.14- 97.14	67.28
-----								
\$ 170 4-Bromofluorobenzene								
						CAS #: 460-00-4		
10.195	10.195	(1.107)	174	462477	25.0000	24.895	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	564165			92.25- 152.25	121.99
10.195	10.195	(1.107)	176	430436			63.07- 123.07	93.07
-----								
4 Freon 134a								
						CAS #: 811-97-2		
1.577	1.577	(0.269)	83	233607	50.0000	41.400	80.00- 120.00	100.00
1.577	1.577	(0.269)	69	198489			50.75- 110.75	84.97
1.577	1.577	(0.269)	51	45353			0.00- 49.76	19.41
-----								
5 Propylene								
						CAS #: 115-07-1		
1.619	1.619	(0.276)	41	248262	50.0000	44.969	80.00- 120.00	100.00
1.619	1.619	(0.276)	42	165426			36.66- 96.66	66.63
1.619	1.619	(0.276)	39	176134			44.11- 104.11	70.95
-----								
7 1,1-Difluoroethane								
						CAS #: 75-37-6		
1.633	1.633	(0.279)	65	151736	50.0000	44.088	80.00- 120.00	100.00
1.633	1.633	(0.279)	51	348030			217.13- 277.13	229.37
1.647	1.647	(0.281)	47	99652			48.77- 108.77	65.67
-----								
8 Freon 12								
						CAS #: 75-71-8		
1.661	1.661	(0.283)	85	641162	50.0000	41.496	80.00- 120.00	100.00
1.661	1.661	(0.283)	87	208675			2.35- 62.35	32.55
-----								
9 Chlorodifluoromethane								
						CAS #: 75-45-6		
1.689	1.689	(0.288)	67	65543	50.0000	34.194	80.00- 120.00	100.00
1.689	1.689	(0.288)	51	567405			710.68- 770.68	865.70
-----								
10 Freon 114								
						CAS #: 76-14-2		
1.801	1.801	(0.307)	135	504513	50.0000	42.956	80.00- 120.00	100.00
1.801	1.801	(0.307)	137	162353			2.06- 62.06	32.18
-----								
12 Isobutane								
						CAS #: 75-28-5		
1.815	1.815	(0.310)	43	558165	50.0000	44.654	80.00- 120.00	100.00
1.815	1.815	(0.310)	42	184786			2.70- 62.70	33.11
1.801	1.801	(0.307)	58	18766			0.00- 33.44	3.36
-----								
15 Chloromethane								
						CAS #: 74-87-3		
1.884	1.884	(0.322)	50	281485	50.0000	42.311	80.00- 120.00	100.00
1.884	1.884	(0.322)	52	90084			3.38- 63.38	32.00
-----								
18 Butane								
						CAS #: 106-97-8		
1.968	1.968	(0.336)	58	54073	50.0000	34.474	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)								
1.968	1.968	(0.336)	43	429588			760.51- 820.51	794.46
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.010	2.010	(0.343)	62	281898	50.0000	38.834	80.00- 120.00	100.00
2.010	2.010	(0.343)	64	84495			0.32- 60.32	29.97
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.052	2.052	(0.350)	54	257467	50.0000	36.951	80.00- 120.00	100.00
2.038	2.038	(0.348)	39	254507			72.94- 132.94	98.85
-----								
24 Bromomethane CAS #: 74-83-9								
2.458	2.458	(0.420)	94	237220	50.0000	43.781	80.00- 120.00	100.00
2.458	2.458	(0.420)	96	220853			63.18- 123.18	93.10
-----								
30 Chloroethane CAS #: 75-00-3								
2.598	2.598	(0.443)	64	144061	50.0000	44.663	80.00- 120.00	100.00
2.598	2.598	(0.443)	66	43594			1.10- 61.10	30.26
2.598	2.598	(0.443)	49	47059			5.46- 65.46	32.67
-----								
31 Isopentane CAS #: 78-78-4								
2.626	2.626	(0.448)	43	370660	50.0000	44.097	80.00- 120.00	100.00
2.626	2.626	(0.448)	57	244218			36.12- 96.12	65.89
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.836	2.836	(0.484)	106	248528	50.0000	42.225	80.00- 120.00	100.00
2.836	2.836	(0.484)	108	230729			63.01- 123.01	92.84
-----								
33 Freon 11 CAS #: 75-69-4								
2.892	2.892	(0.494)	101	704606	50.0000	41.036	80.00- 120.00	100.00
2.892	2.892	(0.494)	103	457483			36.55- 96.55	64.93
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.906	2.906	(0.496)	67	550876	50.0000	42.114	80.00- 120.00	100.00
2.906	2.906	(0.496)	69	172917			1.82- 61.82	31.39
-----								
35 Pentane CAS #: 109-66-0								
2.976	2.976	(0.508)	43	588821	50.0000	42.455	80.00- 120.00	100.00
2.976	2.976	(0.508)	57	91306			0.00- 45.52	15.51
2.976	2.976	(0.508)	72	46706			0.00- 38.25	7.93
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.326	3.326	(0.568)	74	116983	50.0000	40.717	80.00- 120.00	100.00
3.326	3.326	(0.568)	59	208885			143.51- 203.51	178.56
3.312	3.312	(0.565)	45	219808			143.53- 203.53	187.90
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol						CAS #: 64-17-5		
3.270	3.270	(0.558)	46	55470	50.0000	41.023	80.00- 120.00	100.00
3.270	3.270	(0.558)	45	106696			213.29- 273.29	192.35
-----								
42 Acrolein						CAS #: 107-02-8		
3.591	3.591	(0.613)	55	94659	50.0000	44.120	80.00- 120.00	100.00
3.591	3.591	(0.613)	56	127404			104.02- 164.02	134.59
-----								
43 Freon 113						CAS #: 76-13-1		
3.591	3.591	(0.613)	151	483850	50.0000	42.570	80.00- 120.00	100.00
3.591	3.591	(0.613)	153	310087			34.03- 94.03	64.09
3.591	3.591	(0.613)	101	571100			89.72- 149.72	118.03
-----								
44 1,1-Dichloroethene						CAS #: 75-35-4		
3.619	3.619	(0.618)	96	267695	50.0000	41.993	80.00- 120.00	100.00
3.619	3.619	(0.618)	98	166148			32.85- 92.85	62.07
3.619	3.619	(0.618)	61	504257			165.91- 225.91	188.37
-----								
47 Acetone						CAS #: 67-64-1		
3.773	3.773	(0.644)	58	164011	50.0000	45.582	80.00- 120.00	100.00
3.773	3.773	(0.644)	43	534689			325.09- 385.09	326.01
-----								
48 Carbon Disulfide						CAS #: 75-15-0		
3.857	3.857	(0.658)	76	741788	50.0000	45.610	80.00- 120.00	100.00
-----								
49 Iodomethane						CAS #: 74-88-4		
3.829	3.829	(0.654)	142	631768	50.0000	45.133	80.00- 120.00	100.00
3.829	3.829	(0.654)	127	282700			16.98- 76.98	44.75
-----								
52 2-Propanol						CAS #: 67-63-0		
3.941	3.941	(0.673)	45	611344	50.0000	44.026	80.00- 120.00	100.00
3.941	3.941	(0.673)	43	120151			0.00- 49.76	19.65
-----								
54 3-Chloropropene						CAS #: 107-05-1		
4.109	4.109	(0.701)	76	119776	50.0000	42.684	80.00- 120.00	100.00
4.109	4.109	(0.701)	41	451617			344.92- 404.92	377.05
-----								
57 Acetonitrile						CAS #: 75-05-8		
4.221	4.221	(0.721)	41	295013	50.0000	47.898	80.00- 120.00	100.00
4.221	4.221	(0.721)	40	152186			24.08- 84.08	51.59
4.221	4.221	(0.721)	38	32788			0.00- 42.84	11.11
-----								
59 Methylene Chloride						CAS #: 75-09-2		
4.291	4.291	(0.732)	49	429525	50.0000	47.465	80.00- 120.00	100.00
4.291	4.291	(0.732)	84	240531			27.95- 87.95	56.00
4.291	4.291	(0.732)	51	132108			0.78- 60.78	30.76
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol						CAS #: 75-65-0		
4.403	4.403	(0.752)	59	699370	50.0000	43.622	80.00- 120.00	100.00
4.403	4.403	(0.752)	41	160995			0.00- 52.58	23.02
4.403	4.403	(0.752)	57	75814			0.00- 40.94	10.84
63 Methyl tert-butyl ether						CAS #: 1634-04-4		
4.515	4.515	(0.771)	73	752667	50.0000	43.071	80.00- 120.00	100.00
4.515	4.515	(0.771)	57	226390			0.00- 58.27	30.08
4.515	4.515	(0.771)	41	226187			0.00- 58.78	30.05
64 trans-1,2-Dichloroethene						CAS #: 156-60-5		
4.543	4.543	(0.775)	98	184087	50.0000	45.476	80.00- 120.00	100.00
4.543	4.543	(0.775)	61	493265			236.85- 296.85	267.95
4.543	4.543	(0.775)	96	289623			126.72- 186.72	157.33
66 Acrylonitrile						CAS #: 107-13-1		
4.655	4.655	(0.795)	52	234453	50.0000	43.809	80.00- 120.00	100.00
4.655	4.655	(0.795)	53	281503			88.92- 148.92	120.07
67 Hexane						CAS #: 110-54-3		
4.753	4.753	(0.811)	57	562821	50.0000	47.726	80.00- 120.00	100.00
4.753	4.753	(0.811)	43	374535			36.74- 96.74	66.55
4.753	4.753	(0.811)	86	69458			0.00- 43.22	12.34
71 1,1-Dichloroethane						CAS #: 75-34-3		
5.047	5.047	(0.861)	63	572525	50.0000	45.824	80.00- 120.00	100.00
5.047	5.047	(0.861)	65	170673			0.56- 60.56	29.81
72 Isopropyl ether						CAS #: 108-20-3		
5.019	5.019	(0.857)	45	1252216	50.0000	48.524	80.00- 120.00	100.00
5.019	5.019	(0.857)	87	256632			0.00- 51.44	20.49
5.019	5.019	(0.857)	59	135519			0.00- 40.81	10.82
73 Vinyl Acetate						CAS #: 108-05-4		
5.075	5.075	(0.866)	86	69803	50.0000	45.096	80.00- 120.00	100.00
5.075	5.075	(0.866)	43	1036354			1473.01-1533.01	1484.68
79 Ethyl-tert-butyl ether						CAS #: 637-92-3		
5.382	5.382	(0.919)	59	1120137	50.0000	47.666	80.00- 120.00	100.00
5.382	5.382	(0.919)	87	375492			4.28- 64.28	33.52
5.382	5.382	(0.919)	41	226197			0.00- 49.94	20.19
84 2,2-Dichloropropane						CAS #: 594-20-7		
5.592	5.592	(0.955)	77	523429	50.0000	44.331	80.00- 120.00	100.00
5.592	5.592	(0.955)	79	170152			2.43- 62.43	32.51
5.592	5.592	(0.955)	97	127736			0.00- 53.03	24.40

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene						CAS #: 156-59-2		
5.620	5.620	(0.959)	98	202377	50.0000	47.147	80.00- 120.00	100.00
5.620	5.620	(0.959)	96	306785			121.91- 181.91	151.59
5.620	5.620	(0.959)	61	704235			313.72- 373.72	347.98
-----								
86 2-Butanone						CAS #: 78-93-3		
5.648	5.648	(0.964)	72	150847	50.0000	48.011	80.00- 120.00	100.00
5.648	5.648	(0.964)	43	1748757			1111.25-1171.25	1159.29
5.648	5.648	(0.964)	57	63665			11.22- 71.22	42.21
-----								
87 Ethyl Acetate						CAS #: 141-78-6		
5.662	5.662	(0.967)	45	142534	50.0000	48.422	80.00- 120.00	100.00
5.620	5.620	(0.959)	61	704235			469.17- 529.17	494.08
5.662	5.662	(0.967)	70	81552			29.38- 89.38	57.22
-----								
89 Tetrahydrofuran						CAS #: 109-99-9		
5.844	5.844	(0.998)	42	461794	50.0000	48.313	80.00- 120.00	100.00
5.844	5.844	(0.998)	71	132606			0.09- 60.09	28.72
5.844	5.844	(0.998)	72	142922			2.13- 62.13	30.95
-----								
92 Chloroform						CAS #: 67-66-3		
5.914	5.914	(1.010)	83	630403	50.0000	45.761	80.00- 120.00	100.00
5.914	5.914	(1.010)	85	405716			34.29- 94.29	64.36
-----								
94 Cyclohexane						CAS #: 110-82-7		
6.026	6.026	(1.029)	84	398983	50.0000	47.312	80.00- 120.00	100.00
6.026	6.026	(1.029)	56	627887			116.85- 176.85	157.37
6.026	6.026	(1.029)	41	348359			57.77- 117.77	87.31
-----								
96 1,1,1-Trichloroethane						CAS #: 71-55-6		
6.054	6.054	(1.033)	97	657522	50.0000	43.970	80.00- 120.00	100.00
6.054	6.054	(1.033)	99	420375			34.55- 94.55	63.93
-----								
97 Carbon Tetrachloride						CAS #: 56-23-5		
6.166	6.166	(1.053)	119	684582	50.0000	46.795	80.00- 120.00	100.00
6.166	6.166	(1.053)	117	710570			74.20- 134.20	103.80
-----								
99 1,1-Dichloropropene						CAS #: 563-58-6		
6.194	6.194	(0.918)	110	175312	50.0000	47.848	80.00- 120.00	100.00
6.194	6.194	(0.918)	75	450295			229.39- 289.39	256.85
-----								
101 2,2,4-Trimethylpentane						CAS #: 540-84-1		
6.362	6.362	(1.086)	57	1962474	50.0000	52.076	80.00- 120.00	100.00
6.362	6.362	(1.086)	56	649246			1.14- 61.14	33.08
6.348	6.348	(1.084)	41	508388			0.00- 59.12	25.91
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene						CAS #: 71-43-2		
6.376	6.376	(0.945)	78	883480	50.0000	47.801	80.00- 120.00	100.00
6.376	6.376	(0.945)	77	206627			0.00- 53.48	23.39
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.432	6.432	(0.953)	87	228085	50.0000	47.496	80.00- 120.00	100.00
6.432	6.432	(0.953)	73	890570			363.80- 423.80	390.46
6.432	6.432	(0.953)	55	306761			97.13- 157.13	134.49
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.460	6.460	(0.957)	62	470866	50.0000	42.744	80.00- 120.00	100.00
6.460	6.460	(0.957)	64	149043			1.41- 61.41	31.65
107 Heptane						CAS #: 142-82-5		
6.516	6.516	(0.965)	71	361013	50.0000	50.187	80.00- 120.00	100.00
6.516	6.516	(0.965)	43	678985			146.45- 206.45	188.08
6.516	6.516	(0.965)	57	466191			90.20- 150.20	129.13
110 n-Butanol						CAS #: 71-36-3		
6.886	6.886	(1.020)	56	321352	50.0000	50.397	80.00- 120.00	100.00
6.886	6.886	(1.020)	41	236828			44.46- 104.46	73.70
6.886	6.886	(1.020)	43	189177			28.14- 88.14	58.87
111 Trichloroethene						CAS #: 79-01-6		
6.950	6.950	(1.030)	95	431470	50.0000	47.756	80.00- 120.00	100.00
6.950	6.950	(1.030)	130	474496			79.68- 139.68	109.97
6.943	6.943	(1.029)	97	281721			34.74- 94.74	65.29
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.187	7.187	(1.065)	63	426025	50.0000	51.495	80.00- 120.00	100.00
7.187	7.187	(1.065)	62	299003			40.55- 100.55	70.18
7.187	7.187	(1.065)	41	248088			36.07- 96.07	58.23
116 Methyl Methacrylate						CAS #: 80-62-6		
7.230	7.230	(0.785)	69	362112	50.0000	47.658	80.00- 120.00	100.00
7.230	7.230	(0.785)	41	664250			160.67- 220.67	183.44
7.230	7.230	(0.785)	100	145070			11.33- 71.33	40.06
117 1,4-Dioxane						CAS #: 123-91-1		
7.266	7.266	(1.076)	88	245246	50.0000	47.346	80.00- 120.00	100.00
7.266	7.266	(1.076)	58	223965			56.19- 116.19	91.32
7.266	7.266	(1.076)	57	77599			0.00- 59.32	31.64
118 Dibromomethane						CAS #: 74-95-3		
7.294	7.294	(0.792)	174	411112	50.0000	45.813	80.00- 120.00	100.00
7.294	7.294	(0.792)	93	388998			66.88- 126.88	94.62



AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
7.294	7.294	(0.792)	95	325411			49.90- 109.90	79.15
-----								
122 Bromodichloromethane CAS #: 75-27-4								
7.409	7.409	(1.098)	83	707647	50.0000	46.833	80.00- 120.00	100.00
7.409	7.409	(1.098)	85	451359			33.85- 93.85	63.78
-----								
126 cis-1,3-Dichloropropene CAS #: 10061-01-5								
7.781	7.781	(1.153)	75	568258	50.0000	49.388	80.00- 120.00	100.00
7.781	7.781	(1.153)	77	180381			1.50- 61.50	31.74
7.781	7.781	(1.153)	39	365045			43.12- 103.12	64.24
-----								
127 Methylcyclohexane CAS #: 108-87-2								
7.051	7.051	(1.045)	83	569103	50.0000	49.905	80.00- 120.00	100.00
7.051	7.051	(1.045)	98	261979			17.10- 77.10	46.03
7.051	7.051	(1.045)	55	606639			71.11- 131.11	106.60
-----								
131 4-Methyl-2-pentanone CAS #: 108-10-1								
7.889	7.889	(1.169)	58	392647	50.0000	48.959	80.00- 120.00	100.00
7.889	7.889	(1.169)	43	1075512			247.84- 307.84	273.91
7.889	7.889	(1.169)	85	140116			8.73- 68.73	35.68
-----								
137 Toluene CAS #: 108-88-3								
8.025	8.025	(1.189)	91	1256095	50.0000	51.145	80.00- 120.00	100.00
8.025	8.025	(1.189)	92	734342			28.13- 88.13	58.46
-----								
136 Octane CAS #: 111-65-9								
8.011	8.011	(1.187)	57	446222	50.0000	54.020	80.00- 120.00	100.00
8.011	8.011	(1.187)	85	401480			67.77- 127.77	89.97
8.011	8.011	(1.187)	43	1149310			225.27- 285.27	257.56
-----								
139 trans-1,3-Dichloropropene CAS #: 10061-02-6								
8.254	8.254	(0.897)	75	546042	50.0000	45.423	80.00- 120.00	100.00
8.254	8.254	(0.897)	77	174170			1.93- 61.93	31.90
8.254	8.254	(0.897)	39	338738			38.37- 98.37	62.04
-----								
141 1,1,2-Trichloroethane CAS #: 79-00-5								
8.412	8.412	(0.914)	97	434279	50.0000	48.407	80.00- 120.00	100.00
8.412	8.412	(0.914)	99	268569			31.66- 91.66	61.84
8.412	8.412	(0.914)	83	360076			55.24- 115.24	82.91
-----								
142 Tetrachloroethene CAS #: 127-18-4								
8.462	8.462	(0.919)	166	624690	50.0000	47.745	80.00- 120.00	100.00
8.462	8.462	(0.919)	129	487477			48.51- 108.51	78.04
8.462	8.462	(0.919)	131	470978			45.64- 105.64	75.39
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6		
8.576	8.576	(0.932)	58	580140	50.0000	45.885	80.00- 120.00	100.00
8.576	8.576	(0.932)	43	1137482			169.24- 229.24	196.07
8.576	8.576	(0.932)	100	101362			0.00- 48.72	17.47
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.562	8.562	(1.268)	76	598134	50.0000	49.295	80.00- 120.00	100.00
8.569	8.569	(1.270)	41	710206			96.83- 156.83	118.74
8.562	8.562	(1.268)	78	195771			2.46- 62.46	32.73
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.734	8.734	(0.949)	129	849679	50.0000	47.469	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	658530			47.05- 107.05	77.50
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.856	8.856	(0.962)	107	686718	50.0000	46.988	80.00- 120.00	100.00
8.856	8.856	(0.962)	109	646543			64.74- 124.74	94.15
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.702	7.702	(1.141)	63	805675	50.0000	54.369	80.00- 120.00	100.00
7.702	7.702	(1.141)	65	241381			0.05- 60.05	29.96
7.702	7.702	(1.141)	144	80779			0.00- 40.91	10.03
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.228	9.228	(1.002)	112	1080741	50.0000	48.490	80.00- 120.00	100.00
9.228	9.228	(1.002)	114	341867			2.19- 62.19	31.63
9.228	9.228	(1.002)	77	574120			23.66- 83.66	53.12
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.278	9.278	(1.008)	106	543834	50.0000	49.271	80.00- 120.00	100.00
9.278	9.278	(1.008)	91	1687740			282.43- 342.43	310.34
-----								
156 Nonane						CAS #: 111-84-2		
9.278	9.278	(1.008)	43	1214686	50.0000	54.614	80.00- 120.00	100.00
9.278	9.278	(1.008)	57	1025170			55.73- 115.73	84.40
9.278	9.278	(1.008)	85	316007			0.00- 58.99	26.02
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.300	9.300	(1.010)	131	1535	50.0000	0.1241	80.00- 120.00	100.00(a)
9.207	9.207	(1.000)	117	710524			38.22- 98.22	46288.21
9.293	9.293	(1.009)	95	520			7.54- 67.54	33.88
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.371	9.371	(1.018)	106	667893	50.0000	49.268	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	1319049			169.66- 229.66	197.49
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
164 o-Xylene						CAS #: 95-47-6		
9.722	9.722	(1.056)	106	636121	50.0000	49.488	80.00- 120.00	100.00
9.722	9.722	(1.056)	91	1319895			180.55- 240.55	207.49
-----								
165 Styrene						CAS #: 100-42-5		
9.737	9.737	(1.058)	104	1100476	50.0000	49.440	80.00- 120.00	100.00
9.737	9.737	(1.058)	78	507588			18.65- 78.65	46.12
-----								
167 Bromoform						CAS #: 75-25-2		
9.945	9.945	(1.080)	173	813401	50.0000	47.905	80.00- 120.00	100.00
9.945	9.945	(1.080)	171	416642			21.64- 81.64	51.22
-----								
168 Cumene						CAS #: 98-82-8		
10.009	10.009	(1.087)	105	2011383	50.0000	49.264	80.00- 120.00	100.00
10.009	10.009	(1.087)	120	544169			0.00- 57.04	27.05
10.002	10.002	(1.086)	51	240445			0.00- 41.95	11.95
-----								
169 Cyclohexanone						CAS #: 108-94-1		
10.181	10.181	(1.106)	55	615819	50.0000	33.203	80.00- 120.00	100.00
10.181	10.181	(1.106)	98	214747			8.59- 68.59	34.87
10.181	10.181	(1.106)	42	428165			46.18- 106.18	69.53
-----								
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
10.317	10.317	(1.121)	83	982421	50.0000	49.359	80.00- 120.00	100.00
10.317	10.317	(1.121)	85	632012			34.44- 94.44	64.33
-----								
177 Bromobenzene						CAS #: 108-86-1		
10.338	10.338	(1.123)	156	644760	50.0000	49.668	80.00- 120.00	100.00
10.338	10.338	(1.123)	158	629152			67.20- 127.20	97.58
10.338	10.338	(1.123)	77	1055089			131.36- 191.36	163.64
-----								
178 Propylbenzene						CAS #: 103-65-1		
10.360	10.360	(1.125)	120	575157	50.0000	49.074	80.00- 120.00	100.00
10.353	10.353	(1.124)	91	2388956			385.23- 445.23	415.36
10.360	10.360	(1.125)	105	91878			0.00- 46.02	15.97
-----								
179 1,2,3-Trichloropropane						CAS #: 96-18-4		
10.381	10.381	(1.128)	110	303459	50.0000	47.406	80.00- 120.00	100.00
10.381	10.381	(1.128)	75	1006161			301.57- 361.57	331.56
10.381	10.381	(1.128)	61	266102			54.32- 114.32	87.69
-----								
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6		
10.374	10.374	(1.127)	53	219656	50.0000	43.090	80.00- 120.00	100.00
10.374	10.374	(1.127)	89	152314			40.38- 100.38	69.34
10.381	10.381	(1.128)	75	1006161			394.61- 454.61	458.06
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
182 Decane						CAS #: 124-18-5		
10.396	10.396	(1.129)	57	1365478	50.0000	51.223	80.00- 120.00	100.00
10.396	10.396	(1.129)	71	418154			2.98- 62.98	30.62
10.396	10.396	(1.129)	142	61757			0.00- 35.12	4.52
-----								
183 4-Ethyltoluene						CAS #: 622-96-8		
10.453	10.453	(1.135)	120	620187	50.0000	49.011	80.00- 120.00	100.00
10.453	10.453	(1.135)	105	2031006			295.29- 355.29	327.48
-----								
184 2-Chlorotoluene						CAS #: 95-49-8		
10.482	10.482	(1.138)	126	517771	50.0000	49.212	80.00- 120.00	100.00
10.482	10.482	(1.138)	91	1812522			325.01- 385.01	350.06
10.482	10.482	(1.138)	65	238813			19.90- 79.90	46.12
-----								
185 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
10.503	10.503	(1.141)	120	882244	50.0000	49.980	80.00- 120.00	100.00
10.503	10.503	(1.141)	105	1770551			176.14- 236.14	200.69
-----								
188 alpha Methyl Styrene						CAS #: 98-83-9		
10.704	10.704	(1.163)	118	867958	50.0000	49.354	80.00- 120.00	100.00
10.704	10.704	(1.163)	103	492401			26.69- 86.69	56.73
-----								
189 tert-Butylbenzene						CAS #: 98-06-6		
10.783	10.783	(1.171)	119	1627913	50.0000	49.240	80.00- 120.00	100.00
10.783	10.783	(1.171)	134	407568			0.00- 54.52	25.04
10.783	10.783	(1.171)	91	1048426			34.68- 94.68	64.40
-----								
190 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
10.833	10.833	(1.177)	105	1708711	50.0000	49.877	80.00- 120.00	100.00
10.833	10.833	(1.177)	120	809446			17.12- 77.12	47.37
-----								
192 sec-Butylbenzene						CAS #: 135-98-8		
10.969	10.969	(1.191)	134	520343	50.0000	47.655	80.00- 120.00	100.00
10.969	10.969	(1.191)	105	2495217			438.96- 498.96	479.53
10.969	10.969	(1.191)	91	384047			44.37- 104.37	73.81
-----								
194 p-Cymene						CAS #: 99-87-6		
11.083	11.083	(1.204)	119	2209472	50.0000	49.135	80.00- 120.00	100.00
11.083	11.083	(1.204)	134	592515			0.00- 56.91	26.82
11.076	11.076	(1.203)	91	496970			0.00- 53.86	22.49
-----								
195 1,3-Dichlorobenzene						CAS #: 541-73-1		
11.134	11.134	(1.209)	146	1200461	50.0000	49.139	80.00- 120.00	100.00
11.134	11.134	(1.209)	148	766459			33.78- 93.78	63.85
11.126	11.126	(1.208)	111	494310			11.40- 71.40	41.18
-----								

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	CAL-AMT		ON-COL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene			CAS #: 106-46-7					
11.212	11.212	(1.218)	146	1229273	50.0000	49.398	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	776505			33.73- 93.73	63.17
11.212	11.212	(1.218)	111	480563			9.40- 69.40	39.09
199 alpha-Chlorotoluene			CAS #: 100-44-7					
11.327	11.327	(1.230)	91	1632937	50.0000	48.190	80.00- 120.00	100.00
11.327	11.327	(1.230)	126	369527			0.00- 52.58	22.63
201 Undecane			CAS #: 1120-21-4					
11.399	11.399	(1.238)	57	1589834	50.0000	53.081	80.00- 120.00	100.00
11.399	11.399	(1.238)	43	1449190			62.03- 122.03	91.15
202 Butylbenzene			CAS #: 104-51-8					
11.434	11.434	(1.242)	134	581206	50.0000	48.312	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	2046043			322.91- 382.91	352.03
11.434	11.434	(1.242)	92	1092343			155.43- 215.43	187.94
204 1,2-Dichlorobenzene			CAS #: 95-50-1					
11.549	11.549	(1.254)	146	1167338	50.0000	49.329	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	739826			33.66- 93.66	63.38
11.549	11.549	(1.254)	111	494350			12.36- 72.36	42.35
206 1,2-Dibromo-3-chloropropane			CAS #: 96-12-8					
12.258	12.258	(1.331)	157	697429	50.0000	47.938	80.00- 120.00	100.00
12.251	12.251	(1.331)	75	576025			56.77- 116.77	82.59
12.258	12.258	(1.331)	155	534608			48.17- 108.17	76.65
207 Dodecane			CAS #: 112-40-3					
12.351	12.351	(1.342)	57	1471743	61.8000	55.035	80.00- 120.00	100.00
12.351	12.351	(1.342)	43	1240323			56.62- 116.62	84.28
213 1,2,4-Trichlorobenzene			CAS #: 120-82-1					
13.039	13.039	(1.416)	180	1001224	62.9500	54.411	80.00- 120.00	100.00
13.039	13.039	(1.416)	182	953295			64.88- 124.88	95.21
215 Hexachlorobutadiene			CAS #: 87-68-3					
13.132	13.132	(1.426)	225	764677	64.3500	57.546	80.00- 120.00	100.00
13.132	13.132	(1.426)	223	491267			33.46- 93.46	64.25
216 Naphthalene			CAS #: 91-20-3					
13.340	13.340	(1.449)	128	238130	6.35000	4.697	80.00- 120.00	100.00
13.340	13.340	(1.449)	127	32061			0.00- 43.71	13.46
222 1,2,3-Trichlorobenzene			CAS #: 87-61-6					
13.612	13.612	(1.478)	180	904219	66.5500	52.896	80.00- 120.00	100.00

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
13.612	13.612	(1.478)	182	866253			66.23- 126.23	95.80
13.612	13.612	(1.478)	145	326410			5.93- 65.93	36.10

QC Flag Legend

a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).

US32TAR1

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                    Injection Date: 09-SEP-2021 11:39  
 Lab File ID: 3090903.d                Init. Cal. Date(s): 12-AUG-2021 02-SEP-2021  
 Analysis Type: AIR                     Init. Cal. Times: 16:21 10:33  
 Lab Sample ID: CCV                     Quant Type: ISTD  
 Method: /chem/msd3.i/09SEP21.b/321q0812b.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
\$ 104 1,2-Dichloroethane-d4	1.39287	1.27156	0.010	8.70944	30.00000	Averaged	
\$ 134 Toluene-d8	1.00748	1.06076	0.010	-5.28885	30.00000	Averaged	
\$ 170 4-Bromofluorobenzene	0.65365	0.65090	0.010	0.42100	30.00000	Averaged	
4 Freon 134a	0.72428	0.59970	0.010	17.20055	30.00000	Averaged	
5 Propylene	0.70862	0.63732	0.010	10.06230	30.00000	Averaged	
7 1,1-Difluoroethane	0.44176	0.38953	0.010	11.82411	30.00000	Averaged	
8 Freon 12	1.98325	1.64595	0.010	17.00741	30.00000	Averaged	
9 Chlorodifluoromethane	0.24603	0.16826	0.010	31.61195	30.00000	Averaged <-	
10 Freon 114	1.50754	1.29515	0.010	14.08869	30.00000	Averaged	
12 Isobutane	1.60442	1.43288	0.010	10.69154	30.00000	Averaged	
15 Chloromethane	0.85392	0.72261	0.010	15.37704	30.00000	Averaged	
18 Butane	0.20133	0.13881	0.010	31.05128	30.00000	Averaged <-	
19 Vinyl Chloride	0.93174	0.72367	0.010	22.33182	30.00000	Averaged	
20 1,3-Butadiene	0.89435	0.66095	0.010	26.09737	30.00000	Averaged	
24 Bromomethane	0.69548	0.60897	0.010	12.43802	30.00000	Averaged	
30 Chloroethane	0.41401	0.36982	0.010	10.67349	30.00000	Averaged	
31 Isopentane	1.07891	0.95153	0.010	11.80641	30.00000	Averaged	
32 Vinyl Bromide	0.75548	0.63800	0.010	15.55027	30.00000	Averaged	
33 Freon 11	2.20391	1.80882	0.010	17.92704	30.00000	Averaged	
34 Dichlorofluoromethane	1.67898	1.41417	0.010	15.77183	30.00000	Averaged	
35 Pentane	1.78021	1.51158	0.010	15.08966	30.00000	Averaged	
38 Ethyl Ether	0.36878	0.30031	0.010	18.56613	30.00000	Averaged	
39 Ethanol	0.17356	0.14240	0.010	17.95393	30.00000	Averaged	
42 Acrolein	0.27539	0.24300	0.010	11.75945	30.00000	Averaged	
43 Freon 113	1.45888	1.24211	0.010	14.85907	30.00000	Averaged	
44 1,1-Dichloroethene	0.81824	0.68721	0.010	16.01348	30.00000	Averaged	
47 Acetone	0.46185	0.42104	0.010	8.83697	30.00000	Averaged	
48 Carbon Disulfide	2.08757	1.90427	0.010	8.78083	30.00000	Averaged	
49 Iodomethane	1.79673	1.62183	0.010	9.73423	30.00000	Averaged	
52 2-Propanol	1.78234	1.56940	0.010	11.94705	30.00000	Averaged	
54 3-Chloropropene	0.36018	0.30748	0.010	14.63258	30.00000	Averaged	
57 Acetonitrile	0.79058	0.75734	0.010	4.20481	30.00000	Averaged	
59 Methylene Chloride	1.16153	1.10265	0.010	5.06986	30.00000	Averaged	
62 tert-Butyl alcohol	2.05789	1.79537	0.010	12.75650	30.00000	Averaged	
63 Methyl tert-butyl ether	2.24304	1.93219	0.010	13.85809	30.00000	Averaged	

US32TAR1

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                    Injection Date: 09-SEP-2021 11:39  
 Lab File ID: 3090903.d                Init. Cal. Date(s): 12-AUG-2021 02-SEP-2021  
 Analysis Type: AIR                     Init. Cal. Times: 16:21 10:33  
 Lab Sample ID: CCV                    Quant Type: ISTD  
 Method: /chem/msd3.i/09SEP21.b/321q0812b.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
64 trans-1,2-Dichloroethene	0.51959	0.47258	0.010	9.04815	30.00000	Averaged	
66 Acrylonitrile	0.68693	0.60187	0.010	12.38278	30.00000	Averaged	
67 Hexane	1.51368	1.44483	0.010	4.54821	30.00000	Averaged	
71 1,1-Dichloroethane	1.60370	1.46975	0.010	8.35284	30.00000	Averaged	
72 Isopropyl ether	3.31239	3.21460	0.010	2.95222	30.00000	Averaged	
73 Vinyl Acetate	0.19868	0.17919	0.010	9.80864	30.00000	Averaged	
79 Ethyl-tert-butyl ether	3.01631	2.87554	0.010	4.66694	30.00000	Averaged	
84 2,2-Dichloropropane	1.51554	1.34371	0.010	11.33761	30.00000	Averaged	
85 cis-1,2-Dichloroethene	0.55097	0.51953	0.010	5.70638	30.00000	Averaged	
86 2-Butanone	0.40329	0.38724	0.010	3.97810	30.00000	Averaged	
87 Ethyl Acetate	0.37783	0.36590	0.010	3.15611	30.00000	Averaged	
89 Tetrahydrofuran	1.22688	1.18549	0.010	3.37423	30.00000	Averaged	
92 Chloroform	1.76824	1.61833	0.010	8.47815	30.00000	Averaged	
94 Cyclohexane	1.08243	1.02424	0.010	5.37611	30.00000	Averaged	
96 1,1,1-Trichloroethane	1.91943	1.68794	0.010	12.06028	30.00000	Averaged	
97 Carbon Tetrachloride	1.87779	1.75741	0.010	6.41070	30.00000	Averaged	
99 1,1-Dichloropropene	0.12854	0.12301	0.010	4.30380	30.00000	Averaged	
101 2,2,4-Trimethylpentane	4.83712	5.03793	0.010	-4.15130	30.00000	Averaged	
102 Benzene	0.64843	0.61991	0.010	4.39825	30.00000	Averaged	
105 tert-Amyl methyl ether	0.16848	0.16004	0.010	5.00785	30.00000	Averaged	
106 1,2-Dichloroethane	0.38648	0.33039	0.010	14.51240	30.00000	Averaged	
107 Heptane	0.25236	0.25331	0.010	-0.37443	30.00000	Averaged	
110 n-Butanol	0.22370	0.22548	0.010	-0.79411	30.00000	Averaged	
111 Trichloroethene	0.31697	0.30275	0.010	4.48688	30.00000	Averaged	
114 1,2-Dichloropropane	0.29025	0.29893	0.010	-2.99026	30.00000	Averaged	
116 Methyl Methacrylate	0.26734	0.25482	0.010	4.68418	30.00000	Averaged	
117 1,4-Dioxane	0.18172	0.17208	0.010	5.30705	30.00000	Averaged	
118 Dibromomethane	0.31574	0.28930	0.010	8.37458	30.00000	Averaged	
122 Bromodichloromethane	0.53011	0.49653	0.010	6.33378	30.00000	Averaged	
126 cis-1,3-Dichloropropene	0.40367	0.39873	0.010	1.22400	30.00000	Averaged	
127 Methylcyclohexane	0.40008	0.39932	0.010	0.19064	30.00000	Averaged	
131 4-Methyl-2-pentanone	0.28136	0.27551	0.010	2.08204	30.00000	Averaged	
137 Toluene	0.86162	0.88136	0.010	-2.29041	30.00000	Averaged	
136 Octane	0.28980	0.31310	0.010	-8.03931	30.00000	Averaged	
139 trans-1,3-Dichloropropene	0.42297	0.38425	0.010	9.15408	30.00000	Averaged	



US32TAR1

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                    Injection Date: 09-SEP-2021 11:39  
 Lab File ID: 3090903.d                Init. Cal. Date(s): 12-AUG-2021 02-SEP-2021  
 Analysis Type: AIR                      Init. Cal. Times: 16:21 10:33  
 Lab Sample ID: CCV                      Quant Type: ISTD  
 Method: /chem/msd3.i/09SEP21.b/321q0812b.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
141 1,1,2-Trichloroethane	0.31566	0.30560	0.010	3.18563	30.00000	Averaged	
142 Tetrachloroethene	0.46036	0.43960	0.010	4.50934	30.00000	Averaged	
143 2-Hexanone	0.44486	0.40825	0.010	8.22900	30.00000	Averaged	
144 1,3-Dichloropropane	0.42569	0.41969	0.010	1.41038	30.00000	Averaged	
146 Dibromochloromethane	0.62981	0.59792	0.010	5.06278	30.00000	Averaged	
148 1,2-Dibromoethane (EDB)	0.51423	0.48325	0.010	6.02447	30.00000	Averaged	
151 1-Bromo-2-Chloroethane	0.51989	0.56531	0.010	-8.73797	30.00000	Averaged	
154 Chlorobenzene	0.78420	0.76052	0.010	3.01916	30.00000	Averaged	
155 Ethyl Benzene	0.38836	0.38270	0.010	1.45835	30.00000	Averaged	
156 Nonane	0.78257	0.85478	0.010	-9.22743	30.00000	Averaged	
157 1,1,1,2-Tetrachloroethane	0.43505	0.00108	0.010	100	30.00000	Averaged <-	
158 m,p-Xylene	0.47698	0.47000	0.010	1.46293	30.00000	Averaged	
164 o-Xylene	0.45228	0.44764	0.010	1.02454	30.00000	Averaged	
165 Styrene	0.78319	0.77441	0.010	1.12065	30.00000	Averaged	
167 Bromoform	0.59742	0.57240	0.010	4.18926	30.00000	Averaged	
168 Cumene	1.43656	1.41542	0.010	1.47140	30.00000	Averaged	
169 Cyclohexanone	0.65259	0.43336	0.010	33.59433	30.00000	Averaged <-	
175 1,1,2,2-Tetrachloroethane	0.70031	0.69134	0.010	1.28107	30.00000	Averaged	
177 Bromobenzene	0.45675	0.45372	0.010	0.66403	30.00000	Averaged	
178 Propylbenzene	0.41238	0.40474	0.010	1.85192	30.00000	Averaged	
179 1,2,3-Trichloropropane	0.22523	0.21355	0.010	5.18873	30.00000	Averaged	
181 trans-1,4-Dichloro-2-butene	0.17936	0.15457	0.010	13.81944	30.00000	Averaged	
182 Decane	0.93796	0.96090	0.010	-2.44575	30.00000	Averaged	
183 4-Ethyltoluene	0.44523	0.43643	0.010	1.97741	30.00000	Averaged	
184 2-Chlorotoluene	0.37019	0.36436	0.010	1.57532	30.00000	Averaged	
185 1,3,5-Trimethylbenzene	0.62108	0.62084	0.010	0.03903	30.00000	Averaged	
188 alpha Methyl Styrene	0.61878	0.61079	0.010	1.29113	30.00000	Averaged	
189 tert-Butylbenzene	1.16325	1.14557	0.010	1.51962	30.00000	Averaged	
190 1,2,4-Trimethylbenzene	1.20539	1.20243	0.010	0.24551	30.00000	Averaged	
192 sec-Butylbenzene	0.38419	0.36617	0.010	4.69075	30.00000	Averaged	
194 p-Cymene	1.58218	1.55482	0.010	1.72931	30.00000	Averaged	
195 1,3-Dichlorobenzene	0.85957	0.84477	0.010	1.72153	30.00000	Averaged	
196 1,4-Dichlorobenzene	0.87559	0.86505	0.010	1.20395	30.00000	Averaged	
199 alpha-Chlorotoluene	1.19226	1.14911	0.010	3.61926	30.00000	Averaged	
201 Undecane	1.05383	1.11878	0.010	-6.16271	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                    Injection Date: 09-SEP-2021 11:39  
 Lab File ID: 3090903.d                Init. Cal. Date(s): 12-AUG-2021 02-SEP-2021  
 Analysis Type: AIR                    Init. Cal. Times: 16:21                    10:33  
 Lab Sample ID: CCV                    Quant Type: ISTD  
 Method: /chem/msd3.i/09SEP21.b/321q0812b.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
202 Butylbenzene	0.42329	0.40900	0.010	3.37583	30.00000	Averaged	
204 1,2-Dichlorobenzene	0.83263	0.82146	0.010	1.34116	30.00000	Averaged	
206 1,2-Dibromo-3-chloropropane	0.51190	0.49078	0.010	4.12412	30.00000	Averaged	
207 Dodecane	0.94093	0.83792	0.010	10.94680	30.00000	Averaged	
213 1,2,4-Trichlorobenzene	0.64745	0.55962	0.010	13.56520	30.00000	Averaged	
215 Hexachlorobutadiene	0.46755	0.41811	0.010	10.57375	30.00000	Averaged	
216 Naphthalene	1.78393	1.31948	0.010	26.03558	30.00000	Averaged	
222 1,2,3-Trichlorobenzene	0.60147	0.47806	0.010	20.51744	30.00000	Averaged	

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 09-SEP-2021
Lab File ID: 3090903.d	Calibration Time: 11:39
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/09SEP21.b/321q0812b.m	
Misc Info: 50ppbv (100ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	194770	116862	272678	194770	0.00
108 1,4-Difluorobenze	712592	427555	997629	712592	0.00
153 Chlorobenzene-d5	710524	426314	994734	710524	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	0.00

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.

Date : 09-SEP-2021 11:39

Client ID: CCV

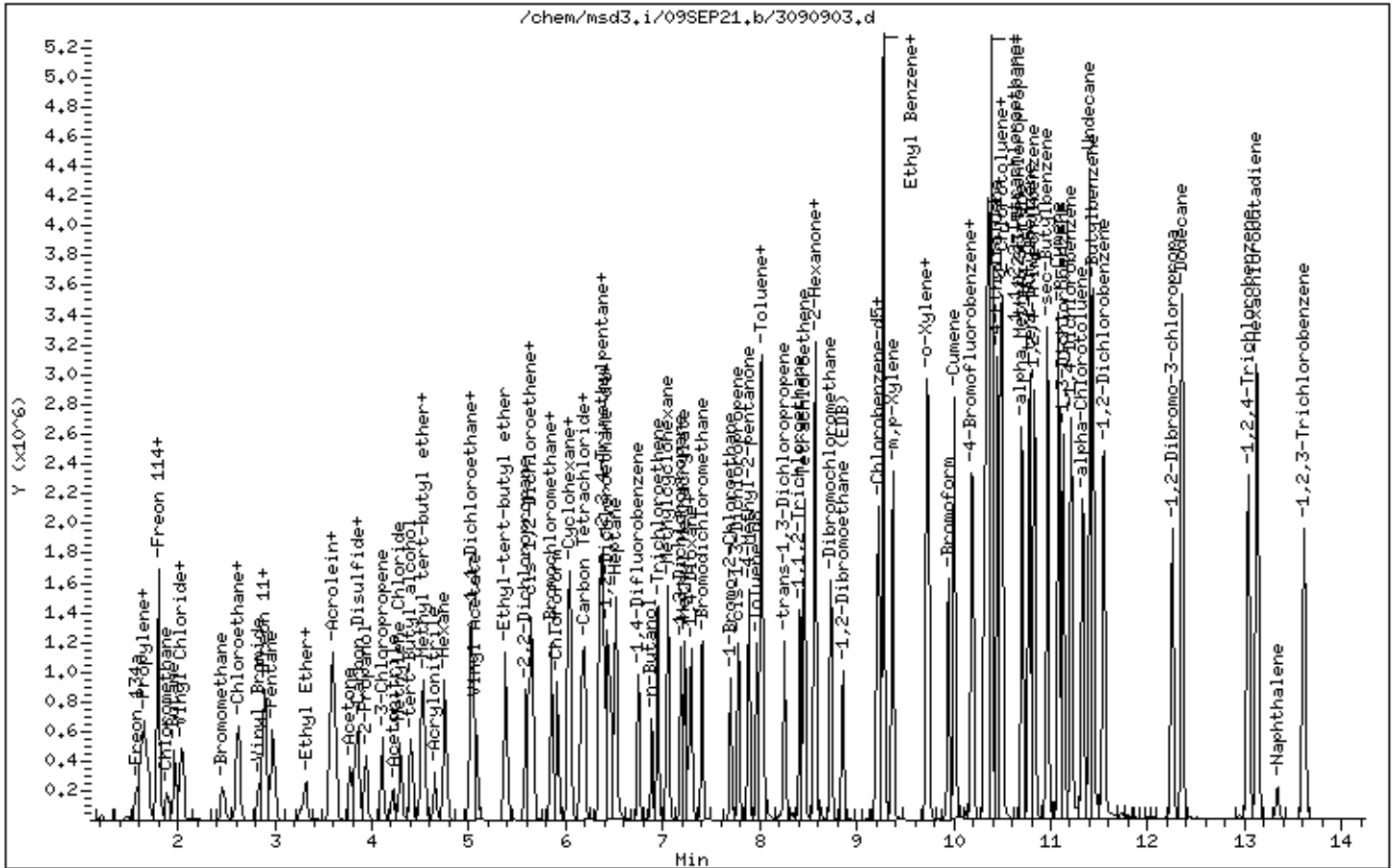
Instrument: msd3,i

Sample Info: 100mL 3018-2213A

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	9/9/21 12:07 PM
<b>Lab ID:</b>	2108676B-05A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090904
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	91
1,1,2,2-Tetrachloroethane	79-34-5	100
1,1,2-Trichloroethane	79-00-5	98
1,1-Dichloroethane	75-34-3	93
1,1-Dichloroethene	75-35-4	88
1,2,4-Trichlorobenzene	120-82-1	99
1,2,4-Trimethylbenzene	95-63-6	104
1,2-Dibromoethane (EDB)	106-93-4	98
1,2-Dichlorobenzene	95-50-1	100
1,2-Dichloroethane	107-06-2	88
1,2-Dichloropropane	78-87-5	107
1,3,5-Trimethylbenzene	108-67-8	101
1,3-Butadiene	106-99-0	66 Q
1,3-Dichlorobenzene	541-73-1	101
1,4-Dichlorobenzene	106-46-7	101
1,4-Dioxane	123-91-1	94
2,2,4-Trimethylpentane	540-84-1	108
2-Butanone (Methyl Ethyl Ketone)	78-93-3	98
2-Hexanone	591-78-6	89
2-Propanol	67-63-0	97
3-Chloropropene	107-05-1	90
4-Ethyltoluene	622-96-8	103
4-Methyl-2-pentanone	108-10-1	100
Acetone	67-64-1	94

\* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	9/9/21 12:07 PM
<b>Lab ID:</b>	2108676B-05A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090904
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
alpha-Chlorotoluene	100-44-7	101
Benzene	71-43-2	99
Bromodichloromethane	75-27-4	98
Bromoform	75-25-2	100
Bromomethane	74-83-9	85
Carbon Disulfide	75-15-0	94
Carbon Tetrachloride	56-23-5	97
Chlorobenzene	108-90-7	101
Chloroethane	75-00-3	94
Chloroform	67-66-3	94
Chloromethane	74-87-3	83
cis-1,2-Dichloroethene	156-59-2	97
cis-1,3-Dichloropropene	10061-01-5	104
Cumene	98-82-8	101
Cyclohexane	110-82-7	99
Dibromochloromethane	124-48-1	98
Ethanol	64-17-5	75
Ethyl Benzene	100-41-4	102
Freon 11	75-69-4	85
Freon 113	76-13-1	88
Freon 114	76-14-2	88
Freon 12	75-71-8	85
Heptane	142-82-5	92
Hexachlorobutadiene	87-68-3	106

\* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	9/9/21 12:07 PM
<b>Lab ID:</b>	2108676B-05A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090904
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Hexane	110-54-3	100
m,p-Xylene	108-38-3	104
Methyl tert-butyl ether	1634-04-4	91
Methylene Chloride	75-09-2	95
Naphthalene	91-20-3	88
o-Xylene	95-47-6	102
Propylbenzene	103-65-1	101
Propylene	115-07-1	92
Styrene	100-42-5	102
Tetrachloroethene	127-18-4	98
Tetrahydrofuran	109-99-9	100
Toluene	108-88-3	104
trans-1,2-Dichloroethene	156-60-5	93
trans-1,3-Dichloropropene	10061-02-6	96
Trichloroethene	79-01-6	100
Vinyl Acetate	108-05-4	94
Vinyl Chloride	75-01-4	71

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	89
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	106

\* % Recovery is calculated using unrounded analytical results.

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/09SEP21.b/3090904.d  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Inj Date : 09-SEP-2021 12:07  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 50mL 3018-2169  
 Misc Info : 50ppbv (200ppbv)  
 Comment : STANDARD LEVEL - GC/MS  
 Method : /chem/msd3.i/09SEP21.b/321q0812b.m  
 Meth Date : 09-Sep-2021 15:48 lk8g Quant Type: ISTD  
 Cal Date : 02-SEP-2021 10:33 Cal File: 3090203.d  
 Als bottle: 14 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
 Sample Matrix: AIR  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO
				( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5							
5.858	5.858	(1.000)	130	217543	25.0000	80.00- 120.00	100.00
5.858	5.858	(1.000)	128	168149		47.29- 107.29	77.29
5.858	5.858	(1.000)	49	358882		122.83- 182.83	164.97
-----							
* 108 1,4-Difluorobenzene CAS #: 540-36-3							
6.743	6.750	(1.000)	114	800957	25.0000	80.00- 120.00	100.00
6.743	6.750	(1.000)	88	121353		0.00- 45.09	15.15
-----							
* 153 Chlorobenzene-d5 CAS #: 3114-55-4							
9.207	9.207	(1.000)	117	794198	25.0000	80.00- 120.00	100.00
9.207	9.207	(1.000)	82	427233		23.62- 83.62	53.79
-----							
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0							
6.390	6.404	(1.091)	65	271034	22.3618	22.362 80.00- 120.00	100.00
6.390	6.404	(1.091)	67	148362		20.51- 80.51	54.74
-----							
\$ 134 Toluene-d8 CAS #: 2037-26-5							
7.968	7.968	(1.182)	98	855556	26.5060	26.506 80.00- 120.00	100.00
7.968	7.968	(1.182)	70	91667		0.00- 42.00	10.71



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.968	7.968	(1.182)	100	577839			37.14- 97.14	67.54
-----								
\$ 170 4-Bromofluorobenzene								
							CAS #: 460-00-4	
10.195	10.195	(1.107)	174	518798	24.9842	24.984	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	626381			92.25- 152.25	120.74
10.195	10.195	(1.107)	176	481584			63.07- 123.07	92.83
-----								
4 Freon 134a								
							CAS #: 811-97-2	
1.577	1.577	(0.269)	83	284516	45.1434	45.143	80.00- 120.00	100.00
1.577	1.577	(0.269)	69	238052			50.75- 110.75	83.67
1.563	1.577	(0.267)	51	57989			0.00- 49.76	20.38
-----								
5 Propylene								
							CAS #: 115-07-1	
1.619	1.619	(0.276)	41	284171	46.0847	46.085	80.00- 120.00	100.00
1.619	1.619	(0.276)	42	190170			36.66- 96.66	66.92
1.619	1.619	(0.276)	39	201740			44.11- 104.11	70.99
-----								
7 1,1-Difluoroethane								
							CAS #: 75-37-6	
1.633	1.633	(0.279)	65	179033	46.5738	46.574	80.00- 120.00	100.00
1.633	1.633	(0.279)	51	435454			217.13- 277.13	243.22
1.633	1.647	(0.279)	47	113789			48.77- 108.77	63.56
-----								
8 Freon 12								
							CAS #: 75-71-8	
1.647	1.661	(0.281)	85	733994	42.5314	42.531	80.00- 120.00	100.00
1.647	1.661	(0.281)	87	237330			2.35- 62.35	32.33
-----								
9 Chlorodifluoromethane								
							CAS #: 75-45-6	
1.689	1.689	(0.288)	67	73179	34.1813	34.181	80.00- 120.00	100.00(R)
1.689	1.689	(0.288)	51	587402			710.68- 770.68	802.69
-----								
10 Freon 114								
							CAS #: 76-14-2	
1.787	1.801	(0.305)	135	574038	43.7587	43.759	80.00- 120.00	100.00
1.787	1.801	(0.305)	137	184910			2.06- 62.06	32.21
-----								
12 Isobutane								
							CAS #: 75-28-5	
1.800	1.815	(0.307)	43	635364	45.5091	45.509	80.00- 120.00	100.00
1.800	1.815	(0.307)	42	210796			2.70- 62.70	33.18
1.800	1.801	(0.307)	58	22702			0.00- 33.44	3.57
-----								
15 Chloromethane								
							CAS #: 74-87-3	
1.884	1.884	(0.322)	50	309773	41.6891	41.689	80.00- 120.00	100.00
1.884	1.884	(0.322)	52	106342			3.38- 63.38	34.33
-----								
18 Butane								
							CAS #: 106-97-8	
1.968	1.968	(0.336)	58	62142	35.4713	35.471	80.00- 120.00	100.00

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)								
1.968	1.968	(0.336)	43	496039		760.51- 820.51	798.24	
-----								
19 Vinyl Chloride CAS #: 75-01-4								
2.010	2.010	(0.343)	62	286941 35.3907	35.391	80.00- 120.00	100.00	
2.010	2.010	(0.343)	64	88118		0.32- 60.32	30.71	
-----								
20 1,3-Butadiene CAS #: 106-99-0								
2.038	2.052	(0.348)	54	257699 33.1129	33.113	80.00- 120.00	100.00(R)	
2.038	2.038	(0.348)	39	249878		72.94- 132.94	96.97	
-----								
24 Bromomethane CAS #: 74-83-9								
2.458	2.458	(0.420)	94	256786 42.4308	42.431	80.00- 120.00	100.00	
2.458	2.458	(0.420)	96	247064		63.18- 123.18	96.21	
-----								
30 Chloroethane CAS #: 75-00-3								
2.584	2.598	(0.441)	64	168492 46.7692	46.769	80.00- 120.00	100.00	
2.584	2.598	(0.441)	66	50830		1.10- 61.10	30.17	
2.584	2.598	(0.441)	49	55516		5.46- 65.46	32.95	
-----								
31 Isopentane CAS #: 78-78-4								
2.612	2.626	(0.446)	43	434265 46.2553	46.255	80.00- 120.00	100.00	
2.612	2.626	(0.446)	57	291289		36.12- 96.12	67.08	
-----								
32 Vinyl Bromide CAS #: 593-60-2								
2.822	2.836	(0.482)	106	288069 43.8193	43.819	80.00- 120.00	100.00	
2.822	2.836	(0.482)	108	268695		63.01- 123.01	93.27	
-----								
33 Freon 11 CAS #: 75-69-4								
2.878	2.892	(0.491)	101	812351 42.3588	42.359	80.00- 120.00	100.00	
2.878	2.892	(0.491)	103	525366		36.55- 96.55	64.67	
-----								
34 Dichlorofluoromethane CAS #: 75-43-4								
2.892	2.906	(0.494)	67	638153 43.6791	43.679	80.00- 120.00	100.00	
2.892	2.906	(0.494)	69	203322		1.82- 61.82	31.86	
-----								
35 Pentane CAS #: 109-66-0								
2.976	2.976	(0.508)	43	663567 42.8359	42.836	80.00- 120.00	100.00	
2.976	2.976	(0.508)	57	101585		0.00- 45.52	15.31	
2.976	2.976	(0.508)	72	52442		0.00- 38.25	7.90	
-----								
38 Ethyl Ether CAS #: 60-29-7								
3.312	3.326	(0.565)	74	142905 44.5324	44.532	80.00- 120.00	100.00	
3.312	3.326	(0.565)	59	255961		143.51- 203.51	179.11	
3.312	3.312	(0.565)	45	365527		143.53- 203.53	255.78	
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.270	3.270	(0.558)	46	65871	43.6154	43.615	80.00- 120.00	100.00
3.312	3.270	(0.565)	45	363808			213.29- 273.29	552.30
-----								
42 Acrolein					CAS #: 107-02-8			
3.577	3.591	(0.611)	55	120400	50.2435	50.243	80.00- 120.00	100.00
3.577	3.591	(0.611)	56	162471			104.02- 164.02	134.94
-----								
43 Freon 113					CAS #: 76-13-1			
3.577	3.591	(0.611)	151	561535	44.2334	44.233	80.00- 120.00	100.00
3.577	3.591	(0.611)	153	362616			34.03- 94.03	64.58
3.577	3.591	(0.611)	101	671828			89.72- 149.72	119.64
-----								
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.619	3.619	(0.618)	96	314370	44.1526	44.152	80.00- 120.00	100.00
3.619	3.619	(0.618)	98	199280			32.85- 92.85	63.39
3.605	3.619	(0.615)	61	597735			165.91- 225.91	190.14
-----								
47 Acetone					CAS #: 67-64-1			
3.773	3.773	(0.644)	58	188327	46.8603	46.860	80.00- 120.00	100.00
3.773	3.773	(0.644)	43	603195			325.09- 385.09	320.29
-----								
48 Carbon Disulfide					CAS #: 75-15-0			
3.857	3.857	(0.658)	76	853038	46.9592	46.959	80.00- 120.00	100.00
-----								
49 Iodomethane					CAS #: 74-88-4			
3.829	3.829	(0.654)	142	807075	51.6208	51.621	80.00- 120.00	100.00
3.829	3.829	(0.654)	127	356593			16.98- 76.98	44.18
-----								
52 2-Propanol					CAS #: 67-63-0			
3.941	3.941	(0.673)	45	752835	48.5404	48.540	80.00- 120.00	100.00
3.941	3.941	(0.673)	43	142047			0.00- 49.76	18.87
-----								
54 3-Chloropropene					CAS #: 107-05-1			
4.109	4.109	(0.701)	76	140417	44.8011	44.801	80.00- 120.00	100.00
4.109	4.109	(0.701)	41	533642			344.92- 404.92	380.04
-----								
57 Acetonitrile					CAS #: 75-05-8			
4.207	4.221	(0.718)	41	330310	48.0143	48.014	80.00- 120.00	100.00
4.207	4.221	(0.718)	40	173099			24.08- 84.08	52.41
4.207	4.221	(0.718)	38	37807			0.00- 42.84	11.45
-----								
59 Methylene Chloride					CAS #: 75-09-2			
4.291	4.291	(0.732)	49	481366	47.6252	47.625	80.00- 120.00	100.00
4.291	4.291	(0.732)	84	275905			27.95- 87.95	57.32
4.291	4.291	(0.732)	51	146833			0.78- 60.78	30.50
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0			
4.403	4.403	(0.752)	59	828117	46.2448	46.245	80.00- 120.00	100.00
4.403	4.403	(0.752)	41	185586			0.00- 52.58	22.41
4.403	4.403	(0.752)	57	88840			0.00- 40.94	10.73
63 Methyl tert-butyl ether					CAS #: 1634-04-4			
4.515	4.515	(0.771)	73	884996	45.3418	45.342	80.00- 120.00	100.00
4.515	4.515	(0.771)	57	264946			0.00- 58.27	29.94
4.515	4.515	(0.771)	41	259361			0.00- 58.78	29.31
64 trans-1,2-Dichloroethene					CAS #: 156-60-5			
4.543	4.543	(0.775)	98	210848	46.6341	46.634	80.00- 120.00	100.00
4.529	4.543	(0.773)	61	572885			236.85- 296.85	271.71
4.543	4.543	(0.775)	96	337474			126.72- 186.72	160.06
66 Acrylonitrile					CAS #: 107-13-1			
4.641	4.655	(0.792)	52	269242	45.0424	45.042	80.00- 120.00	100.00
4.641	4.655	(0.792)	53	323124			88.92- 148.92	120.01
67 Hexane					CAS #: 110-54-3			
4.753	4.753	(0.811)	57	661230	50.2010	50.201	80.00- 120.00	100.00
4.753	4.753	(0.811)	43	437495			36.74- 96.74	66.16
4.753	4.753	(0.811)	86	82325			0.00- 43.22	12.45
71 1,1-Dichloroethane					CAS #: 75-34-3			
5.033	5.047	(0.859)	63	652320	46.7446	46.744	80.00- 120.00	100.00
5.033	5.047	(0.859)	65	195717			0.56- 60.56	30.00
72 Isopropyl ether					CAS #: 108-20-3			
5.019	5.019	(0.857)	45	1450127	50.3104	50.310	80.00- 120.00	100.00
5.019	5.019	(0.857)	87	297201			0.00- 51.44	20.49
5.019	5.019	(0.857)	59	155676			0.00- 40.81	10.74
73 Vinyl Acetate					CAS #: 108-05-4			
5.075	5.075	(0.866)	86	81310	47.0310	47.031	80.00- 120.00	100.00
5.075	5.075	(0.866)	43	1216879			1473.01-1533.01	1496.58
79 Ethyl-tert-butyl ether					CAS #: 637-92-3			
5.382	5.382	(0.919)	59	1301103	49.5712	49.571	80.00- 120.00	100.00
5.382	5.382	(0.919)	87	437423			4.28- 64.28	33.62
5.382	5.382	(0.919)	41	261597			0.00- 49.94	20.11
84 2,2-Dichloropropane					CAS #: 594-20-7			
5.592	5.592	(0.955)	77	606727	46.0067	46.007	80.00- 120.00	100.00
5.592	5.592	(0.955)	79	192293			2.43- 62.43	31.69
5.592	5.592	(0.955)	97	145612			0.00- 53.03	24.00

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				( PPBV)	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene				CAS #: 156-59-2				
5.620	5.620	(0.959)	98	233604	48.7246	48.724 80.00- 120.00	100.00	
5.620	5.620	(0.959)	96	364066		121.91- 181.91	155.85	
5.620	5.620	(0.959)	61	807177		313.72- 373.72	345.53	
-----								
86 2-Butanone				CAS #: 78-93-3				
5.648	5.648	(0.964)	72	171612	48.9022	48.902 80.00- 120.00	100.00	
5.648	5.648	(0.964)	43	1945170		1111.25-1171.25	1133.47	
5.648	5.648	(0.964)	57	69117		11.22- 71.22	40.28	
-----								
87 Ethyl Acetate				CAS #: 141-78-6				
5.662	5.662	(0.967)	45	160023	48.6726	48.672 80.00- 120.00	100.00	
5.620	5.620	(0.959)	61	807177		469.17- 529.17	504.41	
5.662	5.662	(0.967)	70	90478		29.38- 89.38	56.54	
-----								
89 Tetrahydrofuran				CAS #: 109-99-9				
5.844	5.844	(0.998)	42	534595	50.0743	50.074 80.00- 120.00	100.00	
5.844	5.844	(0.998)	71	154552		0.09- 60.09	28.91	
5.844	5.844	(0.998)	72	161775		2.13- 62.13	30.26	
-----								
92 Chloroform				CAS #: 67-66-3				
5.914	5.914	(1.010)	83	725205	47.1316	47.132 80.00- 120.00	100.00	
5.914	5.914	(1.010)	85	471049		34.29- 94.29	64.95	
-----								
94 Cyclohexane				CAS #: 110-82-7				
6.026	6.026	(1.029)	84	467092	49.5901	49.590 80.00- 120.00	100.00	
6.026	6.026	(1.029)	56	731013		116.85- 176.85	156.50	
6.026	6.026	(1.029)	41	400115		57.77- 117.77	85.66	
-----								
96 1,1,1-Trichloroethane				CAS #: 71-55-6				
6.040	6.054	(1.031)	97	760126	45.5099	45.510 80.00- 120.00	100.00	
6.040	6.054	(1.031)	99	487705		34.55- 94.55	64.16	
-----								
97 Carbon Tetrachloride				CAS #: 56-23-5				
6.166	6.166	(1.053)	119	794500	48.6228	48.623 80.00- 120.00	100.00	
6.166	6.166	(1.053)	117	825227		74.20- 134.20	103.87	
-----								
99 1,1-Dichloropropene				CAS #: 563-58-6				
6.194	6.194	(0.919)	110	201082	48.8268	48.827 80.00- 120.00	100.00	
6.194	6.194	(0.919)	75	516832		229.39- 289.39	257.03	
-----								
101 2,2,4-Trimethylpentane				CAS #: 540-84-1				
6.348	6.362	(1.084)	57	2269849	53.9266	53.927 80.00- 120.00	100.00	
6.348	6.362	(1.084)	56	751030		1.14- 61.14	33.09	
6.348	6.348	(1.084)	41	585114		0.00- 59.12	25.78	

RT	EXP RT	(REL RT)	MASS	CONCENTRATIONS		TARGET RANGE	RATIO	
				ON-COL	FINAL			
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102 Benzene						CAS #: 71-43-2		
6.376	6.376	(0.946)	78	1024358	49.3086	49.309	80.00- 120.00	100.00
6.376	6.376	(0.946)	77	236913			0.00- 53.48	23.13
-----								
105 tert-Amyl methyl ether						CAS #: 994-05-8		
6.432	6.432	(0.954)	87	263633	48.8419	48.842	80.00- 120.00	100.00
6.432	6.432	(0.954)	73	1041216			363.80- 423.80	394.95
6.432	6.432	(0.954)	55	342380			97.13- 157.13	129.87
-----								
106 1,2-Dichloroethane						CAS #: 107-06-2		
6.460	6.460	(0.958)	62	545965	44.0933	44.093	80.00- 120.00	100.00
6.460	6.460	(0.958)	64	168354			1.41- 61.41	30.84
-----								
107 Heptane						CAS #: 142-82-5		
6.516	6.516	(0.966)	71	373651	46.2135	46.213	80.00- 120.00	100.00
6.516	6.516	(0.966)	43	809259			146.45- 206.45	216.58
6.516	6.516	(0.966)	57	543293			90.20- 150.20	145.40
-----								
110 n-Butanol						CAS #: 71-36-3		
6.886	6.886	(1.021)	56	391299	54.5966	54.596	80.00- 120.00	100.00
6.886	6.886	(1.021)	41	284673			44.46- 104.46	72.75
6.886	6.886	(1.021)	43	224648			28.14- 88.14	57.41
-----								
111 Trichloroethene						CAS #: 79-01-6		
6.943	6.950	(1.030)	95	509263	50.1483	50.148	80.00- 120.00	100.00
6.943	6.950	(1.030)	130	558873			79.68- 139.68	109.74
6.943	6.943	(1.030)	97	330458			34.74- 94.74	64.89
-----								
114 1,2-Dichloropropane						CAS #: 78-87-5		
7.187	7.187	(1.066)	63	498710	53.6304	53.630	80.00- 120.00	100.00
7.187	7.187	(1.066)	62	346855			40.55- 100.55	69.55
7.187	7.187	(1.066)	41	296508			36.07- 96.07	59.46
-----								
116 Methyl Methacrylate						CAS #: 80-62-6		
7.223	7.230	(0.784)	69	406201	47.8281	47.828	80.00- 120.00	100.00
7.223	7.230	(0.784)	41	733370			160.67- 220.67	180.54
7.223	7.230	(0.784)	100	164474			11.33- 71.33	40.49
-----								
117 1,4-Dioxane						CAS #: 123-91-1		
7.266	7.266	(1.078)	88	273138	46.9137	46.914	80.00- 120.00	100.00
7.266	7.266	(1.078)	58	249688			56.19- 116.19	91.41
7.266	7.266	(1.078)	57	80078			0.00- 59.32	29.32
-----								
118 Dibromomethane						CAS #: 74-95-3		
7.294	7.294	(0.792)	174	477291	47.5838	47.584	80.00- 120.00	100.00
7.294	7.294	(0.792)	93	448205			66.88- 126.88	93.91

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
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118 Dibromomethane (continued)									
7.294	7.294	(0.792)	95	373756		49.90- 109.90	78.31		
-----									
122 Bromodichloromethane CAS #: 75-27-4									
7.402	7.409	(1.098)	83	833166	49.0568	49.057	80.00- 120.00	100.00	
7.402	7.409	(1.098)	85	526623			33.85- 93.85	63.21	
-----									
126 cis-1,3-Dichloropropene CAS #: 10061-01-5									
7.781	7.781	(1.154)	75	669346	51.7558	51.756	80.00- 120.00	100.00	
7.781	7.781	(1.154)	77	215135			1.50- 61.50	32.14	
7.781	7.781	(1.154)	39	428227			43.12- 103.12	63.98	
-----									
127 Methylcyclohexane CAS #: 108-87-2									
7.051	7.051	(1.046)	83	657952	51.3306	51.330	80.00- 120.00	100.00	
7.051	7.051	(1.046)	98	300763			17.10- 77.10	45.71	
7.051	7.051	(1.046)	55	696297			71.11- 131.11	105.83	
-----									
131 4-Methyl-2-pentanone CAS #: 108-10-1									
7.882	7.889	(1.169)	58	449413	49.8549	49.855	80.00- 120.00	100.00	
7.882	7.889	(1.169)	43	1208391			247.84- 307.84	268.88	
7.889	7.889	(1.170)	85	159279			8.73- 68.73	35.44	
-----									
137 Toluene CAS #: 108-88-3									
8.025	8.025	(1.190)	91	1438437	52.1081	52.108	80.00- 120.00	100.00	
8.025	8.025	(1.190)	92	840675			28.13- 88.13	58.44	
-----									
136 Octane CAS #: 111-65-9									
8.003	8.011	(1.187)	57	508735	54.7929	54.793	80.00- 120.00	100.00	
8.003	8.011	(1.187)	85	461854			67.77- 127.77	90.78	
8.003	8.011	(1.187)	43	1320263			225.27- 285.27	259.52	
-----									
139 trans-1,3-Dichloropropene CAS #: 10061-02-6									
8.254	8.254	(0.897)	75	645030	48.0042	48.004	80.00- 120.00	100.00	
8.254	8.254	(0.897)	77	203806			1.93- 61.93	31.60	
8.254	8.254	(0.897)	39	397161			38.37- 98.37	61.57	
-----									
141 1,1,2-Trichloroethane CAS #: 79-00-5									
8.412	8.412	(0.914)	97	492301	49.0933	49.093	80.00- 120.00	100.00	
8.412	8.412	(0.914)	99	311369			31.66- 91.66	63.25	
8.412	8.412	(0.914)	83	428622			55.24- 115.24	87.06	
-----									
142 Tetrachloroethene CAS #: 127-18-4									
8.462	8.462	(0.919)	166	718192	49.1085	49.108	80.00- 120.00	100.00	
8.462	8.462	(0.919)	129	572312			48.51- 108.51	79.69	
8.462	8.462	(0.919)	131	546607			45.64- 105.64	76.11	
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO	
				ON-COL	FINAL			
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143 2-Hexanone						CAS #: 591-78-6		
8.576	8.576	(0.932)	58	627637	44.4121	44.412	80.00- 120.00	100.00
8.569	8.576	(0.931)	43	1205449			169.24- 229.24	192.06
8.576	8.576	(0.932)	100	109286			0.00- 48.72	17.41
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.562	8.562	(1.270)	76	680354	49.8849	49.885	80.00- 120.00	100.00
8.562	8.569	(1.270)	41	793791			96.83- 156.83	116.67
8.562	8.562	(1.270)	78	220172			2.46- 62.46	32.36
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.734	8.734	(0.949)	129	982975	49.1297	49.130	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	766771			47.05- 107.05	78.01
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.856	8.856	(0.962)	107	802326	49.1142	49.114	80.00- 120.00	100.00
8.856	8.856	(0.962)	109	753296			64.74- 124.74	93.89
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.695	7.702	(1.141)	63	923288	55.4320	55.432	80.00- 120.00	100.00
7.695	7.702	(1.141)	65	275065			0.05- 60.05	29.79
7.702	7.702	(1.142)	144	94074			0.00- 40.91	10.19
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.228	9.228	(1.002)	112	1253281	50.3075	50.307	80.00- 120.00	100.00
9.228	9.228	(1.002)	114	403218			2.19- 62.19	32.17
9.228	9.228	(1.002)	77	670240			23.66- 83.66	53.48
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.271	9.278	(1.007)	106	631555	51.1899	51.190	80.00- 120.00	100.00
9.271	9.278	(1.007)	91	1964144			282.43- 342.43	311.00
-----								
156 Nonane						CAS #: 111-84-2		
9.271	9.278	(1.007)	43	1418643	57.0638	57.064	80.00- 120.00	100.00
9.271	9.278	(1.007)	57	1193828			55.73- 115.73	84.15
9.278	9.278	(1.008)	85	371246			0.00- 58.99	26.17
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.293	9.300	(1.009)	131	595959	43.1211	43.121	80.00- 120.00	100.00
9.207	9.207	(1.000)	117	794198			38.22- 98.22	133.26
9.293	9.293	(1.009)	95	212398			7.54- 67.54	35.64
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.371	9.371	(1.018)	106	789538	52.1057	52.106	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	1564812			169.66- 229.66	198.19
-----								



CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				( PPBV)	( PPBV)			ON-COL	FINAL
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164 o-Xylene					CAS #: 95-47-6				
9.715	9.722	(1.055)	106	729307	50.7596	50.760	80.00- 120.00	100.00	
9.715	9.722	(1.055)	91	1537779			180.55- 240.55	210.85	
-----									
165 Styrene					CAS #: 100-42-5				
9.737	9.737	(1.058)	104	1274700	51.2334	51.233	80.00- 120.00	100.00	
9.737	9.737	(1.058)	78	592455			18.65- 78.65	46.48	
-----									
167 Bromoform					CAS #: 75-25-2				
9.945	9.945	(1.080)	173	949228	50.0150	50.015	80.00- 120.00	100.00	
9.945	9.945	(1.080)	171	487866			21.64- 81.64	51.40	
-----									
168 Cumene					CAS #: 98-82-8				
10.009	10.009	(1.087)	105	2297707	50.3480	50.348	80.00- 120.00	100.00	
10.009	10.009	(1.087)	120	620699			0.00- 57.04	27.01	
10.002	10.002	(1.086)	51	276311			0.00- 41.95	12.03	
-----									
169 Cyclohexanone					CAS #: 108-94-1				
10.181	10.181	(1.106)	55	749675	36.1614	36.161	80.00- 120.00	100.00	
10.181	10.181	(1.106)	98	263154			8.59- 68.59	35.10	
10.181	10.181	(1.106)	42	525366			46.18- 106.18	70.08	
-----									
175 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5				
10.317	10.317	(1.121)	83	1112458	50.0042	50.004	80.00- 120.00	100.00	
10.317	10.317	(1.121)	85	721856			34.44- 94.44	64.89	
-----									
177 Bromobenzene					CAS #: 108-86-1				
10.338	10.338	(1.123)	156	741813	51.1238	51.124	80.00- 120.00	100.00	
10.338	10.338	(1.123)	158	719032			67.20- 127.20	96.93	
10.338	10.338	(1.123)	77	1252105			131.36- 191.36	168.79	
-----									
178 Propylbenzene					CAS #: 103-65-1				
10.353	10.360	(1.124)	120	661744	50.5133	50.513	80.00- 120.00	100.00	
10.353	10.353	(1.124)	91	2778931	51.3622	51.362	385.23- 445.23	419.94	
10.353	10.360	(1.124)	105	104774			0.00- 46.02	15.83	
-----									
179 1,2,3-Trichloropropane					CAS #: 96-18-4				
10.381	10.381	(1.128)	110	350585	48.9974	48.997	80.00- 120.00	100.00	
10.381	10.381	(1.128)	75	1289006			301.57- 361.57	367.67	
10.381	10.381	(1.128)	61	311112			54.32- 114.32	88.74	
-----									
181 trans-1,4-Dichloro-2-butene					CAS #: 110-57-6				
10.374	10.374	(1.127)	53	368750	64.7170	64.717	80.00- 120.00	100.00	
10.374	10.374	(1.127)	89	243568			40.38- 100.38	66.05	
10.381	10.381	(1.128)	75	1289006			394.61- 454.61	349.56	
-----									

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				( PPBV)	( PPBV)			ON-COL	FINAL
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane					CAS #: 124-18-5				
10.389	10.396	(1.128)	57	1563094	52.4583	52.458	80.00- 120.00	100.00	
10.396	10.396	(1.129)	71	485792			2.98- 62.98	31.08	
10.396	10.396	(1.129)	142	73920			0.00- 35.12	4.73	
-----									
183 4-Ethyltoluene					CAS #: 622-96-8				
10.453	10.453	(1.135)	120	727708	51.4494	51.449	80.00- 120.00	100.00	
10.453	10.453	(1.135)	105	2373171			295.29- 355.29	326.12	
-----									
184 2-Chlorotoluene					CAS #: 95-49-8				
10.482	10.482	(1.138)	126	593585	50.4742	50.474	80.00- 120.00	100.00	
10.482	10.482	(1.138)	91	2089158			325.01- 385.01	351.96	
10.482	10.482	(1.138)	65	269248			19.90- 79.90	45.36	
-----									
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8				
10.503	10.503	(1.141)	120	999615	50.6634	50.663	80.00- 120.00	100.00	
10.503	10.503	(1.141)	105	2026117			176.14- 236.14	202.69	
-----									
188 alpha Methyl Styrene					CAS #: 98-83-9				
10.704	10.704	(1.163)	118	1027719	52.2819	52.282	80.00- 120.00	100.00	
10.704	10.704	(1.163)	103	569454			26.69- 86.69	55.41	
-----									
189 tert-Butylbenzene					CAS #: 98-06-6				
10.783	10.783	(1.171)	119	1862541	50.4016	50.402	80.00- 120.00	100.00	
10.783	10.783	(1.171)	134	468361			0.00- 54.52	25.15	
10.783	10.783	(1.171)	91	1190101			34.68- 94.68	63.90	
-----									
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6				
10.833	10.833	(1.177)	105	1996749	52.1443	52.144	80.00- 120.00	100.00	
10.833	10.833	(1.177)	120	939565			17.12- 77.12	47.05	
-----									
192 sec-Butylbenzene					CAS #: 135-98-8				
10.969	10.969	(1.191)	134	601254	49.2633	49.263	80.00- 120.00	100.00	
10.969	10.969	(1.191)	105	2860042			438.96- 498.96	475.68	
10.969	10.969	(1.191)	91	443962			44.37- 104.37	73.84	
-----									
194 p-Cymene					CAS #: 99-87-6				
11.076	11.083	(1.203)	119	2551349	50.7604	50.760	80.00- 120.00	100.00	
11.076	11.083	(1.203)	134	674379			0.00- 56.91	26.43	
11.076	11.076	(1.203)	91	578655			0.00- 53.86	22.68	
-----									
195 1,3-Dichlorobenzene					CAS #: 541-73-1				
11.126	11.134	(1.208)	146	1385744	50.7473	50.747	80.00- 120.00	100.00	
11.126	11.134	(1.208)	148	879496			33.78- 93.78	63.47	
11.126	11.126	(1.208)	111	569976			11.40- 71.40	41.13	
-----									

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
11.212	11.212	(1.218)	146	1399764	50.3229	50.323	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	888766			33.73- 93.73	63.49
11.205	11.212	(1.217)	111	556811			9.40- 69.40	39.78
-----					-----			
199 alpha-Chlorotoluene					CAS #: 100-44-7			
11.327	11.327	(1.230)	91	1913660	50.5249	50.525	80.00- 120.00	100.00
11.327	11.327	(1.230)	126	431827			0.00- 52.58	22.57
-----					-----			
201 Undecane					CAS #: 1120-21-4			
11.399	11.399	(1.238)	57	1840701	54.9823	54.982	80.00- 120.00	100.00
11.399	11.399	(1.238)	43	1666332			62.03- 122.03	90.53
-----					-----			
202 Butylbenzene					CAS #: 104-51-8			
11.434	11.434	(1.242)	134	665664	49.5029	49.503	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	2332633			322.91- 382.91	350.42
11.434	11.434	(1.242)	92	1245883			155.43- 215.43	187.16
-----					-----			
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
11.549	11.549	(1.254)	146	1316856	49.7849	49.785	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	834690			33.66- 93.66	63.39
11.542	11.549	(1.254)	111	559611			12.36- 72.36	42.50
-----					-----			
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
12.251	12.258	(1.331)	157	761865	46.8498	46.850	80.00- 120.00	100.00
12.251	12.251	(1.331)	75	641707			56.77- 116.77	84.23
12.251	12.258	(1.331)	155	594559			48.17- 108.17	78.04
-----					-----			
207 Dodecane					CAS #: 112-40-3			
12.351	12.351	(1.342)	57	1787232	59.7911	59.791	80.00- 120.00	100.00
12.351	12.351	(1.342)	43	1514789			56.62- 116.62	84.76
-----					-----			
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
13.039	13.039	(1.416)	180	1176395	57.1948	57.195	80.00- 120.00	100.00
13.039	13.039	(1.416)	182	1118568			64.88- 124.88	95.08
-----					-----			
215 Hexachlorobutadiene					CAS #: 87-68-3			
13.125	13.132	(1.426)	225	914980	61.6023	61.602	80.00- 120.00	100.00
13.125	13.132	(1.426)	223	585739			33.46- 93.46	64.02
-----					-----			
216 Naphthalene					CAS #: 91-20-3			
13.340	13.340	(1.449)	128	289474	5.10790	5.108	80.00- 120.00	100.00
13.340	13.340	(1.449)	127	36920			0.00- 43.71	12.75
-----					-----			
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
13.612	13.612	(1.478)	180	1069179	55.9560	55.956	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
13.612	13.612	(1.478)	182	1011337			66.23- 126.23	94.59
13.612	13.612	(1.478)	145	386846			5.93- 65.93	36.18

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 09-SEP-2021
Lab File ID: 3090904.d	Calibration Time: 11:39
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/09SEP21.b/321q0812b.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	194770	116862	272678	217543	11.69
108 1,4-Difluorobenze	712592	427555	997629	800957	12.40
153 Chlorobenzene-d5	710524	426314	994734	794198	11.78

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.74	-0.11
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 09SEP21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCS Client Smp ID: LCS  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: LCS  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AT20LCS\_new.sub  
 Method File: /chem/msd3.i/09SEP21.b/321q0812b.m  
 Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	45.143	90.29	70-130
5 Propylene	50.000	46.085	92.17	70-130
7 1,1-Difluoroethan	50.000	46.574	93.15	70-130
8 Freon 12	50.000	42.531	85.06	70-130
9 Chlorodifluoromet	50.000	34.181	68.36*	70-130
10 Freon 114	50.000	43.759	87.52	70-130
12 Isobutane	50.000	45.509	91.02	70-130
15 Chloromethane	50.000	41.689	83.38	70-130
18 Butane	50.000	35.471	70.94	70-130
19 Vinyl Chloride	50.000	35.391	70.78	70-130
20 1,3-Butadiene	50.000	33.113	66.23*	70-130
24 Bromomethane	50.000	42.431	84.86	70-130
30 Chloroethane	50.000	46.769	93.54	70-130
31 Isopentane	50.000	46.255	92.51	70-130
32 Vinyl Bromide	50.000	43.819	87.64	70-130
33 Freon 11	50.000	42.359	84.72	70-130
34 Dichlorofluoromet	50.000	43.679	87.36	70-130
35 Pentane	50.000	42.836	85.67	70-130
38 Ethyl Ether	50.000	44.532	89.06	70-130
39 Ethanol	58.000	43.615	75.20	70-130
42 Acrolein	58.000	50.243	86.63	70-130
43 Freon 113	50.000	44.233	88.47	70-130
44 1,1-Dichloroethen	50.000	44.152	88.31	70-130
47 Acetone	50.000	46.860	93.72	70-130
48 Carbon Disulfide	50.000	46.959	93.92	70-130
49 Iodomethane	50.000	51.621	103.24	70-130
52 2-Propanol	50.000	48.540	97.08	70-130
54 3-Chloropropene	50.000	44.801	89.60	70-130
57 Acetonitrile	50.000	48.014	96.03	70-130
59 Methylene Chlorid	50.000	47.625	95.25	70-130
62 tert-Butyl alcoho	50.000	46.245	92.49	70-130
63 Methyl tert-butyl	50.000	45.342	90.68	70-130
64 trans-1,2-Dichlor	50.000	46.634	93.27	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	45.042	90.08	70-130
67 Hexane	50.000	50.201	100.40	70-130
71 1,1-Dichloroethan	50.000	46.744	93.49	70-130
72 Isopropyl ether	50.000	50.310	100.62	70-130
73 Vinyl Acetate	50.000	47.031	94.06	70-130
79 Ethyl-tert-butyl	50.000	49.571	99.14	70-130
84 2,2-Dichloropropa	50.000	46.007	92.01	70-130
85 cis-1,2-Dichloroe	50.000	48.724	97.45	70-130
86 2-Butanone	50.000	48.902	97.80	70-130
87 Ethyl Acetate	50.000	48.672	97.35	70-130
89 Tetrahydrofuran	50.000	50.074	100.15	70-130
92 Chloroform	50.000	47.132	94.26	70-130
94 Cyclohexane	50.000	49.590	99.18	70-130
96 1,1,1-Trichloroet	50.000	45.510	91.02	70-130
99 1,1-Dichloroprop	50.000	48.827	97.65	70-130
97 Carbon Tetrachlor	50.000	48.623	97.25	70-130
101 2,2,4-Trimethylpe	50.000	53.927	107.85	70-130
102 Benzene	50.000	49.309	98.62	70-130
105 tert-Amyl methyl	50.000	48.842	97.68	70-130
106 1,2-Dichloroethan	50.000	44.093	88.19	70-130
107 Heptane	50.000	46.213	92.43	70-130
110 n-Butanol	50.000	54.596	109.19	70-130
111 Trichloroethene	50.000	50.148	100.30	70-130
118 Dibromomethane	50.000	47.584	95.17	70-130
127 Methylcyclohexane	50.000	51.330	102.66	70-130
114 1,2-Dichloropropa	50.000	53.630	107.26	70-130
116 Methyl Methacryla	50.000	47.828	95.66	70-130
117 1,4-Dioxane	50.000	46.914	93.83	70-130
122 Bromodichlorometh	50.000	49.057	98.11	70-130
126 cis-1,3-Dichlorop	50.000	51.756	103.51	70-130
131 4-Methyl-2-pentan	50.000	49.855	99.71	70-130
136 Octane	50.000	54.793	109.59	70-130
137 Toluene	50.000	52.108	104.22	70-130
139 trans-1,3-Dichlor	50.000	48.004	96.01	70-130
141 1,1,2-Trichloroet	50.000	49.093	98.19	70-130
142 Tetrachloroethene	50.000	49.108	98.22	70-130
143 2-Hexanone	50.000	44.412	88.82	70-130
144 1,3-Dichloropropa	50.000	49.885	99.77	70-130
146 Dibromochlorometh	50.000	49.130	98.26	70-130
148 1,2-Dibromoethane	50.000	49.114	98.23	70-130
151 1-Bromo-2-Chloroe	50.000	55.432	110.86	70-130
154 Chlorobenzene	50.000	50.307	100.61	70-130
155 Ethyl Benzene	50.000	51.190	102.38	70-130
156 Nonane	50.000	57.064	114.13	70-130
157 1,1,1,2-Tetrachlo	50.000	43.121	86.24	70-130
158 m,p-Xylene	50.000	52.106	104.21	70-130
164 o-Xylene	50.000	50.760	101.52	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	51.233	102.47	70-130
167 Bromoform	50.000	50.015	100.03	70-130
168 Cumene	50.000	50.348	100.70	70-130
169 Cyclohexanone	50.000	36.161	72.32	70-130
175 1,1,2,2-Tetrachlo	50.000	50.004	100.01	70-130
177 Bromobenzene	50.000	51.124	102.25	70-130
178 Propylbenzene	50.000	50.513	101.03	70-130
179 1,2,3-Trichloropr	50.000	48.997	97.99	70-130
181 trans-1,4-Dichlor	50.000	64.717	129.43	70-130
182 Decane	50.000	52.458	104.92	70-130
183 4-Ethyltoluene	50.000	51.449	102.90	70-130
184 2-Chlorotoluene	50.000	50.474	100.95	70-130
185 1,3,5-Trimethylbe	50.000	50.663	101.33	70-130
188 alpha Methyl Styr	50.000	52.282	104.56	70-130
189 tert-Butylbenzene	50.000	50.402	100.80	70-130
190 1,2,4-Trimethylbe	50.000	52.144	104.29	70-130
192 sec-Butylbenzene	50.000	49.263	98.53	70-130
194 p-Cymene	50.000	50.760	101.52	70-130
195 1,3-Dichlorobenze	50.000	50.747	101.49	70-130
196 1,4-Dichlorobenze	50.000	50.323	100.65	70-130
199 alpha-Chlorotolue	50.000	50.525	101.05	70-130
201 Undecane	50.000	54.982	109.96	70-130
202 Butylbenzene	50.000	49.503	99.01	70-130
204 1,2-Dichlorobenze	50.000	49.785	99.57	70-130
206 1,2-Dibromo-3-chl	50.000	46.850	93.70	70-130
207 Dodecane	50.000	59.791	119.58	70-130
213 1,2,4-Trichlorobe	58.000	57.195	98.61	70-130
215 Hexachlorobutadie	58.000	61.602	106.21	70-130
216 Naphthalene	5.800	5.108	88.07	60-140
222 1,2,3-Trichlorobe	58.000	55.956	96.48	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	22.362	89.45	70-130
\$ 134 Toluene-d8	25.000	26.506	106.02	70-130
\$ 170 4-Bromofluorobenz	25.000	24.984	99.94	70-130



Date : 09-SEP-2021 12:07

Client ID: LCS

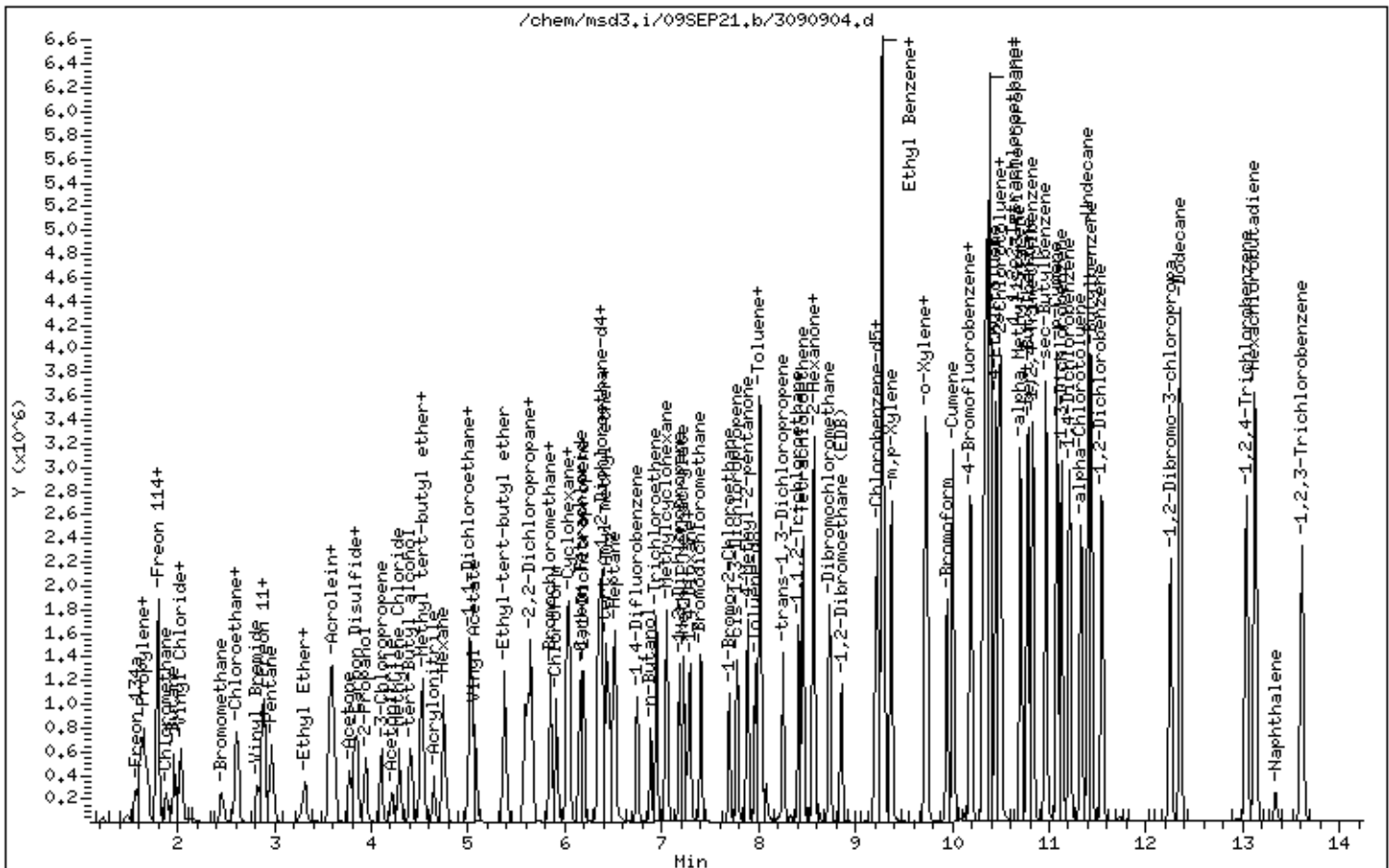
Instrument: msd3,i

Sample Info: 50mL 3018-2169

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	9/9/21 12:34 PM
<b>Lab ID:</b>	2108676B-05AA	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090905
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	91
1,1,2,2-Tetrachloroethane	79-34-5	101
1,1,2-Trichloroethane	79-00-5	100
1,1-Dichloroethane	75-34-3	94
1,1-Dichloroethene	75-35-4	87
1,2,4-Trichlorobenzene	120-82-1	105
1,2,4-Trimethylbenzene	95-63-6	105
1,2-Dibromoethane (EDB)	106-93-4	98
1,2-Dichlorobenzene	95-50-1	101
1,2-Dichloroethane	107-06-2	87
1,2-Dichloropropane	78-87-5	106
1,3,5-Trimethylbenzene	108-67-8	102
1,3-Butadiene	106-99-0	78
1,3-Dichlorobenzene	541-73-1	103
1,4-Dichlorobenzene	106-46-7	102
1,4-Dioxane	123-91-1	89
2,2,4-Trimethylpentane	540-84-1	108
2-Butanone (Methyl Ethyl Ketone)	78-93-3	96
2-Hexanone	591-78-6	88
2-Propanol	67-63-0	93
3-Chloropropene	107-05-1	89
4-Ethyltoluene	622-96-8	103
4-Methyl-2-pentanone	108-10-1	98
Acetone	67-64-1	93

\* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	9/9/21 12:34 PM
<b>Lab ID:</b>	2108676B-05AA	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090905
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
alpha-Chlorotoluene	100-44-7	102
Benzene	71-43-2	98
Bromodichloromethane	75-27-4	96
Bromoform	75-25-2	100
Bromomethane	74-83-9	86
Carbon Disulfide	75-15-0	94
Carbon Tetrachloride	56-23-5	98
Chlorobenzene	108-90-7	101
Chloroethane	75-00-3	92
Chloroform	67-66-3	94
Chloromethane	74-87-3	84
cis-1,2-Dichloroethene	156-59-2	98
cis-1,3-Dichloropropene	10061-01-5	102
Cumene	98-82-8	102
Cyclohexane	110-82-7	100
Dibromochloromethane	124-48-1	99
Ethanol	64-17-5	72
Ethyl Benzene	100-41-4	103
Freon 11	75-69-4	84
Freon 113	76-13-1	88
Freon 114	76-14-2	86
Freon 12	75-71-8	84
Heptane	142-82-5	84
Hexachlorobutadiene	87-68-3	114

\* % Recovery is calculated using unrounded analytical results.

EPA METHOD TO-15 GC/MS FULL SCAN  
 SMUD 59th St

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	9/9/21 12:34 PM
<b>Lab ID:</b>	2108676B-05AA	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd3.i / 3090905
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Hexane	110-54-3	101
m,p-Xylene	108-38-3	104
Methyl tert-butyl ether	1634-04-4	91
Methylene Chloride	75-09-2	95
Naphthalene	91-20-3	92
o-Xylene	95-47-6	103
Propylbenzene	103-65-1	101
Propylene	115-07-1	92
Styrene	100-42-5	103
Tetrachloroethene	127-18-4	99
Tetrahydrofuran	109-99-9	101
Toluene	108-88-3	103
trans-1,2-Dichloroethene	156-60-5	94
trans-1,3-Dichloropropene	10061-02-6	96
Trichloroethene	79-01-6	100
Vinyl Acetate	108-05-4	99
Vinyl Chloride	75-01-4	78

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	91
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	105

\* % Recovery is calculated using unrounded analytical results.

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/09SEP21.b/3090905.d  
Lab Smp Id: LCSD Client Smp ID: LCSD  
Inj Date : 09-SEP-2021 12:34  
Operator : LD Inst ID: msd3.i  
Smp Info : 50mL 3018-2169  
Misc Info : 50ppbv (200ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/09SEP21.b/321q0812b.m  
Meth Date : 09-Sep-2021 15:48 lk8g Quant Type: ISTD  
Cal Date : 02-SEP-2021 10:33 Cal File: 3090203.d  
Als bottle: 14 QC Sample: LCSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20LCS\_new.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
RT	EXP RT (REL RT)	MASS	RESPONSE	ON-COL ( PPBV)	FINAL ( PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane						CAS #: 74-97-5	
5.858	5.858 (1.000)	130	201014	25.0000		80.00- 120.00	100.00
5.858	5.858 (1.000)	128	154929			47.29- 107.29	77.07
5.858	5.858 (1.000)	49	321095			122.83- 182.83	159.74
-----							
* 108 1,4-Difluorobenzene						CAS #: 540-36-3	
6.750	6.750 (1.000)	114	745602	25.0000		80.00- 120.00	100.00
6.750	6.750 (1.000)	88	112894			0.00- 45.09	15.14
-----							
* 153 Chlorobenzene-d5						CAS #: 3114-55-4	
9.207	9.207 (1.000)	117	726122	25.0000		80.00- 120.00	100.00
9.207	9.207 (1.000)	82	390688			23.62- 83.62	53.80
-----							
\$ 104 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.404	6.404 (1.093)	65	254935	22.7631	22.763	80.00- 120.00	100.00
6.404	6.404 (1.093)	67	136621			20.51- 80.51	53.59
-----							
\$ 134 Toluene-d8						CAS #: 2037-26-5	
7.967	7.968 (1.180)	98	786413	26.1727	26.173	80.00- 120.00	100.00
7.967	7.968 (1.180)	70	90785			0.00- 42.00	11.54

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 134 Toluene-d8 (continued)								
7.967	7.968	(1.180)	100	530848			37.14- 97.14	67.50
-----								
\$ 170 4-Bromofluorobenzene								
							CAS #: 460-00-4	
10.195	10.195	(1.107)	174	470568	24.7862	24.786	80.00- 120.00	100.00
10.195	10.195	(1.107)	95	576211			92.25- 152.25	122.45
10.202	10.195	(1.108)	176	441333			63.07- 123.07	93.79
-----								
4 Freon 134a								
							CAS #: 811-97-2	
1.577	1.577	(0.269)	83	258454	44.3803	44.380	80.00- 120.00	100.00
1.577	1.577	(0.269)	69	222366			50.75- 110.75	86.04
1.577	1.577	(0.269)	51	53113			0.00- 49.76	20.55
-----								
5 Propylene								
							CAS #: 115-07-1	
1.618	1.619	(0.276)	41	263505	46.2473	46.247	80.00- 120.00	100.00
1.618	1.619	(0.276)	42	174831			36.66- 96.66	66.35
1.618	1.619	(0.276)	39	183103			44.11- 104.11	69.49
-----								
7 1,1-Difluoroethane								
							CAS #: 75-37-6	
1.632	1.633	(0.279)	65	164476	46.3052	46.305	80.00- 120.00	100.00
1.632	1.633	(0.279)	51	401611			217.13- 277.13	244.18
1.632	1.647	(0.279)	47	105323			48.77- 108.77	64.04
-----								
8 Freon 12								
							CAS #: 75-71-8	
1.660	1.661	(0.283)	85	674009	42.2671	42.267	80.00- 120.00	100.00
1.660	1.661	(0.283)	87	220911			2.35- 62.35	32.78
-----								
9 Chlorodifluoromethane								
							CAS #: 75-45-6	
1.688	1.689	(0.288)	67	66595	33.6636	33.664	80.00- 120.00	100.00(R)
1.688	1.689	(0.288)	51	541728			710.68- 770.68	813.47
-----								
10 Freon 114								
							CAS #: 76-14-2	
1.800	1.801	(0.307)	135	522887	43.1371	43.137	80.00- 120.00	100.00
1.800	1.801	(0.307)	137	171519			2.06- 62.06	32.80
-----								
12 Isobutane								
							CAS #: 75-28-5	
1.800	1.815	(0.307)	43	590437	45.7688	45.769	80.00- 120.00	100.00
1.800	1.815	(0.307)	42	194105			2.70- 62.70	32.87
1.800	1.801	(0.307)	58	20057			0.00- 33.44	3.40
-----								
15 Chloromethane								
							CAS #: 74-87-3	
1.884	1.884	(0.322)	50	288398	42.0040	42.004	80.00- 120.00	100.00
1.884	1.884	(0.322)	52	97620			3.38- 63.38	33.85
-----								
18 Butane								
							CAS #: 106-97-8	
1.968	1.968	(0.336)	58	58267	35.9944	35.994	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
18 Butane (continued)								
1.968	1.968	(0.336)	43	459573			760.51- 820.51	788.74
-----								
19 Vinyl Chloride					CAS #: 75-01-4			
2.010	2.010	(0.343)	62	292874	39.0929	39.093	80.00- 120.00	100.00
2.010	2.010	(0.343)	64	87685			0.32- 60.32	29.94
-----								
20 1,3-Butadiene					CAS #: 106-99-0			
2.038	2.052	(0.348)	54	278767	38.7655	38.766	80.00- 120.00	100.00
2.038	2.038	(0.348)	39	271364			72.94- 132.94	97.34
-----								
24 Bromomethane					CAS #: 74-83-9			
2.458	2.458	(0.420)	94	240566	43.0194	43.019	80.00- 120.00	100.00
2.458	2.458	(0.420)	96	226253			63.18- 123.18	94.05
-----								
30 Chloroethane					CAS #: 75-00-3			
2.598	2.598	(0.443)	64	152326	45.7587	45.759	80.00- 120.00	100.00
2.598	2.598	(0.443)	66	47025			1.10- 61.10	30.87
2.598	2.598	(0.443)	49	50440			5.46- 65.46	33.11
-----								
31 Isopentane					CAS #: 78-78-4			
2.626	2.626	(0.448)	43	395671	45.6101	45.610	80.00- 120.00	100.00
2.626	2.626	(0.448)	57	265593			36.12- 96.12	67.12
-----								
32 Vinyl Bromide					CAS #: 593-60-2			
2.836	2.836	(0.484)	106	261070	42.9779	42.978	80.00- 120.00	100.00
2.836	2.836	(0.484)	108	242767			63.01- 123.01	92.99
-----								
33 Freon 11					CAS #: 75-69-4			
2.892	2.892	(0.494)	101	744503	42.0132	42.013	80.00- 120.00	100.00
2.892	2.892	(0.494)	103	487784			36.55- 96.55	65.52
-----								
34 Dichlorofluoromethane					CAS #: 75-43-4			
2.906	2.906	(0.496)	67	591042	43.7811	43.781	80.00- 120.00	100.00
2.906	2.906	(0.496)	69	183926			1.82- 61.82	31.12
-----								
35 Pentane					CAS #: 109-66-0			
2.976	2.976	(0.508)	43	612112	42.7636	42.764	80.00- 120.00	100.00
2.976	2.976	(0.508)	57	93427			0.00- 45.52	15.26
2.976	2.976	(0.508)	72	48106			0.00- 38.25	7.86
-----								
38 Ethyl Ether					CAS #: 60-29-7			
3.325	3.326	(0.568)	74	131432	44.3250	44.325	80.00- 120.00	100.00
3.325	3.326	(0.568)	59	238719			143.51- 203.51	181.63
3.312	3.312	(0.565)	45	238216			143.53- 203.53	181.25
-----								

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
39 Ethanol					CAS #: 64-17-5			
3.270	3.270	(0.558)	46	58576	41.9750	41.975	80.00- 120.00	100.00
3.270	3.270	(0.558)	45	117732			213.29- 273.29	200.99
42 Acrolein					CAS #: 107-02-8			
3.577	3.591	(0.611)	55	110548	49.9258	49.926	80.00- 120.00	100.00
3.577	3.591	(0.611)	56	155658			104.02- 164.02	140.81
43 Freon 113					CAS #: 76-13-1			
3.591	3.591	(0.613)	151	518111	44.1688	44.169	80.00- 120.00	100.00
3.591	3.591	(0.613)	153	334956			34.03- 94.03	64.65
3.591	3.591	(0.613)	101	615989			89.72- 149.72	118.89
44 1,1-Dichloroethene					CAS #: 75-35-4			
3.619	3.619	(0.618)	96	287565	43.7090	43.709	80.00- 120.00	100.00
3.619	3.619	(0.618)	98	184482			32.85- 92.85	64.15
3.619	3.619	(0.618)	61	554591			165.91- 225.91	192.86
47 Acetone					CAS #: 67-64-1			
3.773	3.773	(0.644)	58	172154	46.3585	46.358	80.00- 120.00	100.00
3.773	3.773	(0.644)	43	554712			325.09- 385.09	322.22
48 Carbon Disulfide					CAS #: 75-15-0			
3.857	3.857	(0.658)	76	786226	46.8402	46.840	80.00- 120.00	100.00
49 Iodomethane					CAS #: 74-88-4			
3.829	3.829	(0.654)	142	752285	52.0730	52.073	80.00- 120.00	100.00
3.829	3.829	(0.654)	127	328572			16.98- 76.98	43.68
52 2-Propanol					CAS #: 67-63-0			
3.941	3.941	(0.673)	45	669828	46.7398	46.740	80.00- 120.00	100.00
3.941	3.941	(0.673)	43	127102			0.00- 49.76	18.98
54 3-Chloropropene					CAS #: 107-05-1			
4.109	4.109	(0.701)	76	129545	44.7310	44.731	80.00- 120.00	100.00
4.109	4.109	(0.701)	41	488405			344.92- 404.92	377.02
57 Acetonitrile					CAS #: 75-05-8			
4.221	4.221	(0.721)	41	299418	47.1028	47.103	80.00- 120.00	100.00
4.221	4.221	(0.721)	40	159765			24.08- 84.08	53.36
4.207	4.221	(0.718)	38	34545			0.00- 42.84	11.54
59 Methylene Chloride					CAS #: 75-09-2			
4.291	4.291	(0.732)	49	442627	47.3935	47.393	80.00- 120.00	100.00
4.291	4.291	(0.732)	84	257125			27.95- 87.95	58.09
4.291	4.291	(0.732)	51	137410			0.78- 60.78	31.04



CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		TARGET RANGE	RATIO		
				ON-COL	FINAL			( PPBV)	( PPBV)
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
62 tert-Butyl alcohol					CAS #: 75-65-0				
4.403	4.403	(0.752)	59	749231	45.2801	45.280	80.00- 120.00	100.00	
4.403	4.403	(0.752)	41	165339			0.00- 52.58	22.07	
4.403	4.403	(0.752)	57	81865			0.00- 40.94	10.93	
63 Methyl tert-butyl ether					CAS #: 1634-04-4				
4.515	4.515	(0.771)	73	822834	45.6235	45.624	80.00- 120.00	100.00	
4.515	4.515	(0.771)	57	248194			0.00- 58.27	30.16	
4.515	4.515	(0.771)	41	235818			0.00- 58.78	28.66	
64 trans-1,2-Dichloroethene					CAS #: 156-60-5				
4.543	4.543	(0.775)	98	195575	46.8132	46.813	80.00- 120.00	100.00	
4.543	4.543	(0.775)	61	525966			236.85- 296.85	268.93	
4.543	4.543	(0.775)	96	307585			126.72- 186.72	157.27	
66 Acrylonitrile					CAS #: 107-13-1				
4.655	4.655	(0.795)	52	251592	45.5509	45.551	80.00- 120.00	100.00	
4.655	4.655	(0.795)	53	303261			88.92- 148.92	120.54	
67 Hexane					CAS #: 110-54-3				
4.753	4.753	(0.811)	57	612814	50.3510	50.351	80.00- 120.00	100.00	
4.753	4.753	(0.811)	43	402614			36.74- 96.74	65.70	
4.753	4.753	(0.811)	86	75782			0.00- 43.22	12.37	
71 1,1-Dichloroethane					CAS #: 75-34-3				
5.046	5.047	(0.861)	63	603130	46.7736	46.774	80.00- 120.00	100.00	
5.046	5.047	(0.861)	65	182650			0.56- 60.56	30.28	
72 Isopropyl ether					CAS #: 108-20-3				
5.019	5.019	(0.857)	45	1335496	50.1434	50.143	80.00- 120.00	100.00	
5.019	5.019	(0.857)	87	271567			0.00- 51.44	20.33	
5.019	5.019	(0.857)	59	145016			0.00- 40.81	10.86	
73 Vinyl Acetate					CAS #: 108-05-4				
5.074	5.075	(0.866)	86	78823	49.3412	49.341	80.00- 120.00	100.00	
5.074	5.075	(0.866)	43	1145036			1473.01-1533.01	1452.66	
79 Ethyl-tert-butyl ether					CAS #: 637-92-3				
5.382	5.382	(0.919)	59	1204508	49.6646	49.665	80.00- 120.00	100.00	
5.382	5.382	(0.919)	87	405901			4.28- 64.28	33.70	
5.382	5.382	(0.919)	41	235125			0.00- 49.94	19.52	
84 2,2-Dichloropropane					CAS #: 594-20-7				
5.592	5.592	(0.955)	77	559206	45.8900	45.890	80.00- 120.00	100.00	
5.592	5.592	(0.955)	79	181353			2.43- 62.43	32.43	
5.592	5.592	(0.955)	97	135543			0.00- 53.03	24.24	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
85 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.620	5.620	(0.959)	98	216975	48.9775	48.977	80.00- 120.00	100.00
5.620	5.620	(0.959)	96	328403			121.91- 181.91	151.36
5.620	5.620	(0.959)	61	747271			313.72- 373.72	344.40
86 2-Butanone					CAS #: 78-93-3			
5.648	5.648	(0.964)	72	156463	48.2516	48.252	80.00- 120.00	100.00
5.648	5.648	(0.964)	43	1787109			1111.25-1171.25	1142.19
5.648	5.648	(0.964)	57	64908			11.22- 71.22	41.48
87 Ethyl Acetate					CAS #: 141-78-6			
5.662	5.662	(0.967)	45	147532	48.5629	48.563	80.00- 120.00	100.00
5.620	5.620	(0.959)	61	747271			469.17- 529.17	506.52
5.662	5.662	(0.967)	70	84193			29.38- 89.38	57.07
89 Tetrahydrofuran					CAS #: 109-99-9			
5.844	5.844	(0.998)	42	497154	50.3966	50.396	80.00- 120.00	100.00
5.844	5.844	(0.998)	71	142931			0.09- 60.09	28.75
5.844	5.844	(0.998)	72	150355			2.13- 62.13	30.24
92 Chloroform					CAS #: 67-66-3			
5.914	5.914	(1.010)	83	668457	47.0160	47.016	80.00- 120.00	100.00
5.914	5.914	(1.010)	85	430669			34.29- 94.29	64.43
94 Cyclohexane					CAS #: 110-82-7			
6.026	6.026	(1.029)	84	434762	49.9532	49.953	80.00- 120.00	100.00
6.026	6.026	(1.029)	56	673545			116.85- 176.85	154.92
6.026	6.026	(1.029)	41	371922			57.77- 117.77	85.55
96 1,1,1-Trichloroethane					CAS #: 71-55-6			
6.054	6.054	(1.033)	97	702658	45.5286	45.528	80.00- 120.00	100.00
6.054	6.054	(1.033)	99	451333			34.55- 94.55	64.23
97 Carbon Tetrachloride					CAS #: 56-23-5			
6.166	6.166	(1.053)	119	737797	48.8656	48.866	80.00- 120.00	100.00
6.166	6.166	(1.053)	117	767269			74.20- 134.20	103.99
99 1,1-Dichloropropene					CAS #: 563-58-6			
6.194	6.194	(0.918)	110	185956	48.5064	48.506	80.00- 120.00	100.00
6.194	6.194	(0.918)	75	482137			229.39- 289.39	259.27
101 2,2,4-Trimethylpentane					CAS #: 540-84-1			
6.348	6.362	(1.084)	57	2100697	54.0119	54.012	80.00- 120.00	100.00
6.348	6.362	(1.084)	56	691560			1.14- 61.14	32.92
6.348	6.348	(1.084)	41	538657			0.00- 59.12	25.64

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
102 Benzene					CAS #: 71-43-2			
6.390	6.376	(0.947)	78	943234	48.7745	48.774	80.00- 120.00	100.00
6.390	6.376	(0.947)	77	220148			0.00- 53.48	23.34
-----								
105 tert-Amyl methyl ether					CAS #: 994-05-8			
6.432	6.432	(0.953)	87	243915	48.5439	48.544	80.00- 120.00	100.00
6.432	6.432	(0.953)	73	958739			363.80- 423.80	393.06
6.432	6.432	(0.953)	55	327275			97.13- 157.13	134.18
-----								
106 1,2-Dichloroethane					CAS #: 107-06-2			
6.474	6.460	(0.959)	62	501404	43.5008	43.501	80.00- 120.00	100.00
6.474	6.460	(0.959)	64	156314			1.41- 61.41	31.18
-----								
107 Heptane					CAS #: 142-82-5			
6.516	6.516	(0.965)	71	315970	41.9808	41.981	80.00- 120.00	100.00
6.516	6.516	(0.965)	43	713045			146.45- 206.45	225.67
6.516	6.516	(0.965)	57	417755			90.20- 150.20	132.21
-----								
110 n-Butanol					CAS #: 71-36-3			
6.886	6.886	(1.020)	56	350370	52.5153	52.515	80.00- 120.00	100.00
6.886	6.886	(1.020)	41	252296			44.46- 104.46	72.01
6.886	6.886	(1.020)	43	203866			28.14- 88.14	58.19
-----								
111 Trichloroethene					CAS #: 79-01-6			
6.950	6.950	(1.030)	95	471793	49.9077	49.908	80.00- 120.00	100.00
6.950	6.950	(1.030)	130	513541			79.68- 139.68	108.85
6.950	6.943	(1.030)	97	305497			34.74- 94.74	64.75
-----								
114 1,2-Dichloropropane					CAS #: 78-87-5			
7.187	7.187	(1.065)	63	457134	52.8091	52.809	80.00- 120.00	100.00
7.187	7.187	(1.065)	62	319642			40.55- 100.55	69.92
7.187	7.187	(1.065)	41	258308			36.07- 96.07	56.51
-----								
116 Methyl Methacrylate					CAS #: 80-62-6			
7.230	7.230	(0.785)	69	374033	48.1695	48.169	80.00- 120.00	100.00
7.230	7.230	(0.785)	41	692876			160.67- 220.67	185.24
7.230	7.230	(0.785)	100	154106			11.33- 71.33	41.20
-----								
117 1,4-Dioxane					CAS #: 123-91-1			
7.265	7.266	(1.076)	88	241118	44.4887	44.489	80.00- 120.00	100.00
7.265	7.266	(1.076)	58	218056			56.19- 116.19	90.44
7.265	7.266	(1.076)	57	70922			0.00- 59.32	29.41
-----								
118 Dibromomethane					CAS #: 74-95-3			
7.294	7.294	(0.792)	174	434636	47.3938	47.394	80.00- 120.00	100.00
7.294	7.294	(0.792)	93	412277			66.88- 126.88	94.86

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)			
==	=====	=====	=====	=====	=====	=====	=====	=====
118 Dibromomethane (continued)								
7.294	7.294	(0.792)	95	346490			49.90- 109.90	79.72
-----								
122 Bromodichloromethane						CAS #: 75-27-4		
7.409	7.409	(1.098)	83	760244	48.0865	48.086	80.00- 120.00	100.00
7.409	7.409	(1.098)	85	492108			33.85- 93.85	64.73
-----								
126 cis-1,3-Dichloropropene						CAS #: 10061-01-5		
7.781	7.781	(1.153)	75	612853	50.9057	50.906	80.00- 120.00	100.00
7.781	7.781	(1.153)	77	196669			1.50- 61.50	32.09
7.781	7.781	(1.153)	39	394981			43.12- 103.12	64.45
-----								
127 Methylcyclohexane						CAS #: 108-87-2		
7.051	7.051	(1.045)	83	609702	51.0977	51.098	80.00- 120.00	100.00
7.051	7.051	(1.045)	98	283020			17.10- 77.10	46.42
7.051	7.051	(1.045)	55	637230			71.11- 131.11	104.52
-----								
131 4-Methyl-2-pentanone						CAS #: 108-10-1		
7.889	7.889	(1.169)	58	412788	49.1916	49.192	80.00- 120.00	100.00
7.889	7.889	(1.169)	43	1118116			247.84- 307.84	270.87
7.889	7.889	(1.169)	85	146057			8.73- 68.73	35.38
-----								
137 Toluene						CAS #: 108-88-3		
8.025	8.025	(1.189)	91	1319321	51.3413	51.341	80.00- 120.00	100.00
8.025	8.025	(1.189)	92	776749			28.13- 88.13	58.87
-----								
136 Octane						CAS #: 111-65-9		
8.010	8.011	(1.187)	57	477289	55.2225	55.222	80.00- 120.00	100.00
8.010	8.011	(1.187)	85	431698			67.77- 127.77	90.45
8.010	8.011	(1.187)	43	1207451			225.27- 285.27	252.98
-----								
139 trans-1,3-Dichloropropene						CAS #: 10061-02-6		
8.254	8.254	(0.897)	75	590282	48.0483	48.048	80.00- 120.00	100.00
8.254	8.254	(0.897)	77	187756			1.93- 61.93	31.81
8.254	8.254	(0.897)	39	364451			38.37- 98.37	61.74
-----								
141 1,1,2-Trichloroethane						CAS #: 79-00-5		
8.419	8.412	(0.914)	97	458217	49.9783	49.978	80.00- 120.00	100.00
8.419	8.412	(0.914)	99	283291			31.66- 91.66	61.82
8.412	8.412	(0.914)	83	396752			55.24- 115.24	86.59
-----								
142 Tetrachloroethene						CAS #: 127-18-4		
8.462	8.462	(0.919)	166	662882	49.5760	49.576	80.00- 120.00	100.00
8.462	8.462	(0.919)	129	520722			48.51- 108.51	78.55
8.462	8.462	(0.919)	131	498895			45.64- 105.64	75.26
-----								

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	ON-COL		FINAL	TARGET RANGE	RATIO
				RESPONSE	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
143 2-Hexanone						CAS #: 591-78-6		
8.576	8.576	(0.932)	58	567313	43.9071	43.907	80.00- 120.00	100.00
8.576	8.576	(0.932)	43	1110223			169.24- 229.24	195.70
8.576	8.576	(0.932)	100	100288			0.00- 48.72	17.68
-----								
144 1,3-Dichloropropane						CAS #: 142-28-9		
8.562	8.562	(1.268)	76	625331	49.2546	49.254	80.00- 120.00	100.00
8.569	8.569	(1.270)	41	725900			96.83- 156.83	116.08
8.562	8.562	(1.268)	78	203437			2.46- 62.46	32.53
-----								
146 Dibromochloromethane						CAS #: 124-48-1		
8.734	8.734	(0.949)	129	906350	49.5470	49.547	80.00- 120.00	100.00
8.734	8.734	(0.949)	127	707045			47.05- 107.05	78.01
-----								
148 1,2-Dibromoethane (EDB)						CAS #: 106-93-4		
8.856	8.856	(0.962)	107	733482	49.1095	49.109	80.00- 120.00	100.00
8.856	8.856	(0.962)	109	690094			64.74- 124.74	94.08
-----								
151 1-Bromo-2-Chloroethane						CAS #: 107-04-0		
7.702	7.702	(1.141)	63	850699	54.8657	54.866	80.00- 120.00	100.00
7.702	7.702	(1.141)	65	252226			0.05- 60.05	29.65
7.702	7.702	(1.141)	144	86456			0.00- 40.91	10.16
-----								
154 Chlorobenzene						CAS #: 108-90-7		
9.235	9.228	(1.003)	112	1155670	50.7385	50.738	80.00- 120.00	100.00
9.228	9.228	(1.002)	114	367551			2.19- 62.19	31.80
9.228	9.228	(1.002)	77	616832			23.66- 83.66	53.37
-----								
155 Ethyl Benzene						CAS #: 100-41-4		
9.278	9.278	(1.008)	106	580992	51.5066	51.507	80.00- 120.00	100.00
9.278	9.278	(1.008)	91	1804991			282.43- 342.43	310.67
-----								
156 Nonane						CAS #: 111-84-2		
9.278	9.278	(1.008)	43	1301040	57.2397	57.240	80.00- 120.00	100.00
9.278	9.278	(1.008)	57	1105940			55.73- 115.73	85.00
9.278	9.278	(1.008)	85	346209			0.00- 58.99	26.61
-----								
157 1,1,1,2-Tetrachloroethane						CAS #: 630-20-6		
9.293	9.300	(1.009)	131	547974	43.3664	43.366	80.00- 120.00	100.00
9.207	9.207	(1.000)	117	726122			38.22- 98.22	132.51
9.293	9.293	(1.009)	95	194495			7.54- 67.54	35.49
-----								
158 m,p-Xylene						CAS #: 108-38-3		
9.371	9.371	(1.018)	106	721092	52.0503	52.050	80.00- 120.00	100.00
9.371	9.371	(1.018)	91	1447109			169.66- 229.66	200.68
-----								

CONCENTRATIONS									
RT	EXP RT	(REL RT)	MASS	RESPONSE		ON-COL	FINAL	TARGET RANGE	RATIO
				( PPBV)	( PPBV)	( PPBV)	( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
164 o-Xylene						CAS #: 95-47-6			
9.722	9.722	(1.056)	106	674199	51.3234	51.323		80.00- 120.00	100.00
9.722	9.722	(1.056)	91	1417758				180.55- 240.55	210.29
-----									
165 Styrene						CAS #: 100-42-5			
9.737	9.737	(1.058)	104	1172500	51.5439	51.544		80.00- 120.00	100.00
9.737	9.737	(1.058)	78	545717				18.65- 78.65	46.54
-----									
167 Bromoform						CAS #: 75-25-2			
9.944	9.945	(1.080)	173	871546	50.2272	50.227		80.00- 120.00	100.00
9.944	9.945	(1.080)	171	444857				21.64- 81.64	51.04
-----									
168 Cumene						CAS #: 98-82-8			
10.009	10.009	(1.087)	105	2121077	50.8350	50.835		80.00- 120.00	100.00
10.009	10.009	(1.087)	120	575850				0.00- 57.04	27.15
10.009	10.002	(1.087)	51	256195				0.00- 41.95	12.08
-----									
169 Cyclohexanone						CAS #: 108-94-1			
10.181	10.181	(1.106)	55	666124	35.1437	35.144		80.00- 120.00	100.00
10.181	10.181	(1.106)	98	234215				8.59- 68.59	35.16
10.181	10.181	(1.106)	42	470518				46.18- 106.18	70.64
-----									
175 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5			
10.317	10.317	(1.121)	83	1023838	50.3354	50.335		80.00- 120.00	100.00
10.317	10.317	(1.121)	85	657482				34.44- 94.44	64.22
-----									
177 Bromobenzene						CAS #: 108-86-1			
10.338	10.338	(1.123)	156	683587	51.5278	51.528		80.00- 120.00	100.00
10.338	10.338	(1.123)	158	660685				67.20- 127.20	96.65
10.338	10.338	(1.123)	77	1126011				131.36- 191.36	164.72
-----									
178 Propylbenzene						CAS #: 103-65-1			
10.360	10.360	(1.125)	120	604272	50.4507	50.451		80.00- 120.00	100.00
10.360	10.353	(1.125)	91	2556983	51.6907	51.691		385.23- 445.23	423.15
10.360	10.360	(1.125)	105	96059				0.00- 46.02	15.90
-----									
179 1,2,3-Trichloropropane						CAS #: 96-18-4			
10.381	10.381	(1.128)	110	324509	49.6052	49.605		80.00- 120.00	100.00
10.381	10.381	(1.128)	75	1181655				301.57- 361.57	364.14
10.381	10.381	(1.128)	61	283662				54.32- 114.32	87.41
-----									
181 trans-1,4-Dichloro-2-butene						CAS #: 110-57-6			
10.374	10.374	(1.127)	53	339451	65.1603	65.160		80.00- 120.00	100.00(R)
10.374	10.374	(1.127)	89	223078				40.38- 100.38	65.72
10.381	10.381	(1.128)	75	1181655				394.61- 454.61	348.11
-----									

CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
182 Decane					CAS #: 124-18-5			
10.396	10.396	(1.129)	57	1426230	52.3526	52.352	80.00- 120.00	100.00
10.396	10.396	(1.129)	71	446935			2.98- 62.98	31.34
10.396	10.396	(1.129)	142	67502			0.00- 35.12	4.73
-----								
183 4-Ethyltoluene					CAS #: 622-96-8			
10.453	10.453	(1.135)	120	668933	51.7280	51.728	80.00- 120.00	100.00
10.453	10.453	(1.135)	105	2171957			295.29- 355.29	324.69
-----								
184 2-Chlorotoluene					CAS #: 95-49-8			
10.482	10.482	(1.138)	126	541889	50.3983	50.398	80.00- 120.00	100.00
10.482	10.482	(1.138)	91	1932238			325.01- 385.01	356.57
10.482	10.482	(1.138)	65	253932			19.90- 79.90	46.86
-----								
185 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
10.503	10.503	(1.141)	120	922254	51.1248	51.125	80.00- 120.00	100.00
10.503	10.503	(1.141)	105	1884215			176.14- 236.14	204.31
-----								
188 alpha Methyl Styrene					CAS #: 98-83-9			
10.704	10.704	(1.163)	118	936199	52.0913	52.091	80.00- 120.00	100.00
10.704	10.704	(1.163)	103	526356			26.69- 86.69	56.22
-----								
189 tert-Butylbenzene					CAS #: 98-06-6			
10.782	10.783	(1.171)	119	1733244	51.3000	51.300	80.00- 120.00	100.00
10.782	10.783	(1.171)	134	432608			0.00- 54.52	24.96
10.782	10.783	(1.171)	91	1108657			34.68- 94.68	63.96
-----								
190 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
10.833	10.833	(1.177)	105	1838147	52.5029	52.503	80.00- 120.00	100.00
10.833	10.833	(1.177)	120	863930			17.12- 77.12	47.00
-----								
192 sec-Butylbenzene					CAS #: 135-98-8			
10.969	10.969	(1.191)	134	557259	49.9393	49.939	80.00- 120.00	100.00
10.969	10.969	(1.191)	105	2664367			438.96- 498.96	478.12
10.969	10.969	(1.191)	91	412401			44.37- 104.37	74.01
-----								
194 p-Cymene					CAS #: 99-87-6			
11.083	11.083	(1.204)	119	2357699	51.3054	51.305	80.00- 120.00	100.00
11.083	11.083	(1.204)	134	629989			0.00- 56.91	26.72
11.076	11.076	(1.203)	91	535668			0.00- 53.86	22.72
-----								
195 1,3-Dichlorobenzene					CAS #: 541-73-1			
11.133	11.134	(1.209)	146	1281658	51.3360	51.336	80.00- 120.00	100.00
11.133	11.134	(1.209)	148	810308			33.78- 93.78	63.22
11.126	11.126	(1.208)	111	521854			11.40- 71.40	40.72

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL ( PPBV)	FINAL ( PPBV)		
==	=====	=====	=====	=====	=====	=====	=====	=====
196 1,4-Dichlorobenzene					CAS #: 106-46-7			
11.212	11.212	(1.218)	146	1293242	50.8523	50.852	80.00- 120.00	100.00
11.212	11.212	(1.218)	148	818949			33.73- 93.73	63.33
11.212	11.212	(1.218)	111	515181			9.40- 69.40	39.84
-----								
199 alpha-Chlorotoluene					CAS #: 100-44-7			
11.327	11.327	(1.230)	91	1774747	51.2503	51.250	80.00- 120.00	100.00
11.327	11.327	(1.230)	126	401112			0.00- 52.58	22.60
-----								
201 Undecane					CAS #: 1120-21-4			
11.398	11.399	(1.238)	57	1733082	56.6211	56.621	80.00- 120.00	100.00
11.398	11.399	(1.238)	43	1565838			62.03- 122.03	90.35
-----								
202 Butylbenzene					CAS #: 104-51-8			
11.434	11.434	(1.242)	134	619172	50.3624	50.362	80.00- 120.00	100.00
11.434	11.434	(1.242)	91	2170854			322.91- 382.91	350.61
11.434	11.434	(1.242)	92	1156909			155.43- 215.43	186.85
-----								
204 1,2-Dichlorobenzene					CAS #: 95-50-1			
11.549	11.549	(1.254)	146	1221183	50.4963	50.496	80.00- 120.00	100.00
11.549	11.549	(1.254)	148	773971			33.66- 93.66	63.38
11.542	11.549	(1.254)	111	518955			12.36- 72.36	42.50
-----								
206 1,2-Dibromo-3-chloropropane					CAS #: 96-12-8			
12.258	12.258	(1.331)	157	711355	47.8449	47.845	80.00- 120.00	100.00
12.251	12.251	(1.331)	75	596854			56.77- 116.77	83.90
12.258	12.258	(1.331)	155	554754			48.17- 108.17	77.99
-----								
207 Dodecane					CAS #: 112-40-3			
12.358	12.351	(1.342)	57	1849583	67.6782	67.678	80.00- 120.00	100.00(R)
12.358	12.351	(1.342)	43	1564871			56.62- 116.62	84.61
-----								
213 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
13.039	13.039	(1.416)	180	1146403	60.9620	60.962	80.00- 120.00	100.00
13.039	13.039	(1.416)	182	1098480			64.88- 124.88	95.82
-----								
215 Hexachlorobutadiene					CAS #: 87-68-3			
13.125	13.132	(1.426)	225	895970	65.9779	65.978	80.00- 120.00	100.00
13.132	13.132	(1.426)	223	570753			33.46- 93.46	63.70
-----								
216 Naphthalene					CAS #: 91-20-3			
13.340	13.340	(1.449)	128	278121	5.36767	5.368	80.00- 120.00	100.00
13.340	13.340	(1.449)	127	36077			0.00- 43.71	12.97
-----								
222 1,2,3-Trichlorobenzene					CAS #: 87-61-6			
13.612	13.612	(1.478)	180	1069387	61.2139	61.214	80.00- 120.00	100.00



RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	=====	=====	=====	=====
222 1,2,3-Trichlorobenzene (continued)								
13.612	13.612	(1.478)	182	1019442			66.23- 126.23	95.33
13.612	13.612	(1.478)	145	387662			5.93- 65.93	36.25

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QC Flag Legend

R - Spike/Surrogate failed recovery limits.

US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 09-SEP-2021
Lab File ID: 3090905.d	Calibration Time: 11:39
Lab Smp Id: LCSD	Client Smp ID: LCSD
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/09SEP21.b/321q0812b.m	
Misc Info: 50ppbv (200ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	194770	116862	272678	201014	3.21
108 1,4-Difluorobenze	712592	427555	997629	745602	4.63
153 Chlorobenzene-d5	710524	426314	994734	726122	2.20

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

US32TAR1

RECOVERY REPORT

Client Name: Client SDG: 09SEP21  
 Sample Matrix: GAS Fraction: VOA  
 Lab Smp Id: LCSD Client Smp ID: LCSD  
 Level: LOW Operator: LD  
 Data Type: MS DATA SampleType: LCSD  
 SpikeList File: AT20\_new.spk Quant Type: ISTD  
 Sublist File: AT20LCS\_new.sub  
 Method File: /chem/msd3.i/09SEP21.b/321q0812b.m  
 Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
4 Freon 134a	50.000	44.380	88.76	70-130
5 Propylene	50.000	46.247	92.49	70-130
7 1,1-Difluoroethan	50.000	46.305	92.61	70-130
8 Freon 12	50.000	42.267	84.53	70-130
9 Chlorodifluoromet	50.000	33.664	67.33*	70-130
10 Freon 114	50.000	43.137	86.27	70-130
12 Isobutane	50.000	45.769	91.54	70-130
15 Chloromethane	50.000	42.004	84.01	70-130
18 Butane	50.000	35.994	71.99	70-130
19 Vinyl Chloride	50.000	39.093	78.19	70-130
20 1,3-Butadiene	50.000	38.766	77.53	70-130
24 Bromomethane	50.000	43.019	86.04	70-130
30 Chloroethane	50.000	45.759	91.52	70-130
31 Isopentane	50.000	45.610	91.22	70-130
32 Vinyl Bromide	50.000	42.978	85.96	70-130
33 Freon 11	50.000	42.013	84.03	70-130
34 Dichlorofluoromet	50.000	43.781	87.56	70-130
35 Pentane	50.000	42.764	85.53	70-130
38 Ethyl Ether	50.000	44.325	88.65	70-130
39 Ethanol	58.000	41.975	72.37	70-130
42 Acrolein	58.000	49.926	86.08	70-130
43 Freon 113	50.000	44.169	88.34	70-130
44 1,1-Dichloroethen	50.000	43.709	87.42	70-130
47 Acetone	50.000	46.358	92.72	70-130
48 Carbon Disulfide	50.000	46.840	93.68	70-130
49 Iodomethane	50.000	52.073	104.15	70-130
52 2-Propanol	50.000	46.740	93.48	70-130
54 3-Chloropropene	50.000	44.731	89.46	70-130
57 Acetonitrile	50.000	47.103	94.21	70-130
59 Methylene Chlorid	50.000	47.393	94.79	70-130
62 tert-Butyl alcoho	50.000	45.280	90.56	70-130
63 Methyl tert-butyl	50.000	45.624	91.25	70-130
64 trans-1,2-Dichlor	50.000	46.813	93.63	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
66 Acrylonitrile	50.000	45.551	91.10	70-130
67 Hexane	50.000	50.351	100.70	70-130
71 1,1-Dichloroethan	50.000	46.774	93.55	70-130
72 Isopropyl ether	50.000	50.143	100.29	70-130
73 Vinyl Acetate	50.000	49.341	98.68	70-130
79 Ethyl-tert-butyl	50.000	49.665	99.33	70-130
84 2,2-Dichloropropa	50.000	45.890	91.78	70-130
85 cis-1,2-Dichloroe	50.000	48.977	97.95	70-130
86 2-Butanone	50.000	48.252	96.50	70-130
87 Ethyl Acetate	50.000	48.563	97.13	70-130
89 Tetrahydrofuran	50.000	50.396	100.79	70-130
92 Chloroform	50.000	47.016	94.03	70-130
94 Cyclohexane	50.000	49.953	99.91	70-130
96 1,1,1-Trichloroet	50.000	45.528	91.06	70-130
99 1,1-Dichloroprop	50.000	48.506	97.01	70-130
97 Carbon Tetrachlor	50.000	48.866	97.73	70-130
101 2,2,4-Trimethylpe	50.000	54.012	108.02	70-130
102 Benzene	50.000	48.774	97.55	70-130
105 tert-Amyl methyl	50.000	48.544	97.09	70-130
106 1,2-Dichloroethan	50.000	43.501	87.00	70-130
107 Heptane	50.000	41.981	83.96	70-130
110 n-Butanol	50.000	52.515	105.03	70-130
111 Trichloroethene	50.000	49.908	99.82	70-130
118 Dibromomethane	50.000	47.394	94.79	70-130
127 Methylcyclohexane	50.000	51.098	102.20	70-130
114 1,2-Dichloropropa	50.000	52.809	105.62	70-130
116 Methyl Methacryla	50.000	48.169	96.34	70-130
117 1,4-Dioxane	50.000	44.489	88.98	70-130
122 Bromodichlorometh	50.000	48.086	96.17	70-130
126 cis-1,3-Dichlorop	50.000	50.906	101.81	70-130
131 4-Methyl-2-pentan	50.000	49.192	98.38	70-130
136 Octane	50.000	55.222	110.44	70-130
137 Toluene	50.000	51.341	102.68	70-130
139 trans-1,3-Dichlor	50.000	48.048	96.10	70-130
141 1,1,2-Trichloroet	50.000	49.978	99.96	70-130
142 Tetrachloroethene	50.000	49.576	99.15	70-130
143 2-Hexanone	50.000	43.907	87.81	70-130
144 1,3-Dichloropropa	50.000	49.254	98.51	70-130
146 Dibromochlorometh	50.000	49.547	99.09	70-130
148 1,2-Dibromoethane	50.000	49.109	98.22	70-130
151 1-Bromo-2-Chloroe	50.000	54.866	109.73	70-130
154 Chlorobenzene	50.000	50.738	101.48	70-130
155 Ethyl Benzene	50.000	51.507	103.01	70-130
156 Nonane	50.000	57.240	114.48	70-130
157 1,1,1,2-Tetrachlo	50.000	43.366	86.73	70-130
158 m,p-Xylene	50.000	52.050	104.10	70-130
164 o-Xylene	50.000	51.323	102.65	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
165 Styrene	50.000	51.544	103.09	70-130
167 Bromoform	50.000	50.227	100.45	70-130
168 Cumene	50.000	50.835	101.67	70-130
169 Cyclohexanone	50.000	35.144	70.29	70-130
175 1,1,2,2-Tetrachlo	50.000	50.335	100.67	70-130
177 Bromobenzene	50.000	51.528	103.06	70-130
178 Propylbenzene	50.000	50.451	100.90	70-130
179 1,2,3-Trichloropr	50.000	49.605	99.21	70-130
181 trans-1,4-Dichlor	50.000	65.160	130.32*	70-130
182 Decane	50.000	52.352	104.71	70-130
183 4-Ethyltoluene	50.000	51.728	103.46	70-130
184 2-Chlorotoluene	50.000	50.398	100.80	70-130
185 1,3,5-Trimethylbe	50.000	51.125	102.25	70-130
188 alpha Methyl Styr	50.000	52.091	104.18	70-130
189 tert-Butylbenzene	50.000	51.300	102.60	70-130
190 1,2,4-Trimethylbe	50.000	52.503	105.01	70-130
192 sec-Butylbenzene	50.000	49.939	99.88	70-130
194 p-Cymene	50.000	51.305	102.61	70-130
195 1,3-Dichlorobenze	50.000	51.336	102.67	70-130
196 1,4-Dichlorobenze	50.000	50.852	101.70	70-130
199 alpha-Chlorotolue	50.000	51.250	102.50	70-130
201 Undecane	50.000	56.621	113.24	70-130
202 Butylbenzene	50.000	50.362	100.72	70-130
204 1,2-Dichlorobenze	50.000	50.496	100.99	70-130
206 1,2-Dibromo-3-chl	50.000	47.845	95.69	70-130
207 Dodecane	50.000	67.678	135.36*	70-130
213 1,2,4-Trichlorobe	58.000	60.962	105.11	70-130
215 Hexachlorobutadie	58.000	65.978	113.76	70-130
216 Naphthalene	5.800	5.368	92.55	60-140
222 1,2,3-Trichlorobe	58.000	61.214	105.54	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 104 1,2-Dichloroethan	25.000	22.763	91.05	70-130
\$ 134 Toluene-d8	25.000	26.173	104.69	70-130
\$ 170 4-Bromofluorobenz	25.000	24.786	99.14	70-130

Date : 09-SEP-2021 12:34

Client ID: LCSD

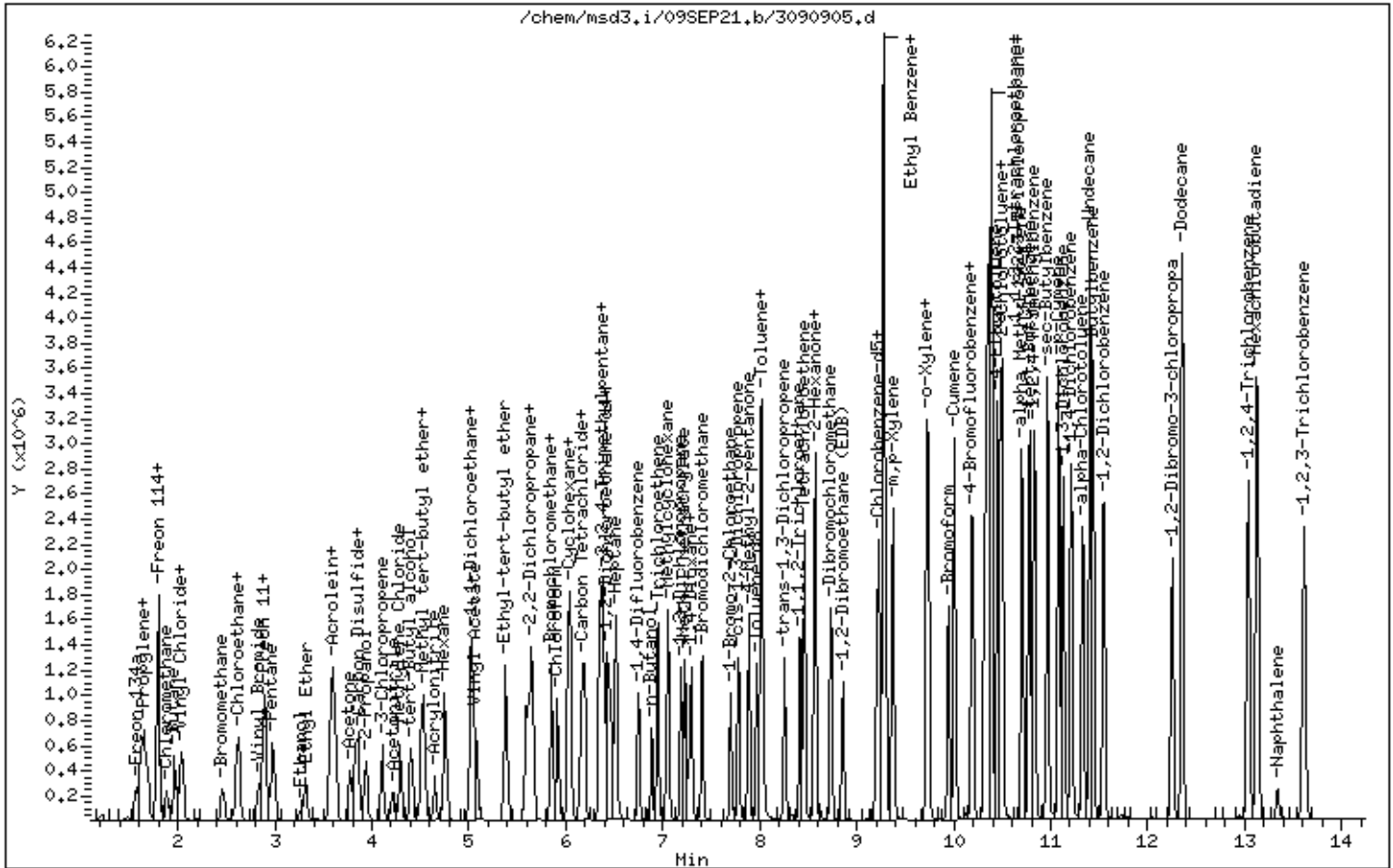
Instrument: msd3,i

Sample Info: 50mL 3018-2169

Operator: LD

Column phase: RTX-624

Column diameter: 0.25



		MSD3		Method TO-15/TO-14	
				SOP# 6	
				NA	
BFB Tune Verification: (235648/253184) * 100 =93.07%					
BCM	3234-66	Exp. Date:	11/2/2021	Surrogate # 3234-66	Exp. Date:
				3018-2213A	11/6/2021
1,4-DB		194770		CCV	LCS
CB-d5		710524		CCV SP 1 #	3018-2169
				CCV SP 2 #	NA
				CCV SP 3 #	NA
				CCV SP 4 #	NA
Verified CCV vs. ICal midpoint (-40%)-LD					
Method: 321q0812b.m					

Use	File #	Enter/Scan Sample IDs	Canister#	Cart Pos.	Pressure	Amount	DF	Verify Load	Loaded Init.	Date Analyzed	Time	Review Init	Comments
✓	3090902	BFB Tune Check	3234-66	12	36mg	200ml	1.00	LD	LD	09/09/21	1053	LD	Exp. 11/2/21. Apex +1, Scan 894, leg validation
✓	3090903	CCV	3018-2213A	13	50ppbv (100ppbv)	100ml	1.00	LD	LD	09/09/21	1139	LD	Exp. 11/6/21; 3 out AT-20
✓	3090904	LCS	3018-2169	14	50ppbv (200ppbv)	50ml	1.00	LD	LD	09/09/21	1207	LD	Exp. 10/25/21; 1 out AT-12, 1 out AT-20
✓	3090905	LCS	3018-2169	14	50ppbv (200ppbv)	50ml	1.00	LD	LD	09/09/21	1234	LD	Exp. 10/25/21; RPD ok
✓	3090906	CCV/SP	3018-2127A	11	50ppbv (100ppbv)	100ml	1.00	LD	LD	09/09/21	1302	LD	Exp. 9/26/21; 0 out
✓	3090907	TPHg Calib	3234-83	12	500ppbv (1250ppbv)	80ml	1.00	LD	LD	09/09/21	1328	LD	Exp. 12/1/21.
✓	3090908	Lab Blank	35157	12	Humid	200ml	1.00	LD	LD	09/09/21	1433	LD	leg validation
✓	3090909	2109088-01A	N5112	1	3.5 Hg->9.8 psi	200ml	1.89	DF	LD	09/09/21	1550	DF	
✓	3090910	2109088-02A	N3122	2	4.3 Hg->9.9 psi	200ml	1.95	DF	LD	09/09/21	1619	DF	inf > eff
✓	3090911	2109082-13A	O0715	3	3.1 Hg->9.9 psi	200ml	1.87	DF	LD	09/09/21	1649	DF	
✓	3090912	2109082-14A	O0772	4	3.9 Hg->9.9 psi	200ml	1.92	DF	LD	09/09/21	1718	DF	
✓	3090913	2109082-12A	3038	5	3.9 Hg->10 psi	50ml	7.72	DF	LD	09/09/21	1745	DF	dil TC
✓	3090914	2109117-01A	N3901	6	4.7 Hg->10.1 psi	200ml	2.00	DF	LD	09/09/21	1815	DF	
✓	3090915	2109117-02A	N2618	7	3.7 Hg->9.8 psi	200ml	1.90	DF	LD	09/09/21	1844	DF	
✓	3090916	2109117-03A	N3846	8	6.5 Hg->10 psi	200ml	2.14	DF	LD	09/09/21	1913	DF	
✓	3090917	2108676R-02A	O0843	9	7.3 Hg->10 psi	200ml	2.22	DF	LD	09/09/21	1942	DF	

MS 9/14/21

US32TAR1

Data file : /chem/msd3.i/12AUG21.b/3081201.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 12-AUG-2021 15:23  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL #3234-66;BFB;BFB  
 Misc Info : 36ng  
 Comment :  
 Method : /chem/msd3.i/12AUG21.b/bfb30.m  
 Meth Date : 03-Sep-2019 11:54 u7js Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 12 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
ON-COL FINAL									
RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
1 bfb					CAS #: 460-00-4				
10.195	9.729	0.466	95	321642			100.00- 100.00	100.00	
10.195	9.729	0.466	50	83573			8.00- 40.00	25.98	
10.195	9.729	0.466	75	164970			30.00- 66.00	51.29	
10.195	9.729	0.466	96	21722			5.00- 9.00	6.75	
10.195	9.729	0.466	173	1686			0.00- 1.99	0.65	
10.195	9.729	0.466	174	261056			50.01- 120.00	81.16	
10.195	9.729	0.466	175	19311			4.00- 9.00	7.40	
10.195	9.729	0.466	176	243157			93.00- 101.00	93.14	
10.195	9.729	0.466	177	15490			5.00- 9.00	6.37	



Date : 12-AUG-2021 15:23

Client ID: BFB

Instrument: msd3,i

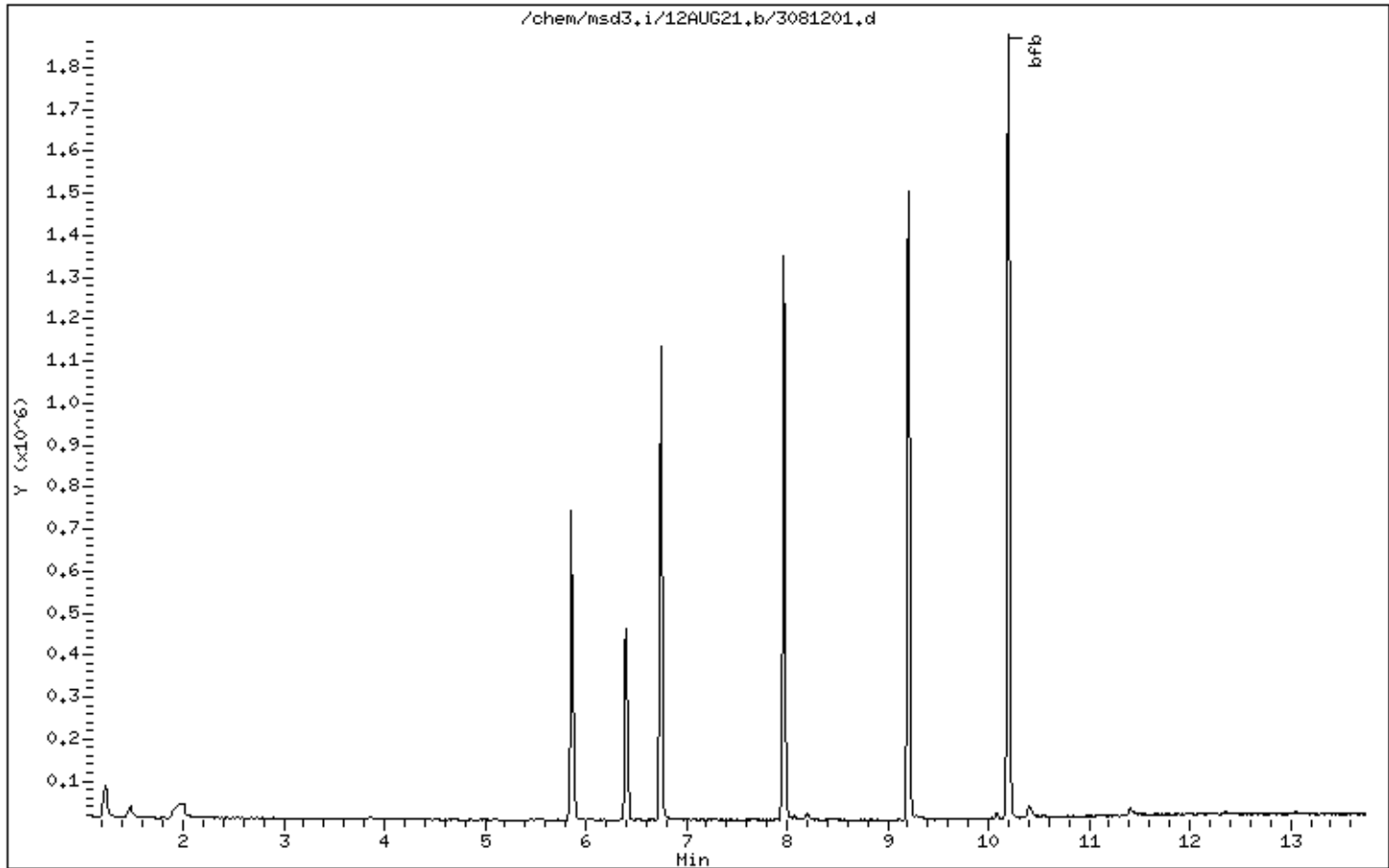
Sample Info: 200mL #3234-66;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00



Date : 12-AUG-2021 15:23

Client ID: BFB

Instrument: msd3,i

Sample Info: 200mL #3234-66;BFB;BFB

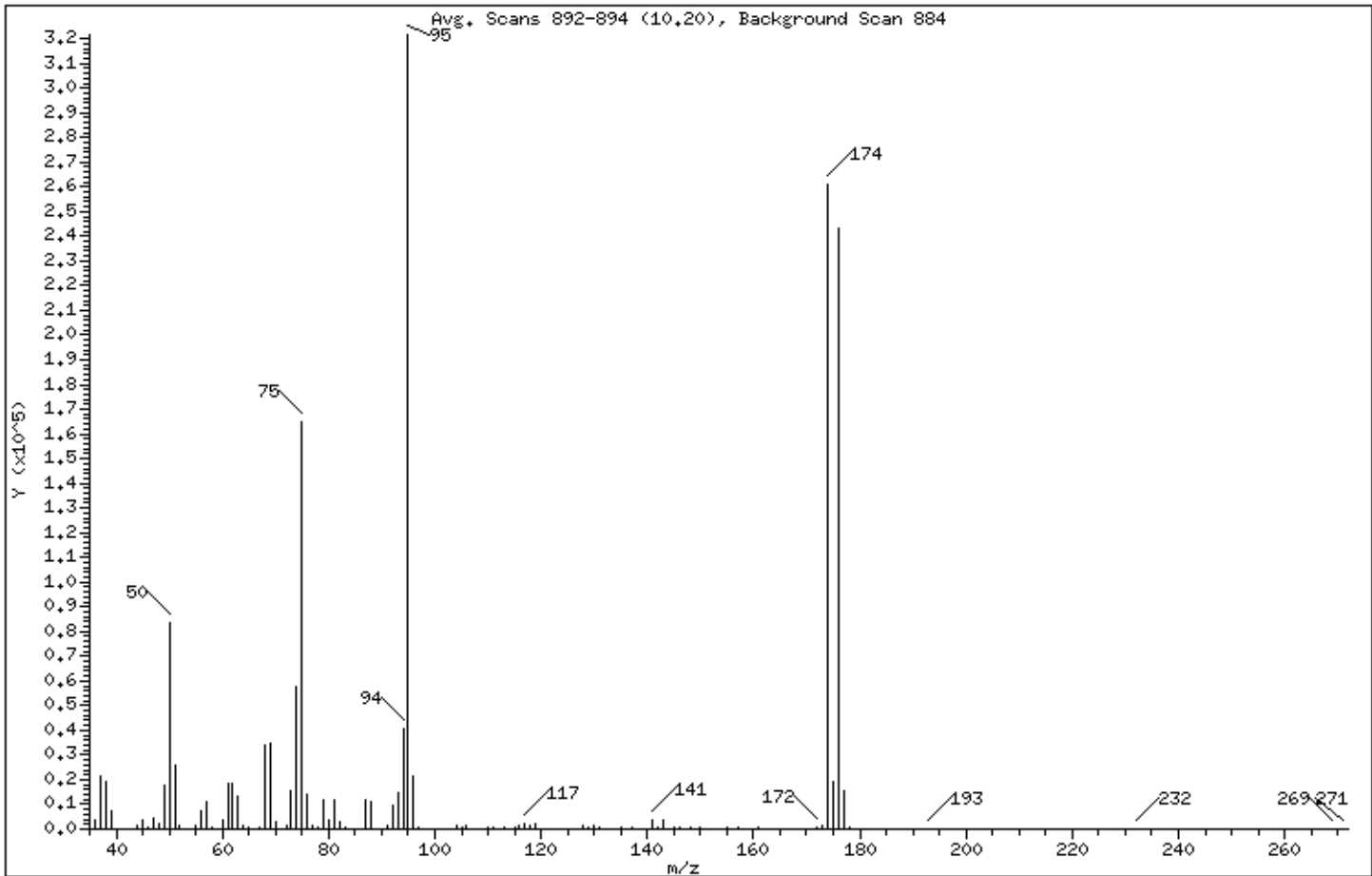
Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	25.98
75	30.00 - 66.00% of mass 95	51.29
96	5.00 - 9.00% of mass 95	6.75
173	Less than 1.99% of mass 174	0.52 ( 0.65)
174	50.01 - 120.00% of mass 95	81.16
175	4.00 - 9.00% of mass 174	6.00 ( 7.40)
176	93.00 - 101.00% of mass 174	75.60 ( 93.14)
177	5.00 - 9.00% of mass 176	4.82 ( 6.37)

Date : 12-AUG-2021 15:23

Client ID: BFB

Instrument: msd3,i

Sample Info: 200mL #3234-66;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

Data File: 3081201,d

Spectrum: Avg. Scans 892-894 (10.20), Background Scan 884

Location of Maximum: 95.00

Number of points: 124

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36,00	3650	68,00	33888	110,00	389	152,00	81
37,00	21688	69,00	34520	111,00	375	153,00	140
38,00	19048	70,00	2756	112,00	283	154,00	261
39,00	7223	71,00	69	113,00	445	155,00	771
40,00	93	72,00	1726	115,00	404	156,00	75
41,00	132	73,00	15187	116,00	1294	157,00	637
42,00	180	74,00	57320	117,00	2381	159,00	364
43,00	172	75,00	164928	118,00	1482	161,00	413
44,00	1743	76,00	14113	119,00	2012	162,00	67
45,00	3767	77,00	1805	124,00	274	171,00	82
46,00	398	78,00	868	126,00	146	172,00	794
47,00	4275	79,00	11983	127,00	343	173,00	1686
48,00	2581	80,00	3462	128,00	1303	174,00	261056
49,00	18080	81,00	12150	129,00	745	175,00	19304
50,00	83568	82,00	2646	130,00	1317	176,00	243136
51,00	25568	83,00	415	131,00	655	177,00	15490
52,00	1141	86,00	361	133,00	134	178,00	476
53,00	237	87,00	12055	134,00	147	191,00	255
54,00	241	88,00	10864	135,00	815	192,00	82
55,00	1631	91,00	1618	136,00	83	193,00	96
56,00	7328	92,00	9647	137,00	803	207,00	44
57,00	11199	93,00	14687	140,00	292	208,00	78
58,00	558	94,00	40648	141,00	4061	232,00	156
59,00	83	95,00	321600	142,00	437	253,00	217
60,00	3958	96,00	21720	143,00	3832	254,00	70
61,00	18832	97,00	721	144,00	175	255,00	69
62,00	18192	98,00	91	145,00	461	269,00	313
63,00	13505	103,00	278	146,00	559	271,00	73
64,00	1528	104,00	1637	147,00	339		
65,00	439	105,00	538	148,00	874		
66,00	91	106,00	1653	149,00	103		
67,00	913	107,00	348	150,00	449		

US32TAR1

Data file : /chem/msd3.i/02SEP21.b/3090202.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 02-SEP-2021 09:50  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL #3234-66;BFB;BFB  
 Misc Info : 36ng  
 Comment :  
 Method : /chem/msd3.i/02SEP21.b/bfb30.m  
 Meth Date : 02-Sep-2021 09:30 lk8g Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 12 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER  
 Processing Host: us32tar1

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS									
		ON-COL		FINAL		TARGET RANGE		RATIO	
RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)			
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb		CAS #: 460-00-4							
10.195	10.195	0.000	95	287424			100.00- 100.00		100.00
10.195	10.195	0.000	50	77213			8.00- 40.00		26.86
10.195	10.195	0.000	75	147349			30.00- 66.00		51.27
10.195	10.195	0.000	96	19100			5.00- 9.00		6.65
10.195	10.195	0.000	173	2541			0.00- 1.99		1.09
10.195	10.195	0.000	174	232810			50.01- 120.00		81.00
10.195	10.195	0.000	175	16978			4.00- 9.00		7.29
10.195	10.195	0.000	176	216704			93.00- 101.00		93.08
10.195	10.195	0.000	177	14756			5.00- 9.00		6.81

Date : 02-SEP-2021 09:50

Client ID: BFB

Instrument: msd3.i

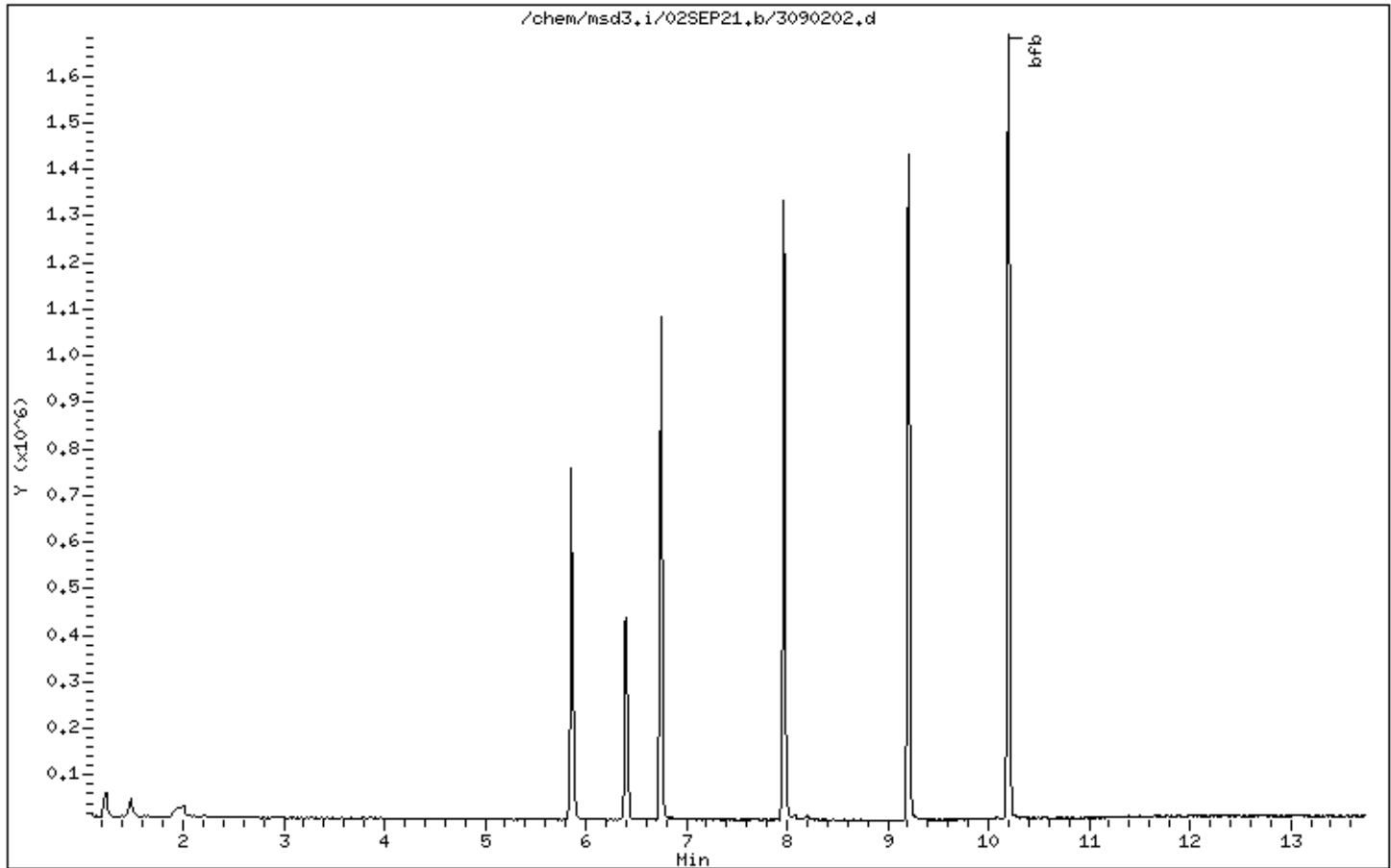
Sample Info: 200mL #3234-66;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00



Date : 02-SEP-2021 09:50

Client ID: BFB

Instrument: msd3,i

Sample Info: 200mL #3234-66;BFB;BFB

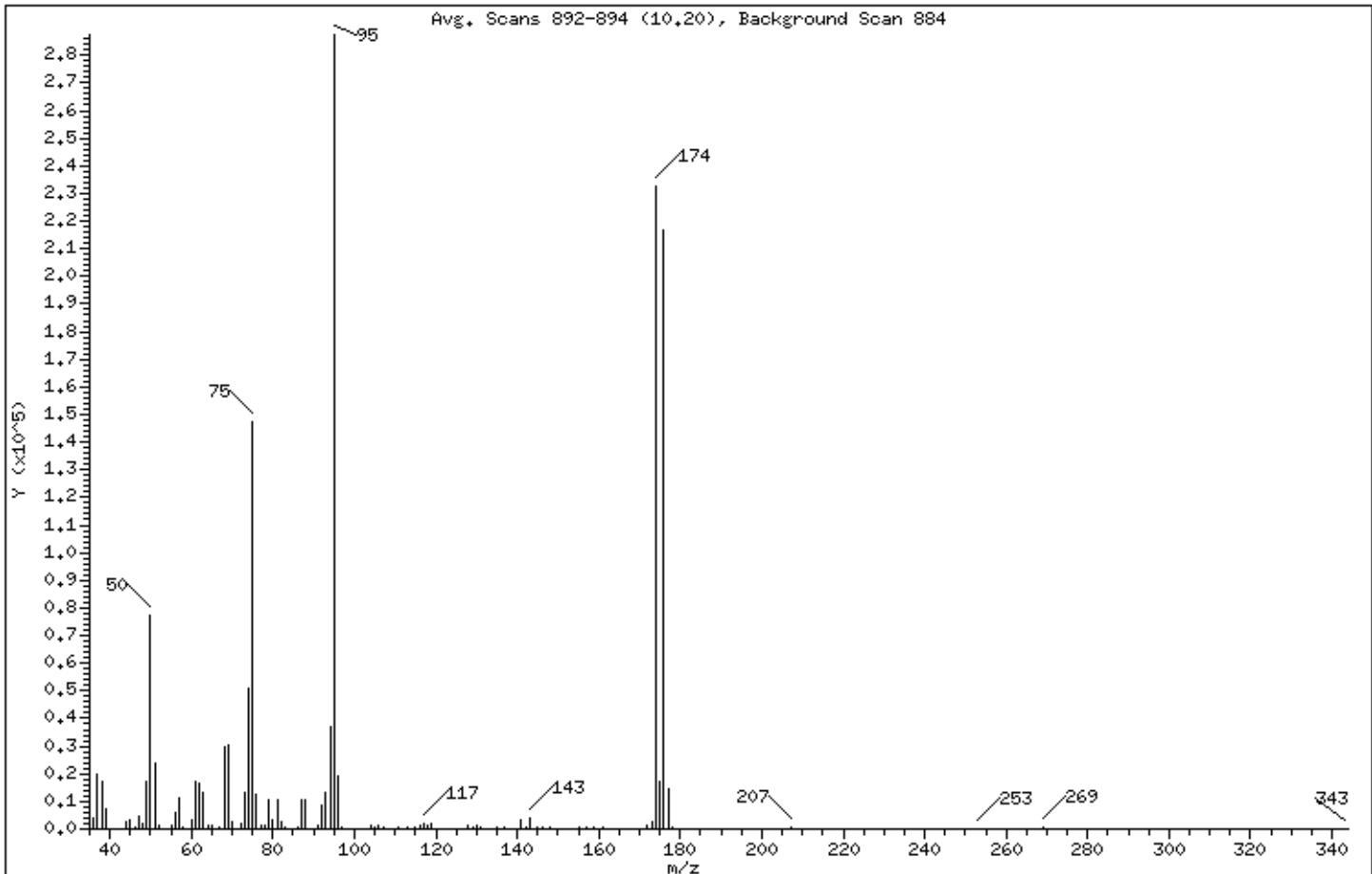
Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	26.86
75	30.00 - 66.00% of mass 95	51.27
96	5.00 - 9.00% of mass 95	6.65
173	Less than 1.99% of mass 174	0.88 ( 1.09)
174	50.01 - 120.00% of mass 95	81.00
175	4.00 - 9.00% of mass 174	5.91 ( 7.29)
176	93.00 - 101.00% of mass 174	75.40 ( 93.08)
177	5.00 - 9.00% of mass 176	5.13 ( 6.81)

Date : 02-SEP-2021 09:50

Client ID: BFB

Instrument: msd3.i

Sample Info: 200mL #3234-66;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

Data File: 3090202.d

Spectrum: Avg. Scans 892-894 (10.20), Background Scan 884

Location of Maximum: 95.00

Number of points: 120

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3689	68.00	29568	111.00	394	150.00	232
37.00	19936	69.00	30464	112.00	271	152.00	166
38.00	17336	70.00	2572	113.00	365	153.00	305
39.00	7199	72.00	1705	115.00	408	154.00	95
40.00	230	73.00	13066	116.00	1300	155.00	872
41.00	99	74.00	51032	117.00	2122	156.00	85
42.00	267	75.00	147328	118.00	1211	157.00	656
43.00	178	76.00	12314	119.00	2037	158.00	84
44.00	2340	77.00	1635	122.00	71	159.00	391
45.00	3573	78.00	1253	123.00	73	161.00	352
46.00	406	79.00	10599	124.00	143	163.00	75
47.00	4340	80.00	3374	126.00	99	171.00	181
48.00	2237	81.00	10820	127.00	62	172.00	1574
49.00	16856	82.00	2600	128.00	1198	173.00	2541
50.00	77208	83.00	482	129.00	523	174.00	232768
51.00	23688	86.00	396	130.00	1283	175.00	16976
52.00	1108	87.00	10596	131.00	544	176.00	216704
53.00	125	88.00	10449	134.00	75	177.00	14756
54.00	85	91.00	1304	135.00	736	178.00	465
55.00	1248	92.00	8853	136.00	66	191.00	176
56.00	5930	93.00	13169	137.00	654	195.00	68
57.00	10951	94.00	36760	140.00	286	207.00	420
58.00	468	95.00	287424	141.00	3355	208.00	144
60.00	3231	96.00	19096	142.00	402	253.00	172
61.00	17016	97.00	646	143.00	3873	255.00	71
62.00	16552	103.00	297	144.00	188	269.00	348
63.00	13136	104.00	1562	145.00	627	343.00	76
64.00	1622	105.00	509	146.00	519		
65.00	1245	106.00	1365	147.00	313		
66.00	72	107.00	385	148.00	878		
67.00	970	110.00	282	149.00	175		

US32TAR1

Data file : /chem/msd3.i/09SEP21.b/3090902.d  
 Lab Smp Id: BFB Client Smp ID: BFB  
 Inj Date : 09-SEP-2021 10:53  
 Operator : LD Inst ID: msd3.i  
 Smp Info : 200mL #3234-66;BFB;BFB  
 Misc Info : 36ng  
 Comment :  
 Method : /chem/msd3.i/09SEP21.b/bfb30.m  
 Meth Date : 07-Sep-2021 09:51 lk8g Quant Type: ESTD  
 Cal Date : Cal File:  
 Als bottle: 12 QC Sample: BFB  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: all.sub  
 Sample Matrix: WATER

Concentration Formula: Amt \* DF \* Uf \* Vf \* Vi \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

CONCENTRATIONS

ON-COL FINAL

RT	EXP RT	DLT RT	MASS	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
1	bfb						CAS #: 460-00-4	
10.195	10.195	0.000	95	293184			100.00- 100.00	100.00
10.195	10.195	0.000	50	66552			8.00- 40.00	22.70
10.195	10.195	0.000	75	136512			30.00- 66.00	46.56
10.195	10.195	0.000	96	19168			5.00- 9.00	6.54
10.195	10.195	0.000	173	2483			0.00- 1.99	0.98
10.195	10.195	0.000	174	253184			50.01- 120.00	86.36
10.195	10.195	0.000	175	17776			4.00- 9.00	7.02
10.195	10.195	0.000	176	235648			93.00- 101.00	93.07
10.195	10.195	0.000	177	15363			5.00- 9.00	6.52



Date : 09-SEP-2021 10:53

Client ID: BFB

Instrument: msd3.i

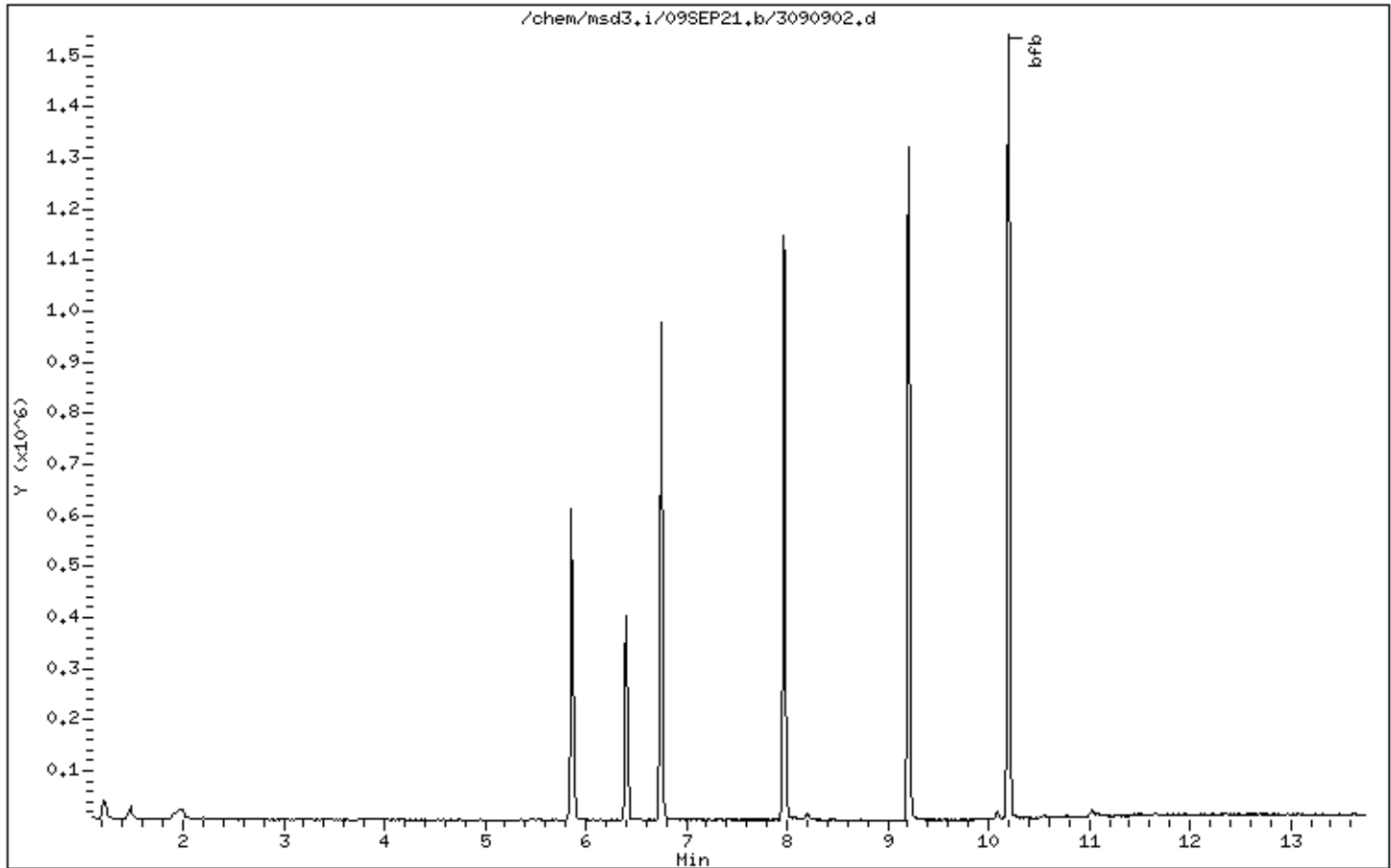
Sample Info: 200mL #3234-66;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00



Date : 09-SEP-2021 10:53

Client ID: BFB

Instrument: msd3.i

Sample Info: 200mL #3234-66;BFB;BFB

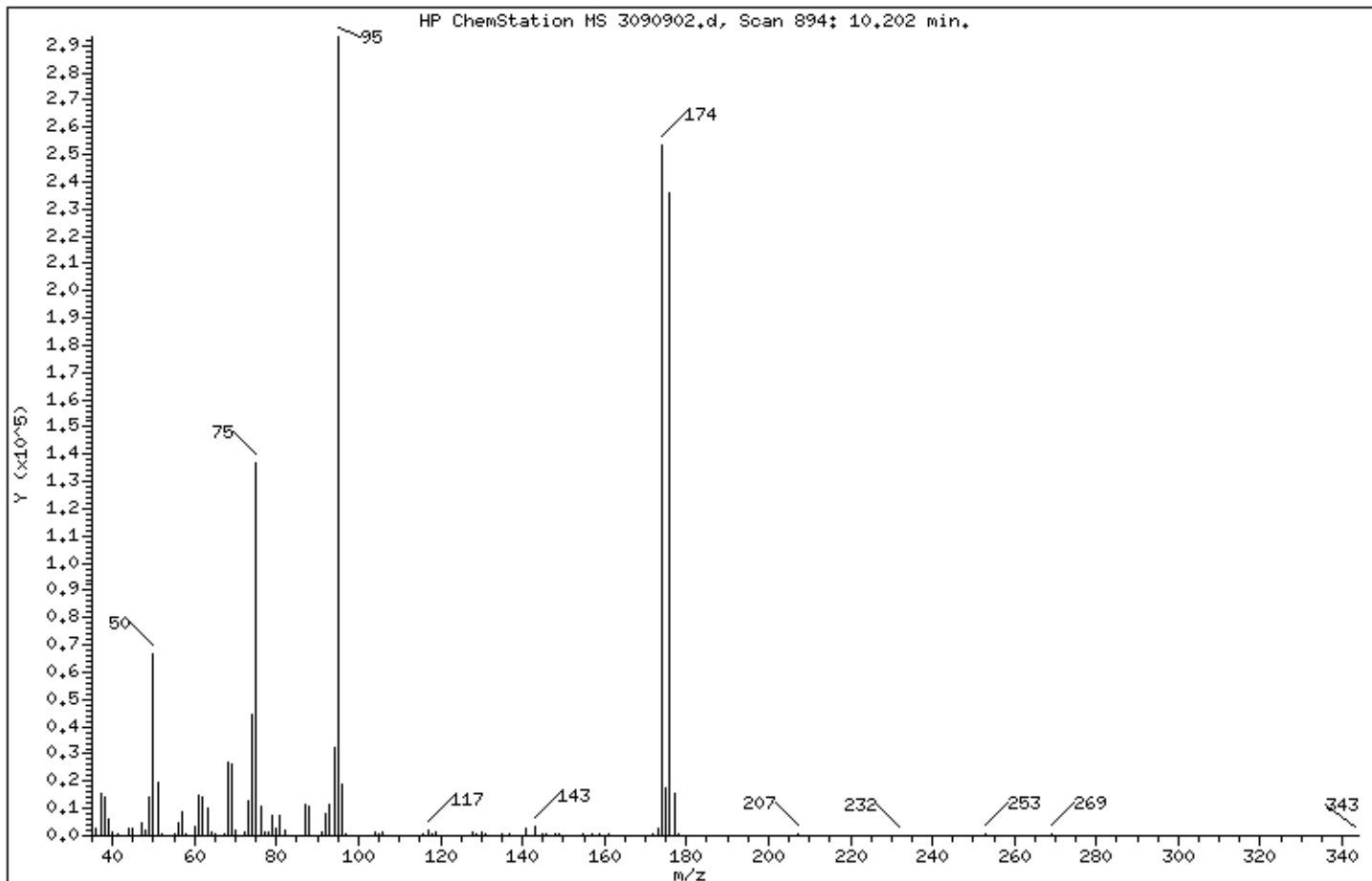
Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	22.70
75	30.00 - 66.00% of mass 95	46.56
96	5.00 - 9.00% of mass 95	6.54
173	Less than 1.99% of mass 174	0.85 ( 0.98)
174	50.01 - 120.00% of mass 95	86.36
175	4.00 - 9.00% of mass 174	6.06 ( 7.02)
176	93.00 - 101.00% of mass 174	80.38 ( 93.07)
177	5.00 - 9.00% of mass 176	5.24 ( 6.52)

Date : 09-SEP-2021 10:53

Client ID: BFB

Instrument: msd3.i

Sample Info: 200mL #3234-66;BFB;BFB

Volume Injected (uL): 1.0

Operator: LD

Column phase:

Column diameter: 2.00

Data File: 3090902.d

Spectrum: HP ChemStation MS 3090902.d, Scan 894: 10.202 min.

Location of Maximum: 95.00

Number of points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2809	67.10	686	103.90	1157	149.00	497
37.10	15219	68.00	27200	104.90	402	149.80	323
38.10	14179	69.00	26408	105.90	1216	152.00	235
39.10	5969	70.00	1957	106.90	264	153.00	276
40.00	1063	72.00	1548	110.90	289	153.90	226
41.10	541	73.00	12803	111.90	260	154.90	804
42.00	281	74.00	44408	112.80	233	156.90	419
42.90	306	75.00	136512	114.90	321	158.90	430
44.10	2473	76.10	10586	115.90	988	160.90	396
45.00	2595	77.00	1546	116.90	1982	171.80	939
46.20	213	78.00	1239	117.90	988	173.00	2483
47.00	4577	78.90	7182	119.00	1504	174.00	253184
48.10	2122	79.90	2570	127.00	225	175.00	17776
49.00	13953	80.90	7619	127.90	1262	176.00	235648
50.00	66552	81.90	1731	128.90	413	177.00	15363
51.10	19792	82.90	298	129.90	1089	177.90	413
52.10	1010	86.00	267	130.90	476	191.00	201
55.10	822	87.00	11538	134.90	728	207.00	859
56.00	4775	88.00	10918	136.80	512	232.00	227
57.10	8874	90.90	1078	140.00	231	253.10	489
58.00	438	92.00	8141	140.90	3007	259.90	306
60.00	3191	93.00	11749	141.90	330	269.10	908
61.00	14560	94.00	32264	142.90	3239	343.00	221
62.00	14047	95.00	293184	145.00	411		
63.10	10238	96.00	19168	145.90	493		
64.00	1234	97.10	693	147.00	307		
65.00	723	102.90	220	147.90	863		

US32TAR1

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd3.i/09SEP21.b/3090906.d  
Lab Smp Id: CCV Client Smp ID: CCV  
Inj Date : 09-SEP-2021 13:02  
Operator : LD Inst ID: msd3.i  
Smp Info : 100mL 3018-2127A  
Misc Info : 50ppbv (100ppbv)  
Comment : STANDARD LEVEL - GC/MS  
Method : /chem/msd3.i/09SEP21.b/321q0812b.m  
Meth Date : 09-Sep-2021 15:48 lk8g Quant Type: ISTD  
Cal Date : 02-SEP-2021 10:33 Cal File: 3090203.d  
Als bottle: 11 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: AT20spCCV.sub  
Sample Matrix: AIR  
Processing Host: us32tar1

Concentration Formula: Amt \* DF \* CpndVariable

Cpnd Variable Local Compound Variable

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	( PPBV)	( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 90 Bromochloromethane CAS #: 74-97-5									
5.858	5.858	(1.000)	130	217946	25.0000		80.00- 120.00	100.00	
5.858	5.858	(1.000)	128	169215			47.29- 107.29	77.64	
5.858	5.858	(1.000)	49	360051			122.83- 182.83	165.20	
-----									
* 108 1,4-Difluorobenzene CAS #: 540-36-3									
6.750	6.750	(1.000)	114	822335	25.0000		80.00- 120.00	100.00	
6.750	6.750	(1.000)	88	124101			0.00- 45.09	15.09	
-----									
* 153 Chlorobenzene-d5 CAS #: 3114-55-4									
9.207	9.207	(1.000)	117	794045	25.0000		80.00- 120.00	100.00	
9.207	9.207	(1.000)	82	423428			23.62- 83.62	53.33	
-----									
\$ 104 1,2-Dichloroethane-d4 CAS #: 17060-07-0									
6.404	6.404	(1.093)	65	286798	25.0000	23.619	80.00- 120.00	100.00	
6.404	6.404	(1.093)	67	143983			20.51- 80.51	50.20	
-----									
\$ 134 Toluene-d8 CAS #: 2037-26-5									
7.967	7.967	(1.180)	98	846514	25.0000	25.544	80.00- 120.00	100.00	
7.967	7.967	(1.180)	70	91678			0.00- 42.00	10.83	

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
\$ 134 Toluene-d8 (continued)									
7.967	7.967	(1.180)	100	576140			37.14- 97.14	68.06	
-----									
\$ 170 4-Bromofluorobenzene									
						CAS #: 460-00-4			
10.195	10.195	(1.107)	174	504550	25.0000	24.303	80.00- 120.00	100.00	
10.195	10.195	(1.107)	95	625171			92.25- 152.25	123.91	
10.195	10.195	(1.107)	176	469733			63.07- 123.07	93.10	
-----									
3 Freon 143a									
						CAS #: 420-46-2			
1.521	1.521	(0.260)	65	185358	50.0000	41.306	80.00- 120.00	100.00	
1.521	1.521	(0.260)	69	490125			217.09- 277.09	264.42	
1.521	1.521	(0.260)	64	47330			0.00- 55.87	25.53	
-----									
6 Propane									
						CAS #: 74-98-6			
1.619	1.619	(0.276)	43	106697	50.0000	46.982	80.00- 120.00	100.00	
1.619	1.619	(0.276)	39	71106			41.62- 101.62	66.64	
1.619	1.619	(0.276)	41	58181			22.97- 82.97	54.53	
-----									
13 Freon 142b									
						CAS #: 75-68-3			
1.842	1.842	(0.315)	65	582333	50.0000	40.574	80.00- 120.00	100.00	
1.842	1.842	(0.315)	45	164422			0.00- 58.17	28.24	
-----									
36 1-Pentene									
						CAS #: 109-67-1			
2.920	2.920	(0.498)	55	391926	50.0000	47.127	80.00- 120.00	100.00	
2.920	2.920	(0.498)	42	516154			99.17- 159.17	131.70	
-----									
40 Freon 123a									
						CAS #: 354-23-4			
3.423	3.423	(0.584)	117	461862	50.0000	45.333	80.00- 120.00	100.00	
3.423	3.423	(0.584)	67	601640			103.13- 163.13	130.26	
-----									
41 Freon 123									
						CAS #: 306-83-2			
3.521	3.521	(0.601)	83	676927	50.0000	47.048	80.00- 120.00	100.00	
3.521	3.521	(0.601)	133	148524			0.00- 51.81	21.94	
3.521	3.521	(0.601)	85	445044			37.13- 97.13	65.74	
-----									
55 Cyclopentene									
						CAS #: 142-29-0			
4.123	4.123	(0.704)	67	708951	50.0000	48.200	80.00- 120.00	100.00	
4.123	4.123	(0.704)	68	270424			7.90- 67.90	38.14	
4.123	4.123	(0.704)	53	183269			0.00- 54.87	25.85	
-----									
56 Methyl Acetate									
						CAS #: 79-20-9			
4.151	4.151	(0.709)	43	775788	50.0000	49.133	80.00- 120.00	100.00	
4.151	4.151	(0.709)	74	127761			0.00- 47.15	16.47	
-----									
74 Chloroprene									
						CAS #: 126-99-8			
5.088	5.088	(0.869)	53	642099	50.0000	48.386	80.00- 120.00	100.00	

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
74 Chloroprene (continued)									
5.088	5.088	(0.869)	88	277087			12.33- 72.33	43.15	
5.088	5.088	(0.869)	50	161997			0.00- 57.62	25.23	
-----									
75 1-Propanol					CAS #: 71-23-8				
5.144	5.144	(0.878)	59	92737	50.0000	52.227	80.00- 120.00	100.00	
5.144	5.144	(0.878)	42	84376			53.89- 113.89	90.98	
5.144	5.144	(0.878)	41	52409			24.09- 84.09	56.51	
-----									
88 Methyl Acrylate					CAS #: 96-33-3				
5.704	5.704	(0.974)	55	837202	50.0000	54.199	80.00- 120.00	100.00	
5.704	5.704	(0.974)	85	106293			0.00- 43.24	12.70	
5.704	5.704	(0.974)	58	70846			0.00- 38.83	8.46	
-----									
103 Isobutanol					CAS #: 78-83-1				
6.306	6.306	(1.076)	39	103482	50.0000	44.226	80.00- 120.00	100.00	
6.306	6.306	(1.076)	43	452165			327.69- 387.69	436.95	
6.306	6.306	(1.076)	41	322372			237.56- 297.56	311.52	
-----									
113 Ethyl acrylate					CAS #: 140-88-5				
7.036	7.036	(0.764)	99	64680	50.0000	49.149	80.00- 120.00	100.00	
7.029	7.029	(0.763)	45	112265			124.67- 184.67	173.57	
7.029	7.029	(0.763)	55	1150065			1601.30-1661.30	1778.08	
-----									
115 2-Pentanone					CAS #: 107-87-9				
7.129	7.129	(0.774)	43	1409553	50.0000	53.775	80.00- 120.00	100.00	
7.129	7.129	(0.774)	58	108467			0.00- 37.25	7.70	
7.129	7.129	(0.774)	86	194200			0.00- 45.08	13.78	
-----									
145 Butyl Acetate					CAS #: 123-86-4				
8.626	8.626	(1.278)	56	661937	50.0000	58.589	80.00- 120.00	100.00	
8.626	8.626	(1.278)	73	212584			5.16- 65.16	32.12	
8.626	8.626	(1.278)	43	1636918			214.00- 274.00	247.29	
-----									
157 1,1,1,2-Tetrachloroethane					CAS #: 630-20-6				
9.293	9.293	(1.009)	131	703870	50.0000	50.939	80.00- 120.00	100.00	
9.207	9.207	(1.000)	117	794045			38.22- 98.22	112.81	
9.293	9.293	(1.009)	95	252872			7.54- 67.54	35.93	
-----									
166 2-Heptanone					CAS #: 110-43-0				
9.801	9.801	(1.673)	58	1002296	50.0000	61.741	80.00- 120.00	100.00	
9.801	9.801	(1.673)	43	1677116			133.36- 193.36	167.33	
-----									
172 D-Limonene					CAS #: 5989-27-5				
11.026	11.026	(1.198)	68	803021	50.0000	57.716	80.00- 120.00	100.00	
11.026	11.026	(1.198)	93	577545			42.08- 102.08	71.92	
-----									

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT ( PPBV)	ON-COL ( PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
-----									
186 4-Chlorotoluene					CAS #: 106-43-4				
10.575	10.575	(1.149)	126	638082	50.0000	52.533	80.00- 120.00	100.00	
10.575	10.575	(1.149)	91	2056169			305.94- 365.94	322.24	
10.575	10.575	(1.149)	63	264876			15.44- 75.44	41.51	
-----									
197 1,2,3-Trimethylbenzene					CAS #: 526-73-8				
11.212	11.212	(1.218)	120	860116	50.0000	53.579	80.00- 120.00	100.00	
11.212	11.212	(1.218)	105	2008156			206.43- 266.43	233.48	
11.212	11.212	(1.218)	77	227121			0.00- 58.29	26.41	
-----									
205 Hexachloroethane					CAS #: 67-72-1				
11.728	11.728	(1.274)	201	510641	50.0000	53.128	80.00- 120.00	100.00	
11.728	11.728	(1.274)	117	706356			109.77- 169.77	138.33	
-----									
208 1,3,5-Trichlorobenzene					CAS #: 108-70-3				
12.387	12.387	(1.345)	180	1201882	50.0000	49.265	80.00- 120.00	100.00	
12.387	12.387	(1.345)	182	1146733			65.79- 125.79	95.41	
-----									
210 alpha-Pinene					CAS #: 80-56-8				
9.966	9.966	(1.082)	93	1444922	50.0000	55.213	80.00- 120.00	100.00	
9.966	9.966	(1.082)	77	411487			0.13- 60.13	28.48	
-----									
214 beta-Pinene					CAS #: 127-91-3				
10.560	10.560	(1.147)	93	988703	50.0000	51.435	80.00- 120.00	100.00	
10.575	10.575	(1.149)	91	2056169			145.95- 205.95	207.97	
-----									

US32TAR1

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd3.i                      Injection Date: 09-SEP-2021 13:02  
 Lab File ID: 3090906.d                    Init. Cal. Date(s): 12-AUG-2021 02-SEP-2021  
 Analysis Type: AIR                         Init. Cal. Times: 16:21                    10:33  
 Lab Sample ID: CCV                         Quant Type: ISTD  
 Method: /chem/msd3.i/09SEP21.b/321q0812b.m

COMPOUND	RF50		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF50	RRF	%D / %DRIFT	%D / %DRIFT		
\$ 104 1,2-Dichloroethane-d4	1.39287	1.31591	0.010	5.52511	30.00000	Averaged	
\$ 134 Toluene-d8	1.00748	1.02940	0.010	-2.17634	30.00000	Averaged	
\$ 170 4-Bromofluorobenzene	0.65365	0.63542	0.010	2.78899	30.00000	Averaged	
3 Freon 143a	0.51475	0.42524	0.010	17.38878	30.00000	Averaged	
6 Propane	0.26050	0.24478	0.010	6.03533	30.00000	Averaged	
13 Freon 142b	1.64634	1.33596	0.010	18.85265	30.00000	Averaged	
36 1-Pentene	0.95395	0.89914	0.010	5.74582	30.00000	Averaged	
40 Freon 123a	1.16865	1.05958	0.010	9.33323	30.00000	Averaged	
41 Freon 123	1.65040	1.55297	0.010	5.90331	30.00000	Averaged	
55 Cyclopentene	1.68719	1.62644	0.010	3.60098	30.00000	Averaged	
56 Methyl Acetate	1.81117	1.77977	0.010	1.73373	30.00000	Averaged	
74 Chloroprene	1.52219	1.47307	0.010	3.22711	30.00000	Averaged	
75 1-Propanol	0.20368	0.21275	0.010	-4.45419	30.00000	Averaged	
88 Methyl Acrylate	1.77186	1.92067	0.010	-8.39832	30.00000	Averaged	
103 Isobutanol	0.26840	0.23740	0.010	11.54743	30.00000	Averaged	
113 Ethyl acrylate	0.04143	0.04073	0.010	1.70265	30.00000	Averaged	
115 2-Pentanone	0.82527	0.88758	0.010	-7.55028	30.00000	Averaged	
145 Butyl Acetate	0.34347	0.40247	0.010	-17.17813	30.00000	Averaged	
157 1,1,1,2-Tetrachloroethane	0.43505	0.44322	0.010	-1.87785	30.00000	Averaged	
166 2-Heptanone	1.86214	2.29941	0.010	-23.48258	30.00000	Averaged	
172 D-Limonene	0.43806	0.50565	0.010	-15.43104	30.00000	Averaged	
186 4-Chlorotoluene	0.38242	0.40179	0.010	-5.06577	30.00000	Averaged	
197 1,2,3-Trimethylbenzene	0.50543	0.54160	0.010	-7.15726	30.00000	Averaged	
205 Hexachloroethane	0.30261	0.32154	0.010	-6.25663	30.00000	Averaged	
208 1,3,5-Trichlorobenzene	0.76810	0.75681	0.010	1.46975	30.00000	Averaged	
210 alpha-Pinene	0.82394	0.90985	0.010	-10.42603	30.00000	Averaged	
214 beta-Pinene	0.60520	0.62257	0.010	-2.87072	30.00000	Averaged	



US32TAR1

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: msd3.i	Calibration Date: 09-SEP-2021
Lab File ID: 3090906.d	Calibration Time: 11:39
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: LD	
Method File: /chem/msd3.i/09SEP21.b/321q0812b.m	
Misc Info: 50ppbv (100ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	194770	116862	272678	217946	11.90
108 1,4-Difluorobenze	712592	427555	997629	822335	15.40
153 Chlorobenzene-d5	710524	426314	994734	794045	11.75

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
90 Bromochloromethan	5.86	5.53	6.19	5.86	-0.00
108 1,4-Difluorobenze	6.75	6.42	7.08	6.75	-0.00
153 Chlorobenzene-d5	9.21	8.88	9.54	9.21	-0.00

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.

Date : 09-SEP-2021 13:02

Client ID: CCV

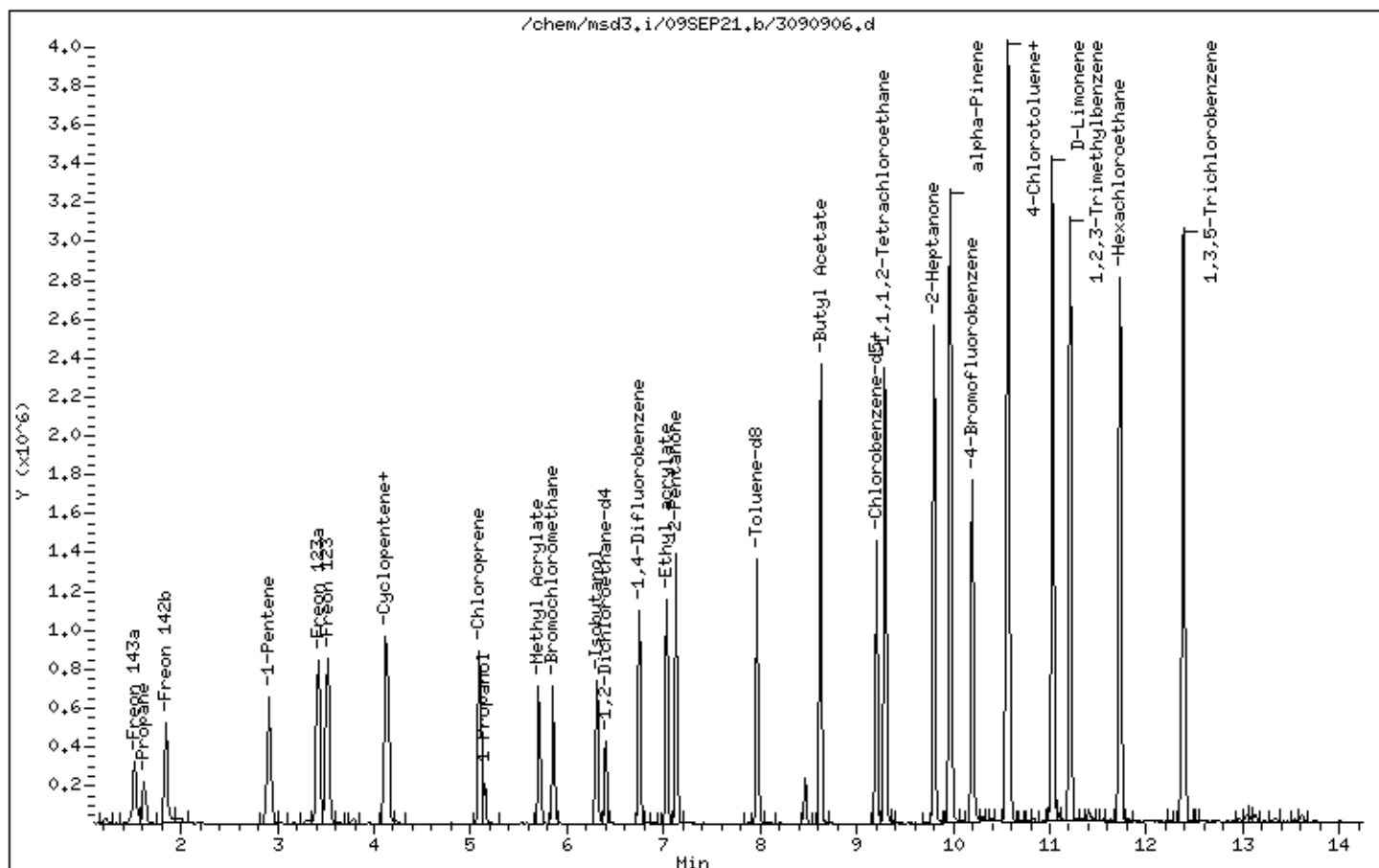
Instrument: msd3.i

Sample Info: 100mL 3018-2127A

Operator: LD

Column phase: RTX-624

Column diameter: 0,25



## **Shipping/Receiving Documents**

## **Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page**

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Discrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Air Toxics, Ltd. at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

**Please note** : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**

**Hours 6:30 A.M to 5:30 P.M. PST**

Analysis Request / Canister Chain of Custody

For Laboratory Use Only

PID: \_\_\_\_\_ Workorder #: 2158614

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180 Blue Ravine Rd. Suite B, Folsom, CA 95630  
Phone (800) 985-5955; Fax (916) 351-8279

Client: AFIRM  
Project Name: SUD 2011  
Project Manager: ALY GREGA  
Sampler: Sam Galt  
Site Name: \_\_\_\_\_  
Special Instructions/Notes: SC-VOLTA-OK ON HOLD  
Turnaround Time (Rush surcharges may apply)  
Standard: S 2011 Rush (Specify)  
Canister Vacuum/Pressure: \_\_\_\_\_  
Lab Use Only: \_\_\_\_\_  
Requested Analyses: \_\_\_\_\_

Lab ID	Field Sample Identification (Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt		Requested Analyses
				Date	Time	Date	Time			Lab Use Only	Final (psig) Gas: N <sub>2</sub> / He	
<u>224</u>	<u>SC-VOLTA-OK</u>	<u>123709</u>	<u>12471</u>	<u>8/24/11</u>	<u>1155</u>	<u>8/24/11</u>	<u>1155</u>	<u>-30</u>	<u>-30</u>	<u>X TOX</u>	<u>ON HOLD</u>	

Relinquished by: (Signature/Affiliation) [Signature] Date: 8/23/11 Time: 1155  
Relinquished by: (Signature/Affiliation) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Relinquished by: (Signature/Affiliation) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Relinquished by: (Signature/Affiliation) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Shipper Name: AFIRM Custody Seals Intact? Yes \_\_\_\_\_ No \_\_\_\_\_ None \_\_\_\_\_  
Lab Use Only  
**Sample Transportation Notice:** Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples. D.O.T Hotline (800) 467-4922

## SAMPLE RECEIPT SUMMARY

### WORKORDER 2108676B

**Client**

Mr. Robert Kohlhardt  
AECOM  
2020 L Street, Suite 400  
Sacramento, CA 95811

**Phone**

916-679-2000

**Fax**

916-679-2900

**Date Promised:** 09/14/21 5:00 pm

**Date Completed:** 9/14/21

**Date Received:** 8/30/21

**PO#:**

**Project#:** 60132793.6 SMUD 59th St

**Total \$:** \$ 177.50

**Logged By:** CH

**Sales Rep:** DaV

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Receipt Vac./Pres.</u>	<u>Amount\$</u>
02A	SG-VW21A-06	TO-15	8/30/2021	7.3 "Hg	\$172.50
03A	Lab Blank	TO-15	NA	NA	\$0.00
04A	CCV	TO-15	NA	NA	\$0.00
05A	LCS	TO-15	NA	NA	\$0.00
05AA	LCSD	TO-15	NA	NA	\$0.00
Misc. Charges eCVP (1) @ \$5.00 each.					\$5.00

**Note:** Samples received after 3 P.M. PST are considered to be received on the following work day.  
Atlas Project Name/Profile#: SMUD 59th Street Corporation Yard/25677

**BILL TO:** Mr. Jerry Montgomery  
SWPPQueen  
7202 Gloria Drive #25  
Sacramento, CA 95831

Analysis Code: TO-14A

**REMARKS:** A 15% surcharge is applied for a 5 day turnaround time.

**TERMS:**

Reporting Method: TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



Air Toxics

# Analysis Request / Canister Chain of Custody

180 Blue Ravine Rd. Suite B, Folsom, CA 95630  
Phone (800) 985-5955; Fax (916) 351-8279

PID: \_\_\_\_\_  
For Laboratory Use Only  
Workorder #: 2108674

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Client:	<u>AFSA</u>	Special Instructions/Notes:	<u>SC-VOLTA-SOL ON HOLD</u>		
Project Name:	<u>SUD 02011</u>	Standard:	<u>SUD 02011</u>		Turnaround Time (Rush surcharges may apply)
Project Manager:	<u>ADJ. STAFF</u>	Canister Vacuum/Pressure:	<u>Rush</u>	(Specify)	
Sampler:	<u>Sam. Can.</u>	Lab Use Only			Requested Analyses
Site Name:					

Lab ID	Field Sample Identification (Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt		Requested Analyses		
				Date	Time	Date	Time			Final (psig) Gas: N <sub>2</sub> / He				
<u>2A</u>	<u>SC-VOLTA SOL</u>	<u>121709</u>	<u>12471</u>	<u>8/24/11</u>	<u>1059</u>	<u>8/24/11</u>	<u>1059</u>	<u>-30</u>	<u>-30</u>			<u>X TOXICS</u>		
													<u>ON HOLD</u>	

Relinquished by: (Signature/Affiliation)	<u>[Signature]</u>	Date	<u>8/30/11</u>	Time	<u>1155</u>	Received by: (Signature/Affiliation)	<u>[Signature]</u>	Date	<u>8-30-11</u>	Time	<u>1155</u>
Relinquished by: (Signature/Affiliation)		Date		Time		Received by: (Signature/Affiliation)		Date		Time	
Relinquished by: (Signature/Affiliation)		Date		Time		Received by: (Signature/Affiliation)		Date		Time	

Shipper Name: [Signature] Custody Seals Intact? Yes No None

Lab Use Only

Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples. D.O.T. Hotline (800) 467-4922

## **Other Records**



*Air Toxics Ltd.*

Curve Response Factors  
3090907.d

Compound	Ave. RF	% RSD
TPH	49830	0.00047

60 a/a/n

# Air Toxics Ltd.

## File Response Factors

Data File: 3090907.d  
Sample #: 3234-83  
Client ID: Calib  
Spike Level: 500  
Dilution Factor: 1

Compound	RF	RT
TPH	49830.232574560	

# Air Toxics Ltd.

## List of Selected Compounds

Data File: 3090907.d  
 Sample #: 3234-83  
 Client ID: Calib  
 Spike Level: 500  
 Dilution Factor: 1

Compounds	% Area	RT	Peak Area	10
<input checked="" type="checkbox"/> Unknown Peak 1.2268	0.23	1.227	88052	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 1.4786	0.35	1.479	133320	<input type="checkbox"/>
<input checked="" type="checkbox"/> Butane	0.69	1.968	264405	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.1082	0.13	2.108	50141	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.1922	0.05	2.192	20069	<input type="checkbox"/>
<input checked="" type="checkbox"/> Isopentane	2.59	2.612	995797	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9058	0.04	2.906	16753	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 2.9757	0.88	2.976	336578	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.1856	0.17	3.186	66773	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethanol	1.22	3.270	467773	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.4095	0.30	3.410	115028	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 3.5634	0.14	3.563	52464	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1231	1.11	4.123	425126	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.1650	1.27	4.165	488620	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.2350	0.16	4.235	60626	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.4449	0.59	4.445	226771	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.6827	0.09	4.683	34426	<input type="checkbox"/>
<input checked="" type="checkbox"/> Hexane	0.64	4.753	246883	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.8786	0.06	4.879	24799	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9346	0.11	4.935	43228	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 4.9906	0.11	4.991	44079	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.0745	0.07	5.075	26676	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.1445	0.09	5.145	35560	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.2844	1.21	5.284	463196	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.3823	0.50	5.382	192761	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.4523	0.11	5.452	43147	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 5.8021	0.05	5.802	19796	<input type="checkbox"/>
<input checked="" type="checkbox"/> Bromochloromethane	3.38	5.858	1298474	<input type="checkbox"/>
<input checked="" type="checkbox"/> Tetrahydrofuran	0.58	5.956	222215	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cyclohexane	1.39	6.026	531800	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.1239	0.60	6.124	231425	<input type="checkbox"/>
<input type="checkbox"/> 2,2,4-Trimethylpentane	5.65	6.348	2170966	<input type="checkbox"/>
<input type="checkbox"/> Benzene	0.09	6.376	33182	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2-Dichloroethane-d4	14.71	6.404	5647702	<input type="checkbox"/>
<input checked="" type="checkbox"/> Heptane	0.76	6.516	293525	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6566	0.09	6.657	35486	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.6852	0.11	6.685	42892	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,4-Difluorobenzene	4.90	6.750	1879420	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8500	0.05	6.850	17291	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 6.8930	0.07	6.893	25100	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.0147	1.33	7.015	510212	<input type="checkbox"/>
<input checked="" type="checkbox"/> Methylcyclohexane	1.73	7.051	664907	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1365	0.67	7.137	257453	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.1938	0.09	7.194	34573	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.2511	0.06	7.251	23600	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.3801	4.07	7.380	1563097	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.4947	6.08	7.495	2333352	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.6523	0.54	7.652	208358	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.7884	1.46	7.788	560905	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 7.8672	0.17	7.867	66082	<input type="checkbox"/>
<input checked="" type="checkbox"/> Toluene-d8	5.99	7.967	2298577	<input type="checkbox"/>
<input type="checkbox"/> 4-Methyl-2-pentanone	0.02	7.967	8806	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: 3090907.d  
 Sample #: 3234-83  
 Client ID: Calib  
 Spike Level: 500  
 Dilution Factor: 1

Compounds	% Area	RT	Peak Area	10
<input checked="" type="checkbox"/> Toluene	4.00	8.025	1535812	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.0749	0.16	8.075	62433	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.1966	0.11	8.197	42489	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.2683	0.29	8.268	109609	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.3972	0.06	8.397	24528	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.4975	0.14	8.498	54171	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.6622	0.08	8.662	29042	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.7983	0.05	8.798	20561	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.8485	0.14	8.849	54378	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 8.9488	0.09	8.949	34207	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.0347	0.10	9.035	38106	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.0777	0.07	9.078	27963	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.1350	0.19	9.135	73356	<input type="checkbox"/>
<input checked="" type="checkbox"/> Chlorobenzene-d5	6.34	9.207	2432847	<input type="checkbox"/>
<input checked="" type="checkbox"/> Ethyl Benzene	0.99	9.278	378760	<input type="checkbox"/>
<input checked="" type="checkbox"/> m,p-Xylene	2.85	9.371	1094710	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 9.5075	0.05	9.508	19583	<input type="checkbox"/>
<input checked="" type="checkbox"/> o-Xylene	1.06	9.715	408540	<input type="checkbox"/>
<input checked="" type="checkbox"/> Cumene	0.33	10.009	126146	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.044	0.45	10.045	173588	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.094	0.08	10.095	32468	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Bromofluorobenzene	7.75	10.195	2975505	<input type="checkbox"/>
<input checked="" type="checkbox"/> Propylbenzene	0.24	10.353	91923	<input type="checkbox"/>
<input checked="" type="checkbox"/> 4-Ethyltoluene	1.25	10.424	478226	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,3,5-Trimethylbenzene	0.37	10.503	143677	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.675	0.65	10.675	250989	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.789	0.16	10.790	59752	<input type="checkbox"/>
<input checked="" type="checkbox"/> 1,2,4-Trimethylbenzene	1.01	10.833	386228	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.911	0.42	10.911	162271	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 10.990	0.03	10.990	11950	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.033	0.14	11.033	52550	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.119	0.63	11.119	241977	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.212	0.24	11.212	90954	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.298	0.23	11.298	89717	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.355	0.05	11.356	19393	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.405	0.39	11.406	147974	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.506	0.06	11.506	22568	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.584	0.03	11.585	11242	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.656	0.13	11.656	51769	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.742	0.14	11.742	52896	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.821	0.05	11.821	19962	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 11.878	0.08	11.879	32259	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.014	0.06	12.015	21415	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.100	0.16	12.101	62106	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.157	0.09	12.158	32830	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.351	0.04	12.351	15323	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.430	0.06	12.430	22910	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.601	0.14	12.602	54031	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 12.902	0.03	12.903	12504	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.060	0.09	13.060	34565	<input type="checkbox"/>
<input checked="" type="checkbox"/> Unknown Peak 13.361	0.07	13.361	25549	<input type="checkbox"/>

# Air Toxics Ltd.

## File Results

Data File: File Information: 3090917.d  
Sample #: 2108676B-02A  
Client ID:  
Spike Level: 0  
Dilution Factor: 2.22

Compound	Amount (ppbv)	(Area - Blank Area)/ RF * DF
TNMOC (Ref. to Gasolin	130	(14130048.3914079 - 11262492.4366287 / 49830

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3090917.d  
 Sample #: 2108676B-02A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.22

	Compounds	RT	Peak Area	10
<input type="checkbox"/>	Unknown Peak 1.1986	1.199	1500382	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 1.4085	1.409	116287	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 1.4505	1.451	5434236	<input type="checkbox"/>
<input type="checkbox"/>	1,1-Difluoroethane	1.632	196290	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Freon 12	1.688	1972964	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.8423	1.842	34017	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 1.9542	1.954	66492	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 2.1921	2.192	44493	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Freon 11	2.878	15503	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Ethanol	3.325	1389	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.4094	3.409	17716	<input type="checkbox"/>
<input type="checkbox"/>	Acetone	3.801	93351	<input type="checkbox"/>
<input type="checkbox"/>	Carbon Disulfide	3.843	13353	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 3.8851	3.885	47358	<input type="checkbox"/>
<input type="checkbox"/>	2-Propanol	4.011	94476	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.1509	4.151	21507	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 4.4447	4.445	33189	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Hexane	4.739	179416	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.3822	5.382	30601	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 5.4801	5.480	19317	<input type="checkbox"/>
<input type="checkbox"/>	2-Butanone (Methyl Ethyl Ketone)	5.676	17866	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Bromochloromethane	5.858	1034763	<input type="checkbox"/>
<input type="checkbox"/>	Chloroform	5.914	417895	<input type="checkbox"/>
<input type="checkbox"/>	1,1,1-Trichloroethane	6.040	86920	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.1098	6.110	41723	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 6.3057	6.306	25009	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Benzene	6.376	6199	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2-Dichloroethane-d4	6.404	681436	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,4-Difluorobenzene	6.750	1570207	<input type="checkbox"/>
<input type="checkbox"/>	Trichloroethene	6.943	85129	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.0504	7.050	17012	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.2295	7.230	11131	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.3226	7.323	12017	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 7.6664	7.666	20277	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene-d8	7.967	1883715	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Toluene	8.025	144321	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.1965	8.197	20378	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.2610	8.261	33898	<input type="checkbox"/>
<input type="checkbox"/>	Tetrachloroethene	8.462	739203	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.6120	8.612	31306	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.6764	8.676	96244	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 8.7910	8.791	43129	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.0059	9.006	34091	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Chlorobenzene-d5	9.207	2127574	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Ethyl Benzene	9.271	108931	<input type="checkbox"/>
<input checked="" type="checkbox"/>	m,p-Xylene	9.371	141071	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.4286	9.429	18912	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.5432	9.543	14262	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.6148	9.615	26033	<input type="checkbox"/>
<input checked="" type="checkbox"/>	o-Xylene	9.722	32381	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.8225	9.823	21049	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 9.9013	9.901	19275	<input type="checkbox"/>

# Air Toxics Ltd.

## List of Selected Compounds

Data File: File Information: 3090917.d  
 Sample #: 2108676B-02A  
 Client ID:  
 Spike Level: 0  
 Dilution Factor: 2.22

	Compounds	RT	Peak Area	10
<input type="checkbox"/>	Unknown Peak 9.9658	9.966	51051	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 10.087	10.088	57911	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Bromofluorobenzene	10.202	2469377	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.259	10.260	69817	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Propylbenzene	10.360	34105	<input type="checkbox"/>
<input checked="" type="checkbox"/>	4-Ethyltoluene	10.431	122685	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,3,5-Trimethylbenzene	10.503	49224	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 10.560	10.560	56039	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.703	10.704	46779	<input type="checkbox"/>
<input checked="" type="checkbox"/>	1,2,4-Trimethylbenzene	10.833	103636	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 10.94	10.940	25277	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 11.033	11.033	60836	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.083	11.083	69272	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.212	11.212	40512	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.255	11.255	21363	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.405	11.406	59131	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.455	11.456	24156	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 11.513	11.513	20069	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.591	11.592	12462	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 11.656	11.656	85791	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.720	11.721	41715	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.749	11.749	30006	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.835	11.835	13874	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 11.885	11.886	21159	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.007	12.007	64036	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.164	12.165	27646	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.351	12.351	23823	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.594	12.595	22470	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 12.909	12.910	14312	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.053	13.053	19583	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.253	13.254	32129	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 13.396	13.397	41442	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Unknown Peak 13.633	13.633	15685	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 13.898	13.898	11493	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 14.020	14.020	10533	<input type="checkbox"/>
<input type="checkbox"/>	Unknown Peak 14.170	14.171	13855	<input type="checkbox"/>

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure ("Hg)} * (14.7\text{psi}/30\text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
0.0	1.14	1.34	1.68	2.02
0.2	1.14	1.35	1.69	2.03
0.4	1.15	1.36	1.70	2.05
0.5	1.16	1.36	1.71	2.05
0.6	1.16	1.37	1.71	2.06
0.8	1.17	1.38	1.73	2.08
1.0	1.18	1.39	1.74	2.09
1.2	1.18	1.40	1.75	2.10
1.4	1.19	1.40	1.76	2.12
1.5	1.20	1.41	1.77	2.13
1.6	1.20	1.42	1.77	2.13
1.8	1.21	1.42	1.79	2.15
2.0	1.22	1.44	1.80	2.16
2.2	1.23	1.45	1.81	2.18
2.4	1.23	1.46	1.83	2.20
2.5	1.24	1.46	1.83	2.20
2.6	1.24	1.47	1.84	2.21
2.8	1.25	1.48	1.85	2.23
3.0	1.26	1.49	1.87	2.24
3.2	1.27	1.50	1.88	2.26
3.4	1.28	1.51	1.90	2.28
3.5	1.29	1.52	1.90	2.29
3.6	1.29	1.52	1.91	2.30
3.8	1.30	1.53	1.92	2.31
4.0	1.31	1.55	1.94	2.33
4.2	1.32	1.56	1.95	2.35
4.4	1.33	1.57	1.97	2.37
4.5	1.34	1.58	1.98	2.38
4.6	1.34	1.58	1.98	2.39
4.8	1.35	1.60	2.00	2.40
5.0	1.36	1.61	2.02	2.42
5.2	1.37	1.62	2.03	2.44
5.4	1.39	1.63	2.05	2.46
5.5	1.39	1.64	2.06	2.47
5.6	1.40	1.65	2.07	2.48
5.8	1.41	1.66	2.08	2.50
6.0	1.42	1.68	2.10	2.52
6.2	1.43	1.69	2.12	2.55
6.4	1.44	1.70	2.14	2.57
6.5	1.45	1.71	2.15	2.58
6.6	1.46	1.72	2.15	2.59
6.8	1.47	1.73	2.17	2.61
7.0	1.48	1.75	2.19	2.64
7.2	1.49	1.76	2.21	2.66
7.4	1.51	1.78	2.23	2.68
7.5	1.51	1.79	2.24	2.69
7.6	1.52	1.79	2.25	2.70

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
7.7	1.53	1.80	2.26	2.72
7.8	1.54	1.81	2.27	2.73
8.0	1.55	1.83	2.29	2.76
8.2	1.56	1.84	2.31	2.78
8.4	1.58	1.86	2.33	2.81
8.5	1.59	1.87	2.34	2.82
8.6	1.59	1.88	2.36	2.83
8.8	1.61	1.90	2.38	2.86
9.0	1.62	1.91	2.40	2.89
9.2	1.64	1.93	2.42	2.91
9.4	1.65	1.95	2.45	2.94
9.5	1.66	1.96	2.46	2.96
9.6	1.67	1.97	2.47	2.97
9.8	1.69	1.99	2.50	3.00
10.0	1.70	2.01	2.52	3.03
10.2	1.72	2.03	2.55	3.06
10.4	1.74	2.05	2.57	3.09
10.5	1.75	2.06	2.59	3.11
10.6	1.76	2.07	2.60	3.12
10.8	1.78	2.09	2.63	3.16
11.0	1.79	2.12	2.65	3.19
11.2	1.81	2.14	2.68	3.22
11.4	1.83	2.16	2.71	3.26
11.5	1.84	2.17	2.72	3.28
11.6	1.85	2.18	2.74	3.29
11.8	1.87	2.21	2.77	3.33
12.0	1.89	2.23	2.80	3.37
12.2	1.91	2.26	2.83	3.40
12.4	1.94	2.28	2.86	3.44
12.5	1.95	2.30	2.88	3.46
12.6	1.96	2.31	2.90	3.48
12.8	1.98	2.34	2.93	3.52
13.0	2.00	2.36	2.97	3.56
13.2	2.03	2.39	3.00	3.61
13.4	2.05	2.42	3.04	3.65
13.5	2.07	2.44	3.06	3.67
13.6	2.08	2.45	3.07	3.70
13.8	2.10	2.48	3.11	3.74
14.0	2.13	2.51	3.15	3.79
14.2	2.16	2.54	3.19	3.84
14.4	2.18	2.58	3.23	3.88
14.5	2.20	2.59	3.25	3.91
14.6	2.21	2.61	3.27	3.94
14.8	2.24	2.64	3.32	3.99
15.0	2.27	2.68	3.36	4.04
15.2	2.30	2.72	3.41	4.10
15.4	2.33	2.75	3.45	4.15



Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
15.5	<b>2.35</b>	2.77	<b>3.48</b>	4.18
15.6	<b>2.37</b>	2.79	<b>3.50</b>	4.21
15.8	<b>2.40</b>	2.83	<b>3.55</b>	4.27
16.0	<b>2.43</b>	2.87	<b>3.60</b>	4.33
16.2	<b>2.47</b>	2.91	<b>3.65</b>	4.39
16.4	<b>2.51</b>	2.96	<b>3.71</b>	4.46
16.5	<b>2.52</b>	2.98	<b>3.73</b>	4.49
16.6	<b>2.54</b>	3.00	<b>3.76</b>	4.52
16.8	<b>2.58</b>	3.05	<b>3.82</b>	4.59
17.0	<b>2.62</b>	3.09	<b>3.88</b>	4.66
17.2	<b>2.66</b>	3.14	<b>3.94</b>	4.74
17.4	<b>2.70</b>	3.19	<b>4.00</b>	4.81
17.5	<b>2.73</b>	3.22	<b>4.03</b>	4.85
17.6	<b>2.75</b>	3.24	<b>4.07</b>	4.89
17.8	<b>2.79</b>	3.30	<b>4.13</b>	4.97
18.0	<b>2.84</b>	3.35	<b>4.20</b>	5.05
18.2	<b>2.89</b>	3.41	<b>4.27</b>	5.14
18.4	<b>2.94</b>	3.47	<b>4.35</b>	5.22
18.5	<b>2.96</b>	3.50	<b>4.38</b>	5.27
18.6	<b>2.99</b>	3.53	<b>4.42</b>	5.32
18.8	<b>3.04</b>	3.59	<b>4.50</b>	5.41
19.0	<b>3.10</b>	3.65	<b>4.58</b>	5.51
19.2	<b>3.16</b>	3.72	<b>4.67</b>	5.61
19.4	<b>3.22</b>	3.79	<b>4.76</b>	5.72
19.5	<b>3.25</b>	3.83	<b>4.80</b>	5.77
19.6	<b>3.28</b>	3.87	<b>4.85</b>	5.83
19.8	<b>3.34</b>	3.94	<b>4.94</b>	5.94
20.0	<b>3.41</b>	4.02	<b>5.04</b>	6.06
20.2	<b>3.48</b>	4.10	<b>5.14</b>	6.18
20.4	<b>3.55</b>	4.19	<b>5.25</b>	6.31
20.5	<b>3.59</b>	4.23	<b>5.31</b>	6.38
20.6	<b>3.63</b>	4.28	<b>5.36</b>	6.45
20.8	<b>3.70</b>	4.37	<b>5.48</b>	6.59
21.0	<b>3.79</b>	4.47	<b>5.60</b>	6.73
21.2	<b>3.87</b>	4.57	<b>5.73</b>	6.89
21.4	<b>3.96</b>	4.67	<b>5.86</b>	7.05
21.5	<b>4.01</b>	4.73	<b>5.93</b>	7.13
21.6	<b>4.06</b>	4.79	<b>6.00</b>	7.22
21.8	<b>4.16</b>	4.90	<b>6.15</b>	7.39
22.0	<b>4.26</b>	5.03	<b>6.30</b>	7.58
22.4	<b>4.48</b>	5.29	<b>6.63</b>	7.98

Initial Vacuum (" of Hg)	2 psi	5 psi	10 psi	15 psi
22.5	<b>4.54</b>	5.36	<b>6.72</b>	8.08
22.6	<b>4.61</b>	5.43	<b>6.81</b>	8.19
22.8	<b>4.73</b>	5.58	<b>7.00</b>	8.42
23.0	<b>4.87</b>	5.74	<b>7.20</b>	8.66
23.2	<b>5.01</b>	5.91	<b>7.41</b>	8.91
23.4	<b>5.16</b>	6.09	<b>7.64</b>	9.18
23.5	<b>5.24</b>	6.19	<b>7.76</b>	9.32
23.6	<b>5.33</b>	6.28	<b>7.88</b>	9.47
23.8	<b>5.50</b>	6.48	<b>8.13</b>	9.78
24.0	<b>5.68</b>	6.70	<b>8.40</b>	10.10
24.2	<b>5.88</b>	6.93	<b>8.69</b>	10.45
24.4	<b>6.09</b>	7.18	<b>9.00</b>	10.82
24.5	<b>6.20</b>	7.31	<b>9.17</b>	11.02
24.6	<b>6.31</b>	7.45	<b>9.33</b>	11.22
24.8	<b>6.55</b>	7.73	<b>9.69</b>	11.66
25.0	<b>6.82</b>	8.04	<b>10.08</b>	12.12
25.2	<b>7.10</b>	8.38	<b>10.50</b>	12.63
25.4	<b>7.41</b>	8.74	<b>10.96</b>	13.18
25.5	<b>7.57</b>	8.93	<b>11.20</b>	13.47
25.6	<b>7.75</b>	9.14	<b>11.46</b>	13.78
25.8	<b>8.11</b>	9.57	<b>12.00</b>	14.43
26.0	<b>8.52</b>	10.05	<b>12.60</b>	15.15
26.2	<b>8.97</b>	10.58	<b>13.27</b>	15.95
26.4	<b>9.47</b>	11.17	<b>14.00</b>	16.84
26.5	<b>9.74</b>	11.49	<b>14.40</b>	17.32
26.6	<b>10.02</b>	11.82	<b>14.83</b>	17.83
26.8	<b>10.65</b>	12.56	<b>15.75</b>	18.94
27.0	<b>11.36</b>	13.40	<b>16.80</b>	20.20
27.2	<b>12.17</b>	14.36	<b>18.00</b>	21.65
27.4	<b>13.11</b>	15.46	<b>19.39</b>	23.31
27.5	<b>13.63</b>	16.08	<b>20.16</b>	24.24
27.6	<b>14.20</b>	16.75	<b>21.00</b>	25.26
27.8	<b>15.49</b>	18.27	<b>22.91</b>	27.55
28.0	<b>17.04</b>	20.10	<b>25.20</b>	30.31
28.2	<b>18.93</b>	22.34	<b>28.00</b>	33.67
28.4	<b>21.30</b>	25.13	<b>31.51</b>	37.88
28.5	<b>22.72</b>	26.80	<b>33.61</b>	40.41
28.6	<b>24.34</b>	28.72	<b>36.01</b>	43.29
28.8	<b>28.40</b>	33.50	<b>42.01</b>	50.51
29.0	<b>34.08</b>	40.20	<b>50.41</b>	60.61

## Method:TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)

CAS Number	Compound	Rpt. Limit(ppbv)
630-20-6	1,1,1,2-Tetrachloroethane	2.0
71-55-6	1,1,1-Trichloroethane	0.5
79-34-5	1,1,2,2-Tetrachloroethane	0.5
79-00-5	1,1,2-Trichloroethane	0.5
75-34-3	1,1-Dichloroethane	0.5
75-35-4	1,1-Dichloroethene	0.5
75-37-6	1,1-Difluoroethane	2.0
96-18-4	1,2,3-Trichloropropane	2.0
120-82-1	1,2,4-Trichlorobenzene	2.0
95-63-6	1,2,4-Trimethylbenzene	0.5
96-12-8	1,2-Dibromo-3-chloropropane	2.0
106-93-4	1,2-Dibromoethane (EDB)	0.5
95-50-1	1,2-Dichlorobenzene	0.5
107-06-2	1,2-Dichloroethane	0.5
78-87-5	1,2-Dichloropropane	0.5
108-67-8	1,3,5-Trimethylbenzene	0.5
106-99-0	1,3-Butadiene	0.5
541-73-1	1,3-Dichlorobenzene	0.5
106-46-7	1,4-Dichlorobenzene	0.5
123-91-1	1,4-Dioxane	2.0
540-84-1	2,2,4-Trimethylpentane	0.5
78-93-3	2-Butanone (Methyl Ethyl Ketone)	2.0
591-78-6	2-Hexanone	2.0
67-63-0	2-Propanol	2.0
107-05-1	3-Chloropropene	2.0
622-96-8	4-Ethyltoluene	0.5
108-10-1	4-Methyl-2-pentanone	0.5
67-64-1	Acetone	5.0
107-02-8	Acrolein	2.0
107-13-1	Acrylonitrile	2.0
100-44-7	alpha-Chlorotoluene	0.5
71-43-2	Benzene	0.5

75-27-4 Bromodichloromethane 0.5  
Method:TO-15 (Sp)-AECOM (SMUD 59th alphanumeric)

CAS Number	Compound	Rpt. Limit(ppbv)
75-25-2	Bromoform	0.5
74-83-9	Bromomethane	5.0
75-15-0	Carbon Disulfide	2.0
56-23-5	Carbon Tetrachloride	0.5
108-90-7	Chlorobenzene	0.5
75-00-3	Chloroethane	2.0
67-66-3	Chloroform	0.5
74-87-3	Chloromethane	5.0
156-59-2	cis-1,2-Dichloroethene	0.5
10061-01-5	cis-1,3-Dichloropropene	0.5
98-82-8	Cumene	0.5
110-82-7	Cyclohexane	0.5
124-48-1	Dibromochloromethane	0.5
74-95-3	Dibromomethane	2.0
64-17-5	Ethanol	5.0
141-78-6	Ethyl Acetate	2.0
100-41-4	Ethyl Benzene	0.5
637-92-3	Ethyl-tert-butyl ether	2.0
75-69-4	Freon 11	0.5
76-13-1	Freon 113	0.5
76-14-2	Freon 114	0.5
75-71-8	Freon 12	0.5
811-97-2	Freon 134a	2.0
142-82-5	Heptane	0.5
87-68-3	Hexachlorobutadiene	2.0
67-72-1	Hexachloroethane	2.0
110-54-3	Hexane	0.5
74-88-4	Iodomethane	5.0
108-20-3	Isopropyl ether	2.0
108-38-3	m,p-Xylene	0.5
1634-04-4	Methyl tert-butyl ether	2.0
75-09-2	Methylene Chloride	5.0
91-20-3	Naphthalene	1.0
95-47-6	o-Xylene	0.5
103-65-1	Propylbenzene	0.5

115-07-1	Propylene	2.0
100-42-5	Styrene	0.5
994-05-8	tert-Amyl methyl ether	2.0
75-65-0	tert-Butyl alcohol	2.0
127-18-4	Tetrachloroethene	0.5
109-99-9	Tetrahydrofuran	0.5
108-88-3	Toluene	0.5
9999-9999-038	TPH ref. to Gasoline (MW=100)	50.0
156-60-5	trans-1,2-Dichloroethene	0.5
10061-02-6	trans-1,3-Dichloropropene	0.5
79-01-6	Trichloroethene	0.5
108-05-4	Vinyl Acetate	2.0
593-60-2	Vinyl Bromide	2.0
75-01-4	Vinyl Chloride	0.5

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	Surrogate	Method Limits
17060-07-0	1,2-Dichloroethane-d4	70-130
460-00-4	4-Bromofluorobenzene	70-130
2037-26-5	Toluene-d8	70-130

Eurofins Air Toxics		Data Review Checklist			Release Date: 10/22/19
Workorder # 2108670B		Form F1.27	Revision #17	Revision Date: 10/22/19	Page 1 of 2

S	S	S	S	D	<b>Section 1 – Spec Out</b>				
1	2	3	4		Initials/Instrument/Date	S1: MSP3 409/9/21	S2:	S3:	S4:
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Manual Integrations included and approved				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Chain of Custody verified for special comments/notes and analyses requested (add comments below)				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Non-standard Target sublist verified (MDL, LOD, RL, control limits, etc.)				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Verified standard expiration dates				
Profile, analyses, reporting, special notes and unusual circumstances:					out ICAL, US. ST: <del>QC</del> out UB - OSC 409/9/21				

A	A	A	A	D	<b>Section 2 – Sample Analysis</b>				
1	2	3	4		Initials/Date	A1: <del>QC</del> 9/9/21	A2:	A3:	A4:
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, Canister #s Verified and dilution ranges are met per SOP (ex. Over-ranged/overdiluted)				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Manual Integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply)				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12/24 Hr clock time & Hold Time met for all samples				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Re-analysis of sample(s) has been evaluated for comparability and/or sample(s) has/have been checked for trends (Inf/Eff), field dups/trip blanks, samples following bad loads on auto samplers have been verified (system blks, confirmation runs)				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)				
Analytical and special notes:					AL OZA FILL				

D	D	D	D	T	3	<b>Section 3 – Target</b>		Technical Review Needed?		T:
1	2	3	4			Data Reduction	Circle one: Yes/No			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Initials/Instrument/Date	D1: MSP-3 MSB 9/14/21	D2:	D3:	D4:
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CAR # (if applicable)				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Spectra Verified (documentation of spectral defense included if applicable)				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	TICs resemble reference spectra/ TICs between sample dups. are consistent (if applicable)				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lab Narrative is correct				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	TPH/NMOC calculations complete and included in folder				
Special notes:										

A	3	<b>Section 4- Atlas Data Entry</b>		Lumen verified and included in folder		Circle one: Yes/No	
1	T	Initials/Date:	3 <sup>rd</sup> Tier:		(needed only for DOD or per client request)		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MSB 9/15/21					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sample Discrepancy Report (SDR) complete and approved (if applicable)					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Manually entered results are checked					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	At least one result per sample is verified against Target quant sheets					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Appropriate data qualifier flags are applied					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Final Invoice is correct/ Final PDF report, COC and EDD reviewed and correct					
Special Notes:							

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply  
 Note (2) 3<sup>rd</sup> Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Eurofins Air Toxics  Reissued	Data Review Checklist			Release Date: 10/22/19
	Form F1.27	Revision #17	Revision Date: 10/22/19	Page 2 of 2

<b>Workorder # :</b>					<b>Reason for Reissue:</b>						
<b>W</b>	<b>T</b>	<b>3T</b>	<b>Q</b>								
				Reissue Request form Present							
				Client or QA or Lab contact present with reason for reissue							
				Review all affected data							
				Report header has correct R1, R2 etc							
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)							
				Date for Reissue in Report Header matches date in Lab Narrative							
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)							
				Corrective Action issued - #							
				The reissued workorder has been approved by QA Manager or a Technical Director							
<b>Additional Comments:</b>											
<b>Write Up</b> (Initials/Date)			<b>Tech Review</b> (Initials/Date)			<b>*3<sup>rd</sup> Tier Review</b> <i>* 3<sup>rd</sup> Tier Report Review is for DoD &amp; Client Specific projects only</i> (Initials/Date)			<b>QA Review</b> (Initials/Date)		

<b>Workorder # :</b>					<b>Reason for Reissue:</b>						
<b>W</b>	<b>T</b>	<b>3T</b>	<b>Q</b>								
				Reissue Request form Present							
				Client or QA or Lab contact present with reason for reissue							
				Review all affected data							
				Report header has correct R1, R2 etc							
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)							
				Date for Reissue in Report Header matches date in Lab Narrative							
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)							
				Corrective Action issued - #							
				The reissued workorder has been approved by QA Manager or a Technical Director							
<b>Additional Comments:</b>											
<b>Write Up</b> (Initials/Date)			<b>Tech Review</b> (Initials/Date)			<b>*3<sup>rd</sup> Tier Review</b> <i>* 3<sup>rd</sup> Tier Report Review is for DoD &amp; Client Specific projects only</i> (Initials/Date)			<b>QA Review</b> (Initials/Date)		

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply

Note (2) 3<sup>rd</sup> Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

**Not Applicable**



Beacon Environmental  
2203A Commerce Road, Suite 1  
Forest Hill, MD 21050 USA  
1.410.838.8780

## CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 210625R02

Laboratory Work Order: 0005847

### Project Description:

SMUD 59th Street Corporation Yard  
Sacramento, CA

Client PO No.: 60632793.6

Prepared for:

Robert Kohlhardt

**AECOM**

2020 L Street, Suite 300

Sacramento, CA 95811

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Ryan W. Schneider  
Senior Project Manager

July 29, 2021

All data meet requirements as specified in the Beacon Environmental Quality Assurance Project Plan and the results relate only to the samples reported. The work performed was in accordance with ISO/IEC 17025:2017. This report shall not be reproduced, except in full, without written approval of the laboratory. Release of the data contained in this data package has been authorized by the Laboratory Director or his signee, as verified by the following signatures:

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Steven C. Thornley  
Laboratory Director

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Peter B. Kelly  
Interim Quality Manager



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<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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### Sample Summary

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0005847-01 Sampler Type:	TB-01 Beacon Passive Sampler	07/19/2021	TO-17 (Passive)	Air
0005847-02 Sampler Type:	F-SEW-01P Beacon Passive Sampler	07/19/2021	TO-17 (Passive)	Sewer Gas
0005847-03 Sampler Type:	H-SEW-01P Beacon Passive Sampler	07/19/2021	TO-17 (Passive)	Sewer Gas
0005847-04 Sampler Type:	H-SEW-02P Beacon Passive Sampler	07/19/2021	TO-17 (Passive)	Sewer Gas
0005847-05 Sampler Type:	J-SEW-01P Beacon Passive Sampler	07/19/2021	TO-17 (Passive)	Sewer Gas
0005847-06 Sampler Type:	H-SEW-03P Beacon Passive Sampler	07/19/2021	TO-17 (Passive)	Sewer Gas

#### Project Completeness

**Samples Received:** 6  
**Samples Analyzed:** 6

**AECOM**  
2020 L Street, Suite 300  
Sacramento, CA 95811

**Site Name:** SMUD 59th Street Corporation Yard  
**Site Location:** Sacramento, CA  
**Project Manager:** Robert Kohlhardt

**Beacon Proposal:** 210625R02  
**Lab Work Order:** 0005847  
**Reported:** 07/29/2021

### *Case Narrative*

Beacon Environmental provided thermally conditioned Beacon Samplers for sampling, with analyses following U.S. EPA Method TO-17, with analytical results reported in  $\mu\text{g}/\text{m}^3$ . Beacon calculated concentration results using the exposure period, target analyte mass, and the following procedures detailed in ISO 16017-2, *Indoor, ambient and workplace air-Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography-Part 2: Diffusive sampling*.

Beacon reports results and reporting limits to three significant digits.

#### **Reporting Limits (RLs) for EPA Method TO-17**

The RLs represent a baseline above which results meet laboratory-determined limits of precision and accuracy. Beacon performed dilution analysis when results exceeded the upper calibration limit, bringing all reported results within the calibration range. The project method quantitation limit (MQL) is the limit of detection (LOD) as noted in the data tables.

#### **Calibration Verification**

All continuing calibration verification (CCV) values are within  $\pm 30\%$  of the true values as defined by the initial calibration and met the requirements specified in BEACON's Quality Manual.

#### **Internal Standards and Surrogates**

Internal standards and surrogates are spiked on all blanks (ICB, BLK), field samples and laboratory control samples (ICV/CALV, BS, ICV and CCV). Acceptance criteria for internal standards are 60 to 140 percent and surrogate recoveries are 70 to 130 percent; all internal standards and surrogates are within the acceptance criteria unless noted in the **Case Narrative**.

#### **Blank Contamination**

No targeted compounds above the limit of detection (LOD) for each compound were observed in the Laboratory Method Blanks.

#### **Laboratory Control Samples**

Acceptance criteria for surrogate and analytes recoveries are 70 to 130 percent; all recoveries are within the acceptance criteria unless noted in the **Case Narrative** section.

#### **Discussion**

Samples were received in proper condition and laboratory control parameters were met unless otherwise noted below. The work performed was in accordance with ISO/IEC 17025:2017.

End of Case Narrative

**AECOM**  
2020 L Street, Suite 300  
Sacramento, CA 95811

**Site Name:** SMUD 59th Street Corporation Yard  
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**Project Manager:** Robert Kohlhardt

**Beacon Proposal:** 210625R02  
**Lab Work Order:** 0005847  
**Reported:** 07/29/2021

## *Analytical Results*

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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*Summary of Compound Detections- Concentration*

Lab Sample ID: 0005847-02	<b>F-SEW-01P</b>	Method: TO-17 (Passive)
Sewer Gas		

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
<b>Benzene</b>	71-43-2	<b>5.06</b>		4.784	4.61	1.84	A21072006.D

Lab Sample ID: 0005847-03	<b>H-SEW-01P</b>	Method: TO-17 (Passive)
Sewer Gas		

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
<b>Benzene</b>	71-43-2	<b>2.02</b>	J	4.777	4.65	1.86	A21072007.D
<b>Tetrachloroethene</b>	127-18-4	<b>1.28</b>	J	8.198	2.40	1.20	A21072007.D
<b>p &amp; m-Xylene</b>	179601-23-1	<b>1.16</b>	J	9.173	2.80	1.12	A21072007.D
<b>1,3,5-Trimethylbenzene</b>	108-67-8	<b>2.46</b>	J	10.163	2.97	1.19	A21072007.D
<b>1,2,4-Trimethylbenzene</b>	95-63-6	<b>3.62</b>		10.414	2.97	1.19	A21072007.D

Lab Sample ID: 0005847-04	<b>H-SEW-02P</b>	Method: TO-17 (Passive)
Sewer Gas		

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
<b>Benzene</b>	71-43-2	<b>2.57</b>	J	4.780	4.65	1.86	A21072008.D
<b>Toluene</b>	108-88-3	<b>3.06</b>	J	7.710	6.16	2.46	A21072008.D
<b>Tetrachloroethene</b>	127-18-4	<b>1.74</b>	J	8.195	2.40	1.20	A21072008.D
<b>p &amp; m-Xylene</b>	179601-23-1	<b>1.67</b>	J	9.173	2.80	1.12	A21072008.D
<b>o-Xylene</b>	95-47-6	<b>1.32</b>	J	9.465	2.80	1.12	A21072008.D
<b>1,3,5-Trimethylbenzene</b>	108-67-8	<b>3.10</b>		10.163	2.97	1.19	A21072008.D
<b>1,2,4-Trimethylbenzene</b>	95-63-6	<b>4.72</b>		10.414	2.97	1.19	A21072008.D

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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*Summary of Compound Detections- Concentration*

Lab Sample ID: 0005847-05	<b>J-SEW-01P</b>	Method: TO-17 (Passive)
Sewer Gas		

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
<b>Chloroform</b>	67-66-3	<b>9.81</b>		4.067	2.80	1.40	A21072009.D
<b>Benzene</b>	71-43-2	<b>3.32</b>	J	4.780	4.63	1.85	A21072009.D

Lab Sample ID: 0005847-06	<b>H-SEW-03P</b>	Method: TO-17 (Passive)
Sewer Gas		

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
<b>Chloroform</b>	67-66-3	<b>1.54</b>	J	4.067	2.81	1.41	A21072010.D
<b>Benzene</b>	71-43-2	<b>2.22</b>	J	4.777	4.65	1.86	A21072010.D
<b>Toluene</b>	108-88-3	<b>21.1</b>		7.710	6.16	2.46	A21072010.D
<b>Ethylbenzene</b>	100-41-4	<b>1.41</b>	J	9.070	2.90	1.16	A21072010.D
<b>p &amp; m-Xylene</b>	179601-23-1	<b>5.75</b>		9.173	2.80	1.12	A21072010.D
<b>o-Xylene</b>	95-47-6	<b>4.91</b>		9.462	2.80	1.12	A21072010.D
<b>1,2,4-Trimethylbenzene</b>	95-63-6	<b>1.22</b>	J	10.414	2.97	1.19	A21072010.D

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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***Data Summary Table- Concentration***

<b>Compound</b>	<b>Frequency</b>	<b>LOD (µg/m<sup>3</sup>)</b>	<b>Max Value (µg/m<sup>3</sup>)</b>
Chloroform	2	1.40	9.81
Benzene	5	1.84	5.06
Toluene	2	2.46	21.1
Tetrachloroethene	2	1.20	1.74
Ethylbenzene	1	1.16	1.41
p & m-Xylene	3	1.12	5.75
o-Xylene	2	1.12	4.91
1,3,5-Trimethylbenzene	2	1.19	3.10
1,2,4-Trimethylbenzene	3	1.19	4.72

**AECOM**  
2020 L Street, Suite 300  
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**Site Name:** SMUD 59th Street Corporation Yard  
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**Project Manager:** Robert Kohlhardt

**Beacon Proposal:** 210625R02  
**Lab Work Order:** 0005847  
**Reported:** 07/29/2021

*Detailed Analytical Results*



<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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Lab Sample ID: 0005847-01	<b>TB-01</b> Air	Method: TO-17 (Passive)
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Analyte	CAS#	Result (µg/m <sup>3</sup> )	Q	LOD (µg/m <sup>3</sup> )	LOQ (µg/m <sup>3</sup> )	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.603		0.603	1.21	07/20/2021 09:38	A21072005.D
1,1-Dichloroethene	75-35-4	<1.48		1.48	2.96	07/20/2021 09:38	A21072005.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.549		0.549	1.10	07/20/2021 09:38	A21072005.D
trans-1,2-Dichloroethene	156-60-5	<1.11		1.11	2.22	07/20/2021 09:38	A21072005.D
Methyl-t-butyl ether	1634-04-4	<1.95		1.95	4.88	07/20/2021 09:38	A21072005.D
1,1-Dichloroethane	75-34-3	<0.574		0.574	1.15	07/20/2021 09:38	A21072005.D
cis-1,2-Dichloroethene	156-59-2	<0.921		0.921	1.84	07/20/2021 09:38	A21072005.D
Chloroform	67-66-3	<1.39		1.39	2.79	07/20/2021 09:38	A21072005.D
1,2-Dichloroethane	107-06-2	<0.872		0.872	1.74	07/20/2021 09:38	A21072005.D
1,1,1-Trichloroethane	71-55-6	<0.465		0.465	0.930	07/20/2021 09:38	A21072005.D
Carbon Tetrachloride	56-23-5	<1.14		1.14	2.27	07/20/2021 09:38	A21072005.D
Benzene	71-43-2	<1.84		1.84	4.61	07/20/2021 09:38	A21072005.D
Trichloroethene	79-01-6	<1.48		1.48	2.96	07/20/2021 09:38	A21072005.D
1,4-Dioxane	123-91-1	<1.19		1.19	2.38	07/20/2021 09:38	A21072005.D
1,1,2-Trichloroethane	79-00-5	<1.48		1.48	2.96	07/20/2021 09:38	A21072005.D
Toluene	108-88-3	<2.44		2.44	6.10	07/20/2021 09:38	A21072005.D
1,2-Dibromoethane (EDB)	106-93-4	<1.25		1.25	2.50	07/20/2021 09:38	A21072005.D
Tetrachloroethene	127-18-4	<1.19		1.19	2.38	07/20/2021 09:38	A21072005.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.19		1.19	2.38	07/20/2021 09:38	A21072005.D
Chlorobenzene	108-90-7	<0.574		0.574	1.15	07/20/2021 09:38	A21072005.D
Ethylbenzene	100-41-4	<1.15		1.15	2.87	07/20/2021 09:38	A21072005.D
p & m-Xylene	179601-23-1	<1.11		1.11	2.77	07/20/2021 09:38	A21072005.D
1,1,2,2-Tetrachloroethane	79-34-5	<1.19		1.19	2.38	07/20/2021 09:38	A21072005.D
o-Xylene	95-47-6	<1.11		1.11	2.77	07/20/2021 09:38	A21072005.D
1,2,3-Trichloropropane	96-18-4	<0.651		0.651	1.30	07/20/2021 09:38	A21072005.D
Isopropylbenzene	98-82-8	<1.18		1.18	2.94	07/20/2021 09:38	A21072005.D
1,3,5-Trimethylbenzene	108-67-8	<1.18		1.18	2.94	07/20/2021 09:38	A21072005.D
1,2,4-Trimethylbenzene	95-63-6	<1.18		1.18	2.94	07/20/2021 09:38	A21072005.D
1,3-Dichlorobenzene	541-73-1	<0.651		0.651	1.30	07/20/2021 09:38	A21072005.D
1,4-Dichlorobenzene	106-46-7	<0.651		0.651	1.30	07/20/2021 09:38	A21072005.D
1,2-Dichlorobenzene	95-50-1	<0.651		0.651	1.30	07/20/2021 09:38	A21072005.D
1,2,4-Trichlorobenzene	120-82-1	<1.25		1.25	2.50	07/20/2021 09:38	A21072005.D
Naphthalene	91-20-3	<0.610		0.610	1.22	07/20/2021 09:38	A21072005.D
1,2,3-Trichlorobenzene	87-61-6	<1.25		1.25	2.50	07/20/2021 09:38	A21072005.D
2-Methylnaphthalene	91-57-6	<0.642		0.642	1.28	07/20/2021 09:38	A21072005.D
<i>Analyte</i>	<i>CAS#</i>	<i>% Recovery</i>	<i>Recovery Limits</i>	<i>Q</i>		<i>Analyzed</i>	<i>File ID</i>
Surrogate: 1,2-DCA-d4	17060-07-0	95.7%	70-130			07/20/2021 09:38	A21072005.D
Surrogate: Toluene-d8	2037-26-5	92.1%	70-130			07/20/2021 09:38	A21072005.D
Surrogate: Bromofluorobenzene	460-00-4	98.8%	70-130			07/20/2021 09:38	A21072005.D

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Lab Sample ID: 0005847-02	<b>F-SEW-01P</b>	Method: TO-17 (Passive)
Sewer Gas		

Analyte	CAS#	Result (µg/m <sup>3</sup> )	Q	LOD (µg/m <sup>3</sup> )	LOQ (µg/m <sup>3</sup> )	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.603		0.603	1.21	07/20/2021 10:07	A21072006.D
1,1-Dichloroethene	75-35-4	<1.48		1.48	2.96	07/20/2021 10:07	A21072006.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.549		0.549	1.10	07/20/2021 10:07	A21072006.D
trans-1,2-Dichloroethene	156-60-5	<1.11		1.11	2.22	07/20/2021 10:07	A21072006.D
Methyl-t-butyl ether	1634-04-4	<1.95		1.95	4.88	07/20/2021 10:07	A21072006.D
1,1-Dichloroethane	75-34-3	<0.574		0.574	1.15	07/20/2021 10:07	A21072006.D
cis-1,2-Dichloroethene	156-59-2	<0.921		0.921	1.84	07/20/2021 10:07	A21072006.D
Chloroform	67-66-3	<1.39		1.39	2.79	07/20/2021 10:07	A21072006.D
1,2-Dichloroethane	107-06-2	<0.872		0.872	1.74	07/20/2021 10:07	A21072006.D
1,1,1-Trichloroethane	71-55-6	<0.465		0.465	0.930	07/20/2021 10:07	A21072006.D
Carbon Tetrachloride	56-23-5	<1.14		1.14	2.27	07/20/2021 10:07	A21072006.D
<b>Benzene</b>	71-43-2	<b>5.06</b>		1.84	4.61	07/20/2021 10:07	A21072006.D
Trichloroethene	79-01-6	<1.48		1.48	2.96	07/20/2021 10:07	A21072006.D
1,4-Dioxane	123-91-1	<1.19		1.19	2.38	07/20/2021 10:07	A21072006.D
1,1,2-Trichloroethane	79-00-5	<1.48		1.48	2.96	07/20/2021 10:07	A21072006.D
Toluene	108-88-3	<2.44		2.44	6.10	07/20/2021 10:07	A21072006.D
1,2-Dibromoethane (EDB)	106-93-4	<1.25		1.25	2.50	07/20/2021 10:07	A21072006.D
Tetrachloroethene	127-18-4	<1.19		1.19	2.38	07/20/2021 10:07	A21072006.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.19		1.19	2.38	07/20/2021 10:07	A21072006.D
Chlorobenzene	108-90-7	<0.574		0.574	1.15	07/20/2021 10:07	A21072006.D
Ethylbenzene	100-41-4	<1.15		1.15	2.87	07/20/2021 10:07	A21072006.D
p & m-Xylene	179601-23-1	<1.11		1.11	2.77	07/20/2021 10:07	A21072006.D
1,1,2,2-Tetrachloroethane	79-34-5	<1.19		1.19	2.38	07/20/2021 10:07	A21072006.D
o-Xylene	95-47-6	<1.11		1.11	2.77	07/20/2021 10:07	A21072006.D
1,2,3-Trichloropropane	96-18-4	<0.651		0.651	1.30	07/20/2021 10:07	A21072006.D
Isopropylbenzene	98-82-8	<1.18		1.18	2.94	07/20/2021 10:07	A21072006.D
1,3,5-Trimethylbenzene	108-67-8	<1.18		1.18	2.94	07/20/2021 10:07	A21072006.D
1,2,4-Trimethylbenzene	95-63-6	<1.18		1.18	2.94	07/20/2021 10:07	A21072006.D
1,3-Dichlorobenzene	541-73-1	<0.651		0.651	1.30	07/20/2021 10:07	A21072006.D
1,4-Dichlorobenzene	106-46-7	<0.651		0.651	1.30	07/20/2021 10:07	A21072006.D
1,2-Dichlorobenzene	95-50-1	<0.651		0.651	1.30	07/20/2021 10:07	A21072006.D
1,2,4-Trichlorobenzene	120-82-1	<1.25		1.25	2.50	07/20/2021 10:07	A21072006.D
Naphthalene	91-20-3	<0.610		0.610	1.22	07/20/2021 10:07	A21072006.D
1,2,3-Trichlorobenzene	87-61-6	<1.25		1.25	2.50	07/20/2021 10:07	A21072006.D
2-Methylnaphthalene	91-57-6	<0.642		0.642	1.28	07/20/2021 10:07	A21072006.D
<i>Analyte</i>	<i>CAS#</i>	<i>% Recovery</i>	<i>Recovery Limits</i>	<i>Q</i>		<i>Analyzed</i>	<i>File ID</i>
Surrogate: 1,2-DCA-d4	17060-07-0	89.4%	70-130			07/20/2021 10:07	A21072006.D
Surrogate: Toluene-d8	2037-26-5	89.4%	70-130			07/20/2021 10:07	A21072006.D
Surrogate: Bromofluorobenzene	460-00-4	100%	70-130			07/20/2021 10:07	A21072006.D

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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Lab Sample ID: 0005847-03	<b>H-SEW-01P</b> Sewer Gas	Method: TO-17 (Passive)
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Analyte	CAS#	Result (µg/m <sup>3</sup> )	Q	LOD (µg/m <sup>3</sup> )	LOQ (µg/m <sup>3</sup> )	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.608		0.608	1.22	07/20/2021 10:36	A21072007.D
1,1-Dichloroethene	75-35-4	<1.49		1.49	2.99	07/20/2021 10:36	A21072007.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.554		0.554	1.11	07/20/2021 10:36	A21072007.D
trans-1,2-Dichloroethene	156-60-5	<1.12		1.12	2.24	07/20/2021 10:36	A21072007.D
Methyl-t-butyl ether	1634-04-4	<1.97		1.97	4.93	07/20/2021 10:36	A21072007.D
1,1-Dichloroethane	75-34-3	<0.580		0.580	1.16	07/20/2021 10:36	A21072007.D
cis-1,2-Dichloroethene	156-59-2	<0.930		0.930	1.86	07/20/2021 10:36	A21072007.D
Chloroform	67-66-3	<1.41		1.41	2.82	07/20/2021 10:36	A21072007.D
1,2-Dichloroethane	107-06-2	<0.880		0.880	1.76	07/20/2021 10:36	A21072007.D
1,1,1-Trichloroethane	71-55-6	<0.469		0.469	0.938	07/20/2021 10:36	A21072007.D
Carbon Tetrachloride	56-23-5	<1.15		1.15	2.29	07/20/2021 10:36	A21072007.D
<b>Benzene</b>	71-43-2	<b>2.02</b>	J	1.86	4.65	07/20/2021 10:36	A21072007.D
Trichloroethene	79-01-6	<1.49		1.49	2.99	07/20/2021 10:36	A21072007.D
1,4-Dioxane	123-91-1	<1.20		1.20	2.40	07/20/2021 10:36	A21072007.D
1,1,2-Trichloroethane	79-00-5	<1.49		1.49	2.99	07/20/2021 10:36	A21072007.D
Toluene	108-88-3	<2.46		2.46	6.16	07/20/2021 10:36	A21072007.D
1,2-Dibromoethane (EDB)	106-93-4	<1.26		1.26	2.53	07/20/2021 10:36	A21072007.D
<b>Tetrachloroethene</b>	127-18-4	<b>1.28</b>	J	1.20	2.40	07/20/2021 10:36	A21072007.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.20		1.20	2.40	07/20/2021 10:36	A21072007.D
Chlorobenzene	108-90-7	<0.580		0.580	1.16	07/20/2021 10:36	A21072007.D
Ethylbenzene	100-41-4	<1.16		1.16	2.90	07/20/2021 10:36	A21072007.D
<b>p &amp; m-Xylene</b>	179601-23-1	<b>1.16</b>	J	1.12	2.80	07/20/2021 10:36	A21072007.D
1,1,2,2-Tetrachloroethane	79-34-5	<1.20		1.20	2.40	07/20/2021 10:36	A21072007.D
o-Xylene	95-47-6	<1.12		1.12	2.80	07/20/2021 10:36	A21072007.D
1,2,3-Trichloropropane	96-18-4	<0.657		0.657	1.31	07/20/2021 10:36	A21072007.D
Isopropylbenzene	98-82-8	<1.19		1.19	2.97	07/20/2021 10:36	A21072007.D
<b>1,3,5-Trimethylbenzene</b>	108-67-8	<b>2.46</b>	J	1.19	2.97	07/20/2021 10:36	A21072007.D
<b>1,2,4-Trimethylbenzene</b>	95-63-6	<b>3.62</b>		1.19	2.97	07/20/2021 10:36	A21072007.D
1,3-Dichlorobenzene	541-73-1	<0.657		0.657	1.31	07/20/2021 10:36	A21072007.D
1,4-Dichlorobenzene	106-46-7	<0.657		0.657	1.31	07/20/2021 10:36	A21072007.D
1,2-Dichlorobenzene	95-50-1	<0.657		0.657	1.31	07/20/2021 10:36	A21072007.D
1,2,4-Trichlorobenzene	120-82-1	<1.26		1.26	2.53	07/20/2021 10:36	A21072007.D
Naphthalene	91-20-3	<0.616		0.616	1.23	07/20/2021 10:36	A21072007.D
1,2,3-Trichlorobenzene	87-61-6	<1.26		1.26	2.53	07/20/2021 10:36	A21072007.D
2-Methylnaphthalene	91-57-6	<0.648		0.648	1.30	07/20/2021 10:36	A21072007.D
<i>Analyte</i>	<i>CAS#</i>	<i>% Recovery</i>	<i>Recovery Limits</i>	<i>Q</i>		<i>Analyzed</i>	<i>File ID</i>
Surrogate: 1,2-DCA-d4	17060-07-0	95.6%	70-130			07/20/2021 10:36	A21072007.D
Surrogate: Toluene-d8	2037-26-5	92.1%	70-130			07/20/2021 10:36	A21072007.D
Surrogate: Bromofluorobenzene	460-00-4	97.7%	70-130			07/20/2021 10:36	A21072007.D

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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Lab Sample ID: 0005847-04	<b>H-SEW-02P</b> Sewer Gas	Method: TO-17 (Passive)
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Analyte	CAS#	Result (µg/m <sup>3</sup> )	Q	LOD (µg/m <sup>3</sup> )	LOQ (µg/m <sup>3</sup> )	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.608		0.608	1.22	07/20/2021 11:05	A21072008.D
1,1-Dichloroethene	75-35-4	<1.49		1.49	2.99	07/20/2021 11:05	A21072008.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.554		0.554	1.11	07/20/2021 11:05	A21072008.D
trans-1,2-Dichloroethene	156-60-5	<1.12		1.12	2.24	07/20/2021 11:05	A21072008.D
Methyl-t-butyl ether	1634-04-4	<1.97		1.97	4.93	07/20/2021 11:05	A21072008.D
1,1-Dichloroethane	75-34-3	<0.580		0.580	1.16	07/20/2021 11:05	A21072008.D
cis-1,2-Dichloroethene	156-59-2	<0.930		0.930	1.86	07/20/2021 11:05	A21072008.D
Chloroform	67-66-3	<1.41		1.41	2.82	07/20/2021 11:05	A21072008.D
1,2-Dichloroethane	107-06-2	<0.880		0.880	1.76	07/20/2021 11:05	A21072008.D
1,1,1-Trichloroethane	71-55-6	<0.469		0.469	0.938	07/20/2021 11:05	A21072008.D
Carbon Tetrachloride	56-23-5	<1.15		1.15	2.29	07/20/2021 11:05	A21072008.D
<b>Benzene</b>	71-43-2	<b>2.57</b>	J	1.86	4.65	07/20/2021 11:05	A21072008.D
Trichloroethene	79-01-6	<1.49		1.49	2.99	07/20/2021 11:05	A21072008.D
1,4-Dioxane	123-91-1	<1.20		1.20	2.40	07/20/2021 11:05	A21072008.D
1,1,2-Trichloroethane	79-00-5	<1.49		1.49	2.99	07/20/2021 11:05	A21072008.D
<b>Toluene</b>	108-88-3	<b>3.06</b>	J	2.46	6.16	07/20/2021 11:05	A21072008.D
1,2-Dibromoethane (EDB)	106-93-4	<1.26		1.26	2.53	07/20/2021 11:05	A21072008.D
<b>Tetrachloroethene</b>	127-18-4	<b>1.74</b>	J	1.20	2.40	07/20/2021 11:05	A21072008.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.20		1.20	2.40	07/20/2021 11:05	A21072008.D
Chlorobenzene	108-90-7	<0.580		0.580	1.16	07/20/2021 11:05	A21072008.D
Ethylbenzene	100-41-4	<1.16		1.16	2.90	07/20/2021 11:05	A21072008.D
<b>p &amp; m-Xylene</b>	179601-23-1	<b>1.67</b>	J	1.12	2.80	07/20/2021 11:05	A21072008.D
1,1,2,2-Tetrachloroethane	79-34-5	<1.20		1.20	2.40	07/20/2021 11:05	A21072008.D
<b>o-Xylene</b>	95-47-6	<b>1.32</b>	J	1.12	2.80	07/20/2021 11:05	A21072008.D
1,2,3-Trichloropropane	96-18-4	<0.657		0.657	1.31	07/20/2021 11:05	A21072008.D
Isopropylbenzene	98-82-8	<1.19		1.19	2.97	07/20/2021 11:05	A21072008.D
<b>1,3,5-Trimethylbenzene</b>	108-67-8	<b>3.10</b>		1.19	2.97	07/20/2021 11:05	A21072008.D
<b>1,2,4-Trimethylbenzene</b>	95-63-6	<b>4.72</b>		1.19	2.97	07/20/2021 11:05	A21072008.D
1,3-Dichlorobenzene	541-73-1	<0.657		0.657	1.31	07/20/2021 11:05	A21072008.D
1,4-Dichlorobenzene	106-46-7	<0.657		0.657	1.31	07/20/2021 11:05	A21072008.D
1,2-Dichlorobenzene	95-50-1	<0.657		0.657	1.31	07/20/2021 11:05	A21072008.D
1,2,4-Trichlorobenzene	120-82-1	<1.26		1.26	2.53	07/20/2021 11:05	A21072008.D
Naphthalene	91-20-3	<0.616		0.616	1.23	07/20/2021 11:05	A21072008.D
1,2,3-Trichlorobenzene	87-61-6	<1.26		1.26	2.53	07/20/2021 11:05	A21072008.D
2-Methylnaphthalene	91-57-6	<0.648		0.648	1.30	07/20/2021 11:05	A21072008.D
<i>Analyte</i>	<i>CAS#</i>	<i>% Recovery</i>	<i>Recovery Limits</i>	<i>Q</i>		<i>Analyzed</i>	<i>File ID</i>
Surrogate: 1,2-DCA-d4	17060-07-0	88.6%	70-130			07/20/2021 11:05	A21072008.D
Surrogate: Toluene-d8	2037-26-5	92.3%	70-130			07/20/2021 11:05	A21072008.D
Surrogate: Bromofluorobenzene	460-00-4	96.8%	70-130			07/20/2021 11:05	A21072008.D

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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Lab Sample ID: 0005847-05	<b>J-SEW-01P</b>	Method: TO-17 (Passive)
Sewer Gas		

Analyte	CAS#	Result (µg/m <sup>3</sup> )	Q	LOD (µg/m <sup>3</sup> )	LOQ (µg/m <sup>3</sup> )	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.606		0.606	1.21	07/20/2021 11:34	A21072009.D
1,1-Dichloroethene	75-35-4	<1.49		1.49	2.97	07/20/2021 11:34	A21072009.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.551		0.551	1.10	07/20/2021 11:34	A21072009.D
trans-1,2-Dichloroethene	156-60-5	<1.11		1.11	2.23	07/20/2021 11:34	A21072009.D
Methyl-t-butyl ether	1634-04-4	<1.96		1.96	4.90	07/20/2021 11:34	A21072009.D
1,1-Dichloroethane	75-34-3	<0.577		0.577	1.15	07/20/2021 11:34	A21072009.D
cis-1,2-Dichloroethene	156-59-2	<0.925		0.925	1.85	07/20/2021 11:34	A21072009.D
<b>Chloroform</b>	67-66-3	<b>9.81</b>		1.40	2.80	07/20/2021 11:34	A21072009.D
1,2-Dichloroethane	107-06-2	<0.876		0.876	1.75	07/20/2021 11:34	A21072009.D
1,1,1-Trichloroethane	71-55-6	<0.467		0.467	0.934	07/20/2021 11:34	A21072009.D
Carbon Tetrachloride	56-23-5	<1.14		1.14	2.28	07/20/2021 11:34	A21072009.D
<b>Benzene</b>	71-43-2	<b>3.32</b>	J	1.85	4.63	07/20/2021 11:34	A21072009.D
Trichloroethene	79-01-6	<1.49		1.49	2.97	07/20/2021 11:34	A21072009.D
1,4-Dioxane	123-91-1	<1.20		1.20	2.39	07/20/2021 11:34	A21072009.D
1,1,2-Trichloroethane	79-00-5	<1.49		1.49	2.97	07/20/2021 11:34	A21072009.D
Toluene	108-88-3	<2.45		2.45	6.13	07/20/2021 11:34	A21072009.D
1,2-Dibromoethane (EDB)	106-93-4	<1.26		1.26	2.52	07/20/2021 11:34	A21072009.D
Tetrachloroethene	127-18-4	<1.20		1.20	2.39	07/20/2021 11:34	A21072009.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.20		1.20	2.39	07/20/2021 11:34	A21072009.D
Chlorobenzene	108-90-7	<0.577		0.577	1.15	07/20/2021 11:34	A21072009.D
Ethylbenzene	100-41-4	<1.15		1.15	2.89	07/20/2021 11:34	A21072009.D
p & m-Xylene	179601-23-1	<1.11		1.11	2.79	07/20/2021 11:34	A21072009.D
1,1,2,2-Tetrachloroethane	79-34-5	<1.20		1.20	2.39	07/20/2021 11:34	A21072009.D
o-Xylene	95-47-6	<1.11		1.11	2.79	07/20/2021 11:34	A21072009.D
1,2,3-Trichloropropane	96-18-4	<0.654		0.654	1.31	07/20/2021 11:34	A21072009.D
Isopropylbenzene	98-82-8	<1.18		1.18	2.95	07/20/2021 11:34	A21072009.D
1,3,5-Trimethylbenzene	108-67-8	<1.18		1.18	2.95	07/20/2021 11:34	A21072009.D
1,2,4-Trimethylbenzene	95-63-6	<1.18		1.18	2.95	07/20/2021 11:34	A21072009.D
1,3-Dichlorobenzene	541-73-1	<0.654		0.654	1.31	07/20/2021 11:34	A21072009.D
1,4-Dichlorobenzene	106-46-7	<0.654		0.654	1.31	07/20/2021 11:34	A21072009.D
1,2-Dichlorobenzene	95-50-1	<0.654		0.654	1.31	07/20/2021 11:34	A21072009.D
1,2,4-Trichlorobenzene	120-82-1	<1.26		1.26	2.52	07/20/2021 11:34	A21072009.D
Naphthalene	91-20-3	<0.613		0.613	1.23	07/20/2021 11:34	A21072009.D
1,2,3-Trichlorobenzene	87-61-6	<1.26		1.26	2.52	07/20/2021 11:34	A21072009.D
2-Methylnaphthalene	91-57-6	<0.645		0.645	1.29	07/20/2021 11:34	A21072009.D
<i>Analyte</i>	<i>CAS#</i>	<i>% Recovery</i>	<i>Recovery Limits</i>	<i>Q</i>		<i>Analyzed</i>	<i>File ID</i>
Surrogate: 1,2-DCA-d4	17060-07-0	88.0%	70-130			07/20/2021 11:34	A21072009.D
Surrogate: Toluene-d8	2037-26-5	93.7%	70-130			07/20/2021 11:34	A21072009.D
Surrogate: Bromofluorobenzene	460-00-4	98.1%	70-130			07/20/2021 11:34	A21072009.D

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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Lab Sample ID: 0005847-06	<b>H-SEW-03P</b>	Method: TO-17 (Passive)
Sewer Gas		

Analyte	CAS#	Result (µg/m <sup>3</sup> )	Q	LOD (µg/m <sup>3</sup> )	LOQ (µg/m <sup>3</sup> )	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.608		0.608	1.22	07/20/2021 12:03	A21072010.D
1,1-Dichloroethene	75-35-4	<1.49		1.49	2.98	07/20/2021 12:03	A21072010.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.553		0.553	1.11	07/20/2021 12:03	A21072010.D
trans-1,2-Dichloroethene	156-60-5	<1.12		1.12	2.24	07/20/2021 12:03	A21072010.D
Methyl-t-butyl ether	1634-04-4	<1.97		1.97	4.93	07/20/2021 12:03	A21072010.D
1,1-Dichloroethane	75-34-3	<0.579		0.579	1.16	07/20/2021 12:03	A21072010.D
cis-1,2-Dichloroethene	156-59-2	<0.929		0.929	1.86	07/20/2021 12:03	A21072010.D
<b>Chloroform</b>	67-66-3	<b>1.54</b>	J	1.41	2.81	07/20/2021 12:03	A21072010.D
1,2-Dichloroethane	107-06-2	<0.879		0.879	1.76	07/20/2021 12:03	A21072010.D
1,1,1-Trichloroethane	71-55-6	<0.469		0.469	0.938	07/20/2021 12:03	A21072010.D
Carbon Tetrachloride	56-23-5	<1.15		1.15	2.29	07/20/2021 12:03	A21072010.D
<b>Benzene</b>	71-43-2	<b>2.22</b>	J	1.86	4.65	07/20/2021 12:03	A21072010.D
Trichloroethene	79-01-6	<1.49		1.49	2.98	07/20/2021 12:03	A21072010.D
1,4-Dioxane	123-91-1	<1.20		1.20	2.40	07/20/2021 12:03	A21072010.D
1,1,2-Trichloroethane	79-00-5	<1.49		1.49	2.98	07/20/2021 12:03	A21072010.D
<b>Toluene</b>	108-88-3	<b>21.1</b>		2.46	6.16	07/20/2021 12:03	A21072010.D
1,2-Dibromoethane (EDB)	106-93-4	<1.26		1.26	2.53	07/20/2021 12:03	A21072010.D
Tetrachloroethene	127-18-4	<1.20		1.20	2.40	07/20/2021 12:03	A21072010.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.20		1.20	2.40	07/20/2021 12:03	A21072010.D
Chlorobenzene	108-90-7	<0.579		0.579	1.16	07/20/2021 12:03	A21072010.D
<b>Ethylbenzene</b>	100-41-4	<b>1.41</b>	J	1.16	2.90	07/20/2021 12:03	A21072010.D
<b>p &amp; m-Xylene</b>	179601-23-1	<b>5.75</b>		1.12	2.80	07/20/2021 12:03	A21072010.D
1,1,2,2-Tetrachloroethane	79-34-5	<1.20		1.20	2.40	07/20/2021 12:03	A21072010.D
<b>o-Xylene</b>	95-47-6	<b>4.91</b>		1.12	2.80	07/20/2021 12:03	A21072010.D
1,2,3-Trichloropropane	96-18-4	<0.657		0.657	1.31	07/20/2021 12:03	A21072010.D
Isopropylbenzene	98-82-8	<1.19		1.19	2.97	07/20/2021 12:03	A21072010.D
1,3,5-Trimethylbenzene	108-67-8	<1.19		1.19	2.97	07/20/2021 12:03	A21072010.D
<b>1,2,4-Trimethylbenzene</b>	95-63-6	<b>1.22</b>	J	1.19	2.97	07/20/2021 12:03	A21072010.D
1,3-Dichlorobenzene	541-73-1	<0.657		0.657	1.31	07/20/2021 12:03	A21072010.D
1,4-Dichlorobenzene	106-46-7	<0.657		0.657	1.31	07/20/2021 12:03	A21072010.D
1,2-Dichlorobenzene	95-50-1	<0.657		0.657	1.31	07/20/2021 12:03	A21072010.D
1,2,4-Trichlorobenzene	120-82-1	<1.26		1.26	2.53	07/20/2021 12:03	A21072010.D
Naphthalene	91-20-3	<0.616		0.616	1.23	07/20/2021 12:03	A21072010.D
1,2,3-Trichlorobenzene	87-61-6	<1.26		1.26	2.53	07/20/2021 12:03	A21072010.D
2-Methylnaphthalene	91-57-6	<0.648		0.648	1.30	07/20/2021 12:03	A21072010.D
<i>Analyte</i>	<i>CAS#</i>	<i>% Recovery</i>	<i>Recovery Limits</i>	<i>Q</i>		<i>Analyzed</i>	<i>File ID</i>
Surrogate: 1,2-DCA-d4	17060-07-0	86.9%	70-130			07/20/2021 12:03	A21072010.D
Surrogate: Toluene-d8	2037-26-5	91.1%	70-130			07/20/2021 12:03	A21072010.D
Surrogate: Bromofluorobenzene	460-00-4	99.9%	70-130			07/20/2021 12:03	A21072010.D

**AECOM**  
2020 L Street, Suite 300  
Sacramento, CA 95811

**Site Name:** SMUD 59th Street Corporation Yard  
**Site Location:** Sacramento, CA  
**Project Manager:** Robert Kohlhardt

**Beacon Proposal:** 210625R02  
**Lab Work Order:** 0005847  
**Reported:** 07/29/2021

*QC Information/Summary*

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B21G039 - Instrument: A System - File ID: A21071316.D**

*B21G039-ICV1 (LCSD/Second Source Verification/CALV)*

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	45.7	10	5	ng	50.0		91.4	70-130			
1,1-Dichloroethene	49.2	10	5	ng	50.0		98.3	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	51.8	10	5	ng	50.0		104	70-130			
trans-1,2-Dichloroethene	47.7	10	5	ng	50.0		95.3	70-130			
Methyl-t-butyl ether	52.5	25	10	ng	50.0		105	70-130			
1,1-Dichloroethane	48.7	10	5	ng	50.0		97.4	70-130			
cis-1,2-Dichloroethene	50.6	10	5	ng	50.0		101	70-130			
Chloroform	48.9	10	5	ng	50.0		97.9	70-130			
1,2-Dichloroethane	47.9	10	5	ng	50.0		95.8	70-130			
1,1,1-Trichloroethane	49.6	10	5	ng	50.0		99.2	70-130			
Carbon Tetrachloride	50.1	10	5	ng	50.0		100	70-130			
Benzene	49.5	25	10	ng	50.0		98.9	70-130			
Trichloroethene	49.3	10	5	ng	50.0		98.7	70-130			
1,4-Dioxane	48.8	10	5	ng	50.0		97.6	70-130			
1,1,2-Trichloroethane	49.6	10	5	ng	50.0		99.3	70-130			
Toluene	48.8	25	10	ng	50.0		97.6	70-130			
1,2-Dibromoethane (EDB)	50.4	10	5	ng	50.0		101	70-130			
Tetrachloroethene	50.3	10	5	ng	50.0		101	70-130			
1,1,1,2-Tetrachloroethane	48.9	10	5	ng	50.0		97.7	70-130			
Chlorobenzene	50.0	10	5	ng	50.0		99.9	70-130			
Ethylbenzene	50.3	25	10	ng	50.0		101	70-130			
p & m-Xylene	48.7	25	10	ng	50.0		97.3	70-130			
1,1,2,2-Tetrachloroethane	50.0	10	5	ng	50.0		100	70-130			
o-Xylene	49.2	25	10	ng	50.0		98.3	70-130			
1,2,3-Trichloropropane	49.8	10	5	ng	50.0		99.6	70-130			
Isopropylbenzene	50.6	25	10	ng	50.0		101	70-130			
1,3,5-Trimethylbenzene	50.6	25	10	ng	50.0		101	70-130			
1,2,4-Trimethylbenzene	50.2	25	10	ng	50.0		100	70-130			
1,3-Dichlorobenzene	50.4	10	5	ng	50.0		101	70-130			
1,4-Dichlorobenzene	50.1	10	5	ng	50.0		100	70-130			
1,2-Dichlorobenzene	50.7	10	5	ng	50.0		101	70-130			
1,2,4-Trichlorobenzene	52.3	10	5	ng	50.0		105	70-130			
Naphthalene	53.3	10	5	ng	50.0		107	70-130			
1,2,3-Trichlorobenzene	52.2	10	5	ng	50.0		104	70-130			
2-Methylnaphthalene	55.2	10	5	ng	50.0		110	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>49.8</i>			<i>ng</i>	<i>50.0</i>		<i>99.6</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>50.3</i>			<i>ng</i>	<i>50.0</i>		<i>101</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>48.2</i>			<i>ng</i>	<i>50.0</i>		<i>96.4</i>	<i>70-130</i>			



<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B21G039 - Instrument: A System - File ID: A21071319.D**

*B21G039-ICB1 (Lab Blank/Initial Calibration Blank)*

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
1,1-Dichloroethene	<5	10	5	ng							U
1,1,2-Trichlorotrifluoroethane (Fr.113)	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
Methyl-t-butyl ether	<10	25	10	ng							U
1,1-Dichloroethane	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Chloroform	<5	10	5	ng							U
1,2-Dichloroethane	<5	10	5	ng							U
1,1,1-Trichloroethane	<5	10	5	ng							U
Carbon Tetrachloride	<5	10	5	ng							U
Benzene	<10	25	10	ng							U
Trichloroethene	<5	10	5	ng							U
1,4-Dioxane	<5	10	5	ng							U
1,1,2-Trichloroethane	<5	10	5	ng							U
Toluene	<10	25	10	ng							U
1,2-Dibromoethane (EDB)	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
1,1,1,2-Tetrachloroethane	<5	10	5	ng							U
Chlorobenzene	<5	10	5	ng							U
Ethylbenzene	<10	25	10	ng							U
p & m-Xylene	<10	25	10	ng							U
1,1,2,2-Tetrachloroethane	<5	10	5	ng							U
o-Xylene	<10	25	10	ng							U
1,2,3-Trichloropropane	<5	10	5	ng							U
Isopropylbenzene	<10	25	10	ng							U
1,3,5-Trimethylbenzene	<10	25	10	ng							U
1,2,4-Trimethylbenzene	<10	25	10	ng							U
1,3-Dichlorobenzene	<5	10	5	ng							U
1,4-Dichlorobenzene	<5	10	5	ng							U
1,2-Dichlorobenzene	<5	10	5	ng							U
1,2,4-Trichlorobenzene	<5	10	5	ng							U
Naphthalene	<5	10	5	ng							U
1,2,3-Trichlorobenzene	<5	10	5	ng							U
2-Methylnaphthalene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	98.2			ng	100		98.2	70-130			
<i>Surrogate: Toluene-d8</i>	98.2			ng	100		98.2	70-130			
<i>Surrogate: Bromofluorobenzene</i>	96.5			ng	100		96.5	70-130			

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B21G068 - Batch: 21G0064 - Instrument: A System - File ID: A21072002.D**

*21G0064-BS1 (LCS, Calibration Source Verification)*

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	44.8	10	5	ng	50.0		89.6	70-130			
1,1-Dichloroethene	49.2	10	5	ng	50.0		98.4	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	48.1	10	5	ng	50.0		96.1	70-130			
trans-1,2-Dichloroethene	47.9	10	5	ng	50.0		95.8	70-130			
Methyl-t-butyl ether	50.2	25	10	ng	50.0		100	70-130			
1,1-Dichloroethane	47.7	10	5	ng	50.0		95.5	70-130			
cis-1,2-Dichloroethene	49.9	10	5	ng	50.0		99.8	70-130			
Chloroform	48.9	10	5	ng	50.0		97.8	70-130			
1,2-Dichloroethane	47.8	10	5	ng	50.0		95.5	70-130			
1,1,1-Trichloroethane	47.8	10	5	ng	50.0		95.6	70-130			
Carbon Tetrachloride	50.3	10	5	ng	50.0		101	70-130			
Benzene	48.8	25	10	ng	50.0		97.6	70-130			
Trichloroethene	49.8	10	5	ng	50.0		99.6	70-130			
1,4-Dioxane	48.1	10	5	ng	50.0		96.1	70-130			
1,1,2-Trichloroethane	49.5	10	5	ng	50.0		99.0	70-130			
Toluene	47.6	25	10	ng	50.0		95.2	70-130			
1,2-Dibromoethane (EDB)	49.2	10	5	ng	50.0		98.4	70-130			
Tetrachloroethene	50.0	10	5	ng	50.0		100	70-130			
1,1,1,2-Tetrachloroethane	48.5	10	5	ng	50.0		96.9	70-130			
Chlorobenzene	49.5	10	5	ng	50.0		99.1	70-130			
Ethylbenzene	49.6	25	10	ng	50.0		99.1	70-130			
p & m-Xylene	47.8	25	10	ng	50.0		95.6	70-130			
1,1,2,2-Tetrachloroethane	48.5	10	5	ng	50.0		96.9	70-130			
o-Xylene	49.1	25	10	ng	50.0		98.2	70-130			
1,2,3-Trichloropropane	48.3	10	5	ng	50.0		96.6	70-130			
Isopropylbenzene	48.8	25	10	ng	50.0		97.6	70-130			
1,3,5-Trimethylbenzene	49.8	25	10	ng	50.0		99.6	70-130			
1,2,4-Trimethylbenzene	48.0	25	10	ng	50.0		96.1	70-130			
1,3-Dichlorobenzene	49.3	10	5	ng	50.0		98.6	70-130			
1,4-Dichlorobenzene	48.9	10	5	ng	50.0		97.7	70-130			
1,2-Dichlorobenzene	49.0	10	5	ng	50.0		97.9	70-130			
1,2,4-Trichlorobenzene	49.6	10	5	ng	50.0		99.2	70-130			
Naphthalene	49.2	10	5	ng	50.0		98.3	70-130			
1,2,3-Trichlorobenzene	49.1	10	5	ng	50.0		98.2	70-130			
2-Methylnaphthalene	49.4	10	5	ng	50.0		98.9	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>48.5</i>			<i>ng</i>	<i>50.0</i>		<i>97.1</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>49.3</i>			<i>ng</i>	<i>50.0</i>		<i>98.6</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>48.0</i>			<i>ng</i>	<i>50.0</i>		<i>96.0</i>	<i>70-130</i>			

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B21G068 - Batch: 21G0064 - Instrument: A System - File ID: A21072003.D**

**21G0064-BLK1 (Lab Blank)**

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.603	1.21	0.603	µg/m³							
1,1-Dichloroethene	<1.48	2.96	1.48	µg/m³							
1,1,2-Trichlorotrifluoroethane (Fr.113)	<0.549	1.10	0.549	µg/m³							
trans-1,2-Dichloroethene	<1.11	2.22	1.11	µg/m³							
Methyl-t-butyl ether	<1.95	4.88	1.95	µg/m³							
1,1-Dichloroethane	<0.574	1.15	0.574	µg/m³							
cis-1,2-Dichloroethene	<0.921	1.84	0.921	µg/m³							
Chloroform	<1.39	2.79	1.39	µg/m³							
1,2-Dichloroethane	<0.872	1.74	0.872	µg/m³							
1,1,1-Trichloroethane	<0.465	0.930	0.465	µg/m³							
Carbon Tetrachloride	<1.14	2.27	1.14	µg/m³							
Benzene	<1.84	4.61	1.84	µg/m³							
Trichloroethene	<1.48	2.96	1.48	µg/m³							
1,4-Dioxane	<1.19	2.38	1.19	µg/m³							
1,1,2-Trichloroethane	<1.48	2.96	1.48	µg/m³							
Toluene	<2.44	6.10	2.44	µg/m³							
1,2-Dibromoethane (EDB)	<1.25	2.50	1.25	µg/m³							
Tetrachloroethene	<1.19	2.38	1.19	µg/m³							
1,1,1,2-Tetrachloroethane	<1.19	2.38	1.19	µg/m³							
Chlorobenzene	<0.574	1.15	0.574	µg/m³							
Ethylbenzene	<1.15	2.87	1.15	µg/m³							
p & m-Xylene	<1.11	2.77	1.11	µg/m³							
1,1,2,2-Tetrachloroethane	<1.19	2.38	1.19	µg/m³							
o-Xylene	<1.11	2.77	1.11	µg/m³							
1,2,3-Trichloropropane	<0.651	1.30	0.651	µg/m³							
Isopropylbenzene	<1.18	2.94	1.18	µg/m³							
1,3,5-Trimethylbenzene	<1.18	2.94	1.18	µg/m³							
1,2,4-Trimethylbenzene	<1.18	2.94	1.18	µg/m³							
1,3-Dichlorobenzene	<0.651	1.30	0.651	µg/m³							
1,4-Dichlorobenzene	<0.651	1.30	0.651	µg/m³							
1,2-Dichlorobenzene	<0.651	1.30	0.651	µg/m³							
1,2,4-Trichlorobenzene	<1.25	2.50	1.25	µg/m³							
Naphthalene	<0.610	1.22	0.610	µg/m³							
1,2,3-Trichlorobenzene	<1.25	2.50	1.25	µg/m³							
2-Methylnaphthalene	<0.642	1.28	0.642	µg/m³							
Surrogate: 1,2-DCA-d4	97.0			ng	100		97.0	70-130			
Surrogate: Toluene-d8	97.3			ng	100		97.3	70-130			
Surrogate: Bromofluorobenzene	95.9			ng	100		95.9	70-130			

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B21G068 - Instrument: A System - File ID: A21072004.D**

*B21G068-ICV1 (LCSD/Second Source Verification/CALV)*

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	51.0	10	5	ng	50.0		102	70-130			
1,1-Dichloroethene	50.1	10	5	ng	50.0		100	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	49.3	10	5	ng	50.0		98.6	70-130			
trans-1,2-Dichloroethene	48.0	10	5	ng	50.0		96.0	70-130			
Methyl-t-butyl ether	50.0	25	10	ng	50.0		99.9	70-130			
1,1-Dichloroethane	48.7	10	5	ng	50.0		97.4	70-130			
cis-1,2-Dichloroethene	50.4	10	5	ng	50.0		101	70-130			
Chloroform	49.0	10	5	ng	50.0		98.0	70-130			
1,2-Dichloroethane	47.2	10	5	ng	50.0		94.4	70-130			
1,1,1-Trichloroethane	48.3	10	5	ng	50.0		96.6	70-130			
Carbon Tetrachloride	50.5	10	5	ng	50.0		101	70-130			
Benzene	50.7	25	10	ng	50.0		101	70-130			
Trichloroethene	49.0	10	5	ng	50.0		98.0	70-130			
1,4-Dioxane	48.9	10	5	ng	50.0		97.7	70-130			
1,1,2-Trichloroethane	48.3	10	5	ng	50.0		96.6	70-130			
Toluene	47.9	25	10	ng	50.0		95.8	70-130			
1,2-Dibromoethane (EDB)	48.4	10	5	ng	50.0		96.9	70-130			
Tetrachloroethene	49.0	10	5	ng	50.0		97.9	70-130			
1,1,1,2-Tetrachloroethane	48.7	10	5	ng	50.0		97.5	70-130			
Chlorobenzene	49.6	10	5	ng	50.0		99.3	70-130			
Ethylbenzene	49.6	25	10	ng	50.0		99.1	70-130			
p & m-Xylene	47.9	25	10	ng	50.0		95.7	70-130			
1,1,2,2-Tetrachloroethane	47.3	10	5	ng	50.0		94.6	70-130			
o-Xylene	48.6	25	10	ng	50.0		97.2	70-130			
1,2,3-Trichloropropane	48.5	10	5	ng	50.0		97.0	70-130			
Isopropylbenzene	49.2	25	10	ng	50.0		98.5	70-130			
1,3,5-Trimethylbenzene	49.2	25	10	ng	50.0		98.4	70-130			
1,2,4-Trimethylbenzene	48.6	25	10	ng	50.0		97.2	70-130			
1,3-Dichlorobenzene	49.4	10	5	ng	50.0		98.8	70-130			
1,4-Dichlorobenzene	48.3	10	5	ng	50.0		96.5	70-130			
1,2-Dichlorobenzene	49.2	10	5	ng	50.0		98.3	70-130			
1,2,4-Trichlorobenzene	49.3	10	5	ng	50.0		98.5	70-130			
Naphthalene	48.3	10	5	ng	50.0		96.7	70-130			
1,2,3-Trichlorobenzene	48.2	10	5	ng	50.0		96.5	70-130			
2-Methylnaphthalene	47.5	10	5	ng	50.0		94.9	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>49.0</i>			<i>ng</i>	<i>50.0</i>		<i>98.0</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>49.0</i>			<i>ng</i>	<i>50.0</i>		<i>98.0</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>47.6</i>			<i>ng</i>	<i>50.0</i>		<i>95.2</i>	<i>70-130</i>			

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B21G068 - Instrument: A System - File ID: A21072011.D**

*B21G068-CCV1 (LCS, Closing Calibration Verification)*

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	44.9	10	5	ng	50.0		89.9	70-130			
1,1-Dichloroethene	49.9	10	5	ng	50.0		99.7	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	50.7	10	5	ng	50.0		101	70-130			
trans-1,2-Dichloroethene	47.8	10	5	ng	50.0		95.7	70-130			
Methyl-t-butyl ether	50.5	25	10	ng	50.0		101	70-130			
1,1-Dichloroethane	48.6	10	5	ng	50.0		97.2	70-130			
cis-1,2-Dichloroethene	49.6	10	5	ng	50.0		99.1	70-130			
Chloroform	48.1	10	5	ng	50.0		96.2	70-130			
1,2-Dichloroethane	46.6	10	5	ng	50.0		93.2	70-130			
1,1,1-Trichloroethane	48.9	10	5	ng	50.0		97.9	70-130			
Carbon Tetrachloride	51.8	10	5	ng	50.0		104	70-130			
Benzene	50.5	25	10	ng	50.0		101	70-130			
Trichloroethene	49.1	10	5	ng	50.0		98.3	70-130			
1,4-Dioxane	48.9	10	5	ng	50.0		97.7	70-130			
1,1,2-Trichloroethane	49.7	10	5	ng	50.0		99.3	70-130			
Toluene	48.1	25	10	ng	50.0		96.3	70-130			
1,2-Dibromoethane (EDB)	49.5	10	5	ng	50.0		99.0	70-130			
Tetrachloroethene	49.7	10	5	ng	50.0		99.4	70-130			
1,1,1,2-Tetrachloroethane	48.2	10	5	ng	50.0		96.5	70-130			
Chlorobenzene	49.0	10	5	ng	50.0		98.0	70-130			
Ethylbenzene	49.5	25	10	ng	50.0		99.0	70-130			
p & m-Xylene	47.5	25	10	ng	50.0		95.1	70-130			
1,1,2,2-Tetrachloroethane	48.2	10	5	ng	50.0		96.5	70-130			
o-Xylene	48.8	25	10	ng	50.0		97.6	70-130			
1,2,3-Trichloropropane	48.5	10	5	ng	50.0		97.1	70-130			
Isopropylbenzene	49.3	25	10	ng	50.0		98.6	70-130			
1,3,5-Trimethylbenzene	49.0	25	10	ng	50.0		97.9	70-130			
1,2,4-Trimethylbenzene	48.0	25	10	ng	50.0		96.0	70-130			
1,3-Dichlorobenzene	48.6	10	5	ng	50.0		97.1	70-130			
1,4-Dichlorobenzene	48.5	10	5	ng	50.0		96.9	70-130			
1,2-Dichlorobenzene	49.0	10	5	ng	50.0		98.1	70-130			
1,2,4-Trichlorobenzene	49.0	10	5	ng	50.0		98.1	70-130			
Naphthalene	49.4	10	5	ng	50.0		98.8	70-130			
1,2,3-Trichlorobenzene	49.0	10	5	ng	50.0		98.1	70-130			
2-Methylnaphthalene	49.2	10	5	ng	50.0		98.3	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>49.0</i>			<i>ng</i>	<i>50.0</i>		<i>98.0</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>49.0</i>			<i>ng</i>	<i>50.0</i>		<i>97.9</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>48.2</i>			<i>ng</i>	<i>50.0</i>		<i>96.4</i>	<i>70-130</i>			

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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*TO-17 (Passive) - LCS/LCSD Quality Control Summary*

**LCS: 21G0064-BS1 File ID: A21072002.D**  
**LCSD: B21G068-ICV1 File ID: A21072004.D**

Analyzed: 7/20/21 9:13  
Analyzed: 7/20/21 8:25

Analyte	CAS#	LCS Result (ng)	%REC Q	Spike Level (ng)	LCSD Result (ng)	%REC	%REC Limits	RPD	RPD Limit	Q
Vinyl Chloride	75-01-4	44.82	89.64	50	51.03	102.00	70-130	12.96	30	
1,1-Dichloroethene	75-35-4	49.21	98.42	50	50.06	100.00	70-130	1.71	30	
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	48.07	96.14	50	49.31	98.60	70-130	2.55	30	
trans-1,2-Dichloroethene	156-60-5	47.92	95.84	50	48.02	96.00	70-130	0.21	30	
Methyl-t-butyl ether	1634-04-4	50.19	100.38	50	49.95	99.90	70-130	0.48	30	
1,1-Dichloroethane	75-34-3	47.74	95.48	50	48.7	97.40	70-130	1.99	30	
cis-1,2-Dichloroethene	156-59-2	49.89	99.78	50	50.4	101.00	70-130	1.02	30	
Chloroform	67-66-3	48.89	97.78	50	49.02	98.00	70-130	0.27	30	
1,2-Dichloroethane	107-06-2	47.77	95.54	50	47.18	94.40	70-130	1.24	30	
1,1,1-Trichloroethane	71-55-6	47.81	95.62	50	48.29	96.60	70-130	1.00	30	
Carbon Tetrachloride	56-23-5	50.26	100.52	50	50.45	101.00	70-130	0.38	30	
Benzene	71-43-2	48.78	97.56	50	50.7	101.00	70-130	3.86	30	
Trichloroethene	79-01-6	49.79	99.58	50	49.01	98.00	70-130	1.58	30	
1,4-Dioxane	123-91-1	48.06	96.12	50	48.85	97.70	70-130	1.63	30	
1,1,2-Trichloroethane	79-00-5	49.51	99.02	50	48.3	96.60	70-130	2.47	30	
Toluene	108-88-3	47.58	95.16	50	47.88	95.80	70-130	0.63	30	
1,2-Dibromoethane (EDB)	106-93-4	49.21	98.42	50	48.44	96.90	70-130	1.58	30	
Tetrachloroethene	127-18-4	49.98	99.96	50	48.97	97.90	70-130	2.04	30	
1,1,1,2-Tetrachloroethane	630-20-6	48.47	96.94	50	48.74	97.50	70-130	0.56	30	
Chlorobenzene	108-90-7	49.53	99.06	50	49.63	99.30	70-130	0.20	30	
Ethylbenzene	100-41-4	49.57	99.14	50	49.55	99.10	70-130	0.04	30	
p & m-Xylene	179601-23-1	47.78	95.56	50	47.87	95.70	70-130	0.19	30	
1,1,2,2-Tetrachloroethane	79-34-5	48.45	96.9	50	47.28	94.60	70-130	2.44	30	
o-Xylene	95-47-6	49.09	98.18	50	48.59	97.20	70-130	1.02	30	
1,2,3-Trichloropropane	96-18-4	48.30	96.6	50	48.48	97.00	70-130	0.37	30	
Isopropylbenzene	98-82-8	48.78	97.56	50	49.24	98.50	70-130	0.94	30	
1,3,5-Trimethylbenzene	108-67-8	49.82	99.64	50	49.19	98.40	70-130	1.27	30	
1,2,4-Trimethylbenzene	95-63-6	48.03	96.06	50	48.6	97.20	70-130	1.18	30	
1,3-Dichlorobenzene	541-73-1	49.29	98.58	50	49.38	98.80	70-130	0.18	30	
1,4-Dichlorobenzene	106-46-7	48.86	97.72	50	48.26	96.50	70-130	1.24	30	
1,2-Dichlorobenzene	95-50-1	48.97	97.94	50	49.17	98.30	70-130	0.41	30	
1,2,4-Trichlorobenzene	120-82-1	49.61	99.22	50	49.26	98.50	70-130	0.71	30	
Naphthalene	91-20-3	49.17	98.34	50	48.34	96.70	70-130	1.70	30	
1,2,3-Trichlorobenzene	87-61-6	49.12	98.24	50	48.23	96.50	70-130	1.83	30	
2-Methylnaphthalene	91-57-6	49.44	98.88	50	47.47	94.90	70-130	4.07	30	

**AECOM**  
2020 L Street, Suite 300  
Sacramento, CA 95811

**Site Name:** SMUD 59th Street Corporation Yard  
**Site Location:** Sacramento, CA  
**Project Manager:** Robert Kohlhardt

**Beacon Proposal:** 210625R02  
**Lab Work Order:** 0005847  
**Reported:** 07/29/2021

*Additional QC Information*

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Sample Result Calculation Summary (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m <sup>3</sup>	File ID
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**Lab ID:** 0005847-01      **Sample Name:** TB-01      **̄ Temp (°C):** 20.00

Vinyl Chloride	10,183	1.00	0.815	U	U	A21072005.D
1,1-Dichloroethane	10,183	1.00	0.332	U	U	A21072005.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,183	1.00	0.895 <sup>§</sup>	U	U	A21072005.D
trans-1,2-Dichloroethene	10,183	1.00	0.443	U	U	A21072005.D
Methyl-t-butyl ether	10,183	1.00	0.503 <sup>§</sup>	U	U	A21072005.D
1,1-Dichloroethane	10,183	1.00	0.855	U	U	A21072005.D
cis-1,2-Dichloroethene	10,183	1.00	0.533	U	U	A21072005.D
Chloroform	10,183	1.00	0.352 <sup>§</sup>	U	U	A21072005.D
1,2-Dichloroethane	10,183	1.00	0.563	U	U	A21072005.D
1,1,1-Trichloroethane	10,183	1.00	1.056	U	U	A21072005.D
Carbon Tetrachloride	10,183	1.00	0.432 <sup>§</sup>	U	U	A21072005.D
Benzene	10,183	1.00	0.533	U	U	A21072005.D
Trichloroethene	10,183	1.00	0.332	U	U	A21072005.D
1,4-Dioxane	10,183	1.00	0.412 <sup>§</sup>	U	U	A21072005.D
1,1,2-Trichloroethane	10,183	1.00	0.332 <sup>§</sup>	U	U	A21072005.D
Toluene	10,183	1.00	0.402	U	U	A21072005.D
1,2-Dibromoethane (EDB)	10,183	1.00	0.392 <sup>§</sup>	U	U	A21072005.D
Tetrachloroethene	10,183	1.00	0.412	U	U	A21072005.D
1,1,1,2-Tetrachloroethane	10,183	1.00	0.412 <sup>§</sup>	U	U	A21072005.D
Chlorobenzene	10,183	1.00	0.855 <sup>§</sup>	U	U	A21072005.D
Ethylbenzene	10,183	1.00	0.855	U	U	A21072005.D
p & m-Xylene	10,183	1.00	0.885	U	U	A21072005.D
1,1,2,2-Tetrachloroethane	10,183	1.00	0.412 <sup>§</sup>	U	U	A21072005.D
o-Xylene	10,183	1.00	0.885	U	U	A21072005.D
1,2,3-Trichloropropane	10,183	1.00	0.754 <sup>§</sup>	U	U	A21072005.D
Isopropylbenzene	10,183	1.00	0.835 <sup>§</sup>	U	U	A21072005.D
1,3,5-Trimethylbenzene	10,183	1.00	0.835 <sup>§</sup>	U	U	A21072005.D
1,2,4-Trimethylbenzene	10,183	1.00	0.835 <sup>§</sup>	U	U	A21072005.D
1,3-Dichlorobenzene	10,183	1.00	0.754 <sup>§</sup>	U	U	A21072005.D
1,4-Dichlorobenzene	10,183	1.00	0.754 <sup>§</sup>	U	U	A21072005.D
1,2-Dichlorobenzene	10,183	1.00	0.754 <sup>§</sup>	U	U	A21072005.D
1,2,4-Trichlorobenzene	10,183	1.00	0.392 <sup>§</sup>	U	U	A21072005.D
Naphthalene	10,183	1.00	0.805 <sup>§</sup>	U	U	A21072005.D
1,2,3-Trichlorobenzene	10,183	1.00	0.392 <sup>§</sup>	U	U	A21072005.D
2-Methylnaphthalene	10,183	1.00	0.764 <sup>§</sup>	U	U	A21072005.D



<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Sample Result Calculation Summary (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m <sup>3</sup>	File ID
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<b>Lab ID:</b> 0005847-02	<b>Sample Name:</b> F-SEW-01P	<b>̄ Temp (°C):</b> 20.00
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Vinyl Chloride	10,183	1.00	0.815	U	U	A21072006.D
1,1-Dichloroethane	10,183	1.00	0.332	U	U	A21072006.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,183	1.00	0.895 <sup>g</sup>	U	U	A21072006.D
trans-1,2-Dichloroethene	10,183	1.00	0.443	U	U	A21072006.D
Methyl-t-butyl ether	10,183	1.00	0.503 <sup>g</sup>	U	U	A21072006.D
1,1-Dichloroethane	10,183	1.00	0.855	U	U	A21072006.D
cis-1,2-Dichloroethene	10,183	1.00	0.533	U	U	A21072006.D
Chloroform	10,183	1.00	0.352 <sup>g</sup>	U	U	A21072006.D
1,2-Dichloroethane	10,183	1.00	0.563	U	U	A21072006.D
1,1,1-Trichloroethane	10,183	1.00	1.056	U	U	A21072006.D
Carbon Tetrachloride	10,183	1.00	0.432 <sup>g</sup>	U	U	A21072006.D
Benzene	10,183	1.00	0.533	27.48	5.06	A21072006.D
Trichloroethene	10,183	1.00	0.332	U	U	A21072006.D
1,4-Dioxane	10,183	1.00	0.412 <sup>g</sup>	U	U	A21072006.D
1,1,2-Trichloroethane	10,183	1.00	0.332 <sup>g</sup>	U	U	A21072006.D
Toluene	10,183	1.00	0.402	U	U	A21072006.D
1,2-Dibromoethane (EDB)	10,183	1.00	0.392 <sup>g</sup>	U	U	A21072006.D
Tetrachloroethene	10,183	1.00	0.412	U	U	A21072006.D
1,1,1,2-Tetrachloroethane	10,183	1.00	0.412 <sup>g</sup>	U	U	A21072006.D
Chlorobenzene	10,183	1.00	0.855 <sup>g</sup>	U	U	A21072006.D
Ethylbenzene	10,183	1.00	0.855	U	U	A21072006.D
p & m-Xylene	10,183	1.00	0.885	U	U	A21072006.D
1,1,2,2-Tetrachloroethane	10,183	1.00	0.412 <sup>g</sup>	U	U	A21072006.D
o-Xylene	10,183	1.00	0.885	U	U	A21072006.D
1,2,3-Trichloropropane	10,183	1.00	0.754 <sup>g</sup>	U	U	A21072006.D
Isopropylbenzene	10,183	1.00	0.835 <sup>g</sup>	U	U	A21072006.D
1,3,5-Trimethylbenzene	10,183	1.00	0.835 <sup>g</sup>	U	U	A21072006.D
1,2,4-Trimethylbenzene	10,183	1.00	0.835 <sup>g</sup>	U	U	A21072006.D
1,3-Dichlorobenzene	10,183	1.00	0.754 <sup>g</sup>	U	U	A21072006.D
1,4-Dichlorobenzene	10,183	1.00	0.754 <sup>g</sup>	U	U	A21072006.D
1,2-Dichlorobenzene	10,183	1.00	0.754 <sup>g</sup>	U	U	A21072006.D
1,2,4-Trichlorobenzene	10,183	1.00	0.392 <sup>g</sup>	U	U	A21072006.D
Naphthalene	10,183	1.00	0.805 <sup>g</sup>	U	U	A21072006.D
1,2,3-Trichlorobenzene	10,183	1.00	0.392 <sup>g</sup>	U	U	A21072006.D
2-Methylnaphthalene	10,183	1.00	0.764 <sup>g</sup>	U	U	A21072006.D

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Sample Result Calculation Summary (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m <sup>3</sup>	File ID
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**Lab ID:** 0005847-03      **Sample Name:** H-SEW-01P      **̄ Temp (°C):** 20.00

Vinyl Chloride	10,091	1.00	0.815	U	U	A21072007.D
1,1-Dichloroethene	10,091	1.00	0.332	U	U	A21072007.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,091	1.00	0.895 <sup>§</sup>	U	U	A21072007.D
trans-1,2-Dichloroethene	10,091	1.00	0.443	U	U	A21072007.D
Methyl-t-butyl ether	10,091	1.00	0.503 <sup>§</sup>	U	U	A21072007.D
1,1-Dichloroethane	10,091	1.00	0.855	U	U	A21072007.D
cis-1,2-Dichloroethene	10,091	1.00	0.533	U	U	A21072007.D
Chloroform	10,091	1.00	0.352 <sup>§</sup>	U	U	A21072007.D
1,2-Dichloroethane	10,091	1.00	0.563	U	U	A21072007.D
1,1,1-Trichloroethane	10,091	1.00	1.056	U	U	A21072007.D
Carbon Tetrachloride	10,091	1.00	0.432 <sup>§</sup>	U	U	A21072007.D
Benzene	10,091	1.00	0.533	10.89	2.02	A21072007.D
Trichloroethene	10,091	1.00	0.332	U	U	A21072007.D
1,4-Dioxane	10,091	1.00	0.412 <sup>§</sup>	U	U	A21072007.D
1,1,2-Trichloroethane	10,091	1.00	0.332 <sup>§</sup>	U	U	A21072007.D
Toluene	10,091	1.00	0.402	U	U	A21072007.D
1,2-Dibromoethane (EDB)	10,091	1.00	0.392 <sup>§</sup>	U	U	A21072007.D
Tetrachloroethene	10,091	1.00	0.412	5.31	1.28	A21072007.D
1,1,1,2-Tetrachloroethane	10,091	1.00	0.412 <sup>§</sup>	U	U	A21072007.D
Chlorobenzene	10,091	1.00	0.855 <sup>§</sup>	U	U	A21072007.D
Ethylbenzene	10,091	1.00	0.855	U	U	A21072007.D
p & m-Xylene	10,091	1.00	0.885	10.37	1.16	A21072007.D
1,1,2,2-Tetrachloroethane	10,091	1.00	0.412 <sup>§</sup>	U	U	A21072007.D
o-Xylene	10,091	1.00	0.885	U	U	A21072007.D
1,2,3-Trichloropropane	10,091	1.00	0.754 <sup>§</sup>	U	U	A21072007.D
Isopropylbenzene	10,091	1.00	0.835 <sup>§</sup>	U	U	A21072007.D
1,3,5-Trimethylbenzene	10,091	1.00	0.835 <sup>§</sup>	20.73	2.46	A21072007.D
1,2,4-Trimethylbenzene	10,091	1.00	0.835 <sup>§</sup>	30.53	3.62	A21072007.D
1,3-Dichlorobenzene	10,091	1.00	0.754 <sup>§</sup>	U	U	A21072007.D
1,4-Dichlorobenzene	10,091	1.00	0.754 <sup>§</sup>	U	U	A21072007.D
1,2-Dichlorobenzene	10,091	1.00	0.754 <sup>§</sup>	U	U	A21072007.D
1,2,4-Trichlorobenzene	10,091	1.00	0.392 <sup>§</sup>	U	U	A21072007.D
Naphthalene	10,091	1.00	0.805 <sup>§</sup>	U	U	A21072007.D
1,2,3-Trichlorobenzene	10,091	1.00	0.392 <sup>§</sup>	U	U	A21072007.D
2-Methylnaphthalene	10,091	1.00	0.764 <sup>§</sup>	U	U	A21072007.D

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Sample Result Calculation Summary (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m <sup>3</sup>	File ID
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<b>Lab ID:</b> 0005847-04	<b>Sample Name:</b> H-SEW-02P	<b>̄ Temp (°C):</b> 20.00
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Vinyl Chloride	10,091	1.00	0.815	U	U	A21072008.D
1,1-Dichloroethane	10,091	1.00	0.332	U	U	A21072008.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,091	1.00	0.895 <sup>g</sup>	U	U	A21072008.D
trans-1,2-Dichloroethene	10,091	1.00	0.443	U	U	A21072008.D
Methyl-t-butyl ether	10,091	1.00	0.503 <sup>g</sup>	U	U	A21072008.D
1,1-Dichloroethane	10,091	1.00	0.855	U	U	A21072008.D
cis-1,2-Dichloroethene	10,091	1.00	0.533	U	U	A21072008.D
Chloroform	10,091	1.00	0.352 <sup>g</sup>	U	U	A21072008.D
1,2-Dichloroethane	10,091	1.00	0.563	U	U	A21072008.D
1,1,1-Trichloroethane	10,091	1.00	1.056	U	U	A21072008.D
Carbon Tetrachloride	10,091	1.00	0.432 <sup>g</sup>	U	U	A21072008.D
Benzene	10,091	1.00	0.533	13.84	2.57	A21072008.D
Trichloroethene	10,091	1.00	0.332	U	U	A21072008.D
1,4-Dioxane	10,091	1.00	0.412 <sup>g</sup>	U	U	A21072008.D
1,1,2-Trichloroethane	10,091	1.00	0.332 <sup>g</sup>	U	U	A21072008.D
Toluene	10,091	1.00	0.402	12.44	3.06	A21072008.D
1,2-Dibromoethane (EDB)	10,091	1.00	0.392 <sup>g</sup>	U	U	A21072008.D
Tetrachloroethene	10,091	1.00	0.412	7.25	1.74	A21072008.D
1,1,1,2-Tetrachloroethane	10,091	1.00	0.412 <sup>g</sup>	U	U	A21072008.D
Chlorobenzene	10,091	1.00	0.855 <sup>g</sup>	U	U	A21072008.D
Ethylbenzene	10,091	1.00	0.855	U	U	A21072008.D
p & m-Xylene	10,091	1.00	0.885	14.92	1.67	A21072008.D
1,1,2,2-Tetrachloroethane	10,091	1.00	0.412 <sup>g</sup>	U	U	A21072008.D
o-Xylene	10,091	1.00	0.885	11.75	1.32	A21072008.D
1,2,3-Trichloropropane	10,091	1.00	0.754 <sup>g</sup>	U	U	A21072008.D
Isopropylbenzene	10,091	1.00	0.835 <sup>g</sup>	U	U	A21072008.D
1,3,5-Trimethylbenzene	10,091	1.00	0.835 <sup>g</sup>	26.09	3.10	A21072008.D
1,2,4-Trimethylbenzene	10,091	1.00	0.835 <sup>g</sup>	39.77	4.72	A21072008.D
1,3-Dichlorobenzene	10,091	1.00	0.754 <sup>g</sup>	U	U	A21072008.D
1,4-Dichlorobenzene	10,091	1.00	0.754 <sup>g</sup>	U	U	A21072008.D
1,2-Dichlorobenzene	10,091	1.00	0.754 <sup>g</sup>	U	U	A21072008.D
1,2,4-Trichlorobenzene	10,091	1.00	0.392 <sup>g</sup>	U	U	A21072008.D
Naphthalene	10,091	1.00	0.805 <sup>g</sup>	U	U	A21072008.D
1,2,3-Trichlorobenzene	10,091	1.00	0.392 <sup>g</sup>	U	U	A21072008.D
2-Methylnaphthalene	10,091	1.00	0.764 <sup>g</sup>	U	U	A21072008.D

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Sample Result Calculation Summary (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m <sup>3</sup>	File ID
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**Lab ID:** 0005847-05      **Sample Name:** J-SEW-01P      **̄ Temp (°C):** 20.00

Vinyl Chloride	10,136	1.00	0.815	U	U	A21072009.D
1,1-Dichloroethane	10,136	1.00	0.332	U	U	A21072009.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,136	1.00	0.895 <sup>§</sup>	U	U	A21072009.D
trans-1,2-Dichloroethene	10,136	1.00	0.443	U	U	A21072009.D
Methyl-t-butyl ether	10,136	1.00	0.503 <sup>§</sup>	U	U	A21072009.D
1,1-Dichloroethane	10,136	1.00	0.855	U	U	A21072009.D
cis-1,2-Dichloroethene	10,136	1.00	0.533	U	U	A21072009.D
Chloroform	10,136	1.00	0.352 <sup>§</sup>	35.02	9.81	A21072009.D
1,2-Dichloroethane	10,136	1.00	0.563	U	U	A21072009.D
1,1,1-Trichloroethane	10,136	1.00	1.056	U	U	A21072009.D
Carbon Tetrachloride	10,136	1.00	0.432 <sup>§</sup>	U	U	A21072009.D
Benzene	10,136	1.00	0.533	17.93	3.32	A21072009.D
Trichloroethene	10,136	1.00	0.332	U	U	A21072009.D
1,4-Dioxane	10,136	1.00	0.412 <sup>§</sup>	U	U	A21072009.D
1,1,2-Trichloroethane	10,136	1.00	0.332 <sup>§</sup>	U	U	A21072009.D
Toluene	10,136	1.00	0.402	U	U	A21072009.D
1,2-Dibromoethane (EDB)	10,136	1.00	0.392 <sup>§</sup>	U	U	A21072009.D
Tetrachloroethene	10,136	1.00	0.412	U	U	A21072009.D
1,1,1,2-Tetrachloroethane	10,136	1.00	0.412 <sup>§</sup>	U	U	A21072009.D
Chlorobenzene	10,136	1.00	0.855 <sup>§</sup>	U	U	A21072009.D
Ethylbenzene	10,136	1.00	0.855	U	U	A21072009.D
p & m-Xylene	10,136	1.00	0.885	U	U	A21072009.D
1,1,2,2-Tetrachloroethane	10,136	1.00	0.412 <sup>§</sup>	U	U	A21072009.D
o-Xylene	10,136	1.00	0.885	U	U	A21072009.D
1,2,3-Trichloropropane	10,136	1.00	0.754 <sup>§</sup>	U	U	A21072009.D
Isopropylbenzene	10,136	1.00	0.835 <sup>§</sup>	U	U	A21072009.D
1,3,5-Trimethylbenzene	10,136	1.00	0.835 <sup>§</sup>	U	U	A21072009.D
1,2,4-Trimethylbenzene	10,136	1.00	0.835 <sup>§</sup>	U	U	A21072009.D
1,3-Dichlorobenzene	10,136	1.00	0.754 <sup>§</sup>	U	U	A21072009.D
1,4-Dichlorobenzene	10,136	1.00	0.754 <sup>§</sup>	U	U	A21072009.D
1,2-Dichlorobenzene	10,136	1.00	0.754 <sup>§</sup>	U	U	A21072009.D
1,2,4-Trichlorobenzene	10,136	1.00	0.392 <sup>§</sup>	U	U	A21072009.D
Naphthalene	10,136	1.00	0.805 <sup>§</sup>	U	U	A21072009.D
1,2,3-Trichlorobenzene	10,136	1.00	0.392 <sup>§</sup>	U	U	A21072009.D
2-Methylnaphthalene	10,136	1.00	0.764 <sup>§</sup>	U	U	A21072009.D

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Sample Result Calculation Summary (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m <sup>3</sup>	File ID
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<b>Lab ID:</b> 0005847-06	<b>Sample Name:</b> H-SEW-03P	<b>̄ Temp (°C):</b> 20.00
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Vinyl Chloride	10,094	1.00	0.815	U	U	A21072010.D
1,1-Dichloroethene	10,094	1.00	0.332	U	U	A21072010.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,094	1.00	0.895 <sup>g</sup>	U	U	A21072010.D
trans-1,2-Dichloroethene	10,094	1.00	0.443	U	U	A21072010.D
Methyl-t-butyl ether	10,094	1.00	0.503 <sup>g</sup>	U	U	A21072010.D
1,1-Dichloroethane	10,094	1.00	0.855	U	U	A21072010.D
cis-1,2-Dichloroethene	10,094	1.00	0.533	U	U	A21072010.D
Chloroform	10,094	1.00	0.352 <sup>g</sup>	5.47	1.54	A21072010.D
1,2-Dichloroethane	10,094	1.00	0.563	U	U	A21072010.D
1,1,1-Trichloroethane	10,094	1.00	1.056	U	U	A21072010.D
Carbon Tetrachloride	10,094	1.00	0.432 <sup>g</sup>	U	U	A21072010.D
Benzene	10,094	1.00	0.533	11.92	2.22	A21072010.D
Trichloroethene	10,094	1.00	0.332	U	U	A21072010.D
1,4-Dioxane	10,094	1.00	0.412 <sup>g</sup>	U	U	A21072010.D
1,1,2-Trichloroethane	10,094	1.00	0.332 <sup>g</sup>	U	U	A21072010.D
Toluene	10,094	1.00	0.402	85.51	21.1	A21072010.D
1,2-Dibromoethane (EDB)	10,094	1.00	0.392 <sup>g</sup>	U	U	A21072010.D
Tetrachloroethene	10,094	1.00	0.412	U	U	A21072010.D
1,1,1,2-Tetrachloroethane	10,094	1.00	0.412 <sup>g</sup>	U	U	A21072010.D
Chlorobenzene	10,094	1.00	0.855 <sup>g</sup>	U	U	A21072010.D
Ethylbenzene	10,094	1.00	0.855	12.18	1.41	A21072010.D
p & m-Xylene	10,094	1.00	0.885	51.33	5.75	A21072010.D
1,1,2,2-Tetrachloroethane	10,094	1.00	0.412 <sup>g</sup>	U	U	A21072010.D
o-Xylene	10,094	1.00	0.885	43.90	4.91	A21072010.D
1,2,3-Trichloropropane	10,094	1.00	0.754 <sup>g</sup>	U	U	A21072010.D
Isopropylbenzene	10,094	1.00	0.835 <sup>g</sup>	U	U	A21072010.D
1,3,5-Trimethylbenzene	10,094	1.00	0.835 <sup>g</sup>	U	U	A21072010.D
1,2,4-Trimethylbenzene	10,094	1.00	0.835 <sup>g</sup>	10.24	1.22	A21072010.D
1,3-Dichlorobenzene	10,094	1.00	0.754 <sup>g</sup>	U	U	A21072010.D
1,4-Dichlorobenzene	10,094	1.00	0.754 <sup>g</sup>	U	U	A21072010.D
1,2-Dichlorobenzene	10,094	1.00	0.754 <sup>g</sup>	U	U	A21072010.D
1,2,4-Trichlorobenzene	10,094	1.00	0.392 <sup>g</sup>	U	U	A21072010.D
Naphthalene	10,094	1.00	0.805 <sup>g</sup>	U	U	A21072010.D
1,2,3-Trichlorobenzene	10,094	1.00	0.392 <sup>g</sup>	U	U	A21072010.D
2-Methylnaphthalene	10,094	1.00	0.764 <sup>g</sup>	U	U	A21072010.D

**AECOM**  
 2020 L Street, Suite 300  
 Sacramento, CA 95811

**Site Name:** SMUD 59th Street Corporation Yard  
**Site Location:** Sacramento, CA  
**Project Manager:** Robert Kohlhardt

**Beacon Proposal:** 210625R02  
**Lab Work Order:** 0005847  
**Reported:** 07/29/2021

Calculations:

$$C = \frac{1000 \times M \times DF}{U_c \times t}$$

$$U_c = U * \left( \frac{T_s + 273.15}{T_u + 273.15} \right)^{1/2}$$

where: C = concentration ( $\mu\text{g}/\text{m}^3$ )  
 M = mass (ng)  
 DF = dilution factor  
 $U_c$  = uptake rate (ml/min), corrected  
 t = sampling time (minutes)  
 U = compound specific uptake rate  
 $T_u$  = uptake rate study temperature  
 $T_s$  = sample average temperature

**Note:**  $T_u$  is 16.65°C

<sup>g</sup> Uptake rate determined using Graham's Law of Diffusion.

Reference: Federal Register/Vol. 79, No. 125/June 30, 2014

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Method Detection and Reporting Limit Calculations (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0005847-01	Sample Name: TB-01	X̄ Temp (°C): 20.00					
Vinyl Chloride	10,183	1.00	0.815	10.0	5.00	1.21	0.603
1,1-Dichloroethene	10,183	1.00	0.332	10.0	5.00	2.96	1.48
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,183	1.00	0.895 <sup>§</sup>	10.0	5.00	1.10	0.549
trans-1,2-Dichloroethene	10,183	1.00	0.443	10.0	5.00	2.22	1.11
Methyl-t-butyl ether	10,183	1.00	0.503 <sup>§</sup>	25.0	10.00	4.88	1.95
1,1-Dichloroethane	10,183	1.00	0.855	10.0	5.00	1.15	0.574
cis-1,2-Dichloroethene	10,183	1.00	0.533	10.0	5.00	1.84	0.921
Chloroform	10,183	1.00	0.352 <sup>§</sup>	10.0	5.00	2.79	1.39
1,2-Dichloroethane	10,183	1.00	0.563	10.0	5.00	1.74	0.872
1,1,1-Trichloroethane	10,183	1.00	1.056	10.0	5.00	0.930	0.465
Carbon Tetrachloride	10,183	1.00	0.432 <sup>§</sup>	10.0	5.00	2.27	1.14
Benzene	10,183	1.00	0.533	25.0	10.00	4.61	1.84
Trichloroethene	10,183	1.00	0.332	10.0	5.00	2.96	1.48
1,4-Dioxane	10,183	1.00	0.412 <sup>§</sup>	10.0	5.00	2.38	1.19
1,1,2-Trichloroethane	10,183	1.00	0.332 <sup>§</sup>	10.0	5.00	2.96	1.48
Toluene	10,183	1.00	0.402	25.0	10.00	6.10	2.44
1,2-Dibromoethane (EDB)	10,183	1.00	0.392 <sup>§</sup>	10.0	5.00	2.50	1.25
Tetrachloroethene	10,183	1.00	0.412	10.0	5.00	2.38	1.19
1,1,1,2-Tetrachloroethane	10,183	1.00	0.412 <sup>§</sup>	10.0	5.00	2.38	1.19
Chlorobenzene	10,183	1.00	0.855 <sup>§</sup>	10.0	5.00	1.15	0.574
Ethylbenzene	10,183	1.00	0.855	25.0	10.00	2.87	1.15
p & m-Xylene	10,183	1.00	0.885	25.0	10.00	2.77	1.11
1,1,2,2-Tetrachloroethane	10,183	1.00	0.412 <sup>§</sup>	10.0	5.00	2.38	1.19
o-Xylene	10,183	1.00	0.885	25.0	10.00	2.77	1.11
1,2,3-Trichloropropane	10,183	1.00	0.754 <sup>§</sup>	10.0	5.00	1.30	0.651
Isopropylbenzene	10,183	1.00	0.835 <sup>§</sup>	25.0	10.00	2.94	1.18
1,3,5-Trimethylbenzene	10,183	1.00	0.835 <sup>§</sup>	25.0	10.00	2.94	1.18
1,2,4-Trimethylbenzene	10,183	1.00	0.835 <sup>§</sup>	25.0	10.00	2.94	1.18
1,3-Dichlorobenzene	10,183	1.00	0.754 <sup>§</sup>	10.0	5.00	1.30	0.651
1,4-Dichlorobenzene	10,183	1.00	0.754 <sup>§</sup>	10.0	5.00	1.30	0.651
1,2-Dichlorobenzene	10,183	1.00	0.754 <sup>§</sup>	10.0	5.00	1.30	0.651
1,2,4-Trichlorobenzene	10,183	1.00	0.392 <sup>§</sup>	10.0	5.00	2.50	1.25
Naphthalene	10,183	1.00	0.805 <sup>§</sup>	10.0	5.00	1.22	0.610
1,2,3-Trichlorobenzene	10,183	1.00	0.392 <sup>§</sup>	10.0	5.00	2.50	1.25
2-Methylnaphthalene	10,183	1.00	0.764 <sup>§</sup>	10.0	5.00	1.28	0.642

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Method Detection and Reporting Limit Calculations (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0005847-02	Sample Name: F-SEW-01P	X̄ Temp (°C): 20.00					
Vinyl Chloride	10,183	1.00	0.815	10.0	5.00	1.21	0.603
1,1-Dichloroethene	10,183	1.00	0.332	10.0	5.00	2.96	1.48
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,183	1.00	0.895 <sup>§</sup>	10.0	5.00	1.10	0.549
trans-1,2-Dichloroethene	10,183	1.00	0.443	10.0	5.00	2.22	1.11
Methyl-t-butyl ether	10,183	1.00	0.503 <sup>§</sup>	25.0	10.00	4.88	1.95
1,1-Dichloroethane	10,183	1.00	0.855	10.0	5.00	1.15	0.574
cis-1,2-Dichloroethene	10,183	1.00	0.533	10.0	5.00	1.84	0.921
Chloroform	10,183	1.00	0.352 <sup>§</sup>	10.0	5.00	2.79	1.39
1,2-Dichloroethane	10,183	1.00	0.563	10.0	5.00	1.74	0.872
1,1,1-Trichloroethane	10,183	1.00	1.056	10.0	5.00	0.930	0.465
Carbon Tetrachloride	10,183	1.00	0.432 <sup>§</sup>	10.0	5.00	2.27	1.14
Benzene	10,183	1.00	0.533	25.0	10.00	4.61	1.84
Trichloroethene	10,183	1.00	0.332	10.0	5.00	2.96	1.48
1,4-Dioxane	10,183	1.00	0.412 <sup>§</sup>	10.0	5.00	2.38	1.19
1,1,2-Trichloroethane	10,183	1.00	0.332 <sup>§</sup>	10.0	5.00	2.96	1.48
Toluene	10,183	1.00	0.402	25.0	10.00	6.10	2.44
1,2-Dibromoethane (EDB)	10,183	1.00	0.392 <sup>§</sup>	10.0	5.00	2.50	1.25
Tetrachloroethene	10,183	1.00	0.412	10.0	5.00	2.38	1.19
1,1,1,2-Tetrachloroethane	10,183	1.00	0.412 <sup>§</sup>	10.0	5.00	2.38	1.19
Chlorobenzene	10,183	1.00	0.855 <sup>§</sup>	10.0	5.00	1.15	0.574
Ethylbenzene	10,183	1.00	0.855	25.0	10.00	2.87	1.15
p & m-Xylene	10,183	1.00	0.885	25.0	10.00	2.77	1.11
1,1,2,2-Tetrachloroethane	10,183	1.00	0.412 <sup>§</sup>	10.0	5.00	2.38	1.19
o-Xylene	10,183	1.00	0.885	25.0	10.00	2.77	1.11
1,2,3-Trichloropropane	10,183	1.00	0.754 <sup>§</sup>	10.0	5.00	1.30	0.651
Isopropylbenzene	10,183	1.00	0.835 <sup>§</sup>	25.0	10.00	2.94	1.18
1,3,5-Trimethylbenzene	10,183	1.00	0.835 <sup>§</sup>	25.0	10.00	2.94	1.18
1,2,4-Trimethylbenzene	10,183	1.00	0.835 <sup>§</sup>	25.0	10.00	2.94	1.18
1,3-Dichlorobenzene	10,183	1.00	0.754 <sup>§</sup>	10.0	5.00	1.30	0.651
1,4-Dichlorobenzene	10,183	1.00	0.754 <sup>§</sup>	10.0	5.00	1.30	0.651
1,2-Dichlorobenzene	10,183	1.00	0.754 <sup>§</sup>	10.0	5.00	1.30	0.651
1,2,4-Trichlorobenzene	10,183	1.00	0.392 <sup>§</sup>	10.0	5.00	2.50	1.25
Naphthalene	10,183	1.00	0.805 <sup>§</sup>	10.0	5.00	1.22	0.610
1,2,3-Trichlorobenzene	10,183	1.00	0.392 <sup>§</sup>	10.0	5.00	2.50	1.25
2-Methylnaphthalene	10,183	1.00	0.764 <sup>§</sup>	10.0	5.00	1.28	0.642



<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Method Detection and Reporting Limit Calculations (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0005847-03	Sample Name: H-SEW-01P	X̄ Temp (°C): 20.00					
Vinyl Chloride	10,091	1.00	0.815	10.0	5.00	1.22	0.608
1,1-Dichloroethene	10,091	1.00	0.332	10.0	5.00	2.99	1.49
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,091	1.00	0.895 <sup>§</sup>	10.0	5.00	1.11	0.554
trans-1,2-Dichloroethene	10,091	1.00	0.443	10.0	5.00	2.24	1.12
Methyl-t-butyl ether	10,091	1.00	0.503 <sup>§</sup>	25.0	10.00	4.93	1.97
1,1-Dichloroethane	10,091	1.00	0.855	10.0	5.00	1.16	0.580
cis-1,2-Dichloroethene	10,091	1.00	0.533	10.0	5.00	1.86	0.930
Chloroform	10,091	1.00	0.352 <sup>§</sup>	10.0	5.00	2.82	1.41
1,2-Dichloroethane	10,091	1.00	0.563	10.0	5.00	1.76	0.880
1,1,1-Trichloroethane	10,091	1.00	1.056	10.0	5.00	0.938	0.469
Carbon Tetrachloride	10,091	1.00	0.432 <sup>§</sup>	10.0	5.00	2.29	1.15
Benzene	10,091	1.00	0.533	25.0	10.00	4.65	1.86
Trichloroethene	10,091	1.00	0.332	10.0	5.00	2.99	1.49
1,4-Dioxane	10,091	1.00	0.412 <sup>§</sup>	10.0	5.00	2.40	1.20
1,1,2-Trichloroethane	10,091	1.00	0.332 <sup>§</sup>	10.0	5.00	2.99	1.49
Toluene	10,091	1.00	0.402	25.0	10.00	6.16	2.46
1,2-Dibromoethane (EDB)	10,091	1.00	0.392 <sup>§</sup>	10.0	5.00	2.53	1.26
Tetrachloroethene	10,091	1.00	0.412	10.0	5.00	2.40	1.20
1,1,1,2-Tetrachloroethane	10,091	1.00	0.412 <sup>§</sup>	10.0	5.00	2.40	1.20
Chlorobenzene	10,091	1.00	0.855 <sup>§</sup>	10.0	5.00	1.16	0.580
Ethylbenzene	10,091	1.00	0.855	25.0	10.00	2.90	1.16
p & m-Xylene	10,091	1.00	0.885	25.0	10.00	2.80	1.12
1,1,2,2-Tetrachloroethane	10,091	1.00	0.412 <sup>§</sup>	10.0	5.00	2.40	1.20
o-Xylene	10,091	1.00	0.885	25.0	10.00	2.80	1.12
1,2,3-Trichloropropane	10,091	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
Isopropylbenzene	10,091	1.00	0.835 <sup>§</sup>	25.0	10.00	2.97	1.19
1,3,5-Trimethylbenzene	10,091	1.00	0.835 <sup>§</sup>	25.0	10.00	2.97	1.19
1,2,4-Trimethylbenzene	10,091	1.00	0.835 <sup>§</sup>	25.0	10.00	2.97	1.19
1,3-Dichlorobenzene	10,091	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
1,4-Dichlorobenzene	10,091	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
1,2-Dichlorobenzene	10,091	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
1,2,4-Trichlorobenzene	10,091	1.00	0.392 <sup>§</sup>	10.0	5.00	2.53	1.26
Naphthalene	10,091	1.00	0.805 <sup>§</sup>	10.0	5.00	1.23	0.616
1,2,3-Trichlorobenzene	10,091	1.00	0.392 <sup>§</sup>	10.0	5.00	2.53	1.26
2-Methylnaphthalene	10,091	1.00	0.764 <sup>§</sup>	10.0	5.00	1.30	0.648

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Method Detection and Reporting Limit Calculations (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0005847-04	Sample Name: H-SEW-02P	X̄ Temp (°C): 20.00					
Vinyl Chloride	10,091	1.00	0.815	10.0	5.00	1.22	0.608
1,1-Dichloroethene	10,091	1.00	0.332	10.0	5.00	2.99	1.49
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,091	1.00	0.895 <sup>§</sup>	10.0	5.00	1.11	0.554
trans-1,2-Dichloroethene	10,091	1.00	0.443	10.0	5.00	2.24	1.12
Methyl-t-butyl ether	10,091	1.00	0.503 <sup>§</sup>	25.0	10.00	4.93	1.97
1,1-Dichloroethane	10,091	1.00	0.855	10.0	5.00	1.16	0.580
cis-1,2-Dichloroethene	10,091	1.00	0.533	10.0	5.00	1.86	0.930
Chloroform	10,091	1.00	0.352 <sup>§</sup>	10.0	5.00	2.82	1.41
1,2-Dichloroethane	10,091	1.00	0.563	10.0	5.00	1.76	0.880
1,1,1-Trichloroethane	10,091	1.00	1.056	10.0	5.00	0.938	0.469
Carbon Tetrachloride	10,091	1.00	0.432 <sup>§</sup>	10.0	5.00	2.29	1.15
Benzene	10,091	1.00	0.533	25.0	10.00	4.65	1.86
Trichloroethene	10,091	1.00	0.332	10.0	5.00	2.99	1.49
1,4-Dioxane	10,091	1.00	0.412 <sup>§</sup>	10.0	5.00	2.40	1.20
1,1,2-Trichloroethane	10,091	1.00	0.332 <sup>§</sup>	10.0	5.00	2.99	1.49
Toluene	10,091	1.00	0.402	25.0	10.00	6.16	2.46
1,2-Dibromoethane (EDB)	10,091	1.00	0.392 <sup>§</sup>	10.0	5.00	2.53	1.26
Tetrachloroethene	10,091	1.00	0.412	10.0	5.00	2.40	1.20
1,1,1,2-Tetrachloroethane	10,091	1.00	0.412 <sup>§</sup>	10.0	5.00	2.40	1.20
Chlorobenzene	10,091	1.00	0.855 <sup>§</sup>	10.0	5.00	1.16	0.580
Ethylbenzene	10,091	1.00	0.855	25.0	10.00	2.90	1.16
p & m-Xylene	10,091	1.00	0.885	25.0	10.00	2.80	1.12
1,1,2,2-Tetrachloroethane	10,091	1.00	0.412 <sup>§</sup>	10.0	5.00	2.40	1.20
o-Xylene	10,091	1.00	0.885	25.0	10.00	2.80	1.12
1,2,3-Trichloropropane	10,091	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
Isopropylbenzene	10,091	1.00	0.835 <sup>§</sup>	25.0	10.00	2.97	1.19
1,3,5-Trimethylbenzene	10,091	1.00	0.835 <sup>§</sup>	25.0	10.00	2.97	1.19
1,2,4-Trimethylbenzene	10,091	1.00	0.835 <sup>§</sup>	25.0	10.00	2.97	1.19
1,3-Dichlorobenzene	10,091	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
1,4-Dichlorobenzene	10,091	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
1,2-Dichlorobenzene	10,091	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
1,2,4-Trichlorobenzene	10,091	1.00	0.392 <sup>§</sup>	10.0	5.00	2.53	1.26
Naphthalene	10,091	1.00	0.805 <sup>§</sup>	10.0	5.00	1.23	0.616
1,2,3-Trichlorobenzene	10,091	1.00	0.392 <sup>§</sup>	10.0	5.00	2.53	1.26
2-Methylnaphthalene	10,091	1.00	0.764 <sup>§</sup>	10.0	5.00	1.30	0.648

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Method Detection and Reporting Limit Calculations (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0005847-05	Sample Name: J-SEW-01P	X̄ Temp (°C): 20.00					
Vinyl Chloride	10,136	1.00	0.815	10.0	5.00	1.21	0.606
1,1-Dichloroethene	10,136	1.00	0.332	10.0	5.00	2.97	1.49
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,136	1.00	0.895 <sup>§</sup>	10.0	5.00	1.10	0.551
trans-1,2-Dichloroethene	10,136	1.00	0.443	10.0	5.00	2.23	1.11
Methyl-t-butyl ether	10,136	1.00	0.503 <sup>§</sup>	25.0	10.00	4.90	1.96
1,1-Dichloroethane	10,136	1.00	0.855	10.0	5.00	1.15	0.577
cis-1,2-Dichloroethene	10,136	1.00	0.533	10.0	5.00	1.85	0.925
Chloroform	10,136	1.00	0.352 <sup>§</sup>	10.0	5.00	2.80	1.40
1,2-Dichloroethane	10,136	1.00	0.563	10.0	5.00	1.75	0.876
1,1,1-Trichloroethane	10,136	1.00	1.056	10.0	5.00	0.934	0.467
Carbon Tetrachloride	10,136	1.00	0.432 <sup>§</sup>	10.0	5.00	2.28	1.14
Benzene	10,136	1.00	0.533	25.0	10.00	4.63	1.85
Trichloroethene	10,136	1.00	0.332	10.0	5.00	2.97	1.49
1,4-Dioxane	10,136	1.00	0.412 <sup>§</sup>	10.0	5.00	2.39	1.20
1,1,2-Trichloroethane	10,136	1.00	0.332 <sup>§</sup>	10.0	5.00	2.97	1.49
Toluene	10,136	1.00	0.402	25.0	10.00	6.13	2.45
1,2-Dibromoethane (EDB)	10,136	1.00	0.392 <sup>§</sup>	10.0	5.00	2.52	1.26
Tetrachloroethene	10,136	1.00	0.412	10.0	5.00	2.39	1.20
1,1,1,2-Tetrachloroethane	10,136	1.00	0.412 <sup>§</sup>	10.0	5.00	2.39	1.20
Chlorobenzene	10,136	1.00	0.855 <sup>§</sup>	10.0	5.00	1.15	0.577
Ethylbenzene	10,136	1.00	0.855	25.0	10.00	2.89	1.15
p & m-Xylene	10,136	1.00	0.885	25.0	10.00	2.79	1.11
1,1,2,2-Tetrachloroethane	10,136	1.00	0.412 <sup>§</sup>	10.0	5.00	2.39	1.20
o-Xylene	10,136	1.00	0.885	25.0	10.00	2.79	1.11
1,2,3-Trichloropropane	10,136	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.654
Isopropylbenzene	10,136	1.00	0.835 <sup>§</sup>	25.0	10.00	2.95	1.18
1,3,5-Trimethylbenzene	10,136	1.00	0.835 <sup>§</sup>	25.0	10.00	2.95	1.18
1,2,4-Trimethylbenzene	10,136	1.00	0.835 <sup>§</sup>	25.0	10.00	2.95	1.18
1,3-Dichlorobenzene	10,136	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.654
1,4-Dichlorobenzene	10,136	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.654
1,2-Dichlorobenzene	10,136	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.654
1,2,4-Trichlorobenzene	10,136	1.00	0.392 <sup>§</sup>	10.0	5.00	2.52	1.26
Naphthalene	10,136	1.00	0.805 <sup>§</sup>	10.0	5.00	1.23	0.613
1,2,3-Trichlorobenzene	10,136	1.00	0.392 <sup>§</sup>	10.0	5.00	2.52	1.26
2-Methylnaphthalene	10,136	1.00	0.764 <sup>§</sup>	10.0	5.00	1.29	0.645

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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**Method Detection and Reporting Limit Calculations (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0005847-06	Sample Name: H-SEW-03P	X̄ Temp (°C): 20.00					
Vinyl Chloride	10,094	1.00	0.815	10.0	5.00	1.22	0.608
1,1-Dichloroethene	10,094	1.00	0.332	10.0	5.00	2.98	1.49
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,094	1.00	0.895 <sup>§</sup>	10.0	5.00	1.11	0.553
trans-1,2-Dichloroethene	10,094	1.00	0.443	10.0	5.00	2.24	1.12
Methyl-t-butyl ether	10,094	1.00	0.503 <sup>§</sup>	25.0	10.00	4.93	1.97
1,1-Dichloroethane	10,094	1.00	0.855	10.0	5.00	1.16	0.579
cis-1,2-Dichloroethene	10,094	1.00	0.533	10.0	5.00	1.86	0.929
Chloroform	10,094	1.00	0.352 <sup>§</sup>	10.0	5.00	2.81	1.41
1,2-Dichloroethane	10,094	1.00	0.563	10.0	5.00	1.76	0.879
1,1,1-Trichloroethane	10,094	1.00	1.056	10.0	5.00	0.938	0.469
Carbon Tetrachloride	10,094	1.00	0.432 <sup>§</sup>	10.0	5.00	2.29	1.15
Benzene	10,094	1.00	0.533	25.0	10.00	4.65	1.86
Trichloroethene	10,094	1.00	0.332	10.0	5.00	2.98	1.49
1,4-Dioxane	10,094	1.00	0.412 <sup>§</sup>	10.0	5.00	2.40	1.20
1,1,2-Trichloroethane	10,094	1.00	0.332 <sup>§</sup>	10.0	5.00	2.98	1.49
Toluene	10,094	1.00	0.402	25.0	10.00	6.16	2.46
1,2-Dibromoethane (EDB)	10,094	1.00	0.392 <sup>§</sup>	10.0	5.00	2.53	1.26
Tetrachloroethene	10,094	1.00	0.412	10.0	5.00	2.40	1.20
1,1,1,2-Tetrachloroethane	10,094	1.00	0.412 <sup>§</sup>	10.0	5.00	2.40	1.20
Chlorobenzene	10,094	1.00	0.855 <sup>§</sup>	10.0	5.00	1.16	0.579
Ethylbenzene	10,094	1.00	0.855	25.0	10.00	2.90	1.16
p & m-Xylene	10,094	1.00	0.885	25.0	10.00	2.80	1.12
1,1,2,2-Tetrachloroethane	10,094	1.00	0.412 <sup>§</sup>	10.0	5.00	2.40	1.20
o-Xylene	10,094	1.00	0.885	25.0	10.00	2.80	1.12
1,2,3-Trichloropropane	10,094	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
Isopropylbenzene	10,094	1.00	0.835 <sup>§</sup>	25.0	10.00	2.97	1.19
1,3,5-Trimethylbenzene	10,094	1.00	0.835 <sup>§</sup>	25.0	10.00	2.97	1.19
1,2,4-Trimethylbenzene	10,094	1.00	0.835 <sup>§</sup>	25.0	10.00	2.97	1.19
1,3-Dichlorobenzene	10,094	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
1,4-Dichlorobenzene	10,094	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
1,2-Dichlorobenzene	10,094	1.00	0.754 <sup>§</sup>	10.0	5.00	1.31	0.657
1,2,4-Trichlorobenzene	10,094	1.00	0.392 <sup>§</sup>	10.0	5.00	2.53	1.26
Naphthalene	10,094	1.00	0.805 <sup>§</sup>	10.0	5.00	1.23	0.616
1,2,3-Trichlorobenzene	10,094	1.00	0.392 <sup>§</sup>	10.0	5.00	2.53	1.26
2-Methylnaphthalene	10,094	1.00	0.764 <sup>§</sup>	10.0	5.00	1.30	0.648

<b>AECOM</b> 2020 L Street, Suite 300 Sacramento, CA 95811	<b>Site Name:</b> SMUD 59th Street Corporation Yard <b>Site Location:</b> Sacramento, CA <b>Project Manager:</b> Robert Kohlhardt	<b>Beacon Proposal:</b> 210625R02 <b>Lab Work Order:</b> 0005847 <b>Reported:</b> 07/29/2021
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*Laboratory Certification List*

<b>Certification ID</b>	<b>Certification No.</b>	<b>Description</b>	<b>Expires</b>	<b>Project Required</b>
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	01/31/2023	
DoD-ELAP	L20-532	United States Department of Defense Environmental Laboratory Accreditation	12/31/2022	
ISO/IEC 17025:2017	L20-532	General Requirements for the competence of Testing and Calibration Laboratories	12/31/2022	
NY-NELAC	12097	New York Department of Health	04/01/2022	
Utah-NELAC	MD01091	Utah Department of Health	12/31/2021	

**AECOM**  
2020 L Street, Suite 300  
Sacramento, CA 95811

**Site Name:** SMUD 59th Street Corporation Yard  
**Site Location:** Sacramento, CA  
**Project Manager:** Robert Kohlhardt

**Beacon Proposal:** 210625R02  
**Lab Work Order:** 0005847  
**Reported:** 07/29/2021

### Qualifiers/Notes and Definitions

#### *General Definitions:*

DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
NA	Not Applicable
Q	Qualifier
RPD	Relative Percent Difference
RT	Retention Times in Minutes
RRT	Evaluation of Relative Retention Times in RRT Units (qualified if outside $\pm 0.06$ control limits)
$3\sigma$	Uncertainty
∉	Compound not on scope of accreditation
+	values are outside method/contract required QC limits
∅	Compound not on scope of accreditation and analyzed with a one-point calibration

#### *Sample/Sample Receipt Qualifiers and Notes:*

J Value reported below limit of quantitation (LOQ).

**AECOM**  
2020 L Street, Suite 300  
Sacramento, CA 95811

**Site Name:** SMUD 59th Street Corporation Yard  
**Site Location:** Sacramento, CA  
**Project Manager:** Robert Kohlhardt

**Beacon Proposal:** 210625R02  
**Lab Work Order:** 0005847  
**Reported:** 07/29/2021

## *Sample Management Records*



<b>Client Information</b>		Project Manager: <i>Andy Shepard</i>		Client PO: <i>60632793.6</i>		INDOOR AIR	AMBIENT AIR	CRAWL SPACE	SEWER GAS
Company: <i>AECOM</i>		Project Name: <i>SMUD 59th Street</i>		Turn around time (check one): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush (specify) _____ days					
Address: <i>2020 L. St., Suite 400</i>		Location: <i>1708 59th St., Sacramento, CA</i>		Analysis: <input checked="" type="checkbox"/> Method TO-17 <input type="checkbox"/> Method 8260C					
City / State / Zip: <i>Sacramento, CA 95811</i>		Submitted by: <i>Andy Shepard</i>		Email: <i>Robert.Kohlhardt@accom.com</i>					
Phone: <i>916-414-5800</i>									
Location ID	Start Date	Start Time	Stop Date	Stop Time	Aver Temp (C)	Notes			
<i>F-SEW-01P</i>	<i>7/8/21</i>	<i>0848</i>	<i>7/15/21</i>	<i>1031</i>	<i>20</i>				<input checked="" type="checkbox"/>
<i>H-SEW-01P</i>	↓	<i>0921</i>	↓	<i>0932</i>	↓				↓
<i>H-SEW-02P</i>	↓	<i>0921</i>	↓	<i>0932</i>	↓				↓
<i>J-SEW-01P</i>	↓	<i>0948</i>	↓	<i>1044</i>	↓				↓
<i>H-SEW-03P</i>	↓	<i>1006</i>	↓	<i>1020</i>	↓				↓
<i>TB-01</i>						<i>Trip blank</i>			
Special Notes / Instructions:									
Relinquished by (signature): <i>[Signature]</i>		Date / Time: <i>07/15/2021 11:25</i>		Received by (signature): <i>[Signature]</i>		Date / Time: <i>7/19/2021 1152</i>			
Relinquished by (signature):		Date / Time:		Received by (signature):		Date / Time:			
<b>For Lab Use Only</b>		Beacon Job No: <i>5847</i>		Beacon Proposal: <i>210625R02</i>					
Courier Name: <i>Fedex</i>		Shipment Condition: <i>Good</i>		Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> n/a		Custody Seal No:			