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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

TO-15

INVENTORY SHEET

Work Order #: 1606298B

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Comments:

Completed by:

Vera Belitsky	Vera Belitsky / Document Control	7/7/16
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1606298B

Work Order Summary

CLIENT:	Mr. Terry Taylor Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577	**BILL TO:**	Accounts Payable Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577
PHONE:	(914) 251-0400	**P.O. #**	
FAX:		**PROJECT #**	Building 7 VI
DATE RECEIVED:	06/14/2016	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	06/24/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
09A	B7SS-1(061216)	TO-15	3.9 "Hg	15 psi
10A	B7SS-1D(061216)	TO-15	5.7 "Hg	14.9 psi
11A	B7SS-2(061216)	TO-15	3.9 "Hg	15 psi
12A	B7SS-3(061216)	TO-15	2.6 "Hg	14.8 psi
13A	B7SS-4(061216)	TO-15	5.1 "Hg	14.7 psi
14A	B7SS-5(061216)	TO-15	3.7 "Hg	14.8 psi
15A	B7SS-6(061216)	TO-15	4.9 "Hg	15.1 psi
16A	Lab Blank	TO-15	NA	NA
17A	CCV	TO-15	NA	NA
18A	LCS	TO-15	NA	NA
18AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 06/24/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. 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
Anderson Mulholland & Associates, Inc.
Workorder# 1606298B

Seven 1 Liter Summa Canister (100% Certified) samples were received on June 14, 2016. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) information for sample B7IA-1D(061016) did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

Analytical Notes

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 (0.2 ppbv for compounds reported at 0.5 ppbv and 0.8 ppbv for compounds reported at 2.0 ppbv) may be false positives.

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.

Definition of Data Qualifying Flags

Eight 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.

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 Holding Time (Days)	Sample Extract Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
B7SS-1(061216)	1606298B-09A	6/12/2016	6/14/2016	NA	4	6/16/2016	NA	Good
B7SS-1D(061216)	1606298B-10A	6/12/2016	6/14/2016	NA	4	6/16/2016	NA	Good
B7SS-2(061216)	1606298B-11A	6/12/2016	6/14/2016	NA	4	6/16/2016	NA	Good
B7SS-3(061216)	1606298B-12A	6/12/2016	6/14/2016	NA	4	6/16/2016	NA	Good
B7SS-4(061216)	1606298B-13A	6/12/2016	6/14/2016	NA	4	6/16/2016	NA	Good
B7SS-5(061216)	1606298B-14A	6/12/2016	6/14/2016	NA	4	6/16/2016	NA	Good
B7SS-6(061216)	1606298B-15A	6/12/2016	6/14/2016	NA	4	6/16/2016	NA	Good
Lab Blank	1606298B-16A	NA	NA	NA	NA	6/16/2016	NA	Good
CCV	1606298B-17A	NA	NA	NA	NA	6/16/2016	NA	Good
LCS	1606298B-18A	NA	NA	NA	NA	6/16/2016	NA	Good
LCSD	1606298B-18AA	NA	NA	NA	NA	6/16/2016	NA	Good

Sample Results and Raw Data

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

Client Sample ID: B7SS-1(061216)

Lab ID#: 1606298B-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	3.0	6.5	17
Ethanol	4.6	5.5 J0	8.7	10 J0
Acetone	12	54	28	130
2-Propanol	4.6	1.9 J	11	4.6 J
Carbon Disulfide	4.6	4.1 J	14	13 J
2-Butanone (Methyl Ethyl Ketone)	4.6	2.9 J	14	8.6 J
Heptane	1.2	0.24 J	4.8	0.99 J
Toluene	1.2	1.1 J	4.4	4.2 J
2-Hexanone	4.6	0.22 J	19	0.91 J
m,p-Xylene	1.2	0.37 J	5.0	1.6 J

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Client Sample ID: B7SS-1(061216)

Lab ID#: 1606298B-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061608**	**Date of Collection:**	**6/12/16 12:52:00 PM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**6/16/16 07:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected UJ	24	Not Detected UJ
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	3.0	6.5	17
Ethanol	4.6	5.5 J0	8.7	10 J0
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	54	28	130
2-Propanol	4.6	1.9 J	11	4.6 J
Carbon Disulfide	4.6	4.1 J	14	13 J
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	2.9 J	14	8.6 J
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Heptane	1.2	0.24 J	4.8	0.99 J
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	1.1 J	4.4	4.2 J
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
2-Hexanone	4.6	0.22 J	19	0.91 J

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Client Sample ID: B7SS-1(061216)

Lab ID#: 1606298B-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061608**	**Date of Collection:**	**6/12/16 12:52:00 PM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**6/16/16 07:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	0.37 J	5.0	1.6 J
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
Naphthalene	2.3	Not Detected	12	Not Detected

UJ = Analyte associated with low bias in the CCV.
J0 = Estimated value due to bias in the CCV.
J = Estimated value.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	100	70-130

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EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061608.d
Lab Smp Id: 1606298B-09A
Inj Date : 16-JUN-2016 19:02
Operator : ea Inst ID: msd17.i
Smp Info : 200ml 37677
Misc Info : 3.9 Hg->15 psi
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 15:02 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 2
Dil Factor: 2.32000
Integrator: HP RTE Compound Sublist: TO15Nmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	2.32000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	74665	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	58109			48.69- 108.69	77.83
5.499	5.499 (1.000)	49	52708			54.63- 114.63	70.59
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.387	6.388 (1.000)	114	295296	25.0000		80.00- 120.00	100.00
6.387	6.388 (1.000)	88	43068			0.00- 45.20	14.58
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	303347	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	147393			20.04- 80.04	48.59
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.036	6.037 (1.098)	65	70830	22.9688	22.969	80.00- 120.00	100.00
6.036	6.037 (1.098)	67	39733			34.58- 94.58	56.10

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	317576	25.5377	25.538	80.00- 120.00	100.00
7.605	7.605 (1.191)	70	29123			0.00- 39.40	9.17
7.605	7.605 (1.191)	100	210898			35.49- 95.49	66.41
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.819	9.819 (1.111)	174	223108	25.1187	25.119	80.00- 120.00	100.00
9.811	9.819 (1.110)	95	216084			71.35- 131.35	96.85
9.819	9.819 (1.111)	176	215271			68.09- 128.09	96.49
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	9052	1.29755	3.010	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	5993			35.21- 95.21	66.21
42 Ethanol					CAS #: 64-17-5		
2.956	2.949 (0.538)	45	2031	2.38946	5.544	80.00- 120.00	100.00
2.963	2.949 (0.539)	43	224			0.00- 50.21	11.06
2.956	2.949 (0.538)	46	607			8.20- 68.20	29.91
52 Acetone					CAS #: 67-64-1		
3.436	3.429 (0.625)	58	27783	23.4703	54.451	80.00- 120.00	100.00
3.436	3.429 (0.625)	43	67694			226.10- 286.10	243.65
56 Carbon Disulfide					CAS #: 75-15-0		
3.508	3.508 (0.638)	76	15473	1.77107	4.109	80.00- 120.00	100.00(a)
57 2-Propanol					CAS #: 67-63-0		
3.615	3.608 (0.657)	45	2818	0.80662	1.871	80.00- 120.00	100.00(a)
3.615	3.608 (0.657)	43	2422			0.00- 48.33	85.95
3.429	3.608 (0.624)	59	599			0.00- 34.85	21.27
92 2-Butanone					CAS #: 78-93-3		
5.299	5.292 (0.964)	72	2007	1.25540	2.912	80.00- 120.00	100.00(a)
5.299	5.292 (0.964)	43	6455			251.52- 311.52	321.64
5.291	5.292 (0.962)	57	318			0.00- 57.81	15.88
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	361	0.10444	0.2423	80.00- 120.00	100.00(a)
6.187	6.158 (0.969)	43	4914			96.69- 156.69	1358.04
6.165	6.158 (0.965)	57	240			58.40- 118.40	66.38
147 Toluene					CAS #: 108-88-3		
7.662	7.655 (1.200)	91	6566	0.48135	1.117	80.00- 120.00	100.00(a)
7.662	7.655 (1.200)	92	3931			28.86- 88.86	59.87
158 2-Hexanone					CAS #: 591-78-6		
8.221	8.221 (0.930)	58	394	0.09584	0.2224	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone (continued)							
8.228	8.221 (0.931)	43	672			121.26- 181.26	170.65
7.756	8.221 (0.878)	100	217			0.00- 55.92	55.28
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	1323	0.16093	0.3734	80.00- 120.00	100.00(a)
9.002	9.002 (1.019)	91	2851			159.69- 219.69	215.49

QC Flag Legend

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

Report Date: 24-Jun-2016 12:46

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061608.d
Lab Smp Id: 1606298B-09A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 3.9 Hg->15 psi

Calibration Date: 16-JUN-2016
Calibration Time: 14:10

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	74665	-1.03
123 1,4-Difluorobenze	302627	181576	423678	295296	-2.42
163 Chlorobenzene-d5	299663	179798	419528	303347	1.23

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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-Jun-2016 12:46

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 16jun16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298B-09A
Level: LOW Operator: ea
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12bromoform.spk Quant Type: ISTD
Sublist File: TO15Nmdl.sub
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 3.9 Hg->15 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	22.969	91.88	70-130
$ 146 Toluene-d8	25.000	25.538	102.15	70-130
$ 177 4-Bromofluorobenze	25.000	25.119	100.47	70-130

Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

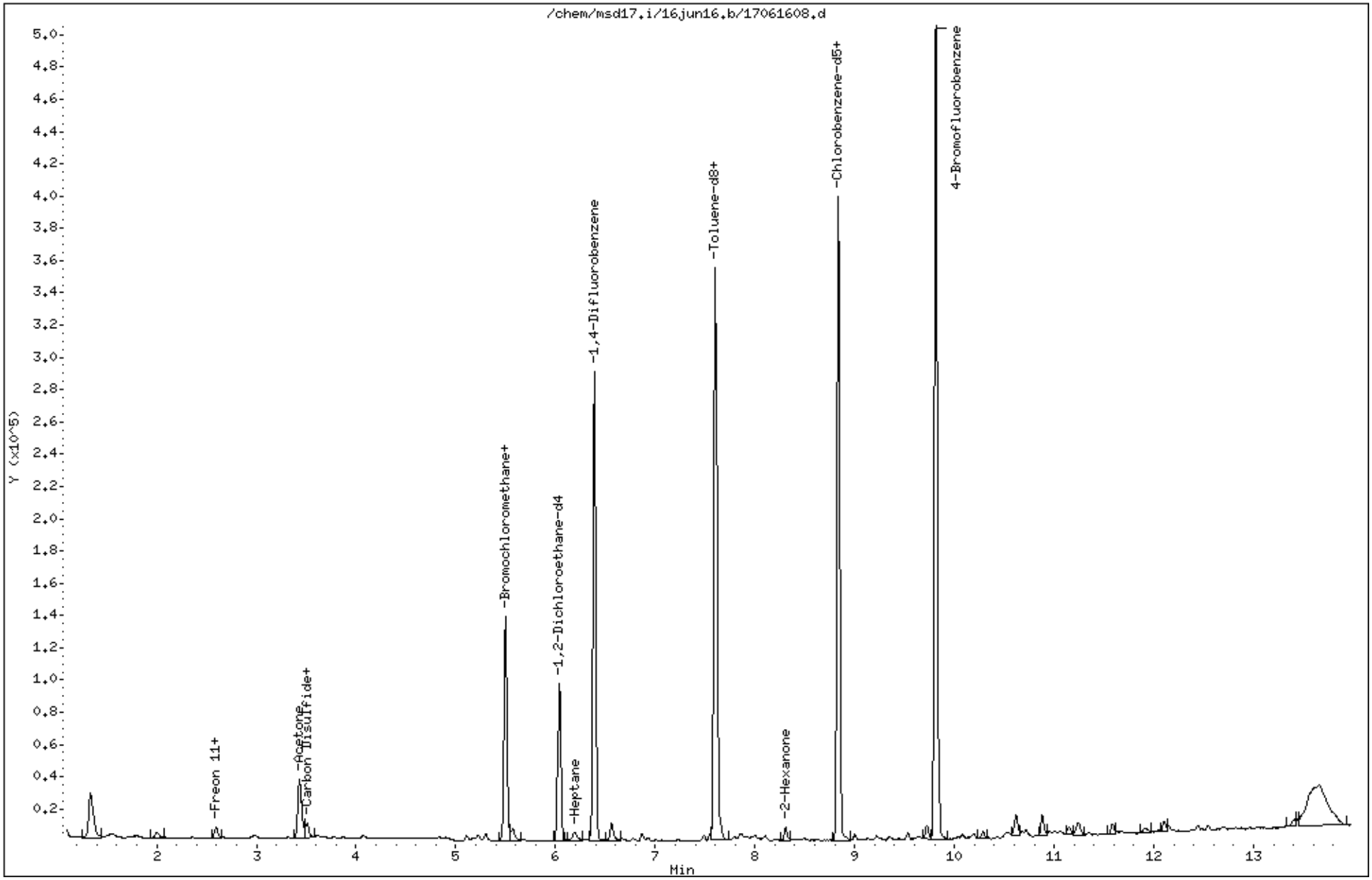
Sample Info: 200ml 37677

Column phase: RTX-624

Instrument: msd17.i

Operator: ea

Column diameter: 0.25



Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

Instrument: msd17.i

Sample Info: 200ml 37677

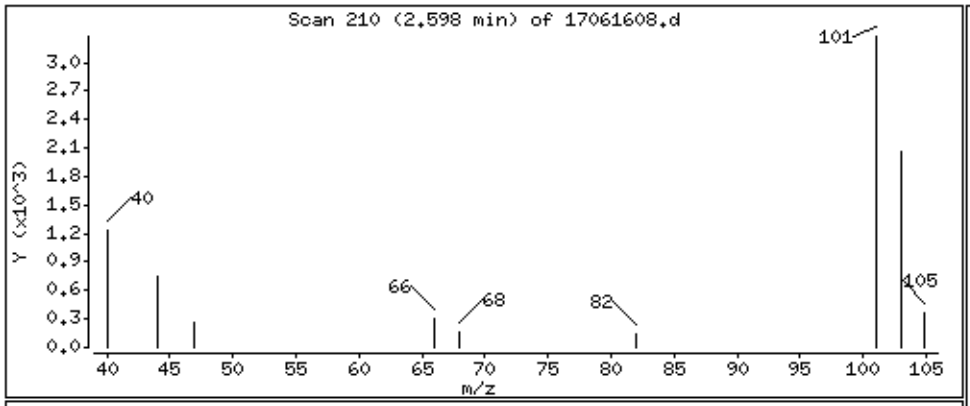
Operator: ea

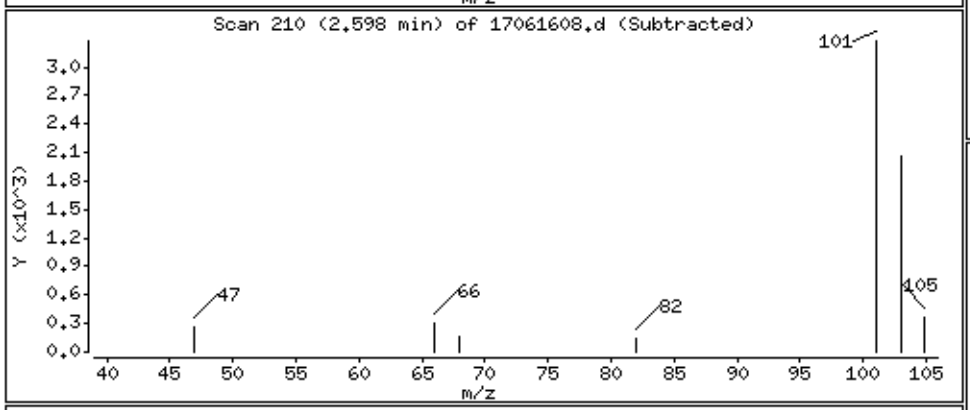
Column phase: RTX-624

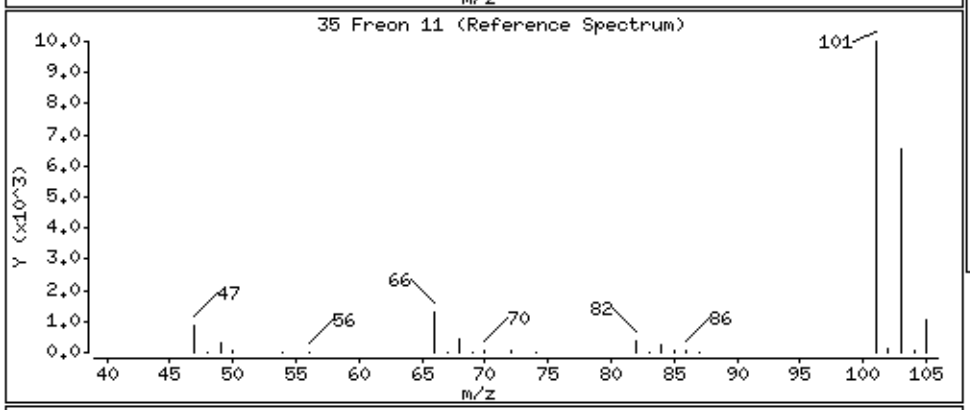
Column diameter: 0.25

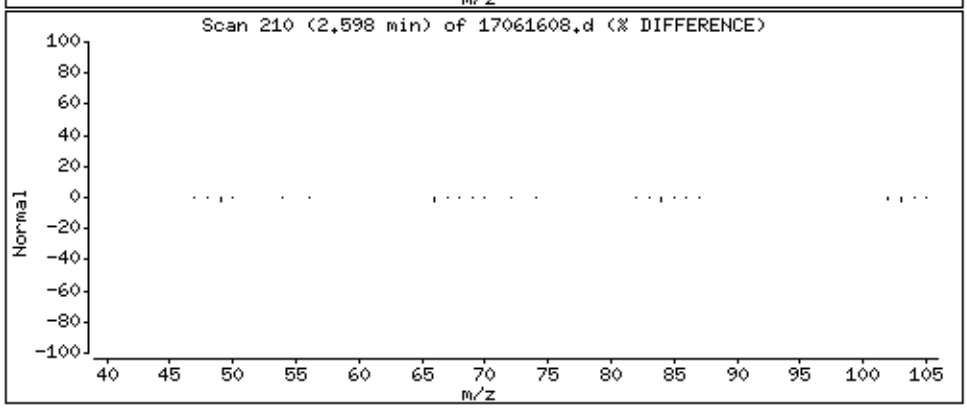
35 Freon 11

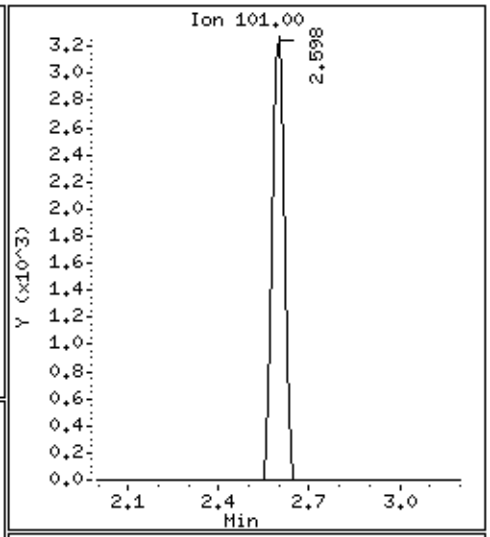
Concentration: 3.010 PPBV

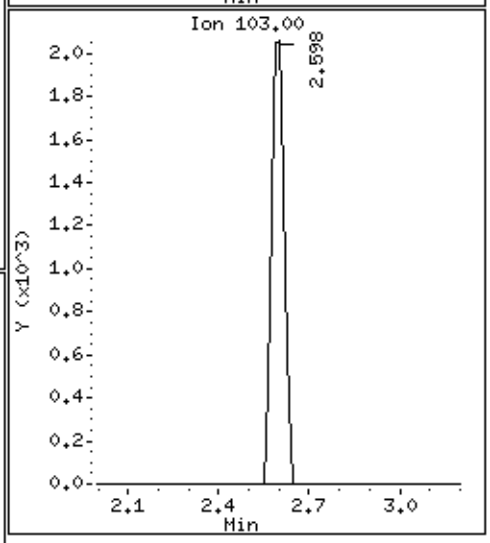












Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

Instrument: msd17.i

Sample Info: 200ml 37677

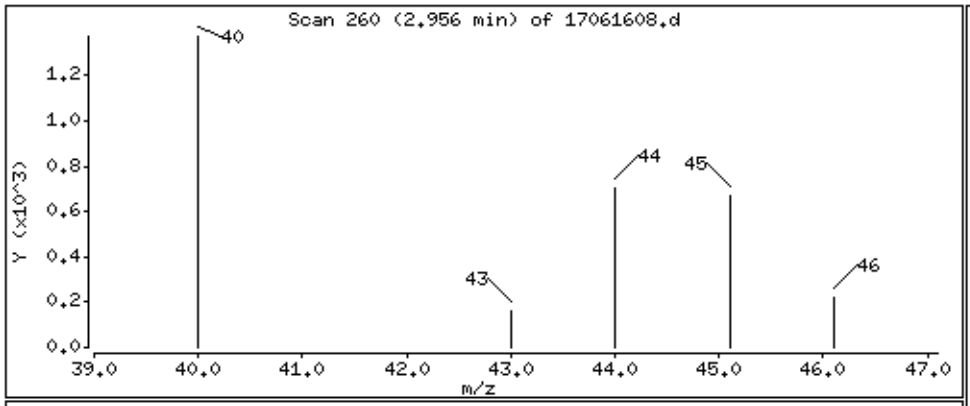
Operator: ea

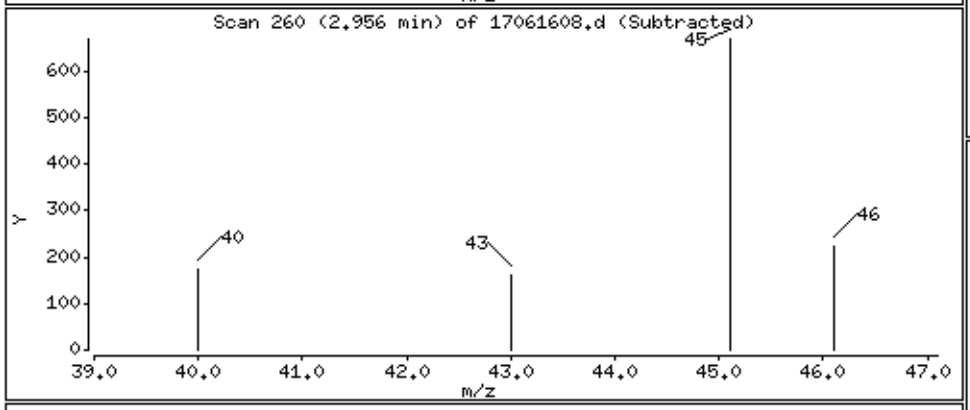
Column phase: RTX-624

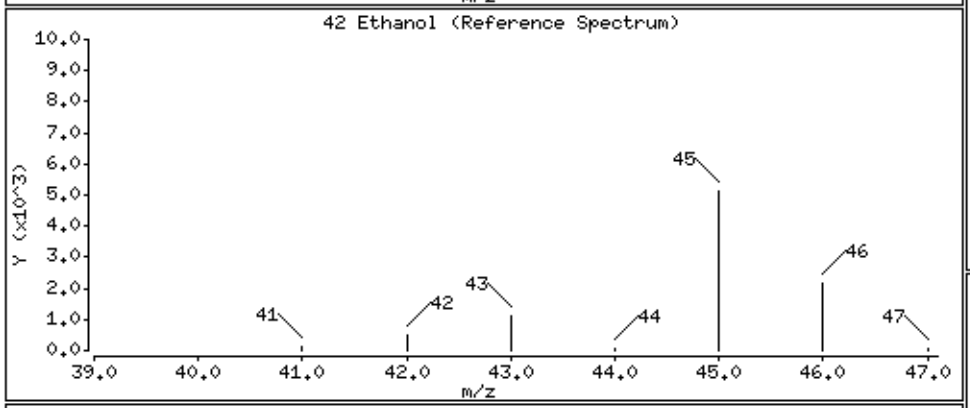
Column diameter: 0.25

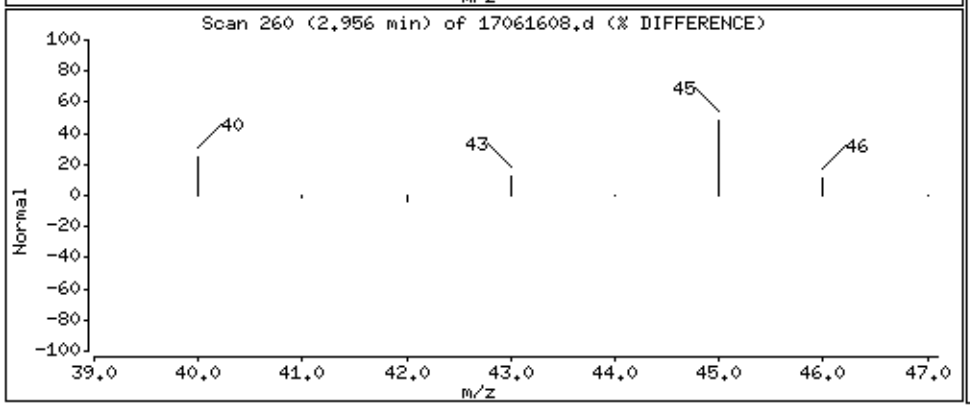
42 Ethanol

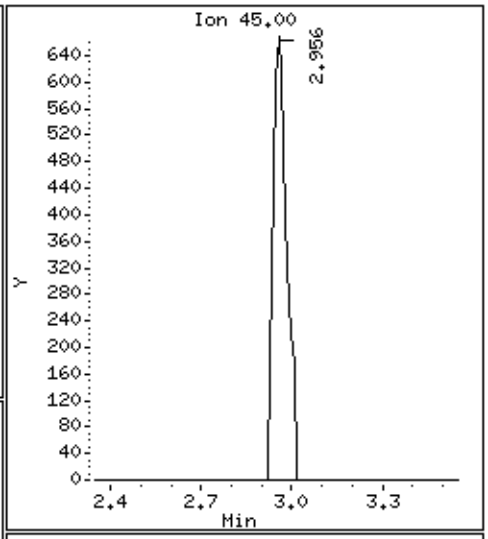
Concentration: 5.544 PPBV

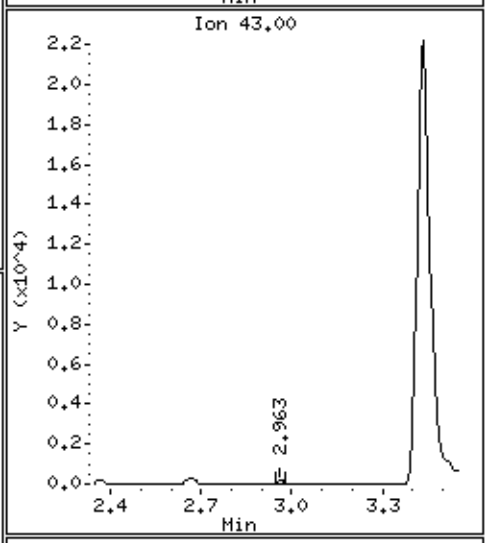


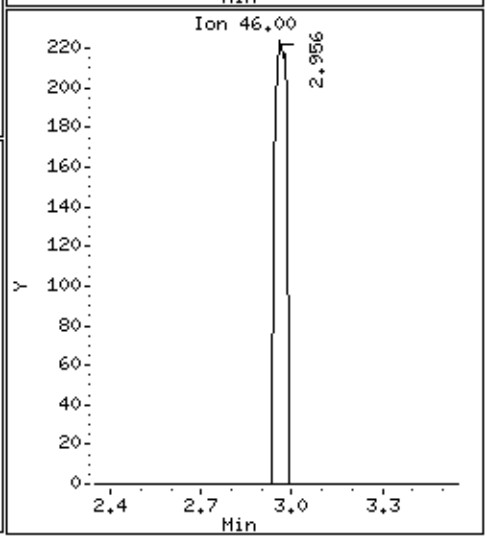












Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

Instrument: msd17.i

Sample Info: 200ml 37677

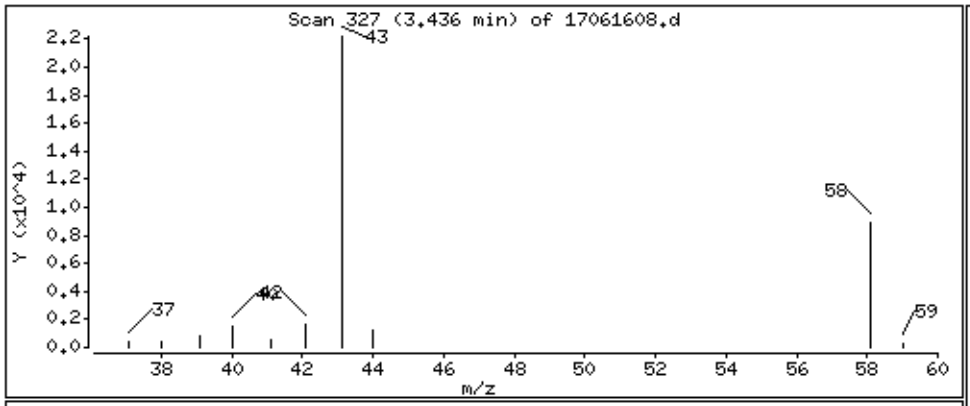
Operator: ea

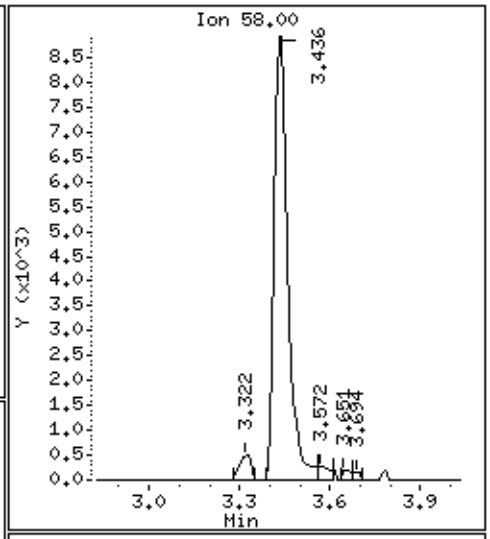
Column phase: RTX-624

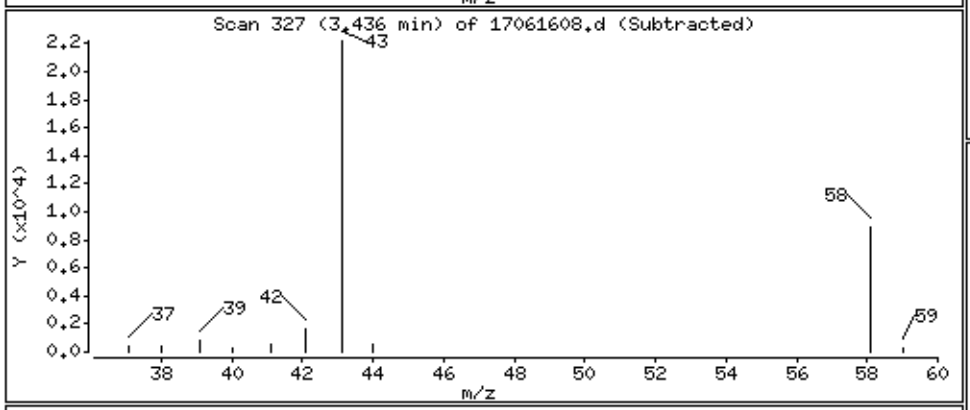
Column diameter: 0.25

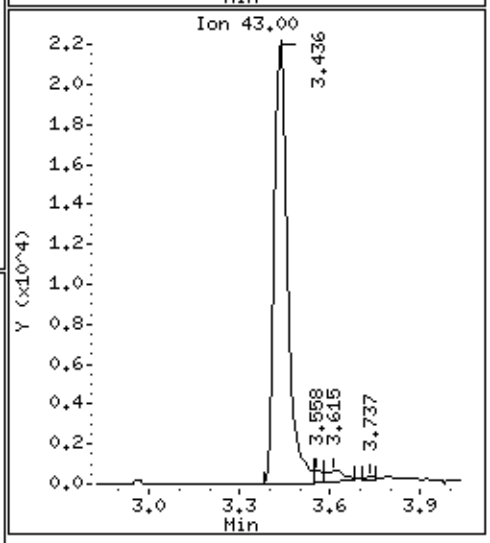
52 Acetone

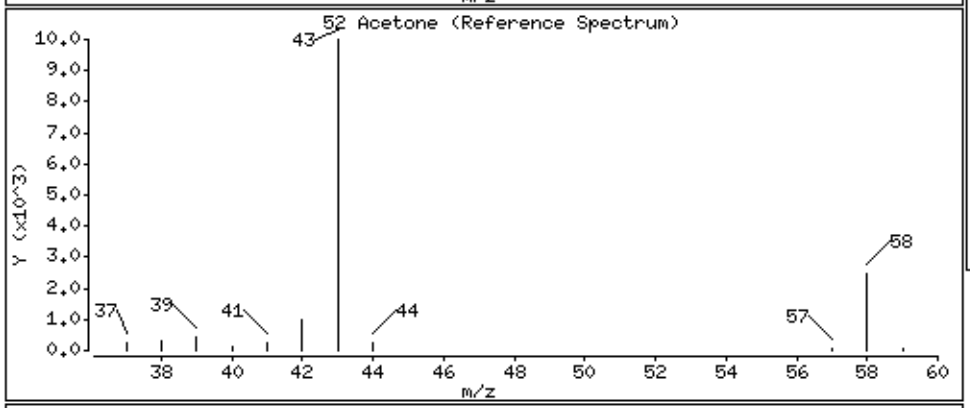
Concentration: 54.451 PPBV

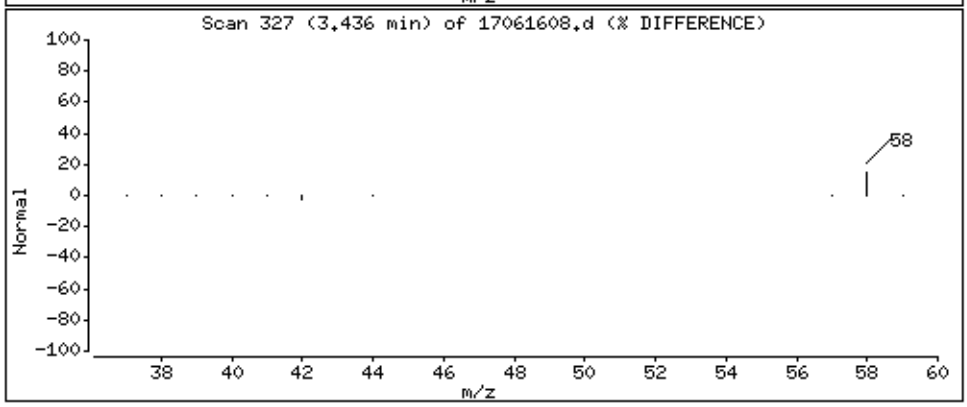












Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

Instrument: msd17.i

Sample Info: 200ml 37677

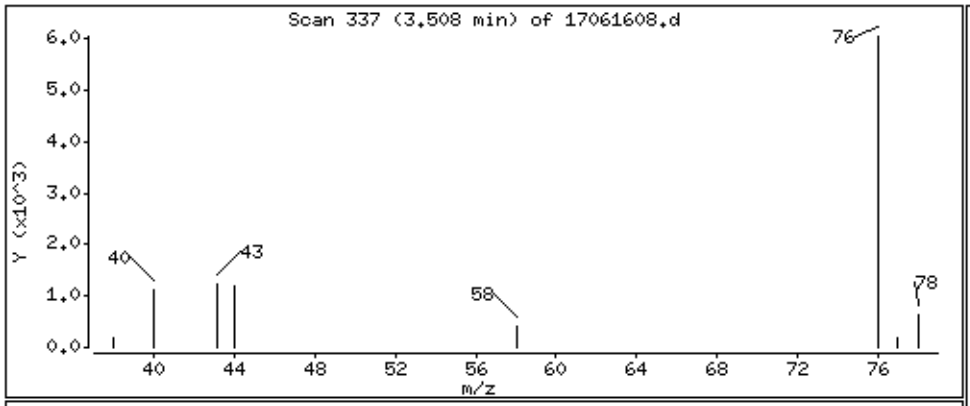
Operator: ea

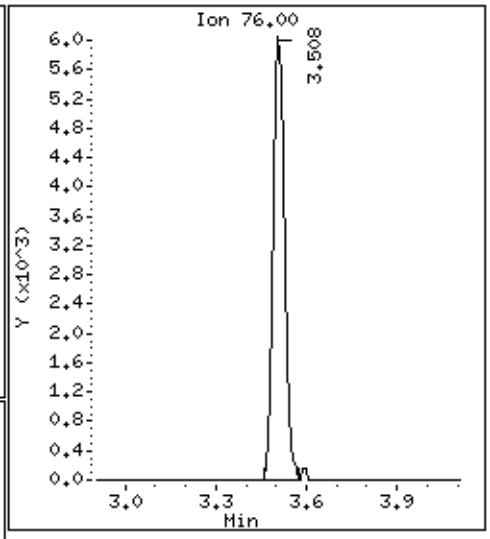
Column phase: RTX-624

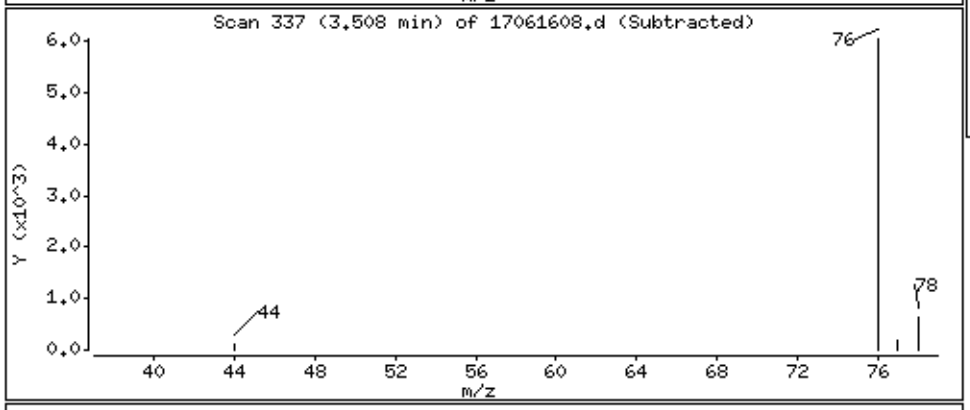
Column diameter: 0.25

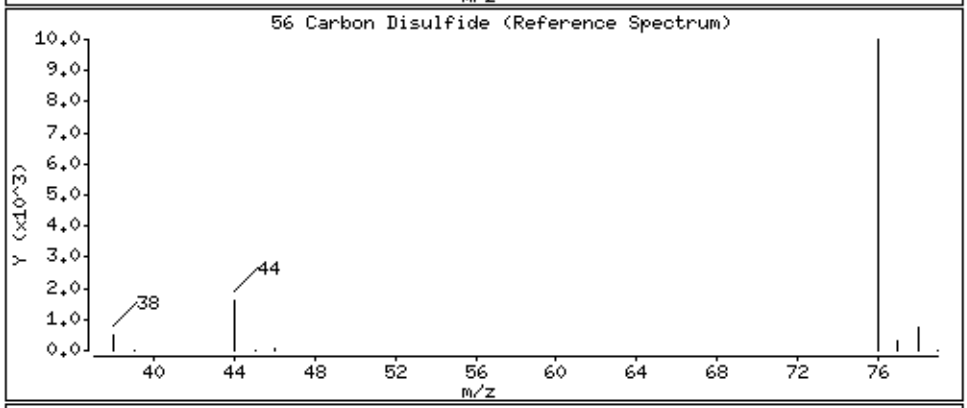
56 Carbon Disulfide

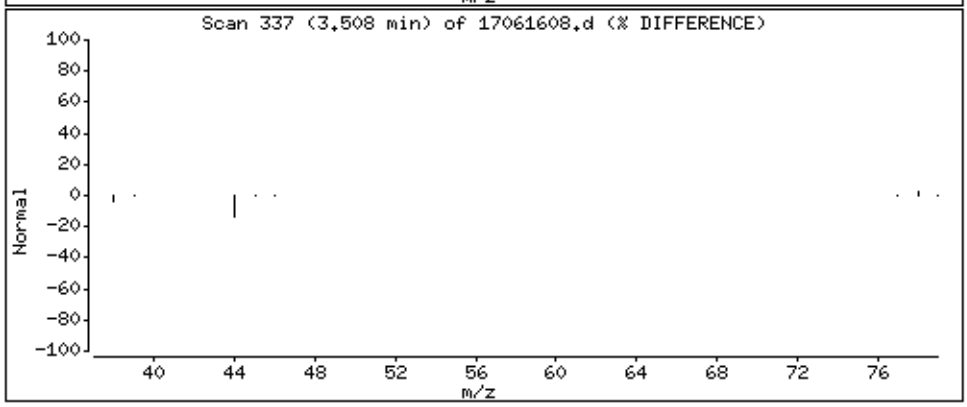
Concentration: 4.109 PPBV











Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

Instrument: msd17.i

Sample Info: 200ml 37677

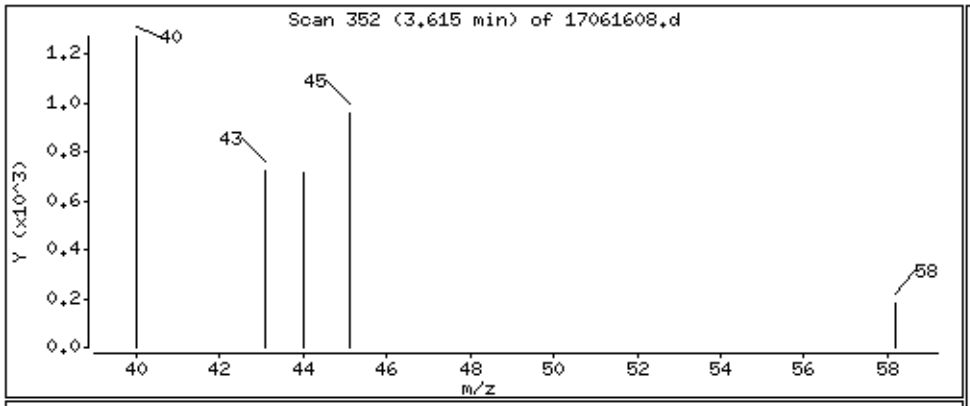
Operator: ea

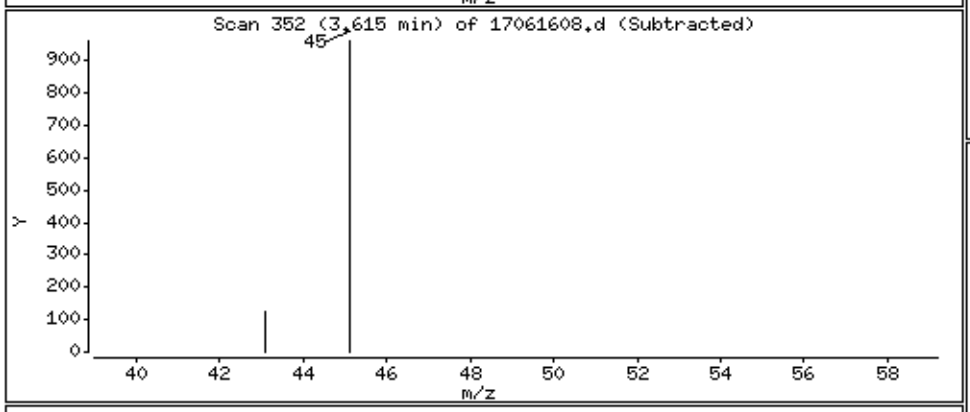
Column phase: RTX-624

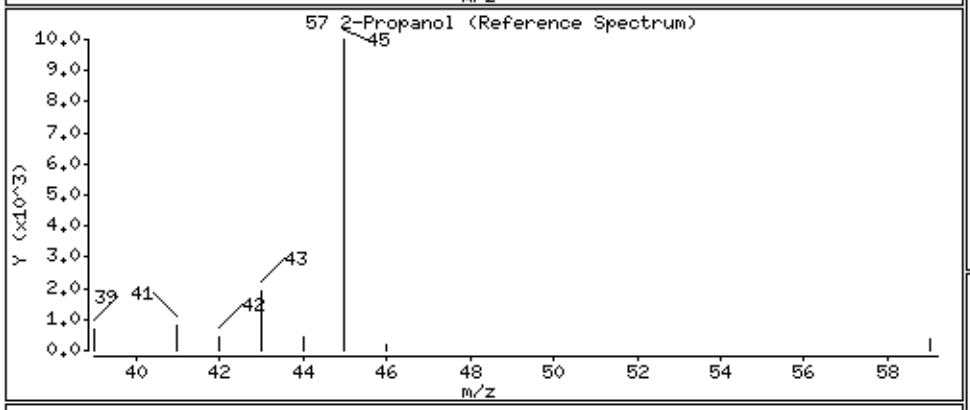
Column diameter: 0.25

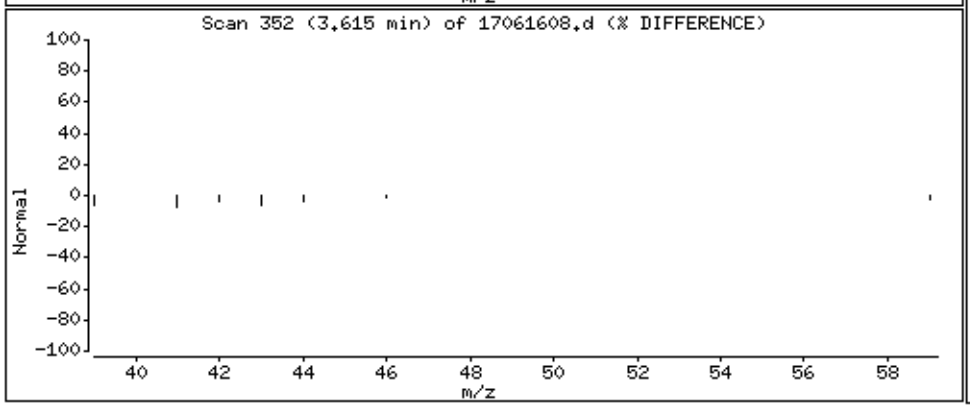
57 2-Propanol

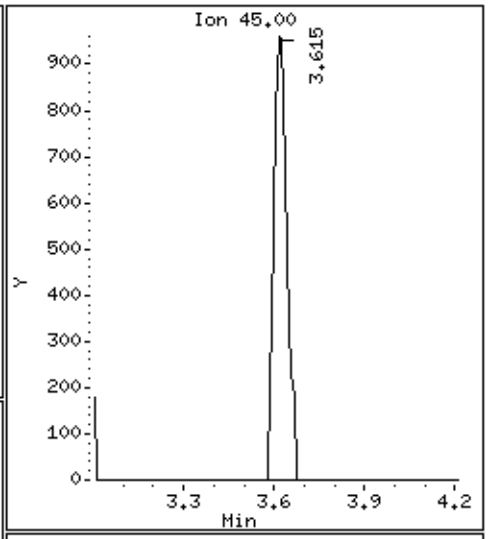
Concentration: 1.871 PPBV

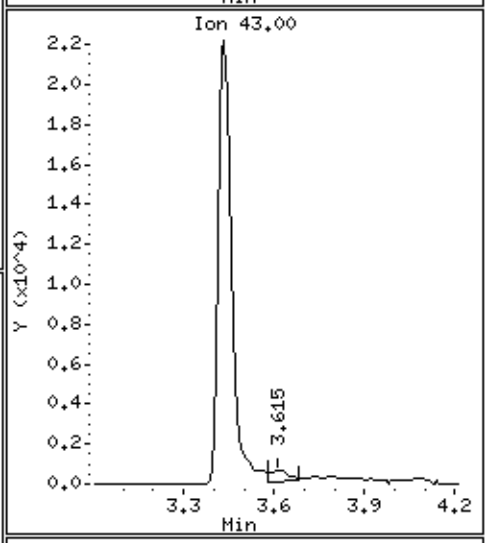


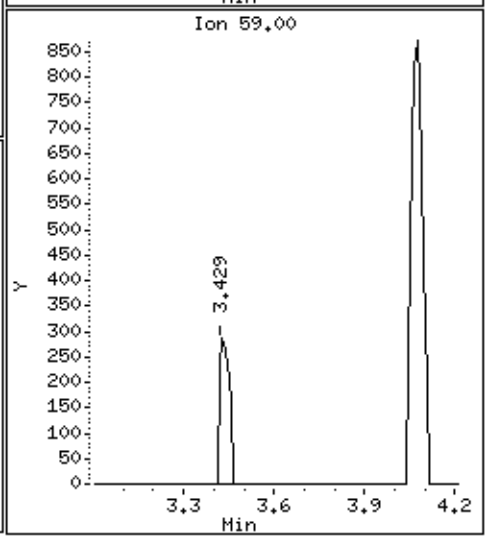












Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

Instrument: msd17.i

Sample Info: 200ml 37677

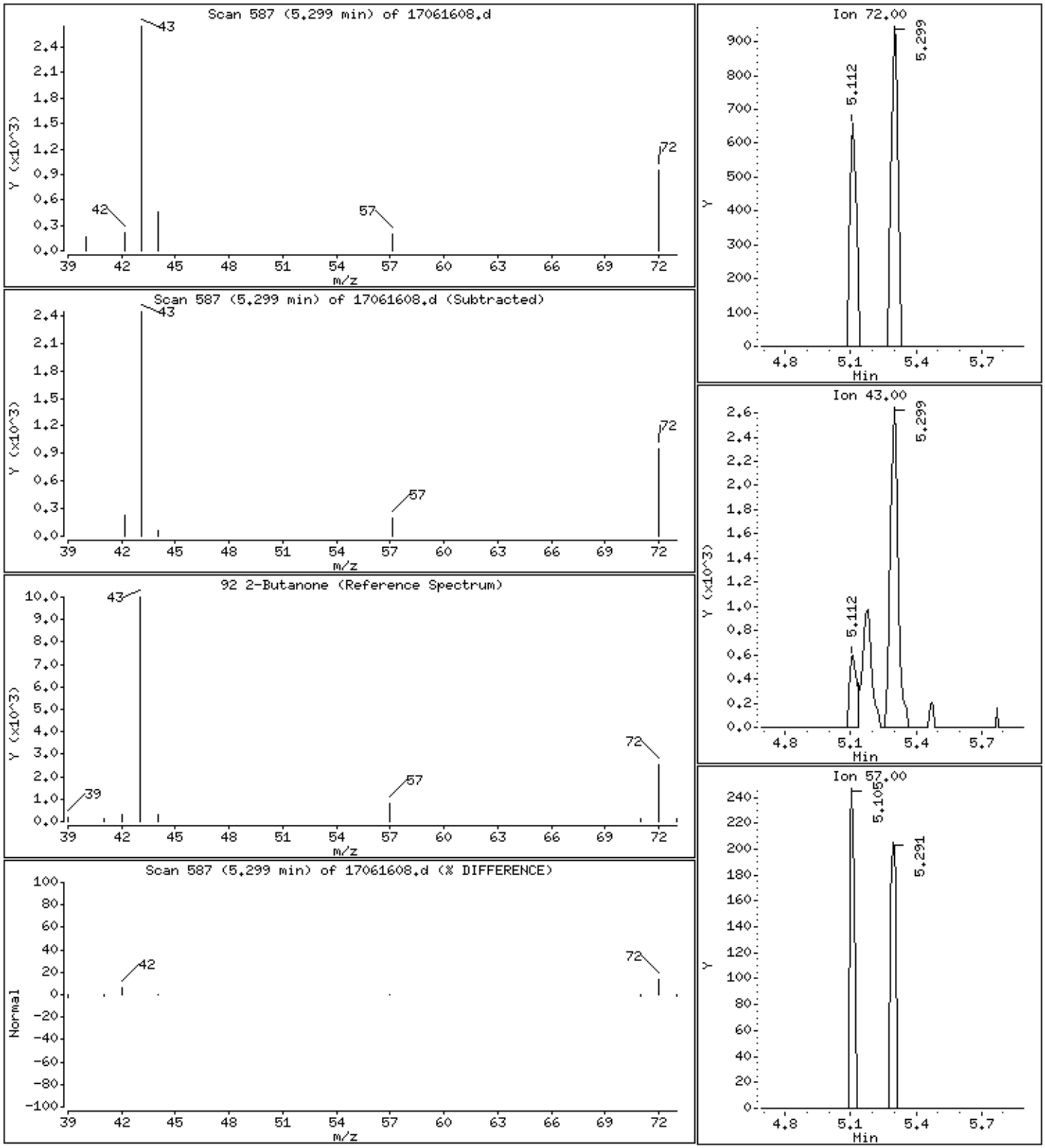
Operator: ea

Column phase: RTX-624

Column diameter: 0.25

92 2-Butanone

Concentration: 2.912 PPBV



Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

Instrument: msd17.i

Sample Info: 200ml 37677

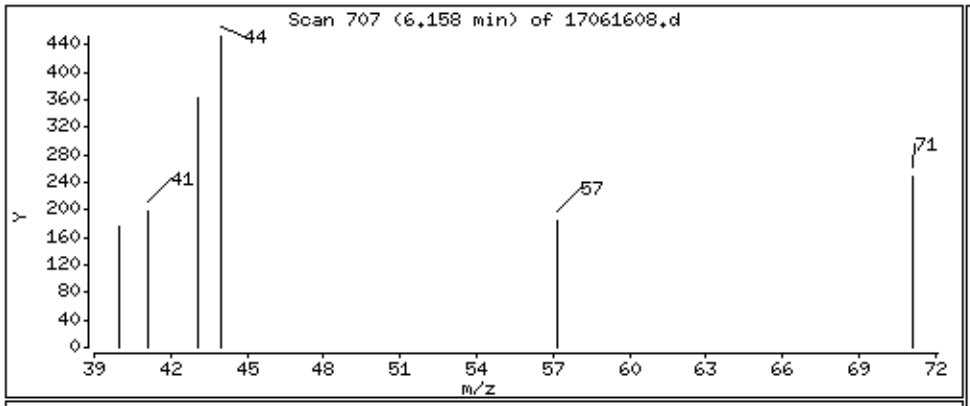
Operator: ea

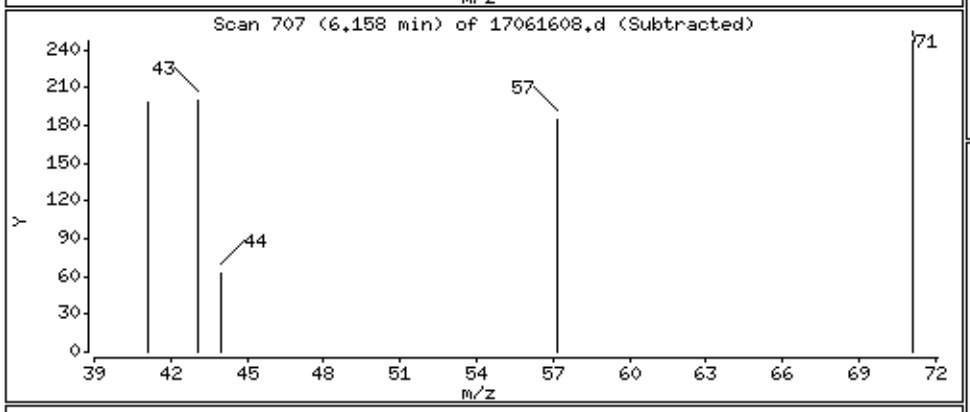
Column phase: RTX-624

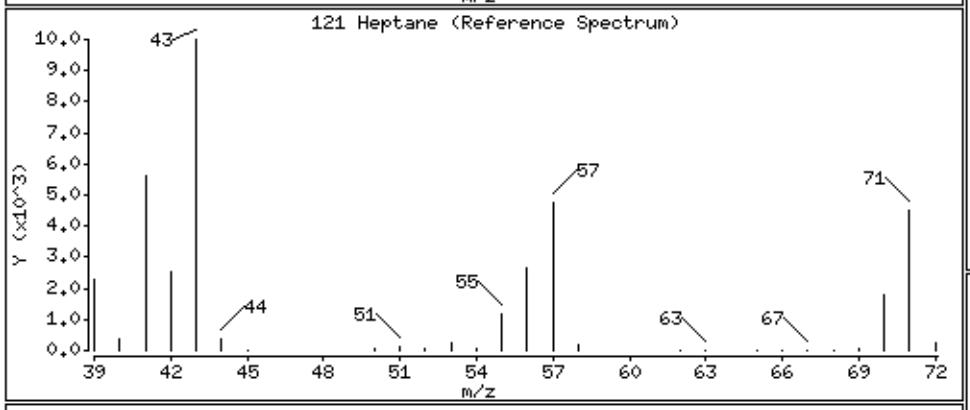
Column diameter: 0.25

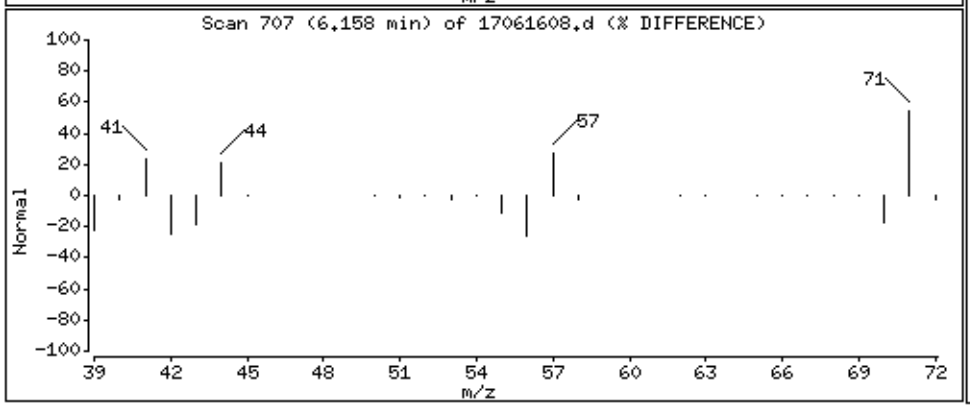
121 Heptane

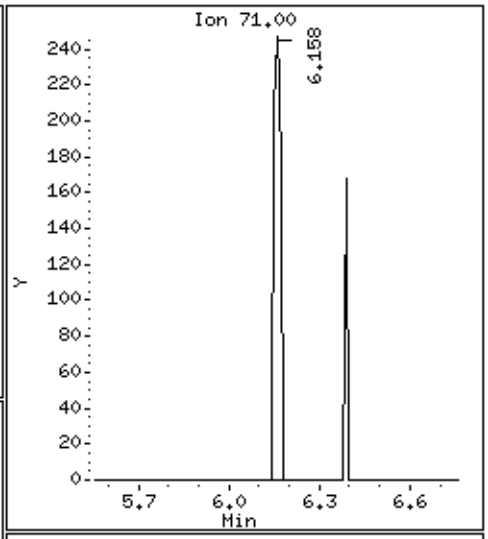
Concentration: 0.2423 PPBV

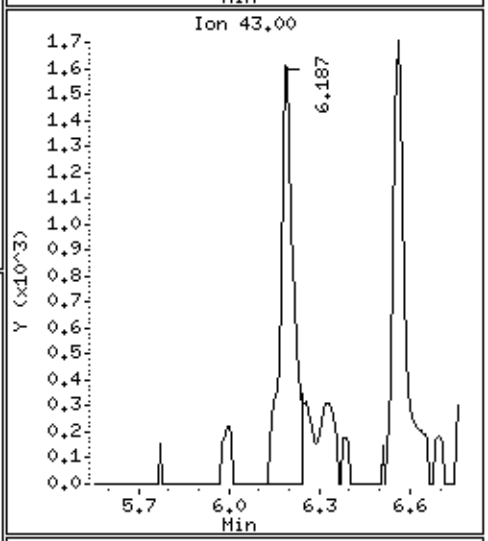


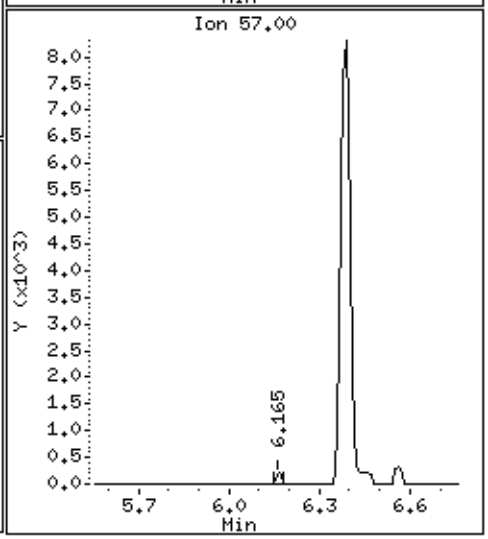












Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

Instrument: msd17.i

Sample Info: 200ml 37677

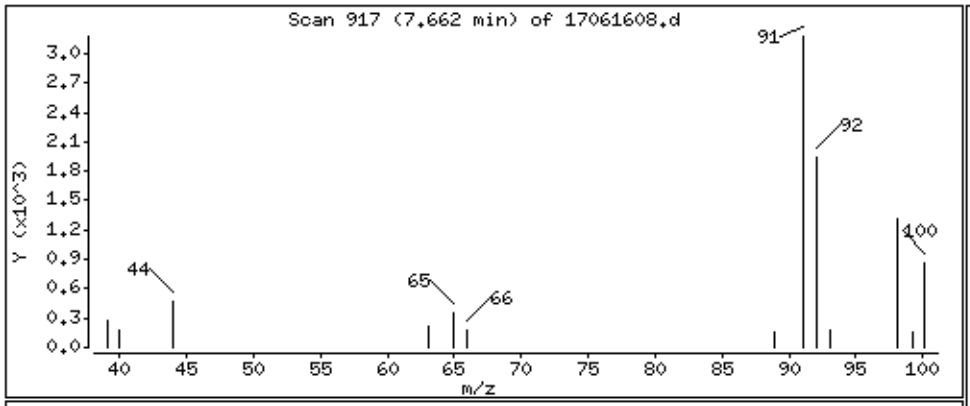
Operator: ea

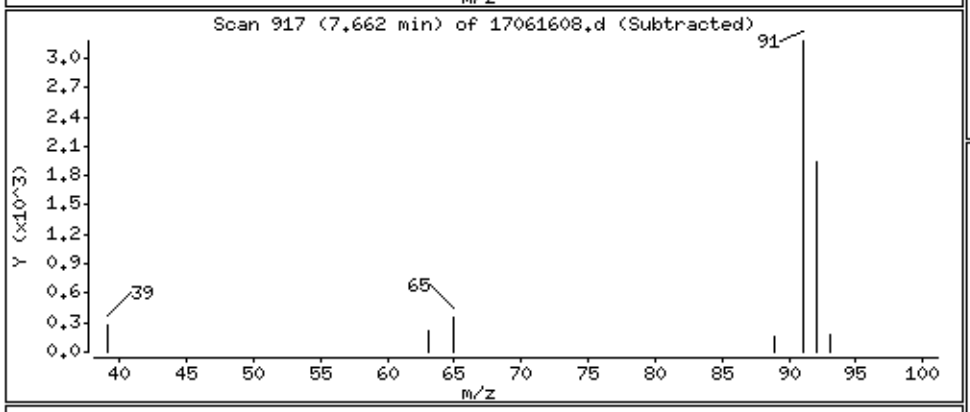
Column phase: RTX-624

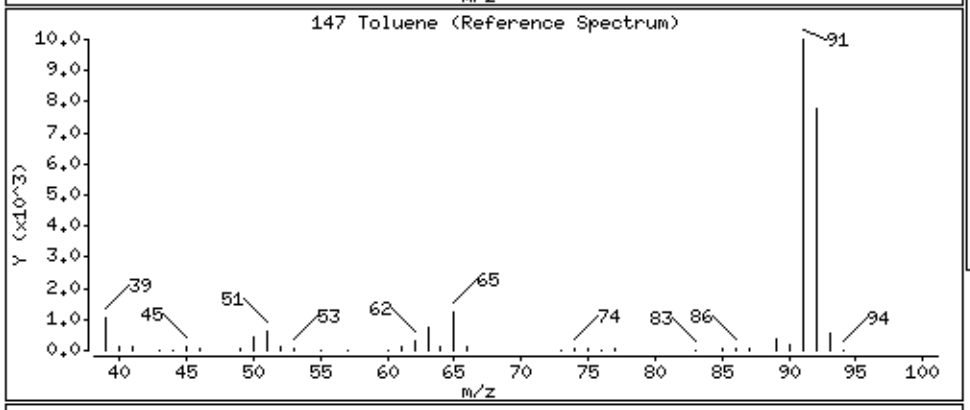
Column diameter: 0.25

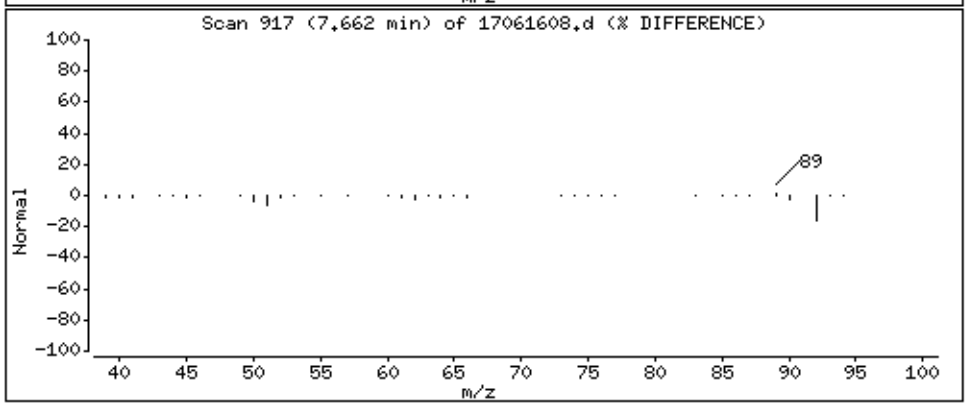
147 Toluene

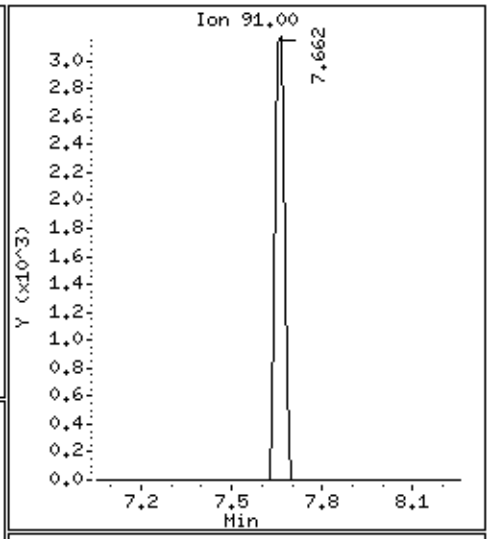
Concentration: 1.117 PPBV

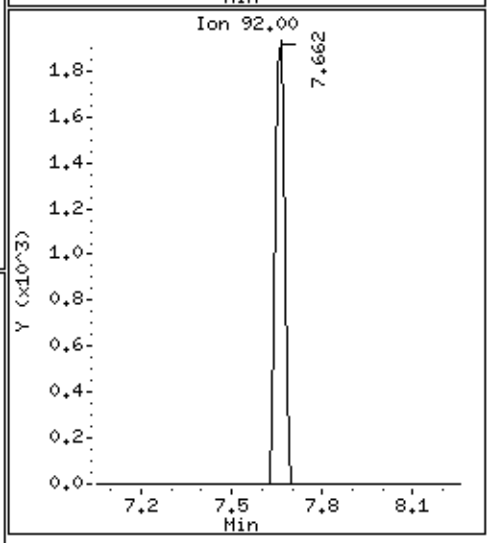












Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

Instrument: msd17.i

Sample Info: 200ml 37677

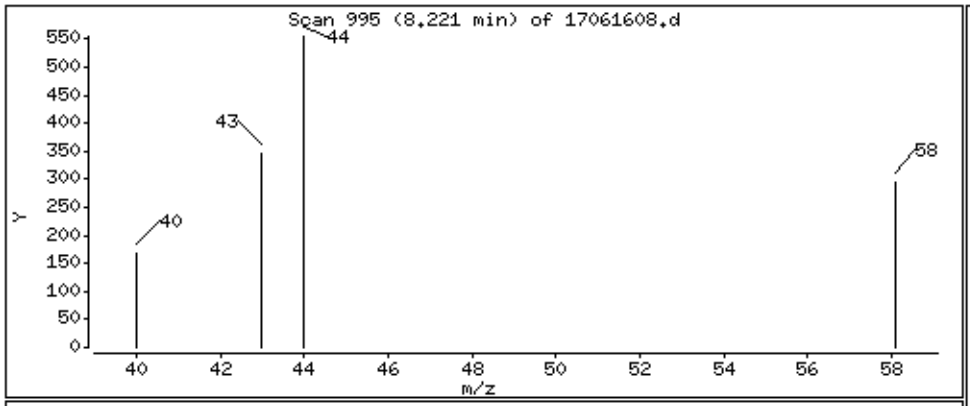
Operator: ea

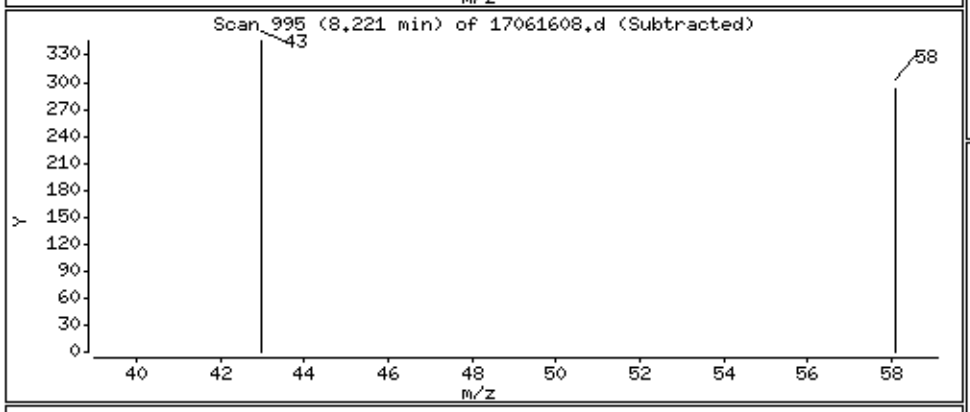
Column phase: RTX-624

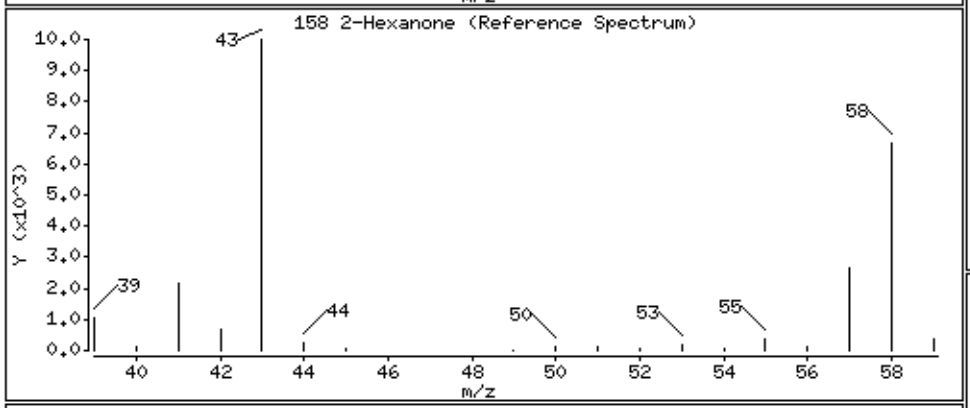
Column diameter: 0.25

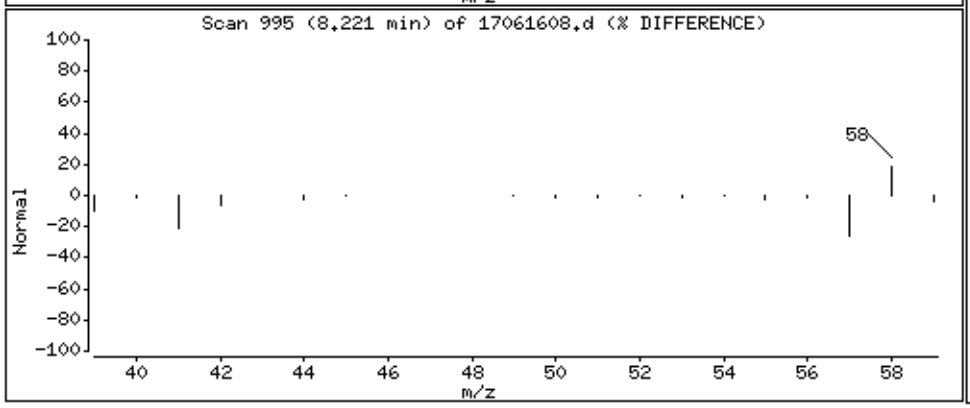
158 2-Hexanone

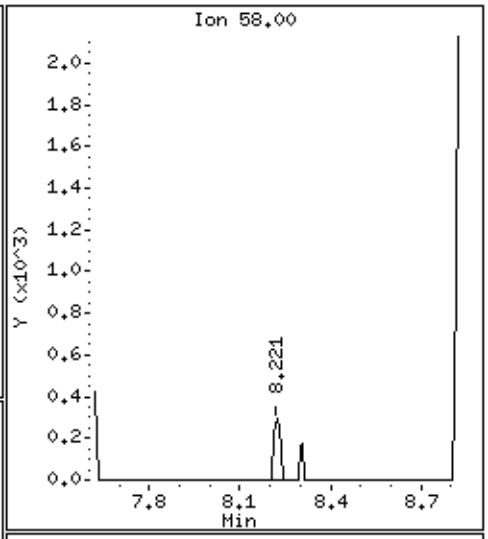
Concentration: 0.2224 PPBV

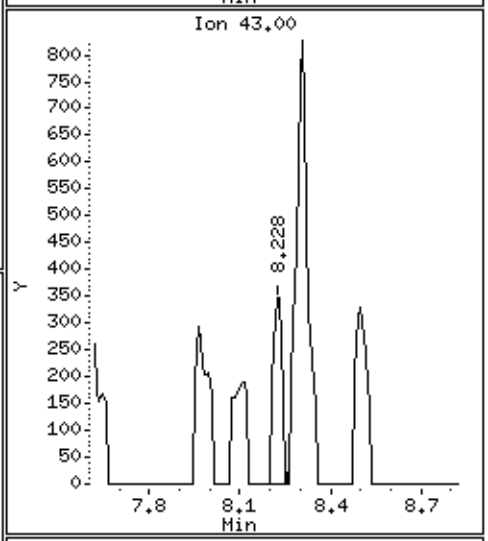


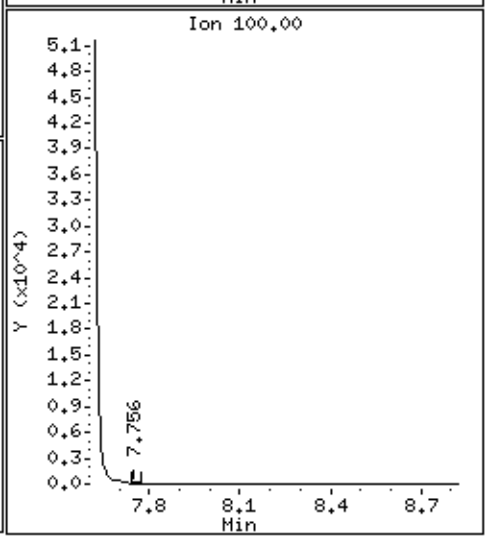












Data File: /chem/msd17.i/16jun16.b/17061608.d

Date : 16-JUN-2016 19:02

Client ID:

Instrument: msd17.i

Sample Info: 200ml 37677

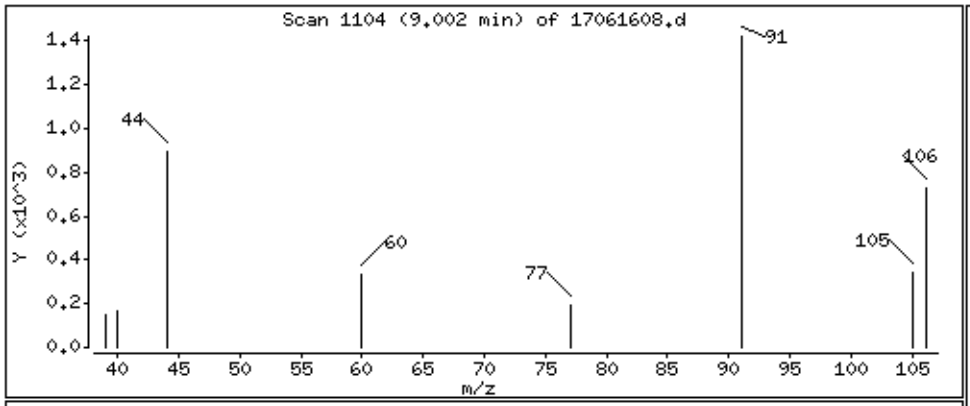
Operator: ea

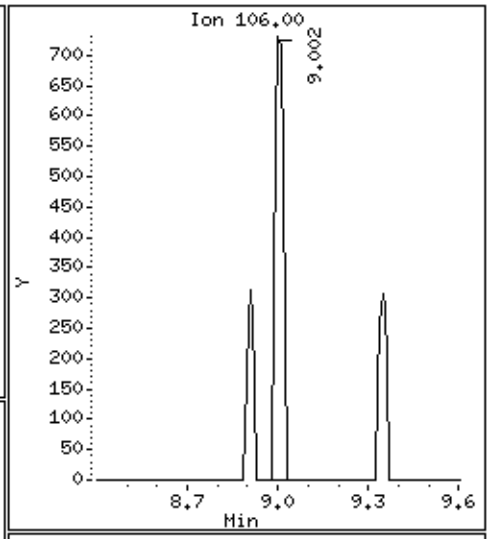
Column phase: RTX-624

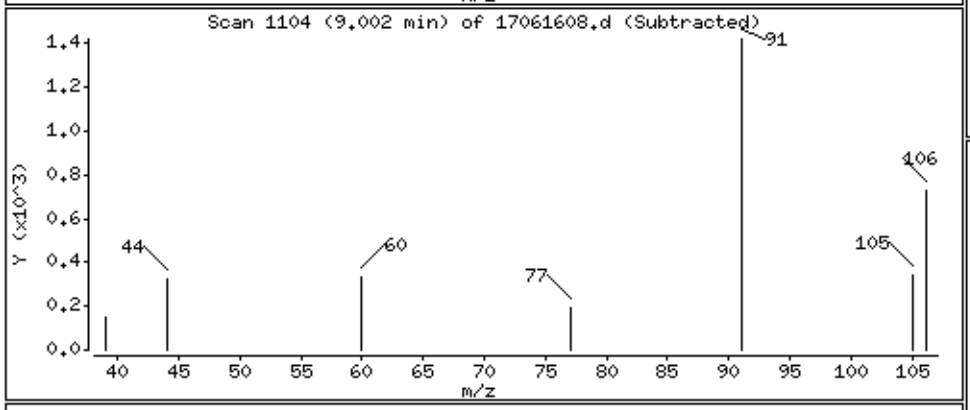
Column diameter: 0.25

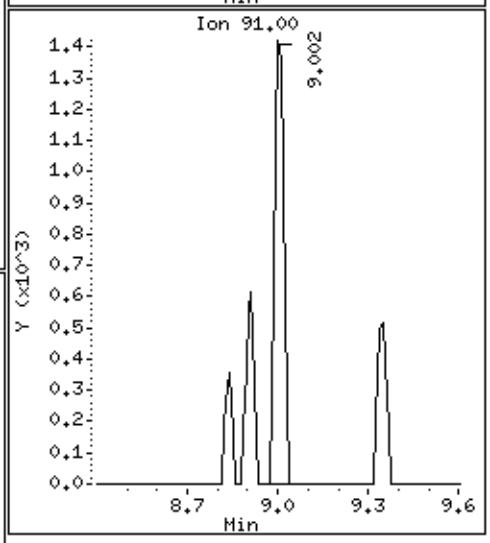
169 m,p-Xylene

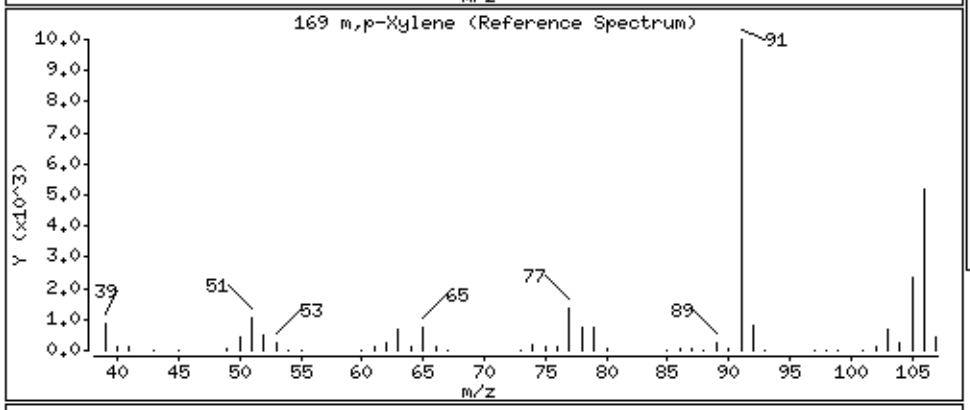
Concentration: 0.3734 PPBV

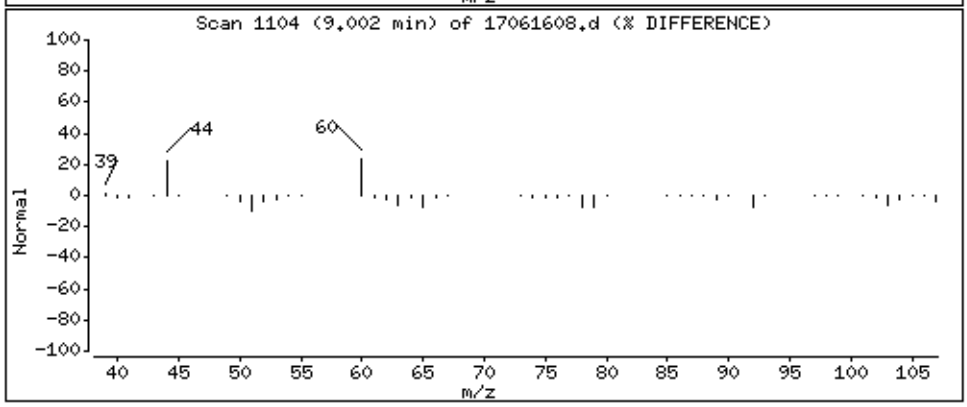












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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B7SS-1D(061216)

Lab ID#: 1606298B-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.9	7.0	16
Acetone	12	13	29	31
2-Propanol	5.0	0.92 J	12	2.3 J
2-Butanone (Methyl Ethyl Ketone)	5.0	2.3 J	15	6.7 J
Heptane	1.2	0.27 J	5.1	1.1 J
Trichloroethene	1.2	0.59 J	6.7	3.2 J
Toluene	1.2	1.1 J	4.7	4.3 J
m,p-Xylene	1.2	0.35 J	5.4	1.5 J
Cumene	1.2	0.90 J	6.1	4.4 J

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Client Sample ID: B7SS-1D(061216)

Lab ID#: 1606298B-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061609**	**Date of Collection:**	**6/12/16 12:51:00 PM**
Dil. Factor:	**2.48**	**Date of Analysis:**	**6/16/16 07:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.7	Not Detected
Chloromethane	12	Not Detected UJ	26	Not Detected UJ
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	2.9	7.0	16
Ethanol	5.0	Not Detected UJ	9.3	Not Detected UJ
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	13	29	31
2-Propanol	5.0	0.92 J	12	2.3 J
Carbon Disulfide	5.0	Not Detected	15	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.5	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	2.3 J	15	6.7 J
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Cyclohexane	1.2	Not Detected	4.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.8	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Heptane	1.2	0.27 J	5.1	1.1 J
Trichloroethene	1.2	0.59 J	6.7	3.2 J
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	1.1 J	4.7	4.3 J
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.4	Not Detected
2-Hexanone	5.0	Not Detected	20	Not Detected

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Client Sample ID: B7SS-1D(061216)

Lab ID#: 1606298B-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061609**	**Date of Collection:**	**6/12/16 12:51:00 PM**
Dil. Factor:	**2.48**	**Date of Analysis:**	**6/16/16 07:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	0.35 J	5.4	1.5 J
o-Xylene	1.2	Not Detected	5.4	Not Detected
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
Cumene	1.2	0.90 J	6.1	4.4 J
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
Propylbenzene	1.2	Not Detected	6.1	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	53	Not Detected
Naphthalene	2.5	Not Detected	13	Not Detected

UJ = Analyte associated with low bias in the CCV.
J = Estimated value.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061609.d
Lab Smp Id: 1606298B-10A
Inj Date : 16-JUN-2016 19:28
Operator : ea Inst ID: msd17.i
Smp Info : 200ml 34581
Misc Info : 5.7 Hg->14.9 psi
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 15:02 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 3
Dil Factor: 2.48000
Integrator: HP RTE Compound Sublist: TO15Nmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	2.48000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	75133	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	56501			48.69- 108.69	75.20
5.499	5.499 (1.000)	49	52146			54.63- 114.63	69.41
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.387	6.388 (1.000)	114	294227	25.0000		80.00- 120.00	100.00
6.387	6.388 (1.000)	88	42636			0.00- 45.20	14.49
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	299239	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	146717			20.04- 80.04	49.03
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.036	6.037 (1.098)	65	70352	22.6717	22.672	80.00- 120.00	100.00
6.036	6.037 (1.098)	67	39195			34.58- 94.58	55.71

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	313203	25.2775	25.278	80.00- 120.00	100.00
7.605	7.605 (1.191)	70	29501			0.00- 39.40	9.42
7.605	7.605 (1.191)	100	207347			35.49- 95.49	66.20
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.818	9.819 (1.111)	174	223939	25.5584	25.558	80.00- 120.00	100.00
9.811	9.819 (1.110)	95	214024			71.35- 131.35	95.57
9.818	9.819 (1.111)	176	215771			68.09- 128.09	96.35
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	8180	1.16525	2.890	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	5059			35.21- 95.21	61.85
52 Acetone					CAS #: 67-64-1		
3.443	3.429 (0.626)	58	6202	5.20664	12.912	80.00- 120.00	100.00
3.436	3.429 (0.625)	43	16136			226.10- 286.10	260.17
57 2-Propanol					CAS #: 67-63-0		
3.615	3.608 (0.657)	45	1312	0.37320	0.9255	80.00- 120.00	100.00(a)
3.622	3.608 (0.659)	43	291			0.00- 48.33	22.24
4.074	3.608 (0.741)	59	2337			0.00- 34.85	178.13
92 2-Butanone					CAS #: 78-93-3		
5.299	5.292 (0.964)	72	1480	0.91999	2.282	80.00- 120.00	100.00(a)
5.299	5.292 (0.964)	43	4475			251.52- 311.52	302.30
5.306	5.292 (0.965)	57	207			0.00- 57.81	14.00
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	380	0.11033	0.2736	80.00- 120.00	100.00(a)
6.158	6.158 (0.964)	43	779			96.69- 156.69	204.76
6.158	6.158 (0.964)	57	227			58.40- 118.40	59.85
125 Trichloroethene					CAS #: 79-01-6		
6.581	6.581 (1.030)	95	1146	0.23866	0.5919	80.00- 120.00	100.00(a)
6.581	6.581 (1.030)	130	1477			84.60- 144.60	128.82
6.581	6.581 (1.030)	97	706			34.77- 94.77	61.63
147 Toluene					CAS #: 108-88-3		
7.662	7.655 (1.200)	91	6223	0.45787	1.136	80.00- 120.00	100.00(a)
7.655	7.655 (1.198)	92	3602			28.86- 88.86	57.89
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	1139	0.14045	0.3483	80.00- 120.00	100.00(a)
9.002	9.002 (1.019)	91	2305			159.69- 219.69	202.24

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
175 Cumene						CAS #: 98-82-8		
9.625	9.625	(1.089)	105	8405	0.36347	0.9014	80.00- 120.00	100.00(a)
9.632	9.625	(1.090)	120	2462			0.00- 57.69	29.29
9.625	9.625	(1.089)	51	480			0.00- 36.59	5.72

QC Flag Legend

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

Report Date: 24-Jun-2016 12:48

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061609.d
Lab Smp Id: 1606298B-10A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 5.7 Hg->14.9 psi

Calibration Date: 16-JUN-2016
Calibration Time: 14:10

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	75133	-0.41
123 1,4-Difluorobenze	302627	181576	423678	294227	-2.78
163 Chlorobenzene-d5	299663	179798	419528	299239	-0.14

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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-Jun-2016 12:48

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606298B-10A
Level: LOW
Operator: ea
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12bromoform.spk
Quant Type: ISTD
Sublist File: TO15Nmdl.sub
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 5.7 Hg->14.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	22.672	90.69	70-130
$ 146 Toluene-d8	25.000	25.278	101.11	70-130
$ 177 4-Bromofluorobenze	25.000	25.558	102.23	70-130

Data File: /chem/msd17.i/16jun16.b/17061609.d

Date : 16-JUN-2016 19:28

Client ID:

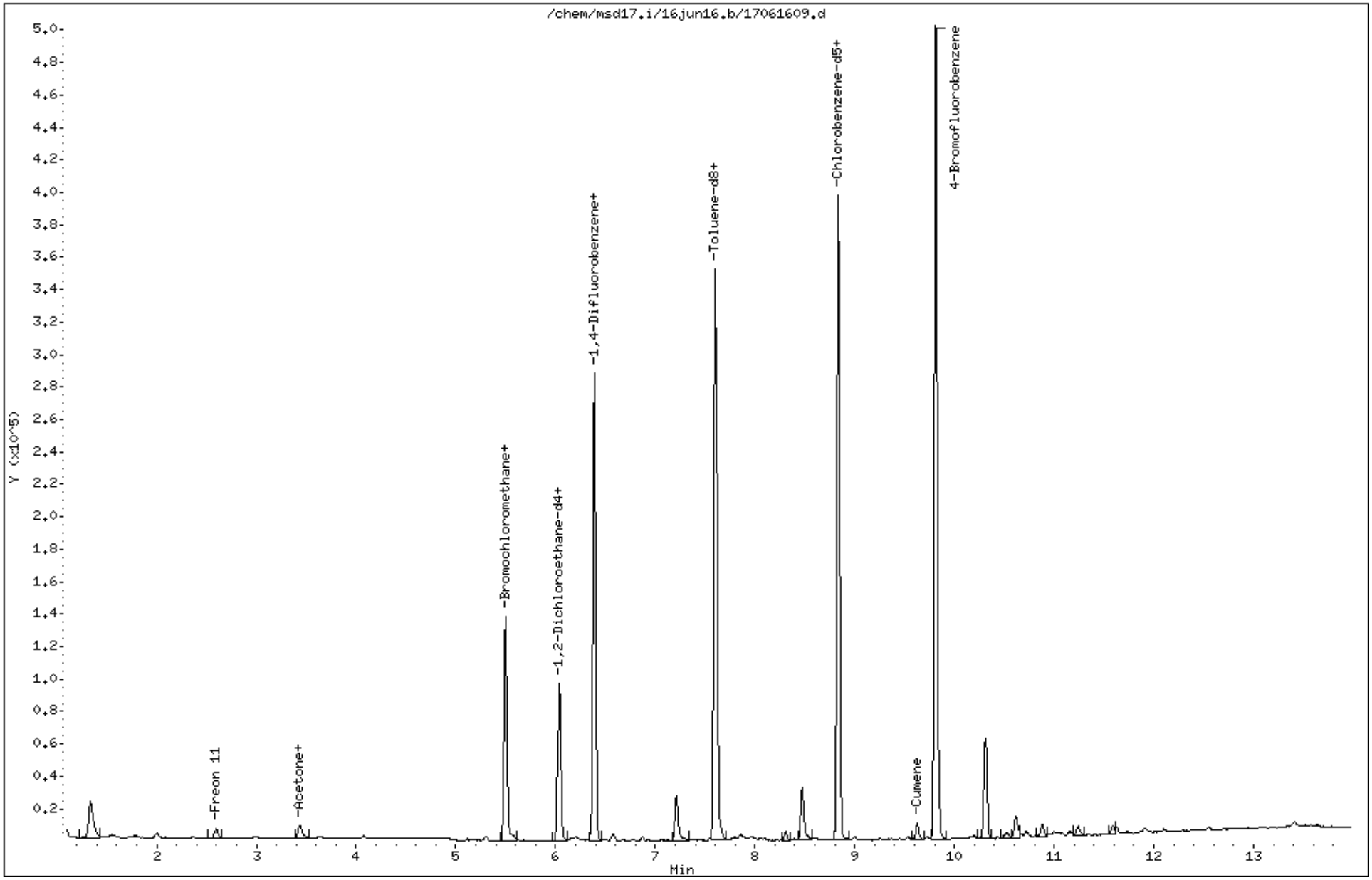
Sample Info: 200ml 34581

Column phase: RTX-624

Instrument: msd17.i

Operator: ea

Column diameter: 0.25



Data File: /chem/msd17.i/16jun16.b/17061609.d

Date : 16-JUN-2016 19:28

Client ID:

Instrument: msd17.i

Sample Info: 200ml 34581

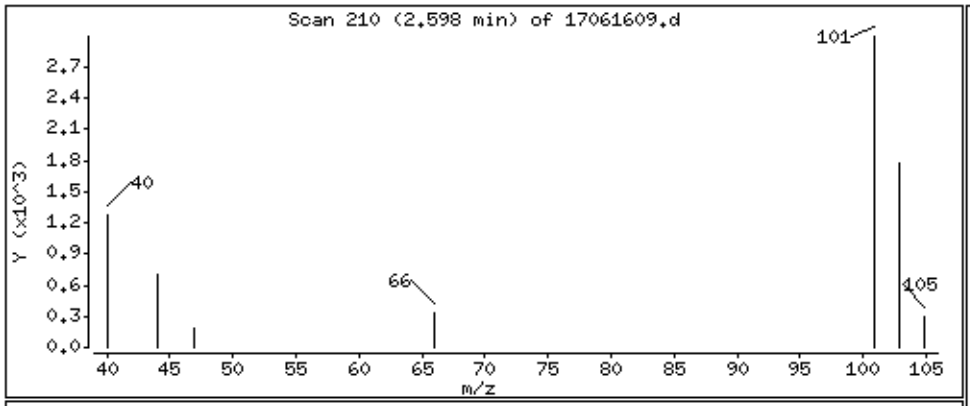
Operator: ea

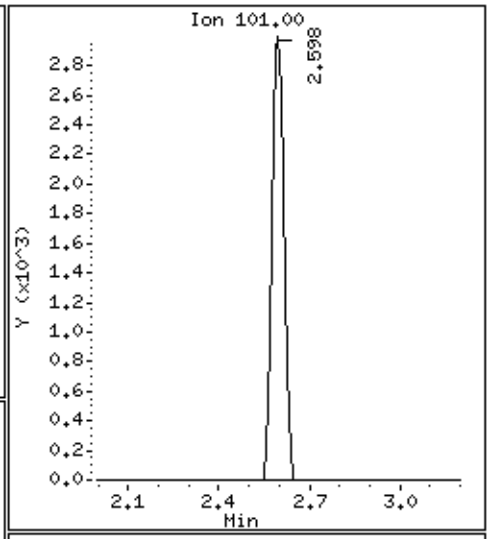
Column phase: RTX-624

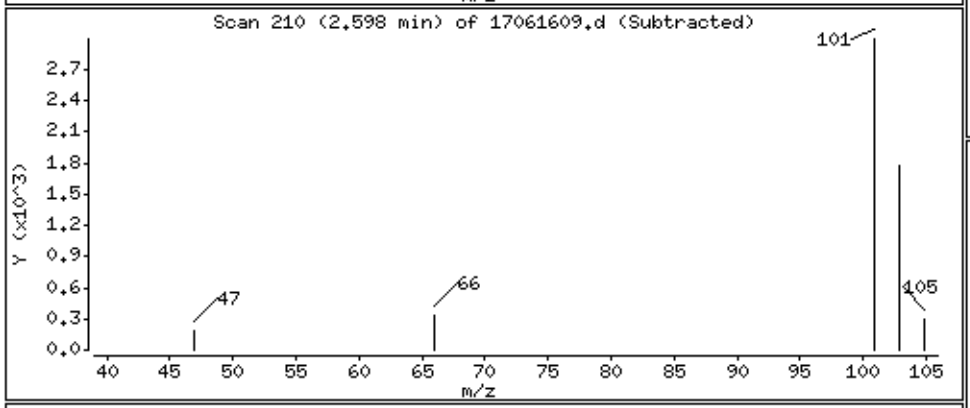
Column diameter: 0.25

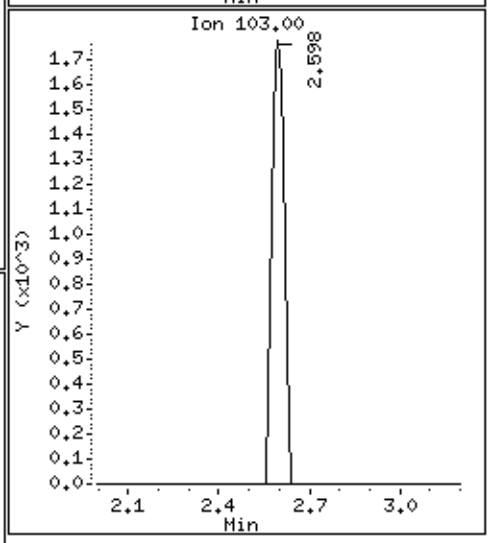
35 Freon 11

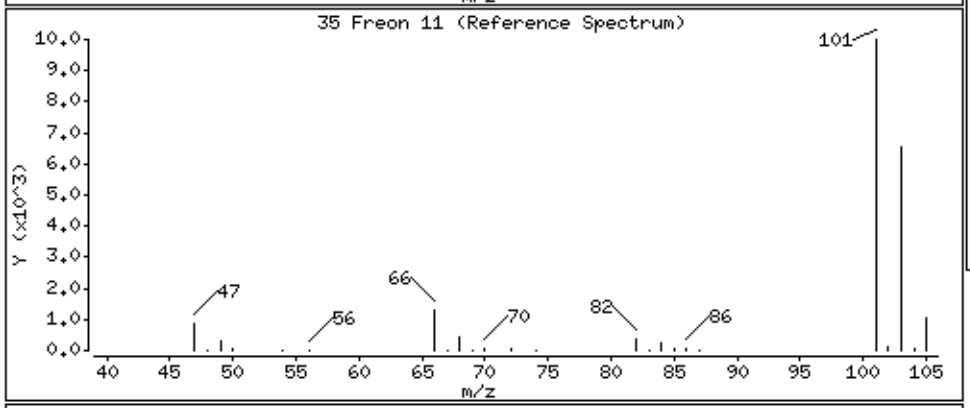
Concentration: 2.890 PPBV

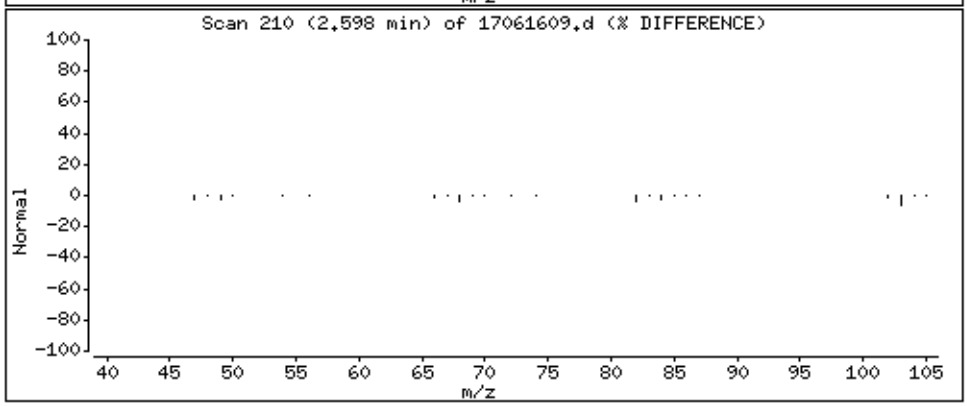












Data File: /chem/msd17.i/16jun16.b/17061609.d

Date : 16-JUN-2016 19:28

Client ID:

Instrument: msd17.i

Sample Info: 200ml 34581

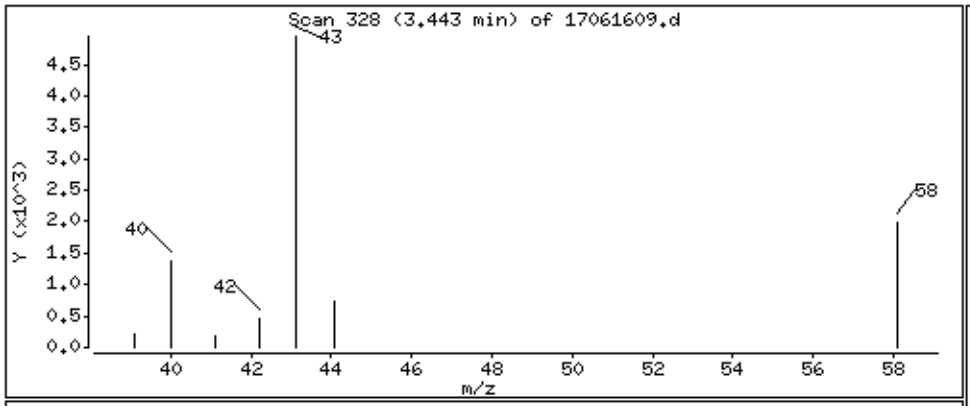
Operator: ea

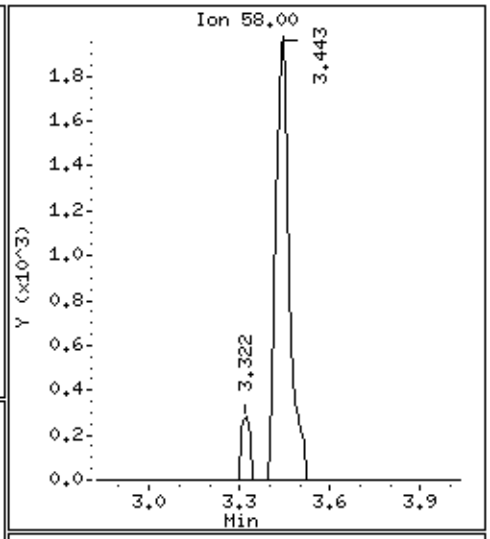
Column phase: RTX-624

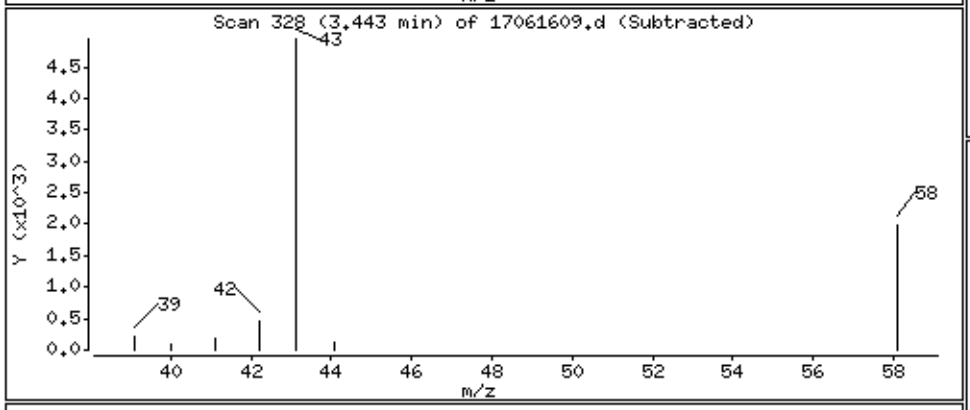
Column diameter: 0.25

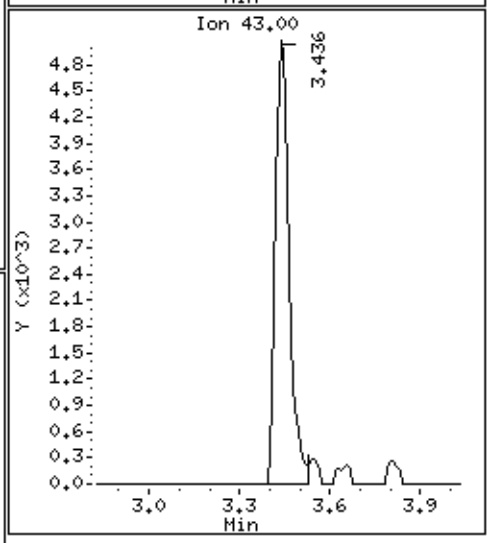
52 Acetone

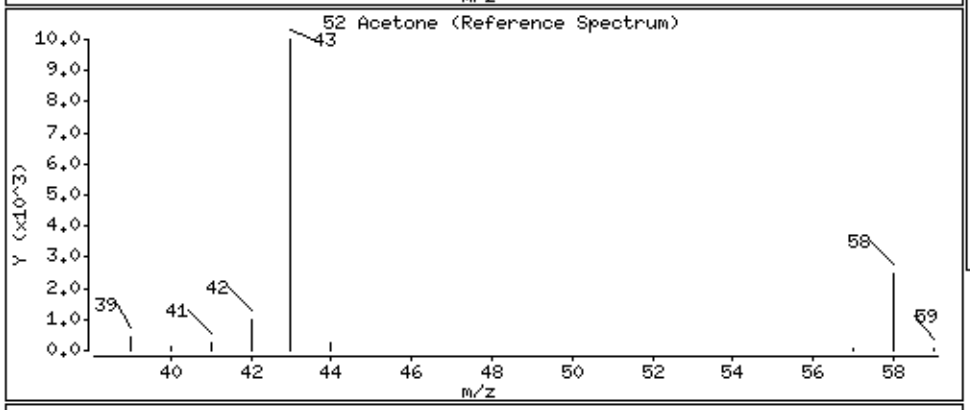
Concentration: 12.912 PPBV

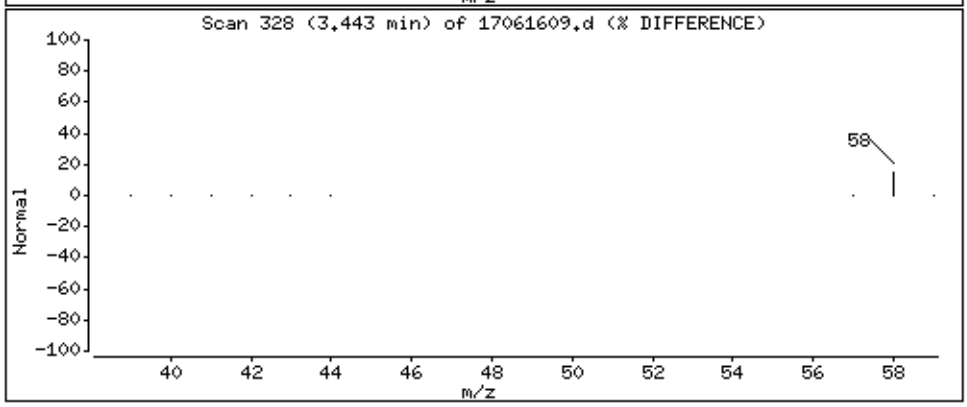












Data File: /chem/msd17.i/16jun16.b/17061609.d

Date : 16-JUN-2016 19:28

Client ID:

Instrument: msd17.i

Sample Info: 200ml 34581

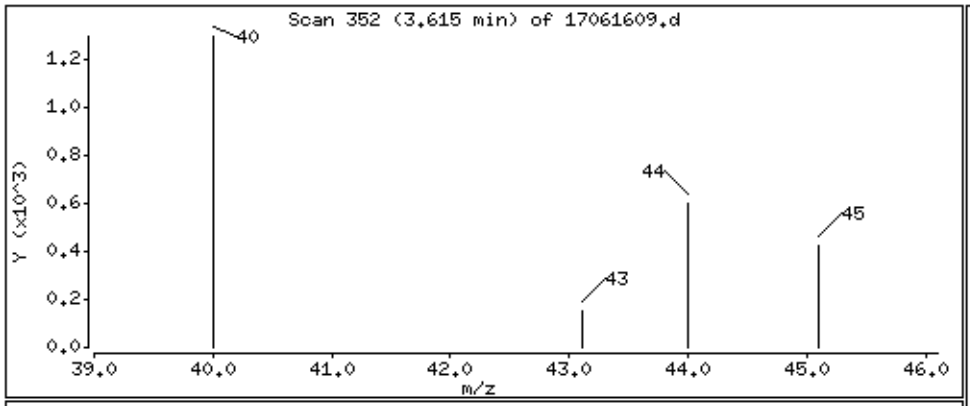
Operator: ea

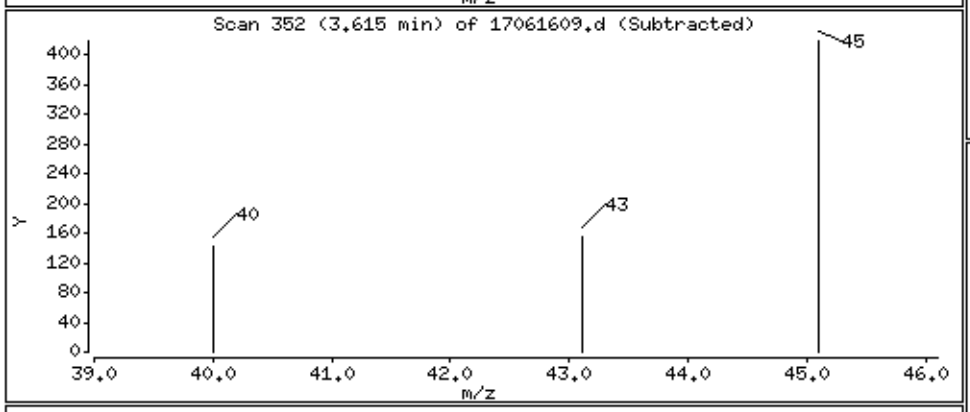
Column phase: RTX-624

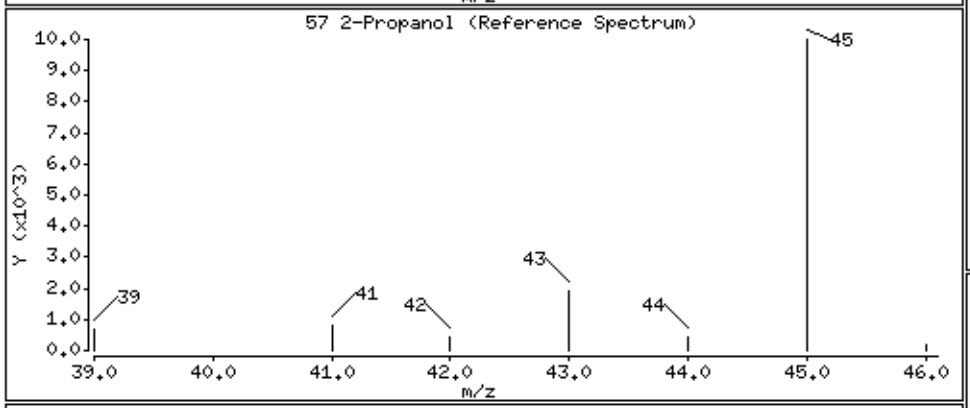
Column diameter: 0.25

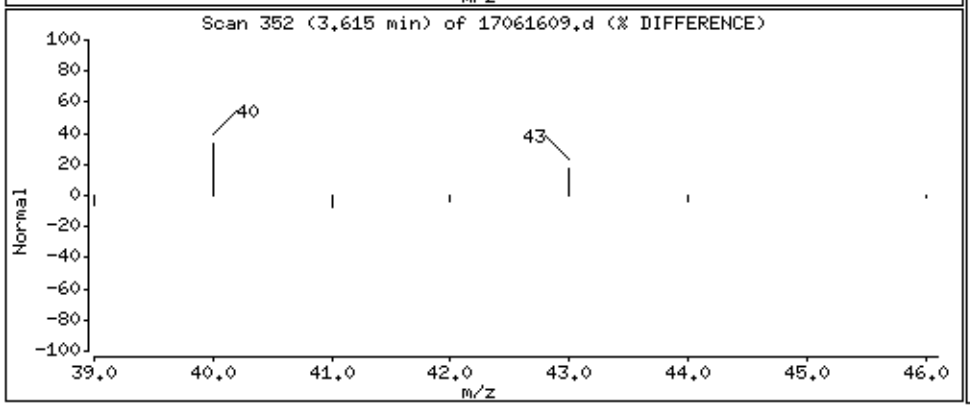
57 2-Propanol

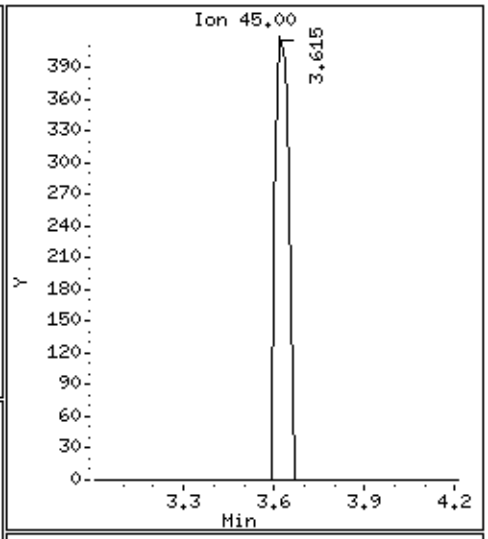
Concentration: 0.9255 PPBV

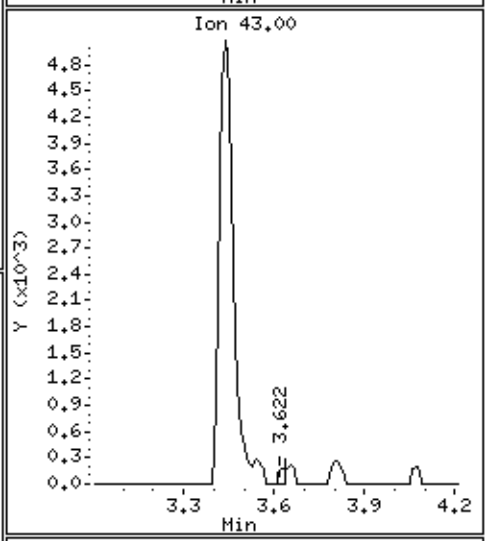


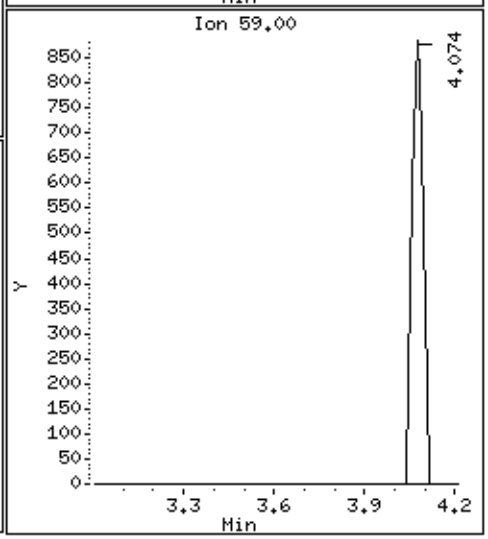












Data File: /chem/msd17.i/16jun16.b/17061609.d

Date : 16-JUN-2016 19:28

Client ID:

Instrument: msd17.i

Sample Info: 200ml 34581

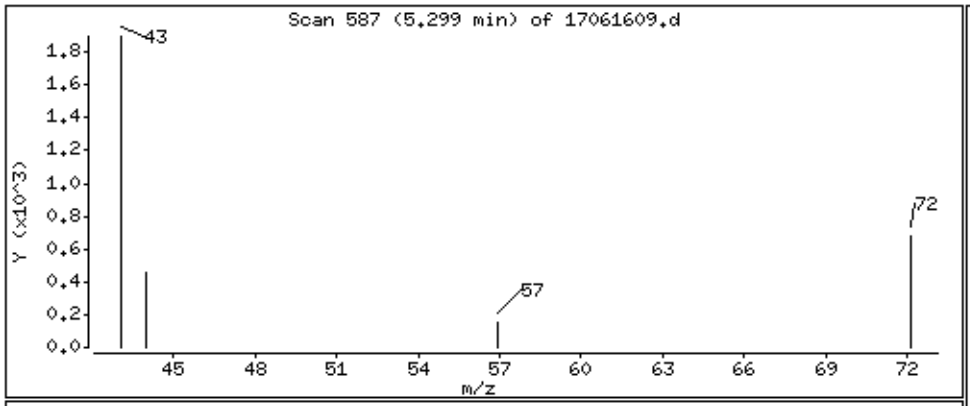
Operator: ea

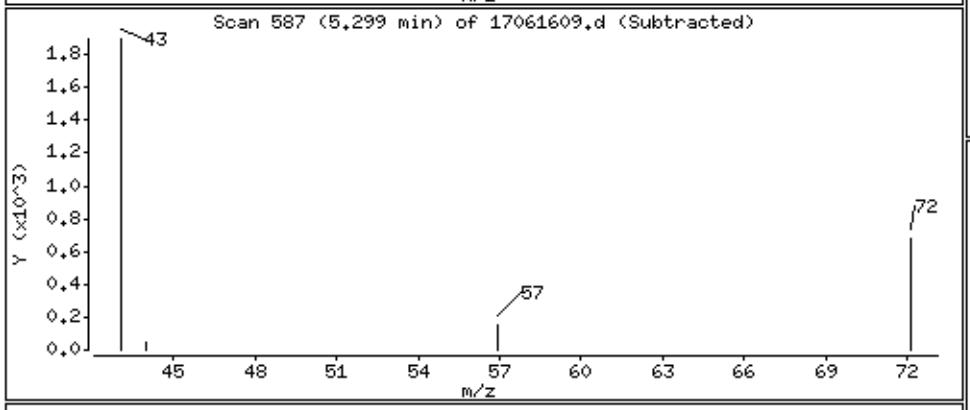
Column phase: RTX-624

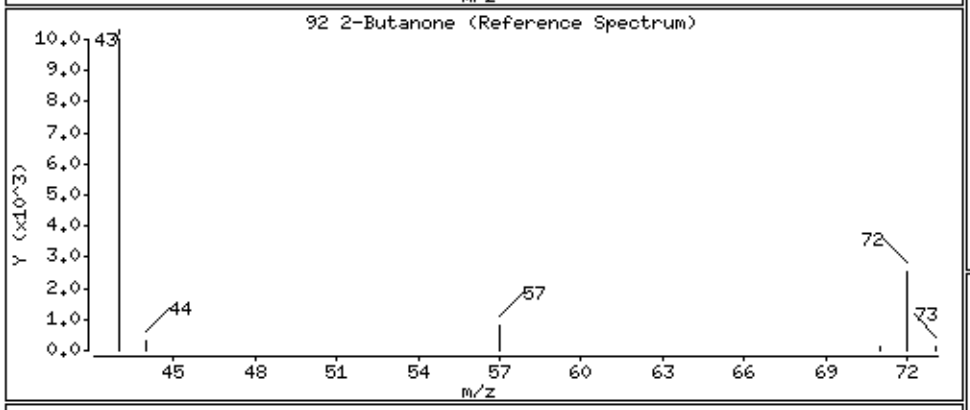
Column diameter: 0.25

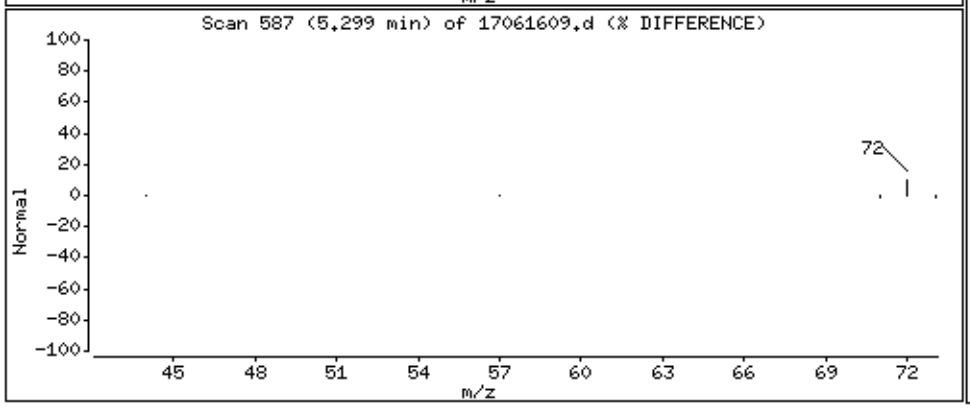
92 2-Butanone

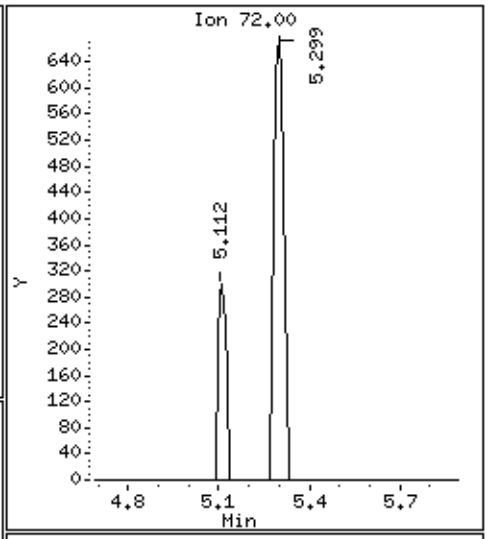
Concentration: 2.282 PPBV

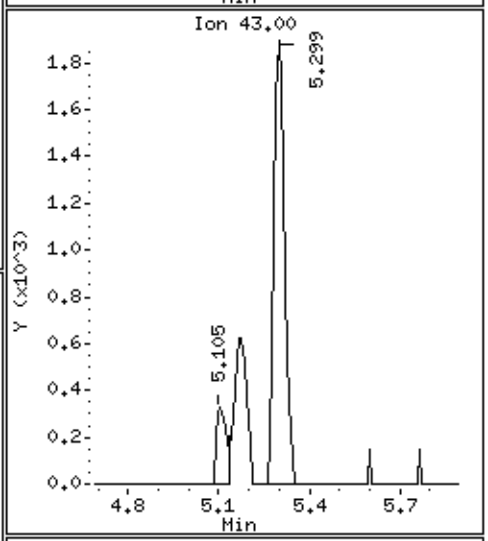


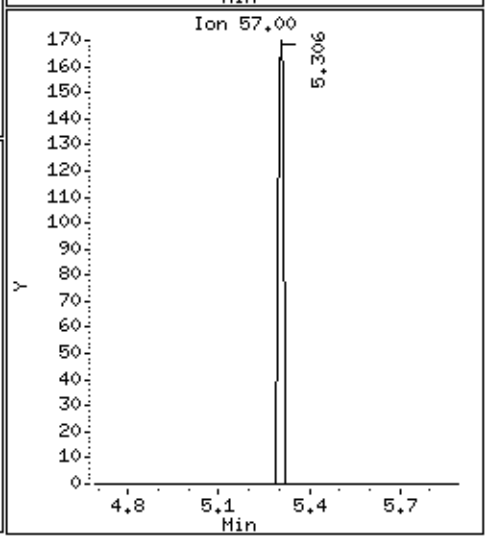












Data File: /chem/msd17.i/16jun16.b/17061609.d

Date : 16-JUN-2016 19:28

Client ID:

Instrument: msd17.i

Sample Info: 200ml 34581

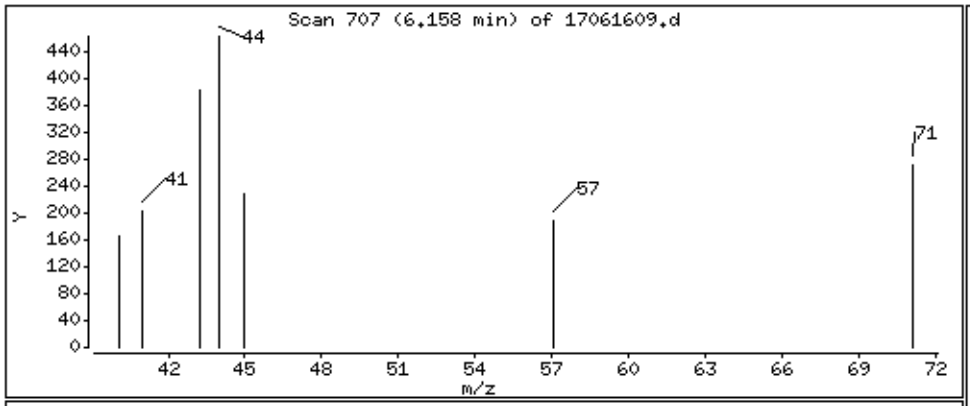
Operator: ea

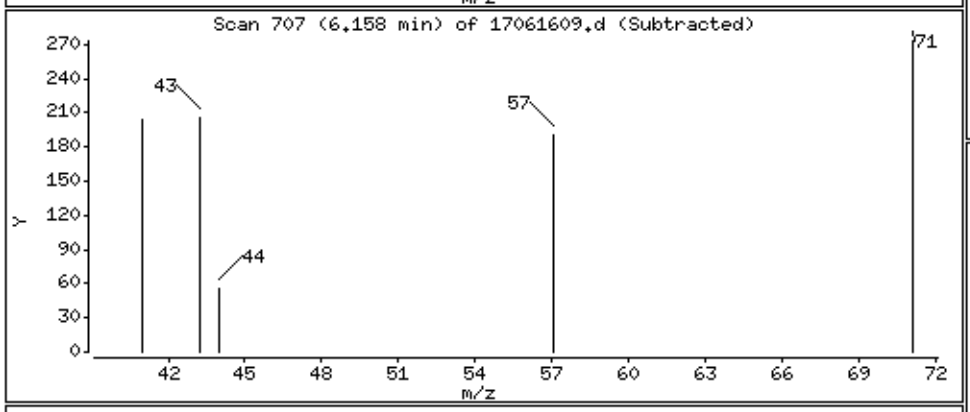
Column phase: RTX-624

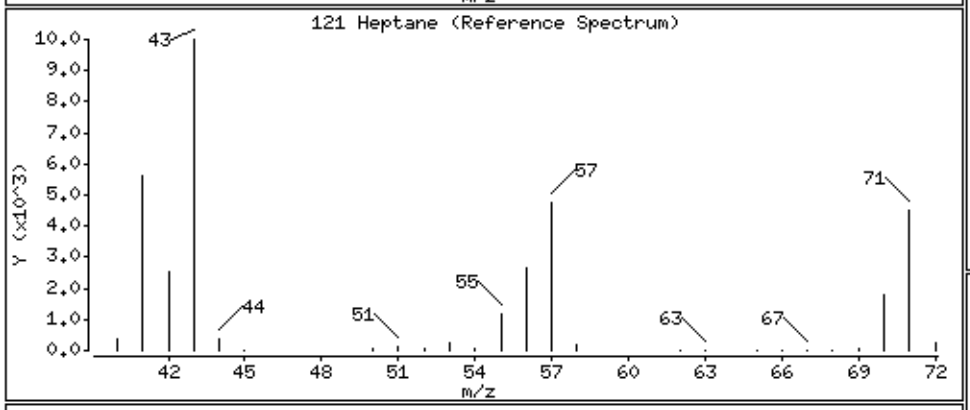
Column diameter: 0.25

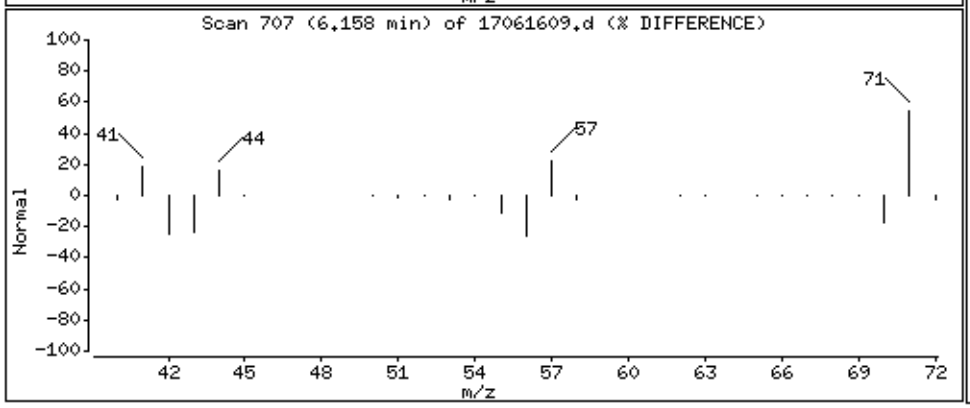
121 Heptane

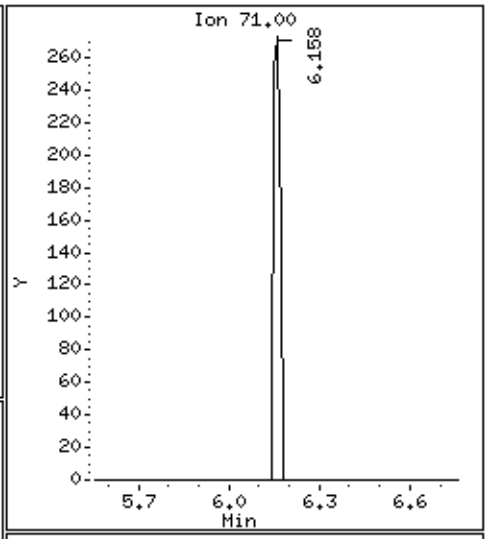
Concentration: 0.2736 PPBV

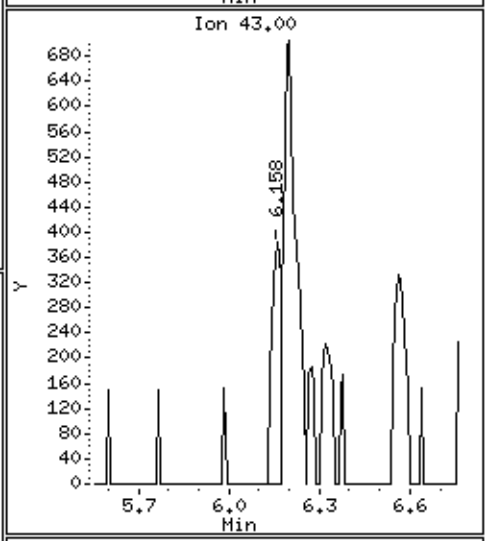


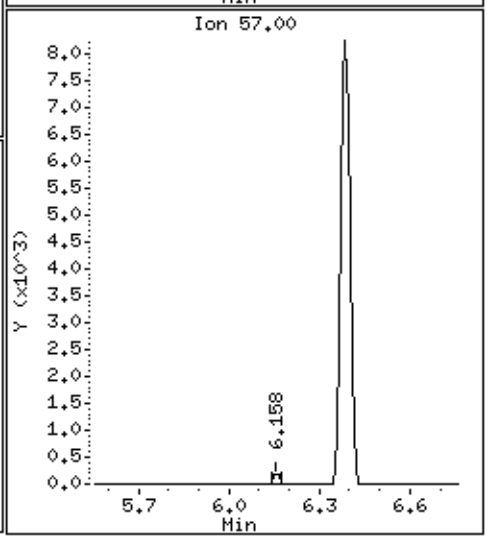












Data File: /chem/msd17.i/16jun16.b/17061609.d

Date : 16-JUN-2016 19:28

Client ID:

Instrument: msd17.i

Sample Info: 200ml 34581

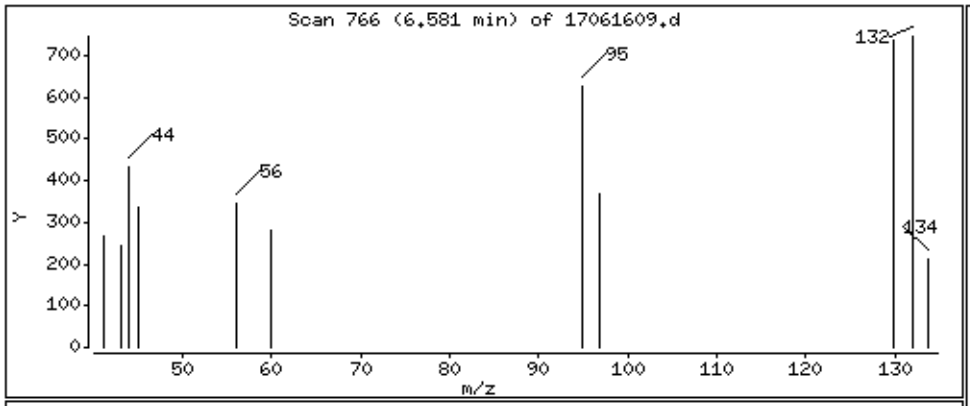
Operator: ea

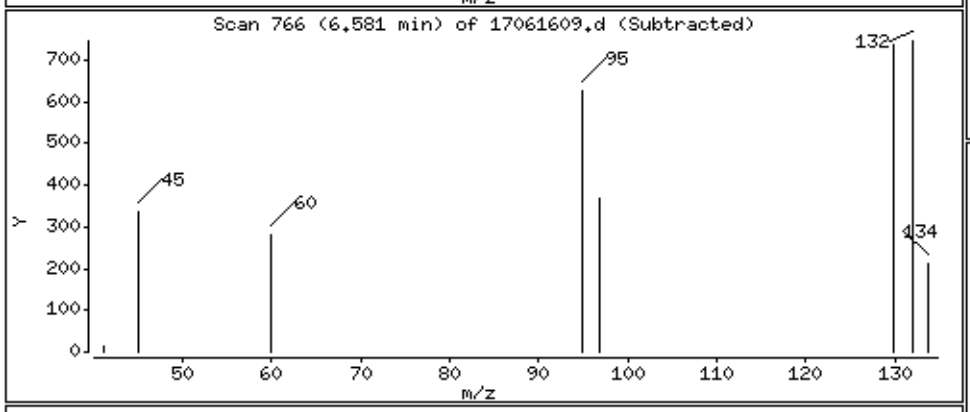
Column phase: RTX-624

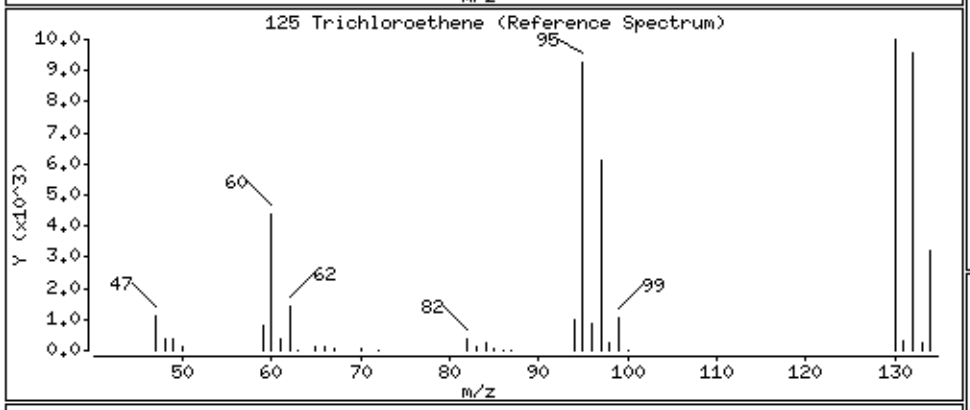
Column diameter: 0.25

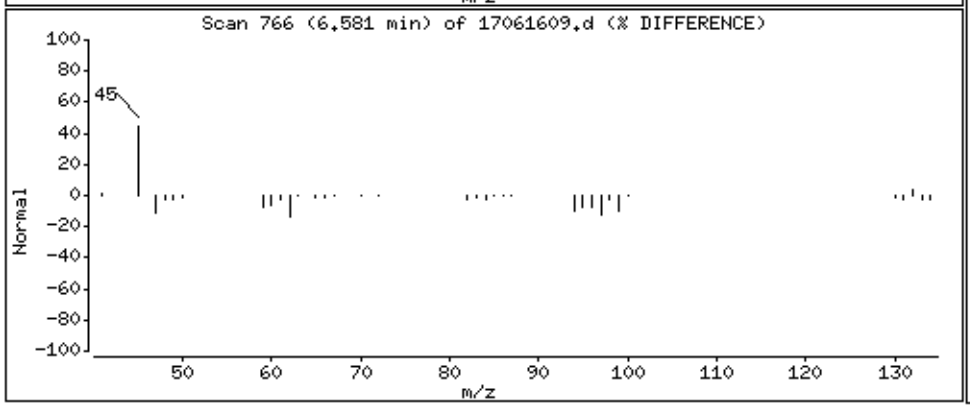
125 Trichloroethene

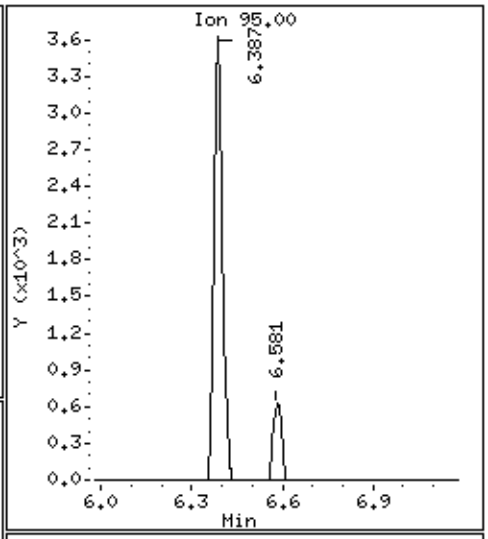
Concentration: 0.5919 PPBV

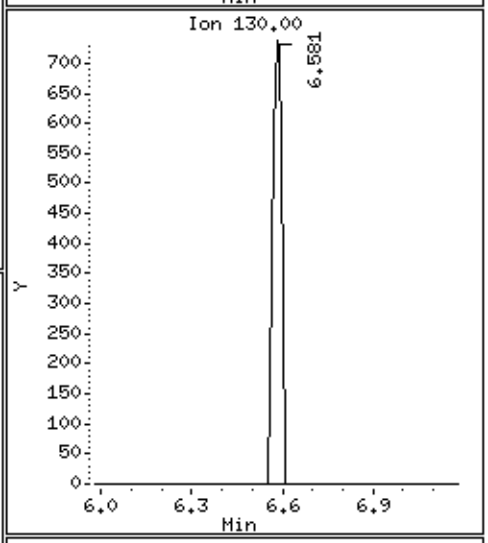


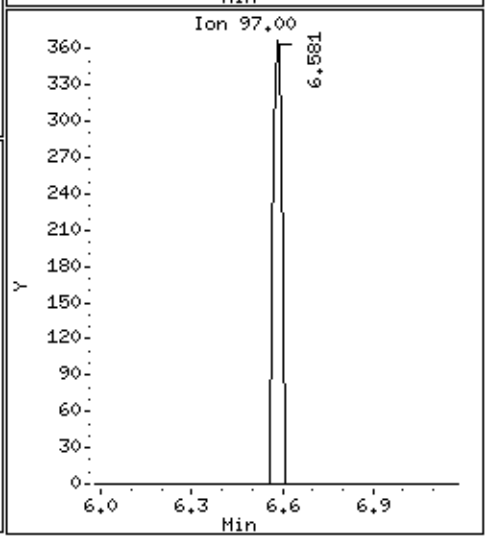












Data File: /chem/msd17.i/16jun16.b/17061609.d

Date : 16-JUN-2016 19:28

Client ID:

Instrument: msd17.i

Sample Info: 200ml 34581

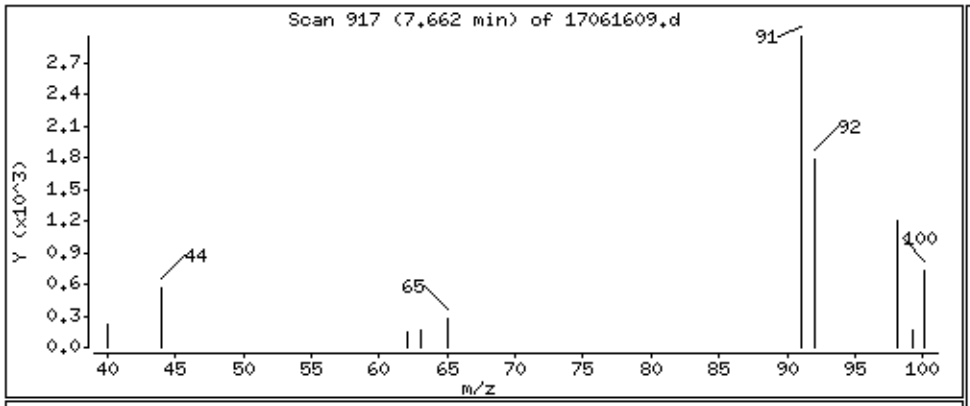
Operator: ea

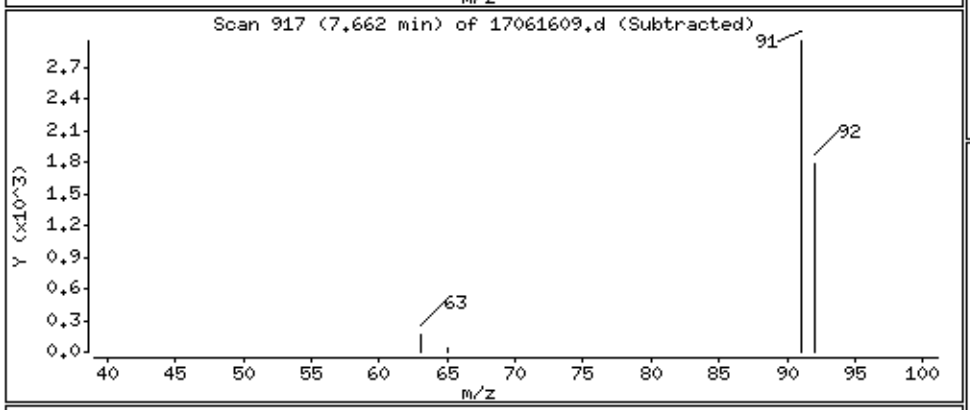
Column phase: RTX-624

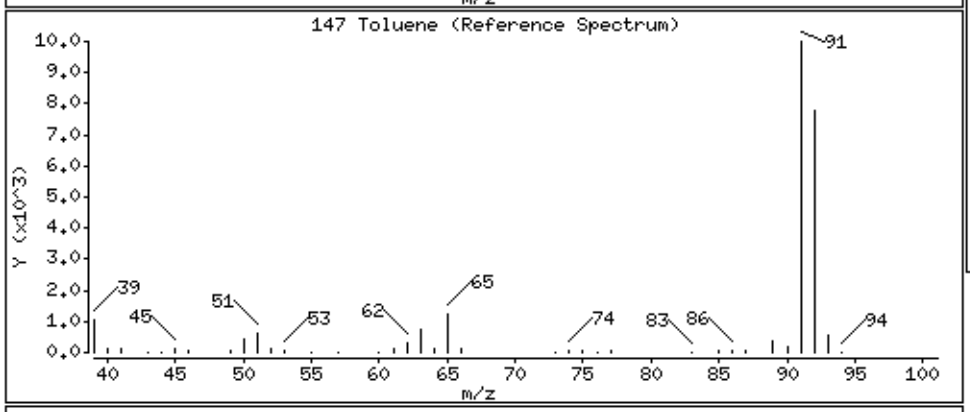
Column diameter: 0.25

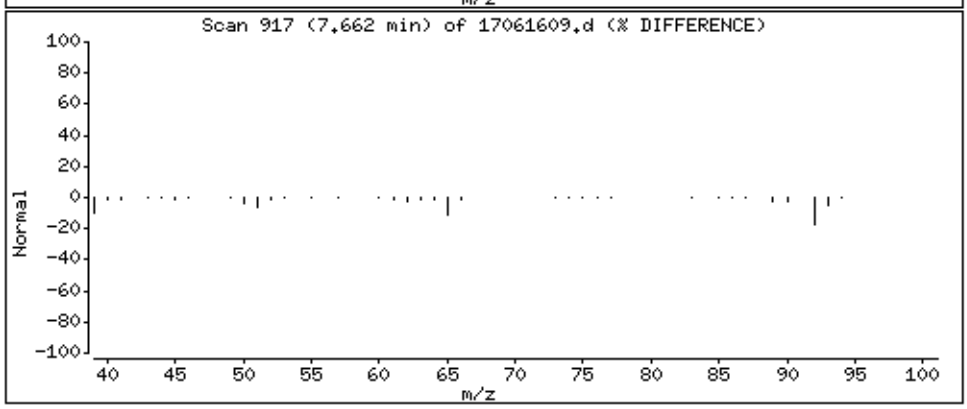
147 Toluene

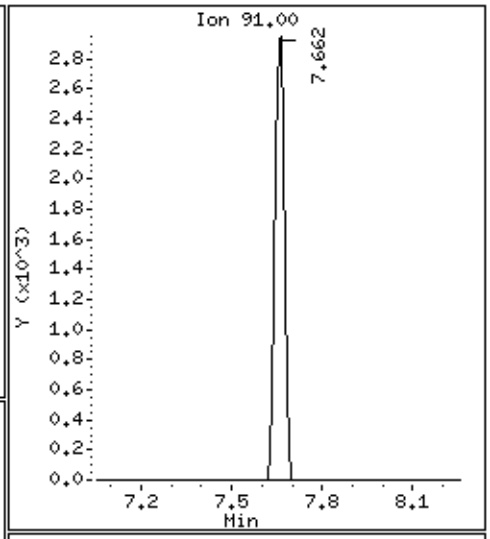
Concentration: 1.136 PPBV

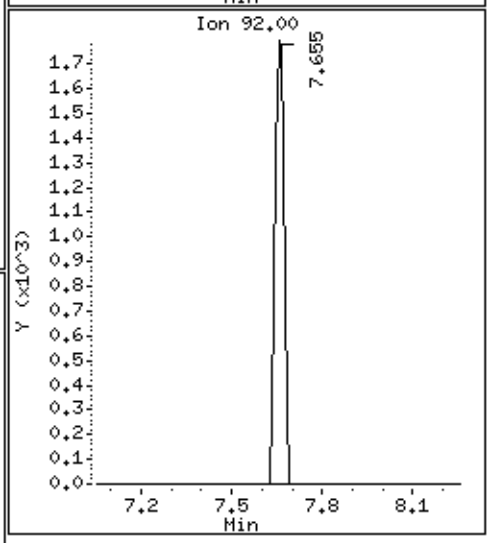












Data File: /chem/msd17.i/16jun16.b/17061609.d

Date : 16-JUN-2016 19:28

Client ID:

Instrument: msd17.i

Sample Info: 200ml 34581

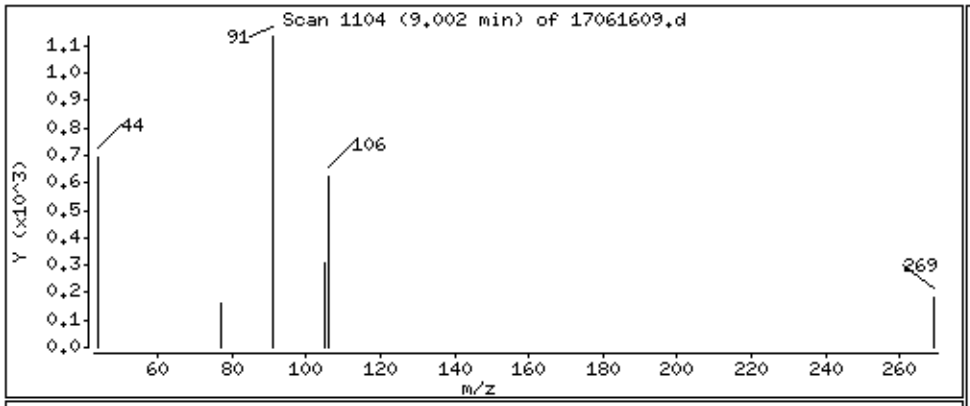
Operator: ea

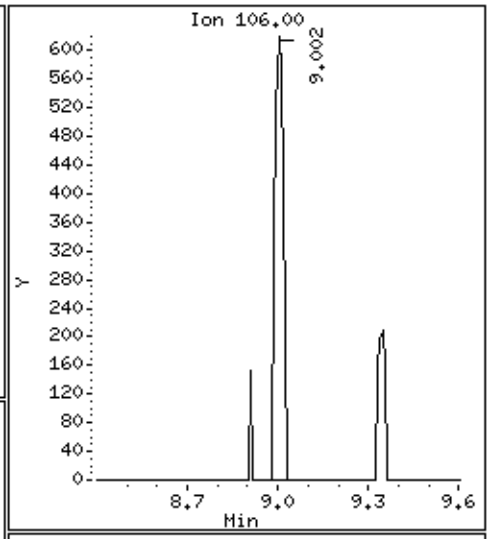
Column phase: RTX-624

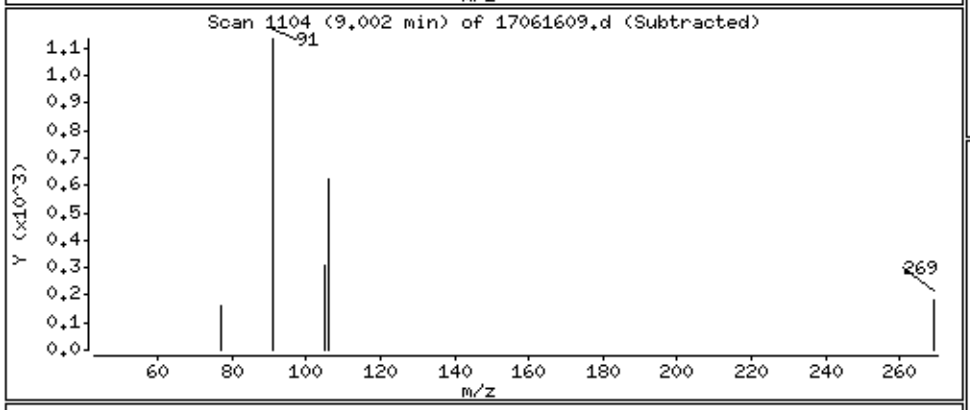
Column diameter: 0.25

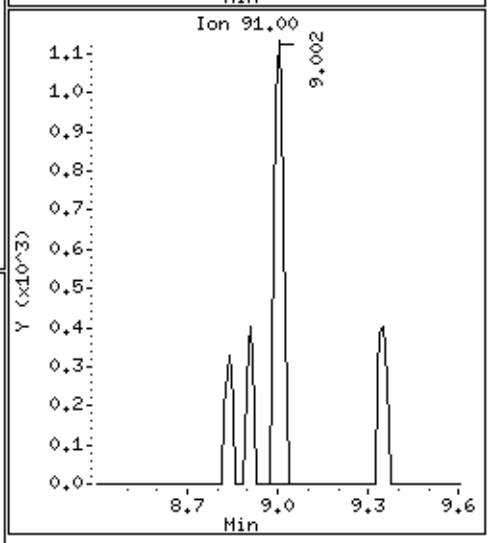
169 m,p-Xylene

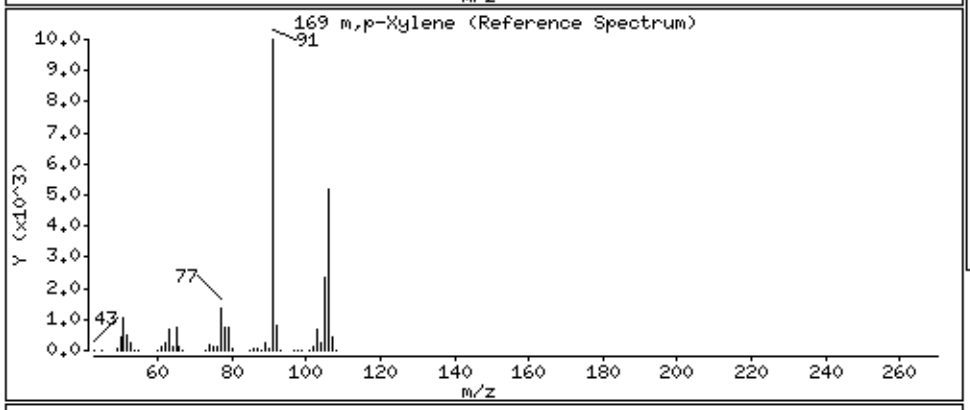
Concentration: 0.3483 PPBV

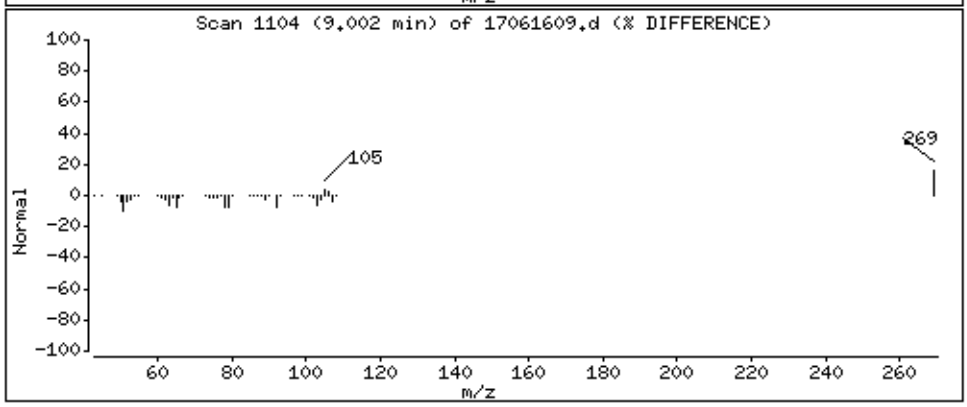












Data File: /chem/msd17.i/16jun16.b/17061609.d

Date : 16-JUN-2016 19:28

Client ID:

Instrument: msd17.i

Sample Info: 200ml 34581

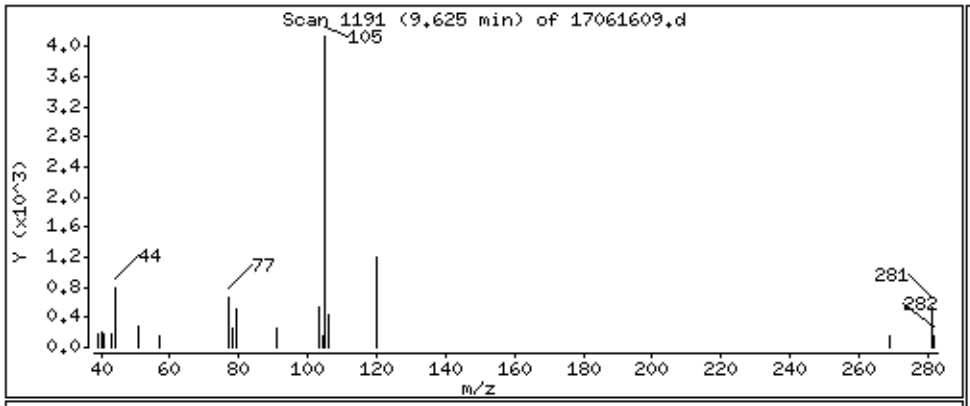
Operator: ea

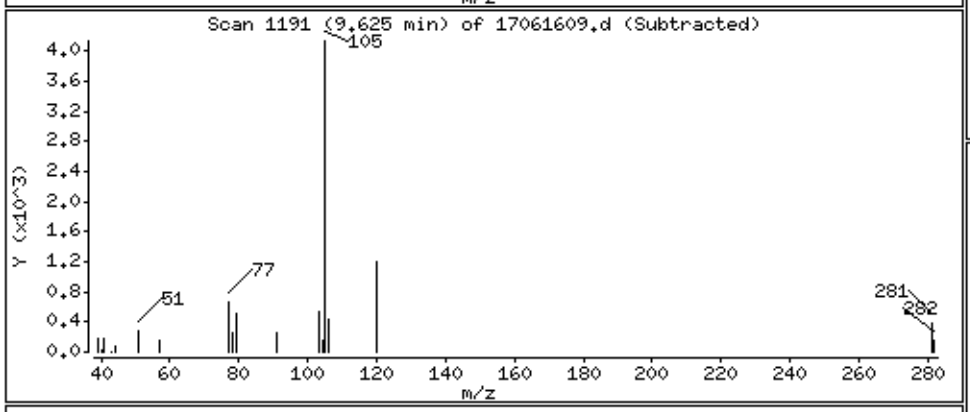
Column phase: RTX-624

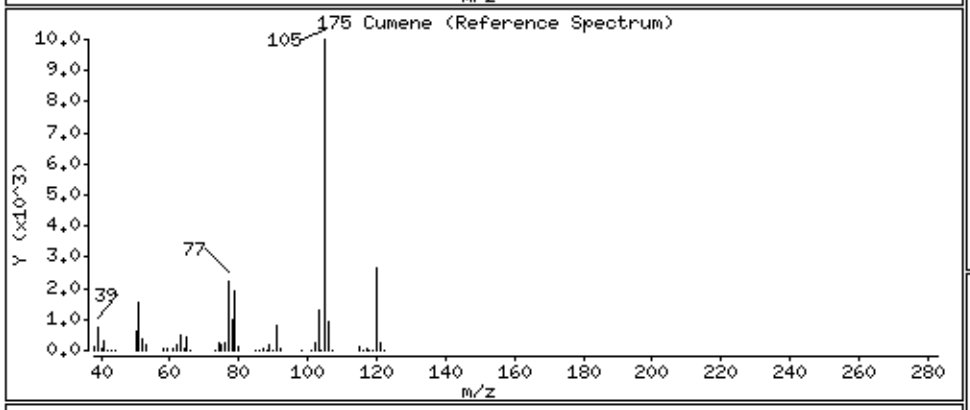
Column diameter: 0.25

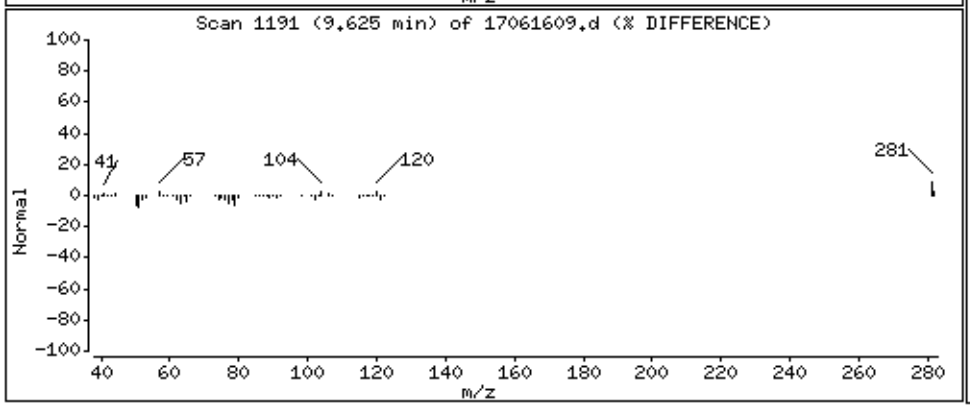
175 Cumene

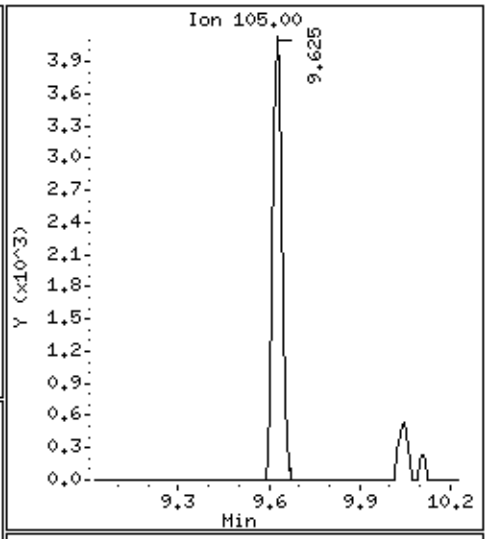
Concentration: 0.9014 PPBV

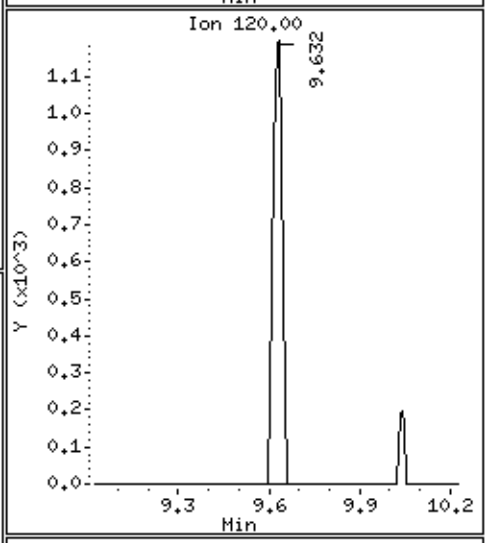


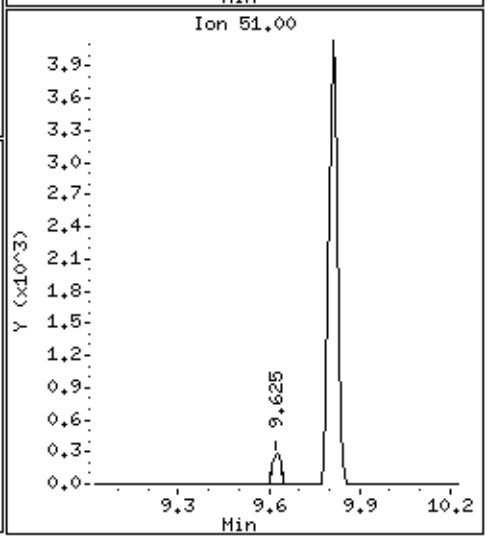












eurofins | Air Toxics

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

Client Sample ID: B7SS-2(061216)

Lab ID#: 1606298B-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	3.8	6.5	21
Ethanol	4.6	32 J0	8.7	60 J0
Acetone	12	43	28	100
2-Propanol	4.6	4.6	11	11
Carbon Disulfide	4.6	3.1 J	14	9.7 J
2-Butanone (Methyl Ethyl Ketone)	4.6	5.9	14	17
Benzene	1.2	0.63 J	3.7	2.0 J
Heptane	1.2	3.4	4.8	14
Toluene	1.2	0.44 J	4.4	1.6 J
2-Hexanone	4.6	0.34 J	19	1.4 J
Ethyl Benzene	1.2	0.62 J	5.0	2.7 J
m,p-Xylene	1.2	1.6	5.0	6.8
o-Xylene	1.2	0.27 J	5.0	1.2 J
Styrene	1.2	4.0	4.9	17

eurofins | Air Toxics

Client Sample ID: B7SS-2(061216)

Lab ID#: 1606298B-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061610**	**Date of Collection:**	**6/12/16 1:47:00 PM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**6/16/16 07:54 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected UJ	24	Not Detected UJ
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	3.8	6.5	21
Ethanol	4.6	32 J0	8.7	60 J0
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	43	28	100
2-Propanol	4.6	4.6	11	11
Carbon Disulfide	4.6	3.1 J	14	9.7 J
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	5.9	14	17
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
Benzene	1.2	0.63 J	3.7	2.0 J
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Heptane	1.2	3.4	4.8	14
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	0.44 J	4.4	1.6 J
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
2-Hexanone	4.6	0.34 J	19	1.4 J

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Client Sample ID: B7SS-2(061216)

Lab ID#: 1606298B-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061610**	**Date of Collection:**	**6/12/16 1:47:00 PM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**6/16/16 07:54 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	0.62 J	5.0	2.7 J
m,p-Xylene	1.2	1.6	5.0	6.8
o-Xylene	1.2	0.27 J	5.0	1.2 J
Styrene	1.2	4.0	4.9	17
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
Naphthalene	2.3	Not Detected	12	Not Detected

UJ = Analyte associated with low bias in the CCV.
J0 = Estimated value due to bias in the CCV.
J = Estimated value.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	100	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061610.d
Lab Smp Id: 1606298B-11A
Inj Date : 16-JUN-2016 19:54
Operator : ea Inst ID: msd17.i
Smp Info : 200ml 36539
Misc Info : 3.9 Hg->15 psi
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 15:02 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 4
Dil Factor: 2.32000
Integrator: HP RTE Compound Sublist: TO15Nmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	2.32000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	73953	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	57201			48.69- 108.69	77.35
5.499	5.499 (1.000)	49	51259			54.63- 114.63	69.31
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.388	6.388 (1.000)	114	294742	25.0000		80.00- 120.00	100.00
6.388	6.388 (1.000)	88	42884			0.00- 45.20	14.55
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	303976	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	144289			20.04- 80.04	47.47
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.037	6.037 (1.098)	65	69273	22.6802	22.680	80.00- 120.00	100.00
6.037	6.037 (1.098)	67	39619			34.58- 94.58	57.19

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	314671	25.3516	25.352	80.00- 120.00	100.00
7.605	7.605 (1.191)	70	29960			0.00- 39.40	9.52
7.605	7.605 (1.191)	100	207001			35.49- 95.49	65.78
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.819	9.819 (1.111)	174	222045	24.9473	24.947	80.00- 120.00	100.00
9.811	9.819 (1.110)	95	216620			71.35- 131.35	97.56
9.819	9.819 (1.111)	176	215161			68.09- 128.09	96.90
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	11336	1.64060	3.806	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	7522			35.21- 95.21	66.35
42 Ethanol					CAS #: 64-17-5		
2.956	2.949 (0.538)	45	11606	13.7858	31.983	80.00- 120.00	100.00
2.942	2.949 (0.535)	43	2332			0.00- 50.21	20.10
2.949	2.949 (0.536)	46	4188			8.20- 68.20	36.09
52 Acetone					CAS #: 67-64-1		
3.436	3.429 (0.625)	58	21686	18.4961	42.911	80.00- 120.00	100.00
3.436	3.429 (0.625)	43	53831			226.10- 286.10	248.23
56 Carbon Disulfide					CAS #: 75-15-0		
3.508	3.508 (0.638)	76	11659	1.34736	3.126	80.00- 120.00	100.00(a)
57 2-Propanol					CAS #: 67-63-0		
3.615	3.608 (0.657)	45	6787	1.96139	4.550	80.00- 120.00	100.00(a)
3.608	3.608 (0.656)	43	3303			0.00- 48.33	48.66
3.429	3.608 (0.624)	59	504			0.00- 34.85	7.43
92 2-Butanone					CAS #: 78-93-3		
5.299	5.292 (0.964)	72	4036	2.54886	5.913	80.00- 120.00	100.00
5.299	5.292 (0.964)	43	11488			251.52- 311.52	284.59
5.299	5.292 (0.964)	57	1057			0.00- 57.81	26.19
116 Benzene					CAS #: 71-43-2		
6.015	6.015 (0.942)	78	2684	0.27274	0.6328	80.00- 120.00	100.00(a)
6.015	6.015 (0.942)	77	637			0.00- 53.87	23.75
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	5111	1.48140	3.437	80.00- 120.00	100.00
6.158	6.158 (0.964)	43	5371			96.69- 156.69	105.09
6.158	6.158 (0.964)	57	4022			58.40- 118.40	78.71
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	2565	0.18839	0.4371	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
147 Toluene (continued)							
7.663	7.655 (1.200)	92	1477			28.86- 88.86	57.61
158 2-Hexanone					CAS #: 591-78-6		
8.221	8.221 (0.930)	58	602	0.14614	0.3390	80.00- 120.00	100.00(a)
8.221	8.221 (0.930)	43	893			121.26- 181.26	148.32
7.756	8.221 (0.878)	100	138			0.00- 55.92	23.04
167 Ethyl Benzene					CAS #: 100-41-4		
8.909	8.909 (1.008)	106	1734	0.26596	0.6170	80.00- 120.00	100.00(a)
8.909	8.909 (1.008)	91	6183			268.56- 328.56	356.60
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	5561	0.67504	1.566	80.00- 120.00	100.00
9.002	9.002 (1.019)	91	10063			159.69- 219.69	180.94
171 o-Xylene					CAS #: 95-47-6		
9.346	9.346 (1.058)	106	910	0.11789	0.2735	80.00- 120.00	100.00(a)
9.346	9.346 (1.058)	91	2312			168.78- 228.78	253.81
172 Styrene					CAS #: 100-42-5		
9.367	9.367 (1.060)	104	21223	1.70700	3.960	80.00- 120.00	100.00
9.367	9.367 (1.060)	78	8014			13.63- 73.63	37.76

QC Flag Legend

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

Report Date: 24-Jun-2016 12:50

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061610.d
Lab Smp Id: 1606298B-11A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 3.9 Hg->15 psi

Calibration Date: 16-JUN-2016
Calibration Time: 14:10

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	73953	-1.98
123 1,4-Difluorobenze	302627	181576	423678	294742	-2.61
163 Chlorobenzene-d5	299663	179798	419528	303976	1.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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-Jun-2016 12:50

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 16jun16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298B-11A
Level: LOW Operator: ea
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12bromoform.spk Quant Type: ISTD
Sublist File: TO15Nmdl.sub
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 3.9 Hg->15 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	22.680	90.72	70-130
$ 146 Toluene-d8	25.000	25.352	101.41	70-130
$ 177 4-Bromofluorobenze	25.000	24.947	99.79	70-130

Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

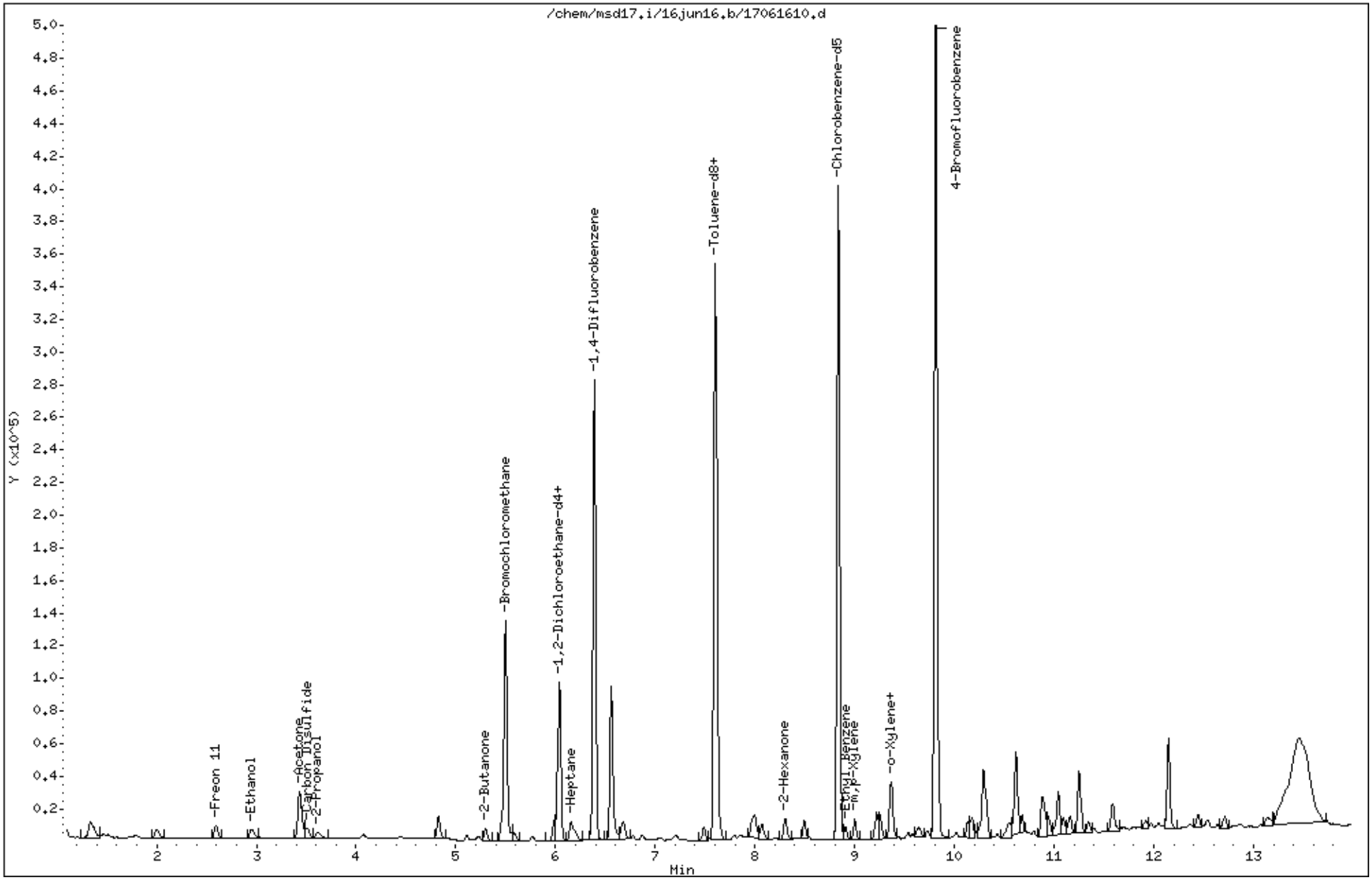
Sample Info: 200ml 36539

Column phase: RTX-624

Instrument: msd17.i

Operator: ea

Column diameter: 0.25



Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

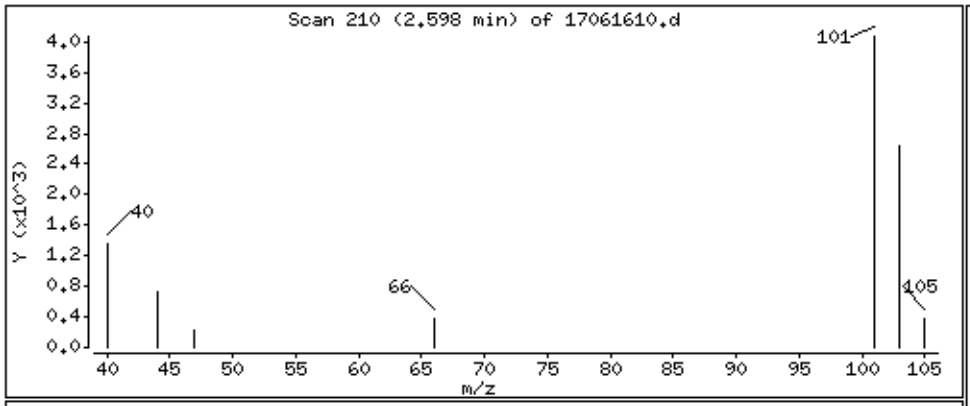
Operator: ea

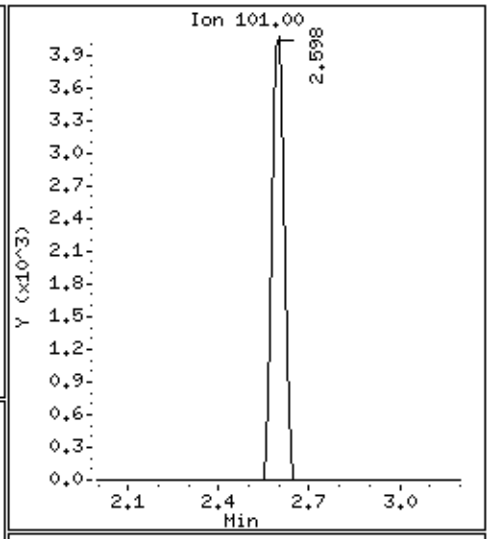
Column phase: RTX-624

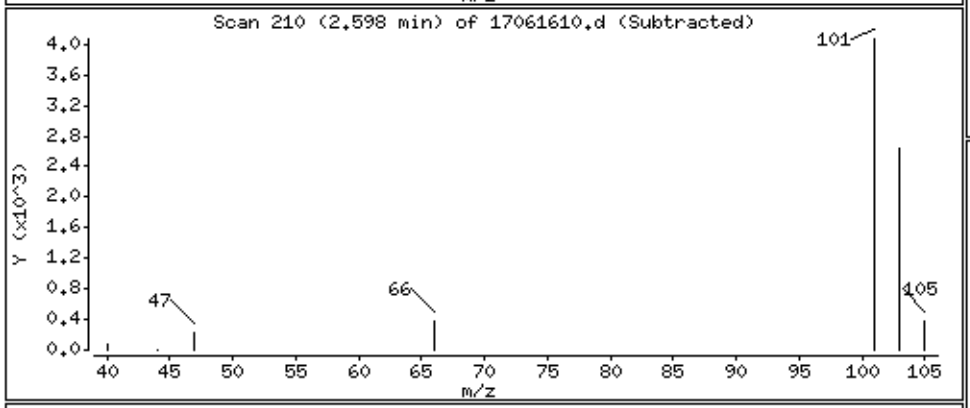
Column diameter: 0.25

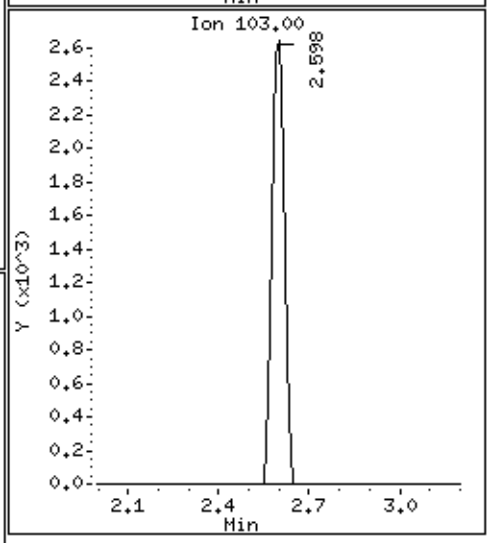
35 Freon 11

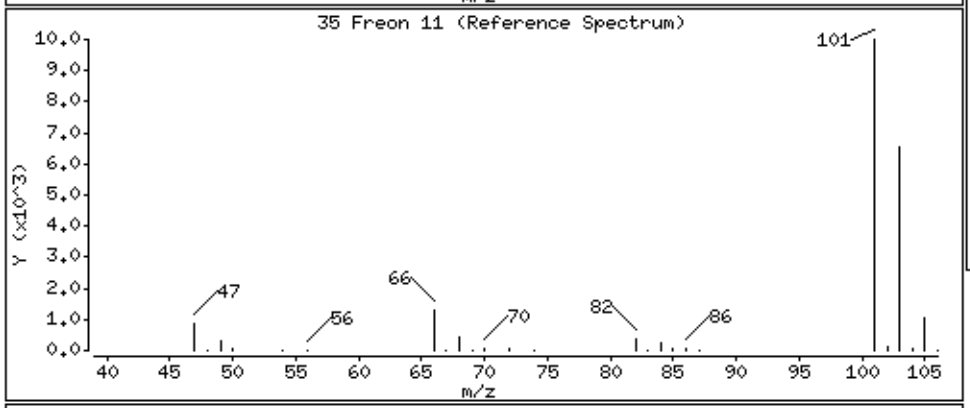
Concentration: 3.806 PPBV

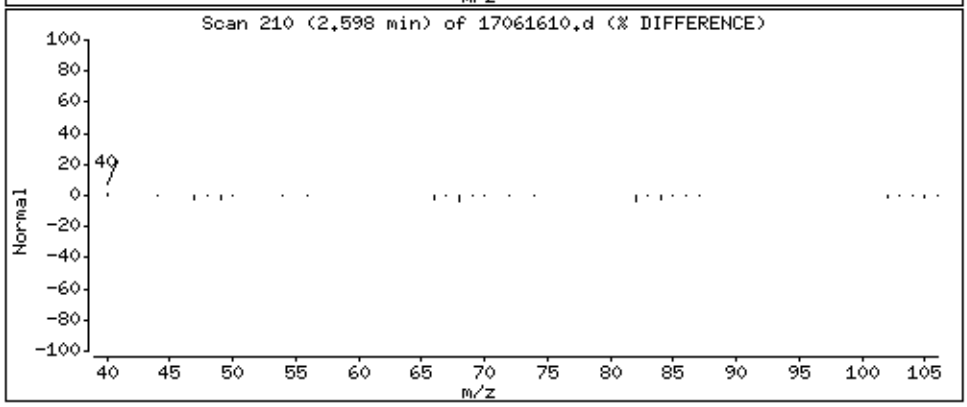












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

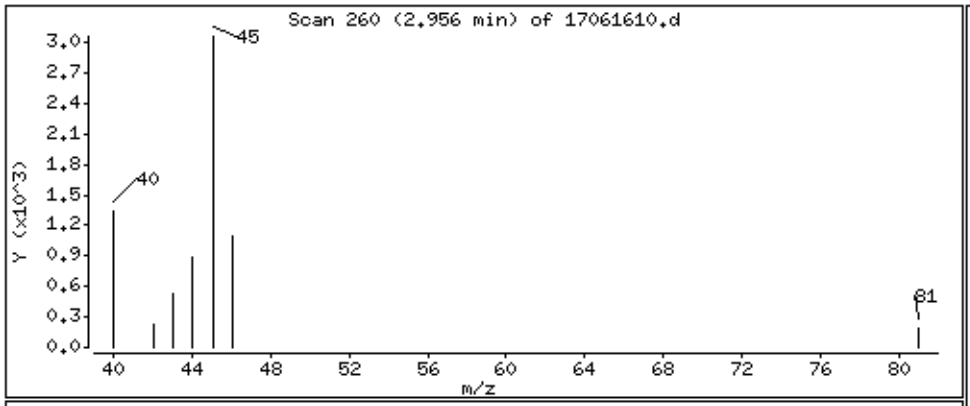
Operator: ea

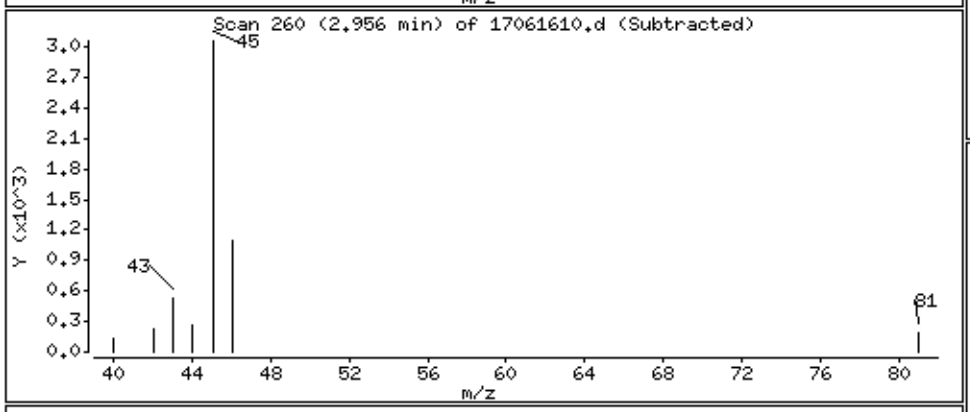
Column phase: RTX-624

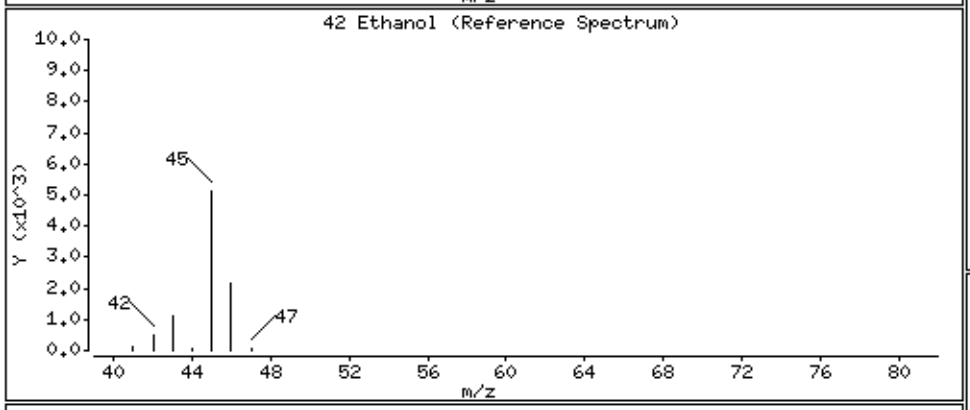
Column diameter: 0.25

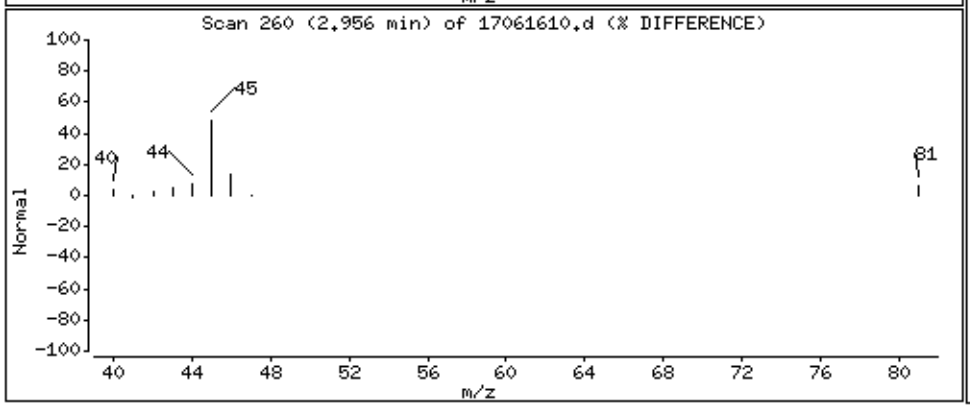
42 Ethanol

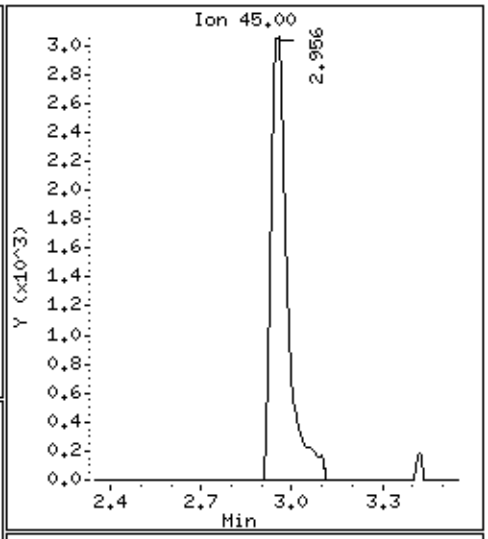
Concentration: 31.983 PPBV

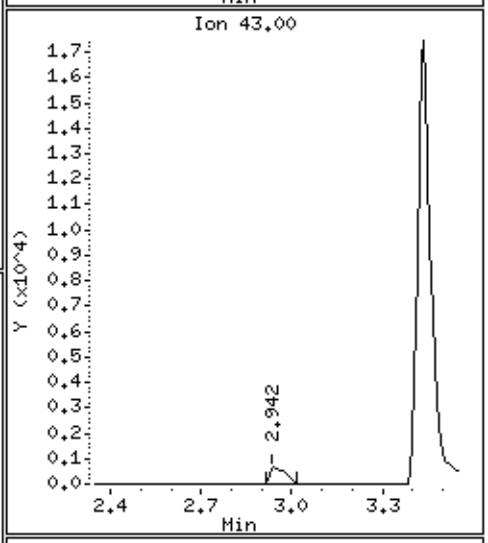


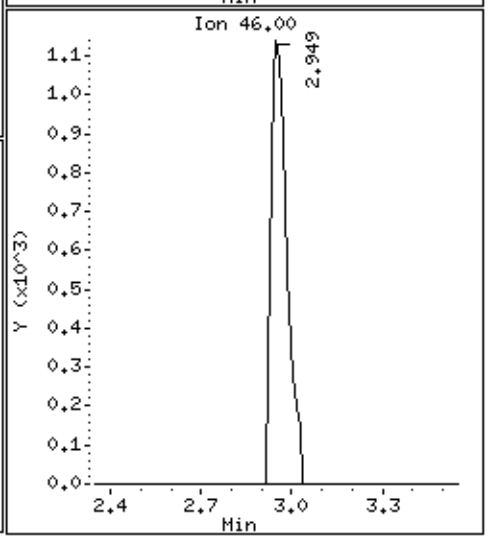












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

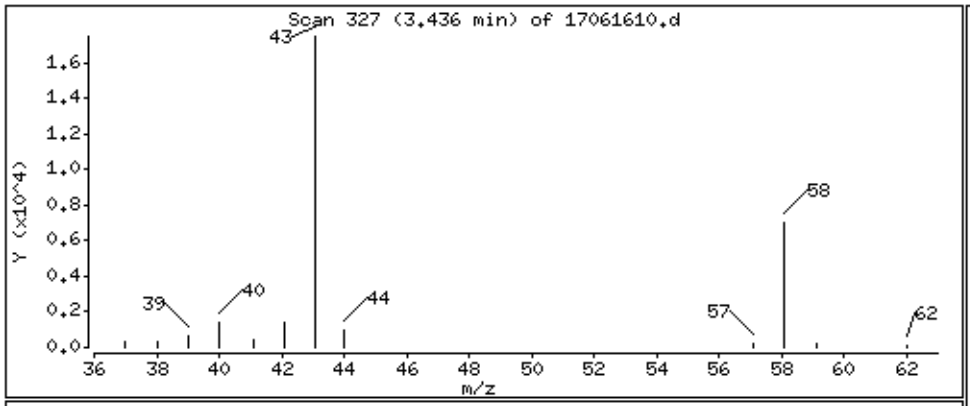
Operator: ea

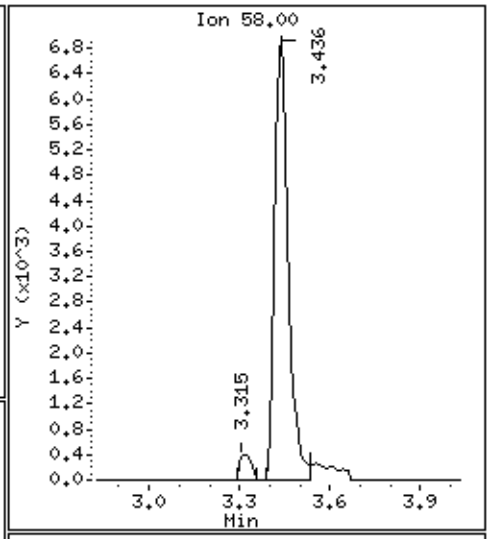
Column phase: RTX-624

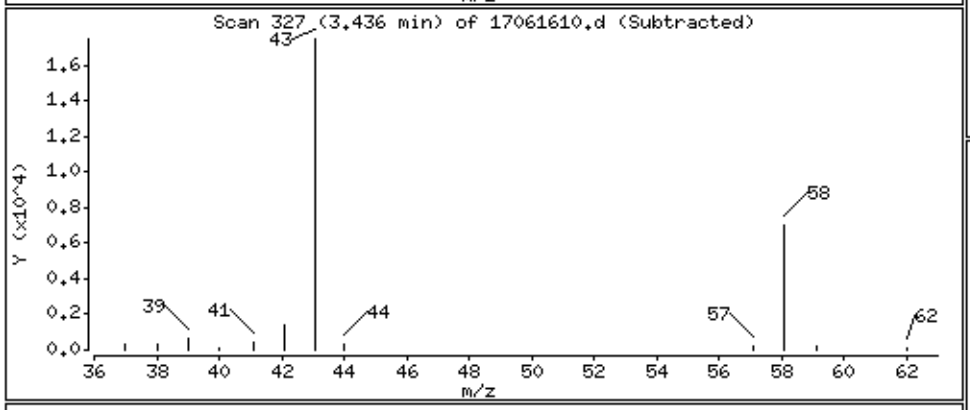
Column diameter: 0.25

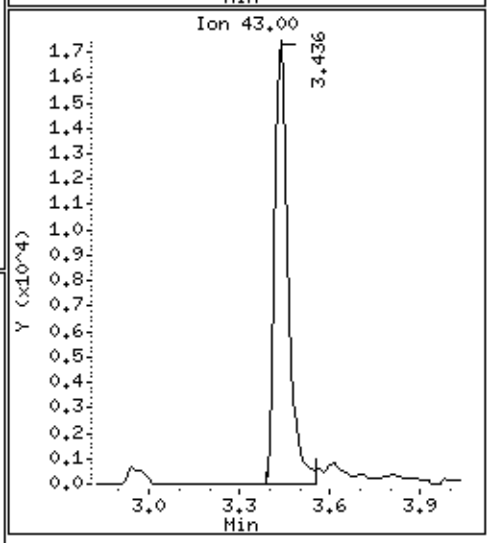
52 Acetone

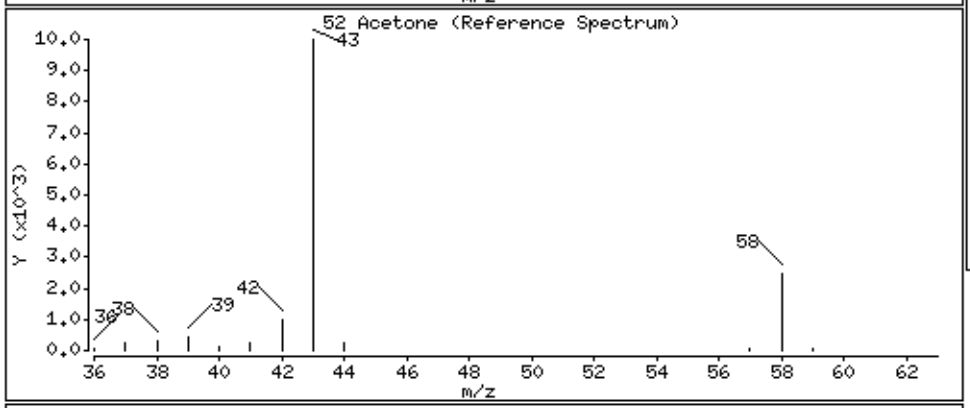
Concentration: 42.911 PPBV

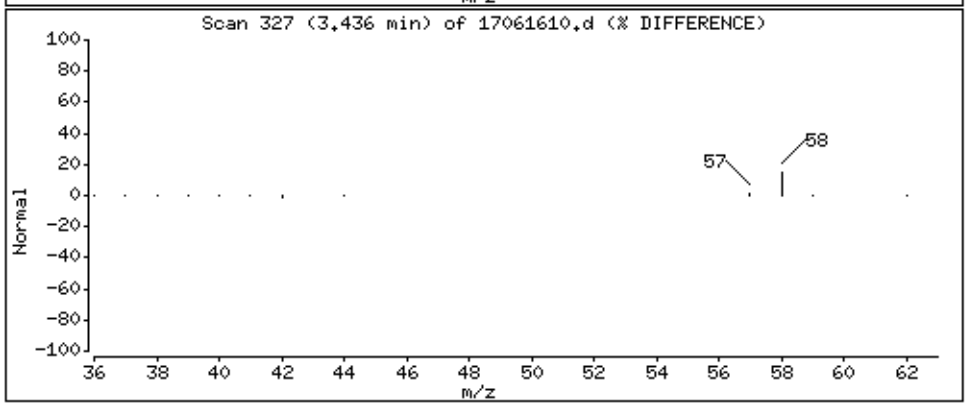












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

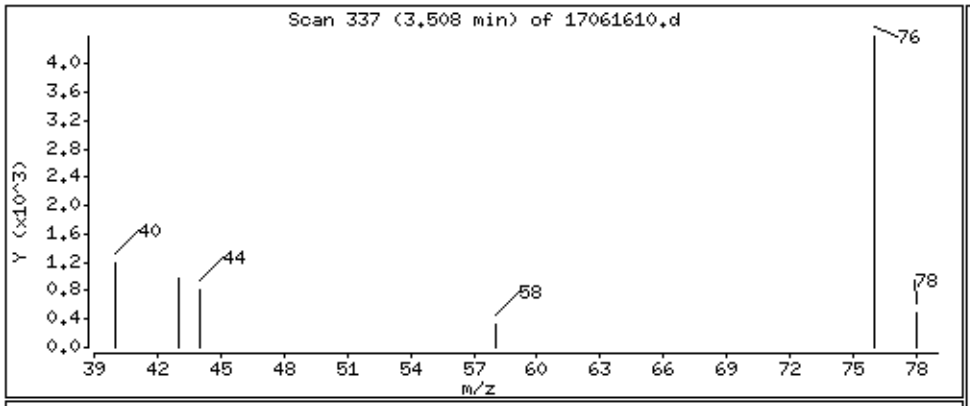
Operator: ea

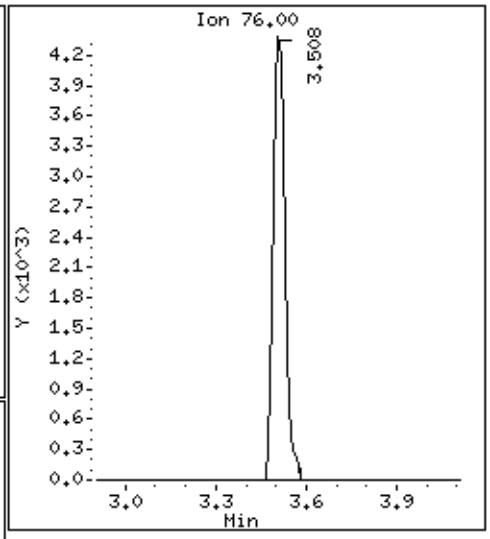
Column phase: RTX-624

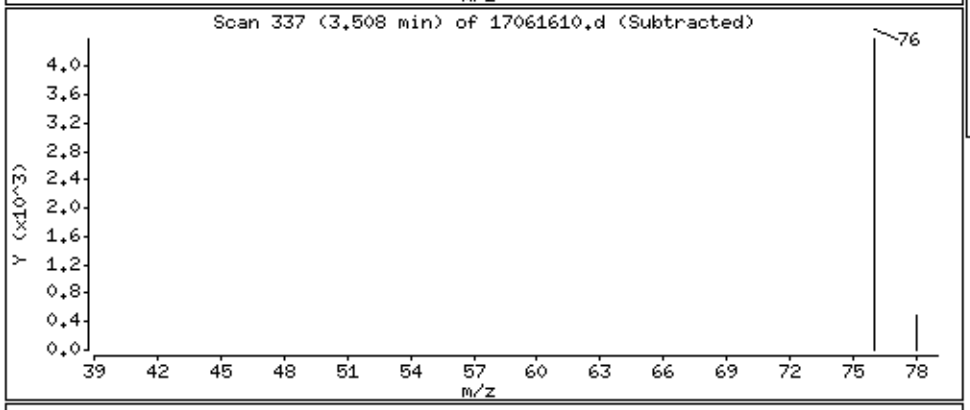
Column diameter: 0.25

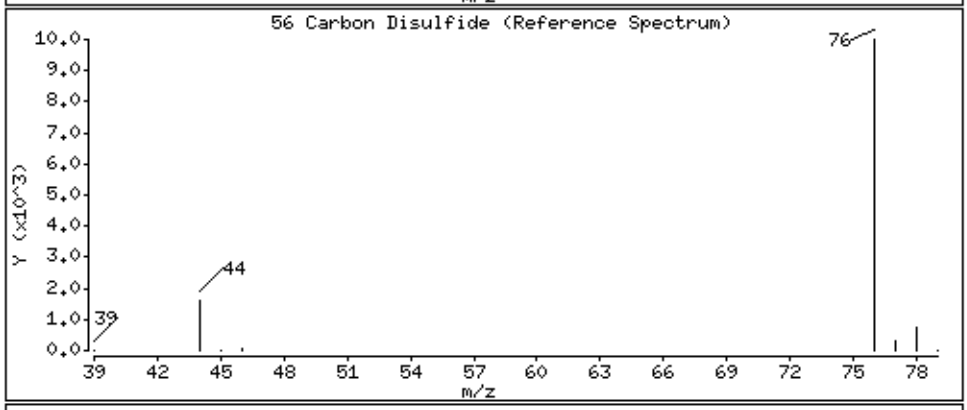
56 Carbon Disulfide

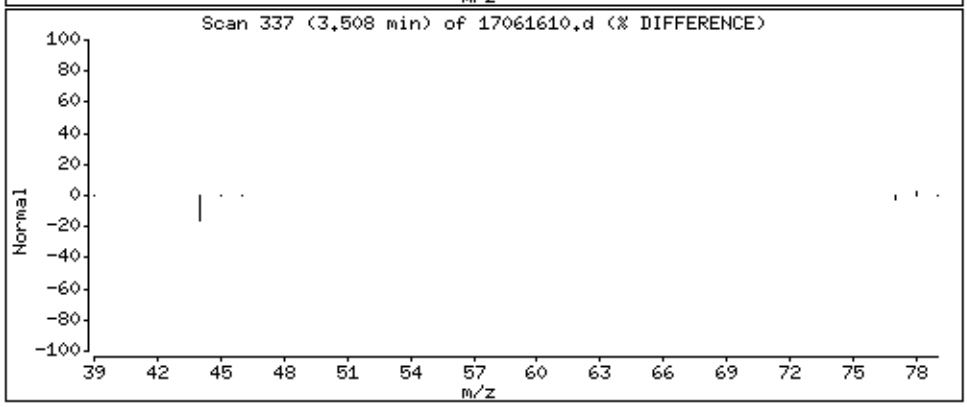
Concentration: 3.126 PPBV











Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

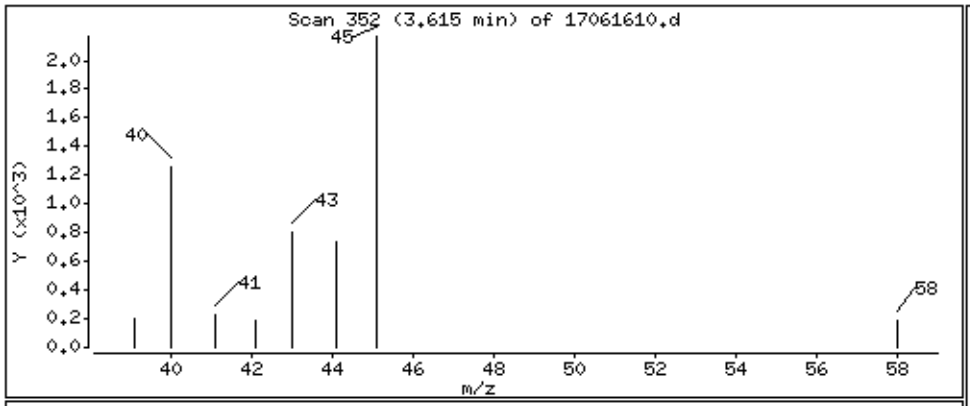
Operator: ea

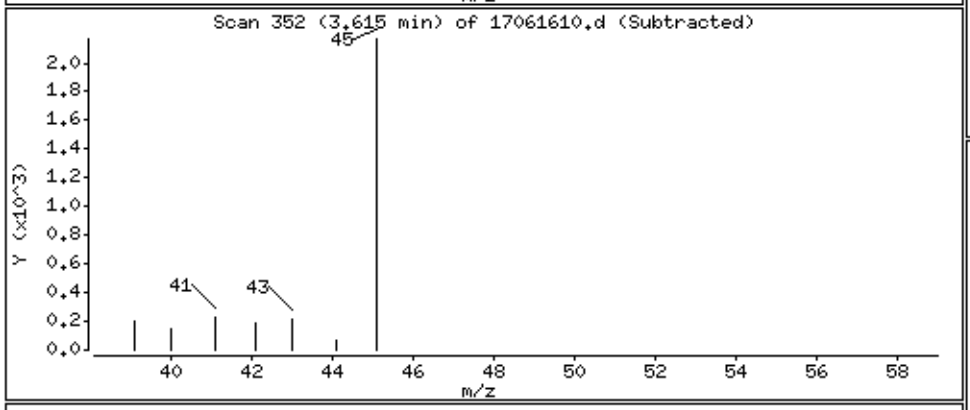
Column phase: RTX-624

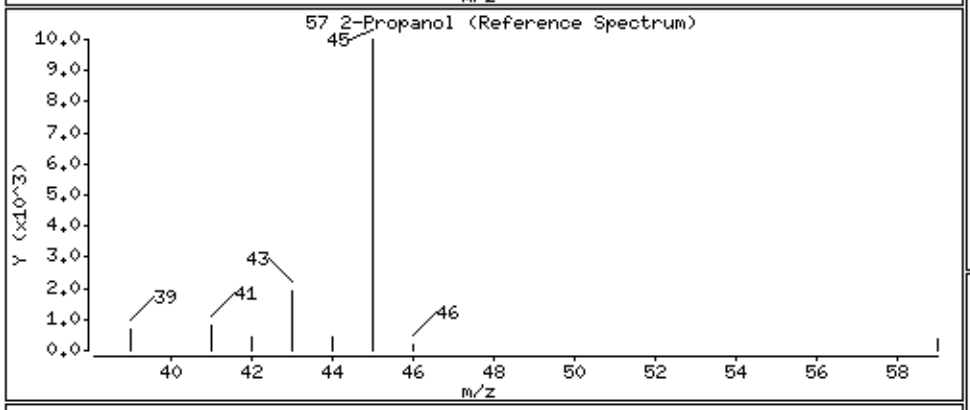
Column diameter: 0.25

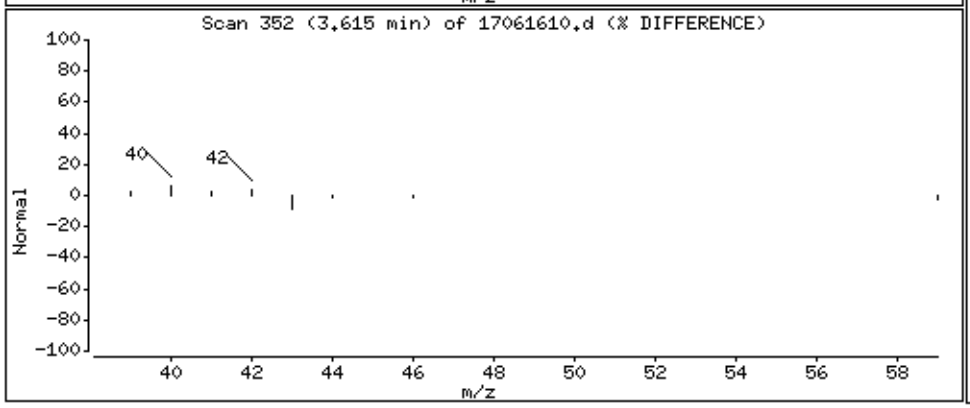
57 2-Propanol

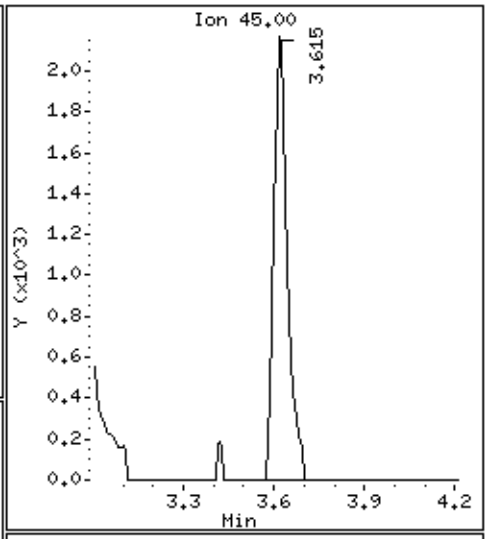
Concentration: 4.550 PPBV

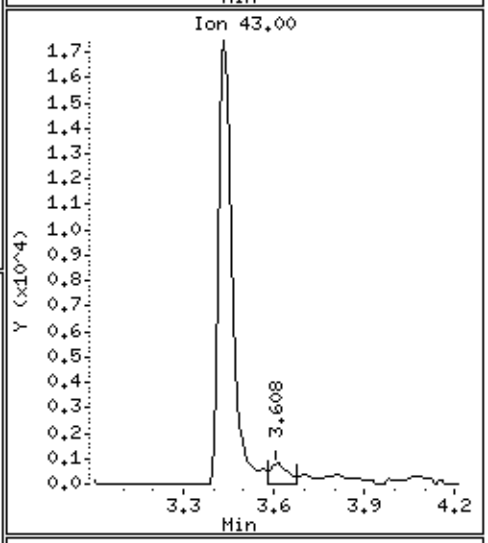


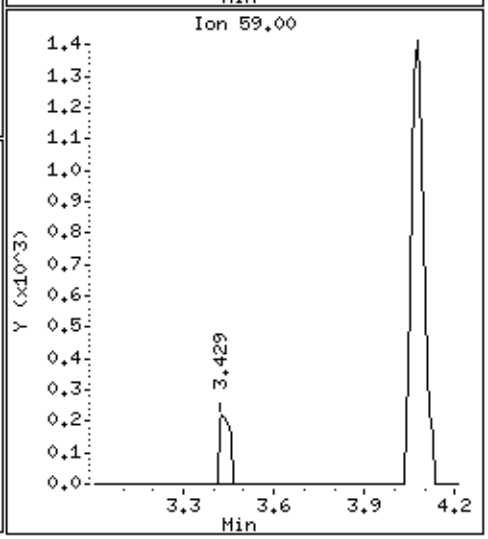












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

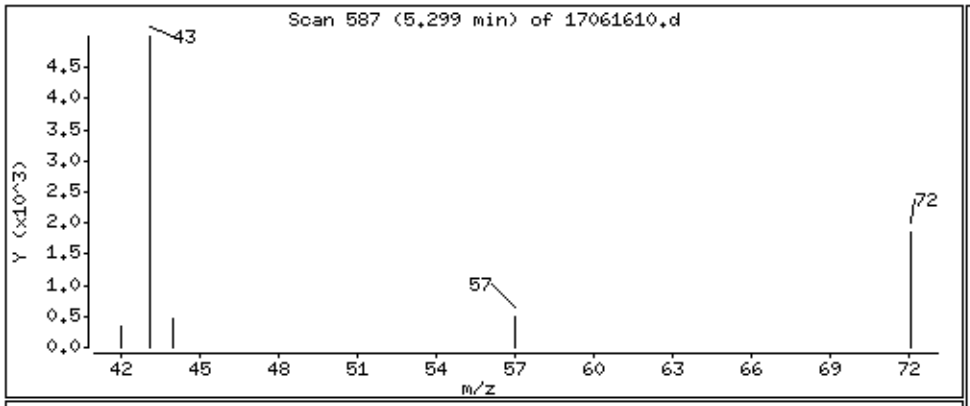
Operator: ea

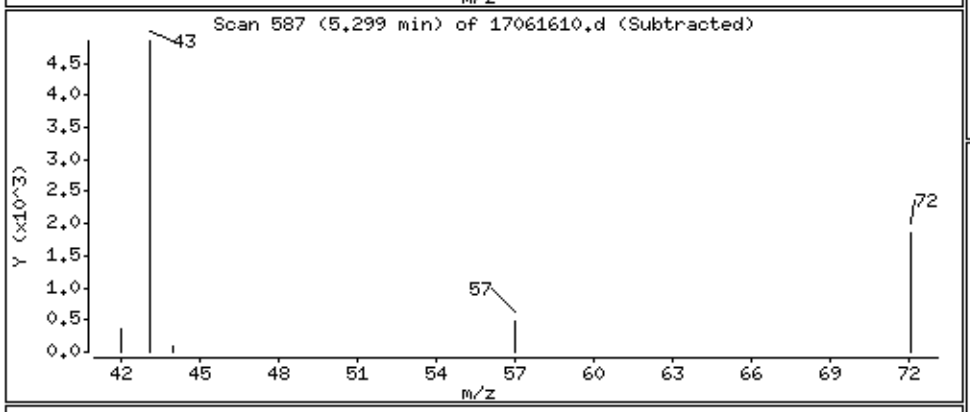
Column phase: RTX-624

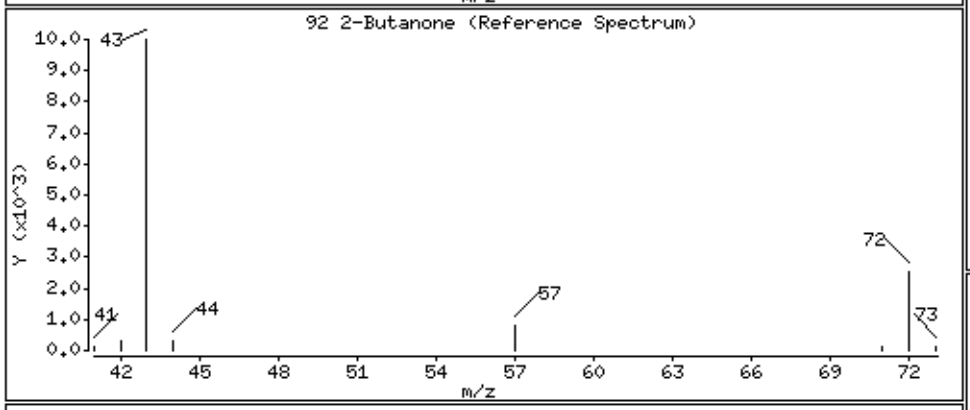
Column diameter: 0.25

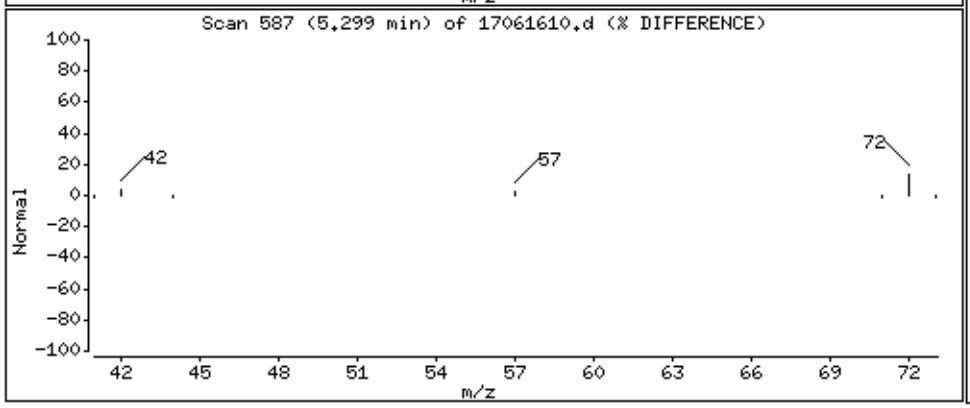
92 2-Butanone

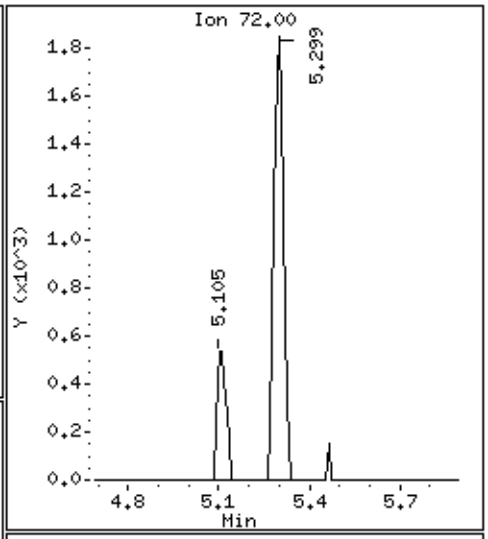
Concentration: 5.913 PPBV

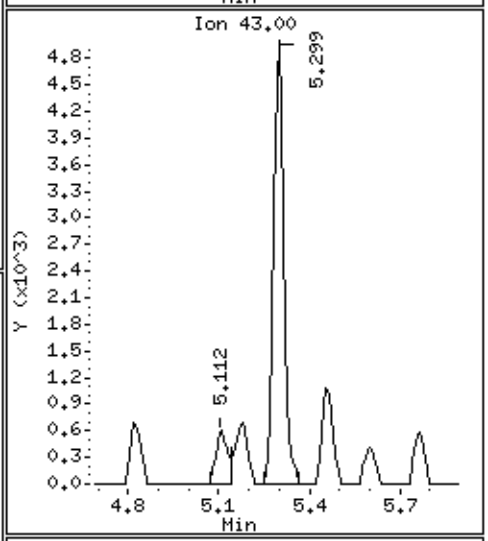


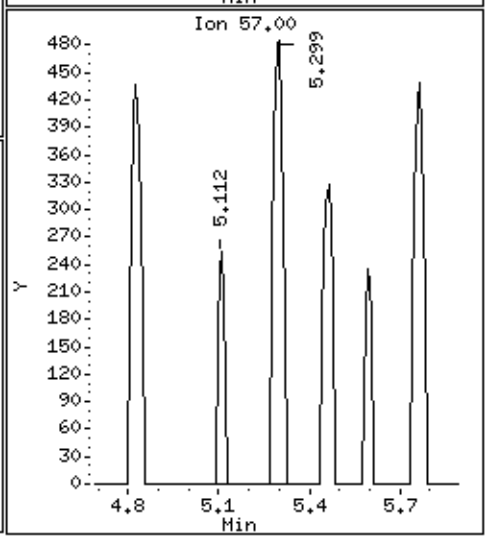












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

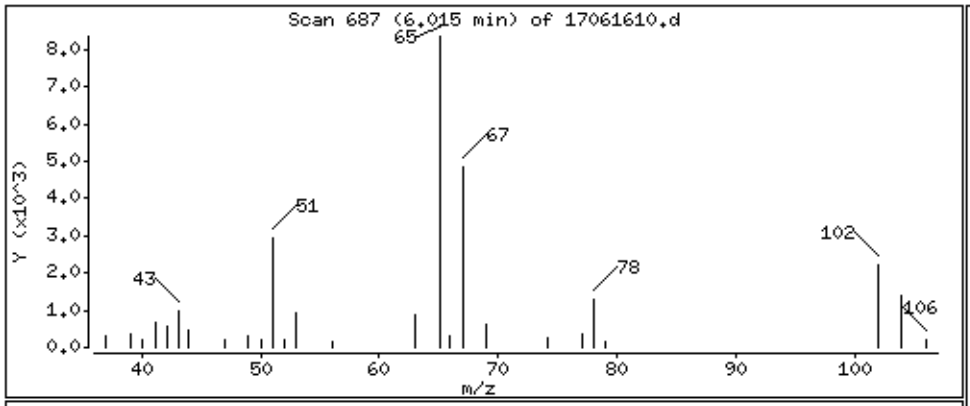
Operator: ea

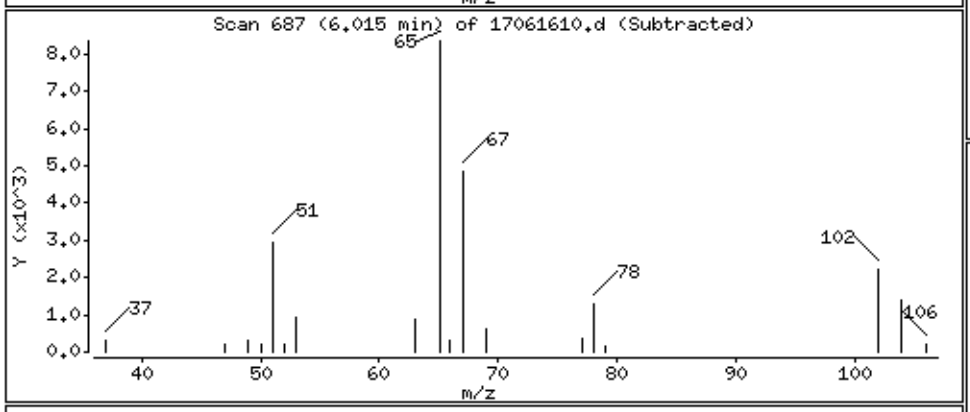
Column phase: RTX-624

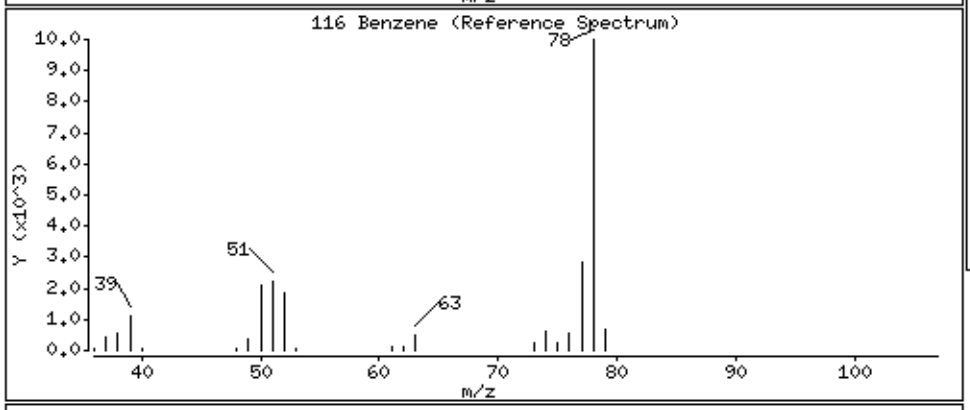
Column diameter: 0.25

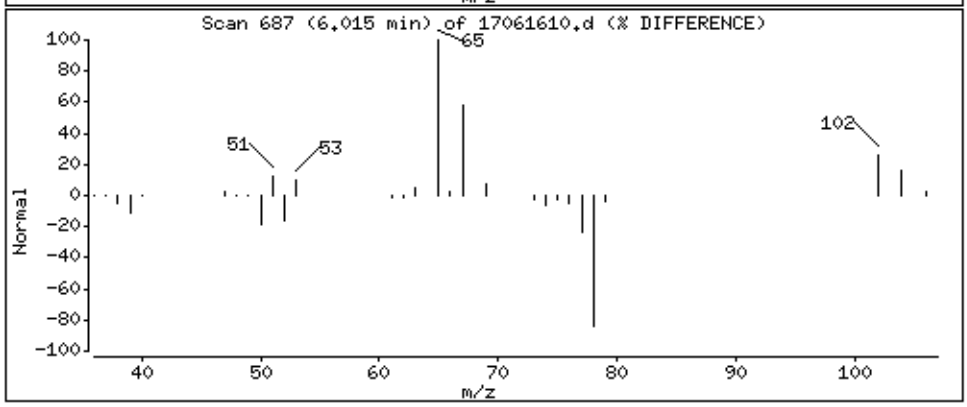
116 Benzene

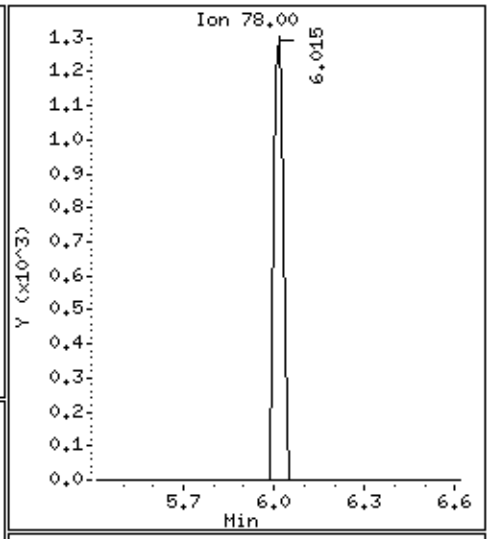
Concentration: 0.6328 PPBV

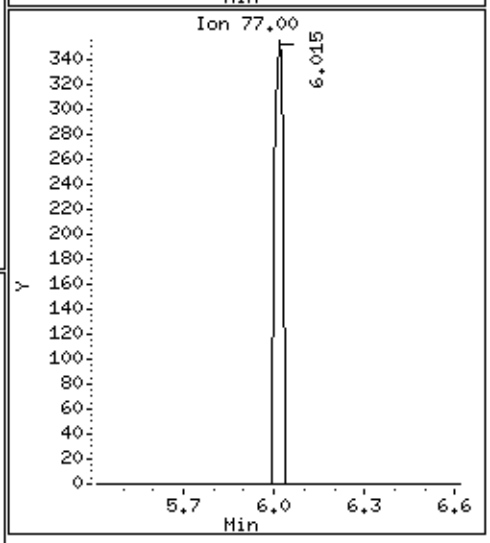












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

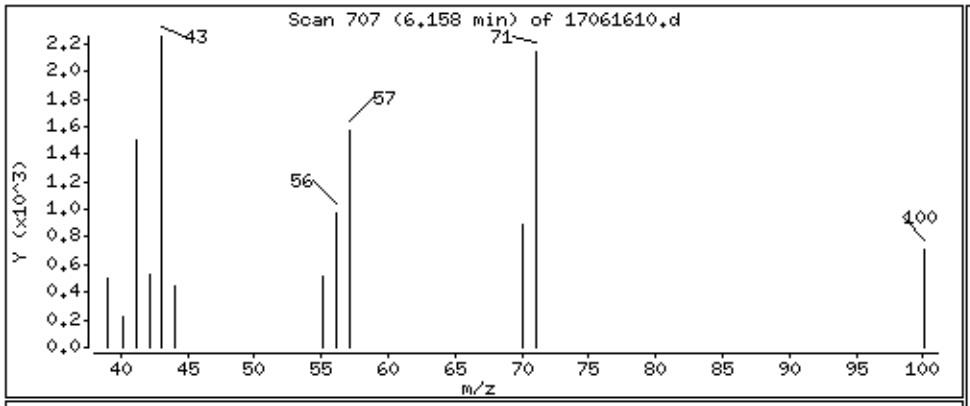
Operator: ea

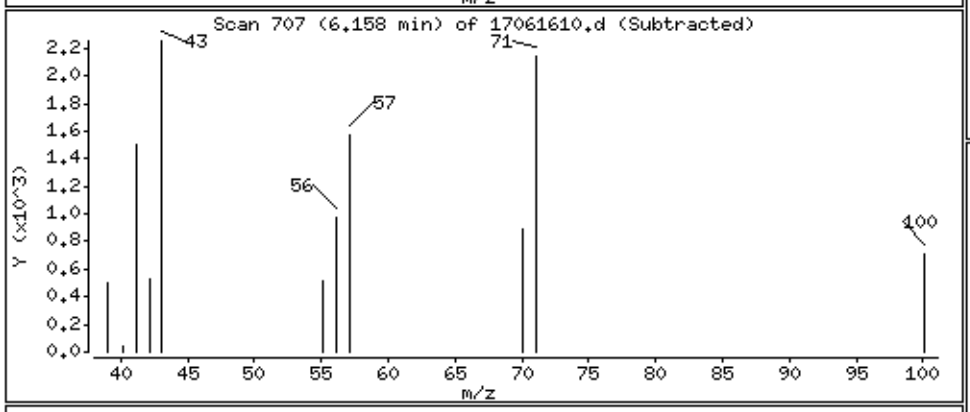
Column phase: RTX-624

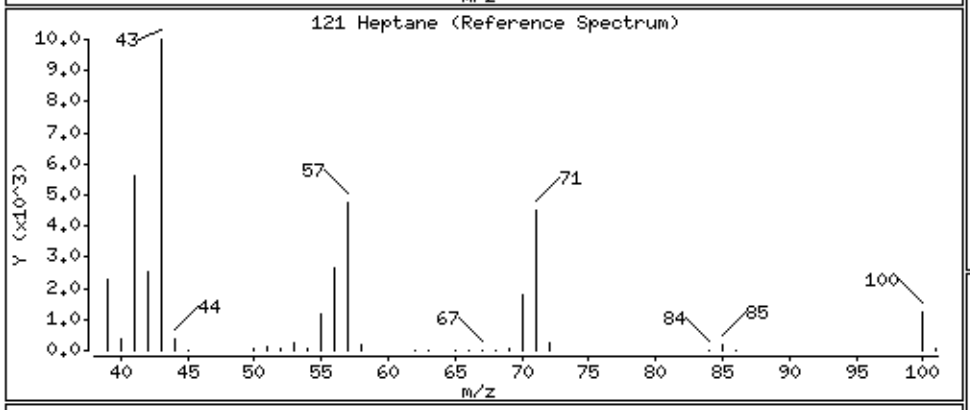
Column diameter: 0.25

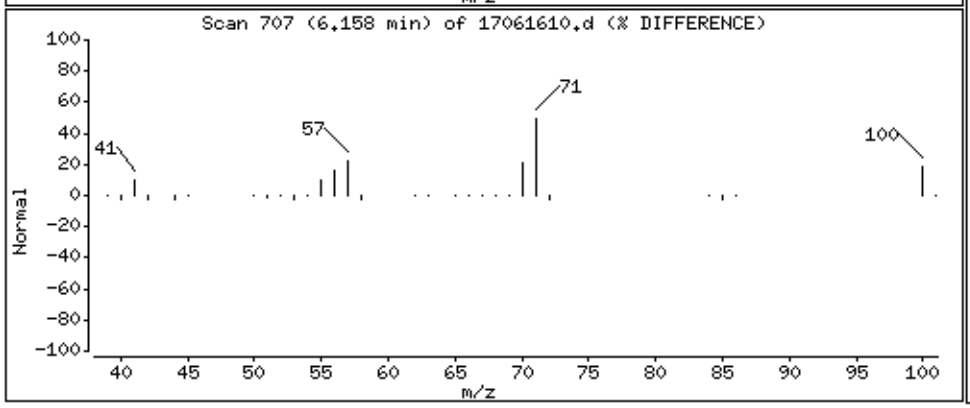
121 Heptane

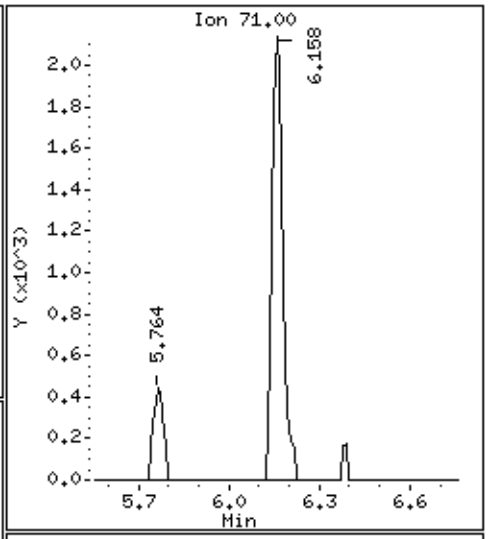
Concentration: 3.437 PPBV

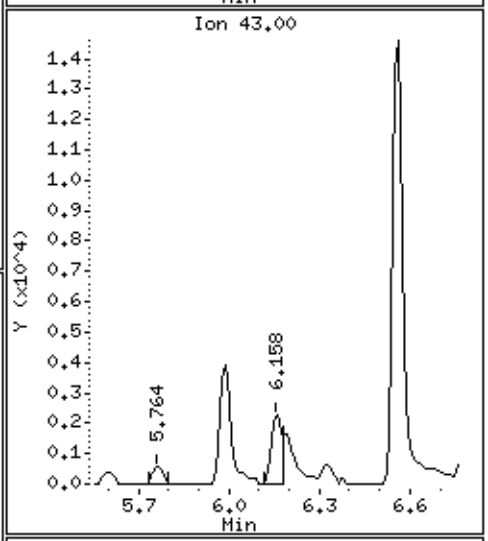


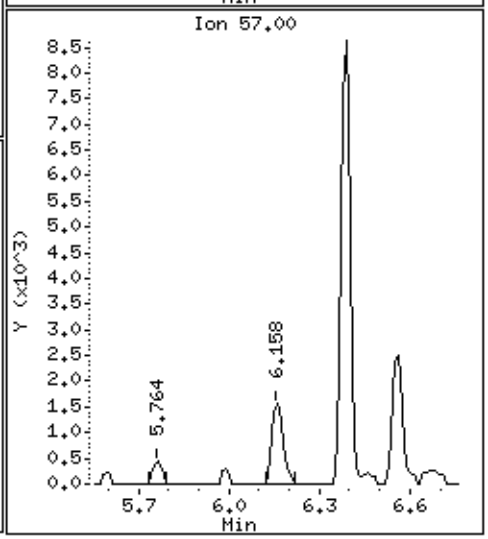












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

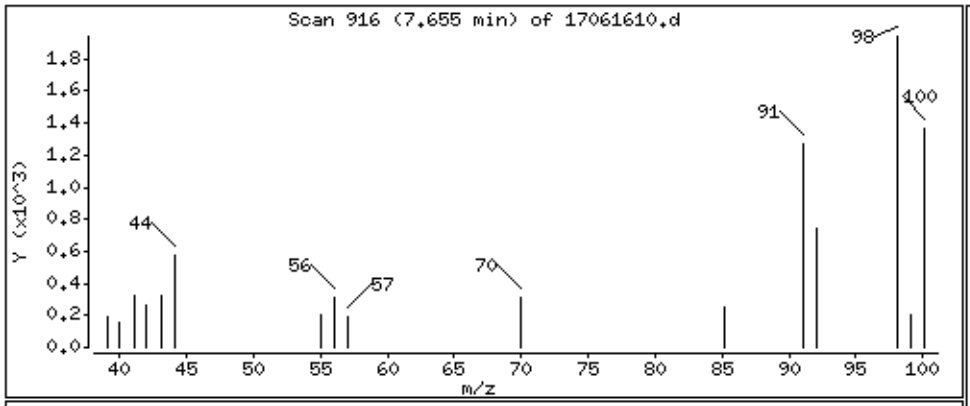
Operator: ea

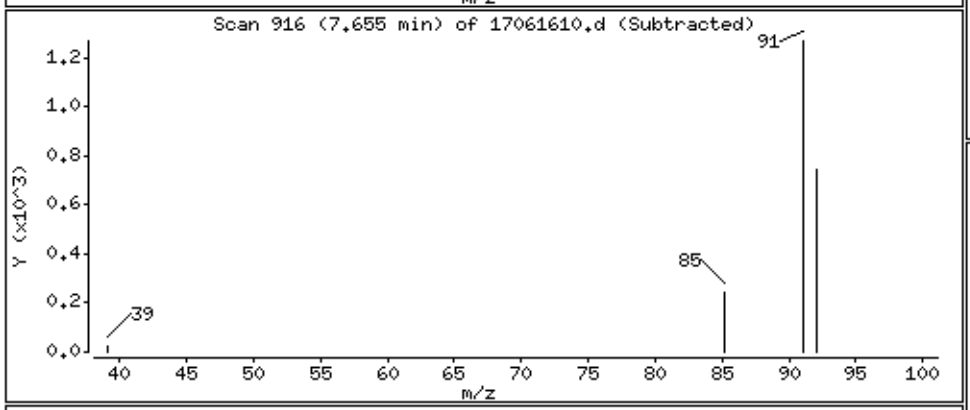
Column phase: RTX-624

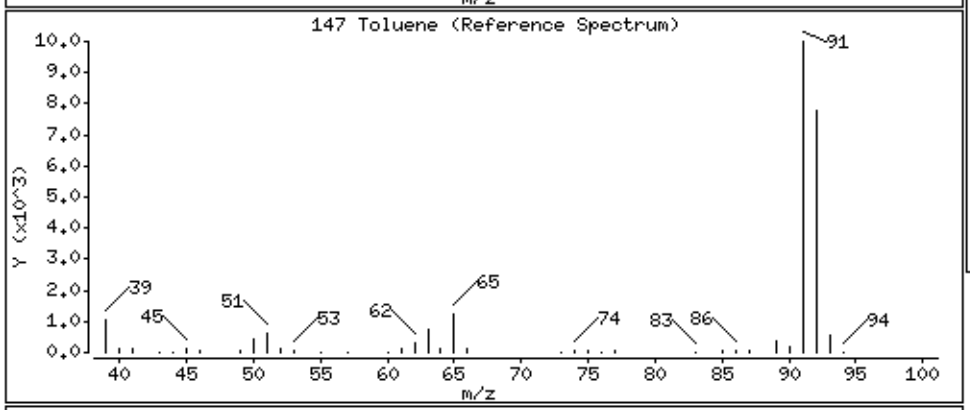
Column diameter: 0.25

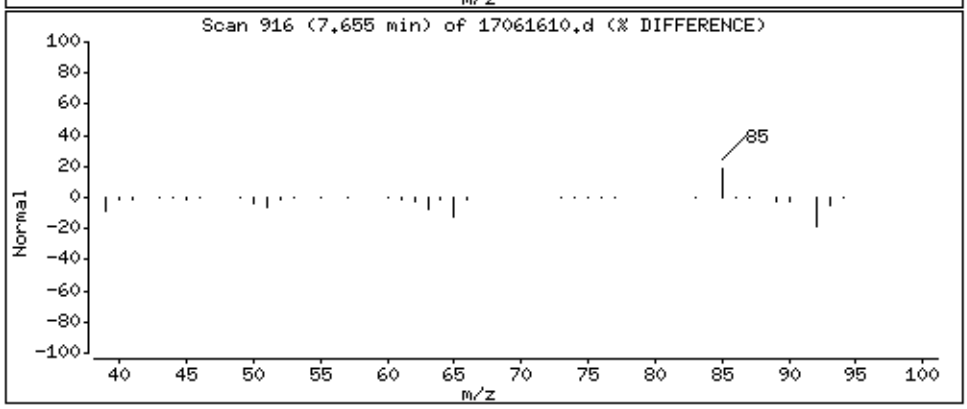
147 Toluene

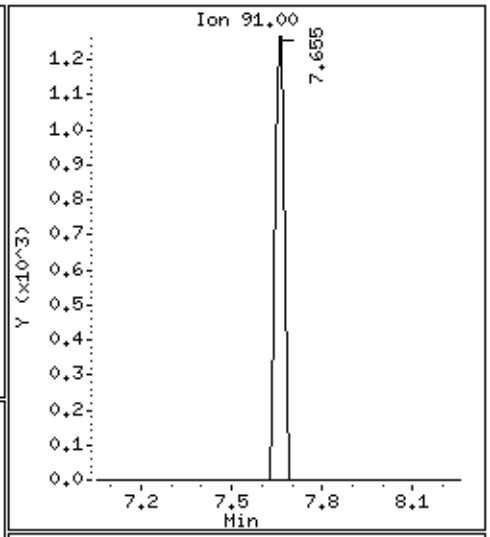
Concentration: 0.4371 PPBV

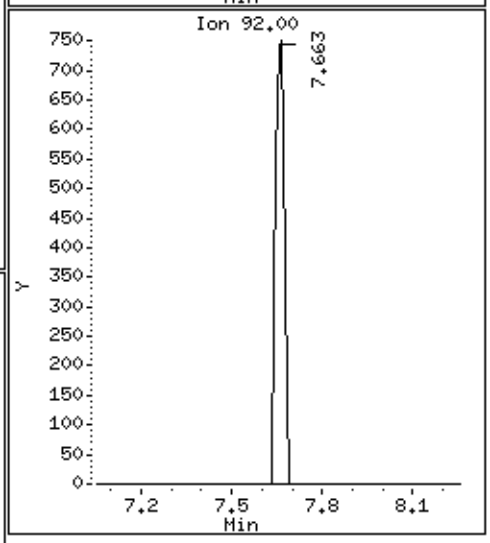












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

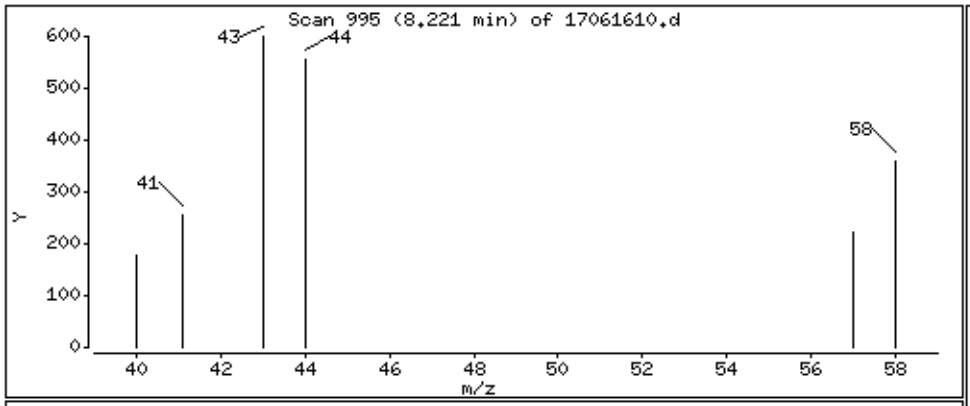
Operator: ea

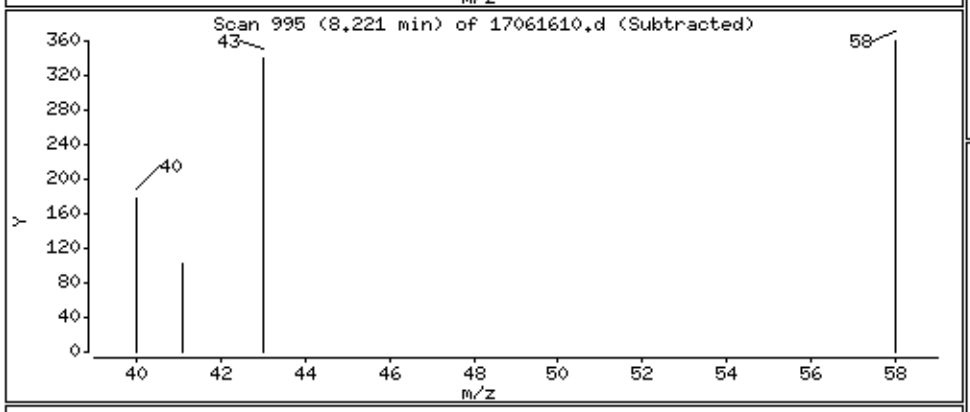
Column phase: RTX-624

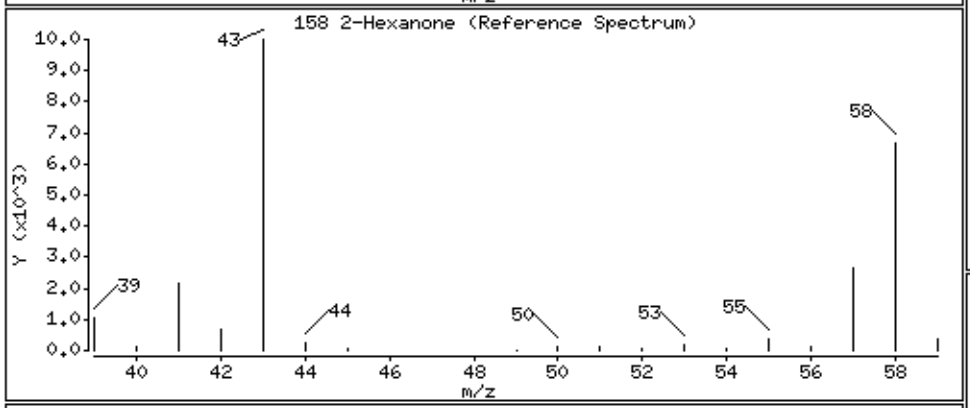
Column diameter: 0.25

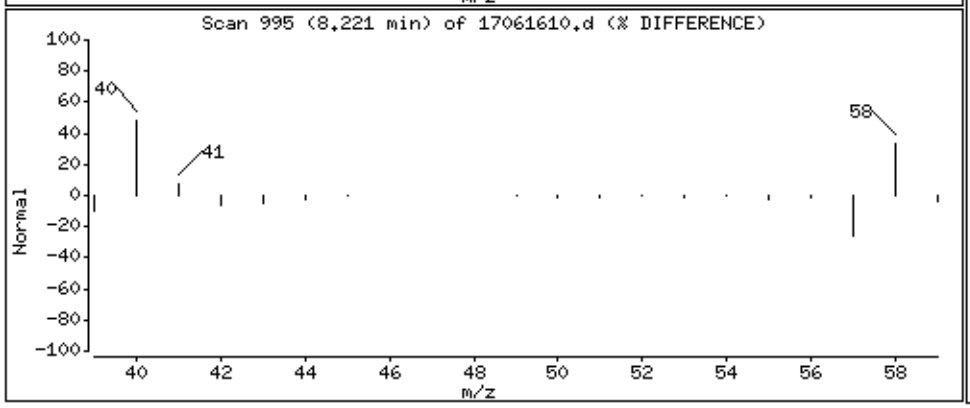
158 2-Hexanone

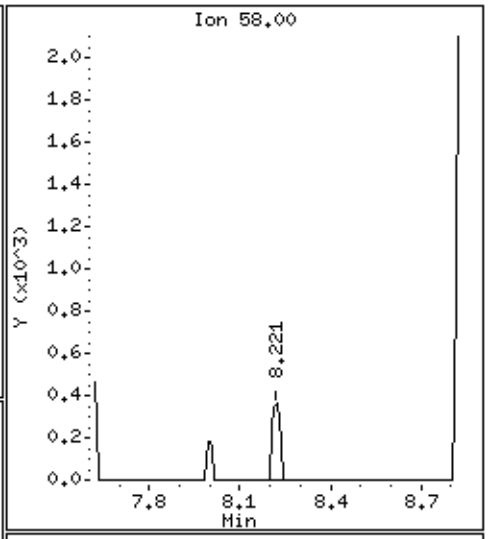
Concentration: 0.3390 PPBV

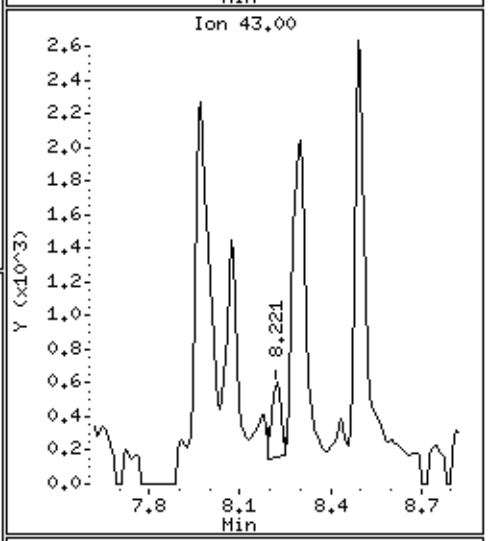


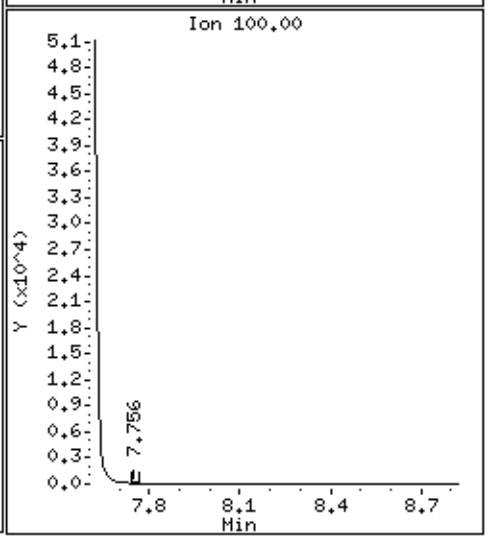












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

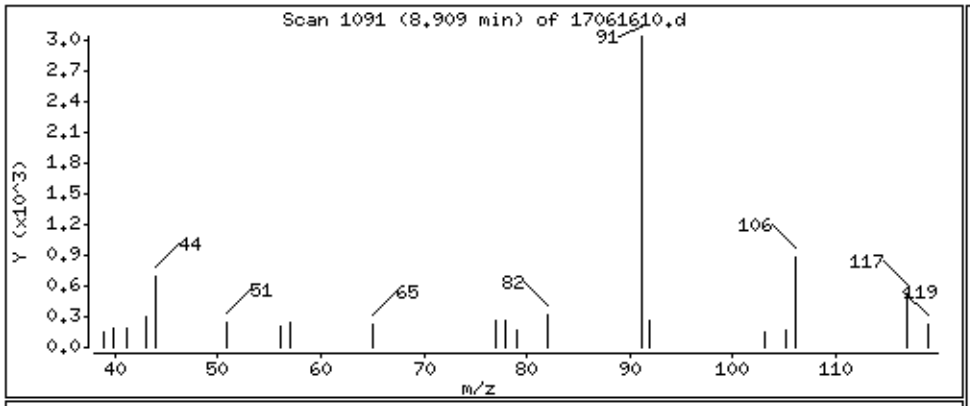
Operator: ea

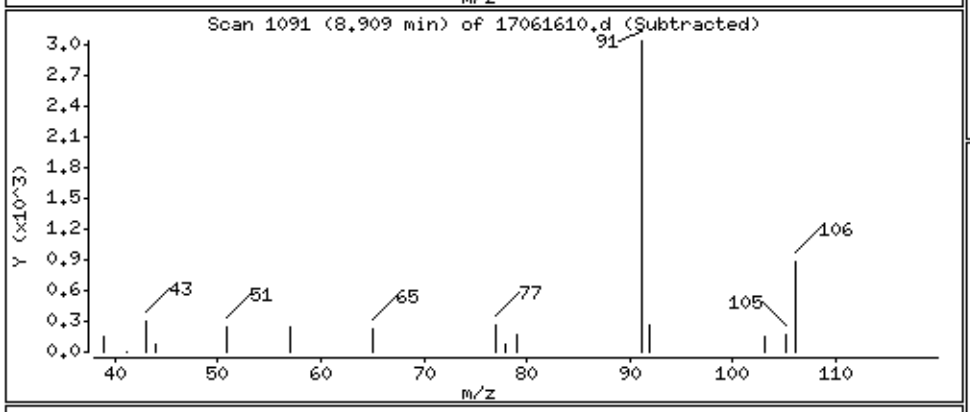
Column phase: RTX-624

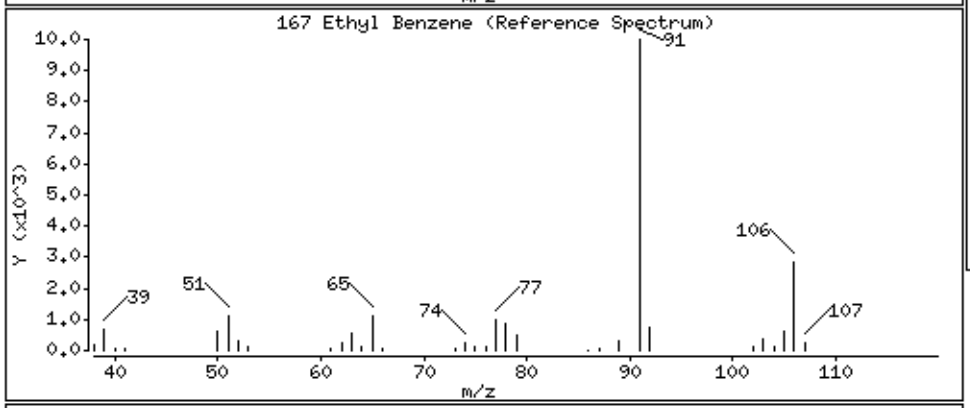
Column diameter: 0.25

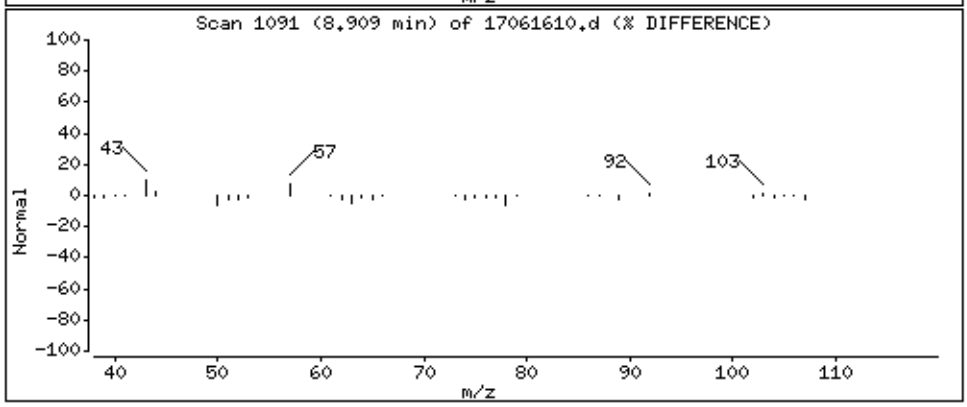
167 Ethyl Benzene

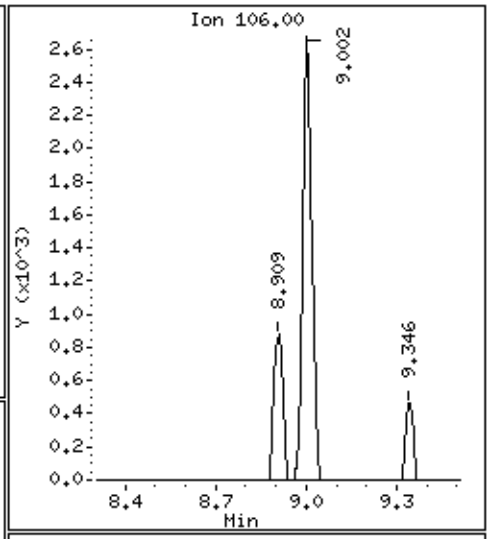
Concentration: 0.6170 PPBV

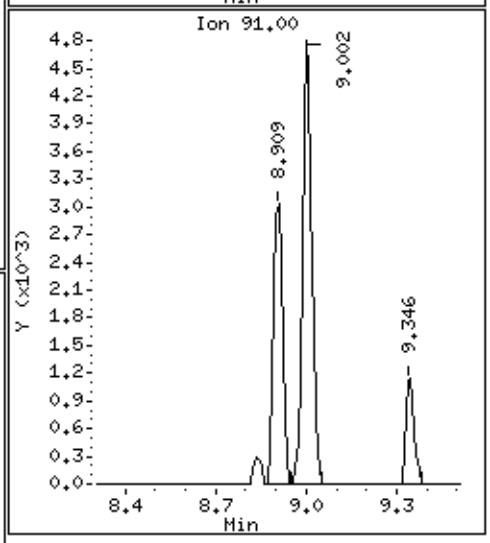












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

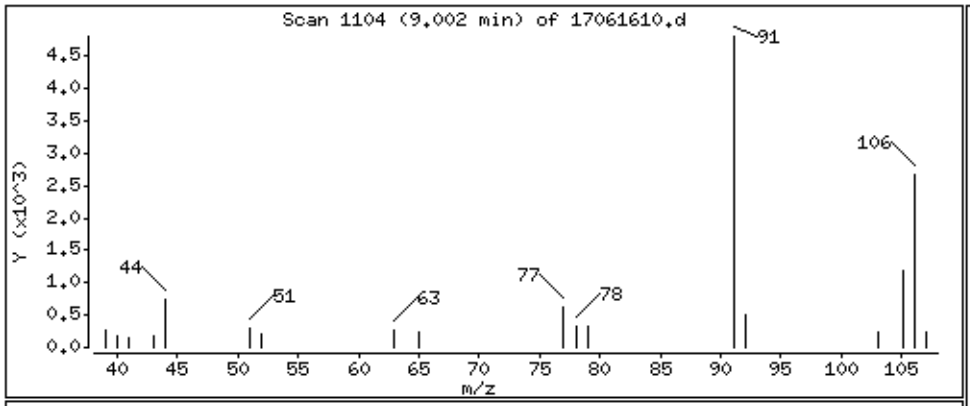
Operator: ea

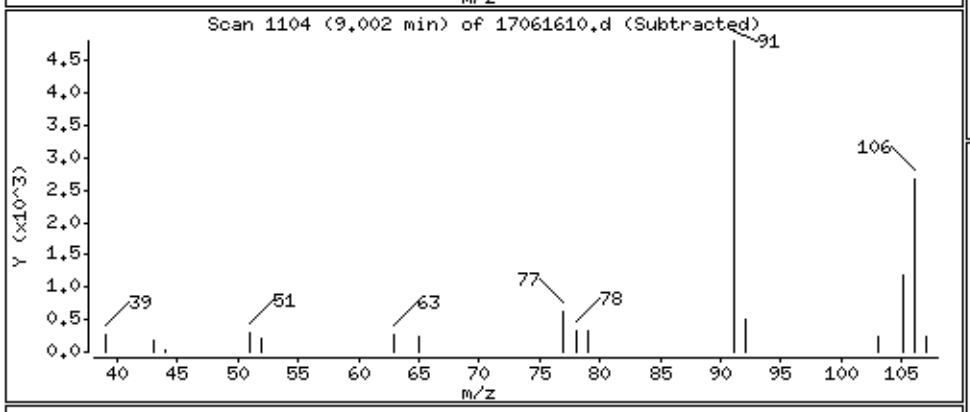
Column phase: RTX-624

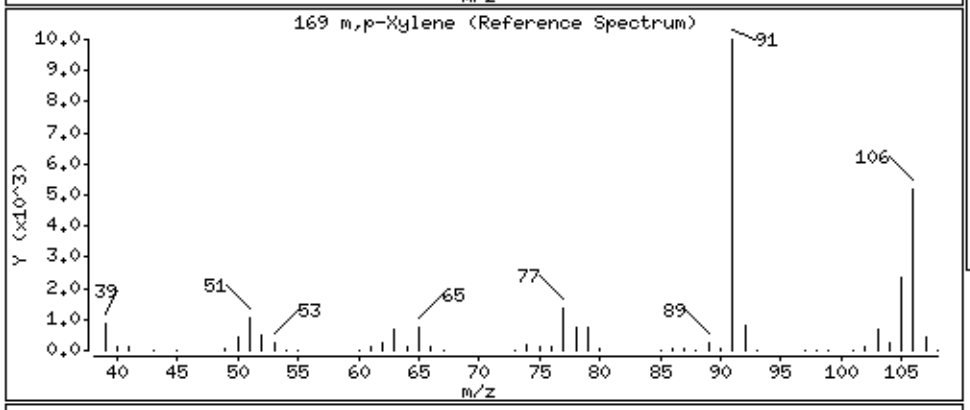
Column diameter: 0.25

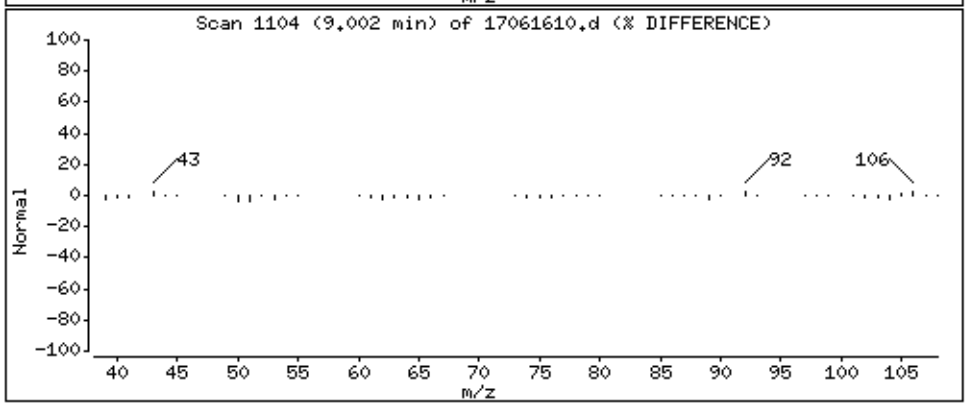
169 m,p-Xylene

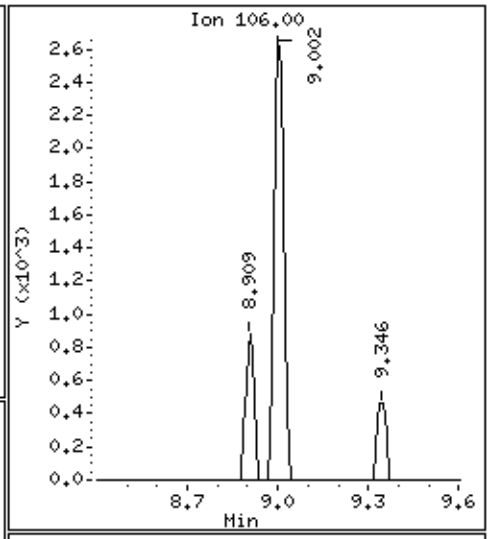
Concentration: 1.566 PPBV

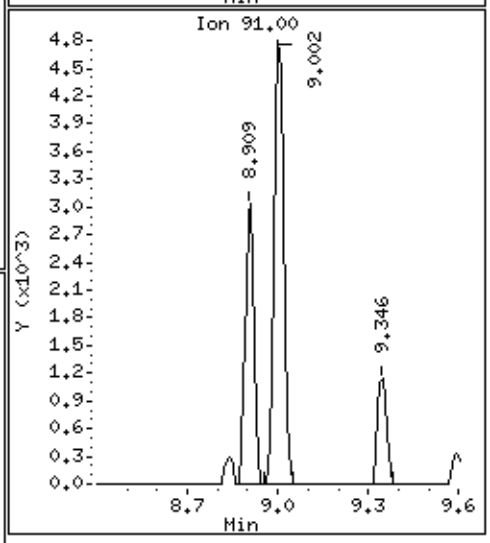












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

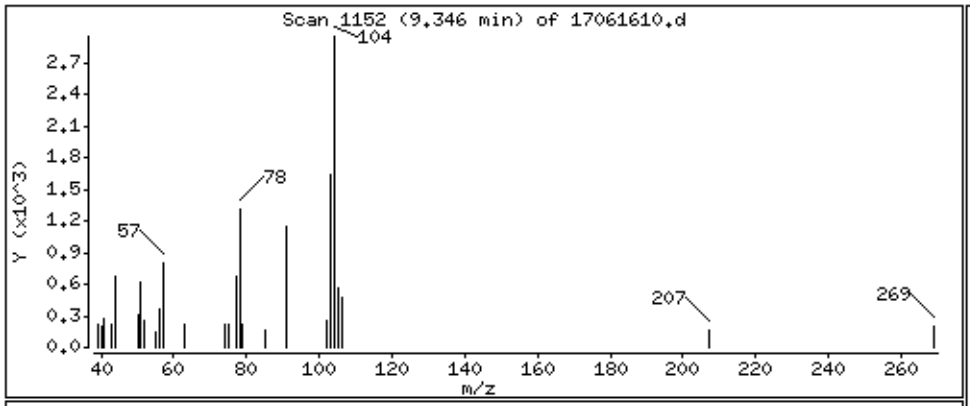
Operator: ea

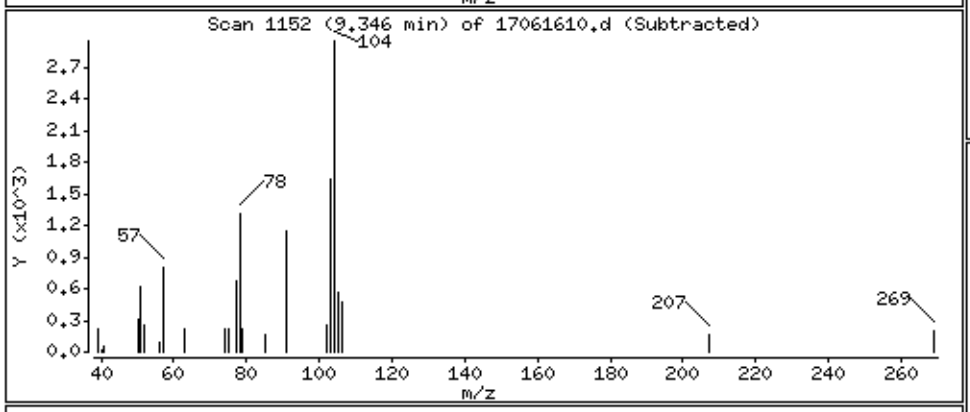
Column phase: RTX-624

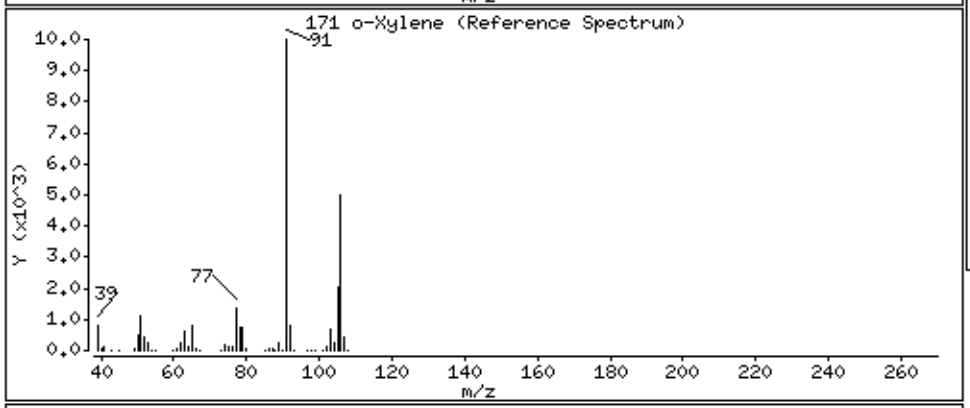
Column diameter: 0.25

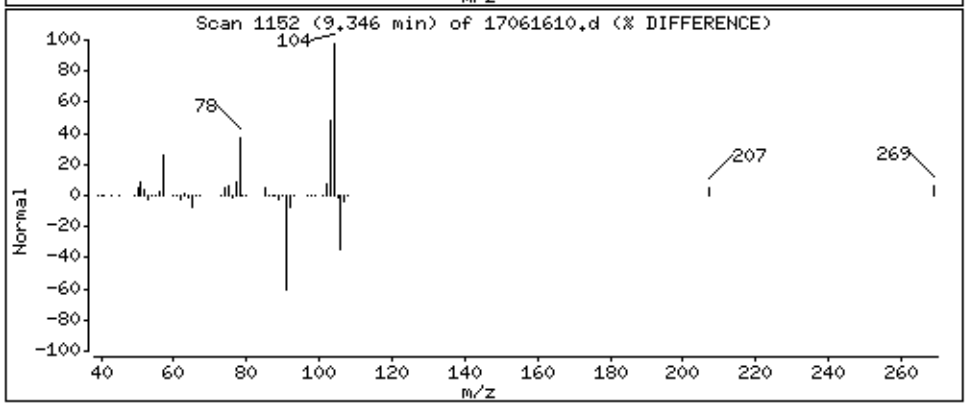
171 o-Xylene

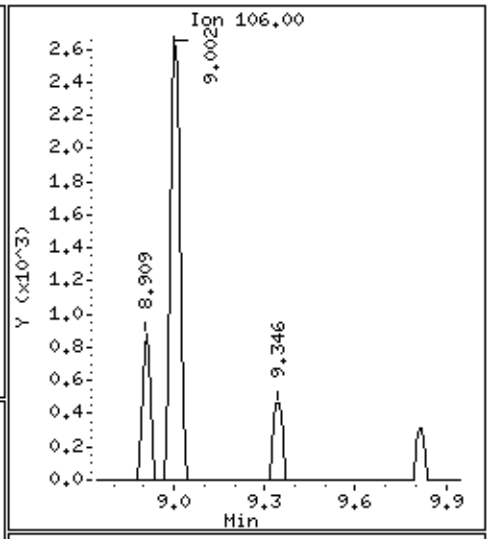
Concentration: 0.2735 PPBV

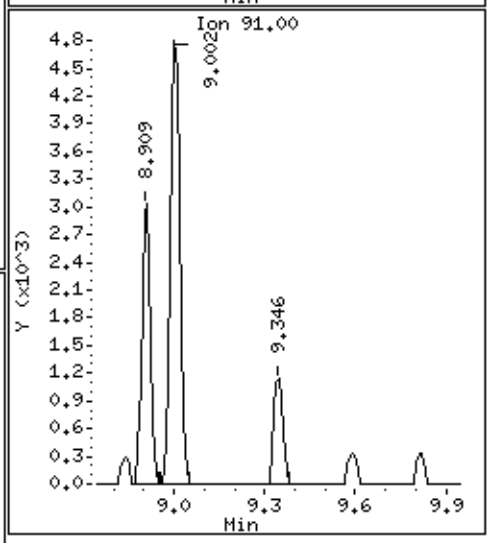












Data File: /chem/msd17.i/16jun16.b/17061610.d

Date : 16-JUN-2016 19:54

Client ID:

Instrument: msd17.i

Sample Info: 200ml 36539

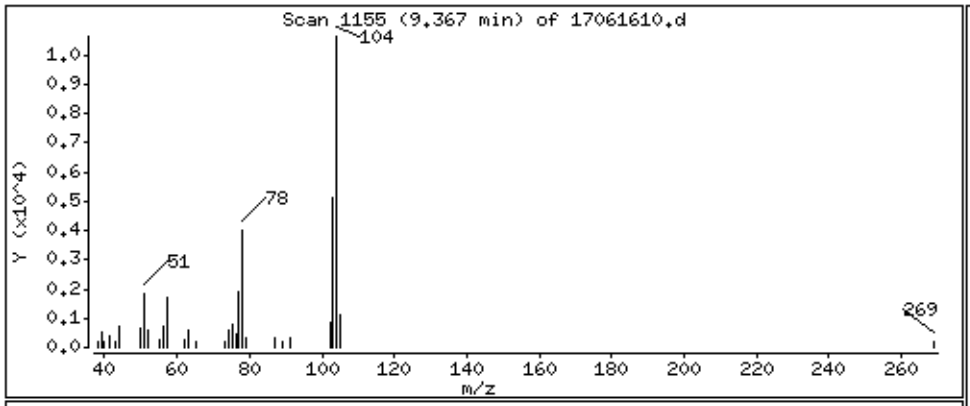
Operator: ea

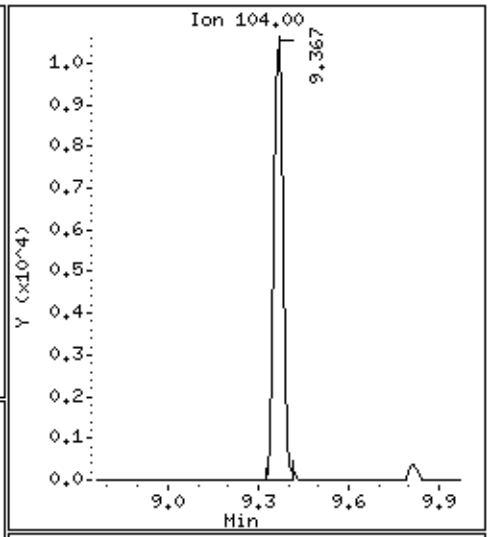
Column phase: RTX-624

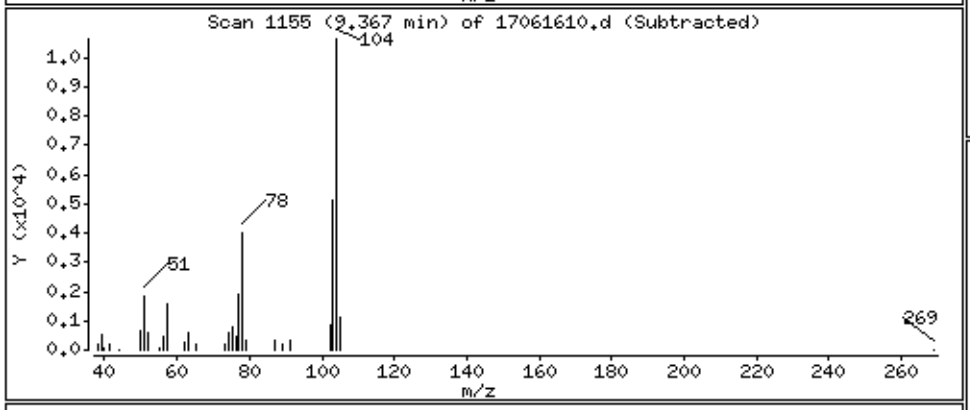
Column diameter: 0.25

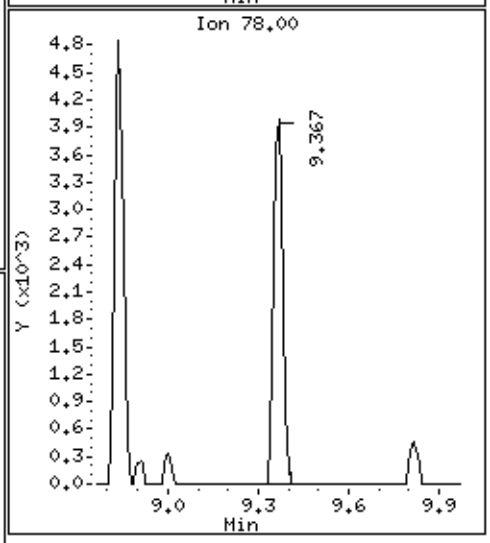
172 Styrene

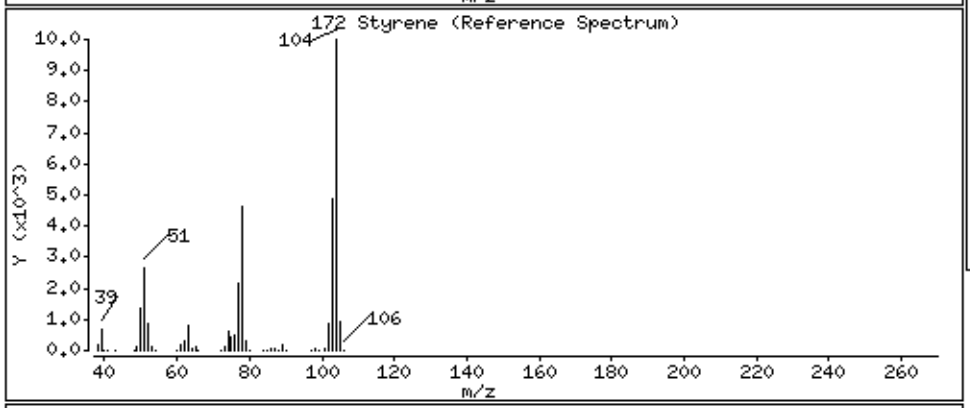
Concentration: 3.960 PPBV

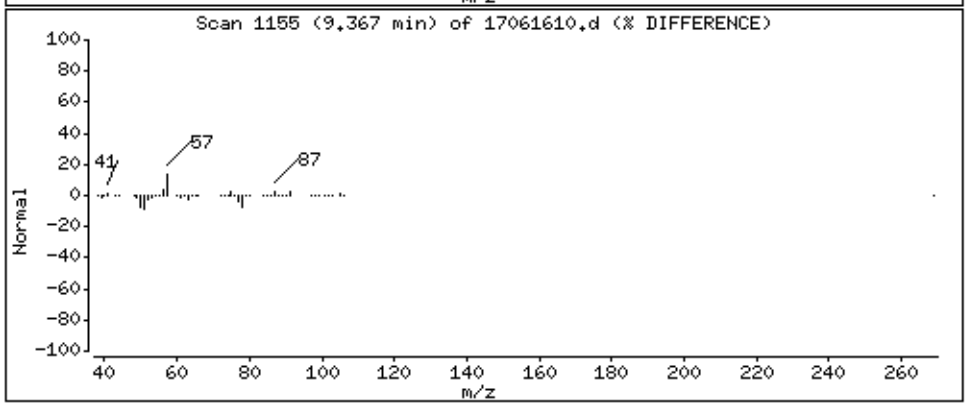












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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B7SS-3(061216)

Lab ID#: 1606298B-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	1.1	6.2	6.4
Ethanol	4.4	7.8 J0	8.3	15 J0
Acetone	11	13	26	31
2-Propanol	4.4	6.0	11	15
Carbon Disulfide	4.4	5.9	14	18
2-Butanone (Methyl Ethyl Ketone)	4.4	3.0 J	13	8.8 J
2,2,4-Trimethylpentane	1.1	0.17 J	5.1	0.78 J
Benzene	1.1	0.22 J	3.5	0.69 J
Heptane	1.1	2.1	4.5	8.5
Toluene	1.1	2.1	4.1	8.1
2-Hexanone	4.4	0.32 J	18	1.3 J
Ethyl Benzene	1.1	0.40 J	4.8	1.7 J
m,p-Xylene	1.1	0.83 J	4.8	3.6 J
o-Xylene	1.1	0.29 J	4.8	1.3 J
Styrene	1.1	0.51 J	4.7	2.2 J
4-Ethyltoluene	1.1	0.16 J	5.4	0.81 J

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Client Sample ID: B7SS-3(061216)

Lab ID#: 1606298B-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061611**	**Date of Collection:**	**6/12/16 5:05:00 PM**
Dil. Factor:	**2.20**	**Date of Analysis:**	**6/16/16 08:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.4	Not Detected
Freon 114	1.1	Not Detected	7.7	Not Detected
Chloromethane	11	Not Detected UJ	23	Not Detected UJ
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
Freon 11	1.1	1.1	6.2	6.4
Ethanol	4.4	7.8 J0	8.3	15 J0
Freon 113	1.1	Not Detected	8.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Acetone	11	13	26	31
2-Propanol	4.4	6.0	11	15
Carbon Disulfide	4.4	5.9	14	18
3-Chloropropene	4.4	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.0	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.4	3.0 J	13	8.8 J
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
Chloroform	1.1	Not Detected	5.4	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.9	Not Detected
2,2,4-Trimethylpentane	1.1	0.17 J	5.1	0.78 J
Benzene	1.1	0.22 J	3.5	0.69 J
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Heptane	1.1	2.1	4.5	8.5
Trichloroethene	1.1	Not Detected	5.9	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.4	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
Toluene	1.1	2.1	4.1	8.1
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Tetrachloroethene	1.1	Not Detected	7.5	Not Detected
2-Hexanone	4.4	0.32 J	18	1.3 J

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Client Sample ID: B7SS-3(061216)

Lab ID#: 1606298B-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061611**	**Date of Collection:**	**6/12/16 5:05:00 PM**
Dil. Factor:	**2.20**	**Date of Analysis:**	**6/16/16 08:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.1	Not Detected	9.4	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
Chlorobenzene	1.1	Not Detected	5.1	Not Detected
Ethyl Benzene	1.1	0.40 J	4.8	1.7 J
m,p-Xylene	1.1	0.83 J	4.8	3.6 J
o-Xylene	1.1	0.29 J	4.8	1.3 J
Styrene	1.1	0.51 J	4.7	2.2 J
Bromoform	1.1	Not Detected	11	Not Detected
Cumene	1.1	Not Detected	5.4	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.6	Not Detected
Propylbenzene	1.1	Not Detected	5.4	Not Detected
4-Ethyltoluene	1.1	0.16 J	5.4	0.81 J
1,3,5-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	33	Not Detected
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected
Naphthalene	2.2	Not Detected	12	Not Detected

UJ = Analyte associated with low bias in the CCV.
J0 = Estimated value due to bias in the CCV.
J = Estimated value.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	100	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061611.d
Lab Smp Id: 1606298B-12A
Inj Date : 16-JUN-2016 20:20
Operator : ea Inst ID: msd17.i
Smp Info : 200ml n2040
Misc Info : 2.6 Hg->14.8 psi
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 15:02 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 5
Dil Factor: 2.20000
Integrator: HP RTE Compound Sublist: TO15Nmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	2.20000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	73655	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	57697			48.69- 108.69	78.33
5.499	5.499 (1.000)	49	51246			54.63- 114.63	69.58
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.387	6.388 (1.000)	114	294505	25.0000		80.00- 120.00	100.00
6.387	6.388 (1.000)	88	42587			0.00- 45.20	14.46
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	301189	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	144147			20.04- 80.04	47.86
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.036	6.037 (1.098)	65	69931	22.9882	22.988	80.00- 120.00	100.00
6.036	6.037 (1.098)	67	38250			34.58- 94.58	54.70

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	312988	25.2363	25.236	80.00- 120.00	100.00
7.605	7.605 (1.191)	70	30073			0.00- 39.40	9.61
7.605	7.605 (1.191)	100	206968			35.49- 95.49	66.13
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.818	9.819 (1.111)	174	220990	25.0585	25.058	80.00- 120.00	100.00
9.811	9.819 (1.110)	95	214816			71.35- 131.35	97.21
9.818	9.819 (1.111)	176	217485			68.09- 128.09	98.41
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	3587	0.52123	1.147	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	2015			35.21- 95.21	56.18
42 Ethanol					CAS #: 64-17-5		
2.956	2.949 (0.538)	45	2993	3.56953	7.853	80.00- 120.00	100.00
2.956	2.949 (0.538)	43	527			0.00- 50.21	17.63
2.956	2.949 (0.538)	46	989			8.20- 68.20	33.07
52 Acetone					CAS #: 67-64-1		
3.436	3.429 (0.625)	58	6965	5.96452	13.122	80.00- 120.00	100.00
3.436	3.429 (0.625)	43	17100			226.10- 286.10	245.50
56 Carbon Disulfide					CAS #: 75-15-0		
3.508	3.508 (0.638)	76	22983	2.66676	5.867	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
3.615	3.608 (0.657)	45	9459	2.74464	6.038	80.00- 120.00	100.00
3.615	3.608 (0.657)	43	3197			0.00- 48.33	33.80
3.630	3.608 (0.660)	59	212			0.00- 34.85	2.24
92 2-Butanone					CAS #: 78-93-3		
5.299	5.292 (0.964)	72	2142	1.35821	2.988	80.00- 120.00	100.00(a)
5.306	5.292 (0.965)	43	13554			251.52- 311.52	632.52
5.299	5.292 (0.964)	57	453			0.00- 57.81	21.14
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.986	5.986 (1.089)	57	1045	0.07584	0.1668	80.00- 120.00	100.00(a)
5.986	5.986 (1.089)	56	355			2.25- 62.25	33.99
5.993	5.986 (1.090)	41	654			0.00- 49.06	62.54
116 Benzene					CAS #: 71-43-2		
6.015	6.015 (0.942)	78	969	0.09855	0.2168	80.00- 120.00	100.00(a)
0.000	6.015 (0.000)	77	0			0.00- 53.87	0.00
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	3260	0.94566	2.080	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
121 Heptane (continued)							
6.158	6.158 (0.964)	43	3563			96.69- 156.69	109.30
6.158	6.158 (0.964)	57	2461			58.40- 118.40	75.49
147 Toluene					CAS #: 108-88-3		
7.662	7.655 (1.200)	91	13233	0.97272	2.140	80.00- 120.00	100.00
7.662	7.655 (1.200)	92	7256			28.86- 88.86	54.84
158 2-Hexanone					CAS #: 591-78-6		
8.221	8.221 (0.930)	58	595	0.14577	0.3207	80.00- 120.00	100.00(a)
8.221	8.221 (0.930)	43	1248			121.26- 181.26	209.86
7.748	8.221 (0.877)	100	205			0.00- 55.92	34.58
167 Ethyl Benzene					CAS #: 100-41-4		
8.909	8.909 (1.008)	106	1170	0.18111	0.3984	80.00- 120.00	100.00(a)
8.909	8.909 (1.008)	91	3057			268.56- 328.56	261.18
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	3096	0.37929	0.8344	80.00- 120.00	100.00(a)
9.002	9.002 (1.019)	91	5841			159.69- 219.69	188.66
171 o-Xylene					CAS #: 95-47-6		
9.346	9.346 (1.058)	106	1014	0.13257	0.2917	80.00- 120.00	100.00(a)
9.346	9.346 (1.058)	91	1978			168.78- 228.78	194.91
172 Styrene					CAS #: 100-42-5		
9.367	9.367 (1.060)	104	2847	0.23111	0.5084	80.00- 120.00	100.00(a)
9.367	9.367 (1.060)	78	1049			13.63- 73.63	36.85
188 4-Ethyltoluene					CAS #: 622-96-8		
10.040	10.062 (1.136)	120	558	0.07453	0.1640	80.00- 120.00	100.00(a)
10.040	10.062 (1.136)	105	1982			279.77- 339.77	354.74

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061611.d
Lab Smp Id: 1606298B-12A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 2.6 Hg->14.8 psi

Calibration Date: 16-JUN-2016
Calibration Time: 14:10

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	73655	-2.37
123 1,4-Difluorobenze	302627	181576	423678	294505	-2.68
163 Chlorobenzene-d5	299663	179798	419528	301189	0.51

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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-Jun-2016 12:51

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 16jun16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298B-12A
Level: LOW Operator: ea
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12bromoform.spk Quant Type: ISTD
Sublist File: TO15Nmdl.sub
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 2.6 Hg->14.8 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	22.988	91.95	70-130
$ 146 Toluene-d8	25.000	25.236	100.95	70-130
$ 177 4-Bromofluorobenze	25.000	25.058	100.23	70-130

Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

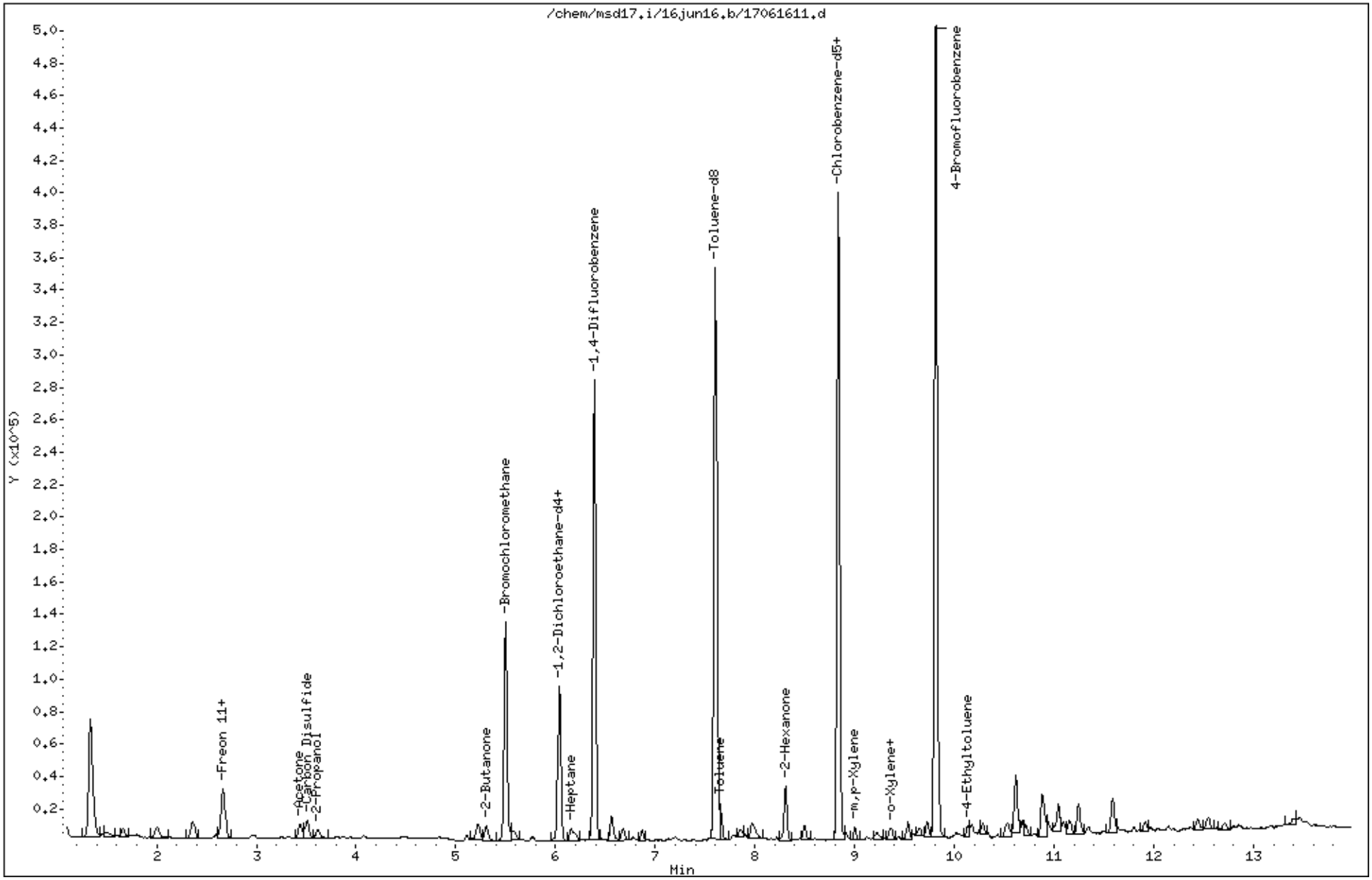
Sample Info: 200ml n2040

Column phase: RTX-624

Instrument: msd17.i

Operator: ea

Column diameter: 0.25



Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

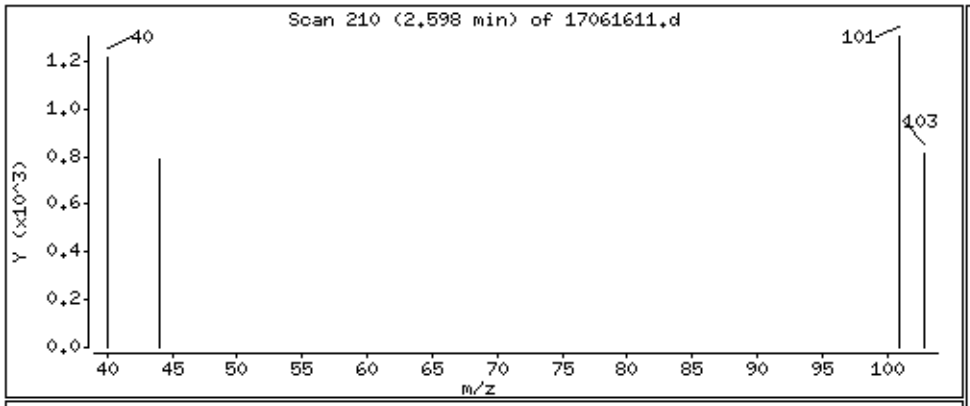
Operator: ea

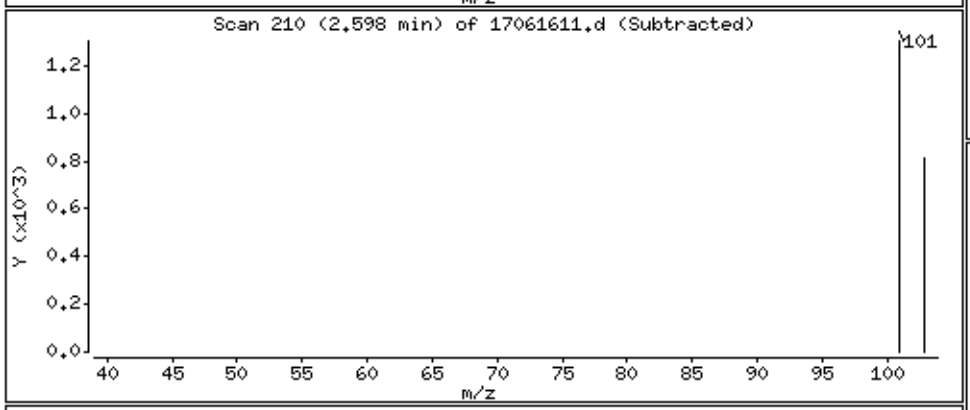
Column phase: RTX-624

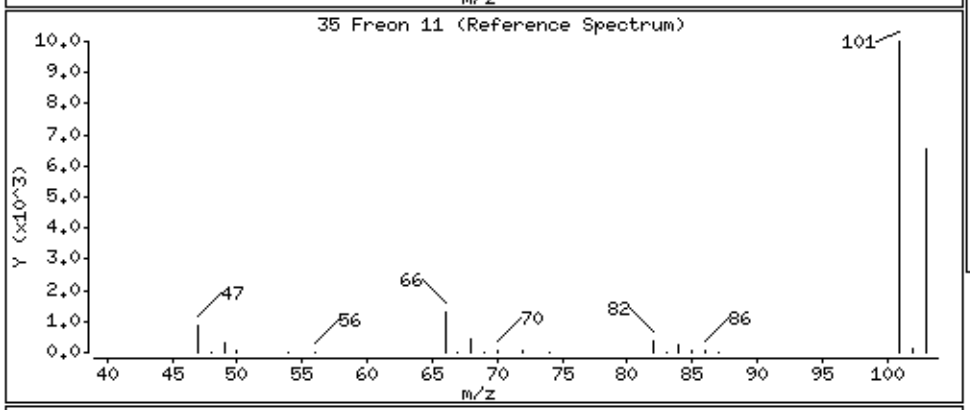
Column diameter: 0.25

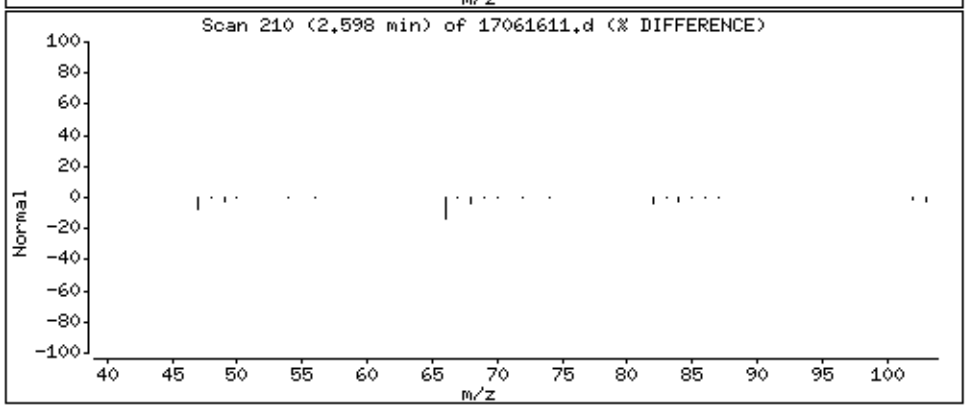
35 Freon 11

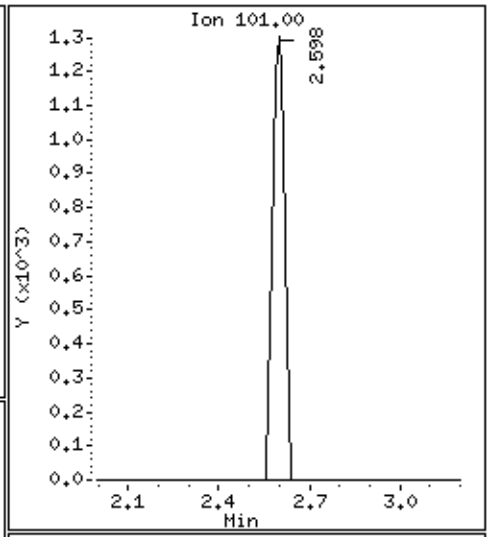
Concentration: 1.147 PPBV

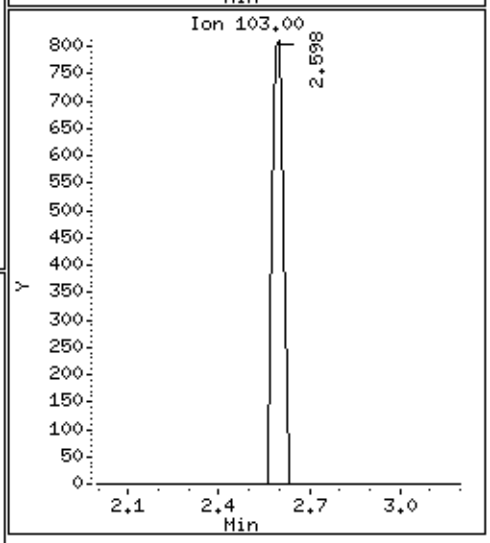












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

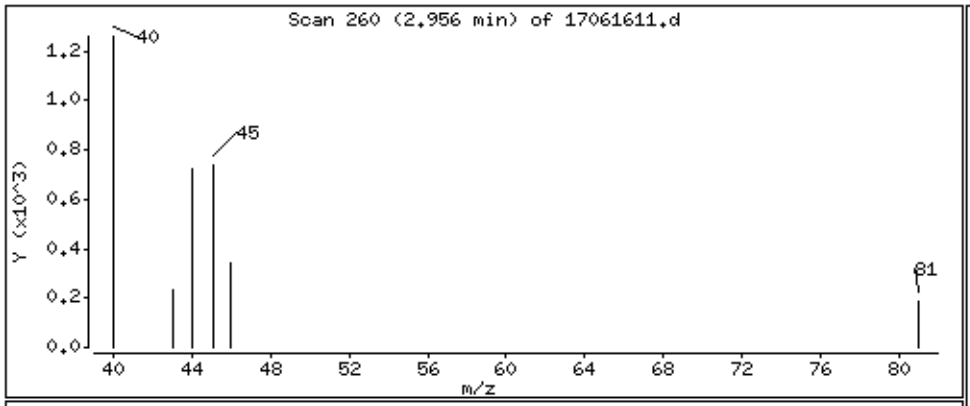
Operator: ea

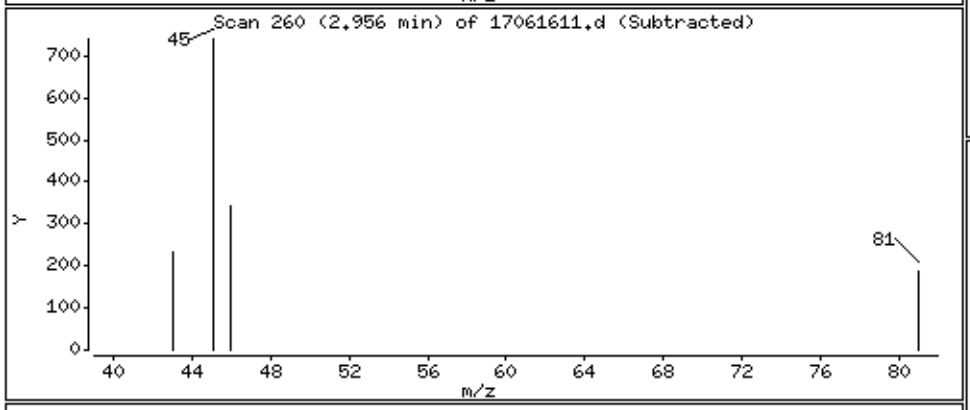
Column phase: RTX-624

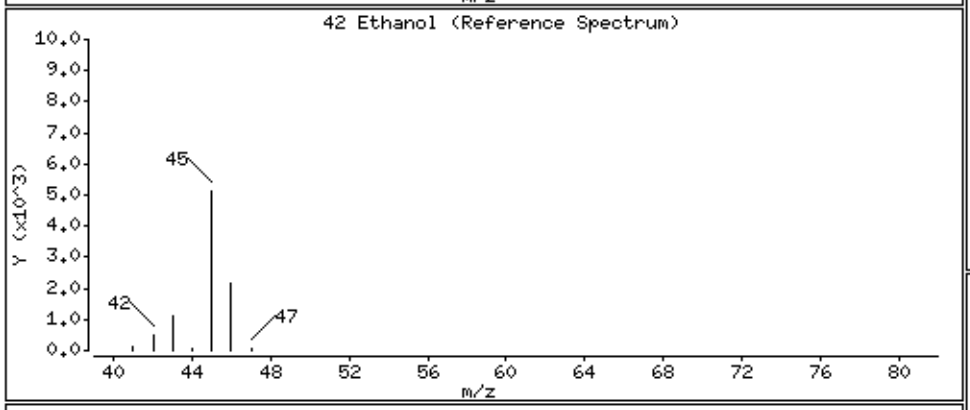
Column diameter: 0.25

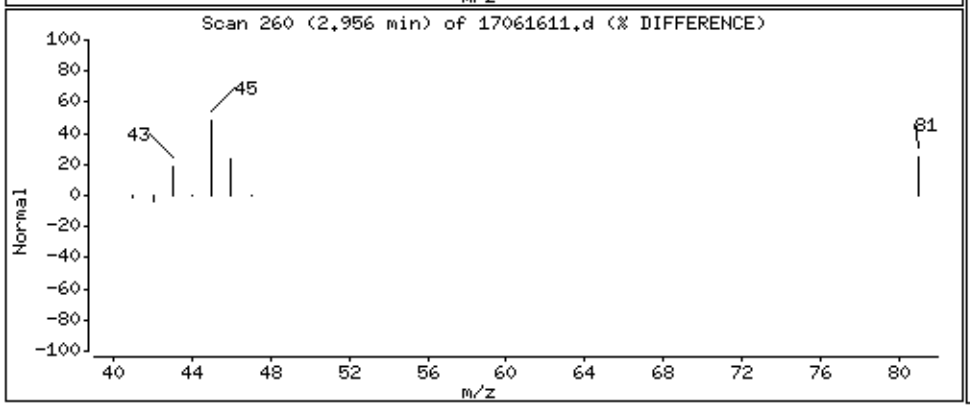
42 Ethanol

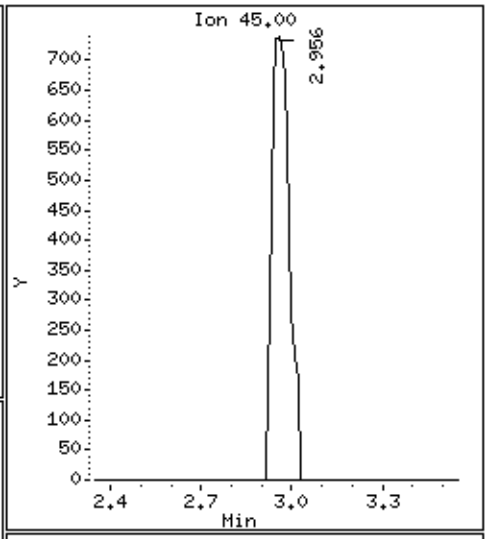
Concentration: 7.853 PPBV

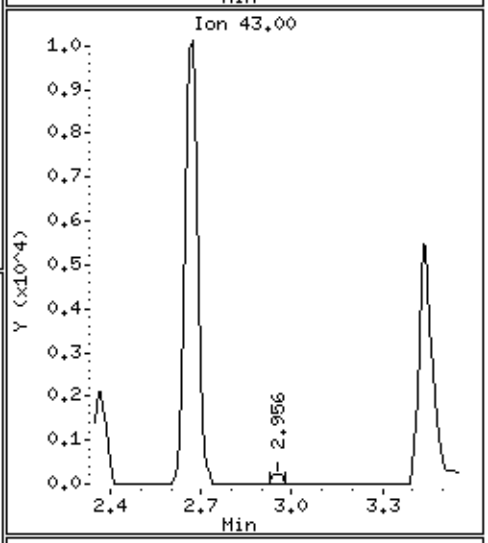


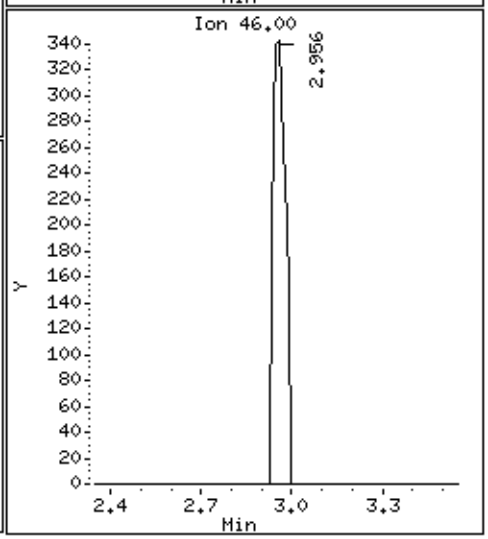












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

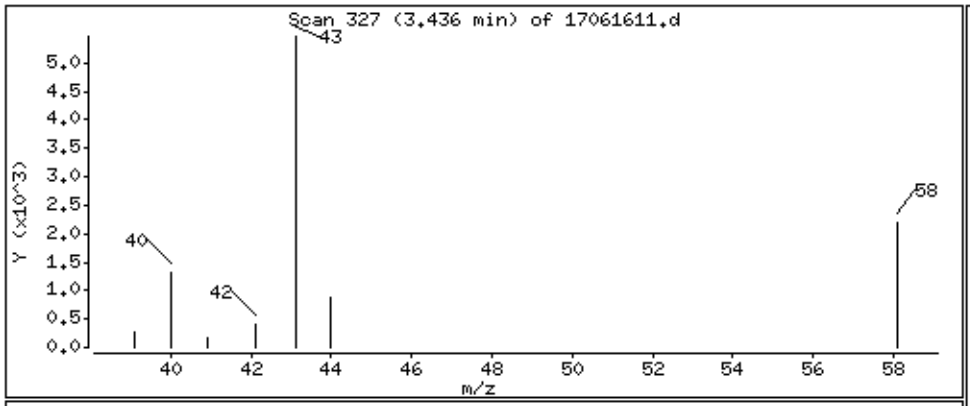
Operator: ea

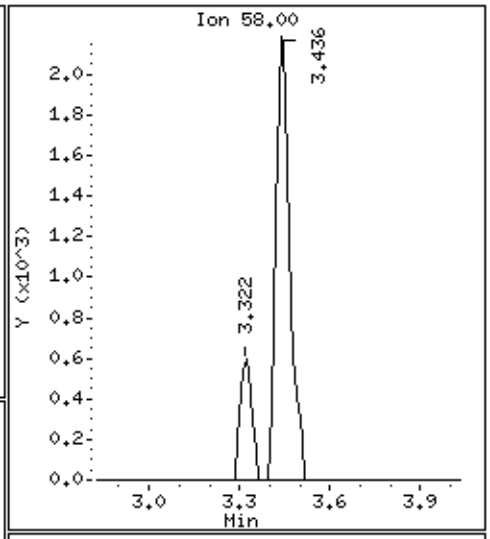
Column phase: RTX-624

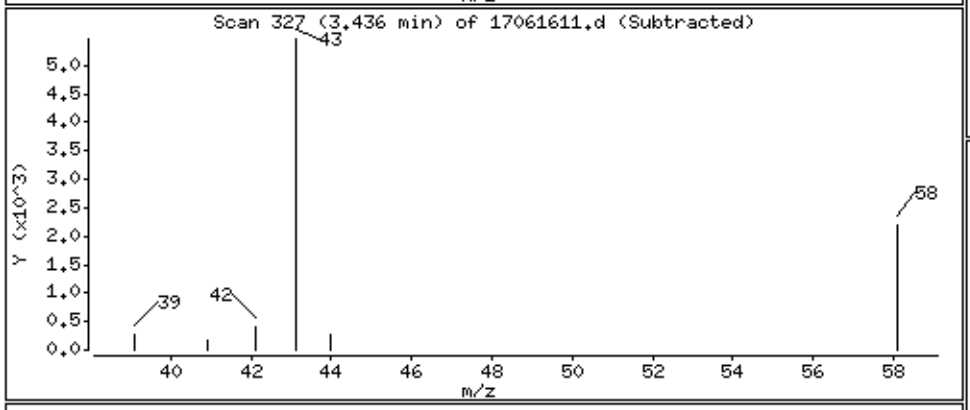
Column diameter: 0.25

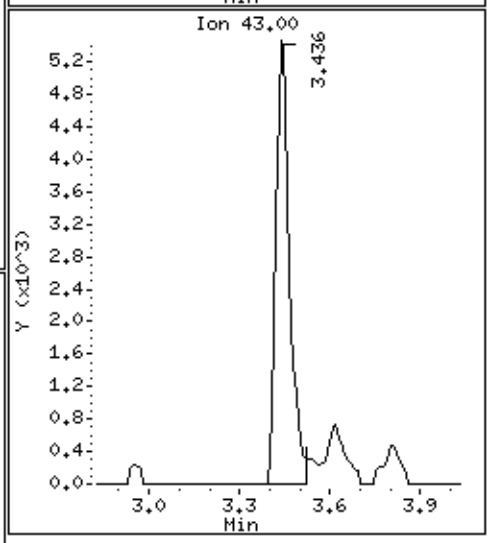
52 Acetone

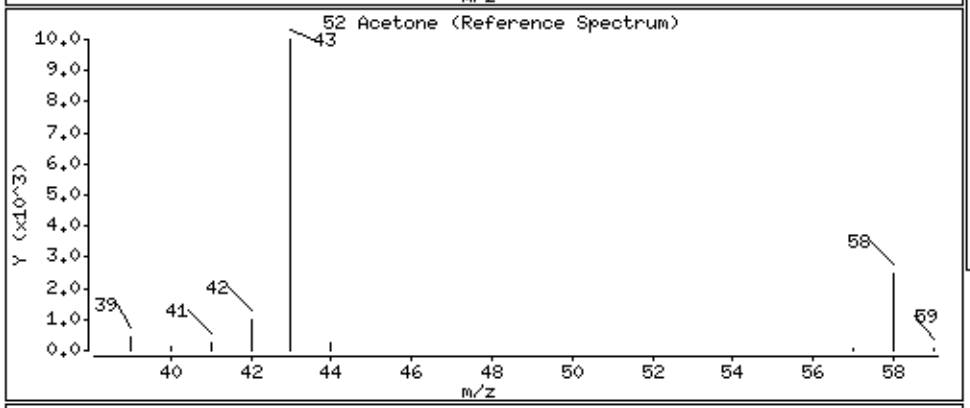
Concentration: 13.122 PPBV

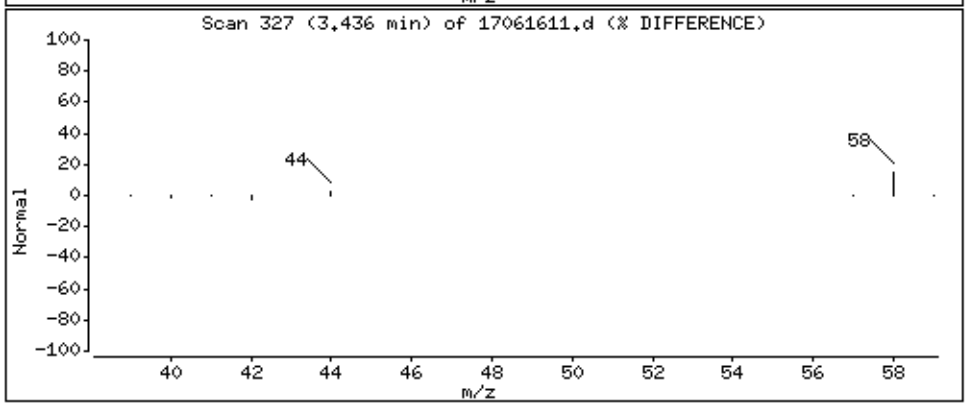












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

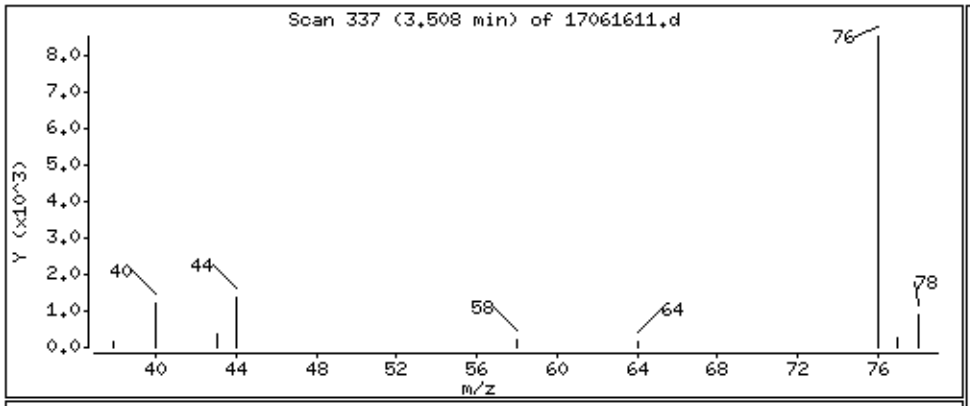
Operator: ea

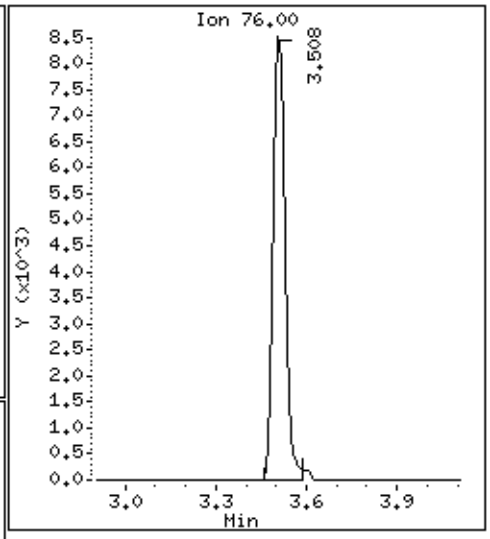
Column phase: RTX-624

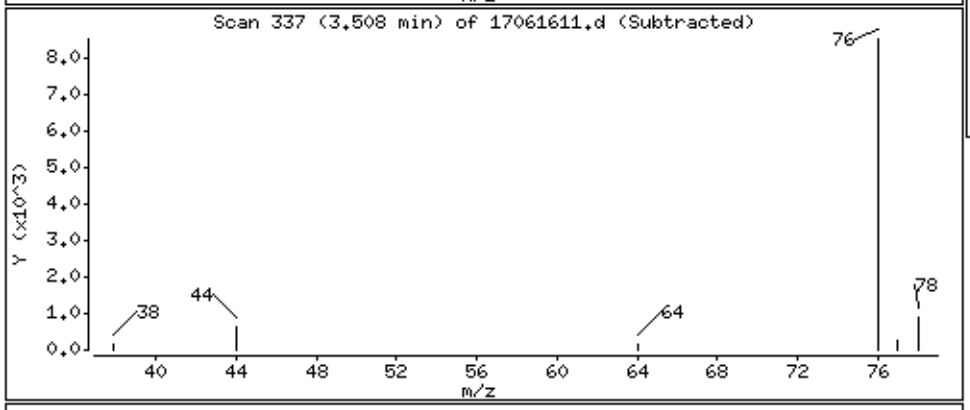
Column diameter: 0.25

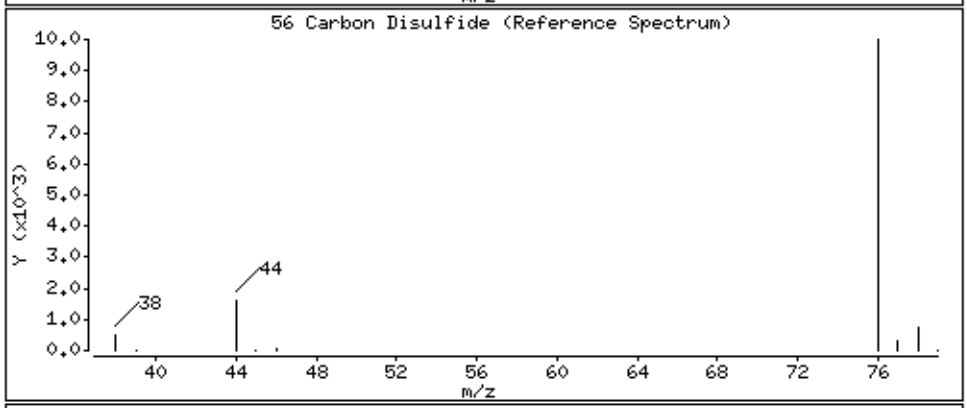
56 Carbon Disulfide

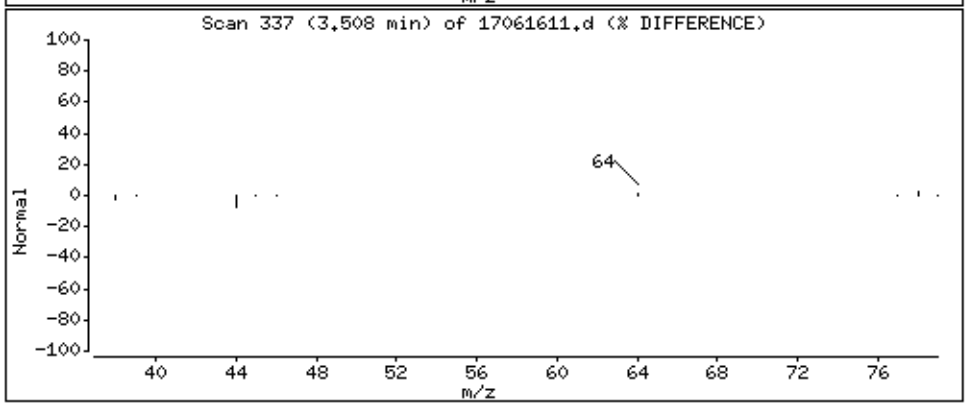
Concentration: 5.867 PPBV











Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

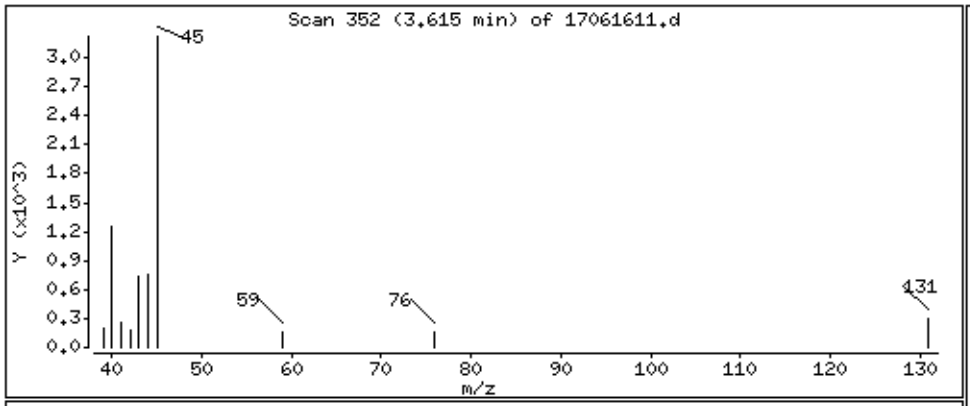
Operator: ea

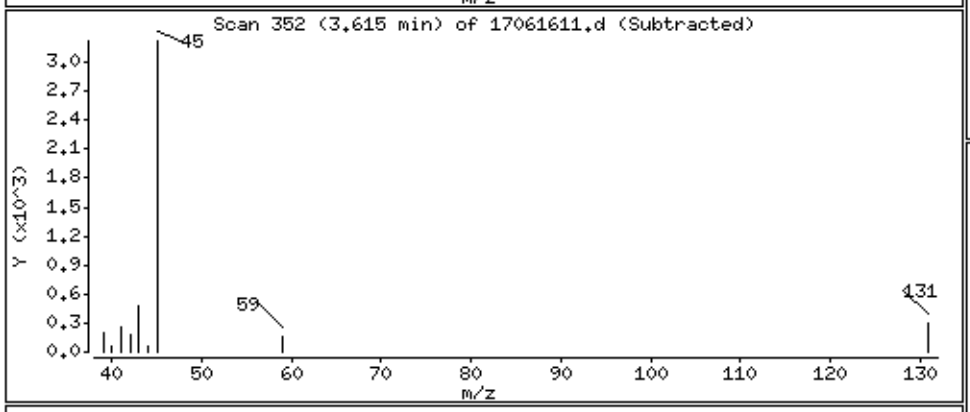
Column phase: RTX-624

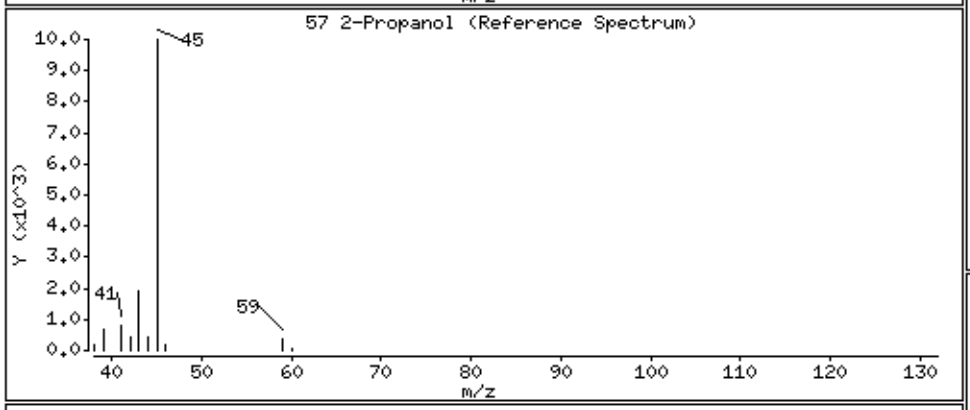
Column diameter: 0.25

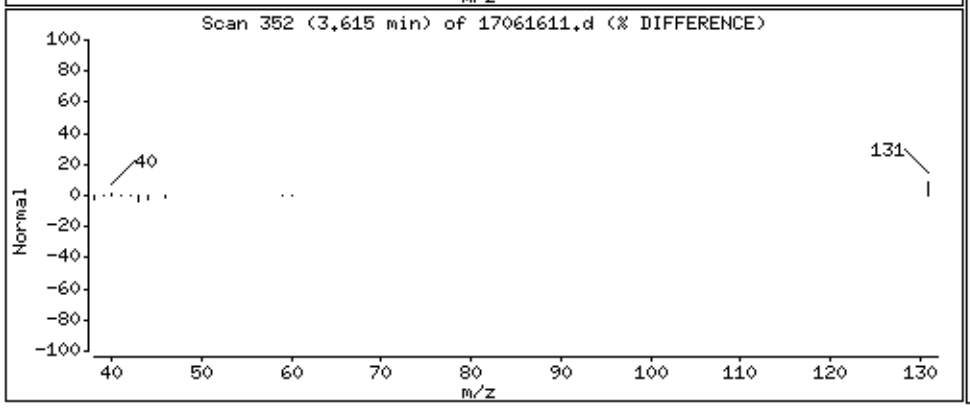
57 2-Propanol

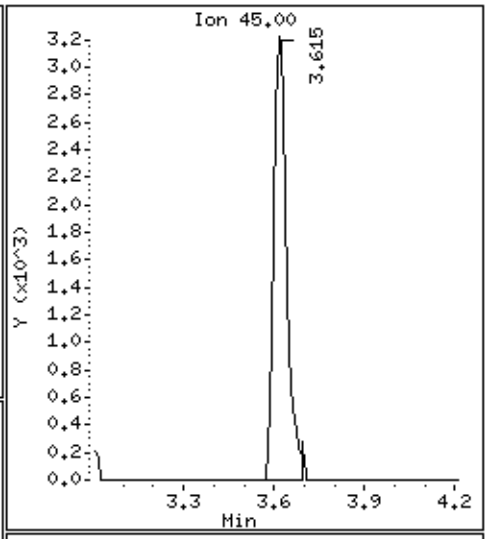
Concentration: 6.038 PPBV

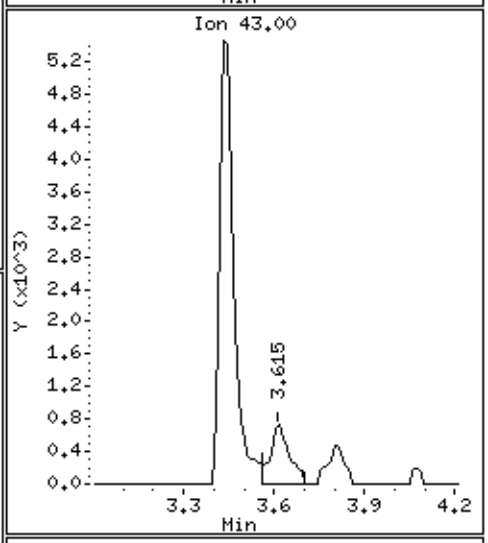


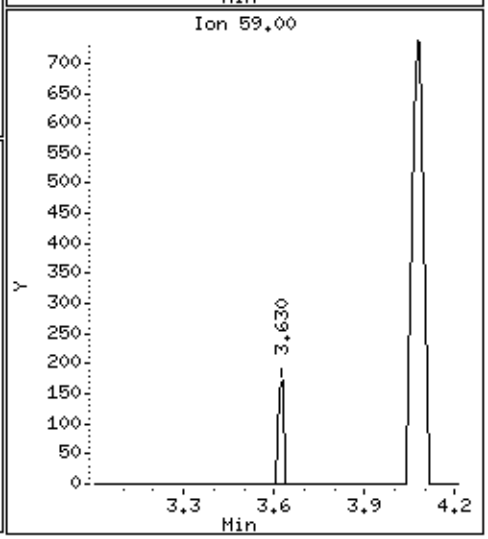












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

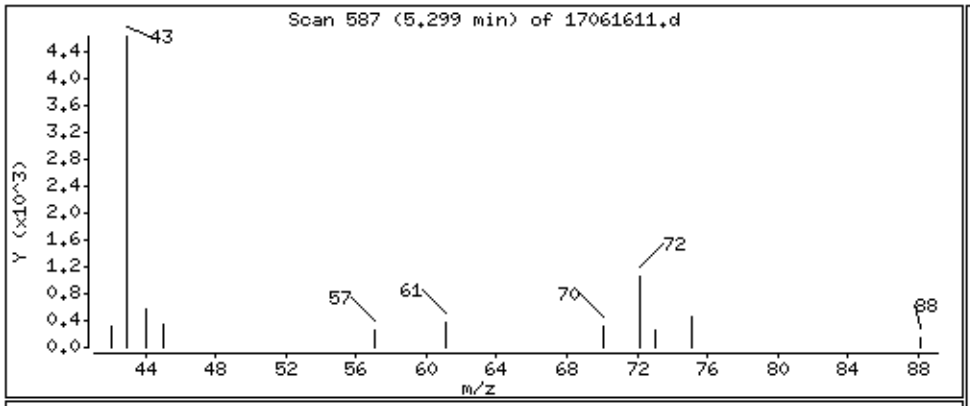
Operator: ea

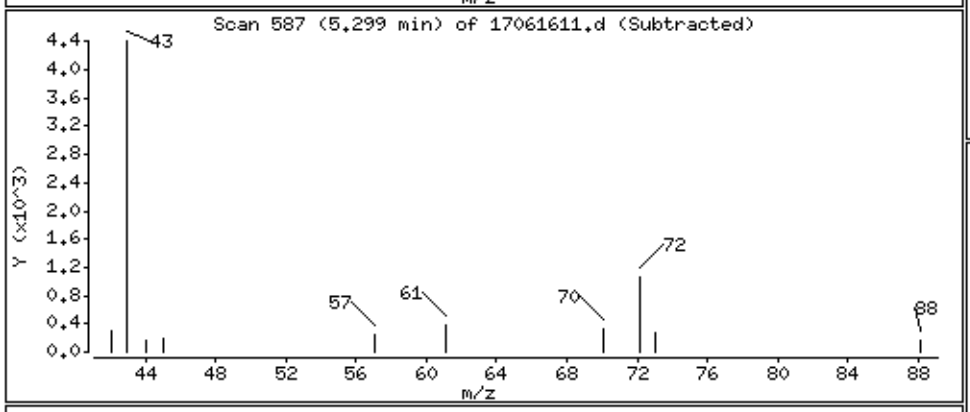
Column phase: RTX-624

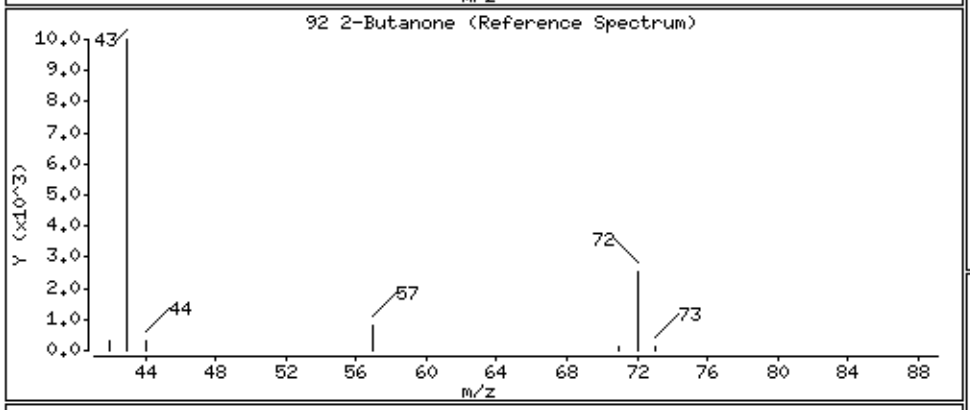
Column diameter: 0.25

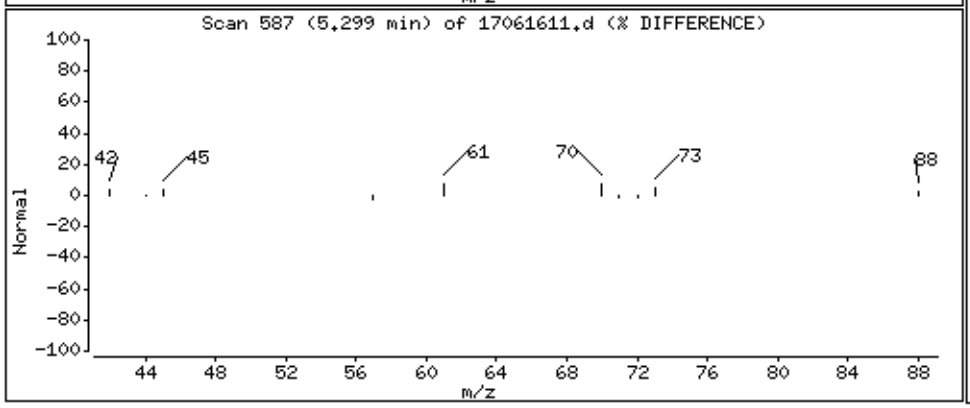
92 2-Butanone

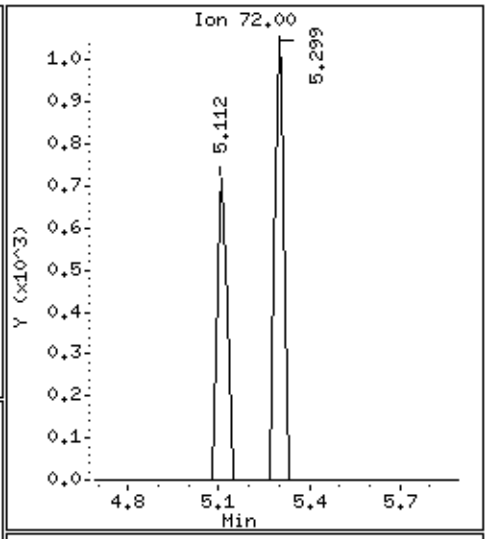
Concentration: 2.988 PPBV

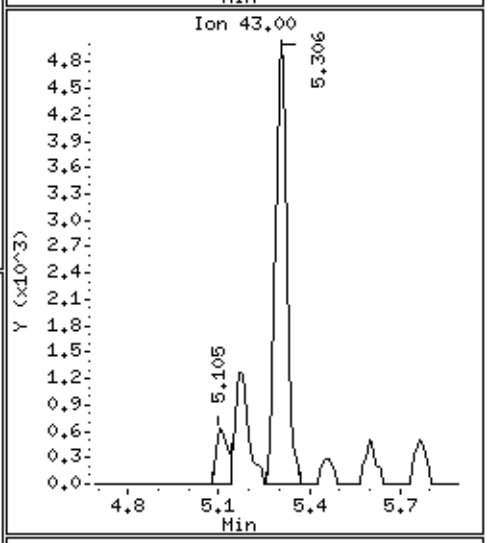


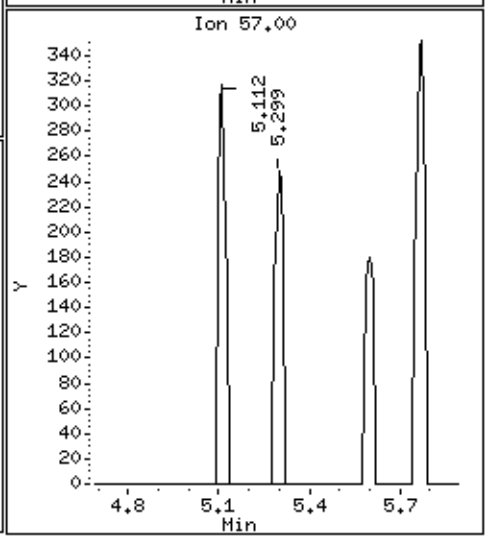












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

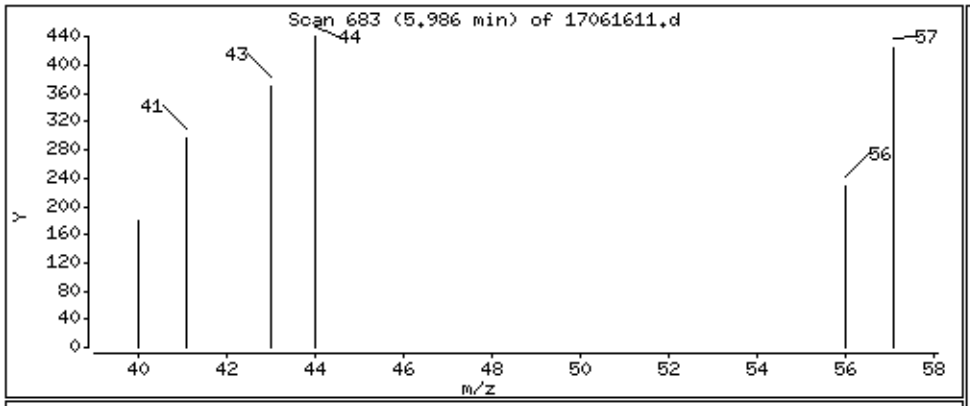
Operator: ea

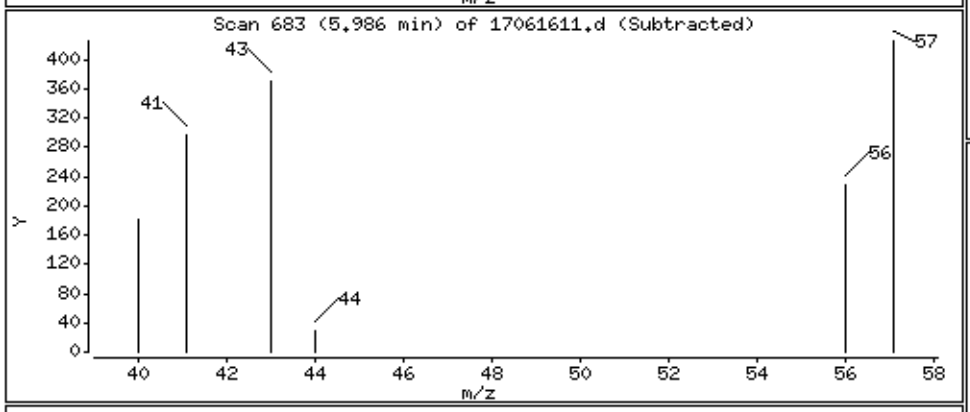
Column phase: RTX-624

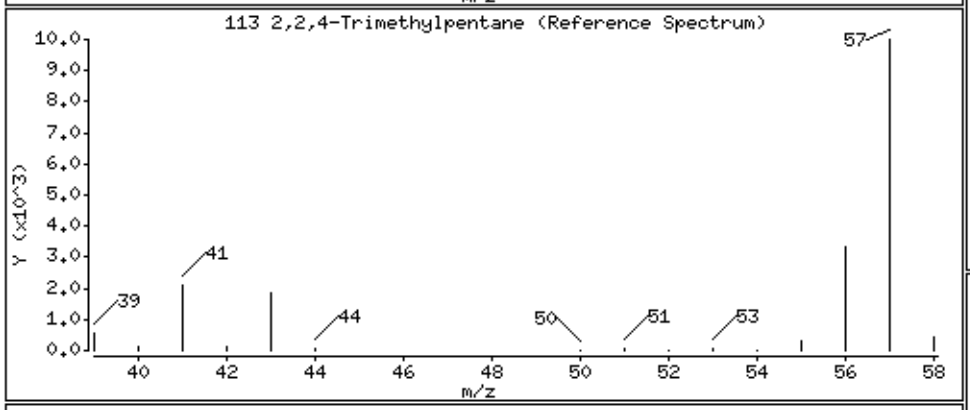
Column diameter: 0.25

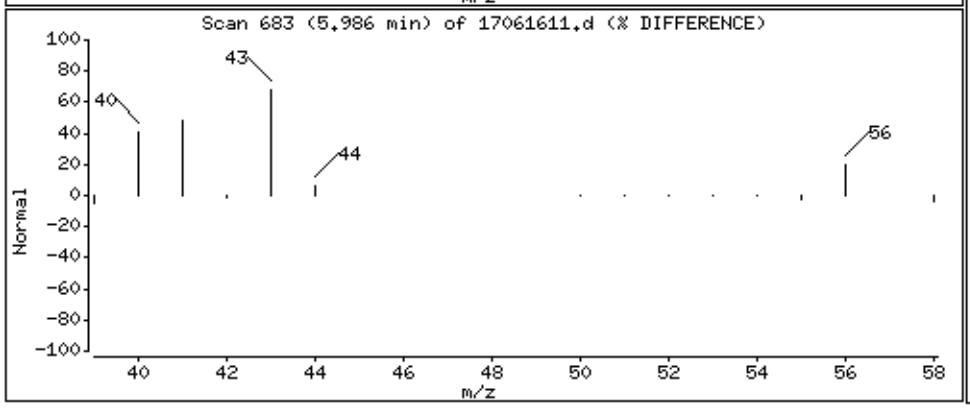
113 2,2,4-Trimethylpentane

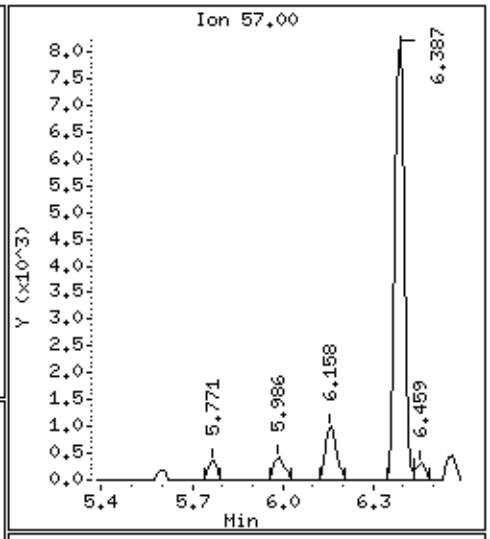
Concentration: 0.1668 PPBV

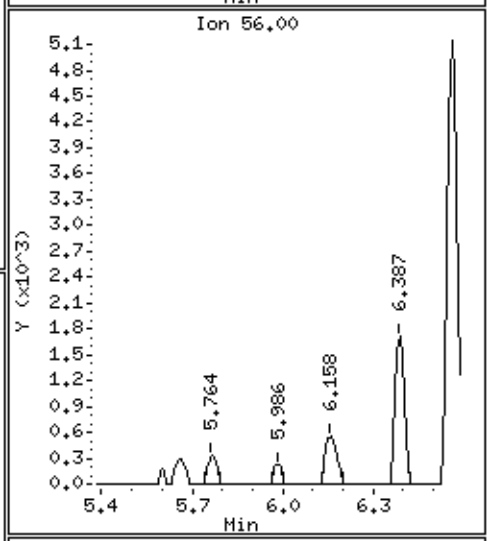


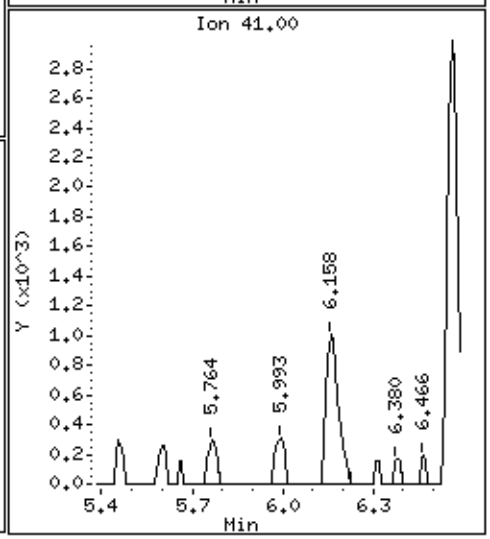












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

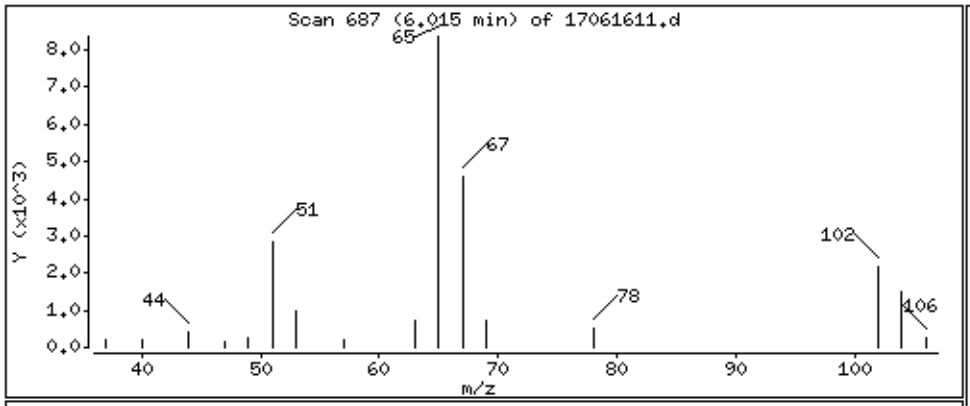
Operator: ea

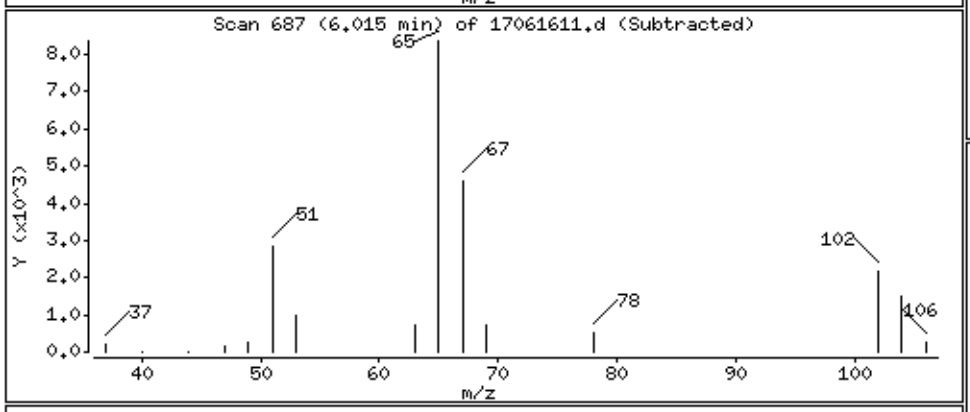
Column phase: RTX-624

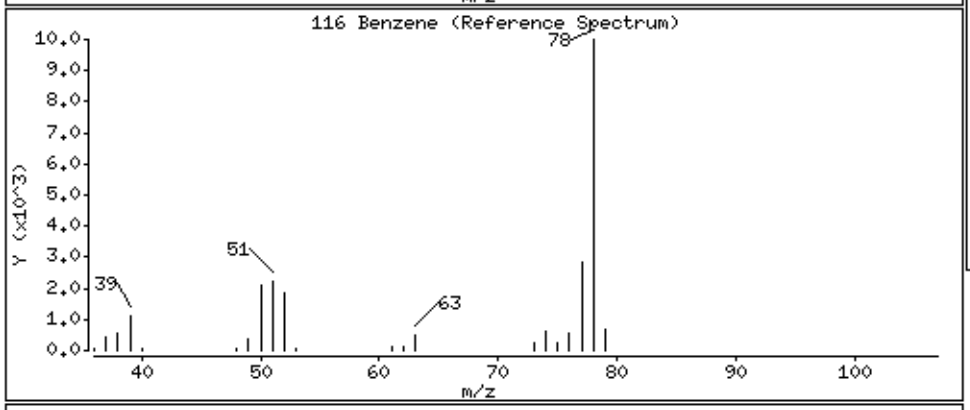
Column diameter: 0.25

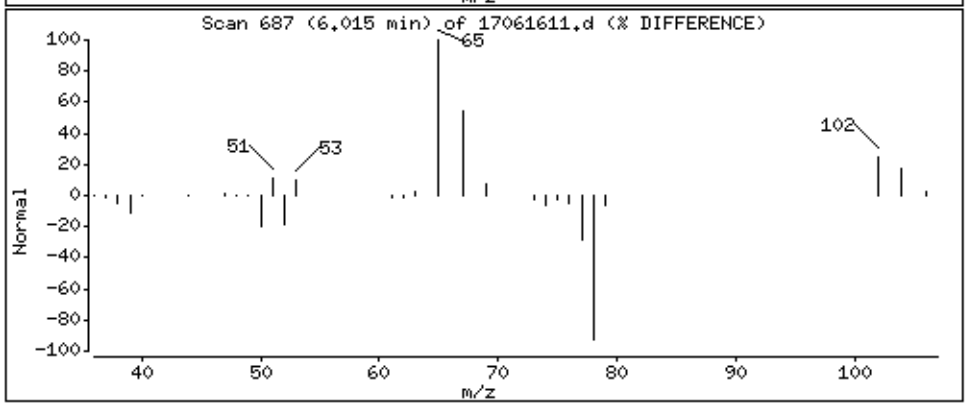
116 Benzene

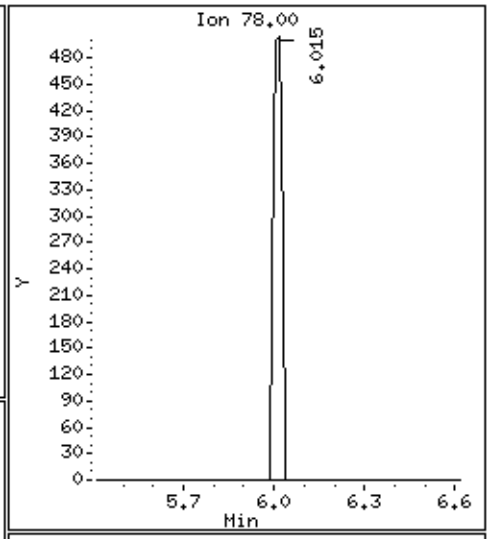
Concentration: 0.2168 PPBV

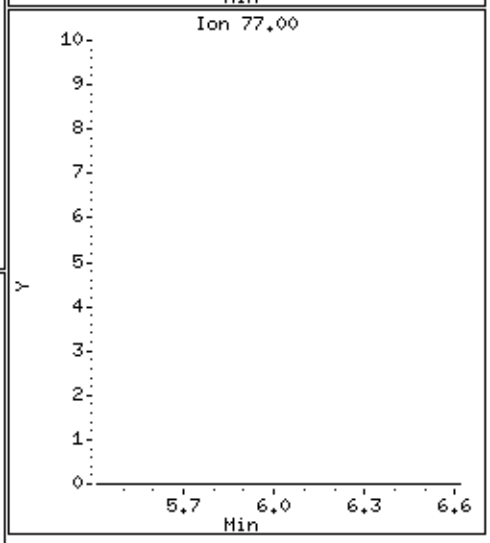












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

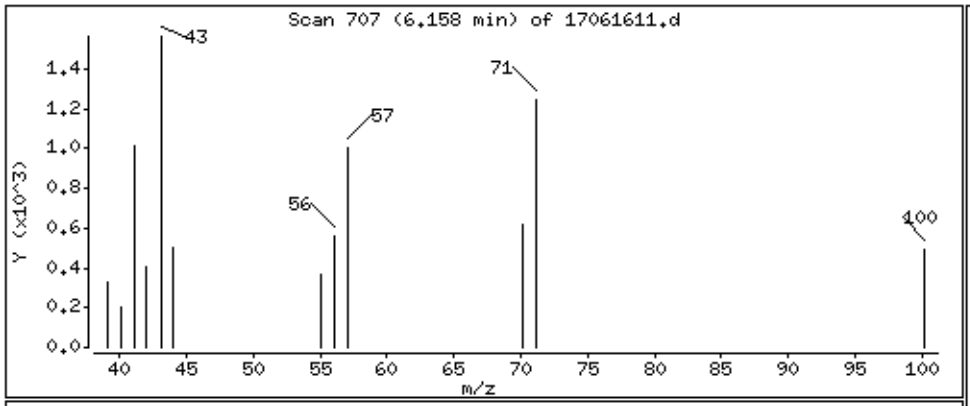
Operator: ea

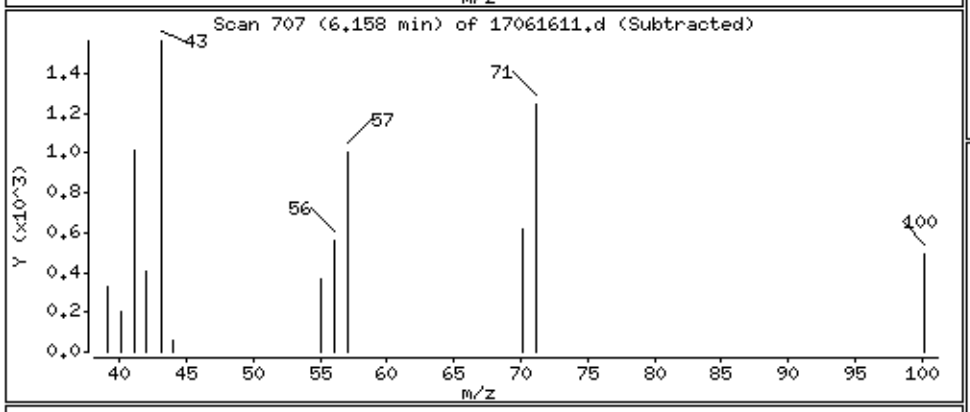
Column phase: RTX-624

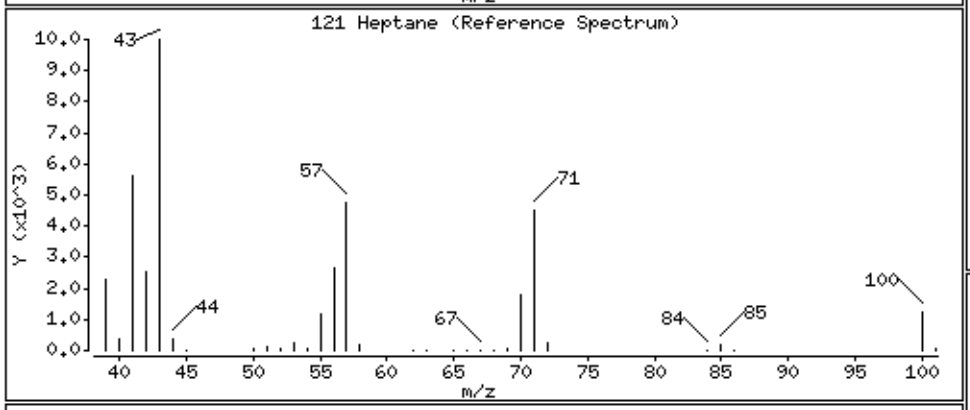
Column diameter: 0.25

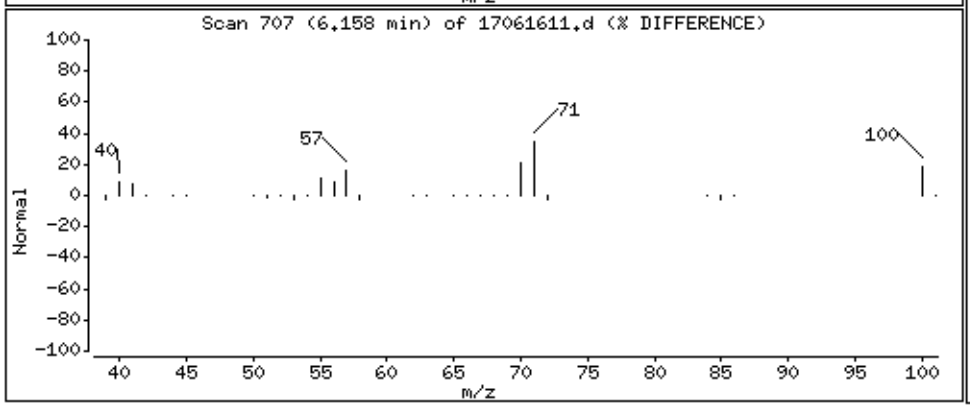
121 Heptane

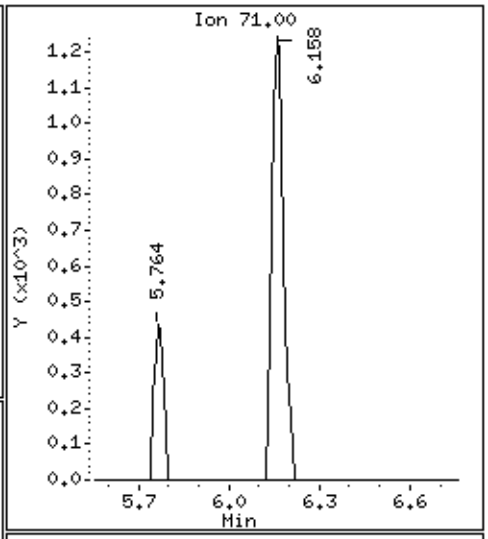
Concentration: 2.080 PPBV

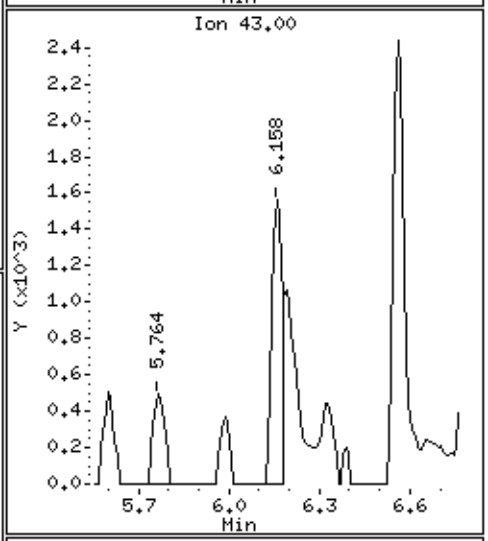


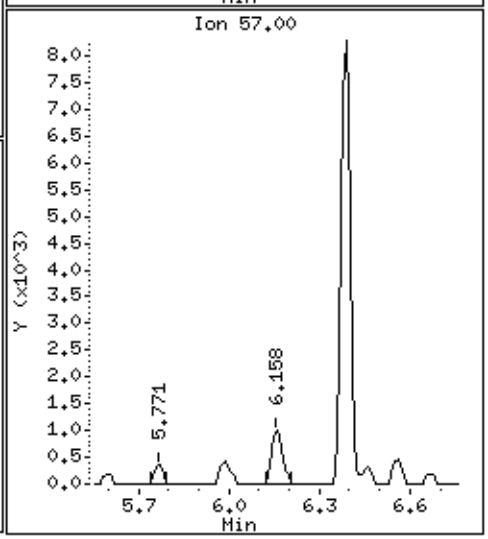












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

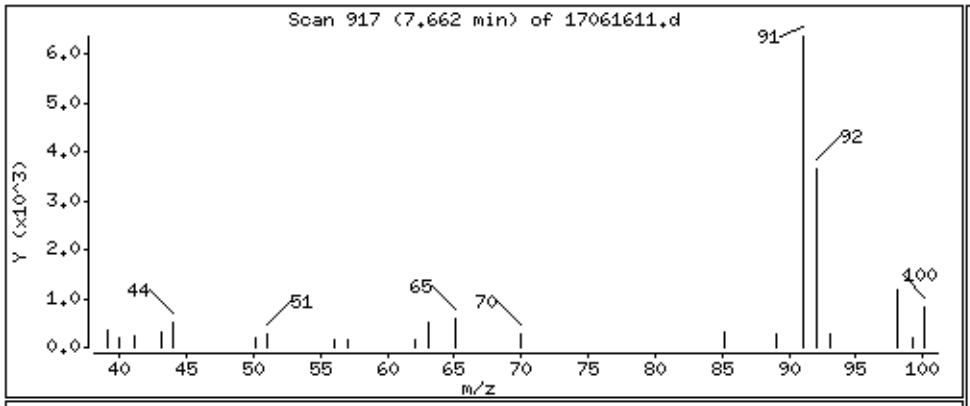
Operator: ea

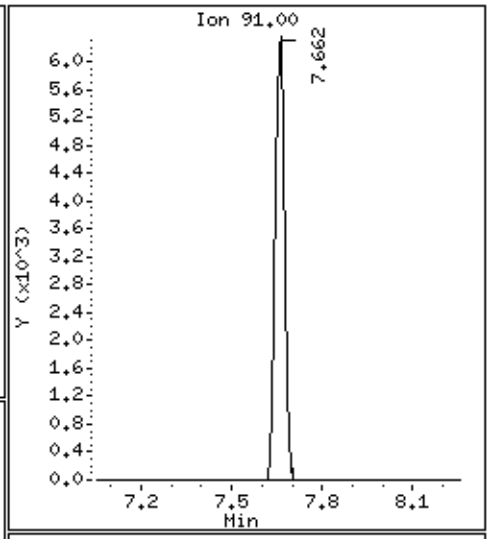
Column phase: RTX-624

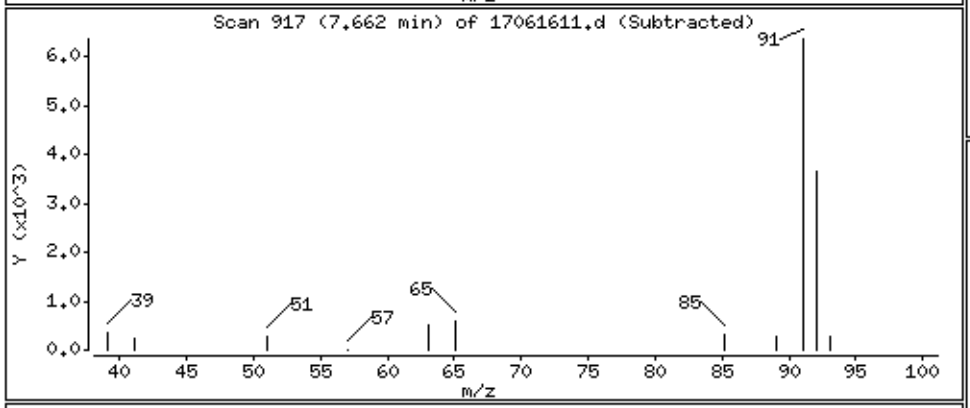
Column diameter: 0.25

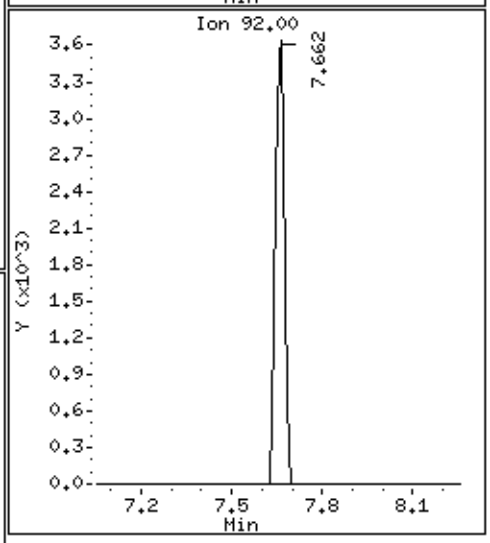
147 Toluene

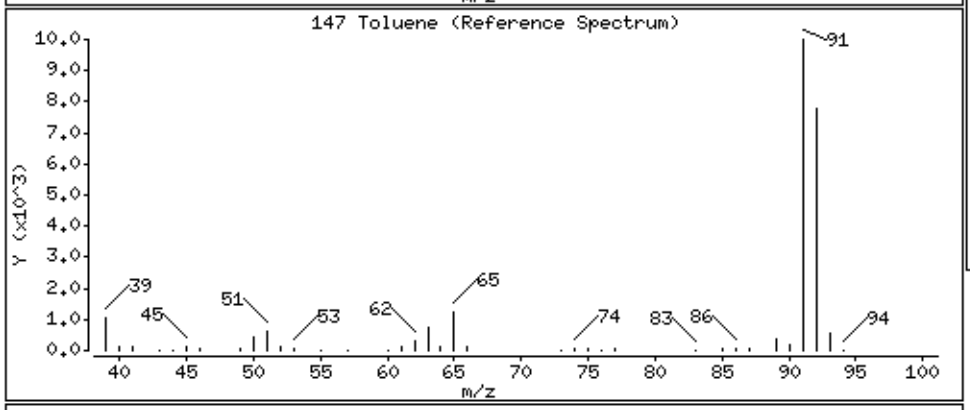
Concentration: 2.140 PPBV

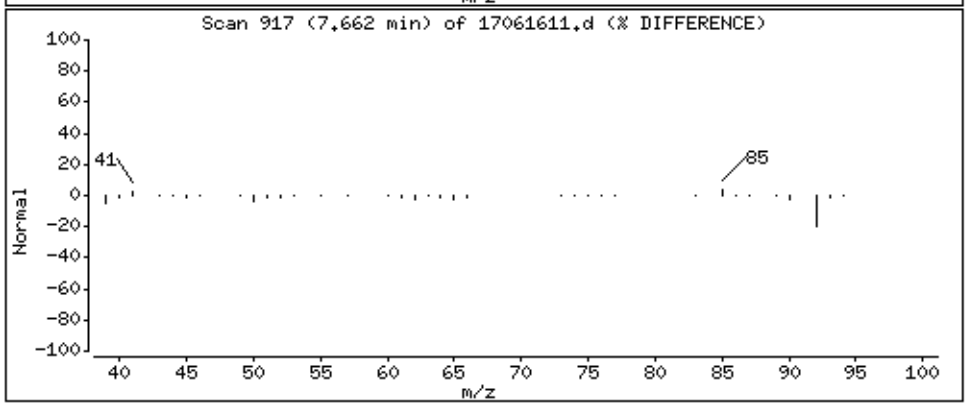












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

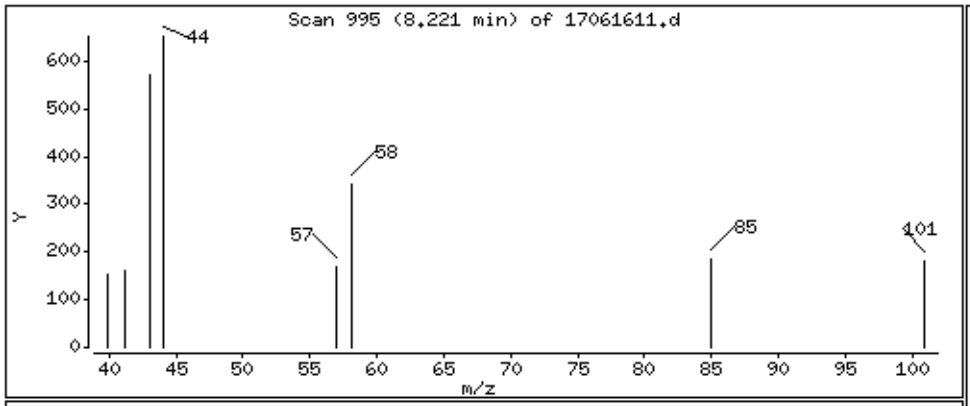
Operator: ea

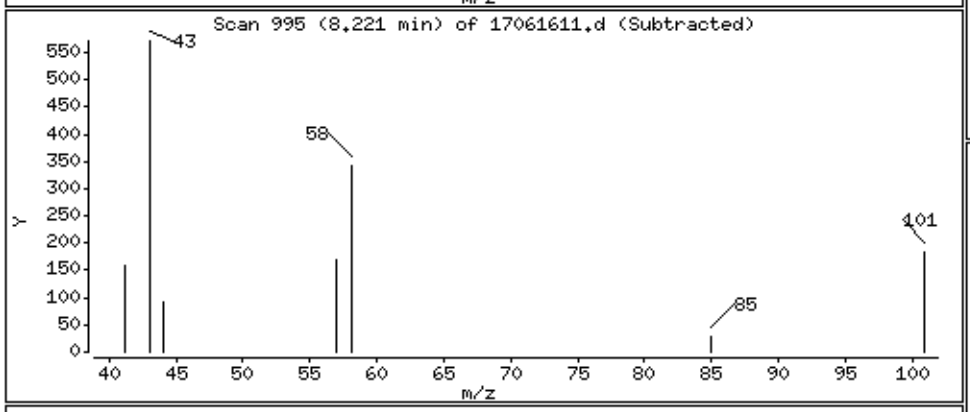
Column phase: RTX-624

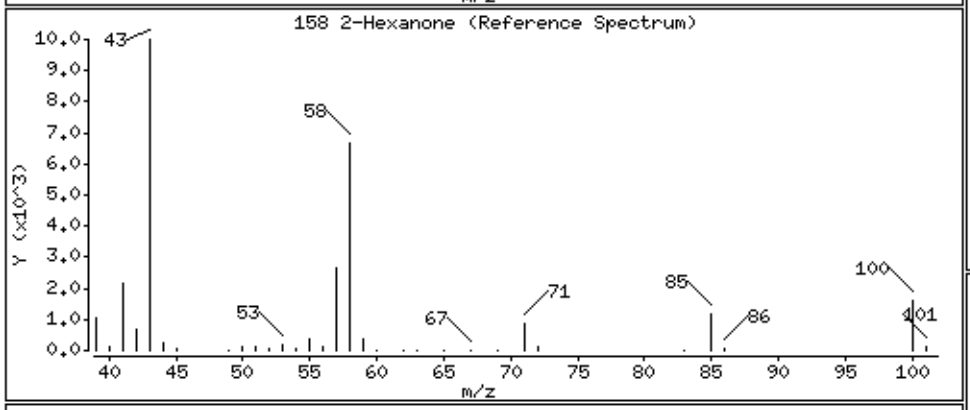
Column diameter: 0.25

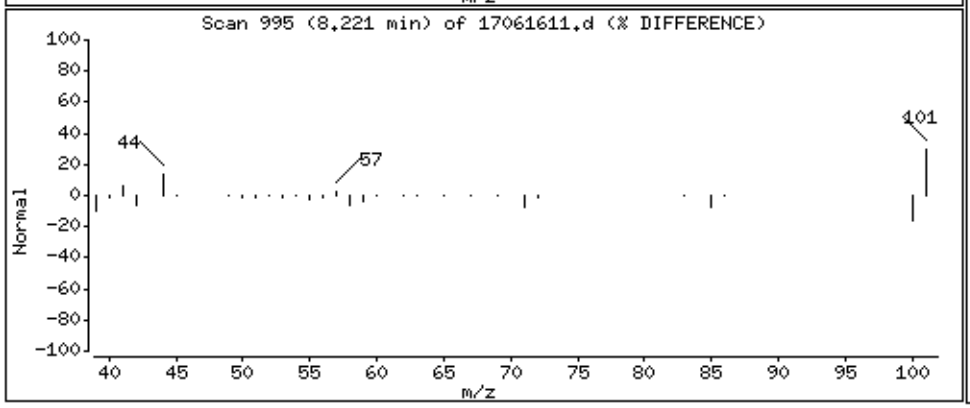
158 2-Hexanone

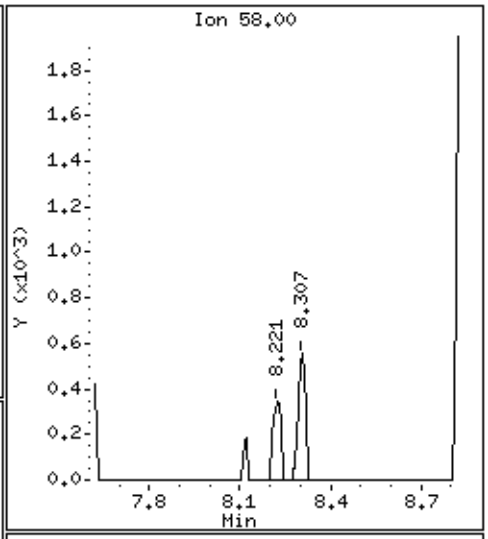
Concentration: 0.3207 PPBV

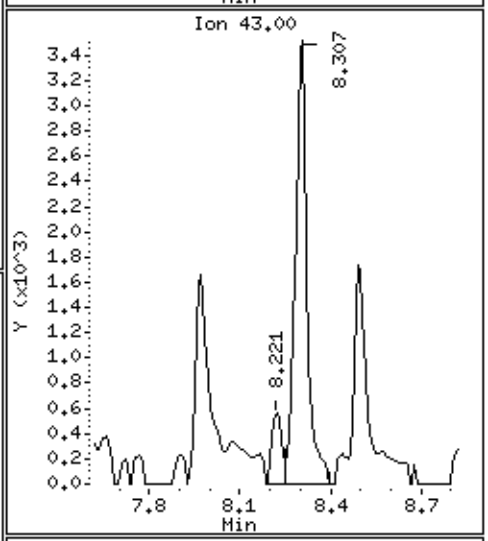


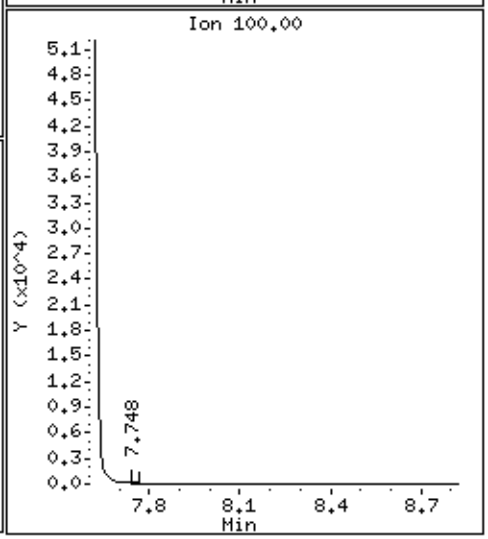












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

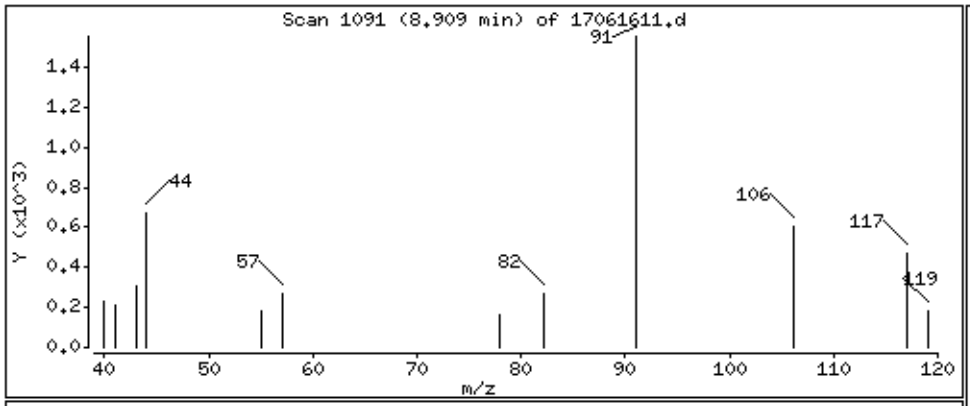
Operator: ea

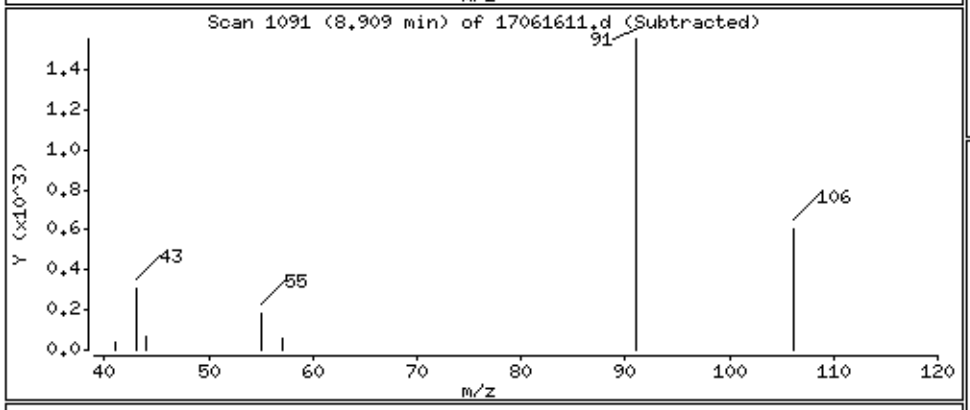
Column phase: RTX-624

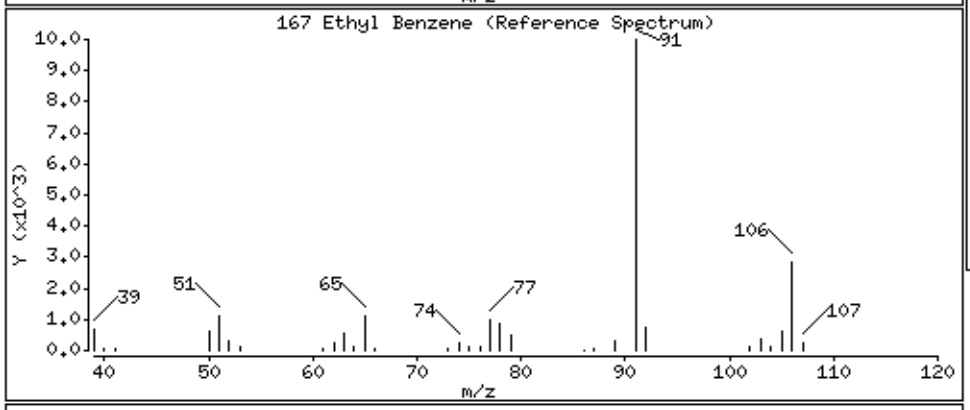
Column diameter: 0.25

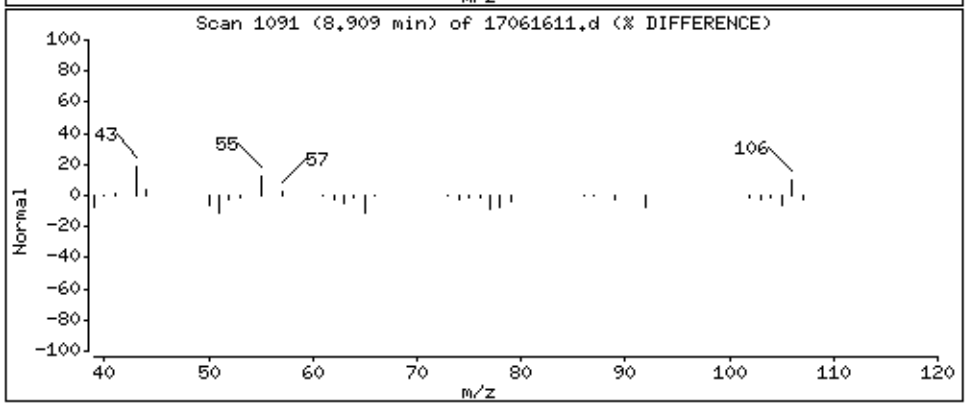
167 Ethyl Benzene

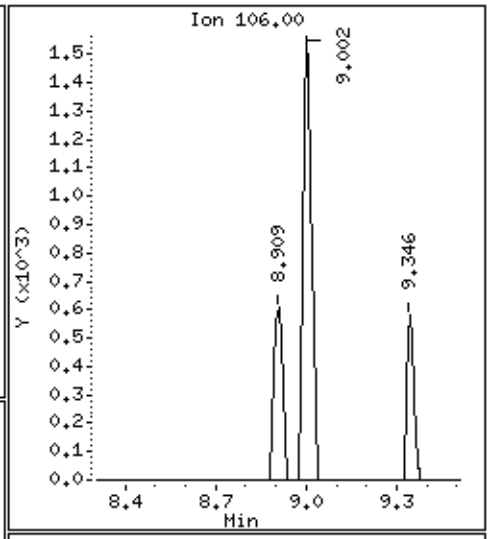
Concentration: 0.3984 PPBV

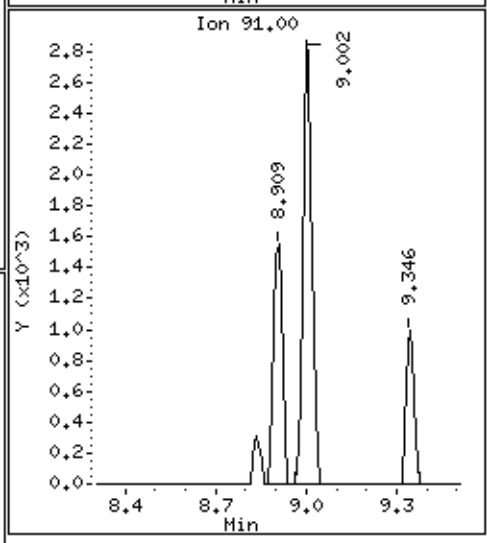












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

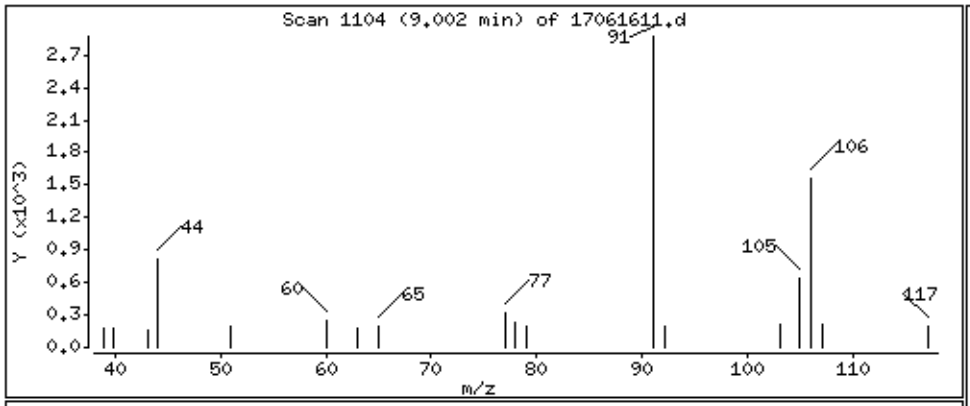
Operator: ea

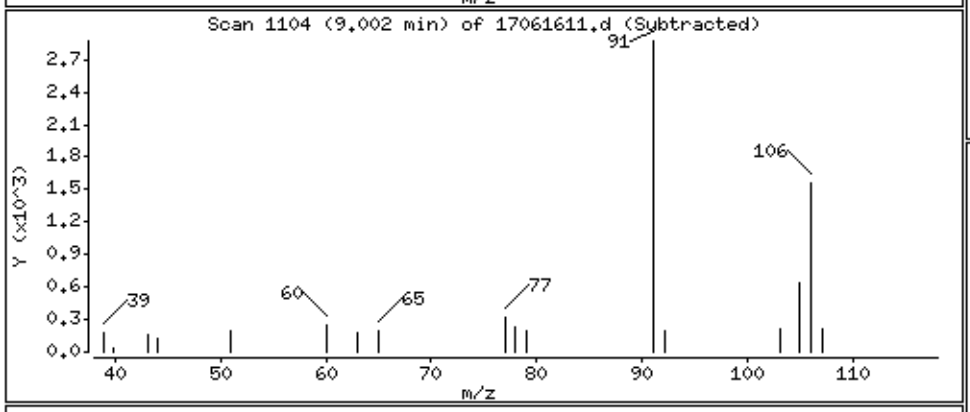
Column phase: RTX-624

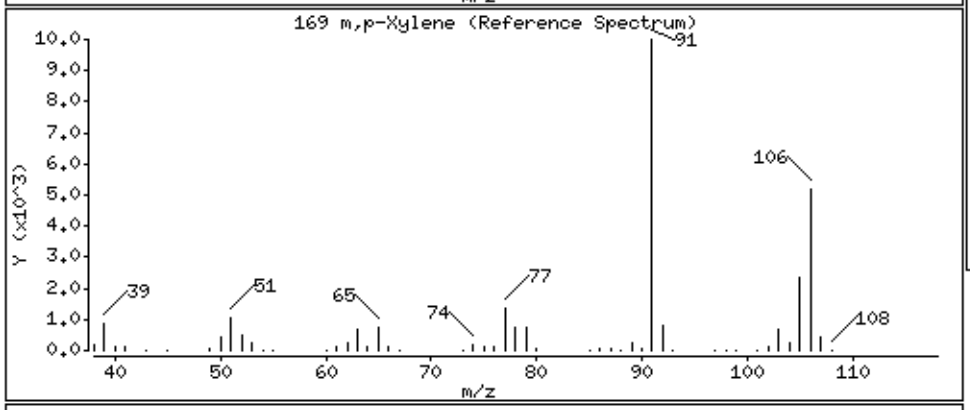
Column diameter: 0.25

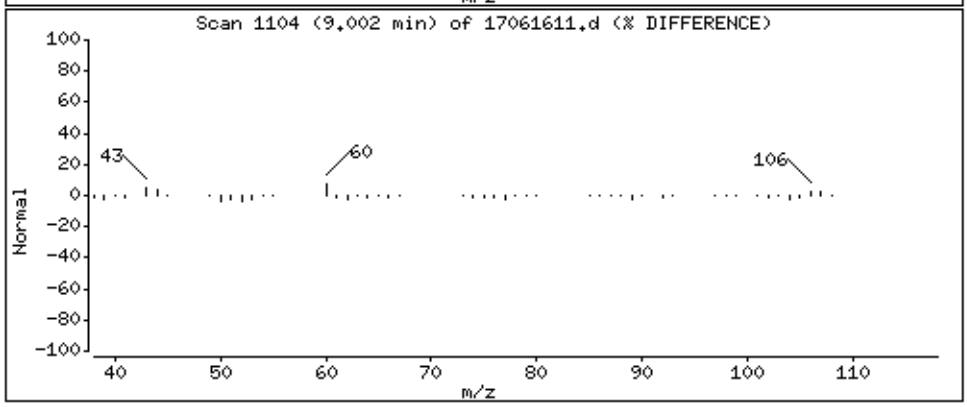
169 m,p-Xylene

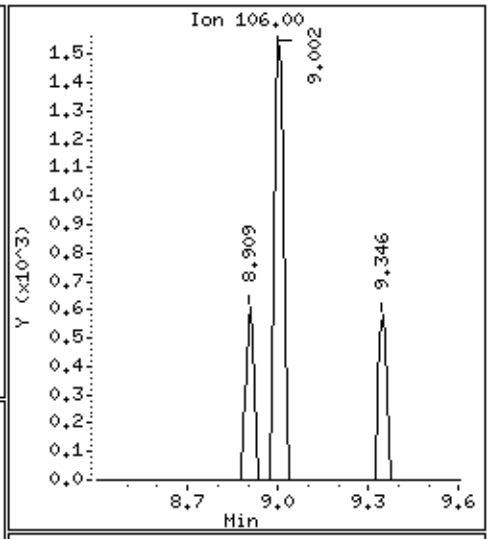
Concentration: 0.8344 PPBV

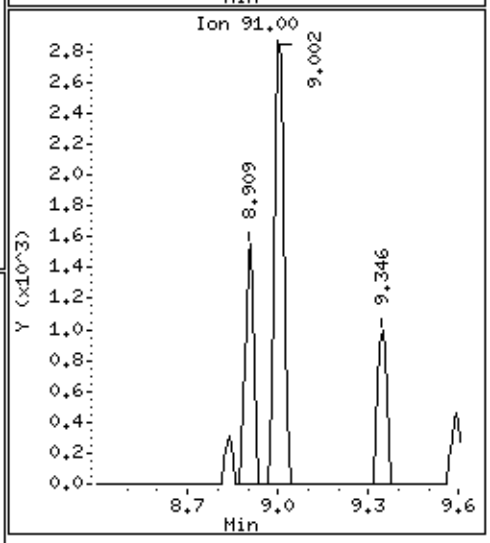












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

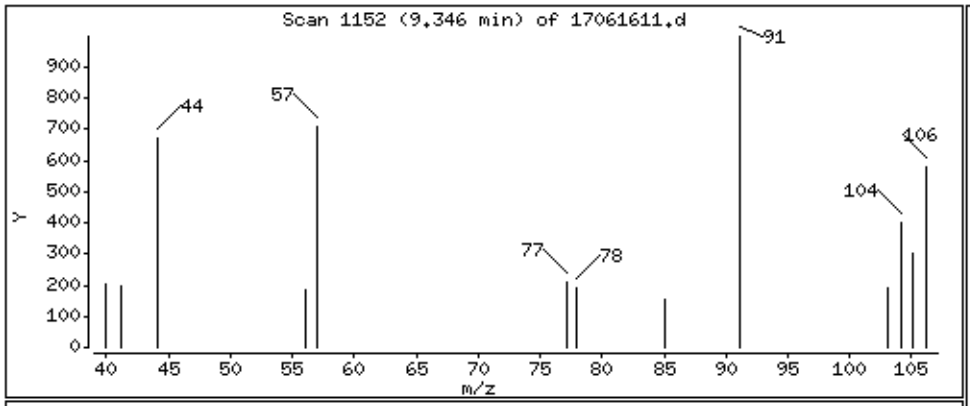
Operator: ea

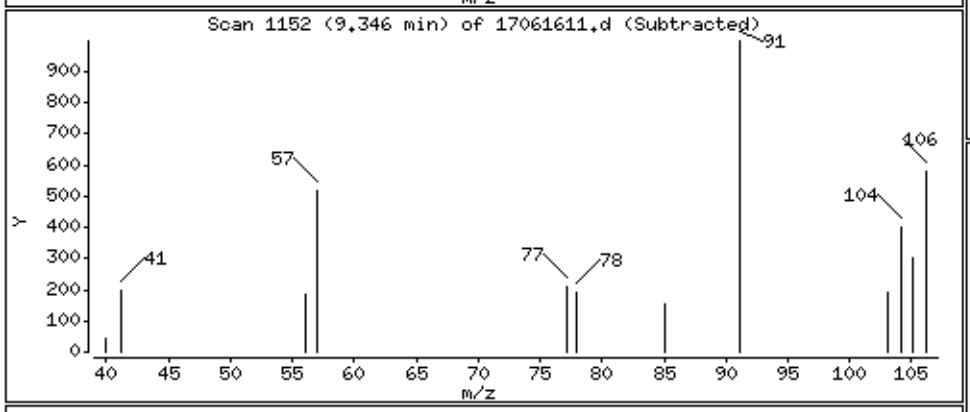
Column phase: RTX-624

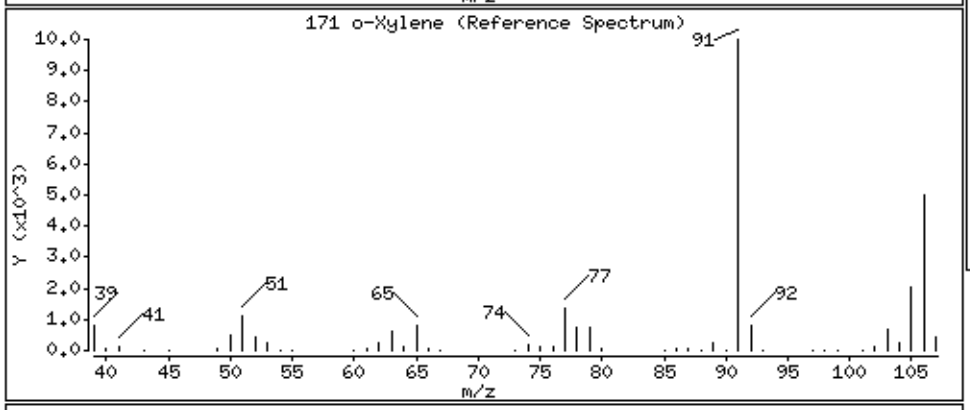
Column diameter: 0.25

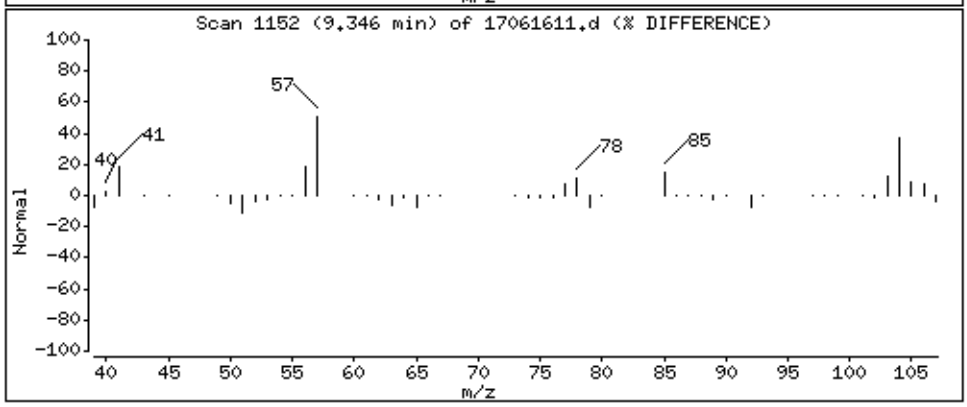
171 o-Xylene

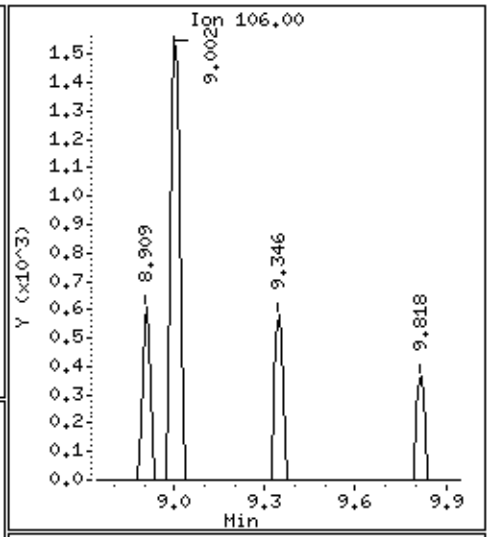
Concentration: 0.2917 PPBV

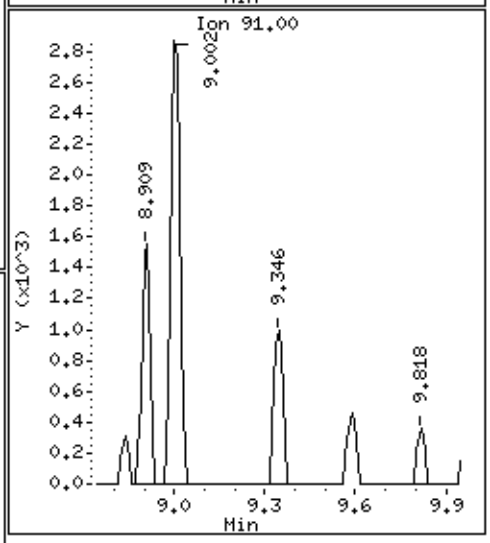












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

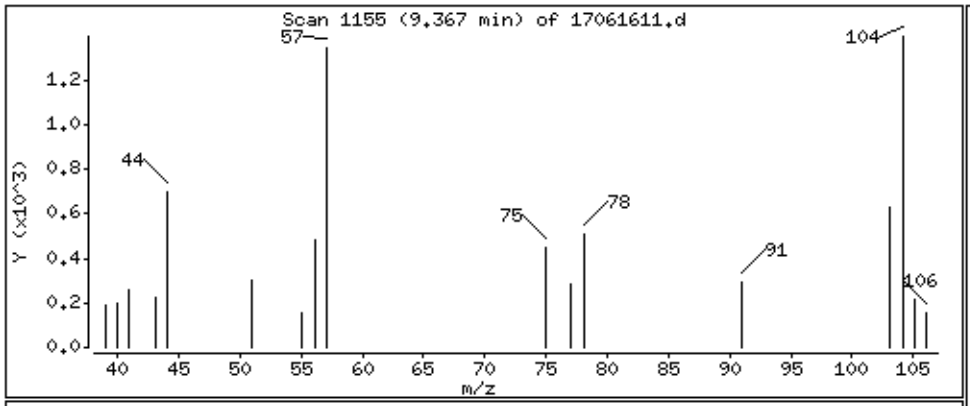
Operator: ea

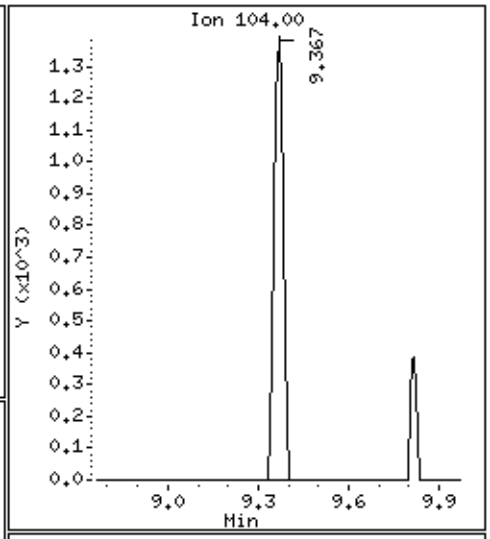
Column phase: RTX-624

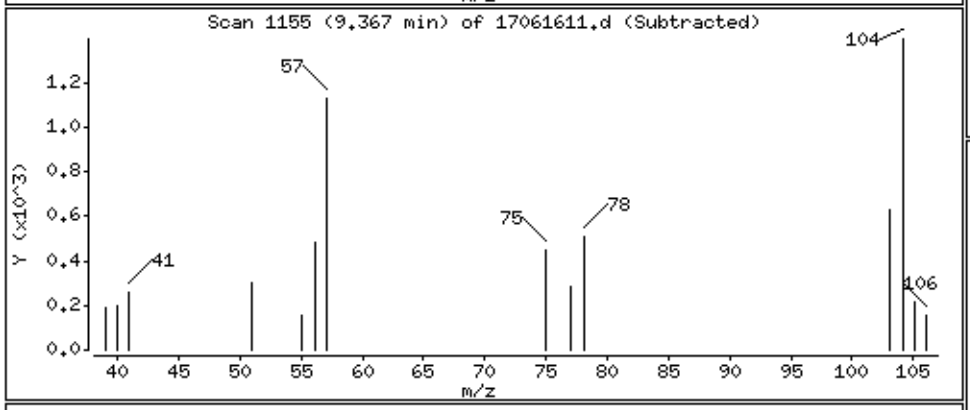
Column diameter: 0.25

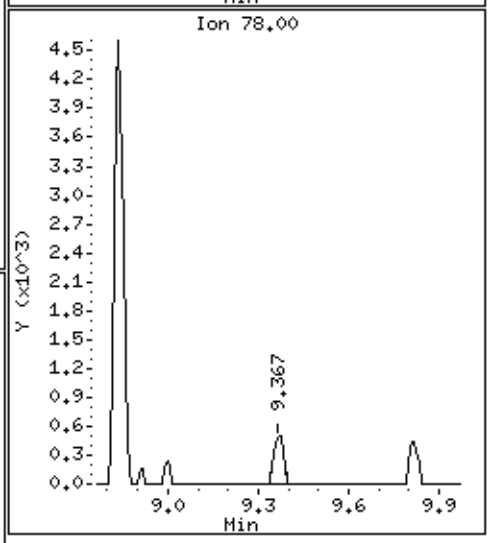
172 Styrene

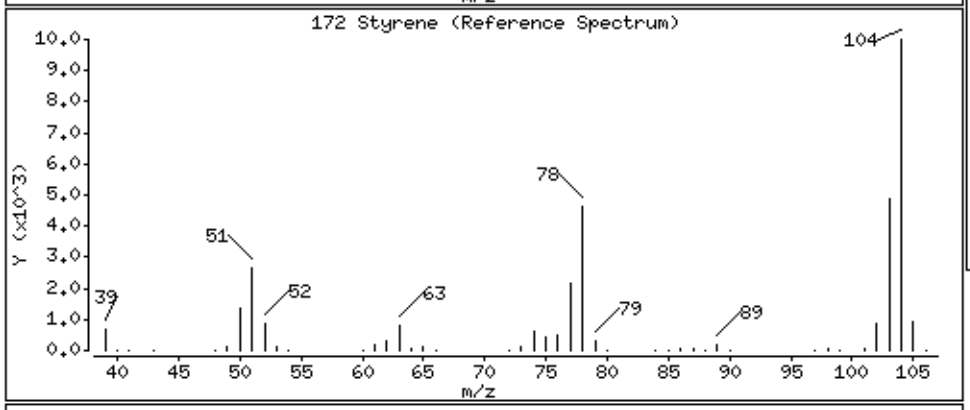
Concentration: 0.5084 PPBV

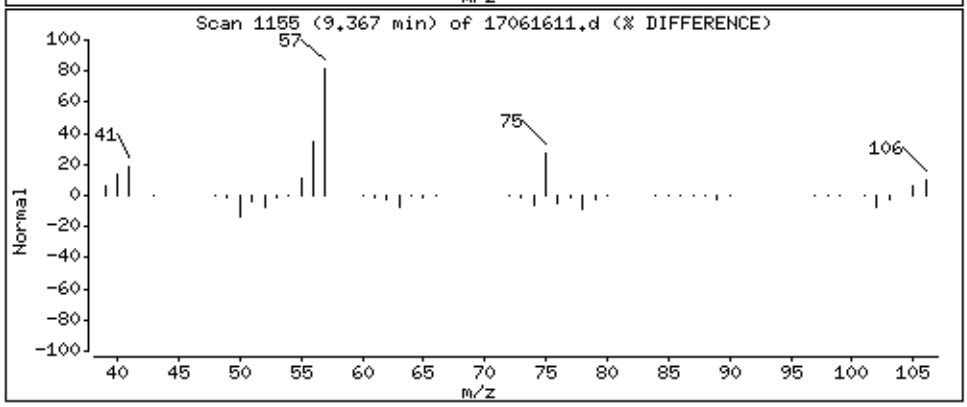












Data File: /chem/msd17.i/16jun16.b/17061611.d

Date : 16-JUN-2016 20:20

Client ID:

Instrument: msd17.i

Sample Info: 200ml n2040

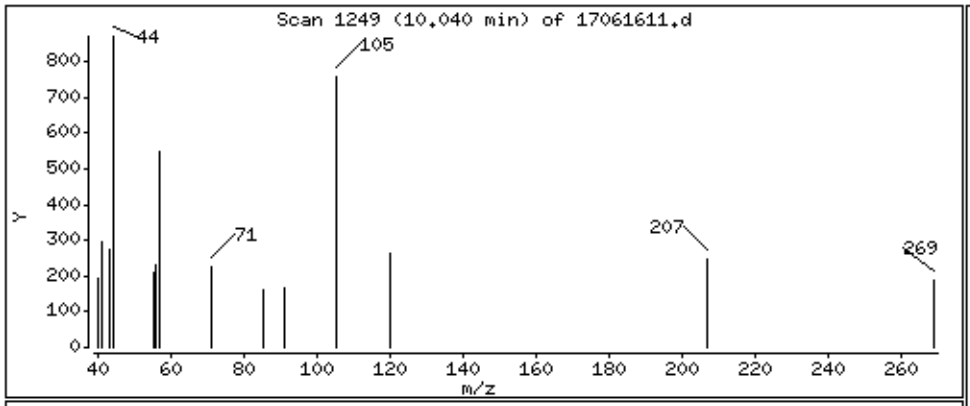
Operator: ea

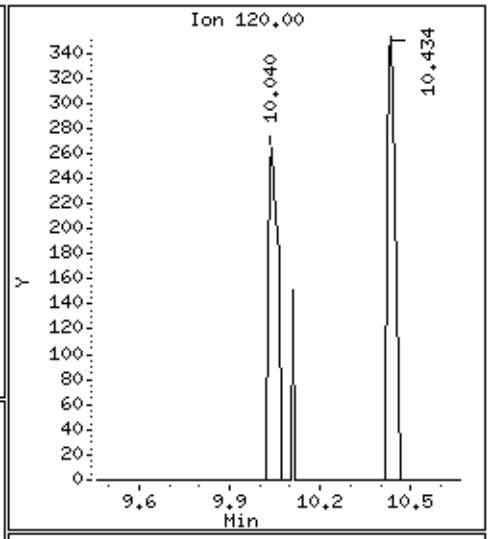
Column phase: RTX-624

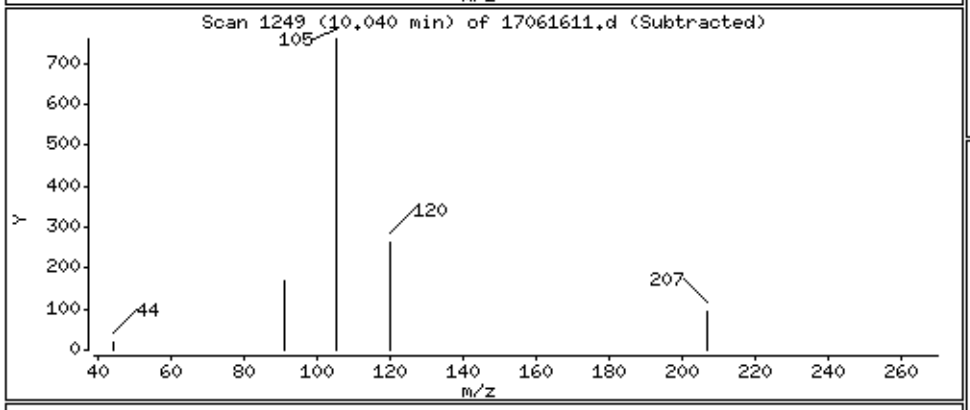
Column diameter: 0.25

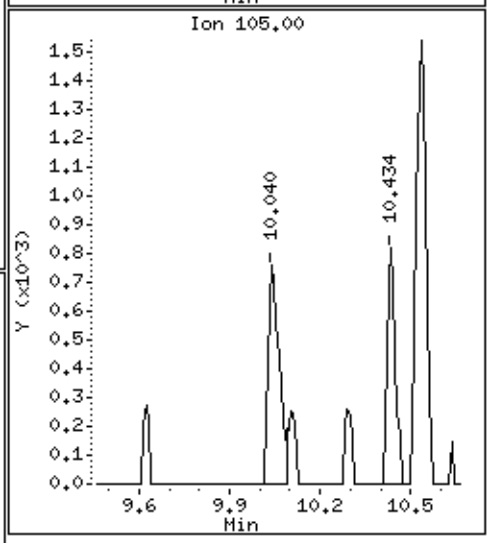
188 4-Ethyltoluene

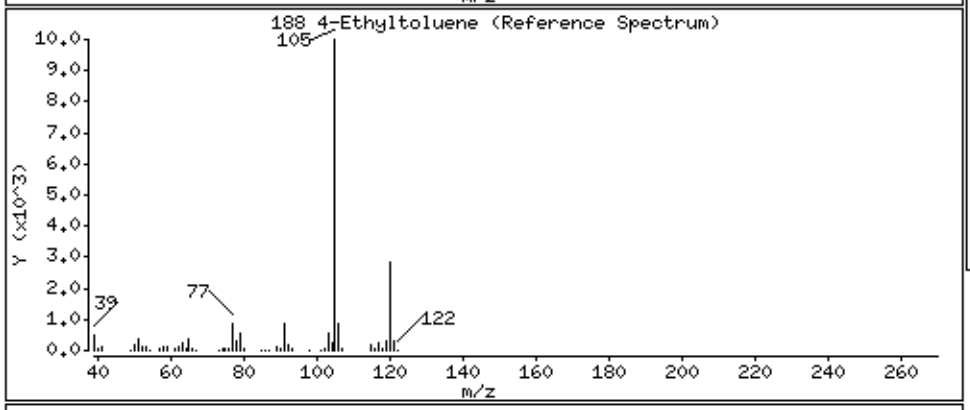
Concentration: 0.1640 PPBV

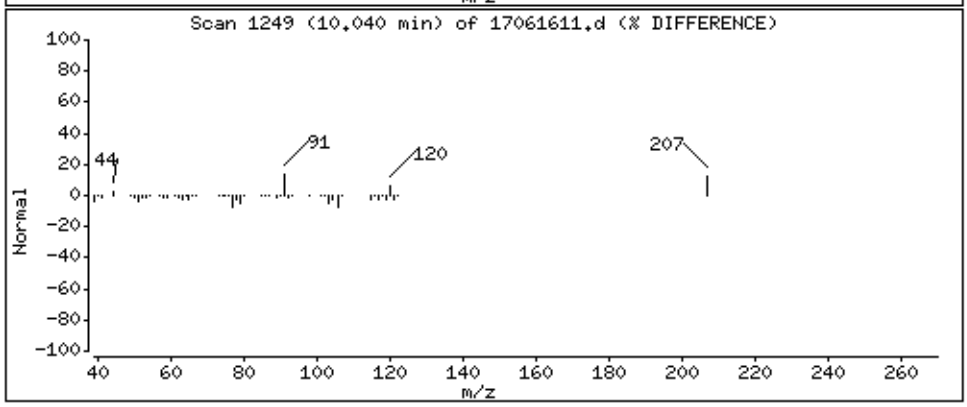












eurofins | Air Toxics

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

Client Sample ID: B7SS-4(061216)

Lab ID#: 1606298B-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	4.1	6.8	23
Ethanol	4.8	22 J0	9.1	40 J0
Acetone	12	46	29	110
2-Propanol	4.8	2.5 J	12	6.2 J
Carbon Disulfide	4.8	6.6	15	21
Hexane	1.2	0.34 J	4.2	1.2 J
2-Butanone (Methyl Ethyl Ketone)	4.8	3.1 J	14	9.2 J
Heptane	1.2	2.3	4.9	9.4
4-Methyl-2-pentanone	1.2	0.29 J	4.9	1.2 J
Toluene	1.2	0.35 J	4.5	1.3 J
2-Hexanone	4.8	0.30 J	20	1.2 J
m,p-Xylene	1.2	0.22 J	5.2	0.96 J
Styrene	1.2	0.22 J	5.1	0.96 J

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Client Sample ID: B7SS-4(061216)

Lab ID#: 1606298B-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061612**	**Date of Collection:**	**6/12/16 4:20:00 PM**
Dil. Factor:	**2.41**	**Date of Analysis:**	**6/16/16 08:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected UJ	25	Not Detected UJ
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	4.1	6.8	23
Ethanol	4.8	22 J0	9.1	40 J0
Freon 113	1.2	Not Detected	9.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	46	29	110
2-Propanol	4.8	2.5 J	12	6.2 J
Carbon Disulfide	4.8	6.6	15	21
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.3	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	0.34 J	4.2	1.2 J
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	3.1 J	14	9.2 J
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Cyclohexane	1.2	Not Detected	4.1	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Heptane	1.2	2.3	4.9	9.4
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	0.29 J	4.9	1.2 J
Toluene	1.2	0.35 J	4.5	1.3 J
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
2-Hexanone	4.8	0.30 J	20	1.2 J

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Client Sample ID: B7SS-4(061216)

Lab ID#: 1606298B-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061612**	**Date of Collection:**	**6/12/16 4:20:00 PM**
Dil. Factor:	**2.41**	**Date of Analysis:**	**6/16/16 08:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.2	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	0.22 J	5.2	0.96 J
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	0.22 J	5.1	0.96 J
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
Naphthalene	2.4	Not Detected	13	Not Detected

UJ = Analyte associated with low bias in the CCV.
J0 = Estimated value due to bias in the CCV.
J = Estimated value.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061612.d
Lab Smp Id: 1606298B-13A
Inj Date : 16-JUN-2016 20:47
Operator : ea Inst ID: msd17.i
Smp Info : 200ml 35658
Misc Info : 5.1 Hg->14.7 psi
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 15:02 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 6
Dil Factor: 2.41000
Integrator: HP RTE Compound Sublist: TO15Nmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	2.41000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	73993	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	57863			48.69- 108.69	78.20
5.499	5.499 (1.000)	49	51504			54.63- 114.63	69.61
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.387	6.388 (1.000)	114	292521	25.0000		80.00- 120.00	100.00
6.387	6.388 (1.000)	88	42604			0.00- 45.20	14.56
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	299963	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	144944			20.04- 80.04	48.32
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.037	6.037 (1.098)	65	70799	23.1673	23.167	80.00- 120.00	100.00
6.037	6.037 (1.098)	67	38819			34.58- 94.58	54.83

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	314686	25.5453	25.545	80.00- 120.00	100.00
7.605	7.605 (1.191)	70	29248			0.00- 39.40	9.29
7.605	7.605 (1.191)	100	207402			35.49- 95.49	65.91
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.811	9.819 (1.110)	174	223028	25.3930	25.393	80.00- 120.00	100.00
9.811	9.819 (1.110)	95	213242			71.35- 131.35	95.61
9.819	9.819 (1.111)	176	217666			68.09- 128.09	97.60
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	11836	1.71203	4.126	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	7903			35.21- 95.21	66.78
42 Ethanol					CAS #: 64-17-5		
2.949	2.949 (0.536)	45	7519	8.92639	21.513	80.00- 120.00	100.00
2.956	2.949 (0.538)	43	1563			0.00- 50.21	20.79
2.949	2.949 (0.536)	46	2736			8.20- 68.20	36.38
52 Acetone					CAS #: 67-64-1		
3.436	3.429 (0.625)	58	22348	19.0504	45.912	80.00- 120.00	100.00
3.436	3.429 (0.625)	43	56732			226.10- 286.10	253.85
56 Carbon Disulfide					CAS #: 75-15-0		
3.508	3.508 (0.638)	76	23790	2.74779	6.622	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
3.623	3.608 (0.659)	45	3647	1.05339	2.539	80.00- 120.00	100.00(a)
3.608	3.608 (0.656)	43	1490			0.00- 48.33	40.87
3.436	3.608 (0.625)	59	391			0.00- 34.85	10.72
78 Hexane					CAS #: 110-54-3		
4.396	4.389 (0.799)	57	577	0.14276	0.3440	80.00- 120.00	100.00(a)
4.389	4.389 (0.798)	43	440			21.17- 81.17	76.30
0.000	4.389 (0.000)	86	0			0.00- 49.59	0.00
92 2-Butanone					CAS #: 78-93-3		
5.299	5.292 (0.964)	72	2063	1.30214	3.138	80.00- 120.00	100.00(a)
5.299	5.292 (0.964)	43	5323			251.52- 311.52	257.94
5.306	5.292 (0.965)	57	398			0.00- 57.81	19.33
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	3261	0.95236	2.295	80.00- 120.00	100.00
6.187	6.158 (0.969)	43	9742			96.69- 156.69	298.73
6.158	6.158 (0.964)	57	2632			58.40- 118.40	80.72

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.534	7.534 (1.179)	58	321	0.12069	0.2909	80.00- 120.00	100.00(a)
7.534	7.534 (1.179)	43	1614			175.29- 235.29	502.29
7.655	7.534 (1.198)	85	488			22.79- 82.79	152.09
147 Toluene					CAS #: 108-88-3		
7.663	7.655 (1.200)	91	1964	0.14535	0.3503	80.00- 120.00	100.00(a)
7.655	7.655 (1.198)	92	1025			28.86- 88.86	52.21
158 2-Hexanone					CAS #: 591-78-6		
8.221	8.221 (0.930)	58	505	0.12423	0.2994	80.00- 120.00	100.00(a)
8.228	8.221 (0.931)	43	1103			121.26- 181.26	218.24
0.000	8.221 (0.000)	100	0			0.00- 55.92	0.00
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	750	0.09226	0.2223	80.00- 120.00	100.00(a)
9.002	9.002 (1.019)	91	1371			159.69- 219.69	182.78
172 Styrene					CAS #: 100-42-5		
9.367	9.367 (1.060)	104	1142	0.09308	0.2243	80.00- 120.00	100.00(a)
9.367	9.367 (1.060)	78	445			13.63- 73.63	38.98

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061612.d
Lab Smp Id: 1606298B-13A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 5.1 Hg->14.7 psi

Calibration Date: 16-JUN-2016
Calibration Time: 14:10

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	73993	-1.92
123 1,4-Difluorobenze	302627	181576	423678	292521	-3.34
163 Chlorobenzene-d5	299663	179798	419528	299963	0.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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-Jun-2016 12:53

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606298B-13A
Level: LOW
Operator: ea
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12bromoform.spk
Quant Type: ISTD
Sublist File: TO15Nmdl.sub
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 5.1 Hg->14.7 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	23.167	92.67	70-130
$ 146 Toluene-d8	25.000	25.545	102.18	70-130
$ 177 4-Bromofluorobenze	25.000	25.393	101.57	70-130

Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

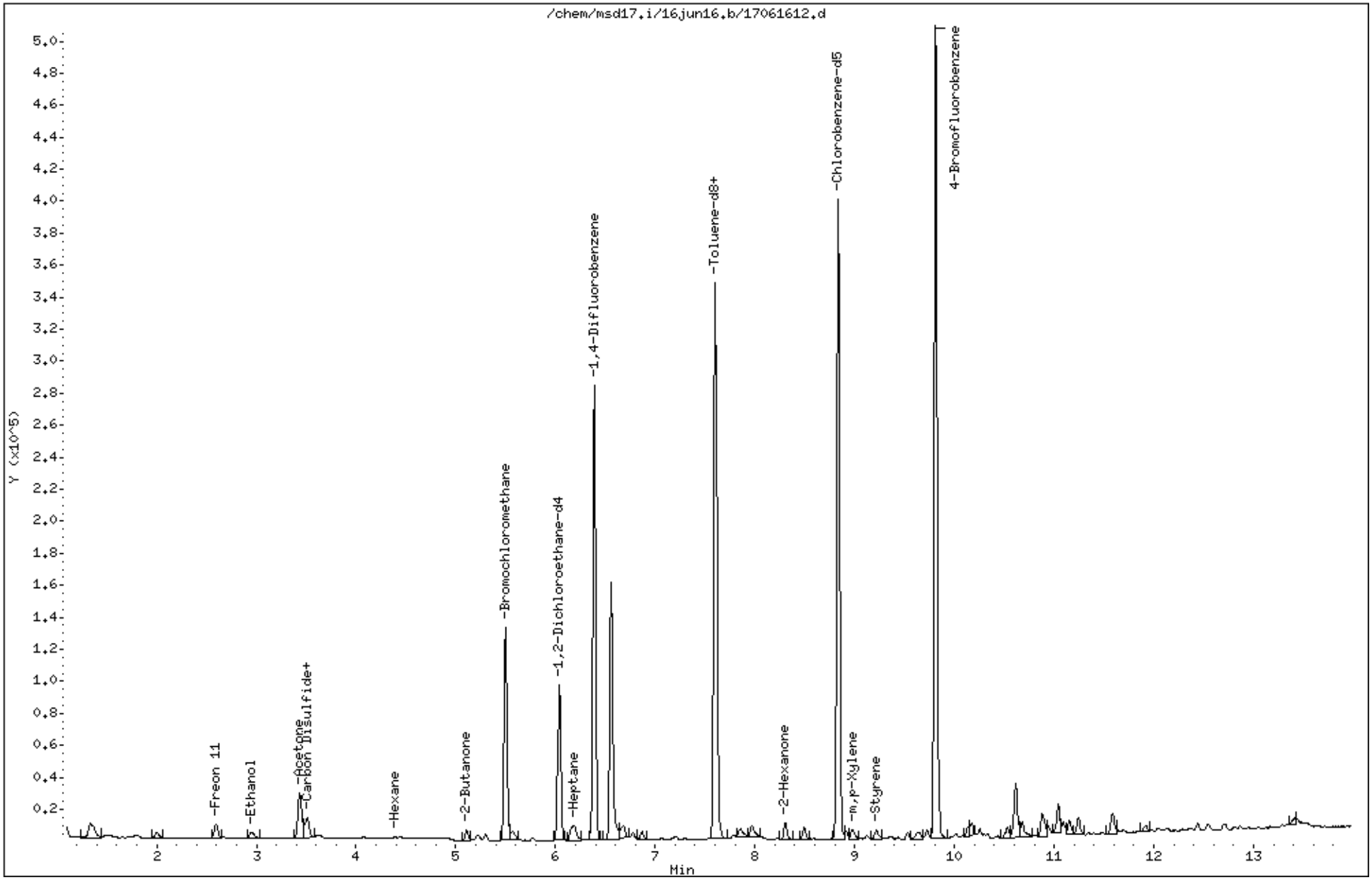
Sample Info: 200ml 35658

Column phase: RTX-624

Instrument: msd17.i

Operator: ea

Column diameter: 0.25



Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

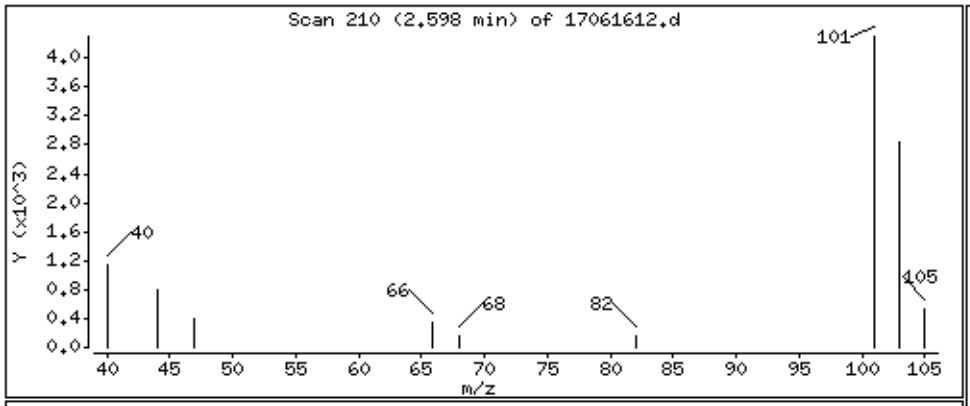
Operator: ea

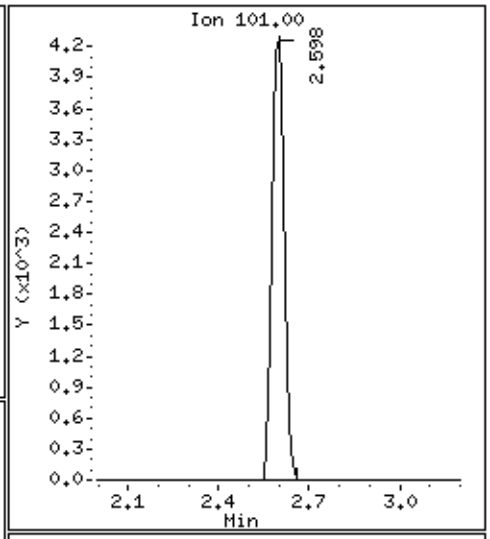
Column phase: RTX-624

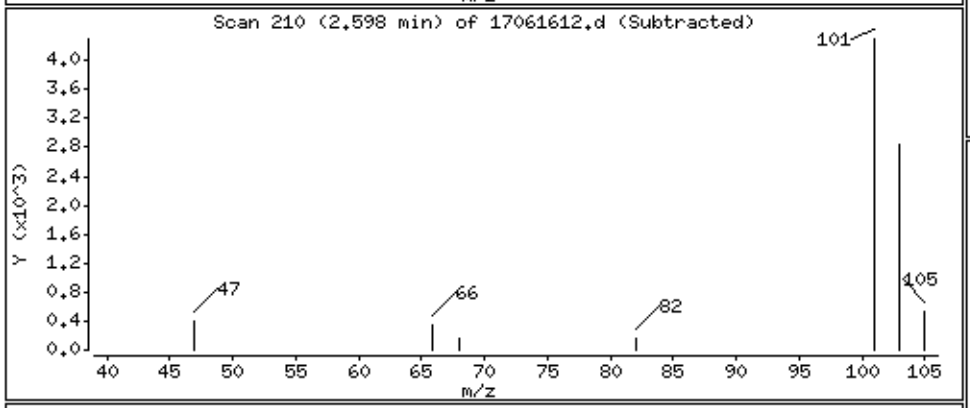
Column diameter: 0.25

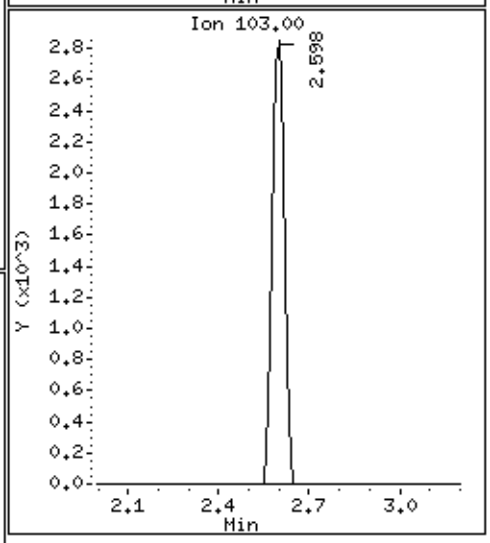
35 Freon 11

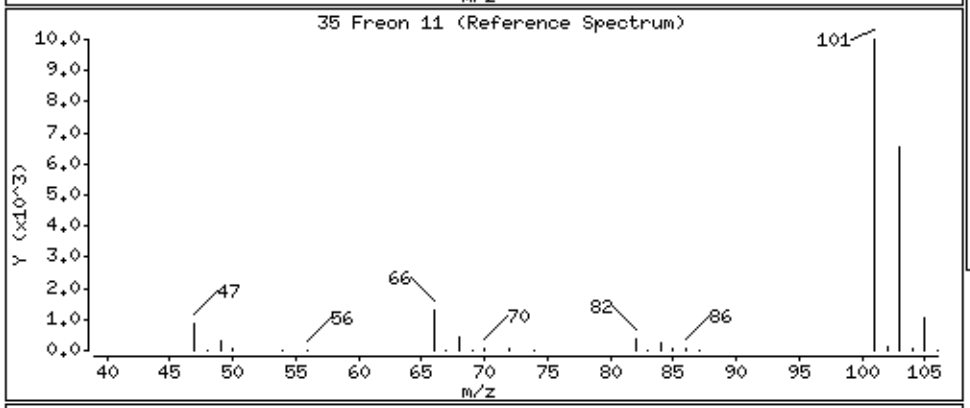
Concentration: 4.126 PPBV

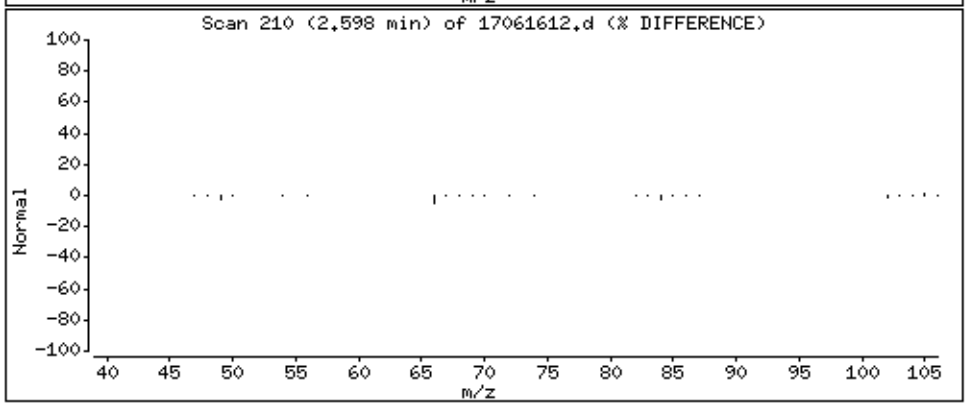












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

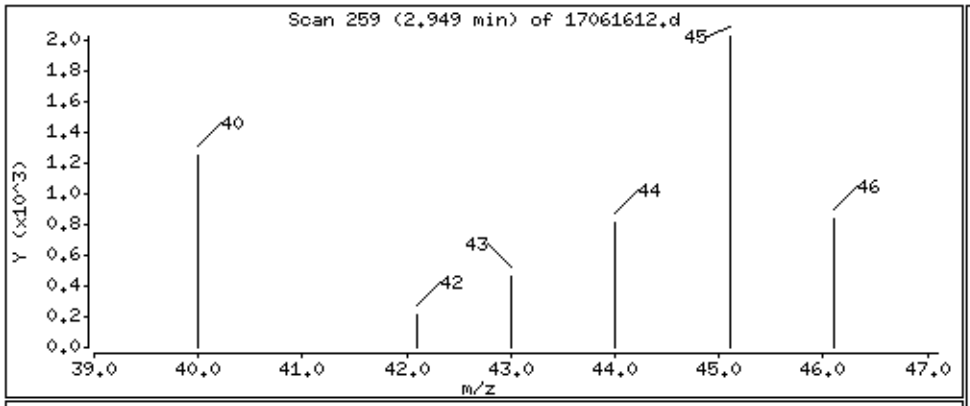
Operator: ea

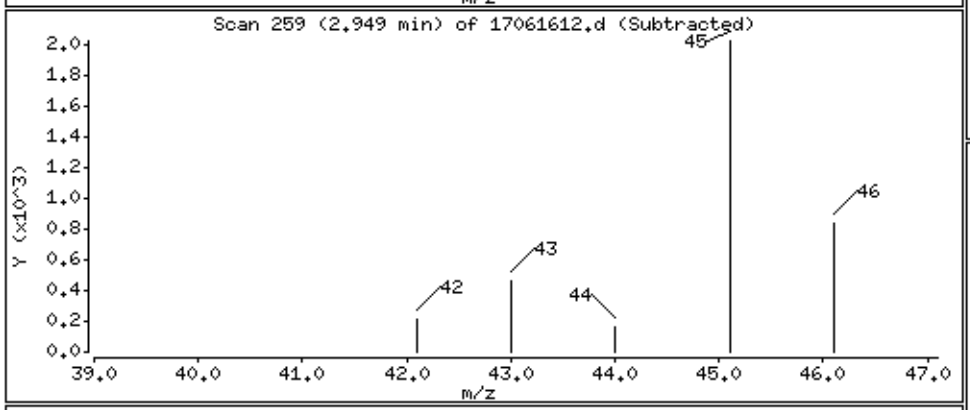
Column phase: RTX-624

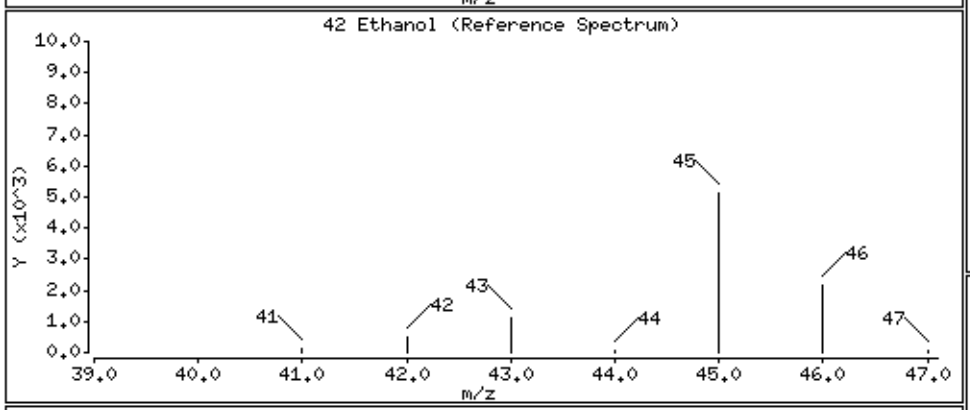
Column diameter: 0.25

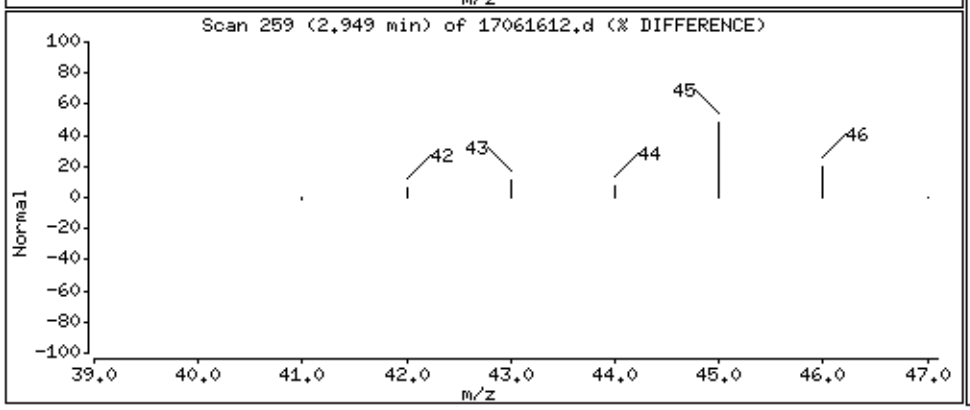
42 Ethanol

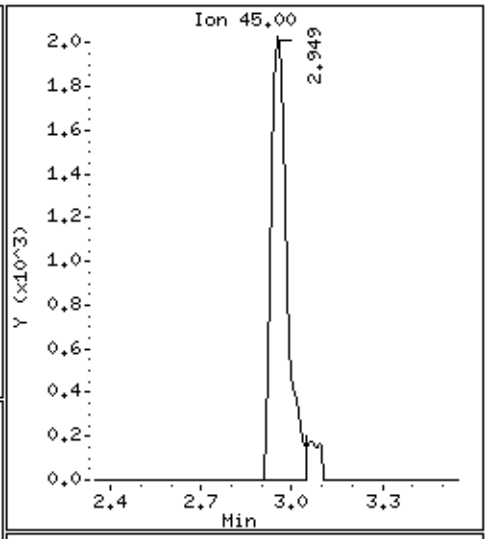
Concentration: 21.513 PPBV

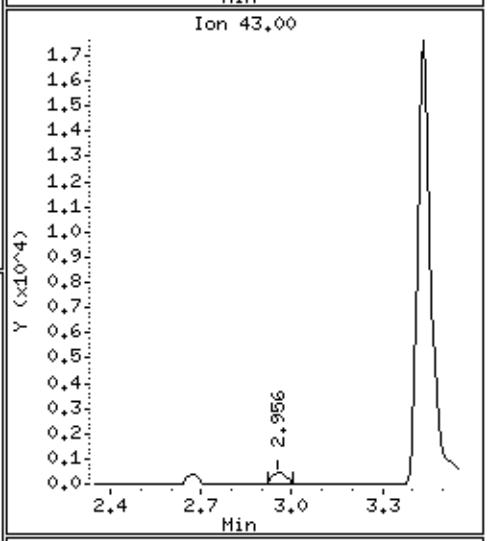


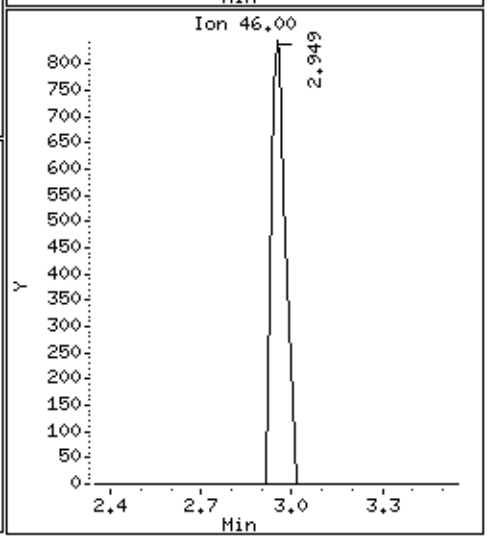












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

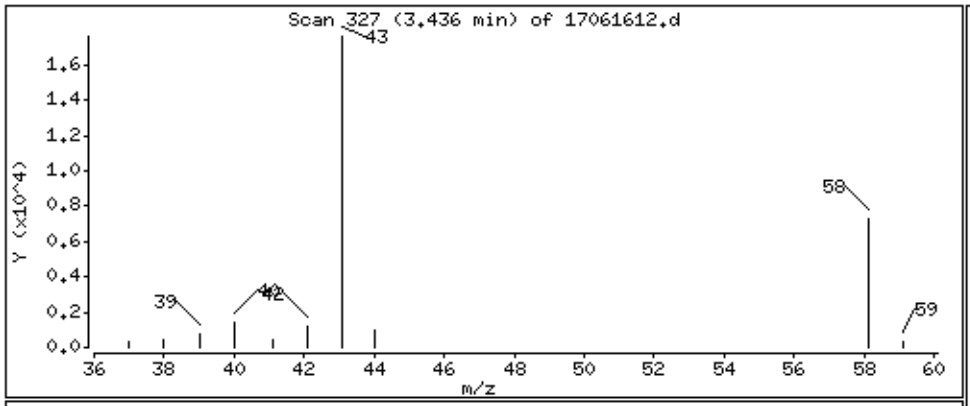
Operator: ea

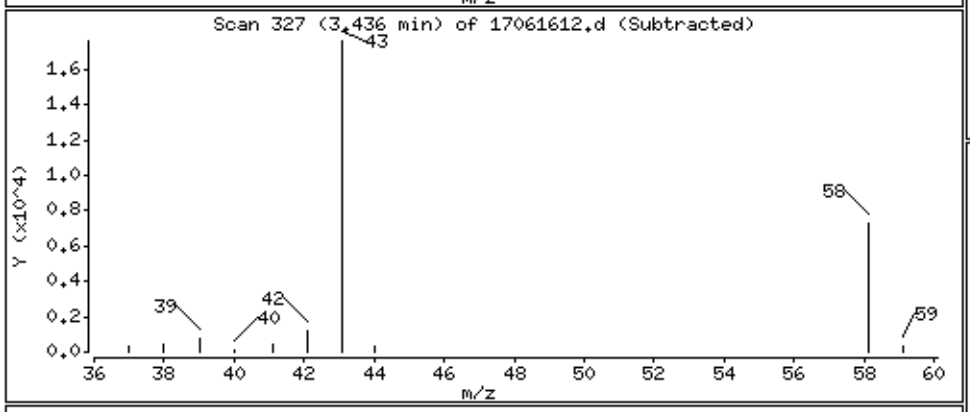
Column phase: RTX-624

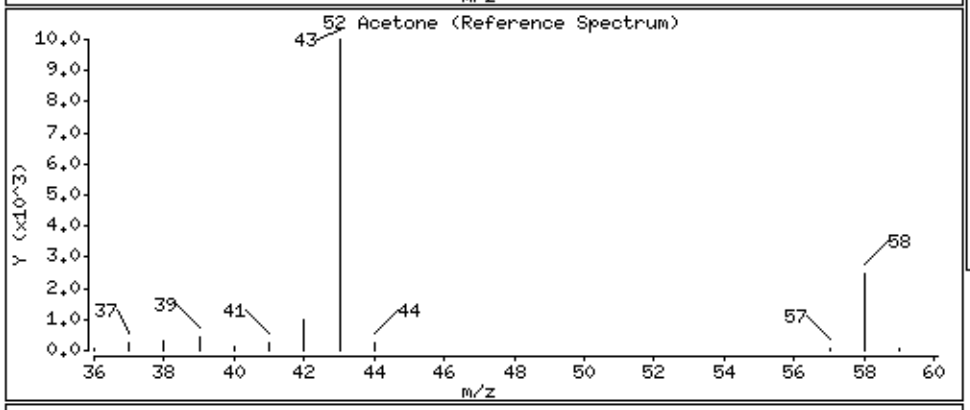
Column diameter: 0.25

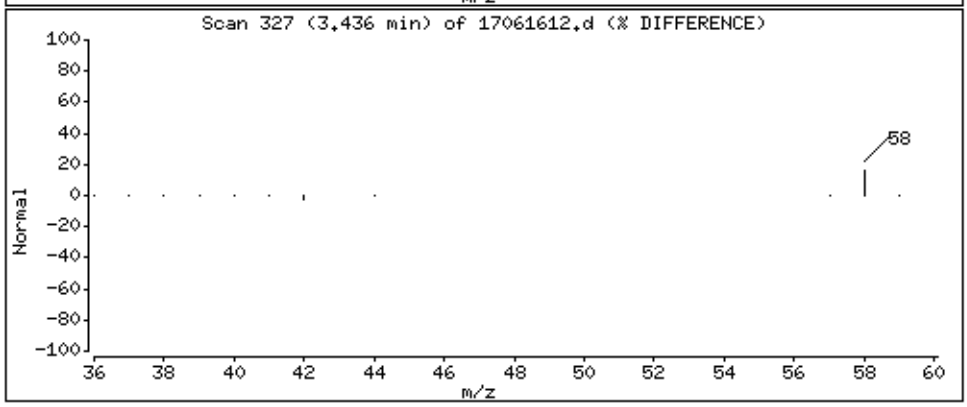
52 Acetone

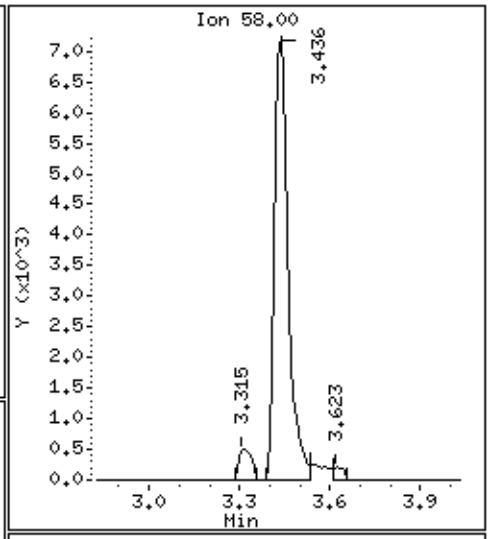
Concentration: 45.912 PPBV

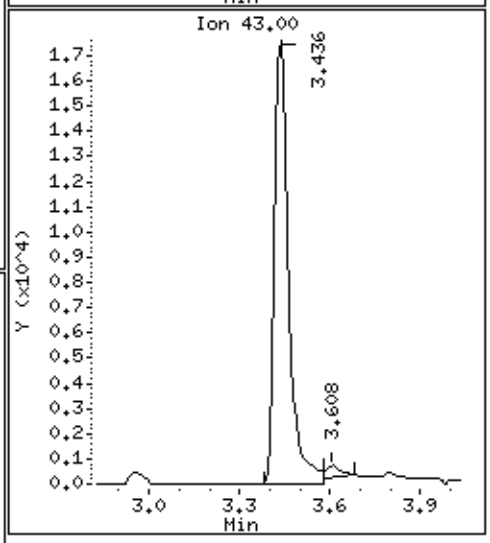












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

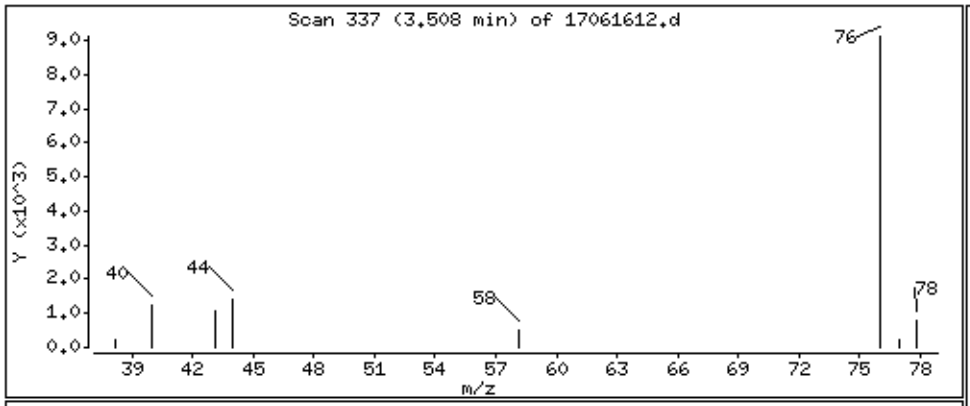
Operator: ea

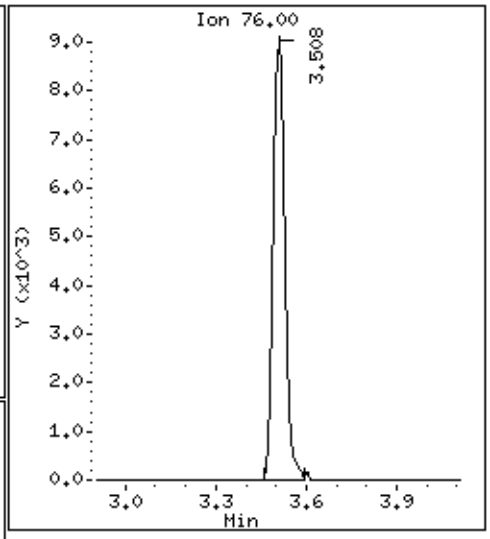
Column phase: RTX-624

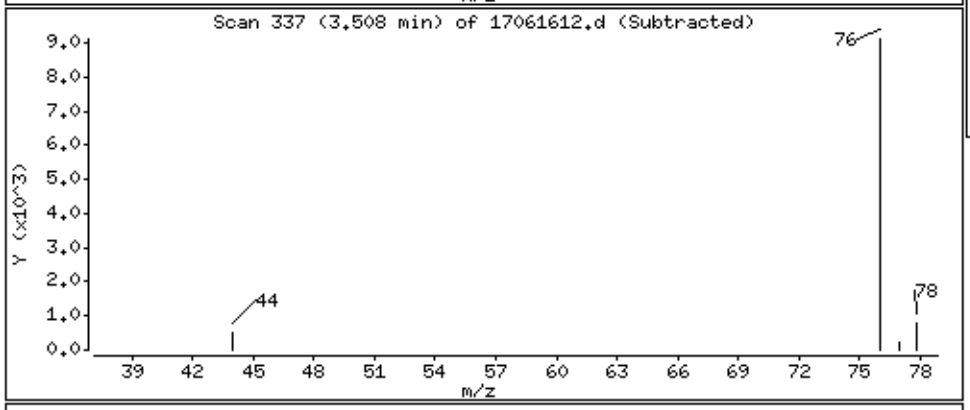
Column diameter: 0.25

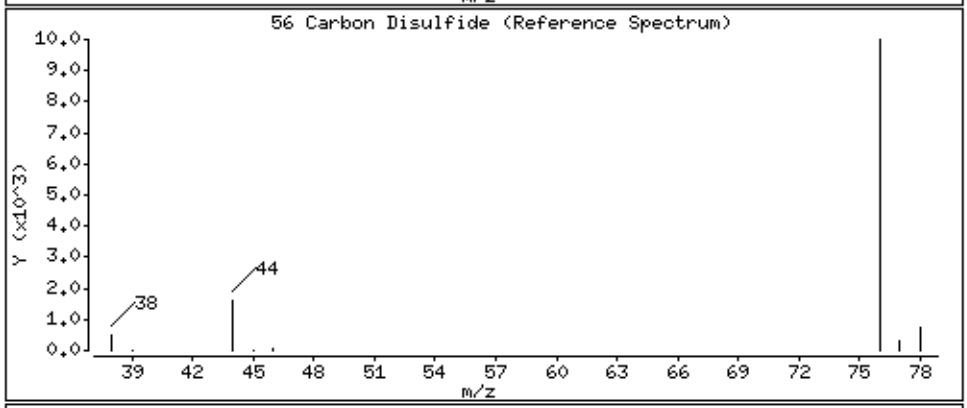
56 Carbon Disulfide

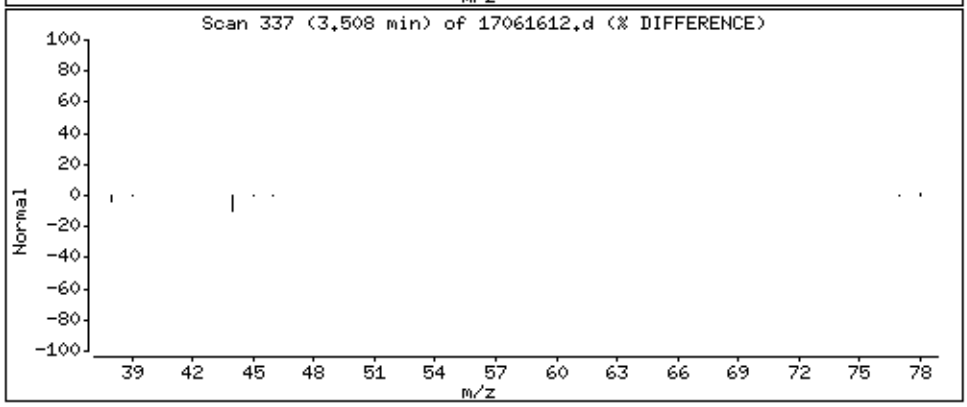
Concentration: 6.622 PPBV











Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

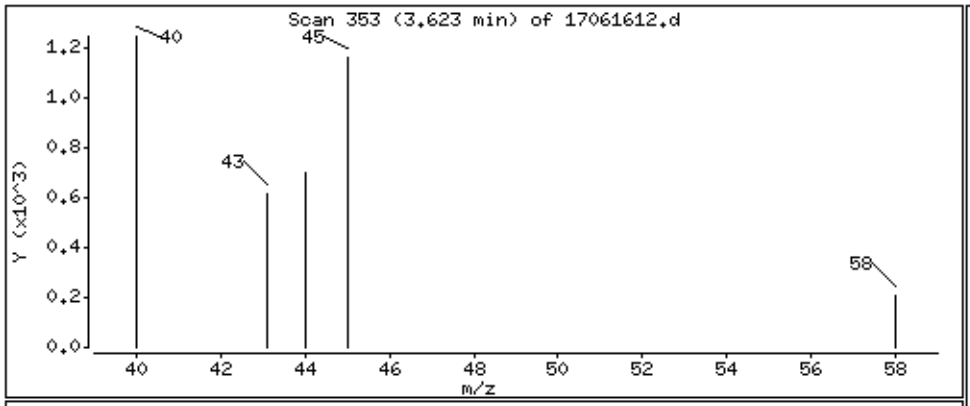
Operator: ea

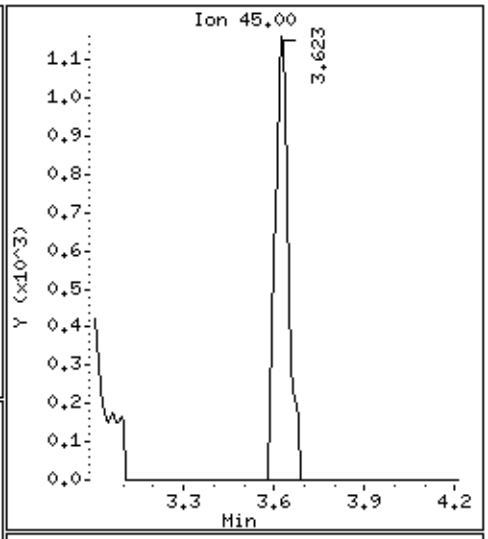
Column phase: RTX-624

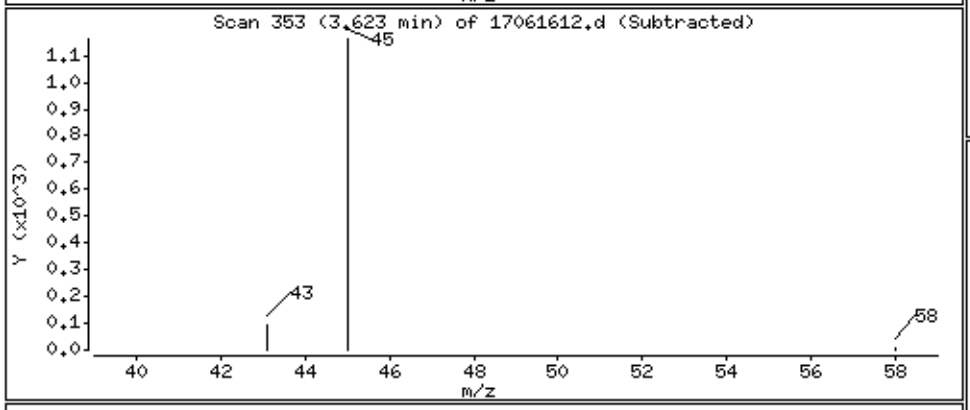
Column diameter: 0.25

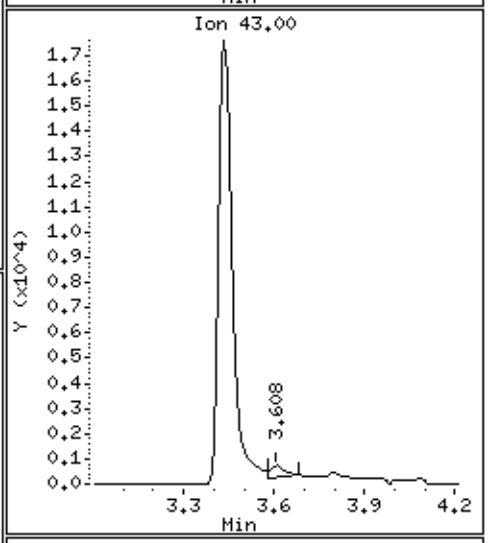
57 2-Propanol

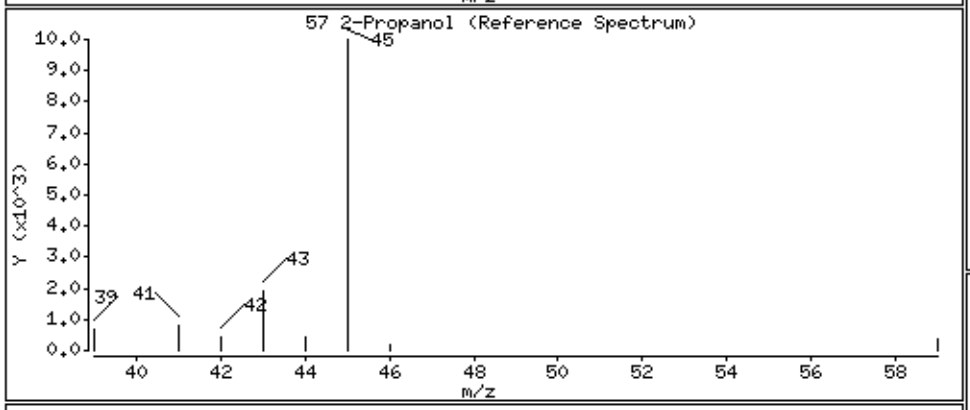
Concentration: 2.539 PPBV

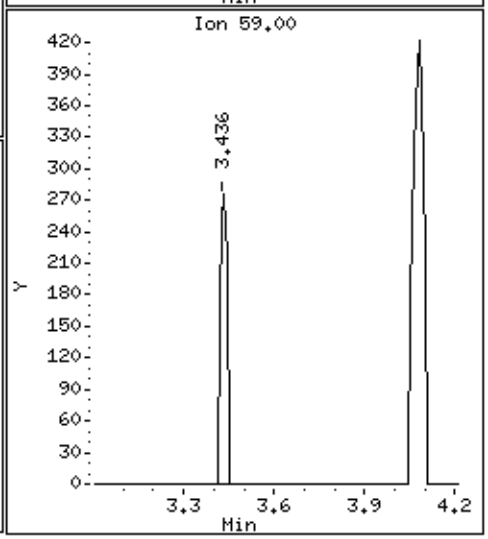


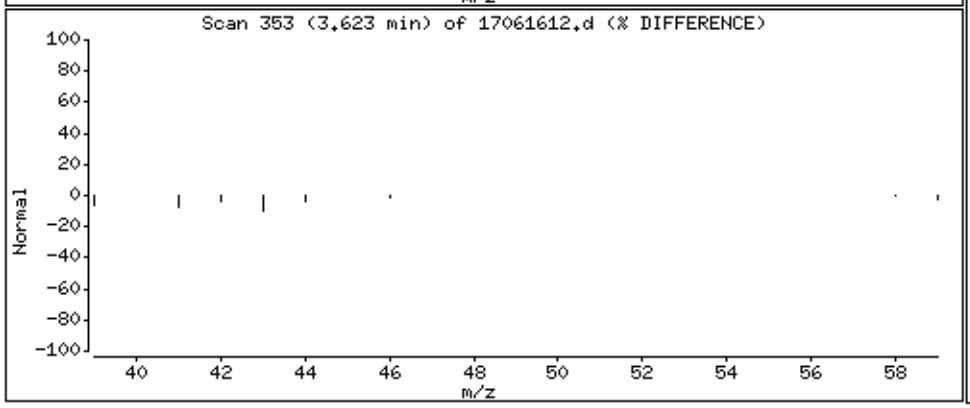












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

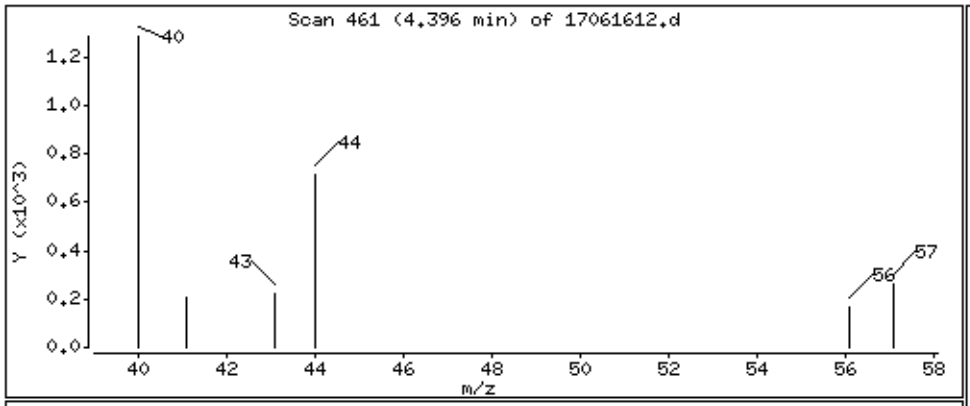
Operator: ea

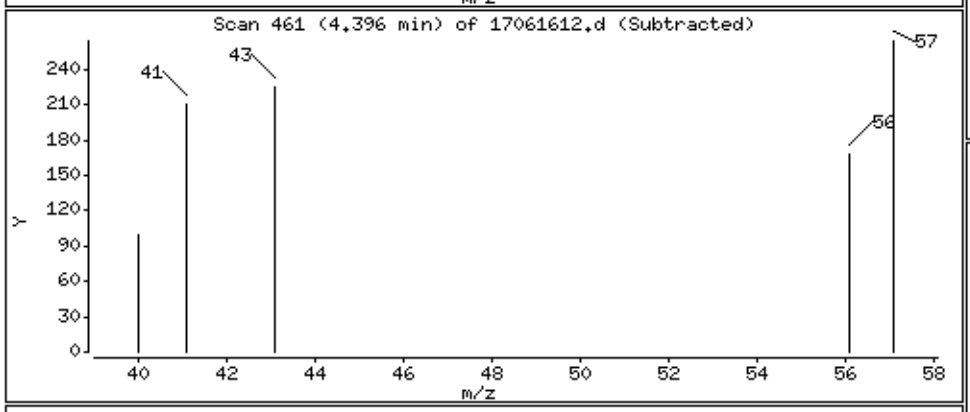
Column phase: RTX-624

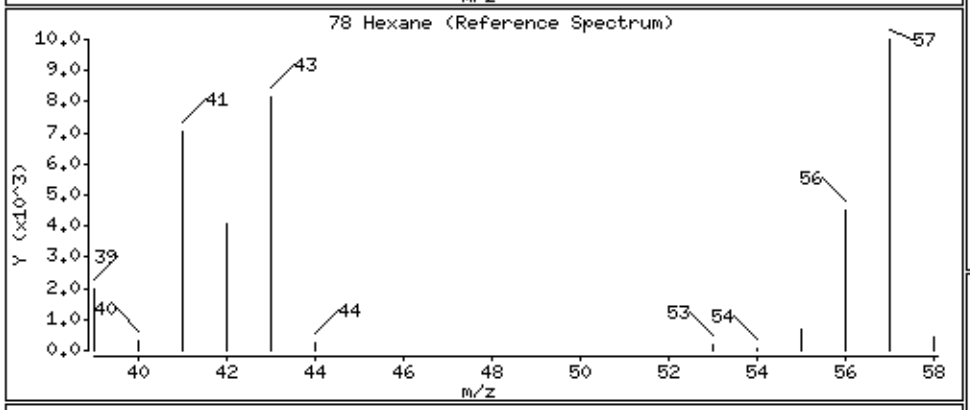
Column diameter: 0.25

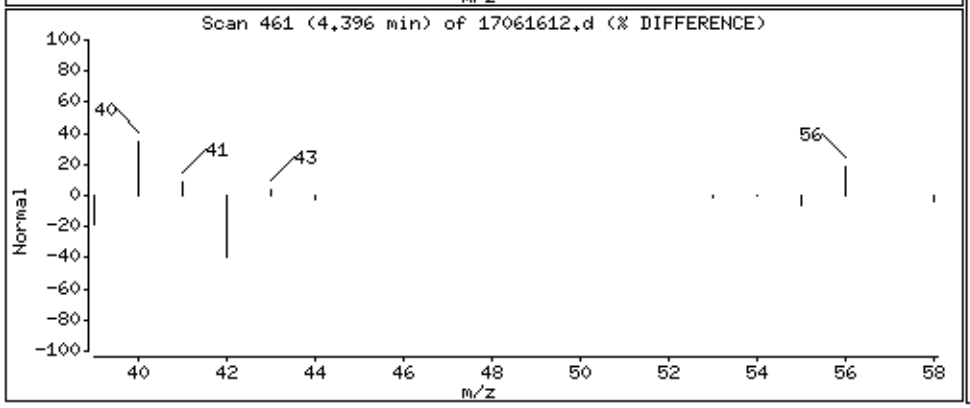
78 Hexane

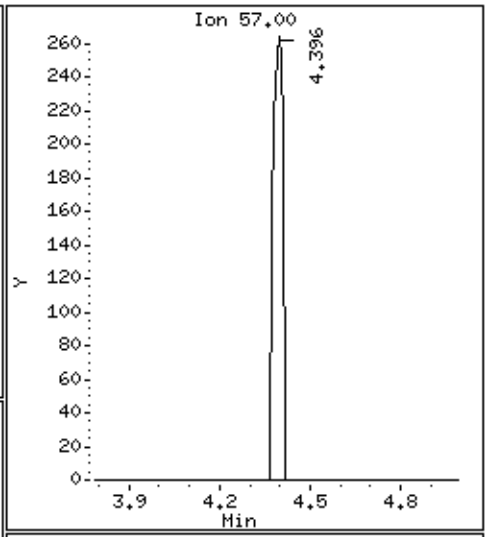
Concentration: 0.3440 PPBV

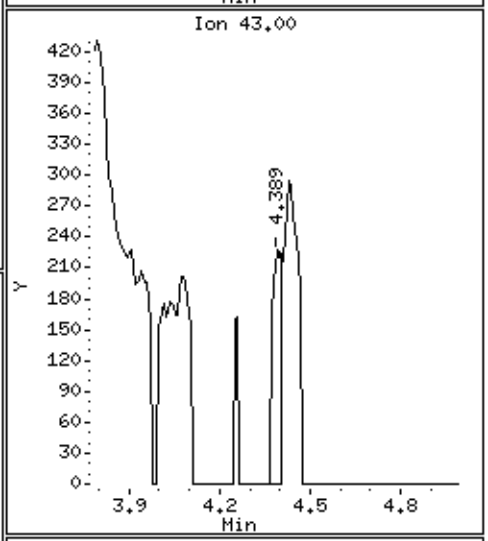


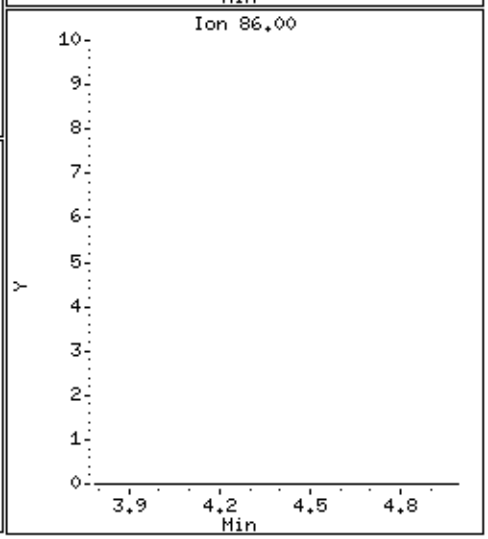












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

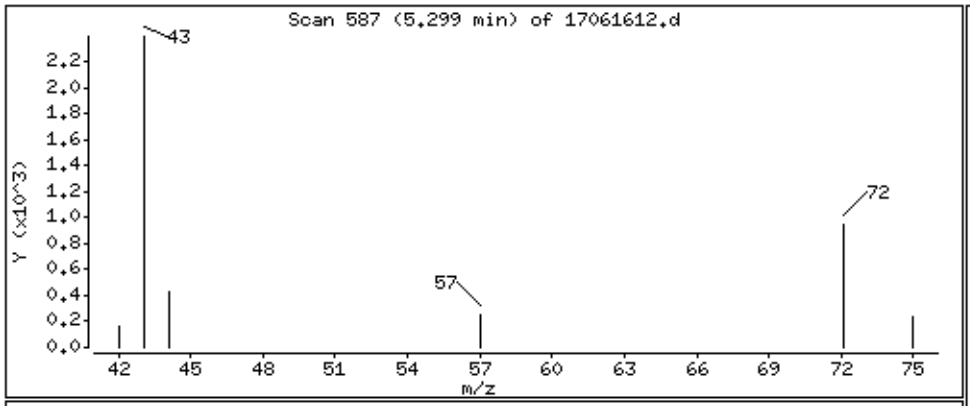
Operator: ea

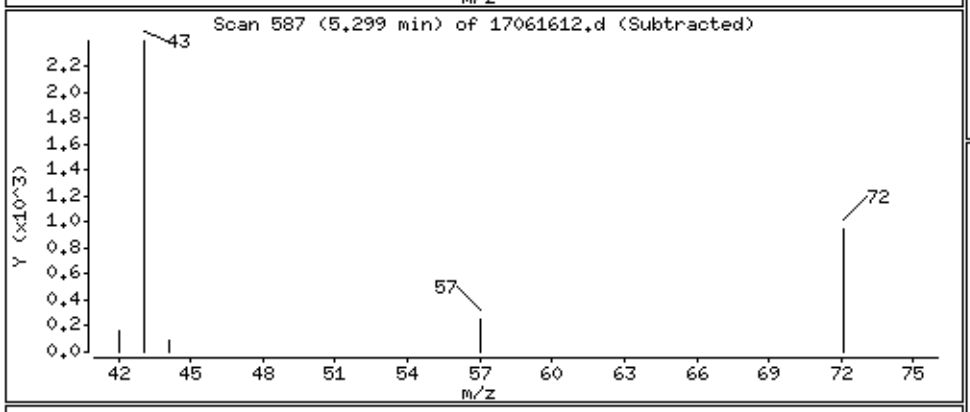
Column phase: RTX-624

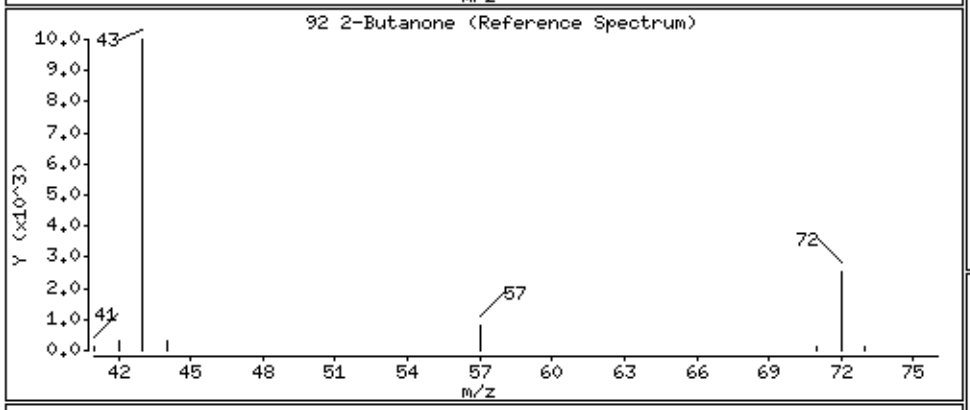
Column diameter: 0.25

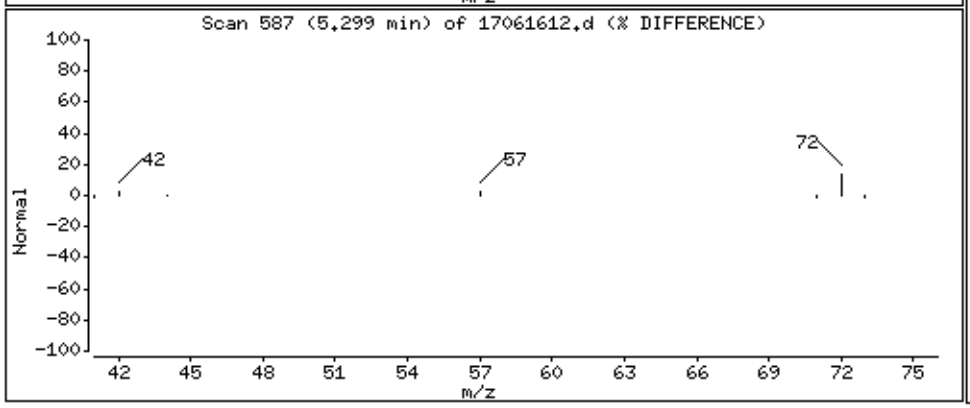
92 2-Butanone

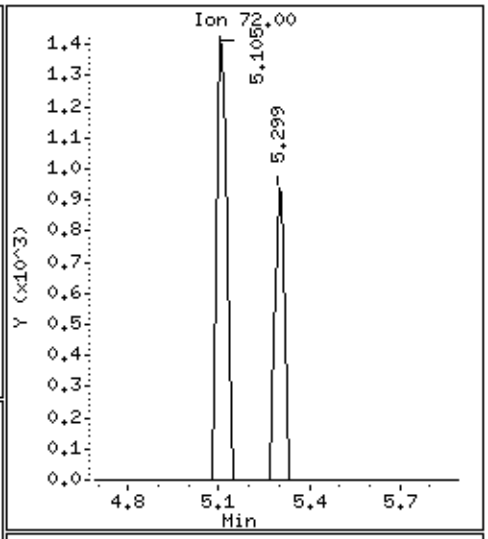
Concentration: 3.138 PPBV

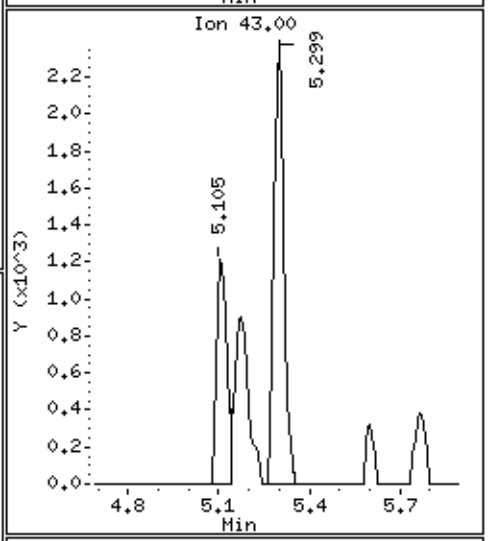


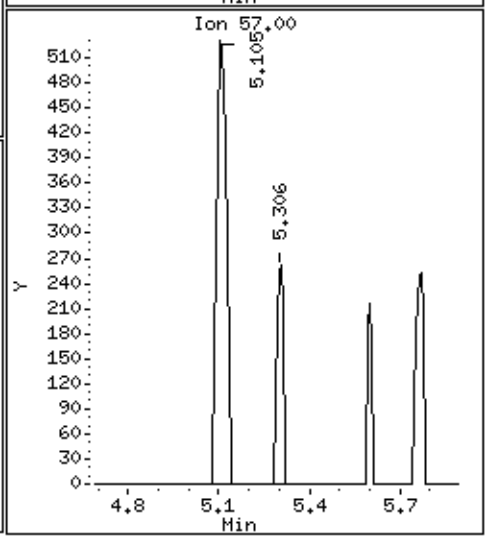












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

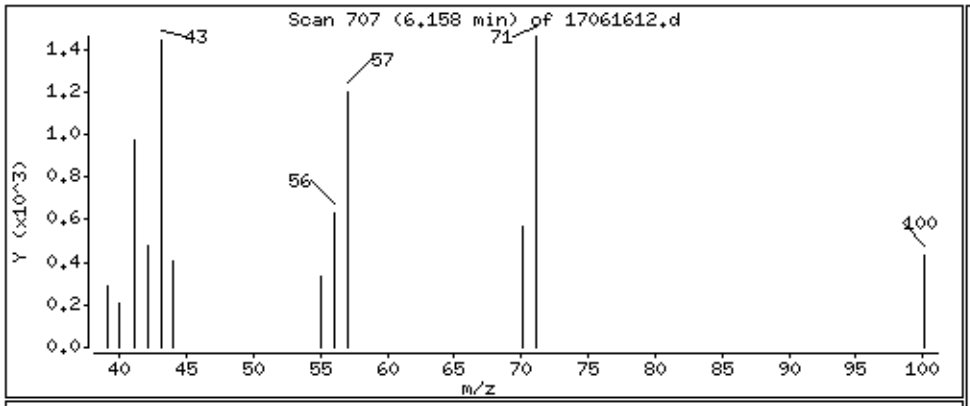
Operator: ea

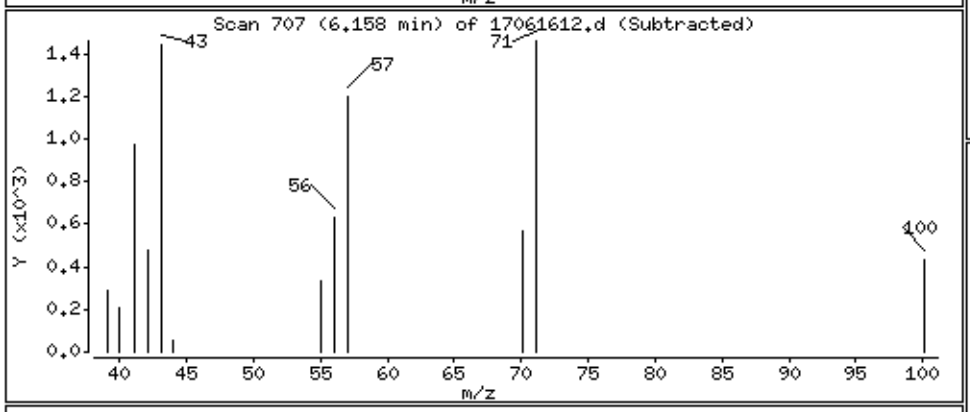
Column phase: RTX-624

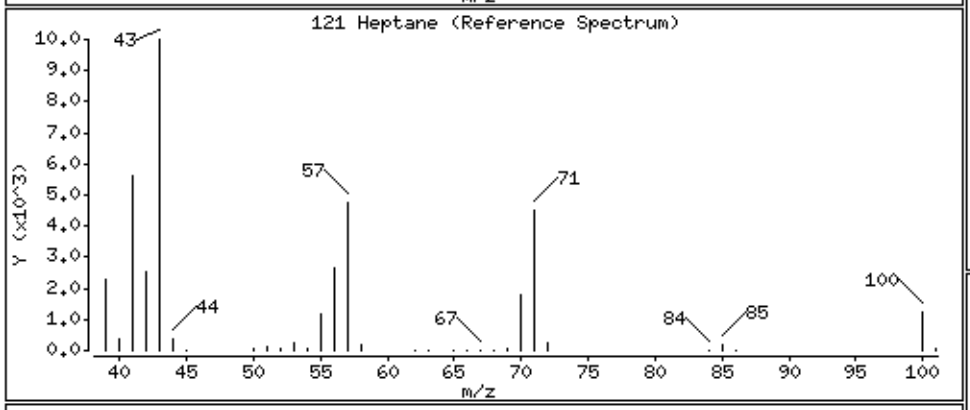
Column diameter: 0.25

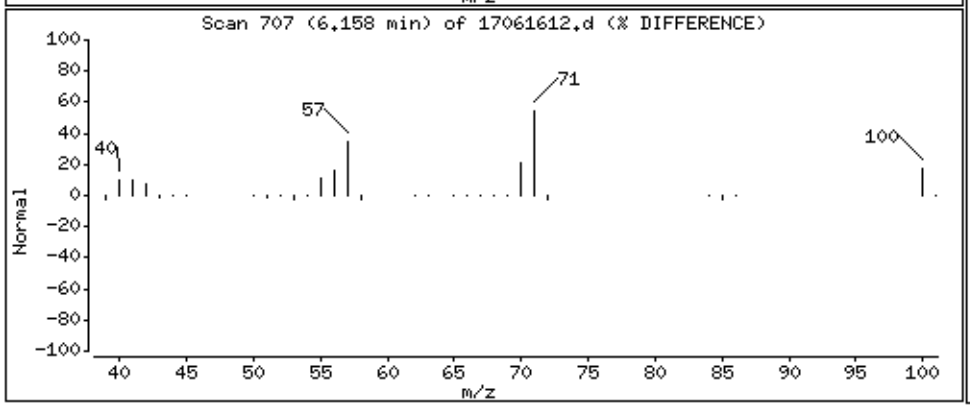
121 Heptane

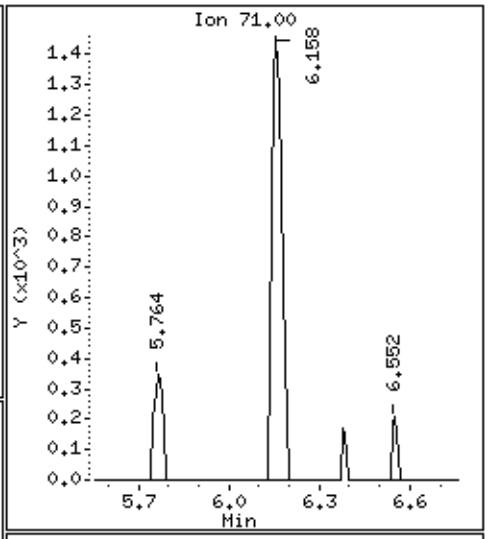
Concentration: 2.295 PPBV

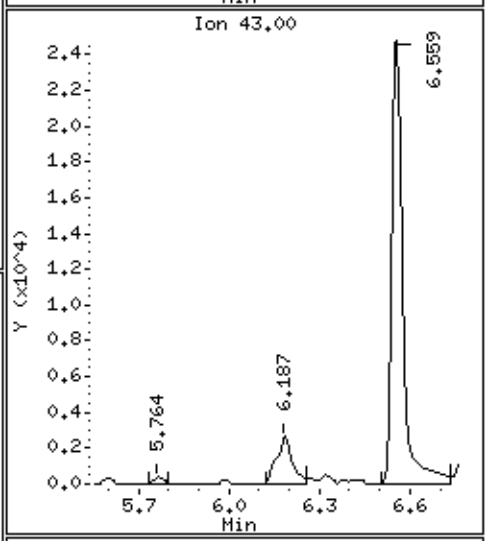


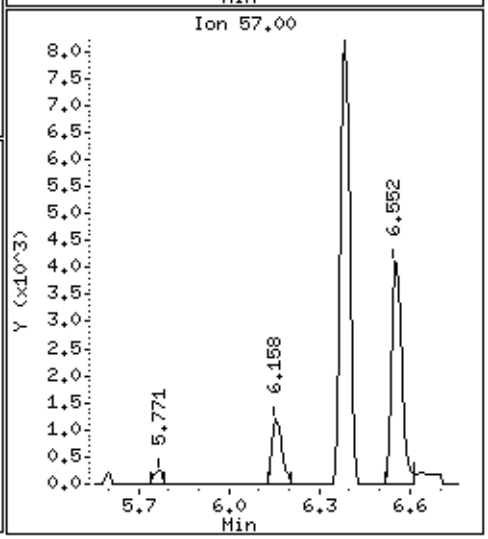












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

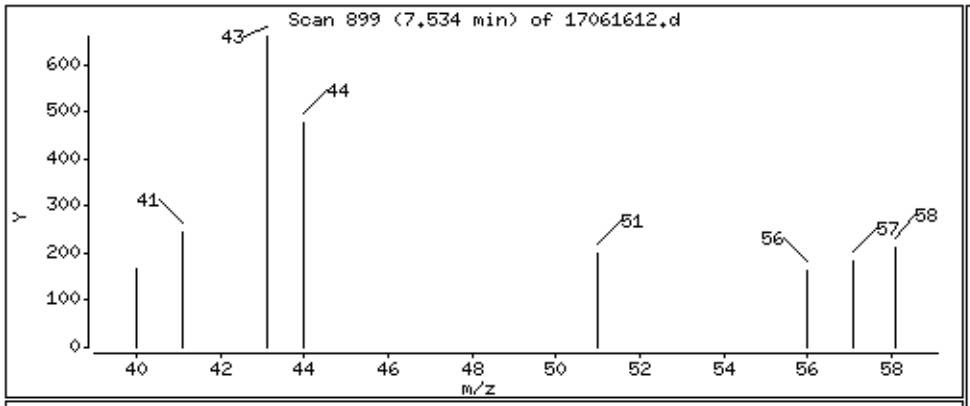
Operator: ea

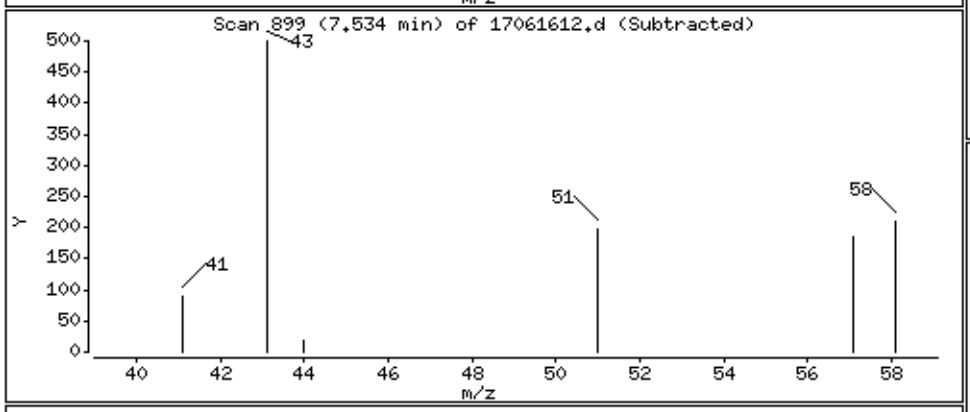
Column phase: RTX-624

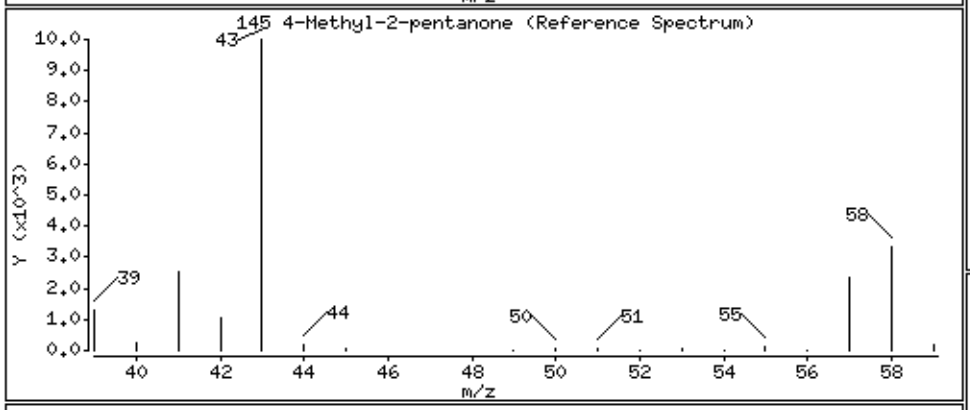
Column diameter: 0.25

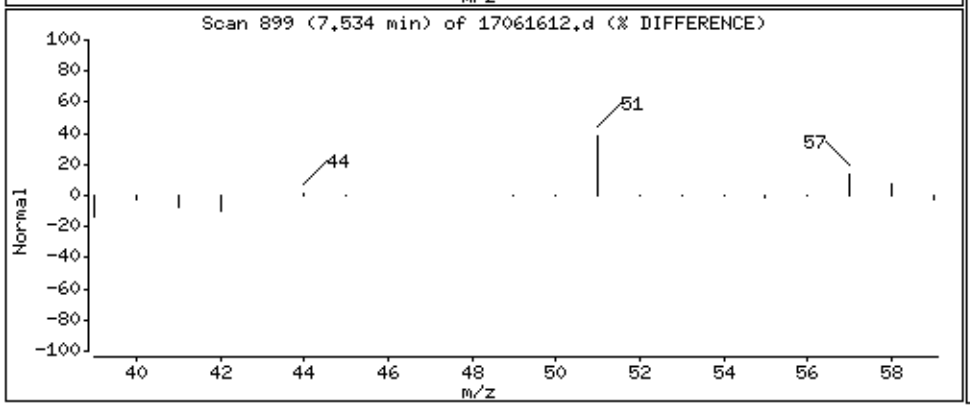
145 4-Methyl-2-pentanone

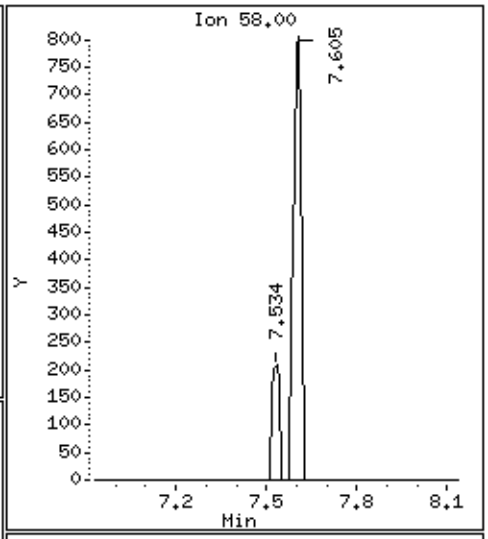
Concentration: 0.2909 PPBV

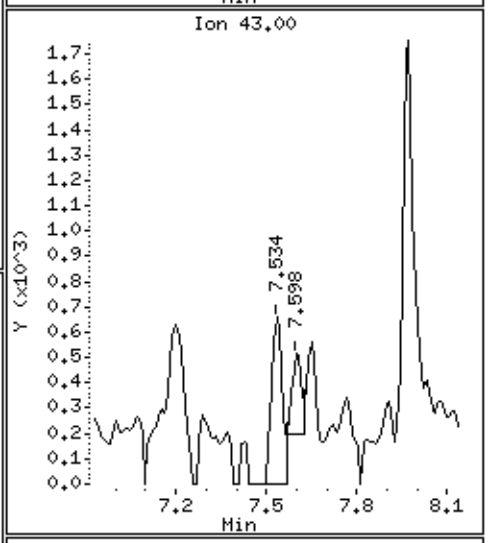


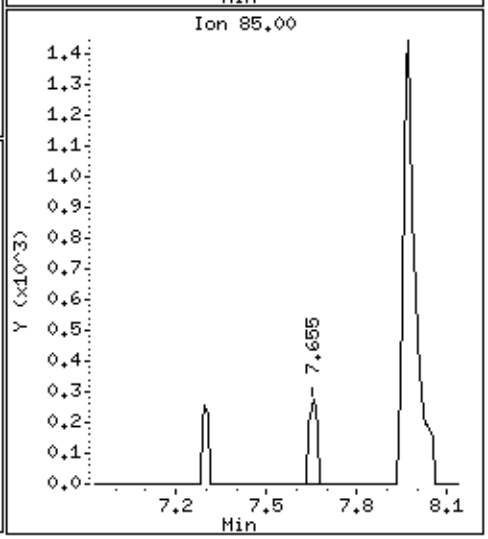












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

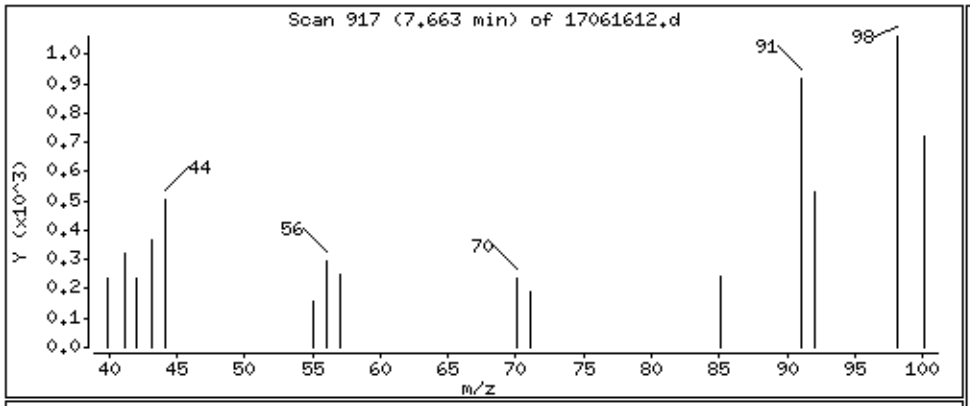
Operator: ea

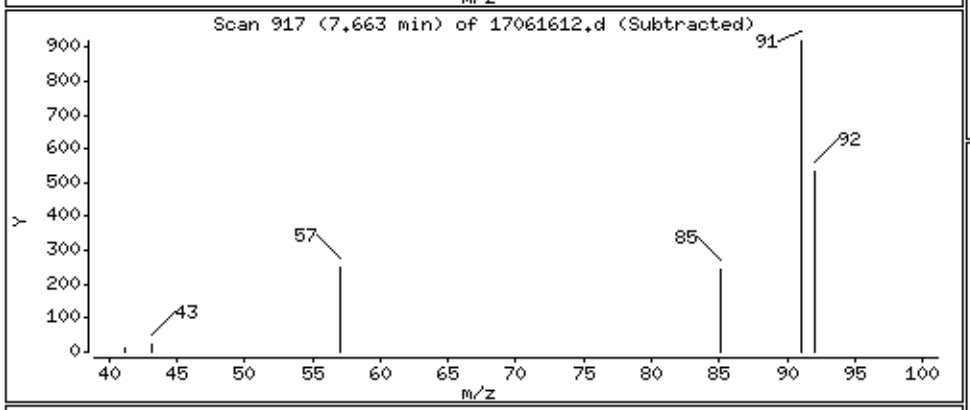
Column phase: RTX-624

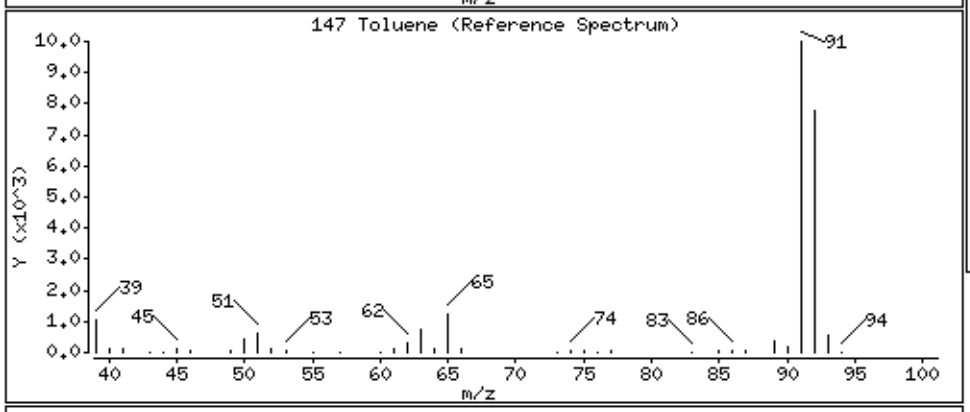
Column diameter: 0.25

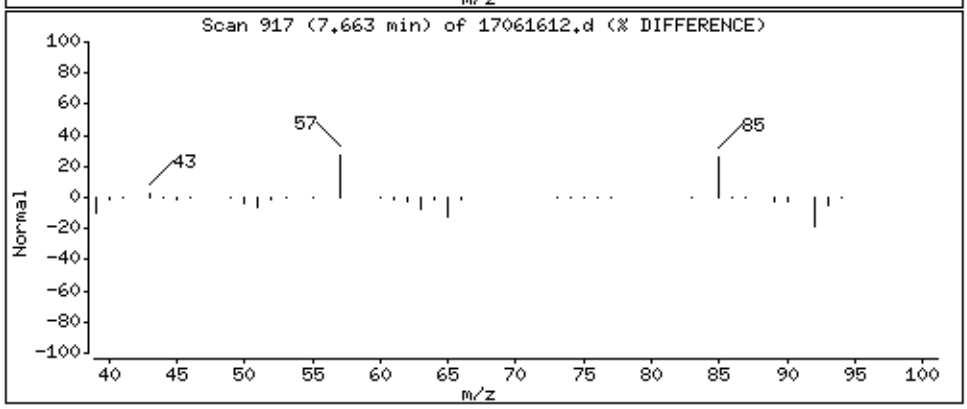
147 Toluene

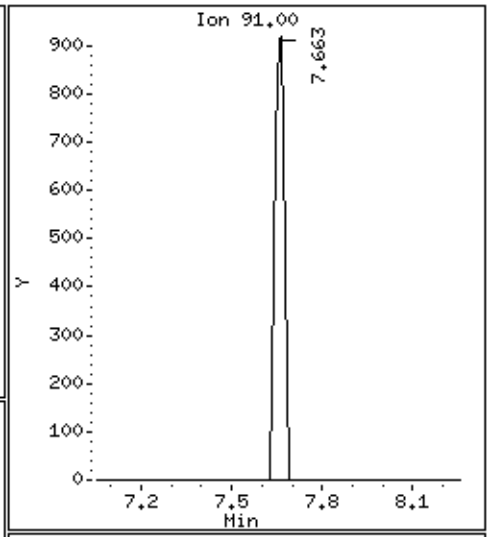
Concentration: 0.3503 PPBV

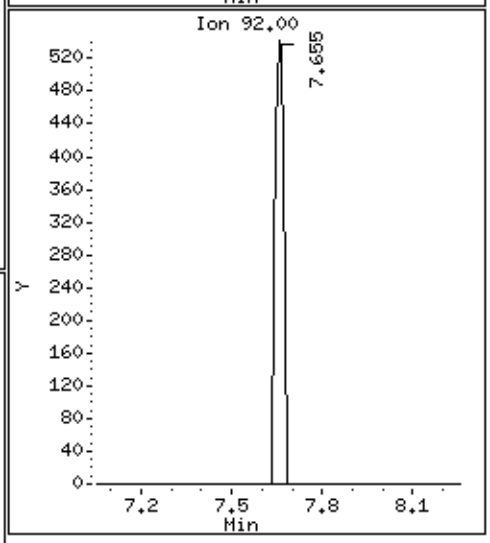












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

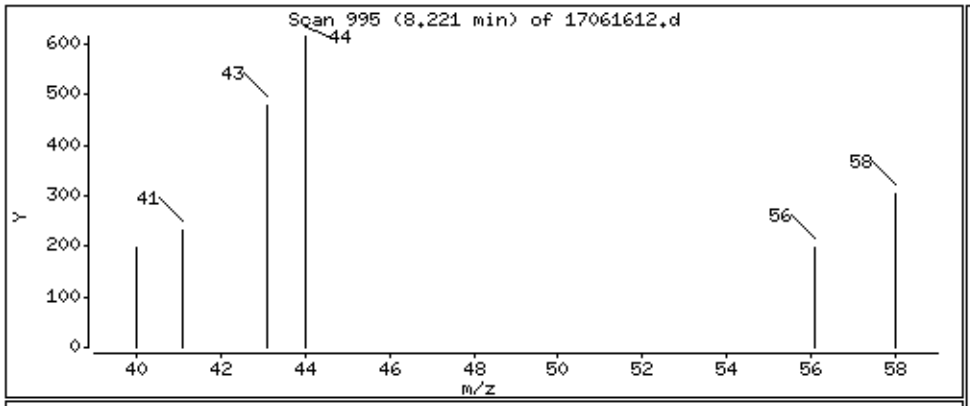
Operator: ea

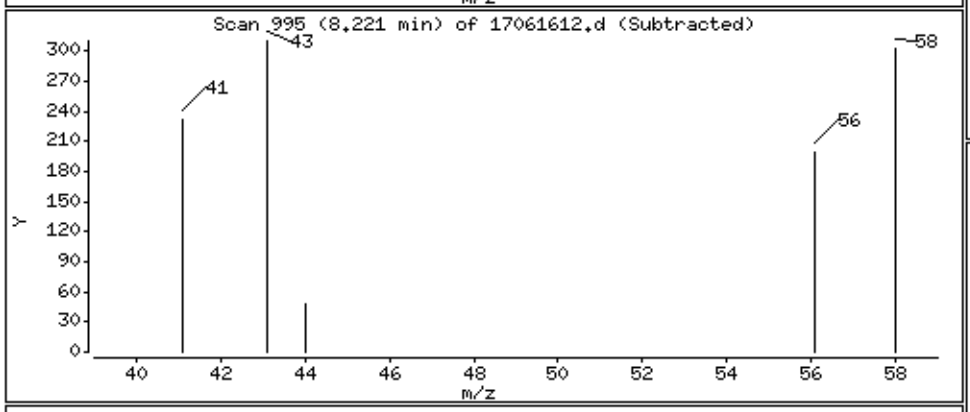
Column phase: RTX-624

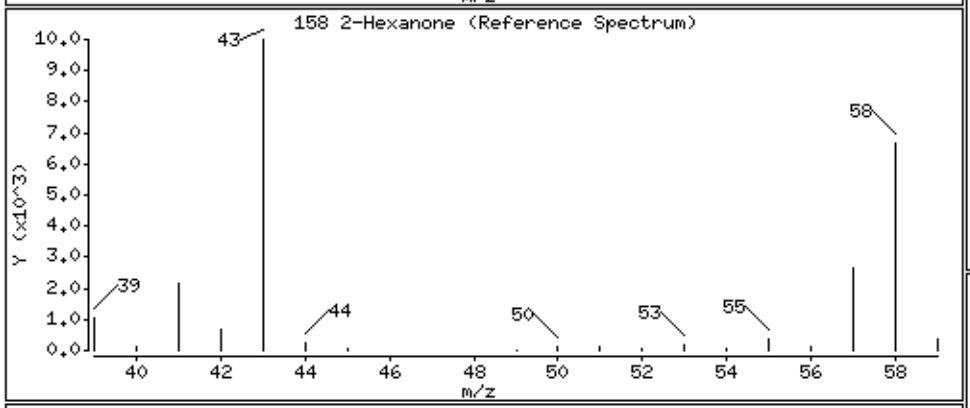
Column diameter: 0.25

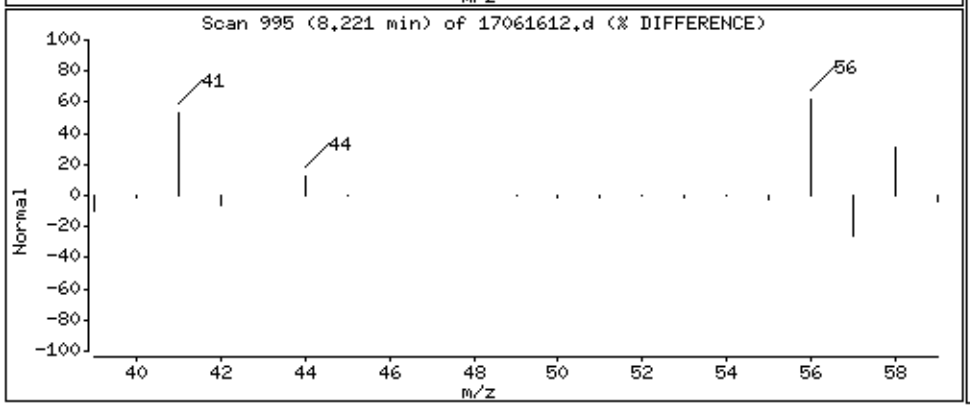
158 2-Hexanone

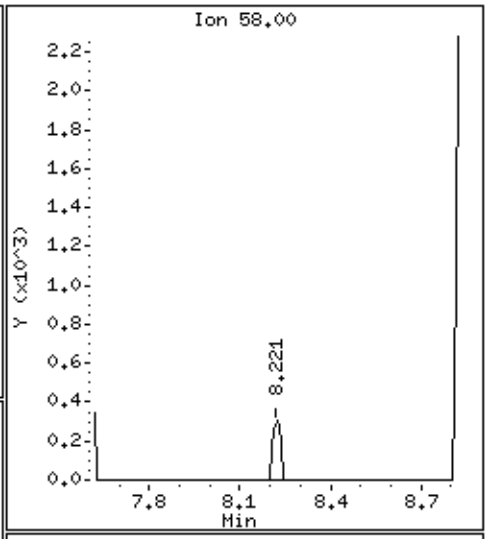
Concentration: 0.2994 PPBV

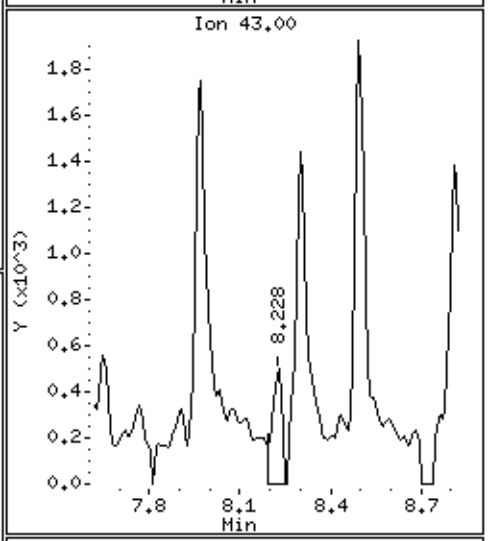


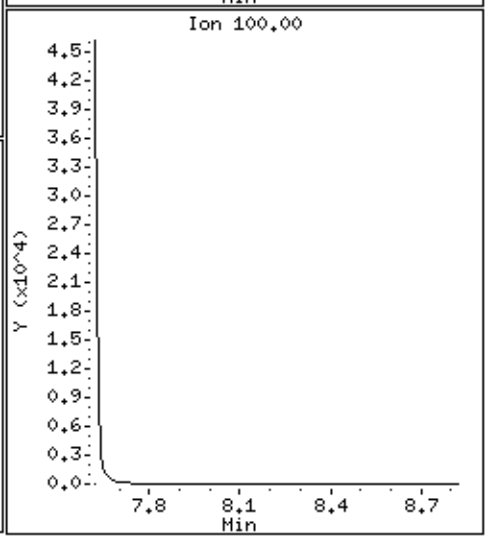












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

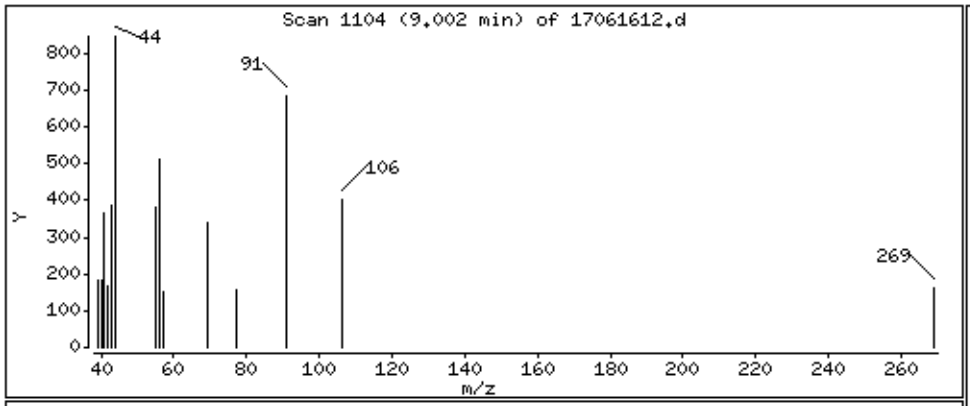
Operator: ea

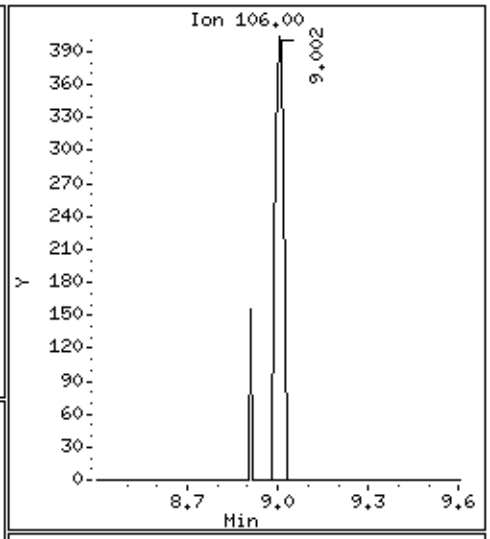
Column phase: RTX-624

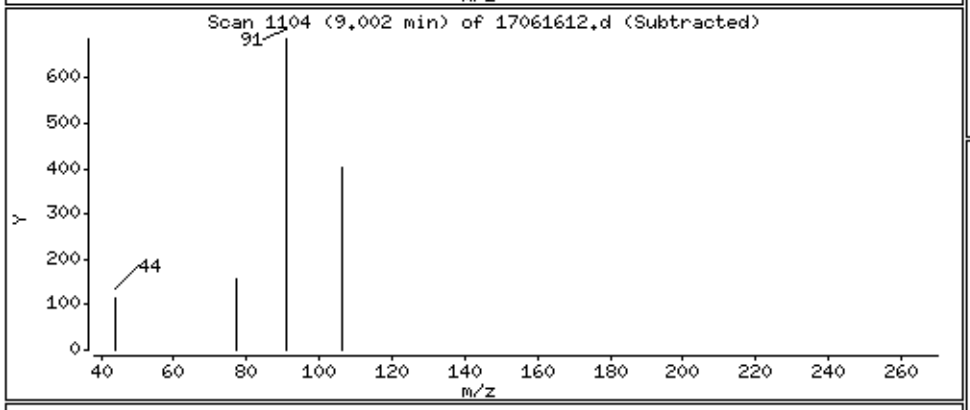
Column diameter: 0.25

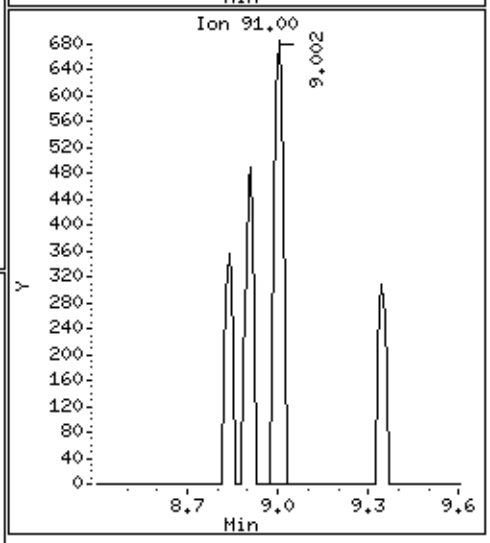
169 m,p-Xylene

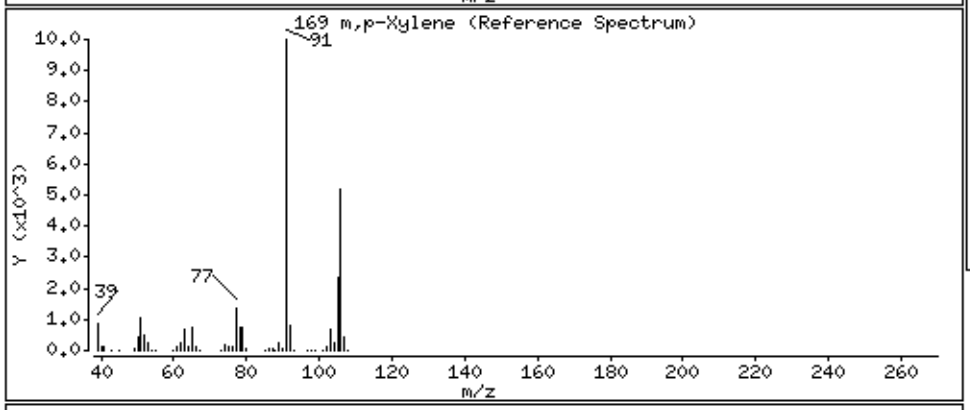
Concentration: 0.2223 PPBV

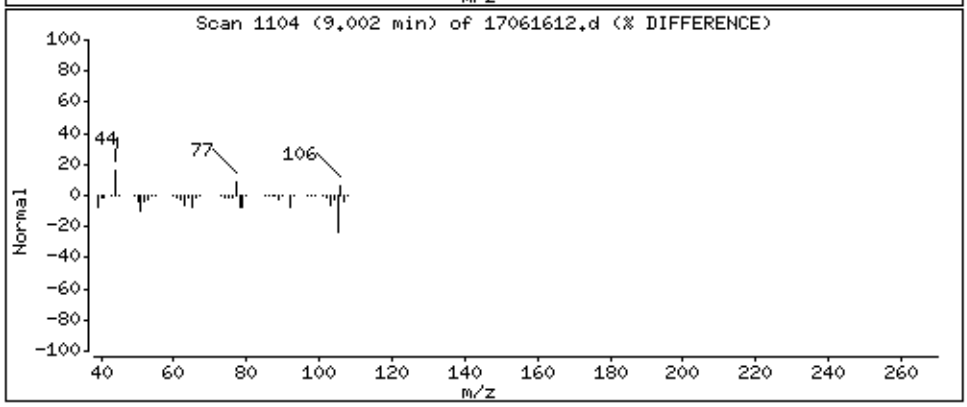












Data File: /chem/msd17.i/16jun16.b/17061612.d

Date : 16-JUN-2016 20:47

Client ID:

Instrument: msd17.i

Sample Info: 200ml 35658

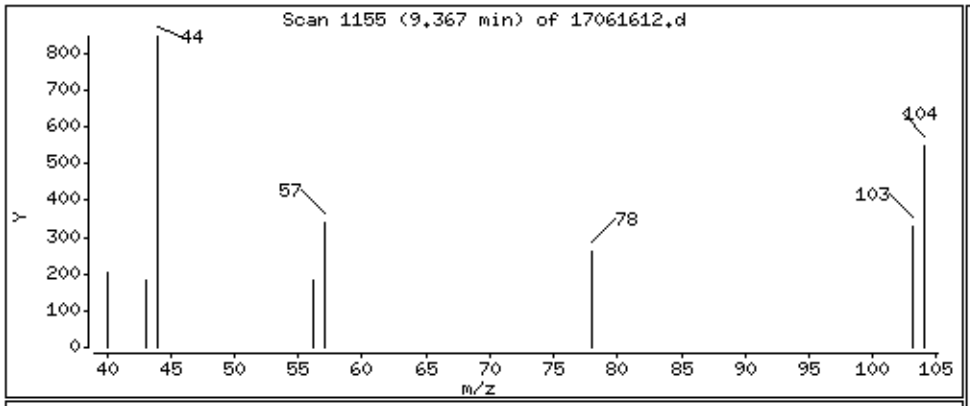
Operator: ea

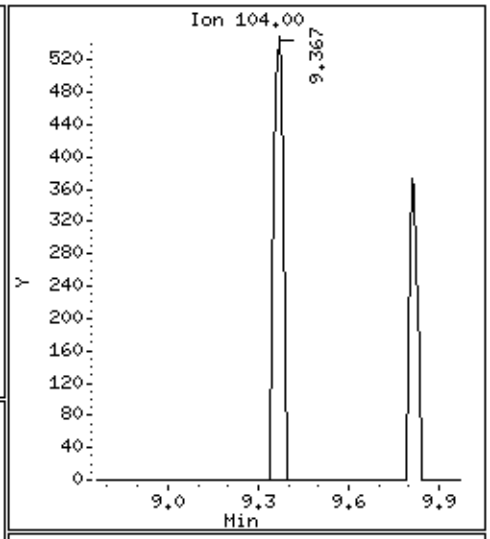
Column phase: RTX-624

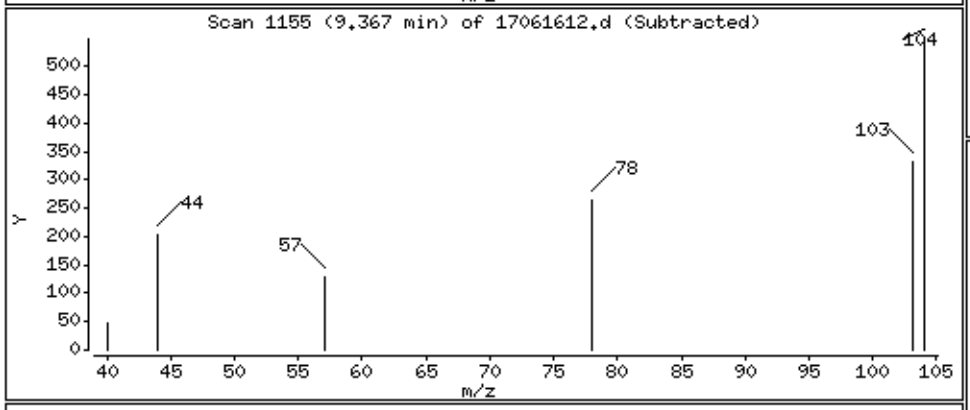
Column diameter: 0.25

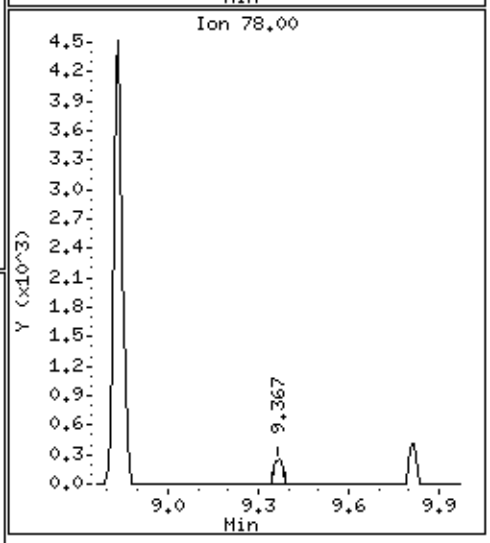
172 Styrene

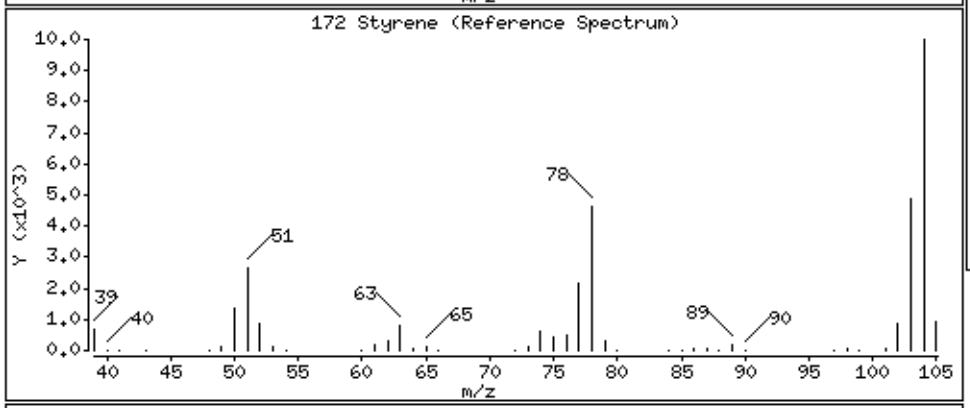
Concentration: 0.2243 PPBV

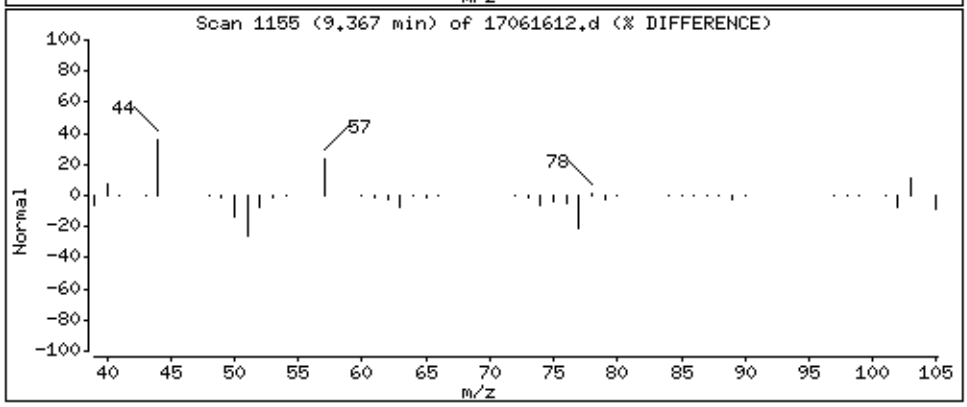












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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B7SS-5(061216)

Lab ID#: 1606298B-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	0.31 J	5.7	1.6 J
Freon 11	1.1	2.9	6.4	16
Acetone	11	8.2 J	27	20 J
2-Propanol	4.6	1.2 J	11	2.8 J
Carbon Disulfide	4.6	0.19 J	14	0.58 J
2-Butanone (Methyl Ethyl Ketone)	4.6	2.0 J	14	5.8 J
Heptane	1.1	2.1	4.7	8.6
Toluene	1.1	1.5	4.3	5.5
2-Hexanone	4.6	0.31 J	19	1.3 J
Ethyl Benzene	1.1	0.35 J	5.0	1.5 J
m,p-Xylene	1.1	1.5	5.0	6.4
o-Xylene	1.1	0.58 J	5.0	2.5 J
Styrene	1.1	0.40 J	4.9	1.7 J
4-Ethyltoluene	1.1	0.62 J	5.6	3.0 J
1,2,4-Trimethylbenzene	1.1	0.62 J	5.6	3.1 J

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Client Sample ID: B7SS-5(061216)

Lab ID#: 1606298B-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061613**	**Date of Collection:**	**6/12/16 11:16:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**6/16/16 09:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	0.31 J	5.7	1.6 J
Freon 114	1.1	Not Detected	8.0	Not Detected
Chloromethane	11	Not Detected UJ	24	Not Detected UJ
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.1	2.9	6.4	16
Ethanol	4.6	Not Detected UJ	8.6	Not Detected UJ
Freon 113	1.1	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	8.2 J	27	20 J
2-Propanol	4.6	1.2 J	11	2.8 J
Carbon Disulfide	4.6	0.19 J	14	0.58 J
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.1	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	2.0 J	14	5.8 J
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.4	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Cyclohexane	1.1	Not Detected	3.9	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.3	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Heptane	1.1	2.1	4.7	8.6
Trichloroethene	1.1	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	1.5	4.3	5.5
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	Not Detected	7.8	Not Detected
2-Hexanone	4.6	0.31 J	19	1.3 J

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Client Sample ID: B7SS-5(061216)

Lab ID#: 1606298B-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061613**	**Date of Collection:**	**6/12/16 11:16:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**6/16/16 09:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.1	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.3	Not Detected
Ethyl Benzene	1.1	0.35 J	5.0	1.5 J
m,p-Xylene	1.1	1.5	5.0	6.4
o-Xylene	1.1	0.58 J	5.0	2.5 J
Styrene	1.1	0.40 J	4.9	1.7 J
Bromoform	1.1	Not Detected	12	Not Detected
Cumene	1.1	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.9	Not Detected
Propylbenzene	1.1	Not Detected	5.6	Not Detected
4-Ethyltoluene	1.1	0.62 J	5.6	3.0 J
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	0.62 J	5.6	3.1 J
1,3-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
Naphthalene	2.3	Not Detected	12	Not Detected

J = Estimated value.
UJ = Analyte associated with low bias in the CCV.
Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061613.d
Lab Smp Id: 1606298B-14A
Inj Date : 16-JUN-2016 21:13
Operator : ea Inst ID: msd17.i
Smp Info : 200ml 1L2744
Misc Info : 3.7 Hg->14.8 psi
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 15:02 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 7
Dil Factor: 2.29000
Integrator: HP RTE Compound Sublist: TO15Nmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	2.29000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	75353	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	57239			48.69- 108.69	75.96
5.499	5.499 (1.000)	49	52183			54.63- 114.63	69.25
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.387	6.388 (1.000)	114	301110	25.0000		80.00- 120.00	100.00
6.387	6.388 (1.000)	88	43652			0.00- 45.20	14.50
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	308574	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	148102			20.04- 80.04	48.00
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.036	6.037 (1.098)	65	72730	23.3696	23.370	80.00- 120.00	100.00
6.036	6.037 (1.098)	67	39527			34.58- 94.58	54.35

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	317871	25.0678	25.068	80.00- 120.00	100.00
7.598	7.605 (1.190)	70	29505			0.00- 39.40	9.28
7.605	7.605 (1.191)	100	211194			35.49- 95.49	66.44
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.811	9.819 (1.110)	174	229732	25.4263	25.426	80.00- 120.00	100.00
9.811	9.819 (1.110)	95	220619			71.35- 131.35	96.03
9.811	9.819 (1.110)	176	222850			68.09- 128.09	97.00
11 Freon 12					CAS #: 75-71-8		
1.538	1.531 (0.280)	85	897	0.13710	0.3140	80.00- 120.00	100.00(a)
1.538	1.531 (0.280)	87	171			2.58- 62.58	19.05
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	8837	1.25517	2.874	80.00- 120.00	100.00
2.591	2.598 (0.471)	103	5915			35.21- 95.21	66.93
52 Acetone					CAS #: 67-64-1		
3.436	3.429 (0.625)	58	4292	3.59266	8.227	80.00- 120.00	100.00(a)
3.436	3.429 (0.625)	43	11192			226.10- 286.10	260.74
56 Carbon Disulfide					CAS #: 75-15-0		
3.501	3.508 (0.637)	76	722	0.08189	0.1875	80.00- 120.00	100.00(a)
57 2-Propanol					CAS #: 67-63-0		
3.615	3.608 (0.657)	45	1771	0.50230	1.150	80.00- 120.00	100.00(a)
3.608	3.608 (0.656)	43	562			0.00- 48.33	31.72
4.067	3.608 (0.739)	59	15068			0.00- 34.85	850.45
92 2-Butanone					CAS #: 78-93-3		
5.299	5.292 (0.964)	72	1382	0.85656	1.962	80.00- 120.00	100.00(a)
5.299	5.292 (0.964)	43	5575			251.52- 311.52	403.40
5.292	5.292 (0.962)	57	146			0.00- 57.81	10.60
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	3234	0.91754	2.101	80.00- 120.00	100.00
6.187	6.158 (0.969)	43	11332			96.69- 156.69	350.41
6.158	6.158 (0.964)	57	2457			58.40- 118.40	75.98
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	8891	0.63921	1.464	80.00- 120.00	100.00
7.655	7.655 (1.198)	92	5254			28.86- 88.86	59.10
158 2-Hexanone					CAS #: 591-78-6		
8.221	8.221 (0.930)	58	570	0.13631	0.3121	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone (continued)							
8.221	8.221 (0.930)	43	1575			121.26- 181.26	276.26
7.734	8.221 (0.875)	100	296			0.00- 55.92	51.91
167 Ethyl Benzene					CAS #: 100-41-4		
8.909	8.909 (1.008)	106	1025	0.15487	0.3546	80.00- 120.00	100.00(a)
8.909	8.909 (1.008)	91	3810			268.56- 328.56	371.50
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	5406	0.64645	1.480	80.00- 120.00	100.00
9.002	9.002 (1.019)	91	10825			159.69- 219.69	200.23
171 o-Xylene					CAS #: 95-47-6		
9.346	9.346 (1.058)	106	1991	0.25408	0.5818	80.00- 120.00	100.00(a)
9.346	9.346 (1.058)	91	4327			168.78- 228.78	217.31
172 Styrene					CAS #: 100-42-5		
9.367	9.367 (1.060)	104	2222	0.17606	0.4032	80.00- 120.00	100.00(a)
9.360	9.367 (1.059)	78	1030			13.63- 73.63	46.39
188 4-Ethyltoluene					CAS #: 622-96-8		
10.041	10.062 (1.136)	120	2078	0.27090	0.6204	80.00- 120.00	100.00(a)
10.041	10.062 (1.136)	105	6302			279.77- 339.77	303.27
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
10.435	10.435 (1.181)	120	2568	0.27236	0.6237	80.00- 120.00	100.00(a)
10.435	10.435 (1.181)	105	5900			178.76- 238.76	229.77

QC Flag Legend

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

Report Date: 24-Jun-2016 12:55

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061613.d
Lab Smp Id: 1606298B-14A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 3.7 Hg->14.8 psi

Calibration Date: 16-JUN-2016
Calibration Time: 14:10

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	75353	-0.12
123 1,4-Difluorobenze	302627	181576	423678	301110	-0.50
163 Chlorobenzene-d5	299663	179798	419528	308574	2.97

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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-Jun-2016 12:55

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606298B-14A
Level: LOW
Operator: ea
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12bromoform.spk
Quant Type: ISTD
Sublist File: TO15Nmdl.sub
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 3.7 Hg->14.8 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	23.370	93.48	70-130
$ 146 Toluene-d8	25.000	25.068	100.27	70-130
$ 177 4-Bromofluorobenze	25.000	25.426	101.71	70-130

Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

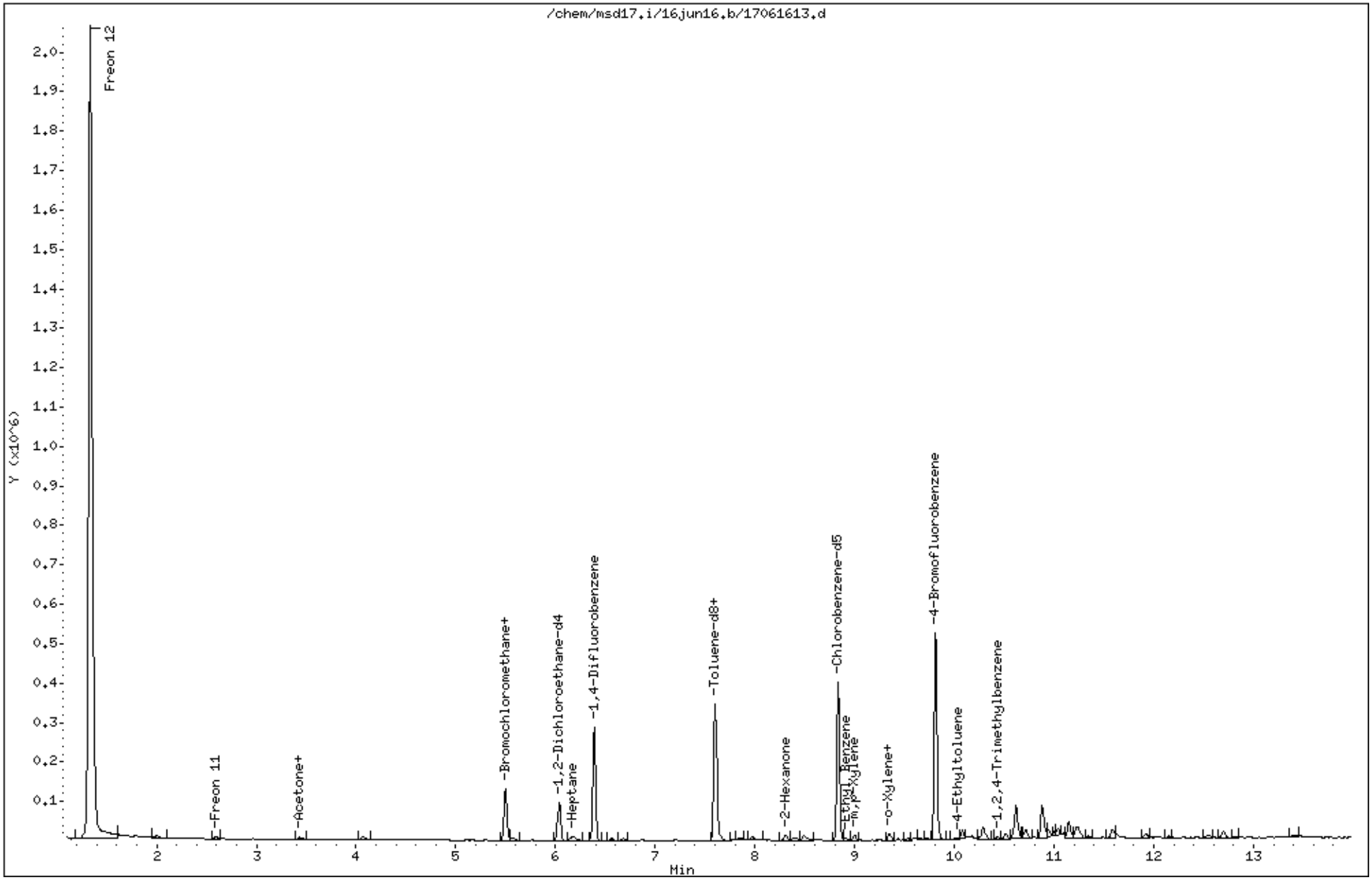
Sample Info: 200ml 1L2744

Column phase: RTX-624

Instrument: msd17.i

Operator: ea

Column diameter: 0.25



Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

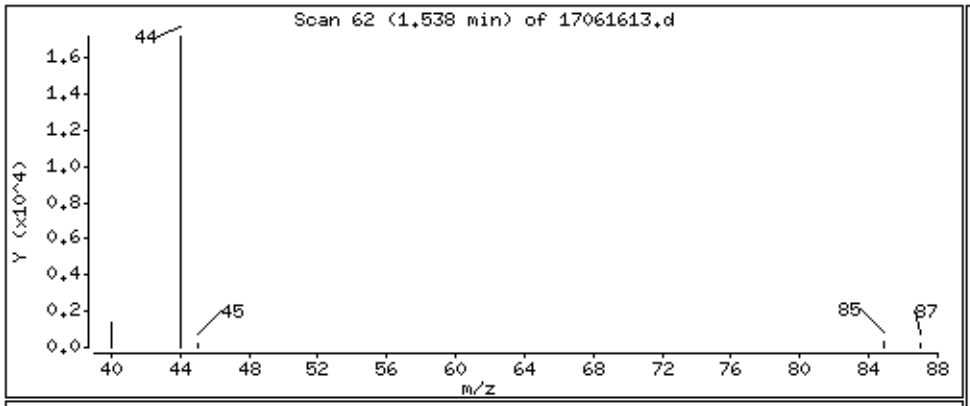
Operator: ea

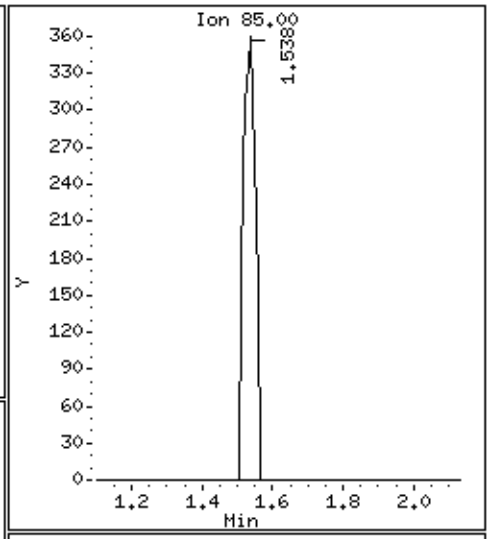
Column phase: RTX-624

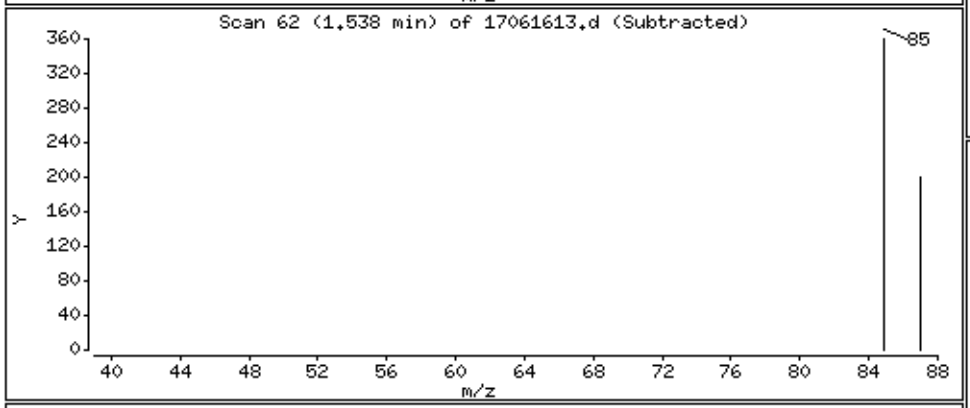
Column diameter: 0.25

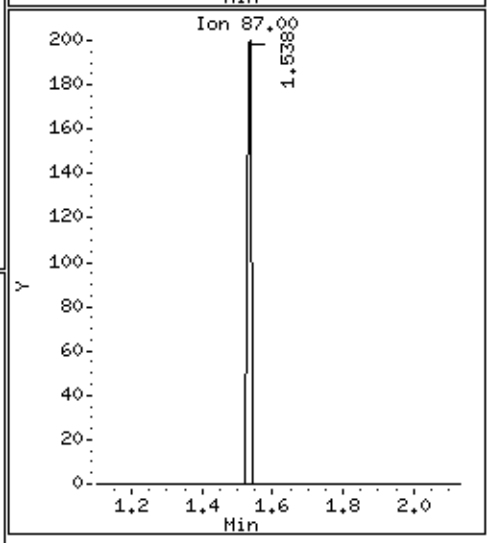
11 Freon 12

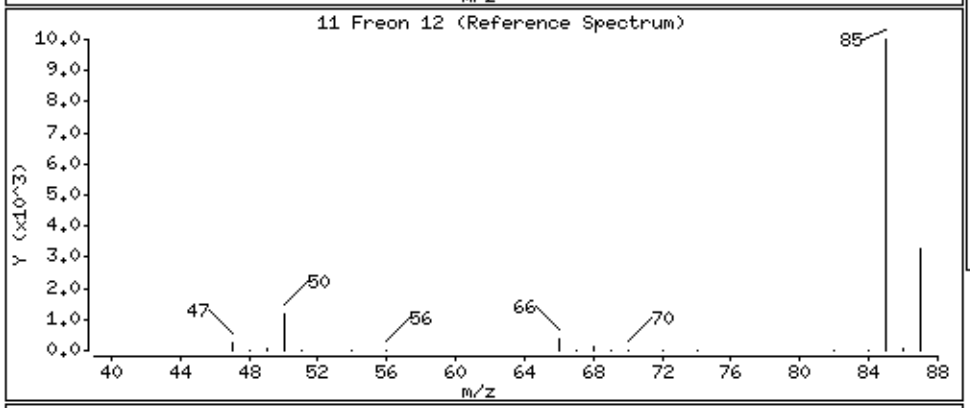
Concentration: 0.3140 PPBV

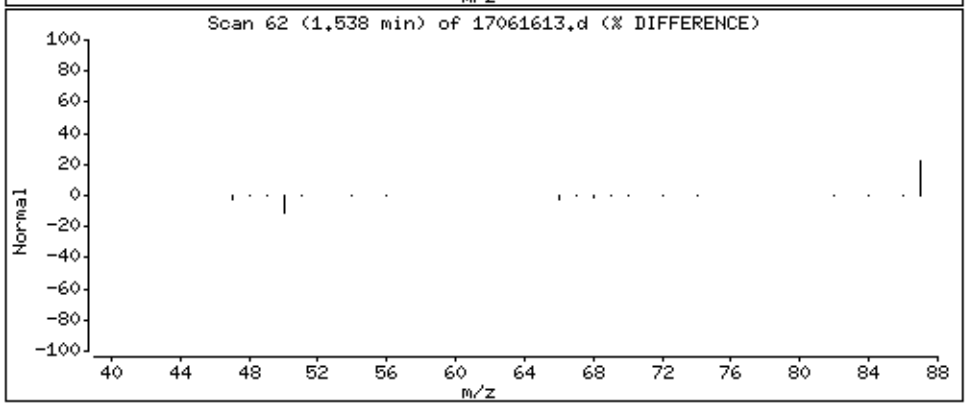












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

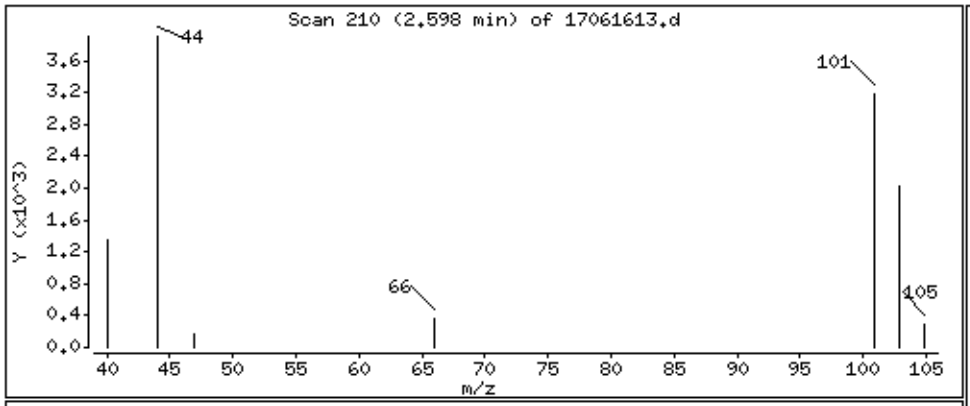
Operator: ea

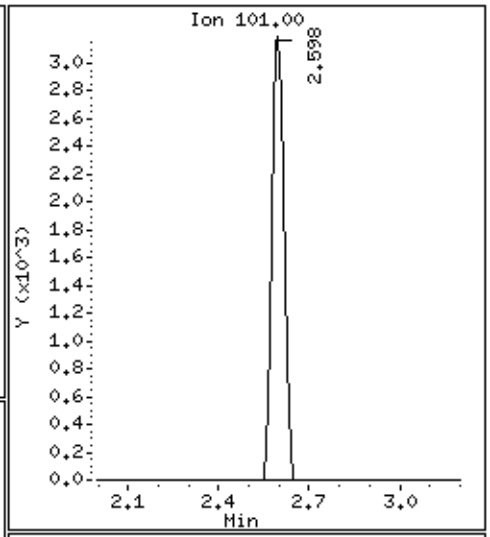
Column phase: RTX-624

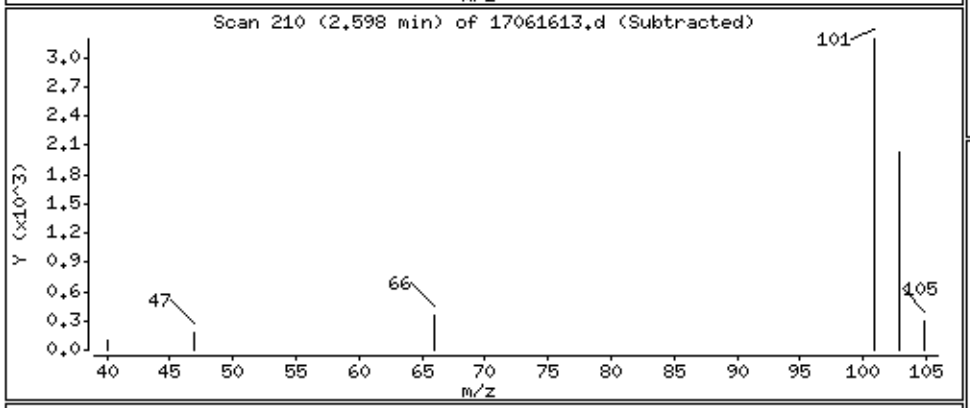
Column diameter: 0.25

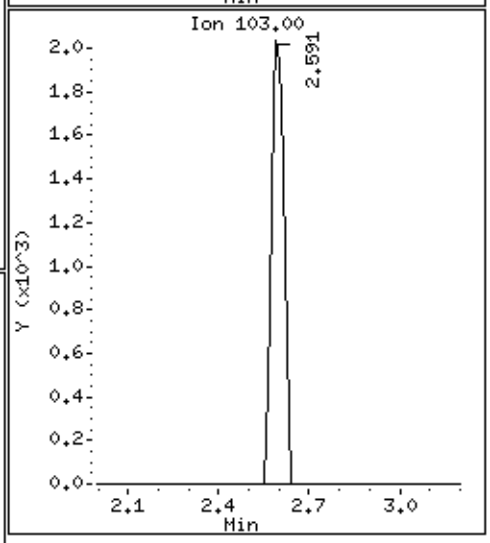
35 Freon 11

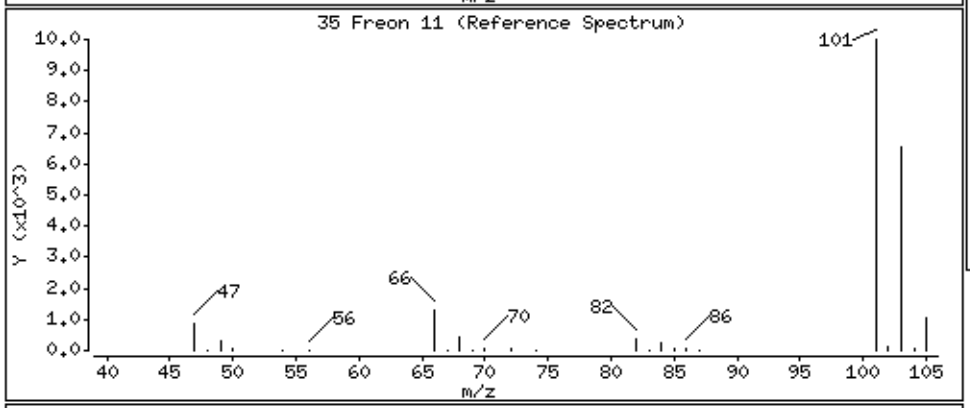
Concentration: 2.874 PPBV

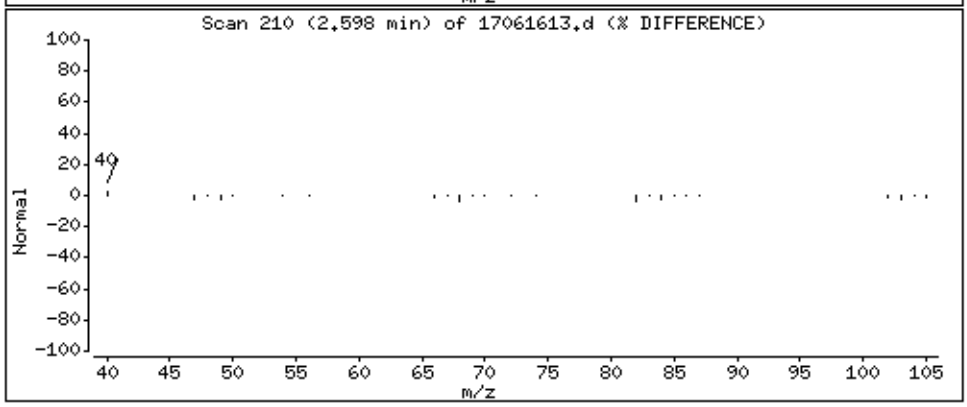












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

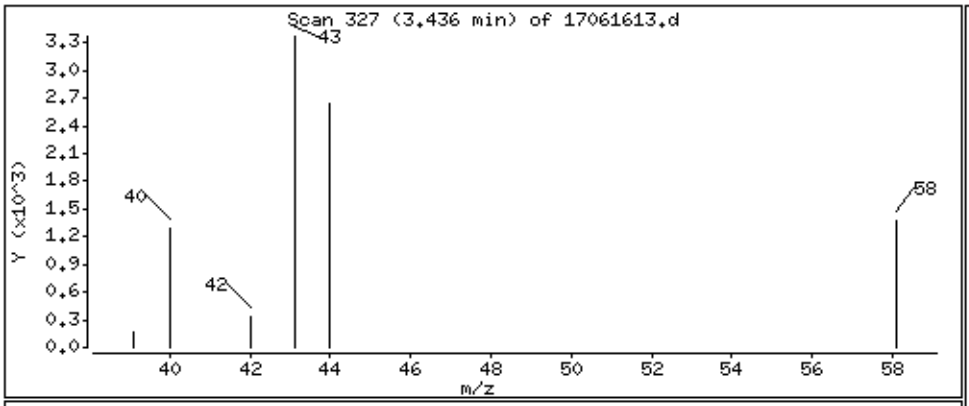
Operator: ea

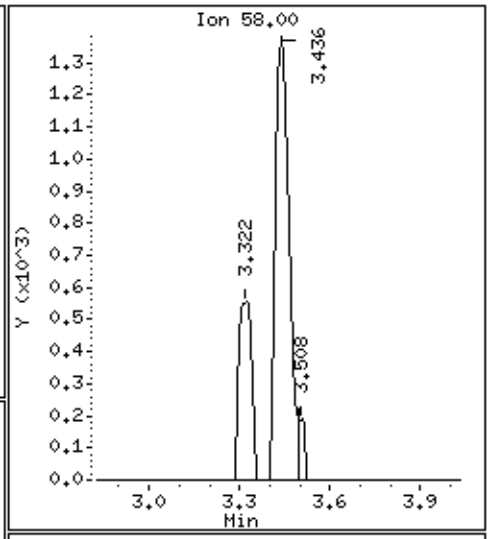
Column phase: RTX-624

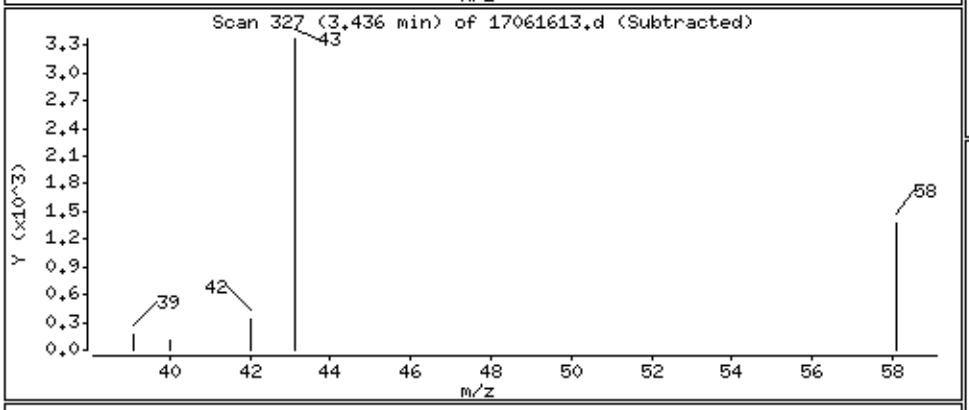
Column diameter: 0.25

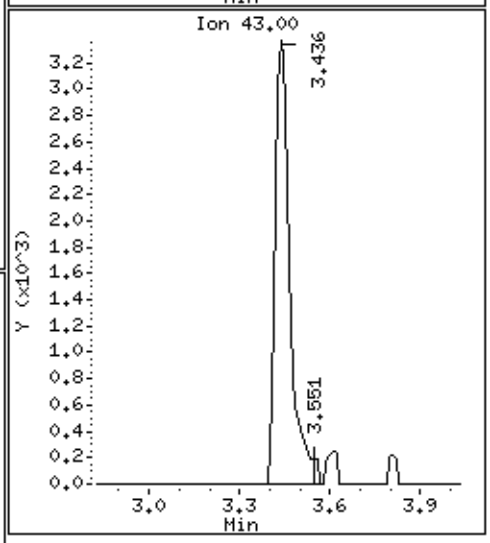
52 Acetone

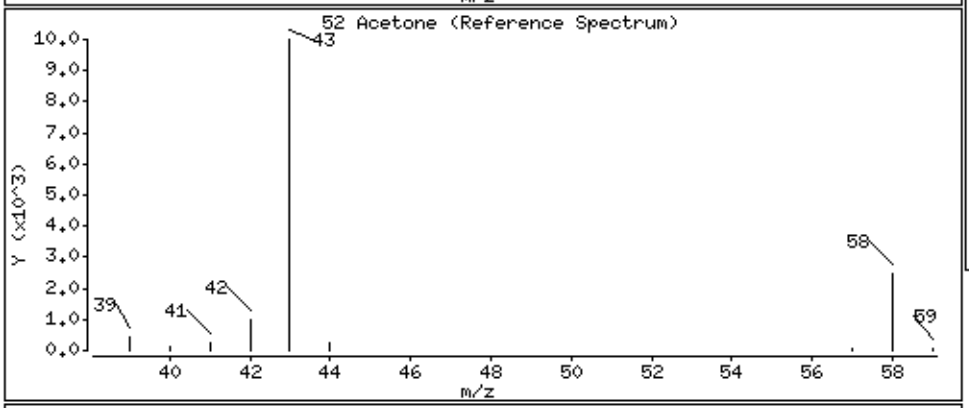
Concentration: 8.227 PPBV

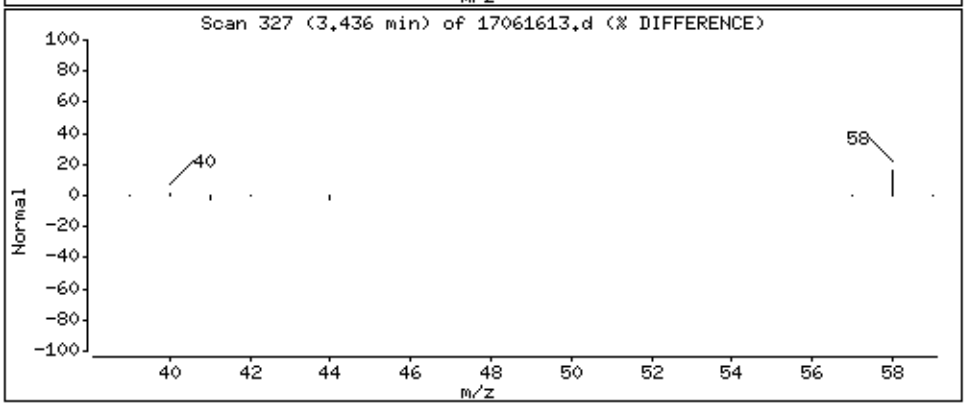












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

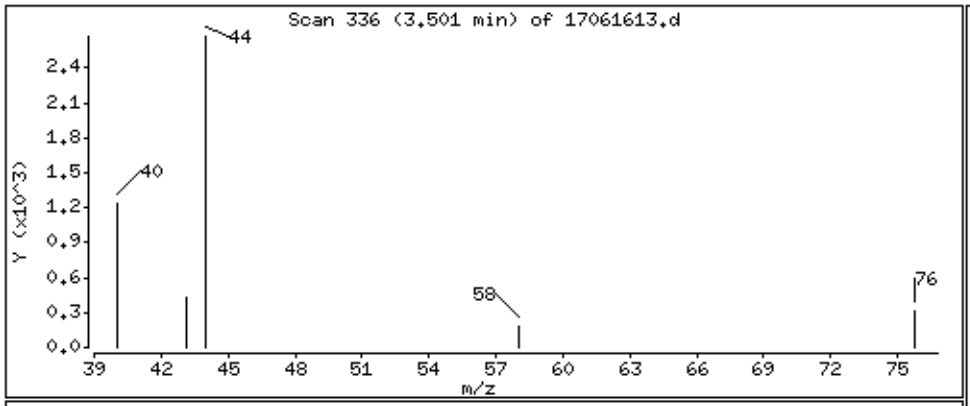
Operator: ea

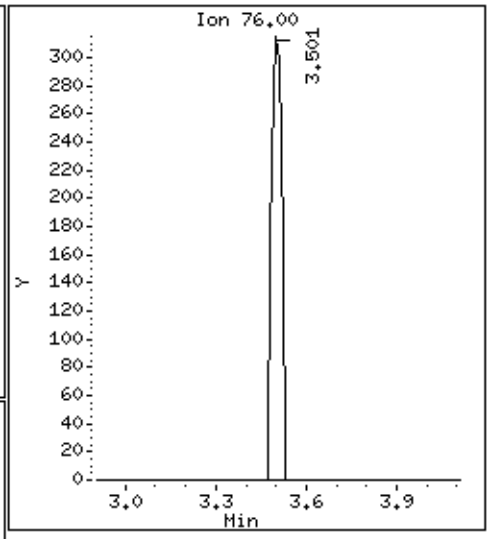
Column phase: RTX-624

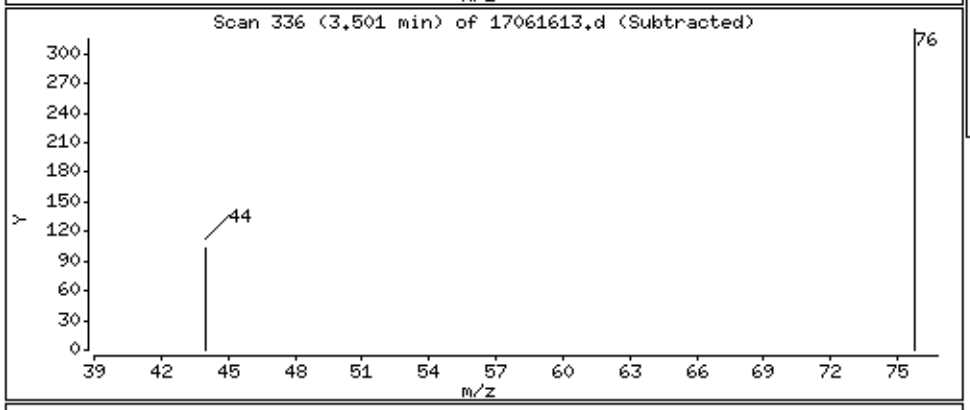
Column diameter: 0.25

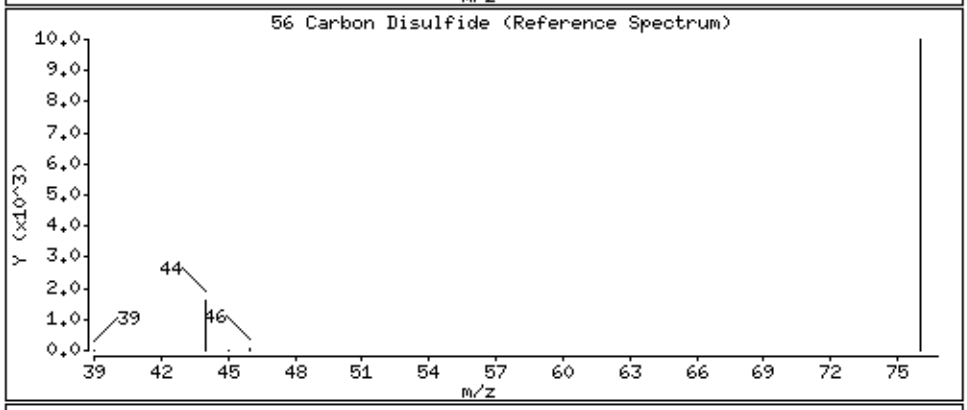
56 Carbon Disulfide

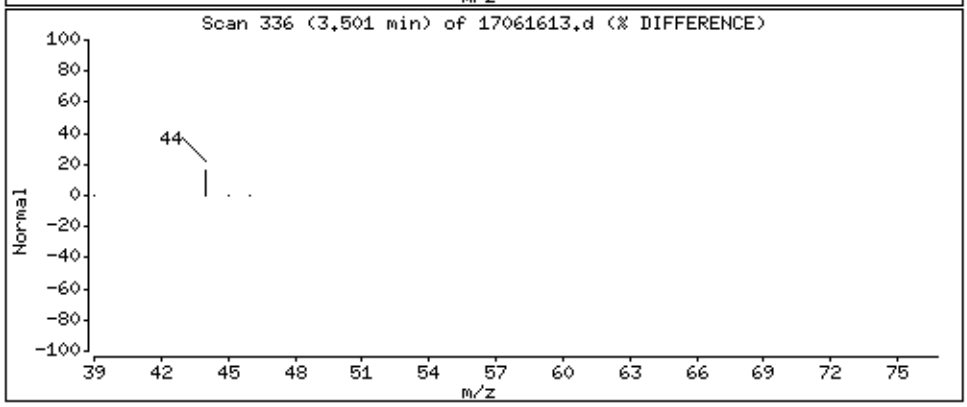
Concentration: 0.1875 PPBV











Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

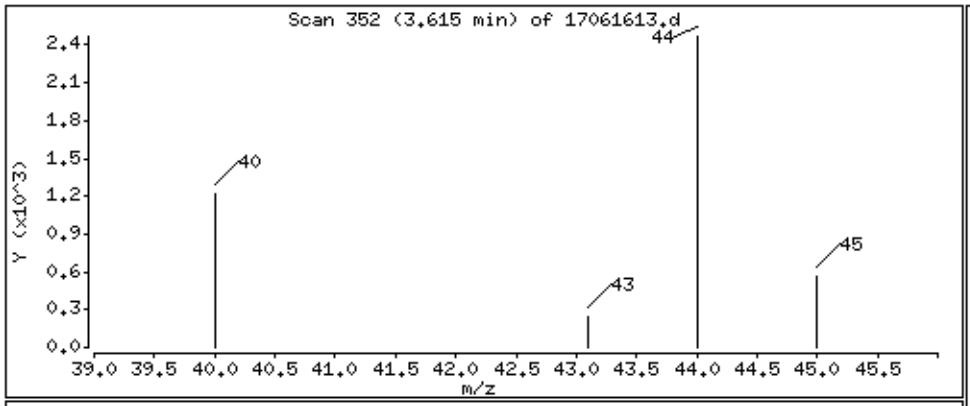
Operator: ea

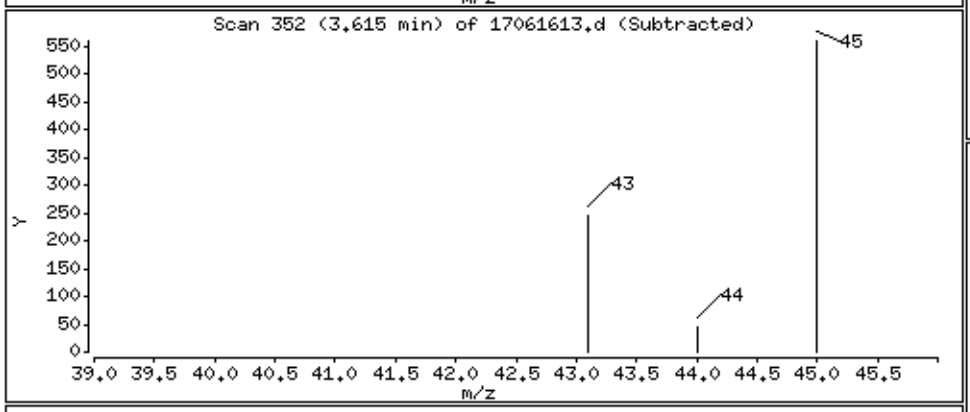
Column phase: RTX-624

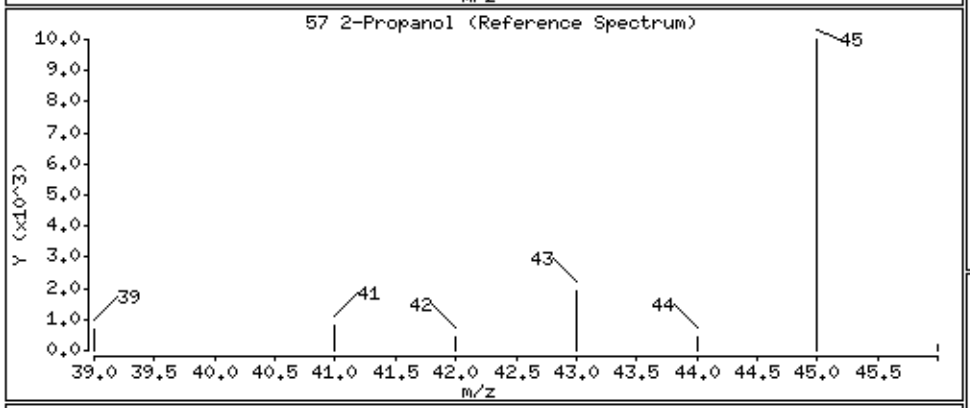
Column diameter: 0.25

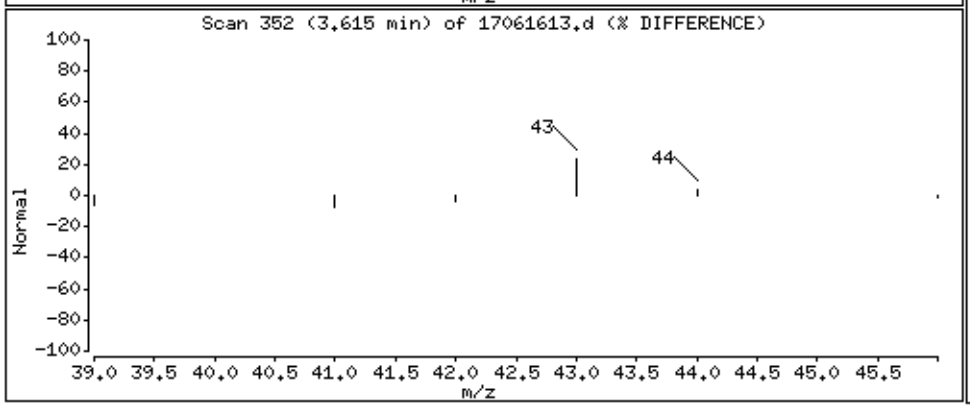
57 2-Propanol

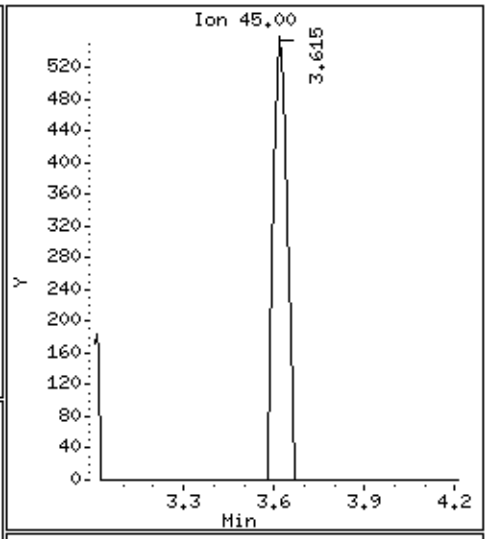
Concentration: 1.150 PPBV

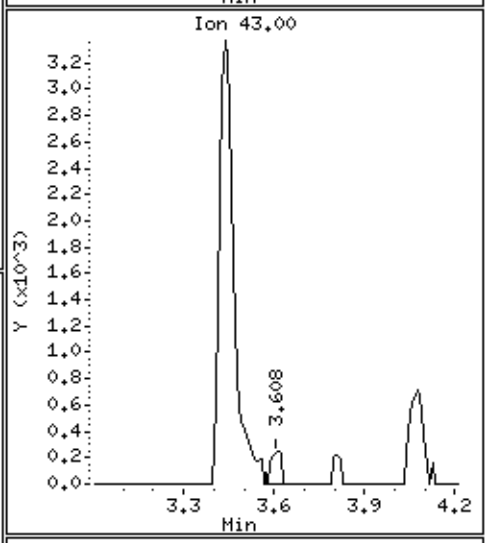


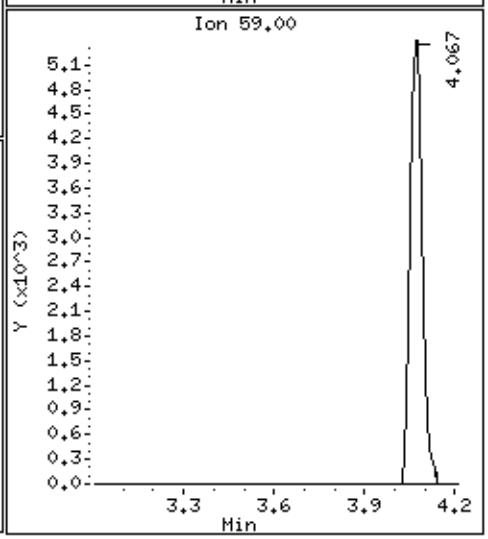












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

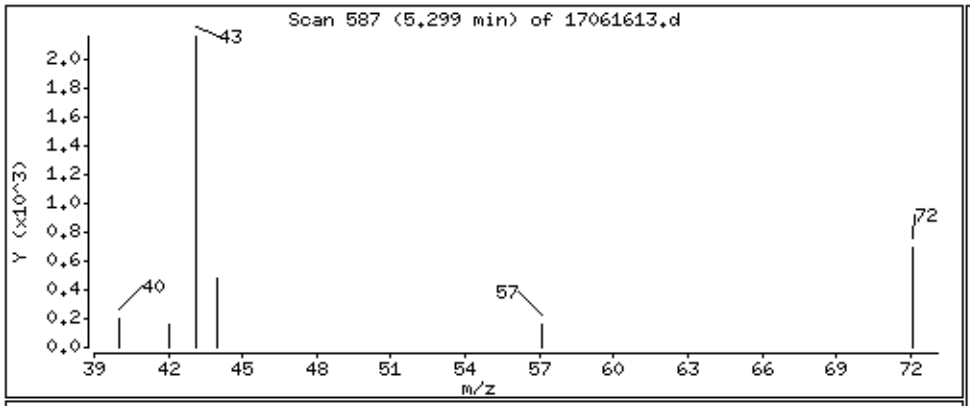
Operator: ea

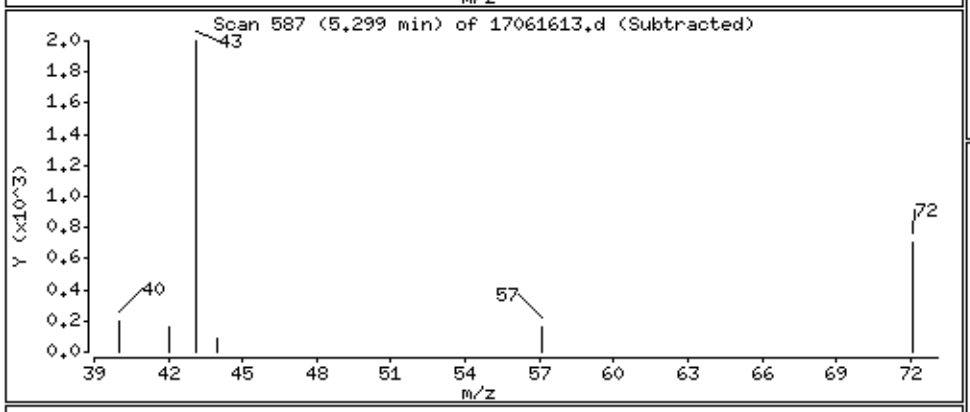
Column phase: RTX-624

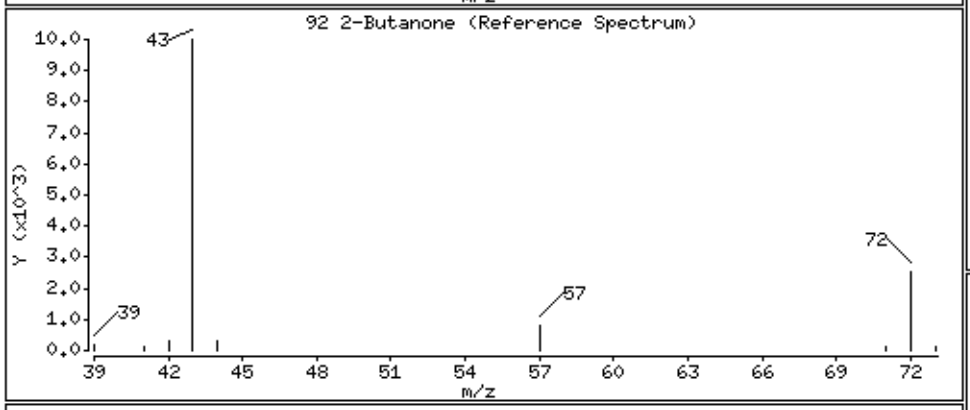
Column diameter: 0.25

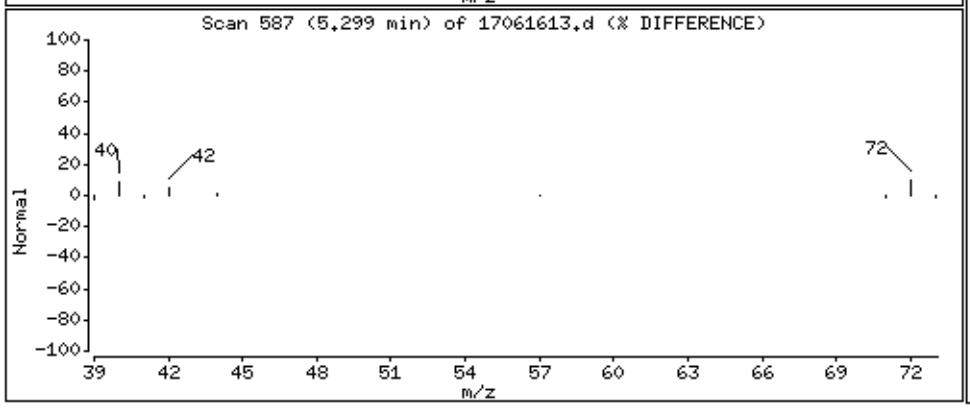
92 2-Butanone

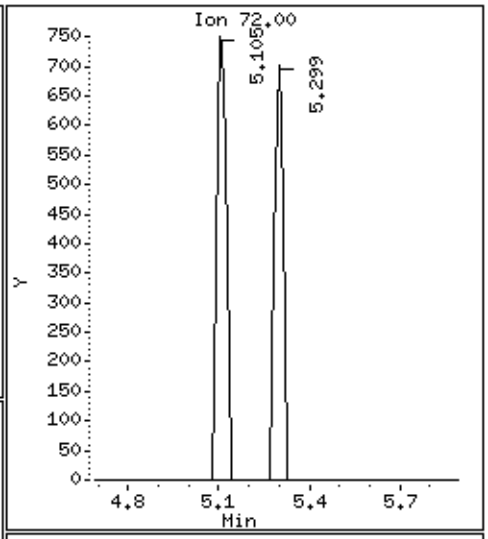
Concentration: 1.962 PPBV

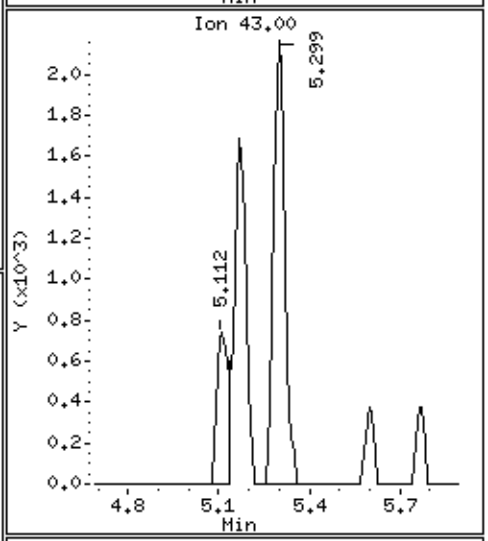


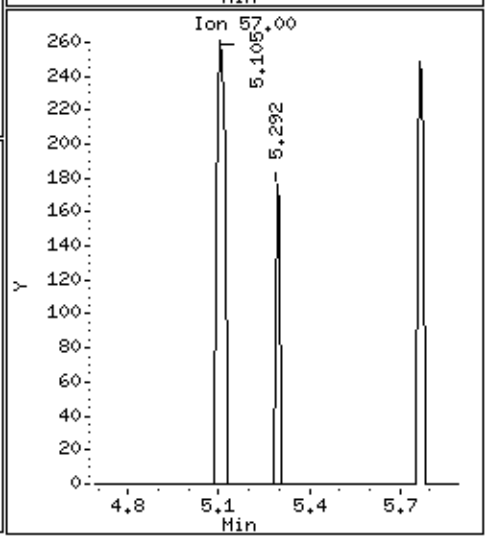












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

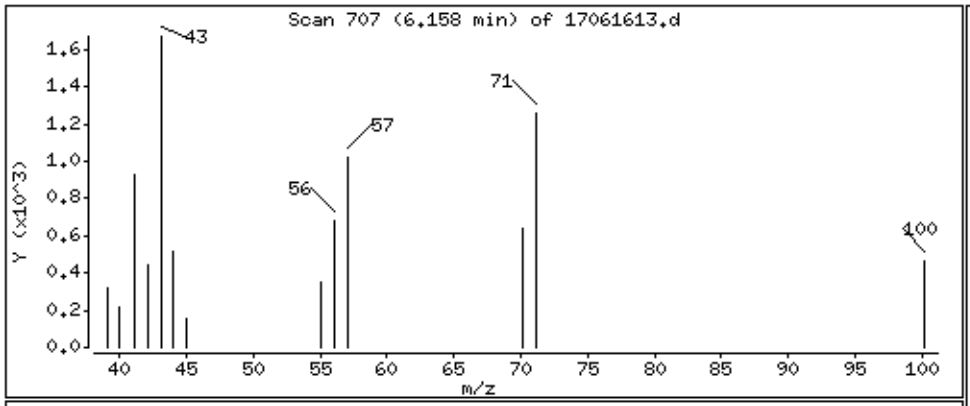
Operator: ea

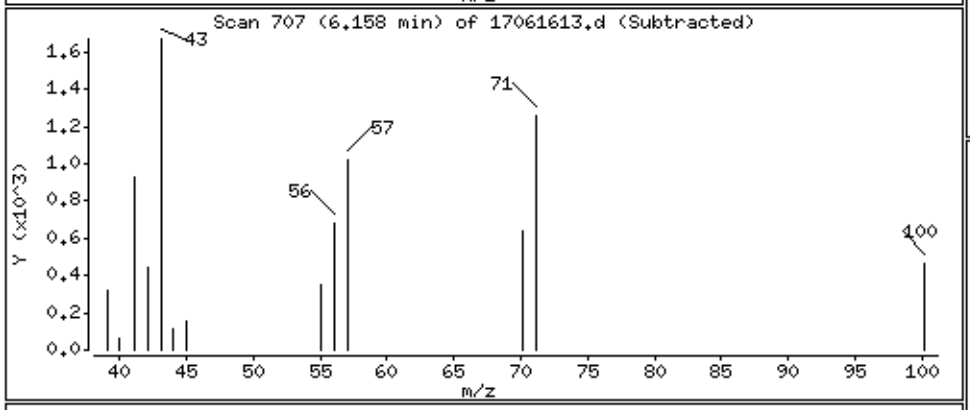
Column phase: RTX-624

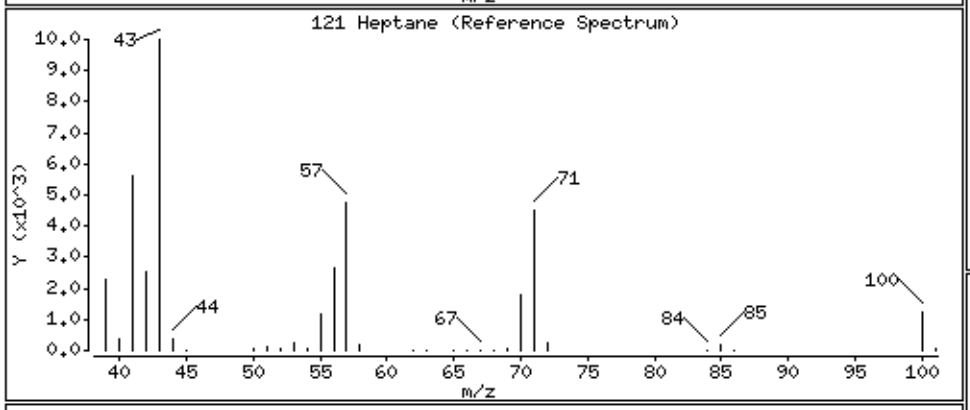
Column diameter: 0.25

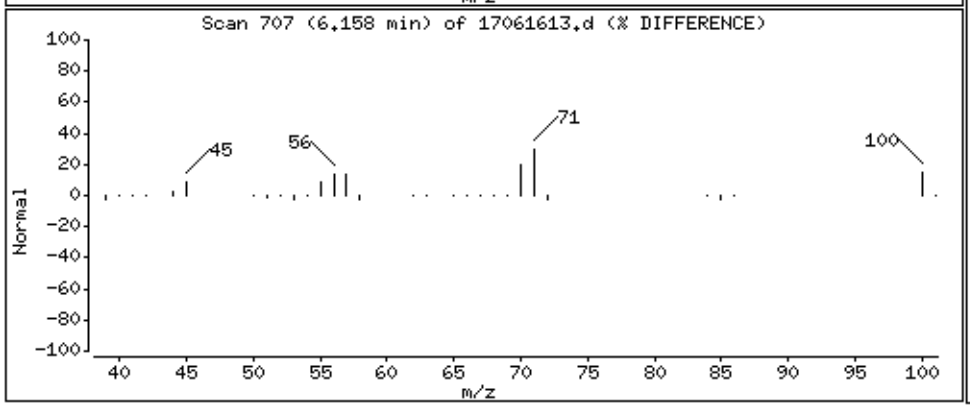
121 Heptane

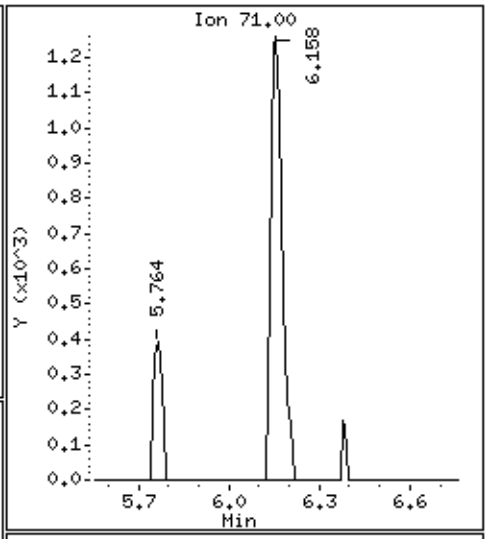
Concentration: 2.101 PPBV

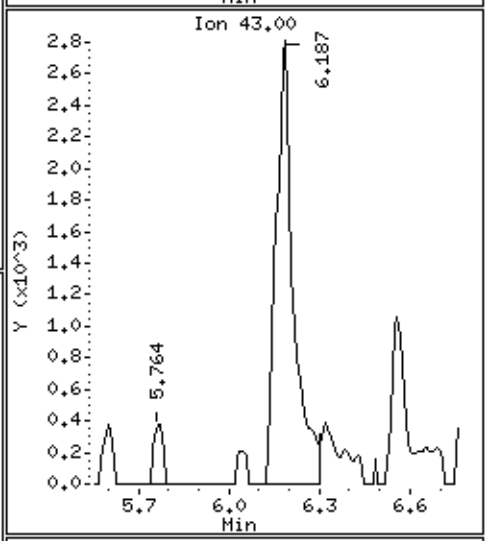


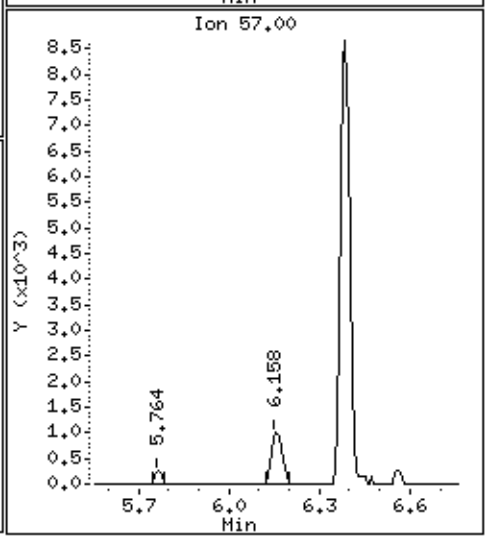












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

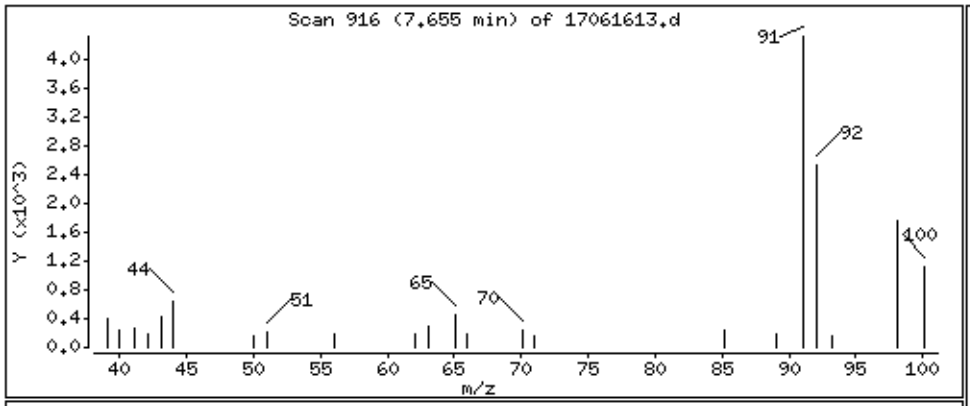
Operator: ea

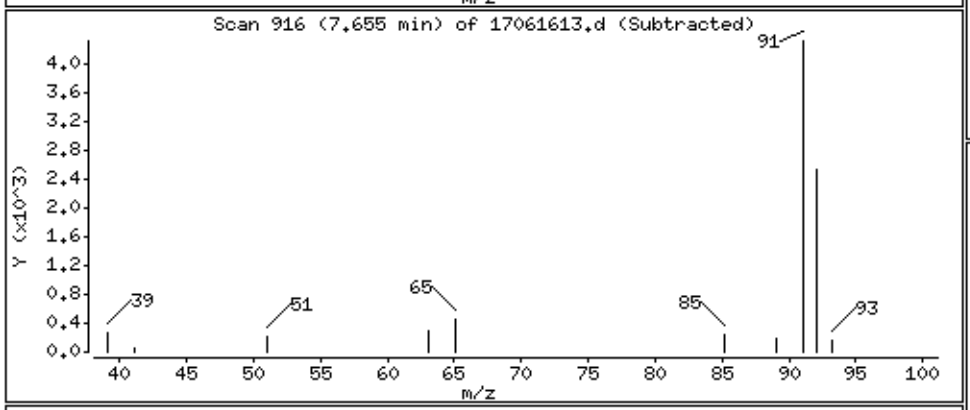
Column phase: RTX-624

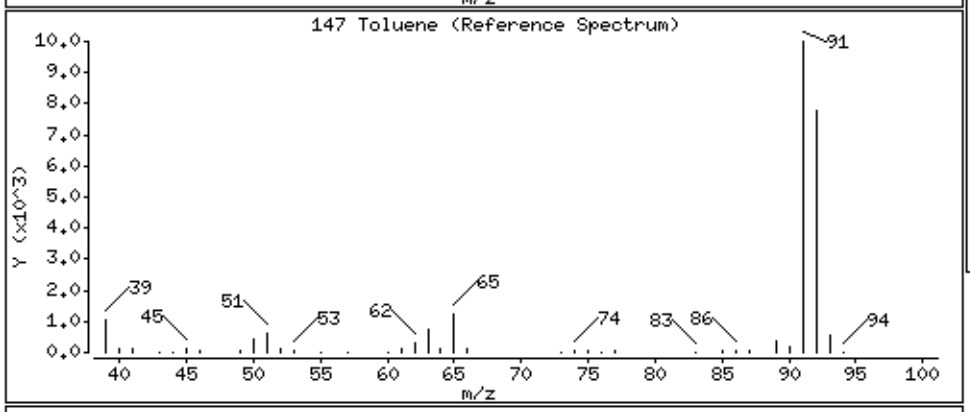
Column diameter: 0.25

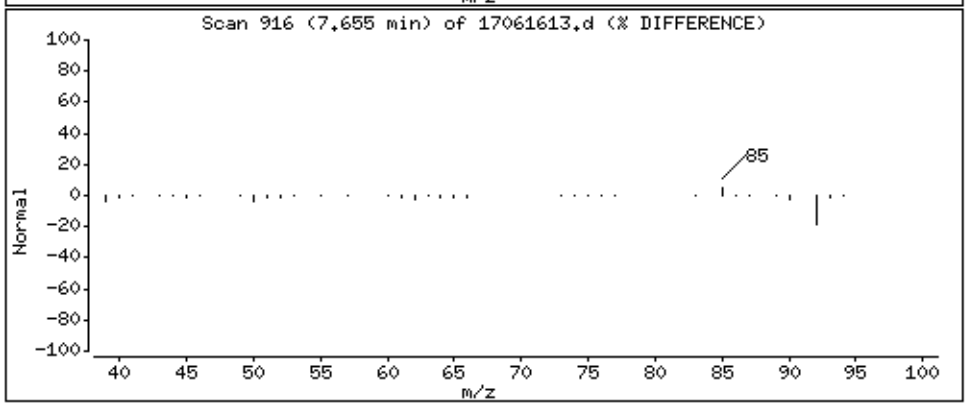
147 Toluene

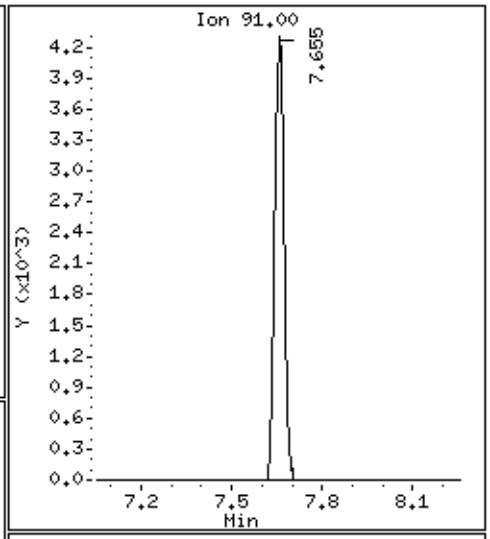
Concentration: 1.464 PPBV

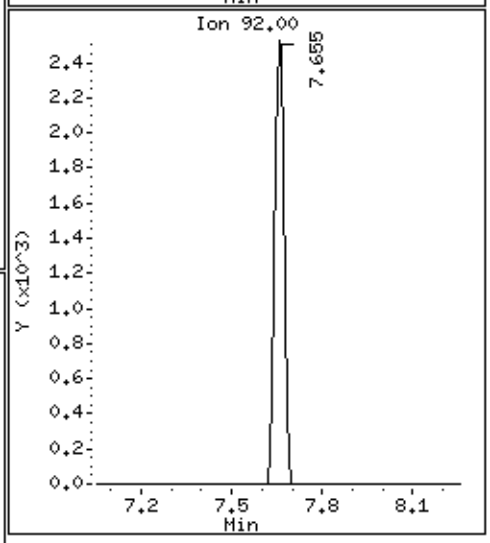












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

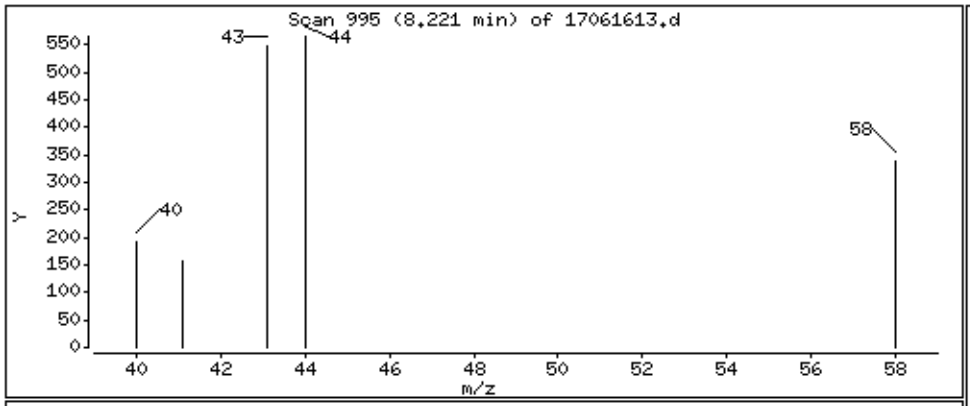
Operator: ea

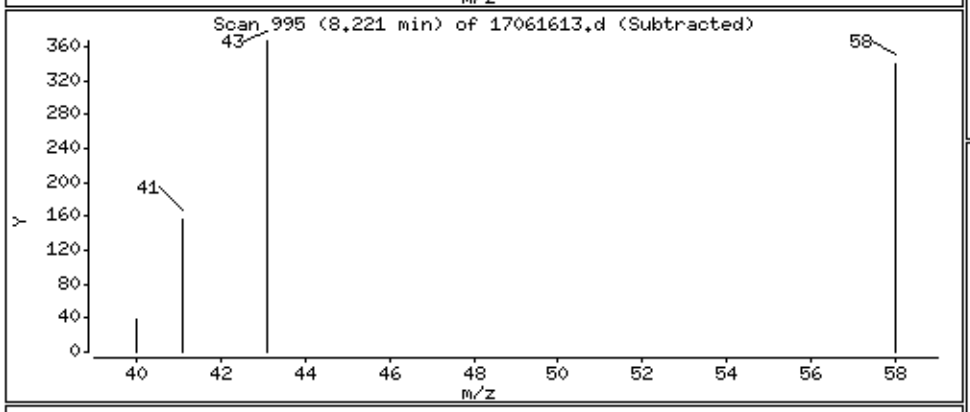
Column phase: RTX-624

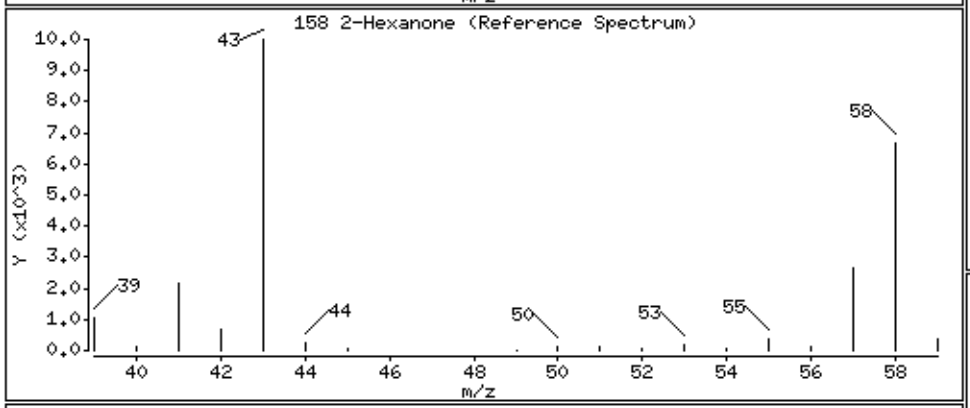
Column diameter: 0.25

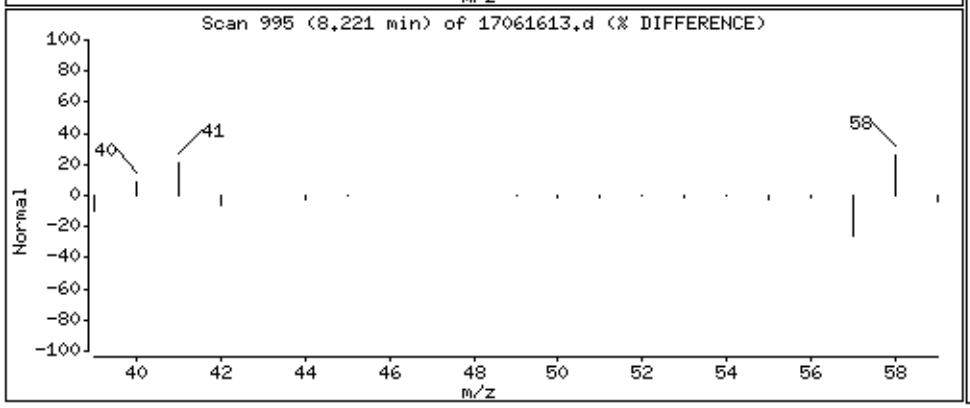
158 2-Hexanone

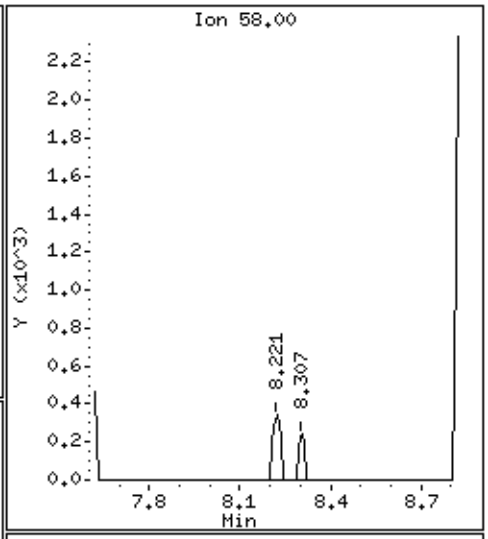
Concentration: 0.3121 PPBV

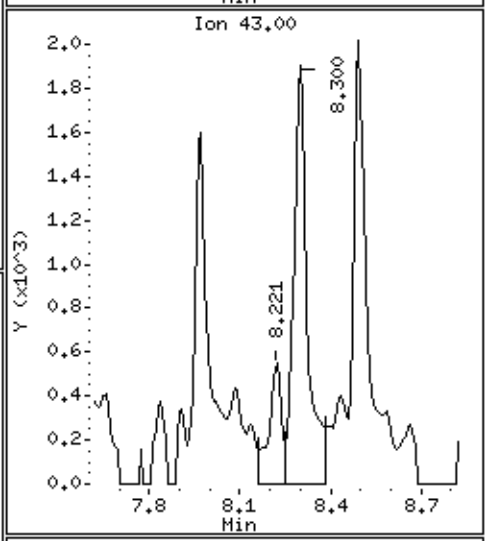


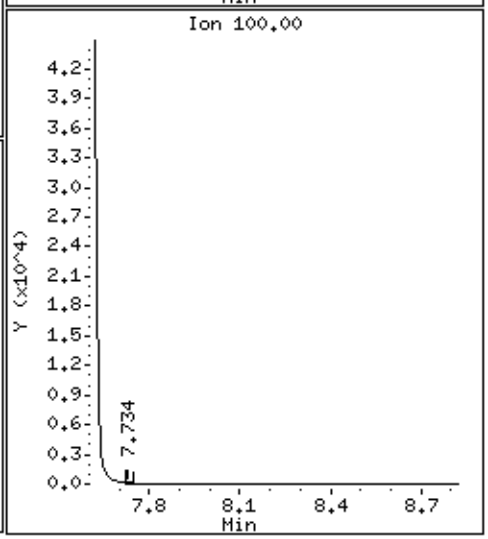












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

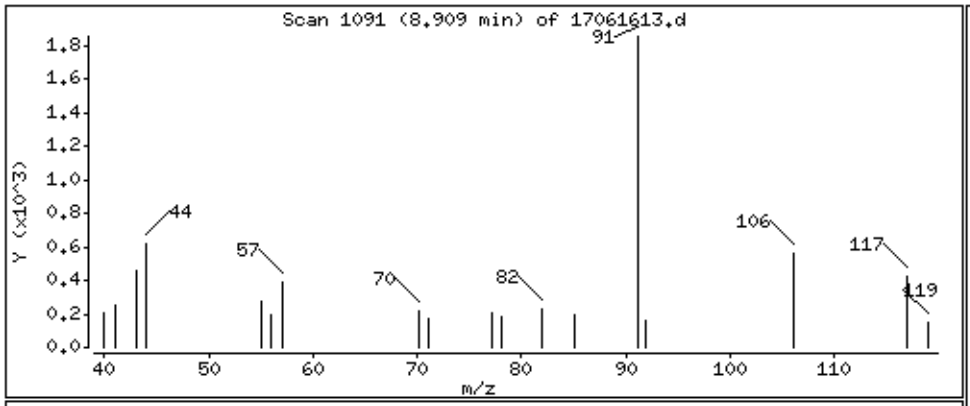
Operator: ea

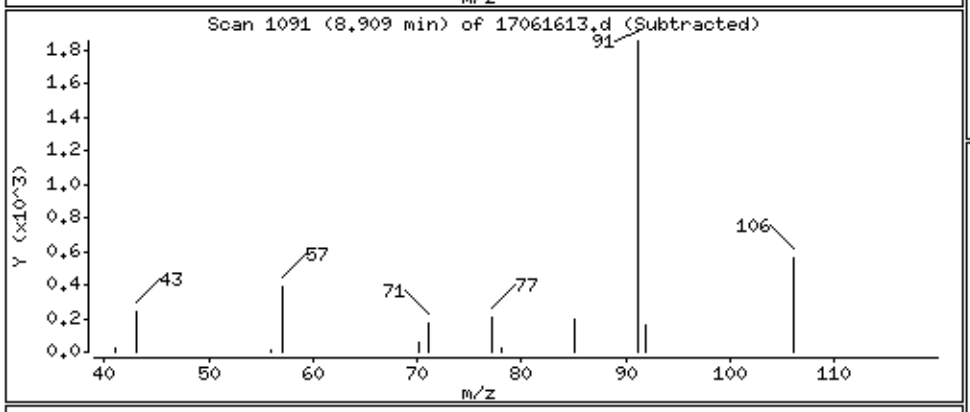
Column phase: RTX-624

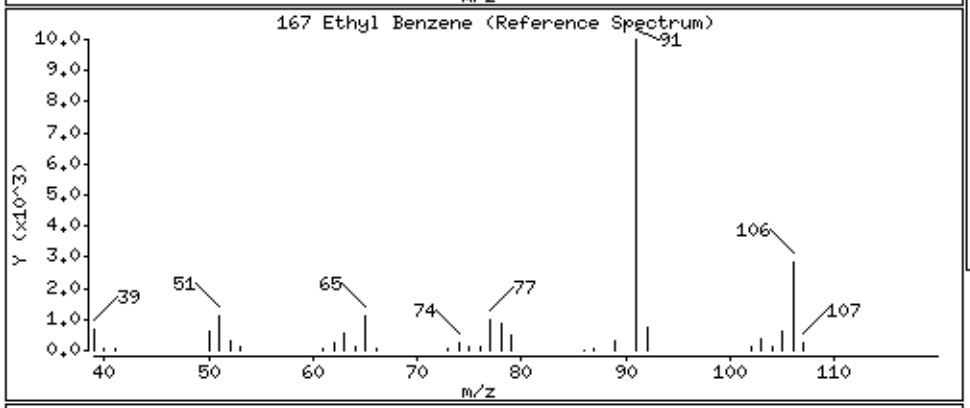
Column diameter: 0.25

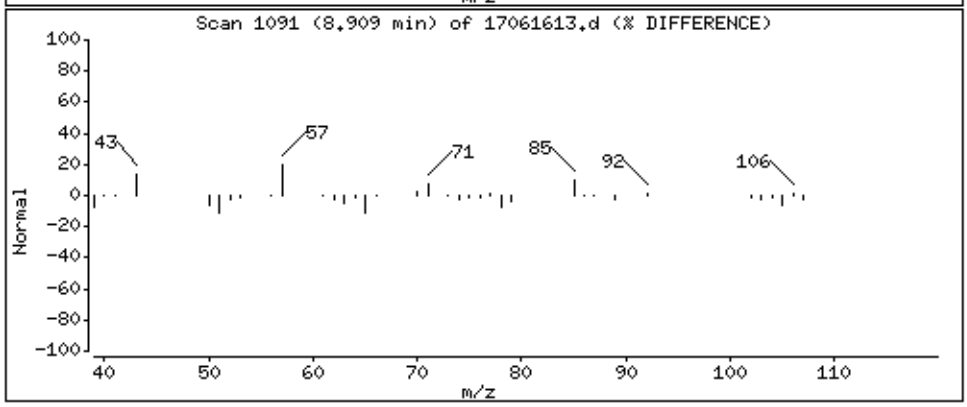
167 Ethyl Benzene

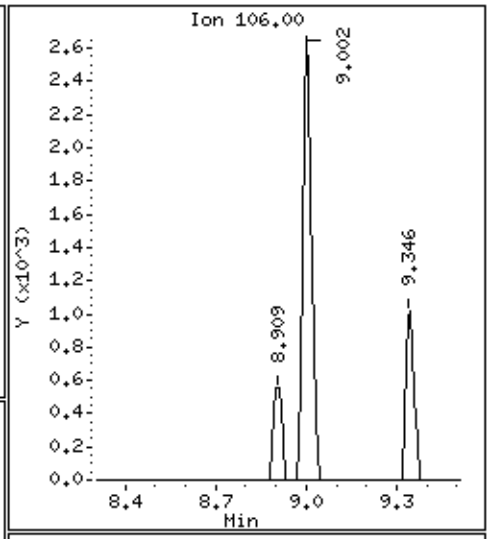
Concentration: 0.3546 PPBV

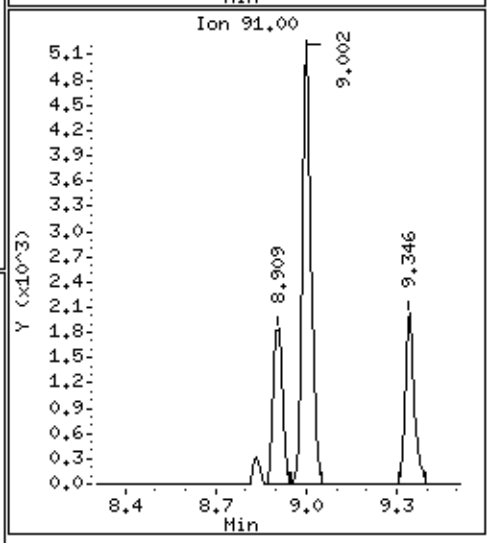












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

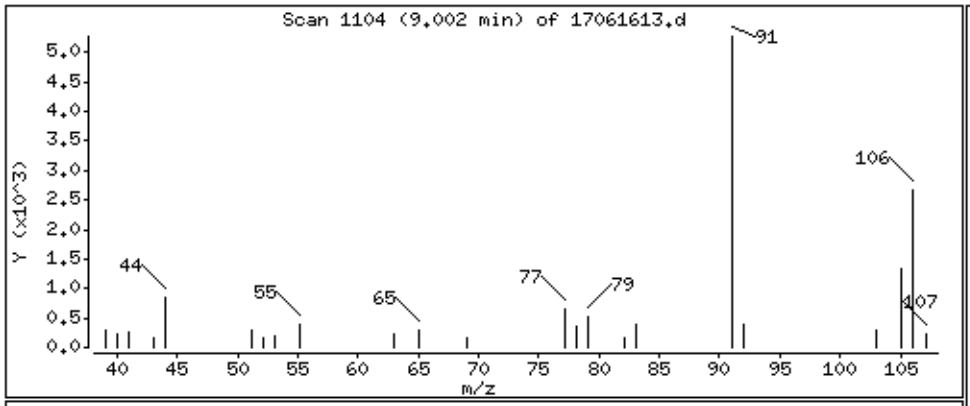
Operator: ea

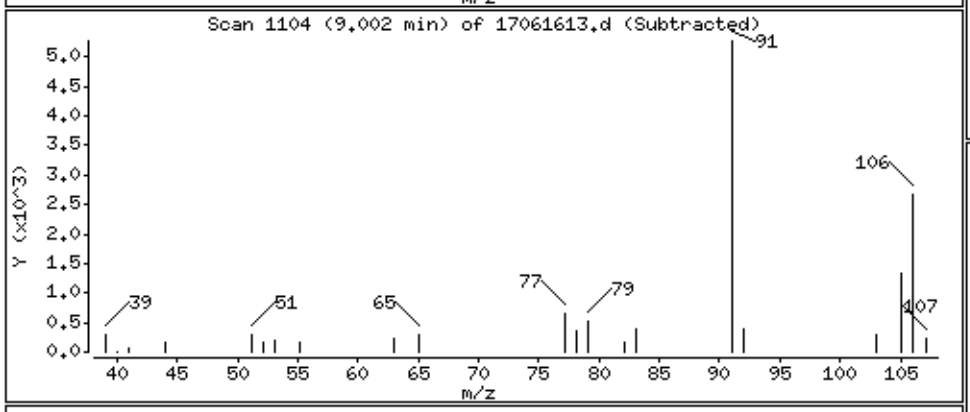
Column phase: RTX-624

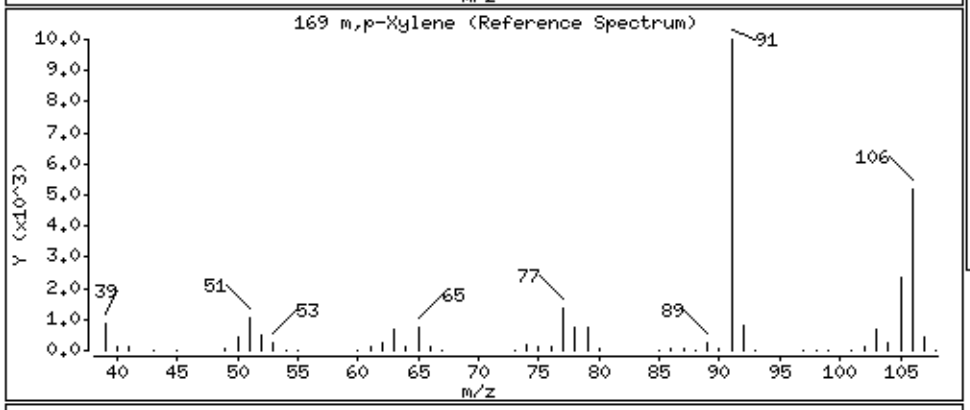
Column diameter: 0.25

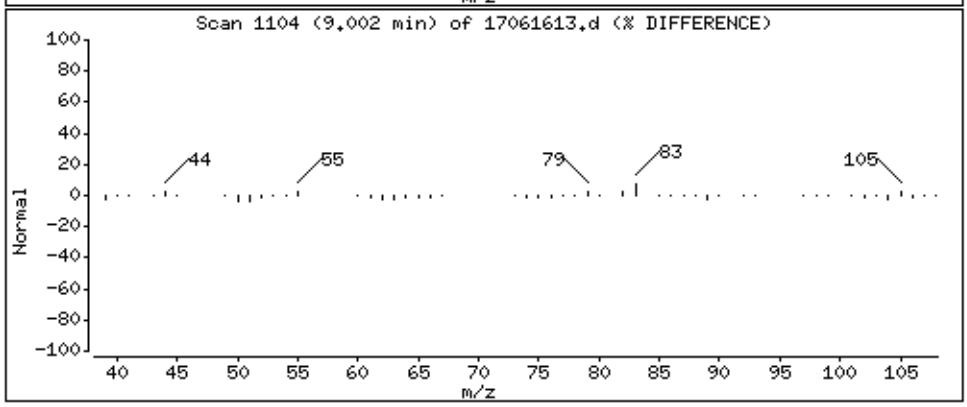
169 m,p-Xylene

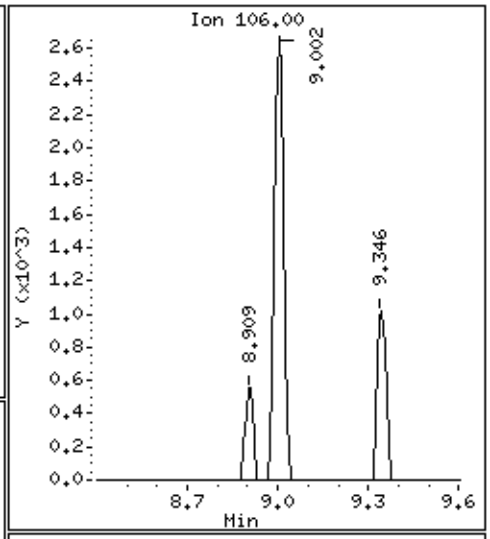
Concentration: 1.480 PPBV

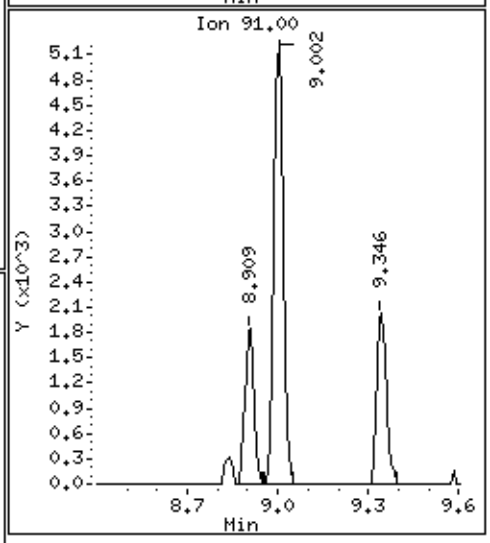












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

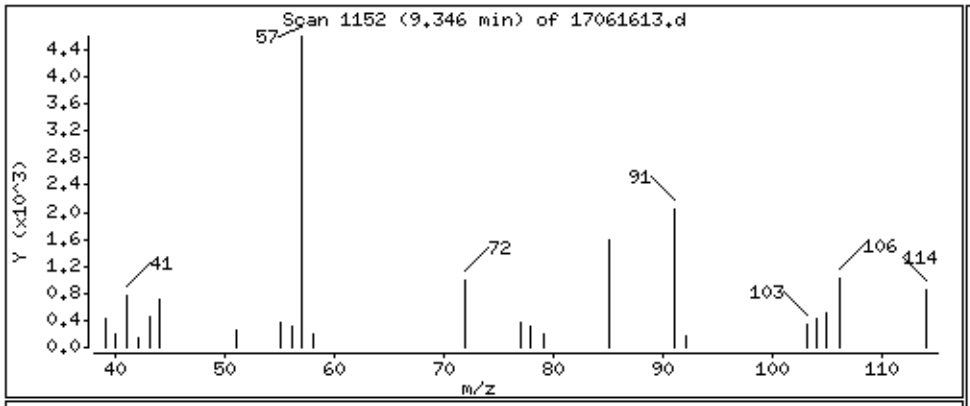
Operator: ea

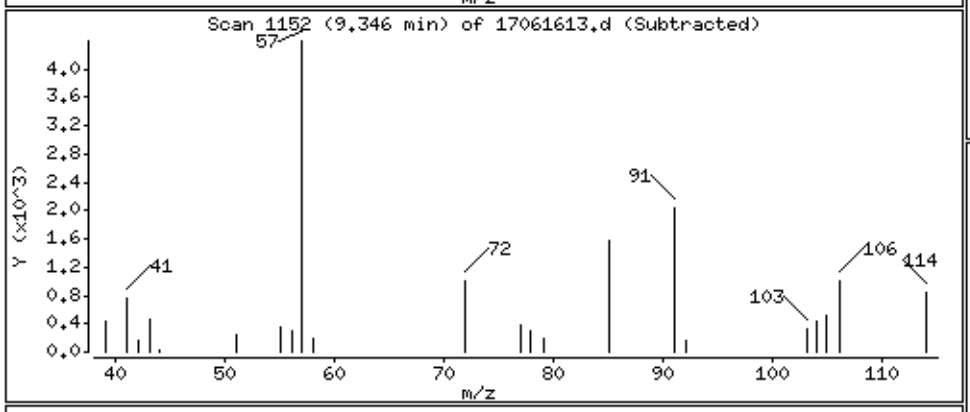
Column phase: RTX-624

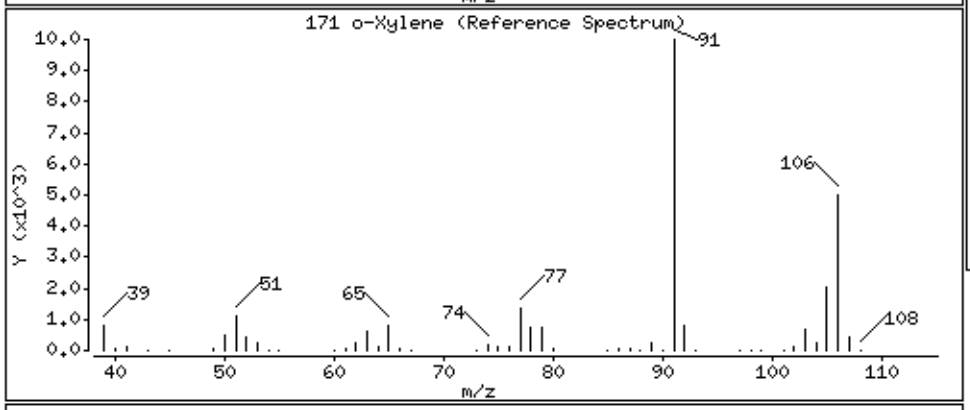
Column diameter: 0.25

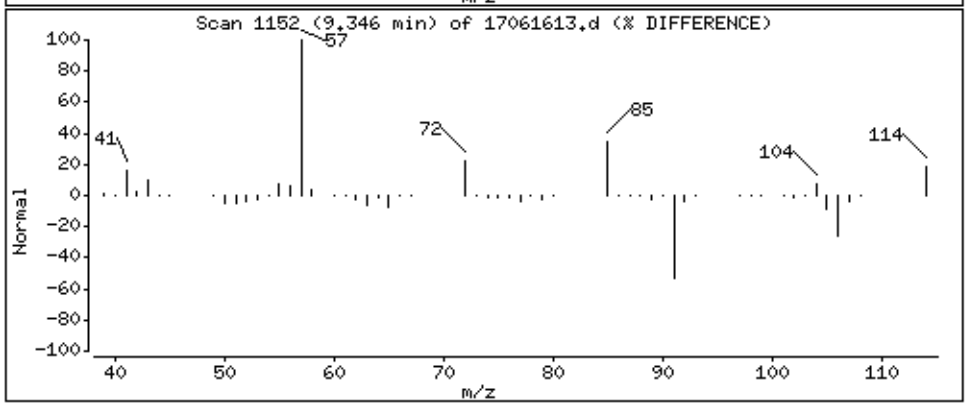
171 o-Xylene

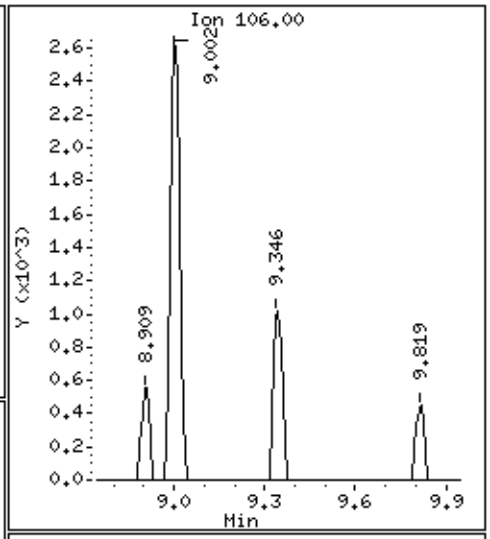
Concentration: 0.5818 PPBV

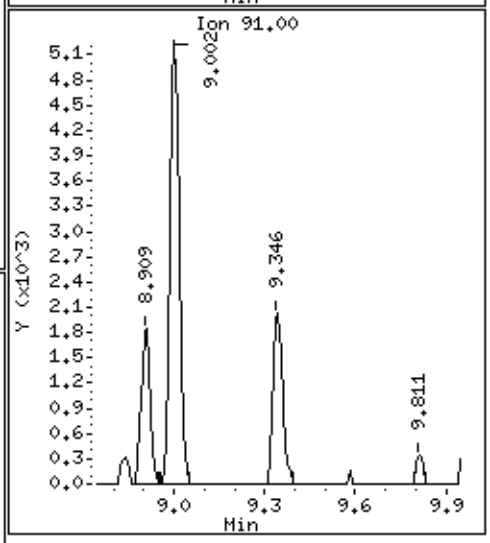












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

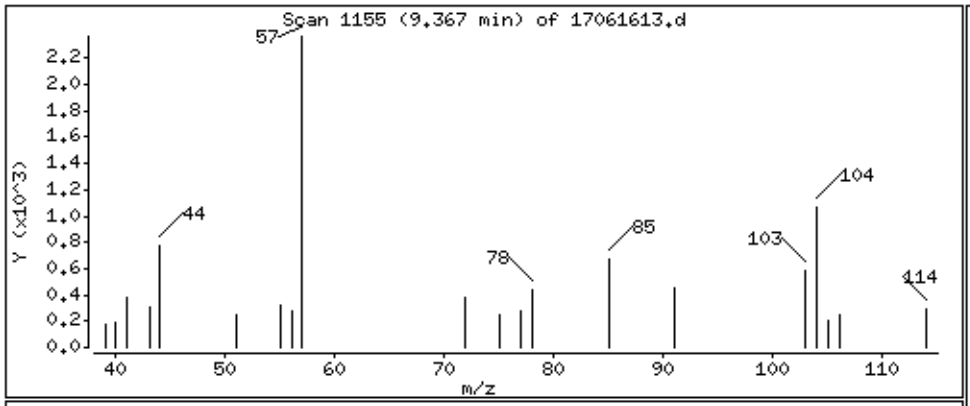
Operator: ea

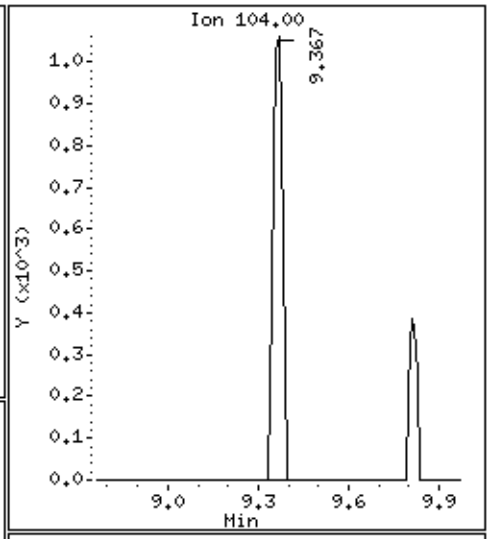
Column phase: RTX-624

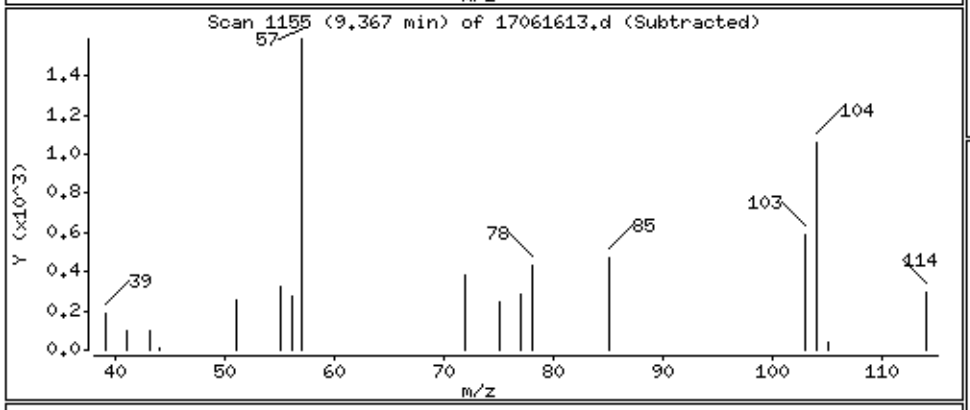
Column diameter: 0.25

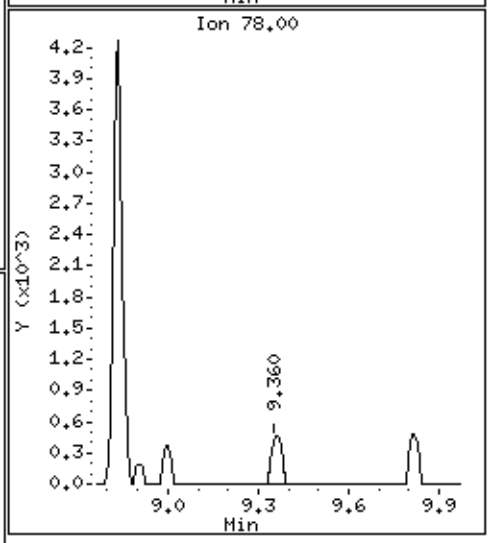
172 Styrene

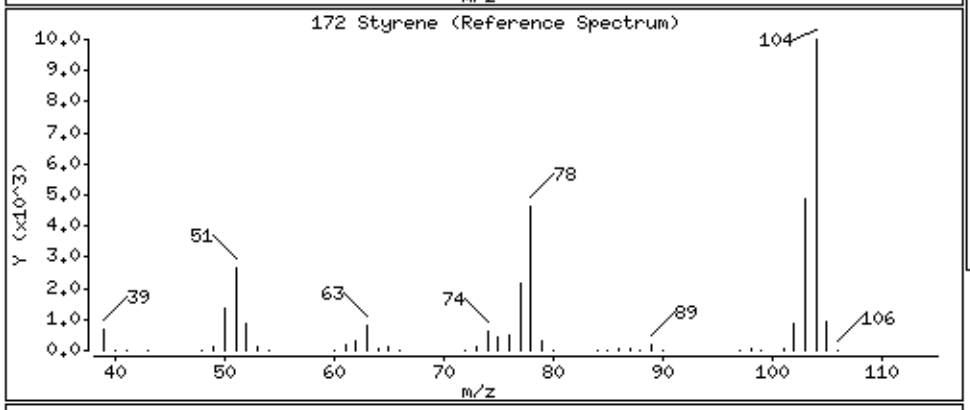
Concentration: 0.4032 PPBV

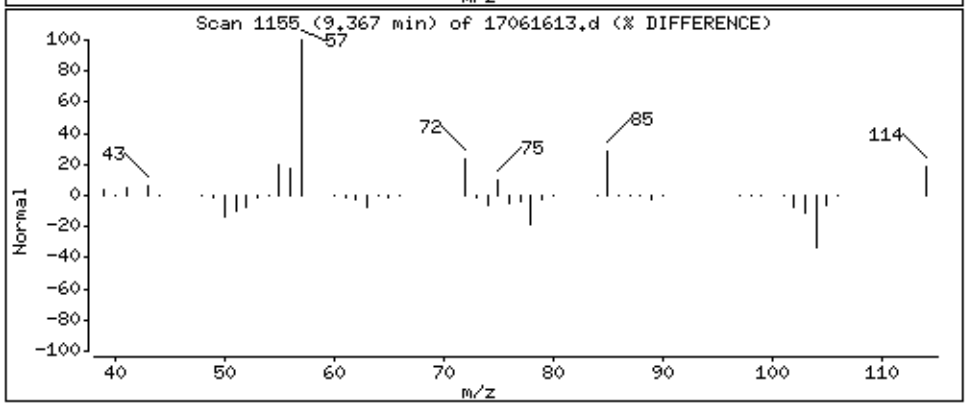












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

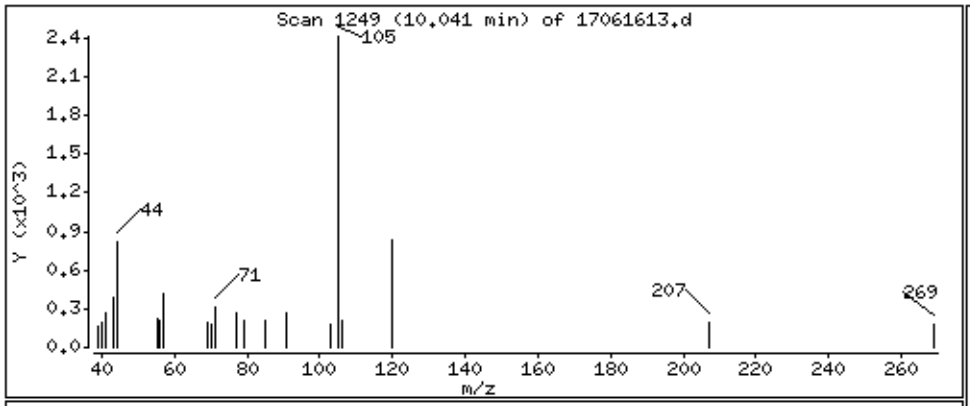
Operator: ea

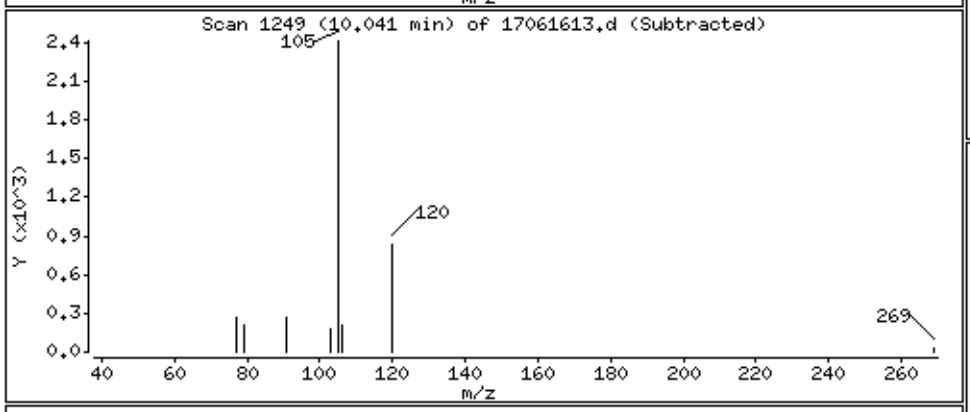
Column phase: RTX-624

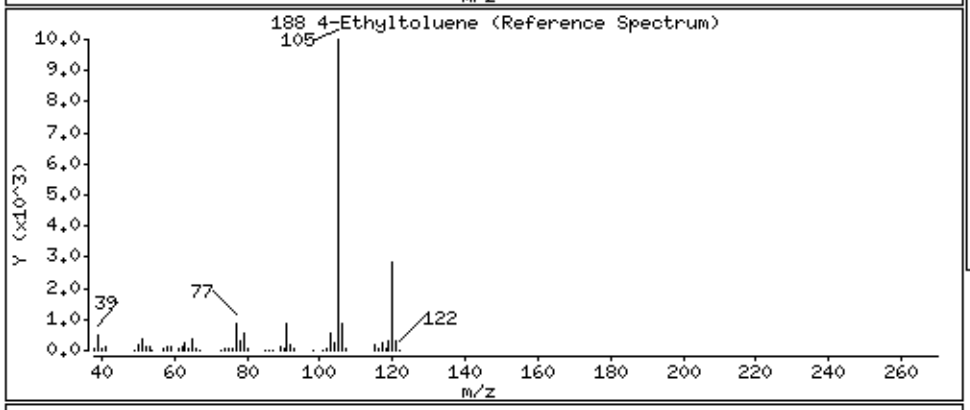
Column diameter: 0.25

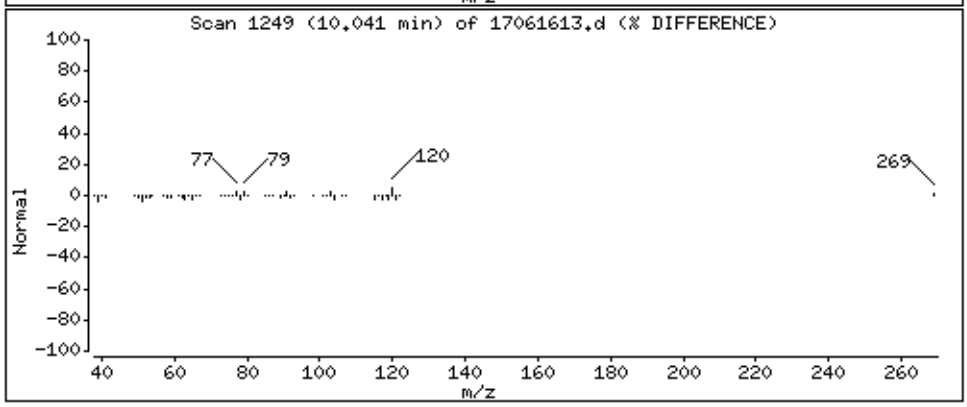
188 4-Ethyltoluene

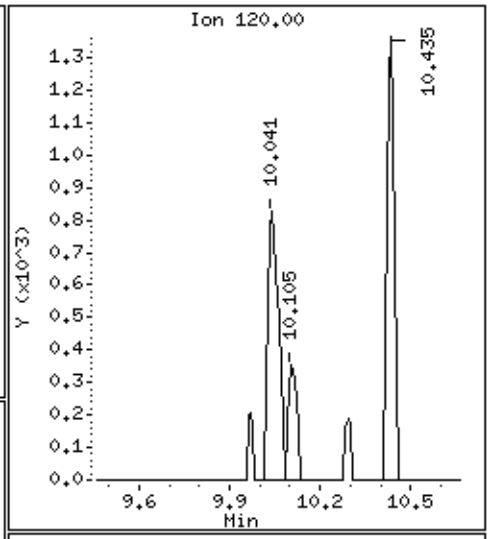
Concentration: 0.6204 PPBV

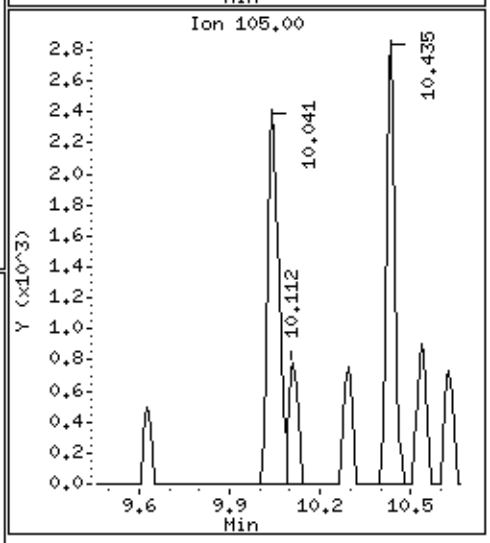












Data File: /chem/msd17.i/16jun16.b/17061613.d

Date : 16-JUN-2016 21:13

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L2744

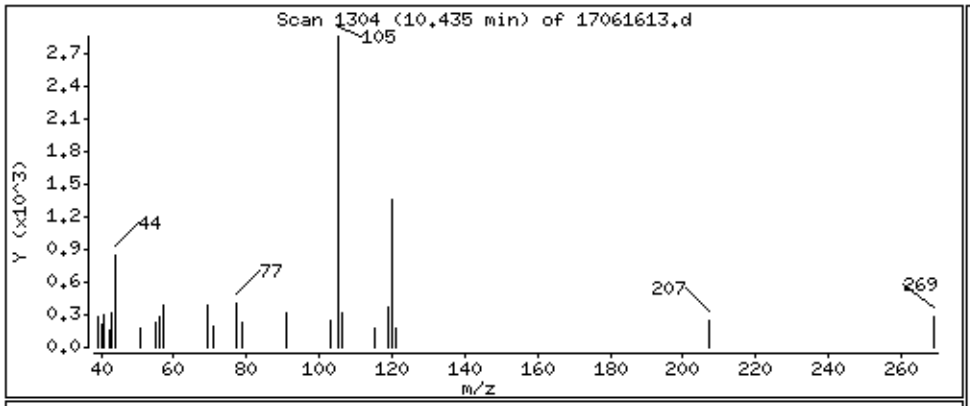
Operator: ea

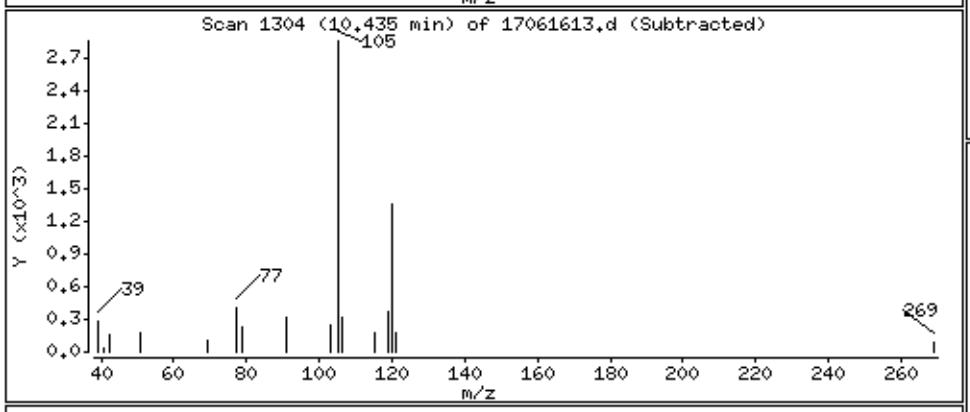
Column phase: RTX-624

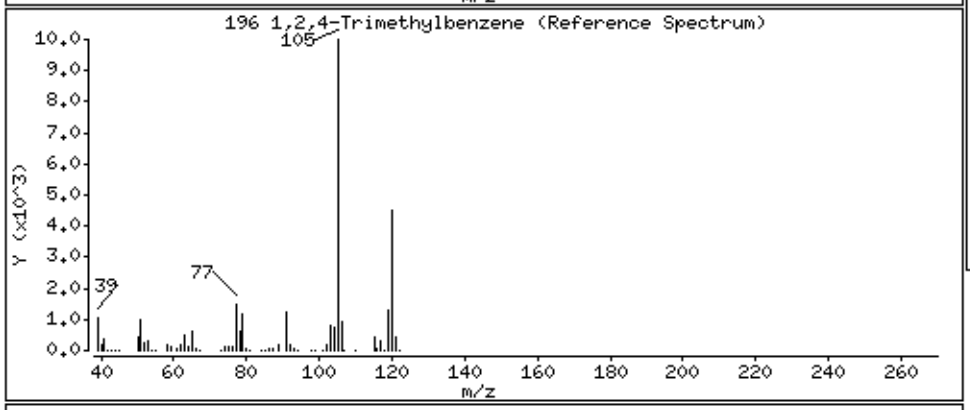
Column diameter: 0.25

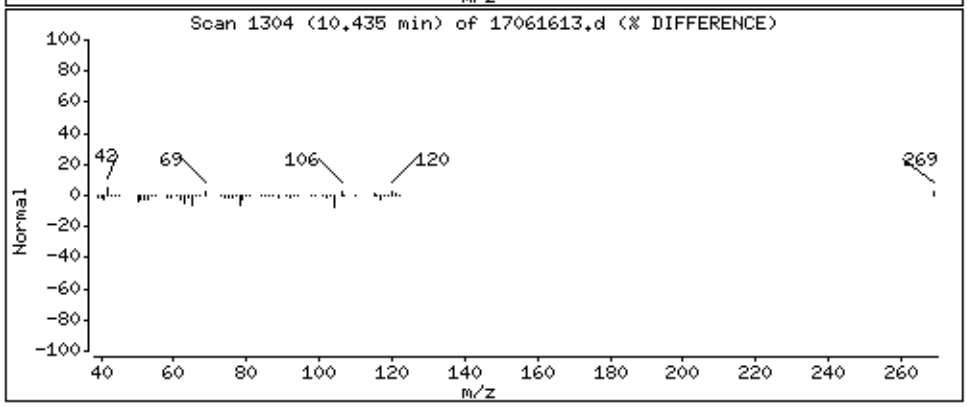
196 1,2,4-Trimethylbenzene

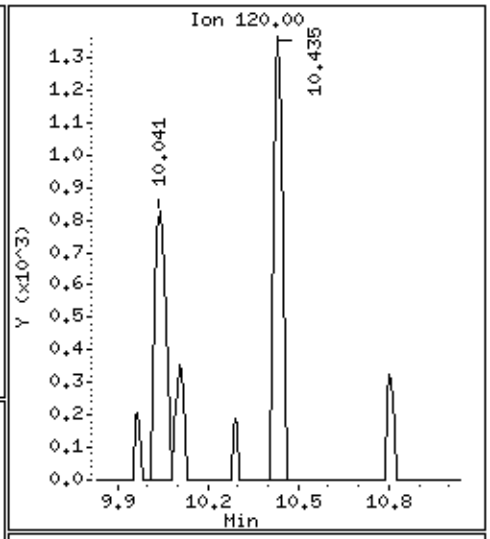
Concentration: 0.6237 PPBV

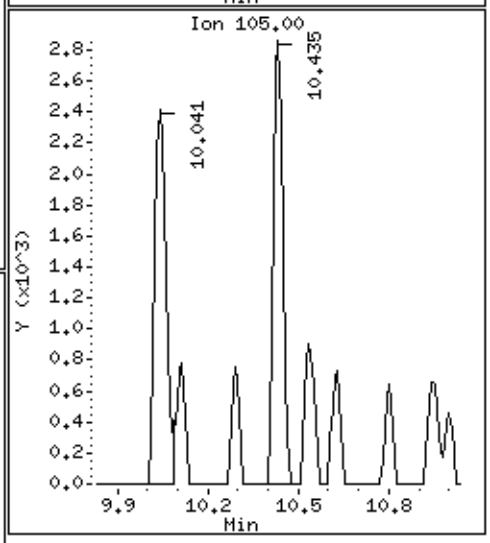












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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B7SS-6(061216)

Lab ID#: 1606298B-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	0.33 J	6.8	1.9 J
Acetone	12	25	29	60
2-Propanol	4.8	5.0	12	12
Carbon Disulfide	4.8	6.2	15	19
Methylene Chloride	12	0.40 J	42	1.4 J
2-Butanone (Methyl Ethyl Ketone)	4.8	2.5 J	14	7.5 J
Chloroform	1.2	0.94 J	5.9	4.6 J
Heptane	1.2	1.2	5.0	5.0
Trichloroethene	1.2	0.23 J	6.5	1.2 J
Toluene	1.2	0.36 J	4.6	1.3 J
2-Hexanone	4.8	0.33 J	20	1.4 J
m,p-Xylene	1.2	0.30 J	5.2	1.3 J

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Client Sample ID: B7SS-6(061216)

Lab ID#: 1606298B-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061614**	**Date of Collection:**	**6/12/16 5:48:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**6/16/16 09:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected UJ	25	Not Detected UJ
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	0.33 J	6.8	1.9 J
Ethanol	4.8	Not Detected UJ	9.1	Not Detected UJ
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	25	29	60
2-Propanol	4.8	5.0	12	12
Carbon Disulfide	4.8	6.2	15	19
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	0.40 J	42	1.4 J
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	2.5 J	14	7.5 J
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	0.94 J	5.9	4.6 J
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Heptane	1.2	1.2	5.0	5.0
Trichloroethene	1.2	0.23 J	6.5	1.2 J
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	0.36 J	4.6	1.3 J
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
2-Hexanone	4.8	0.33 J	20	1.4 J

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Client Sample ID: B7SS-6(061216)

Lab ID#: 1606298B-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061614**	**Date of Collection:**	**6/12/16 5:48:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**6/16/16 09:40 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	0.30 J	5.2	1.3 J
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
Naphthalene	2.4	Not Detected	13	Not Detected

UJ = Analyte associated with low bias in the CCV.
J = Estimated value.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	100	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061614.d
Lab Smp Id: 1606298B-15A
Inj Date : 16-JUN-2016 21:40
Operator : ea Inst ID: msd17.i
Smp Info : 200ml 1L1606
Misc Info : 4.9 Hg->15.1 psi
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 15:02 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 8
Dil Factor: 2.42000
Integrator: HP RTE Compound Sublist: TO15Nmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	2.42000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	74839	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	57832			48.69- 108.69	77.28
5.499	5.499 (1.000)	49	53028			54.63- 114.63	70.86
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.388	6.388 (1.000)	114	299064	25.0000		80.00- 120.00	100.00
6.388	6.388 (1.000)	88	43045			0.00- 45.20	14.39
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	308269	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	147748			20.04- 80.04	47.93
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.037	6.037 (1.098)	65	71622	23.1716	23.172	80.00- 120.00	100.00
6.037	6.037 (1.098)	67	39457			34.58- 94.58	55.09

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8						CAS #: 2037-26-5	
7.605	7.605 (1.191)	98	324460	25.7625	25.762	80.00- 120.00	100.00
7.605	7.605 (1.191)	70	29738			0.00- 39.40	9.17
7.605	7.605 (1.191)	100	209758			35.49- 95.49	64.65
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4	
9.819	9.819 (1.111)	174	225466	24.9789	24.979	80.00- 120.00	100.00
9.812	9.819 (1.110)	95	216327			71.35- 131.35	95.95
9.819	9.819 (1.111)	176	221172			68.09- 128.09	98.10
35 Freon 11						CAS #: 75-69-4	
2.591	2.598 (0.471)	101	957	0.13686	0.3312	80.00- 120.00	100.00(a)
2.598	2.598 (0.472)	103	773			35.21- 95.21	80.75
52 Acetone						CAS #: 67-64-1	
3.436	3.429 (0.625)	58	12410	10.4592	25.311	80.00- 120.00	100.00
3.436	3.429 (0.625)	43	30979			226.10- 286.10	249.62
56 Carbon Disulfide						CAS #: 75-15-0	
3.508	3.508 (0.638)	76	22591	2.57980	6.243	80.00- 120.00	100.00
57 2-Propanol						CAS #: 67-63-0	
3.615	3.608 (0.657)	45	7179	2.05012	4.961	80.00- 120.00	100.00
3.615	3.608 (0.657)	43	2819			0.00- 48.33	39.27
3.429	3.608 (0.624)	59	140			0.00- 34.85	1.96
66 Methylene Chloride						CAS #: 75-09-2	
3.945	3.938 (0.717)	49	427	0.16560	0.4007	80.00- 120.00	100.00(a)
3.938	3.938 (0.716)	84	668			81.18- 141.18	156.51
0.000	3.938 (0.000)	51	0			1.84- 61.84	0.00
92 2-Butanone						CAS #: 78-93-3	
5.299	5.292 (0.964)	72	1685	1.05153	2.545	80.00- 120.00	100.00(a)
5.299	5.292 (0.964)	43	5454			251.52- 311.52	323.67
5.299	5.292 (0.964)	57	327			0.00- 57.81	19.41
100 Chloroform						CAS #: 67-66-3	
5.564	5.564 (1.012)	83	2529	0.38984	0.9434	80.00- 120.00	100.00(a)
5.564	5.564 (1.012)	85	1868			34.18- 94.18	73.87
121 Heptane						CAS #: 142-82-5	
6.158	6.158 (0.964)	71	1760	0.50276	1.217	80.00- 120.00	100.00
6.187	6.158 (0.969)	43	4829			96.69- 156.69	274.28
6.158	6.158 (0.964)	57	1292			58.40- 118.40	73.42
125 Trichloroethene						CAS #: 79-01-6	
6.581	6.581 (1.030)	95	462	0.09466	0.2291	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
125 Trichloroethene (continued)							
6.581	6.581 (1.030)	130	347			84.60- 144.60	75.26
0.000	6.581 (0.000)	97	0			34.77- 94.77	0.00
147 Toluene					CAS #: 108-88-3		
7.663	7.655 (1.200)	91	2027	0.14673	0.3551	80.00- 120.00	100.00(a)
7.655	7.655 (1.198)	92	953			28.86- 88.86	47.03
158 2-Hexanone					CAS #: 591-78-6		
8.221	8.221 (0.930)	58	572	0.13692	0.3313	80.00- 120.00	100.00(a)
8.229	8.221 (0.931)	43	989			121.26- 181.26	172.99
7.720	8.221 (0.874)	100	414			0.00- 55.92	72.42
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	1039	0.12437	0.3010	80.00- 120.00	100.00(a)
9.002	9.002 (1.019)	91	2249			159.69- 219.69	216.36

QC Flag Legend

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

Report Date: 24-Jun-2016 12:56

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061614.d
Lab Smp Id: 1606298B-15A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 4.9 Hg->15.1 psi

Calibration Date: 16-JUN-2016
Calibration Time: 14:10

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	74839	-0.80
123 1,4-Difluorobenze	302627	181576	423678	299064	-1.18
163 Chlorobenzene-d5	299663	179798	419528	308269	2.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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-Jun-2016 12:56

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606298B-15A
Level: LOW
Operator: ea
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12bromoform.spk
Quant Type: ISTD
Sublist File: TO15Nmdl.sub
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 4.9 Hg->15.1 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	23.172	92.69	70-130
$ 146 Toluene-d8	25.000	25.762	103.05	70-130
$ 177 4-Bromofluorobenze	25.000	24.979	99.92	70-130

Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

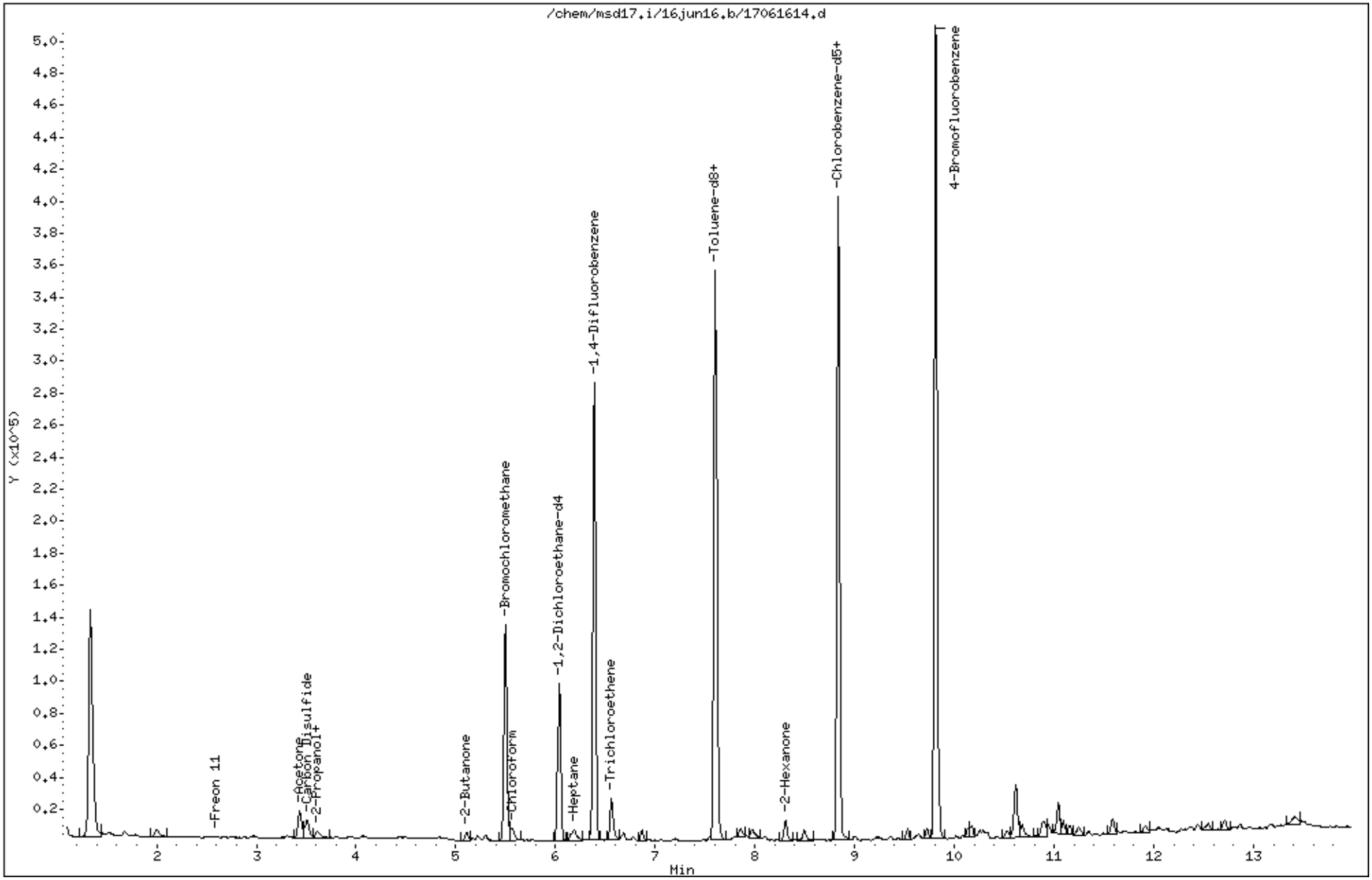
Sample Info: 200ml 1L1606

Column phase: RTX-624

Instrument: msd17.i

Operator: ea

Column diameter: 0.25



Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

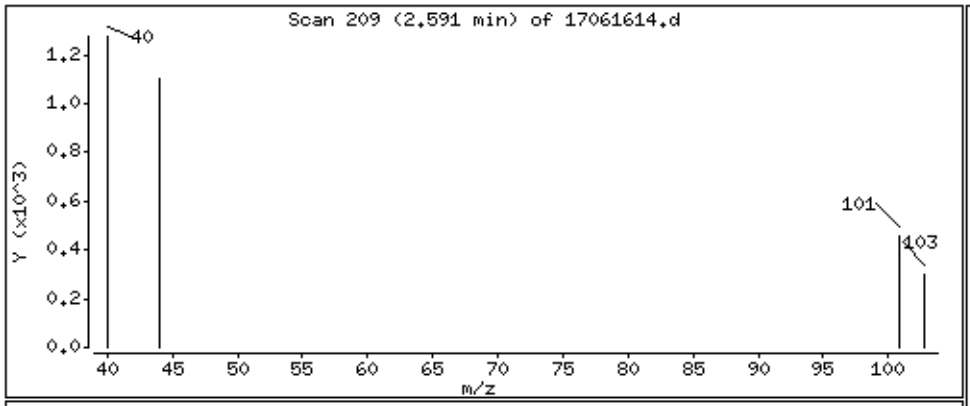
Operator: ea

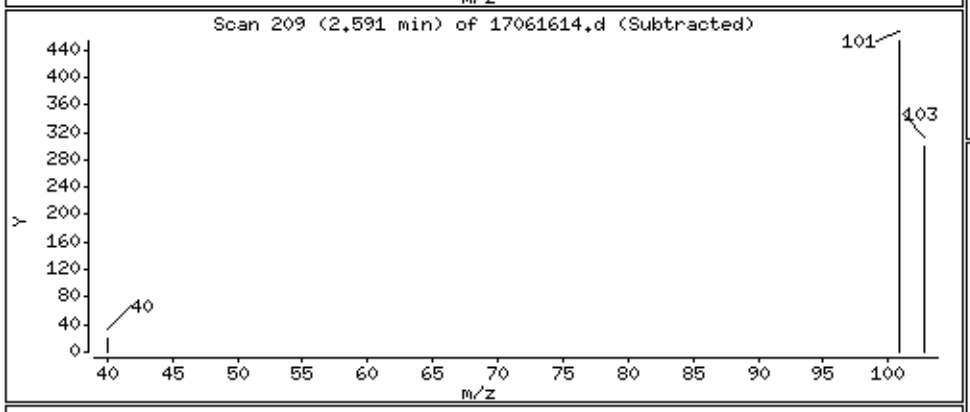
Column phase: RTX-624

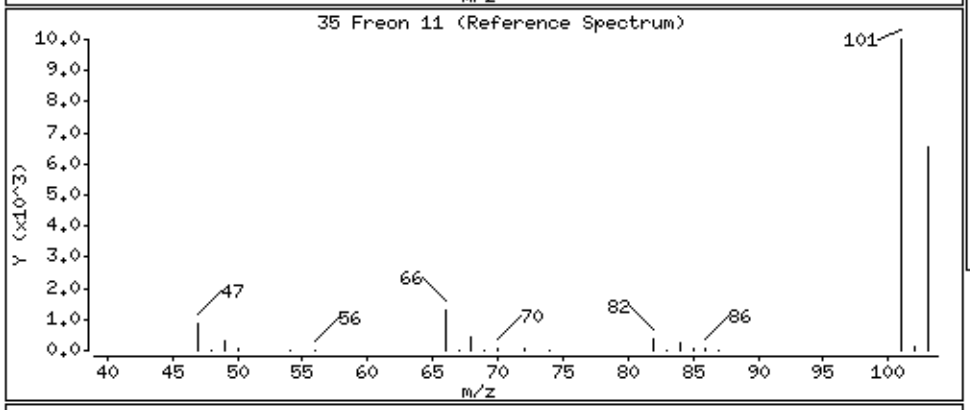
Column diameter: 0.25

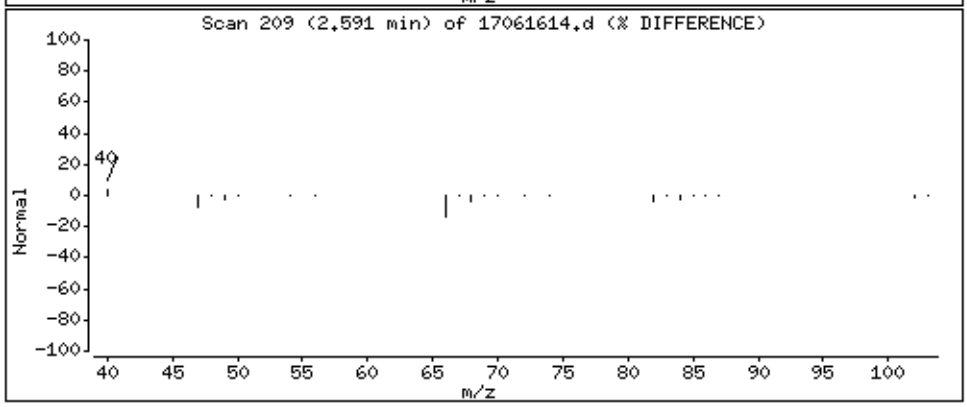
35 Freon 11

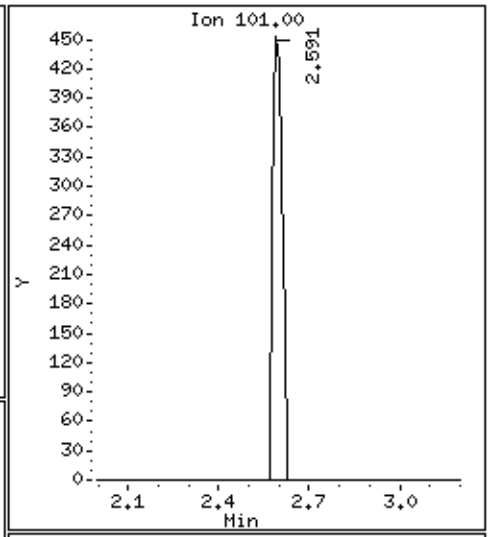
Concentration: 0.3312 PPBV

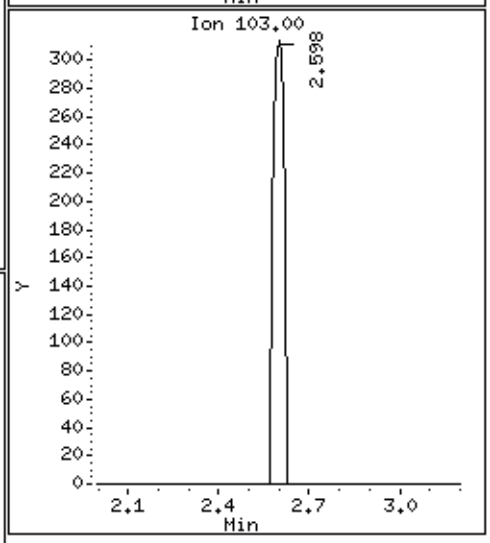












Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

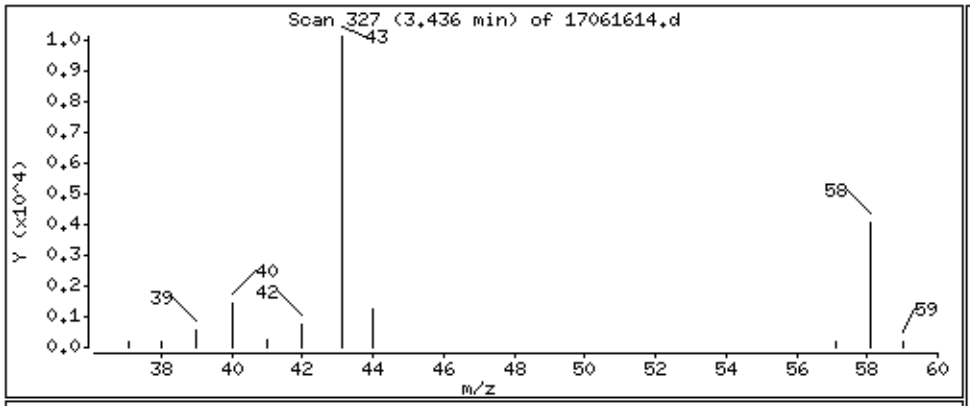
Operator: ea

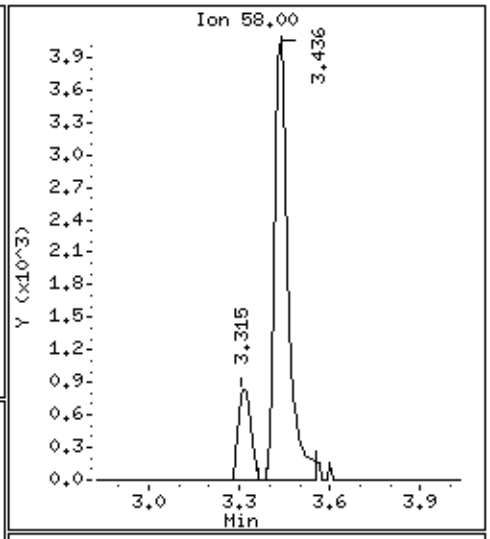
Column phase: RTX-624

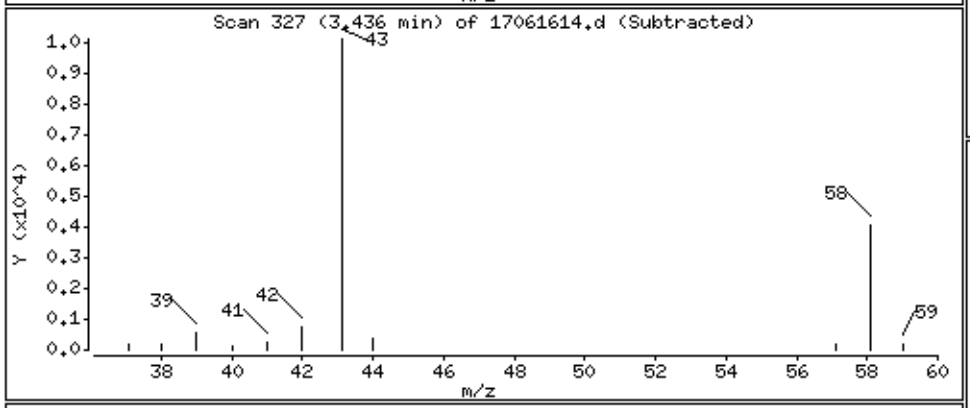
Column diameter: 0.25

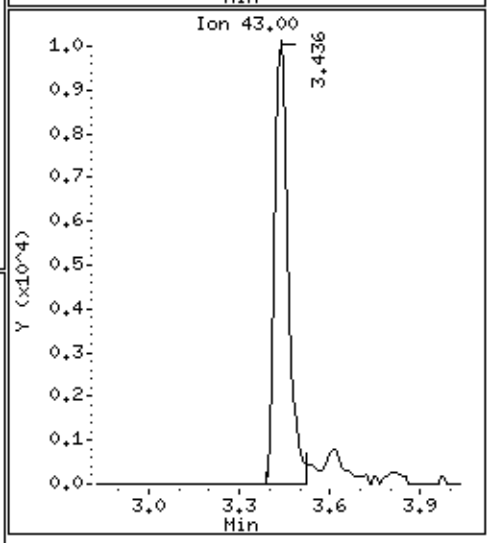
52 Acetone

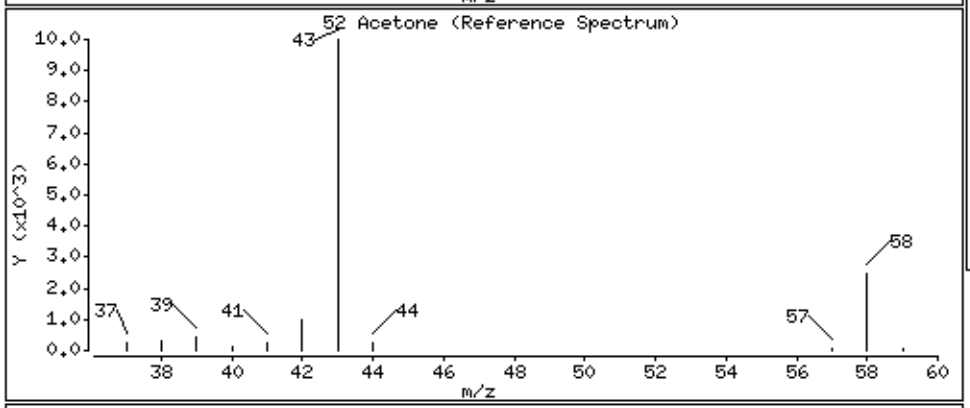
Concentration: 25.311 PPBV

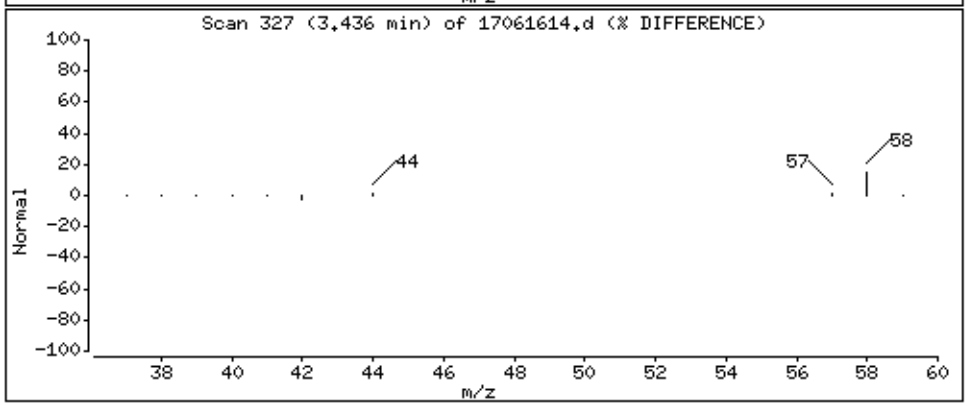












Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

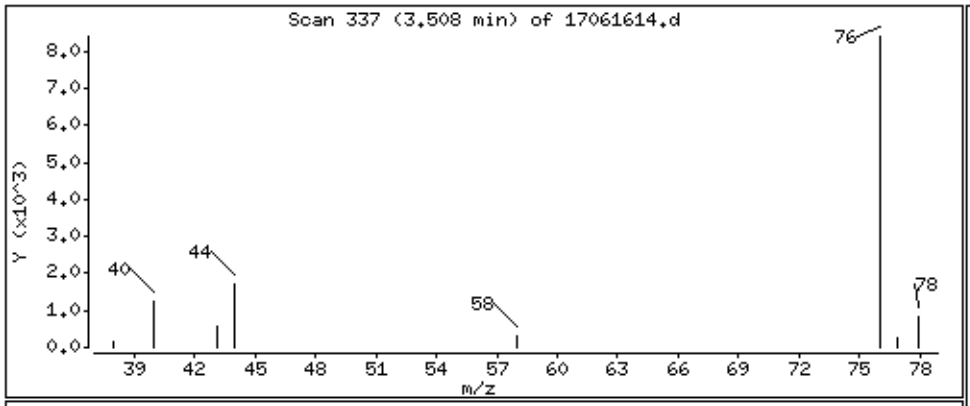
Operator: ea

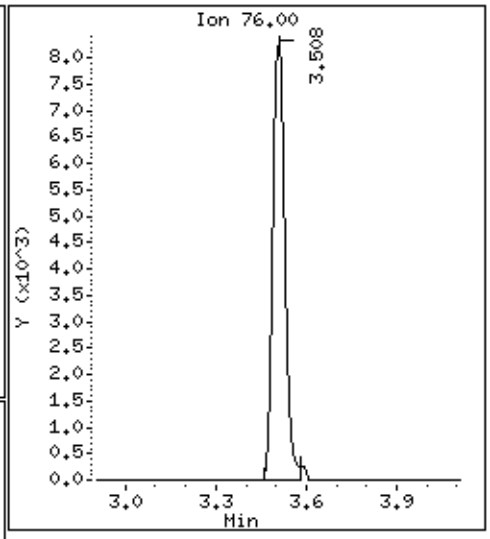
Column phase: RTX-624

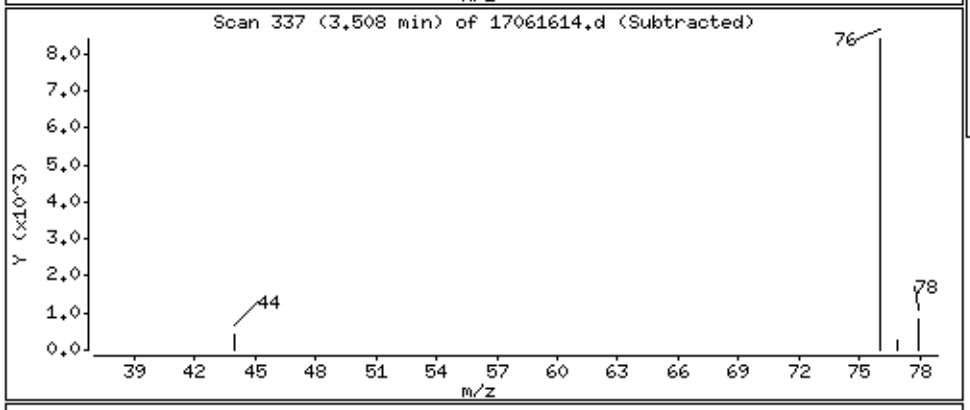
Column diameter: 0.25

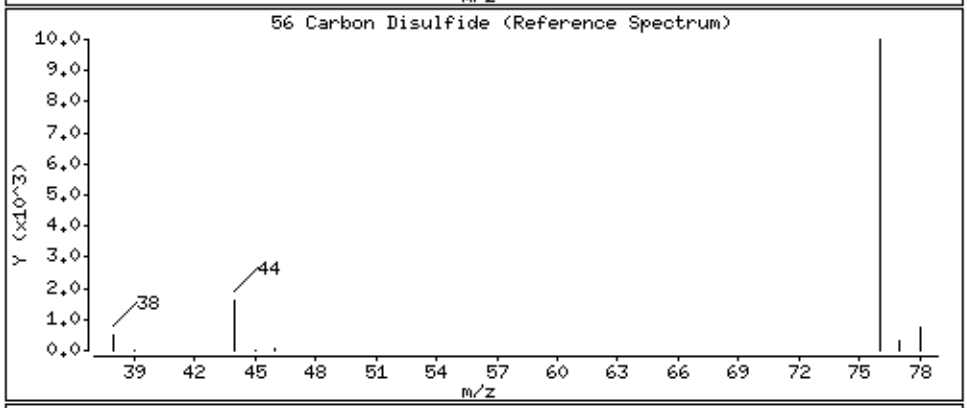
56 Carbon Disulfide

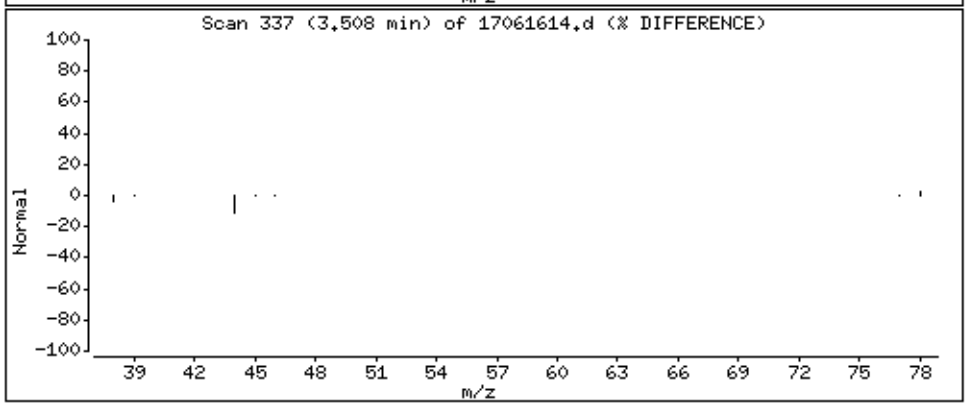
Concentration: 6.243 PPBV











Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

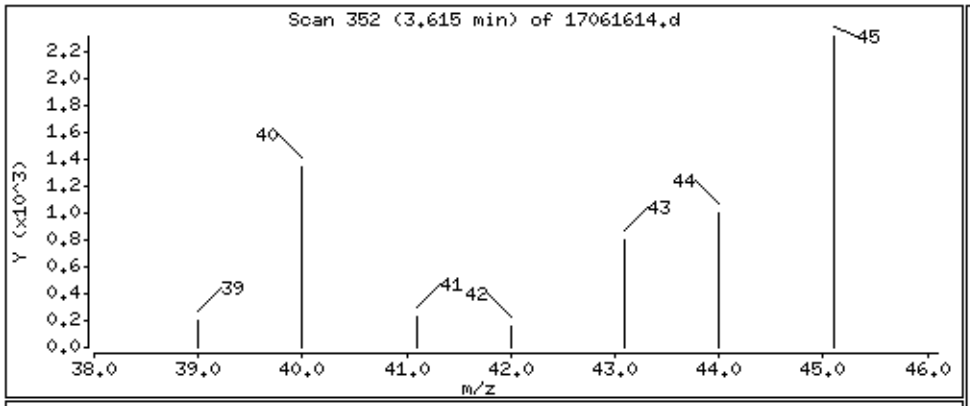
Operator: ea

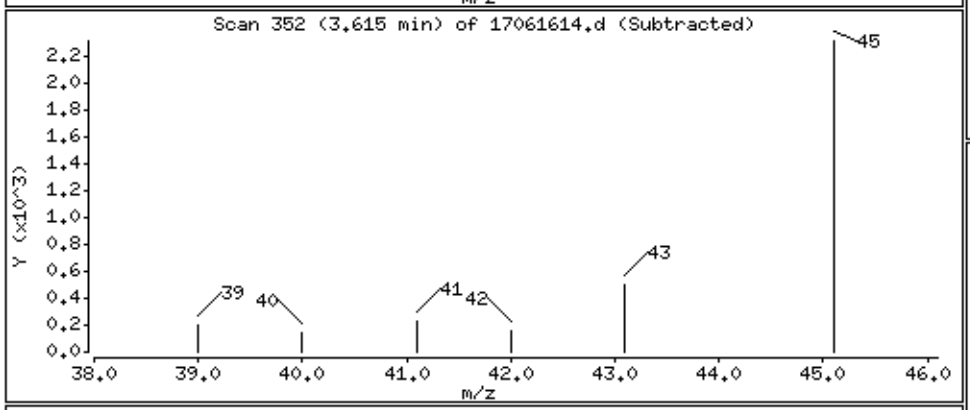
Column phase: RTX-624

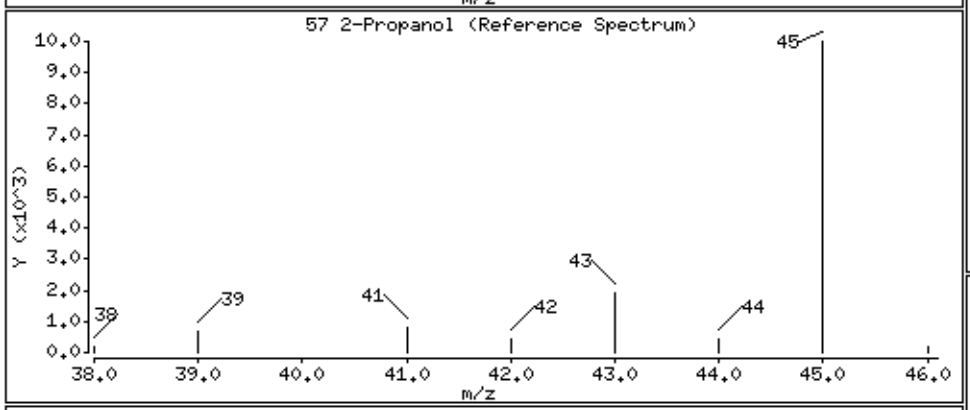
Column diameter: 0.25

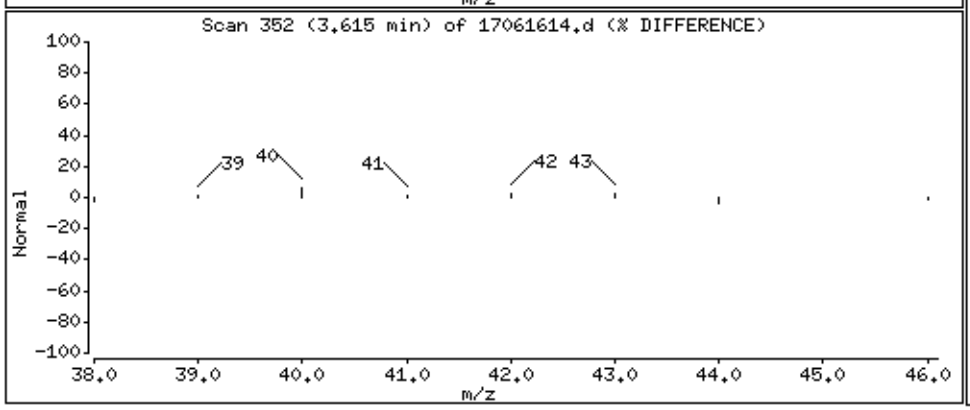
57 2-Propanol

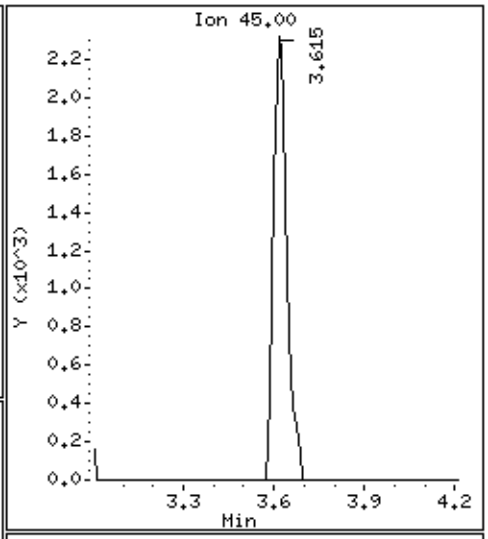
Concentration: 4.961 PPBV

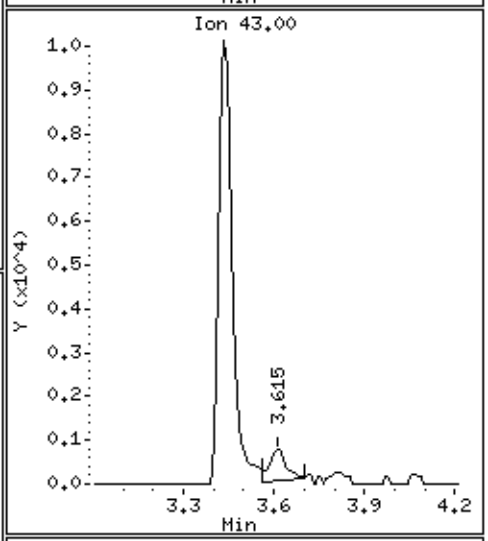


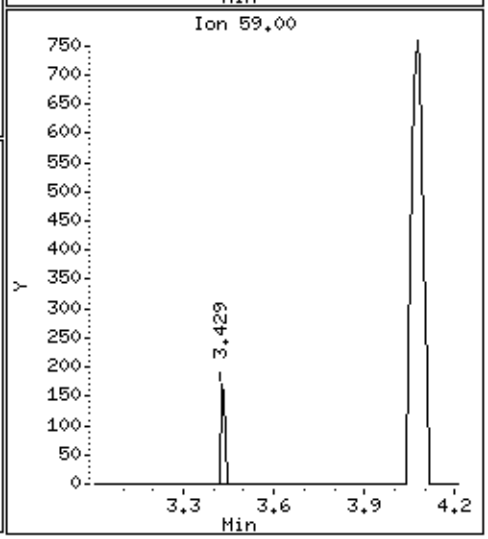












Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

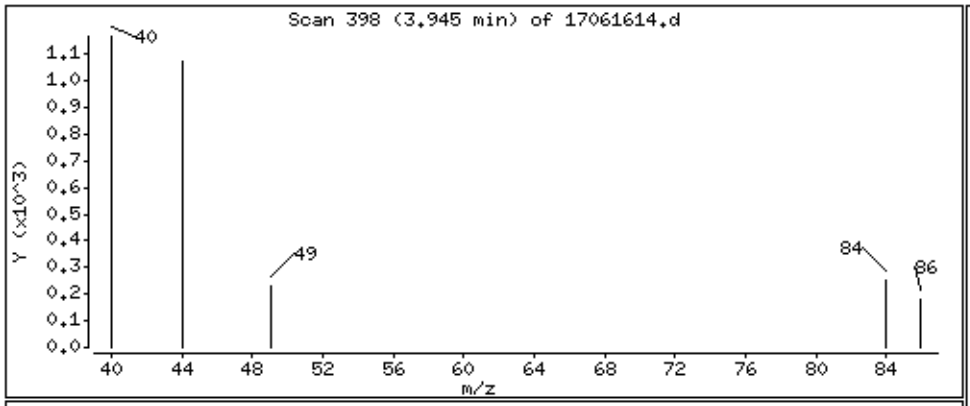
Operator: ea

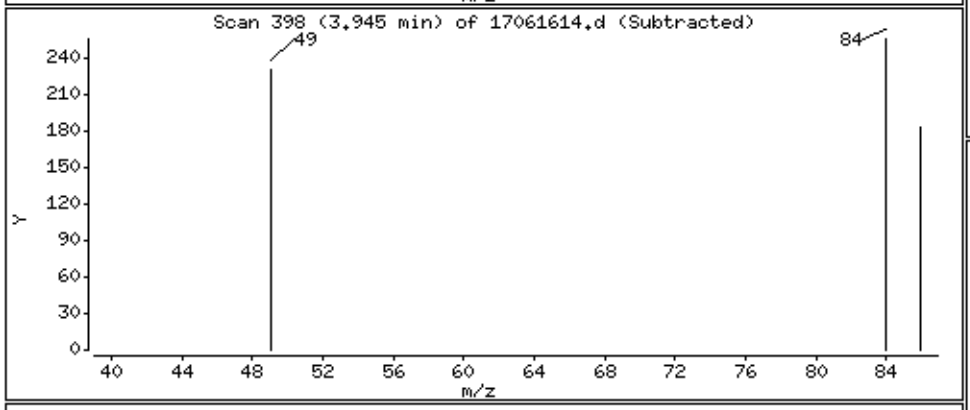
Column phase: RTX-624

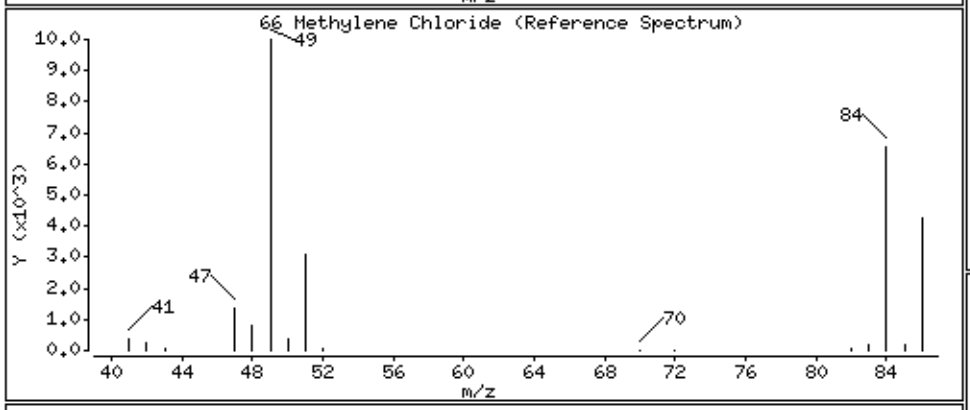
Column diameter: 0.25

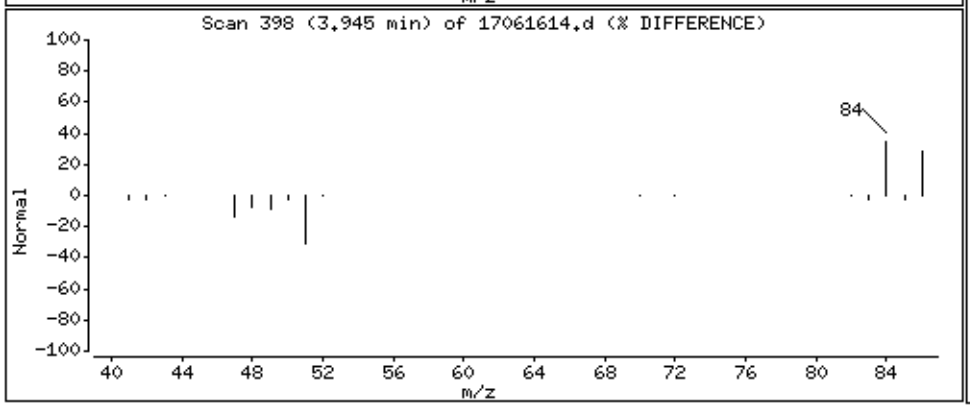
66 Methylene Chloride

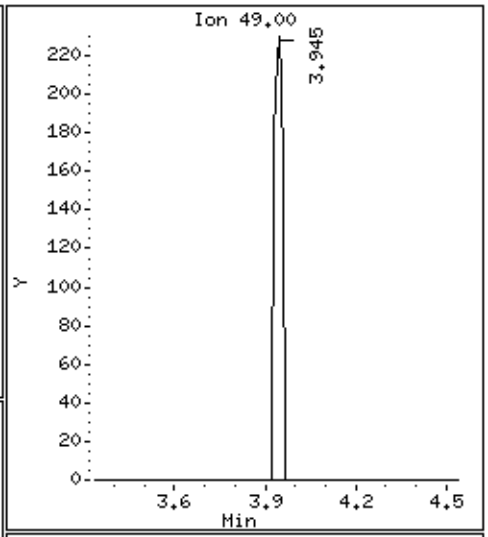
Concentration: 0.4007 PPBV

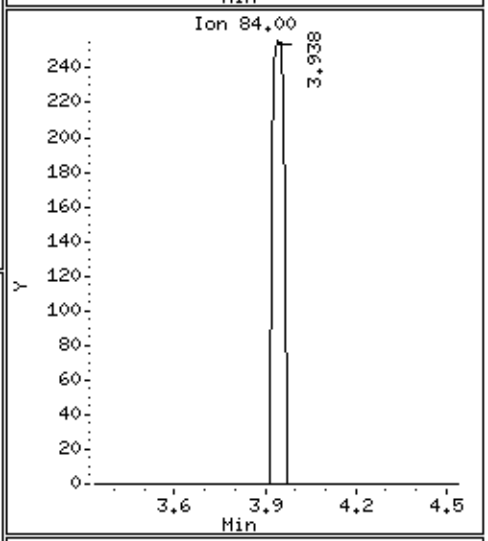


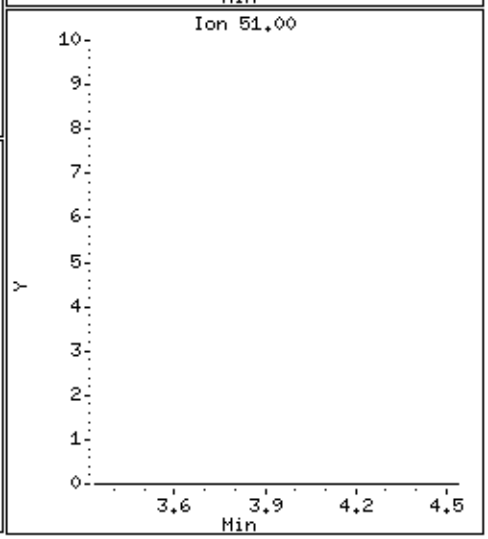












Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

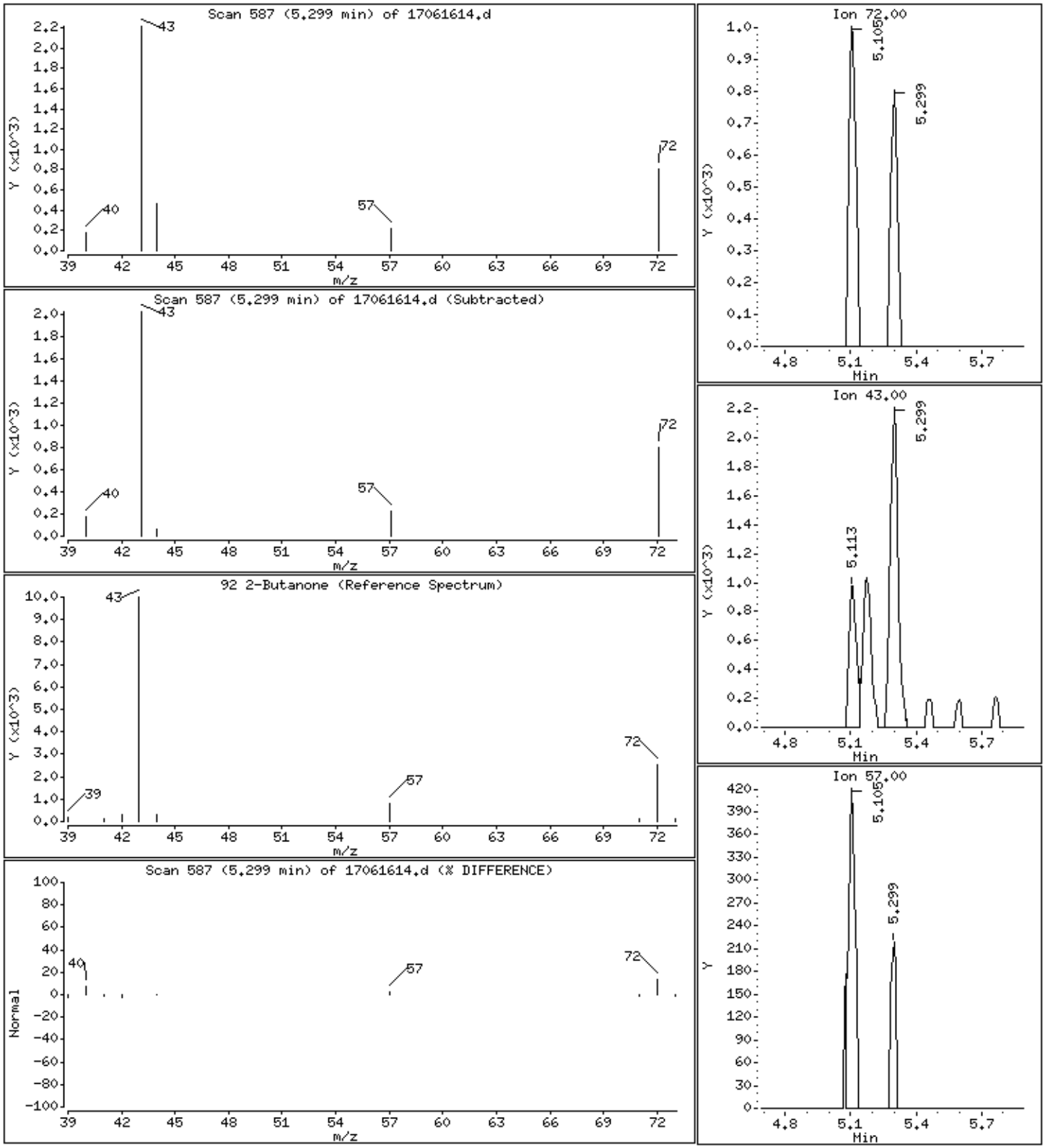
Operator: ea

Column phase: RTX-624

Column diameter: 0.25

92 2-Butanone

Concentration: 2.545 PPBV



Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

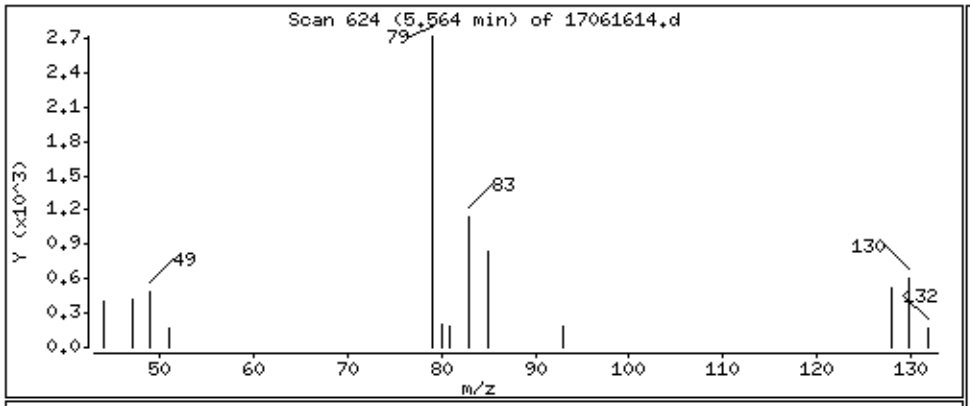
Operator: ea

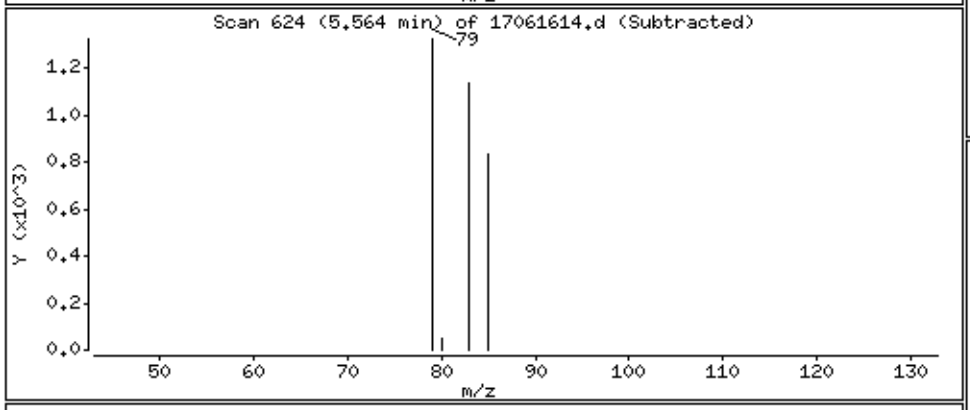
Column phase: RTX-624

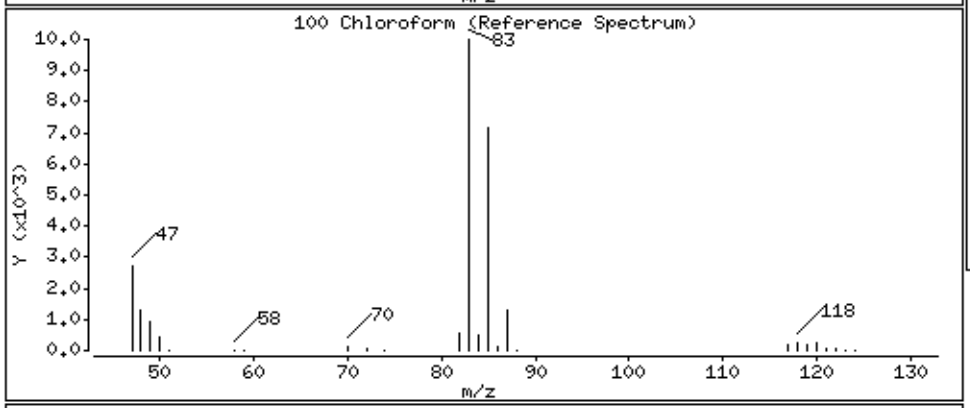
Column diameter: 0.25

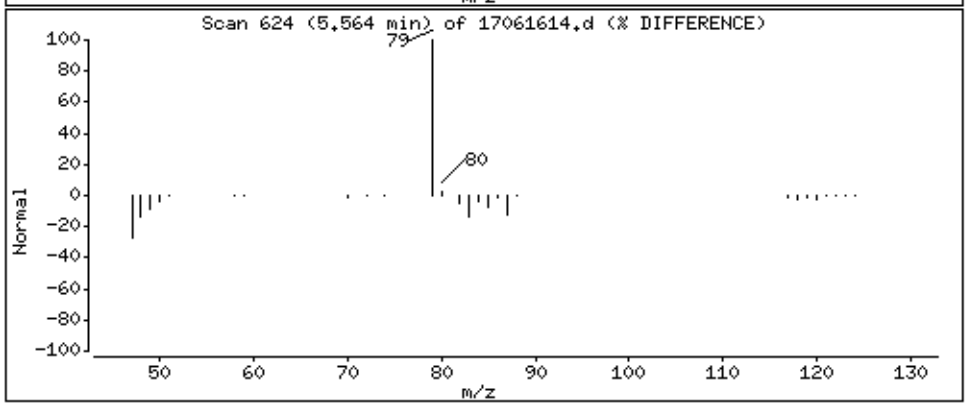
100 Chloroform

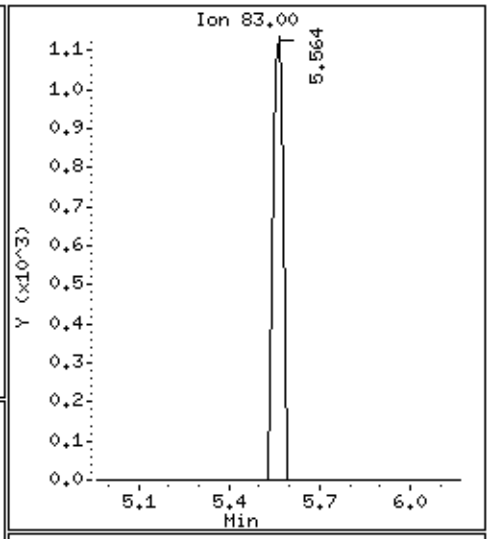
Concentration: 0.9434 PPBV

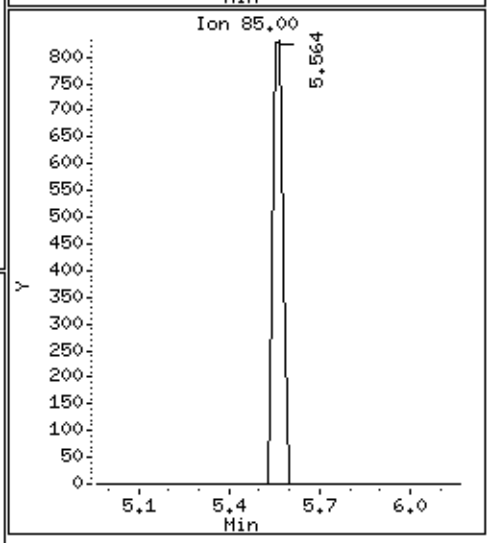












Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

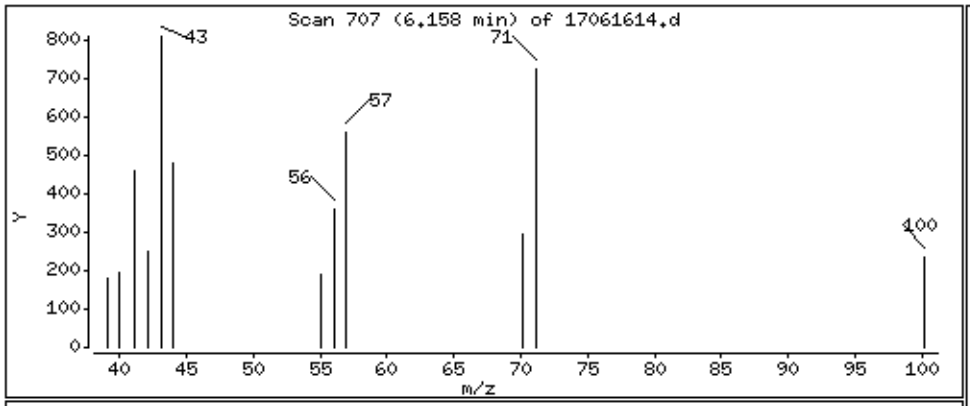
Operator: ea

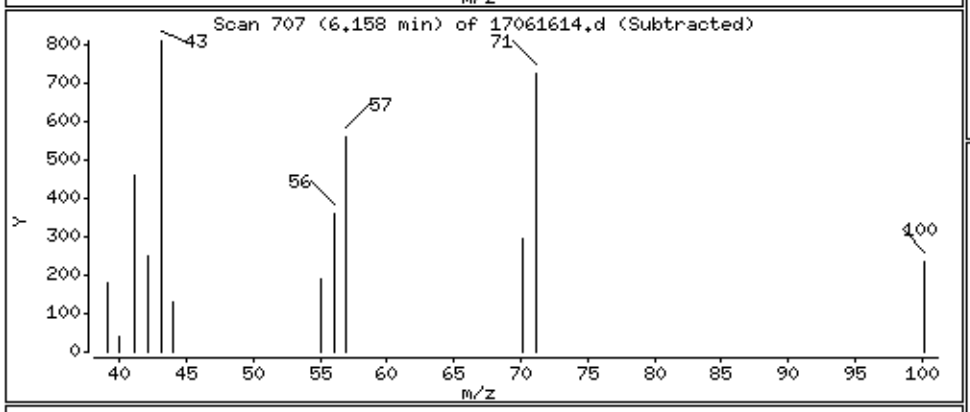
Column phase: RTX-624

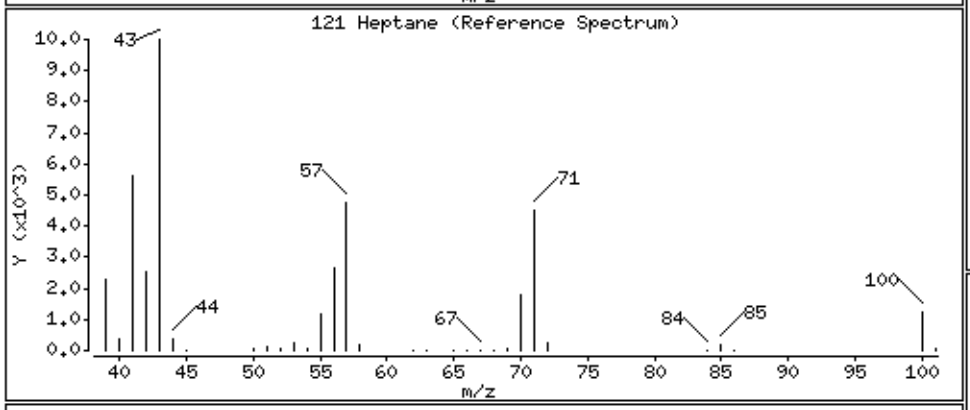
Column diameter: 0.25

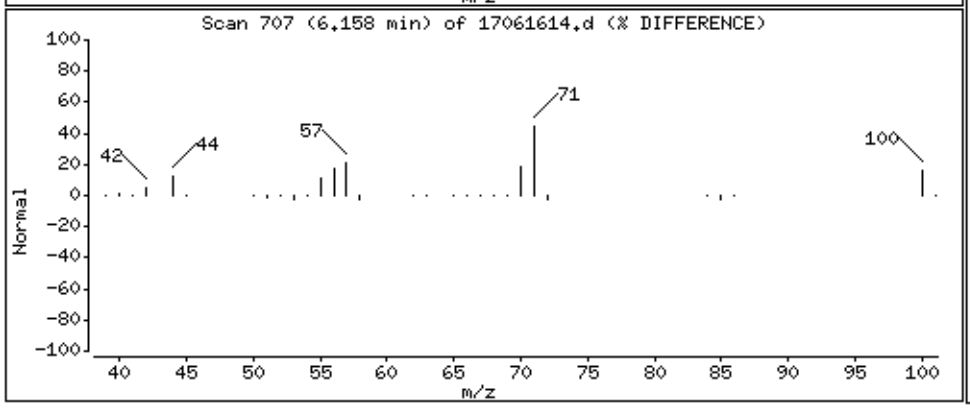
121 Heptane

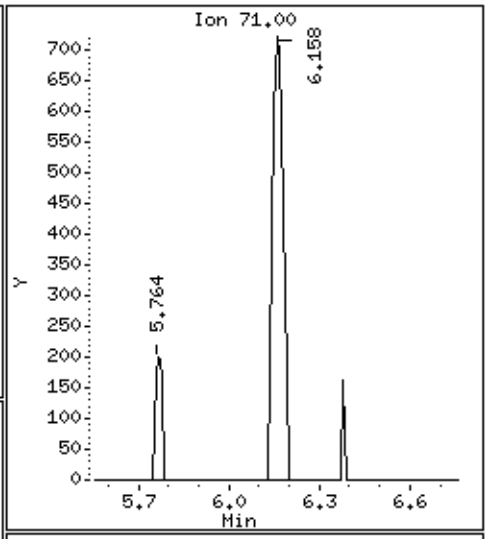
Concentration: 1.217 PPBV

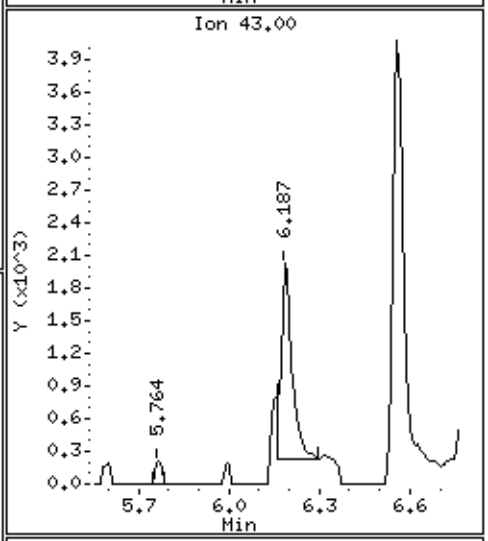


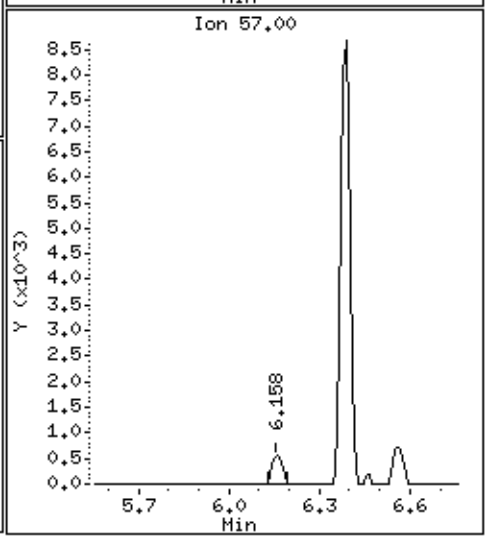












Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

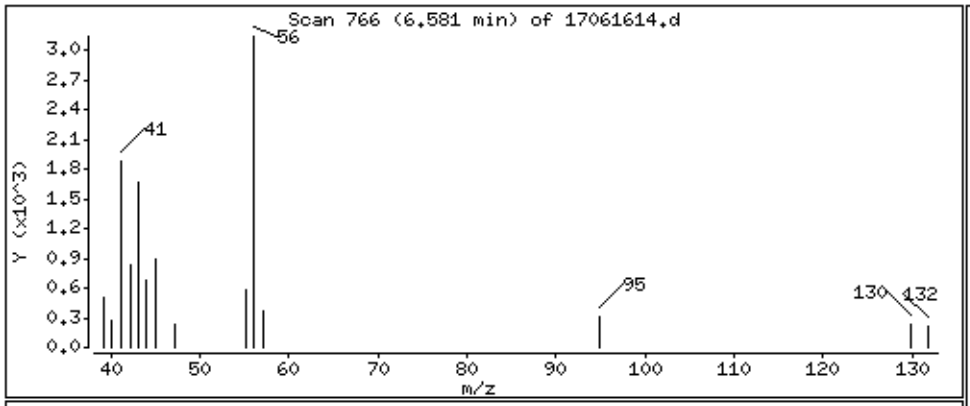
Operator: ea

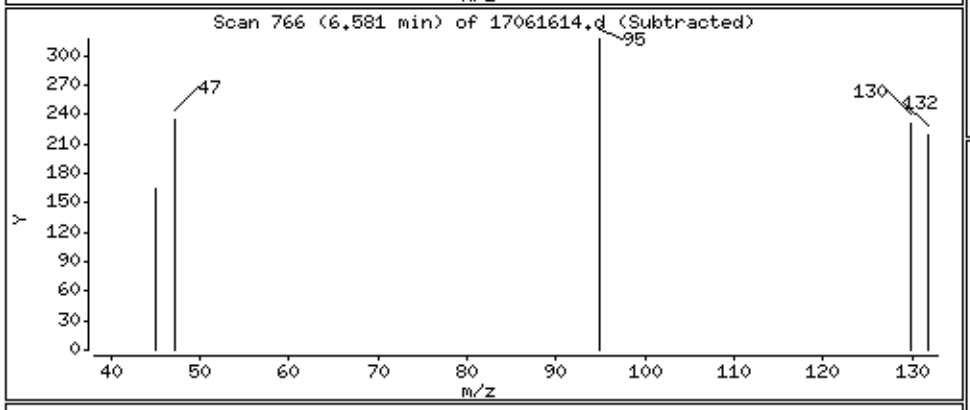
Column phase: RTX-624

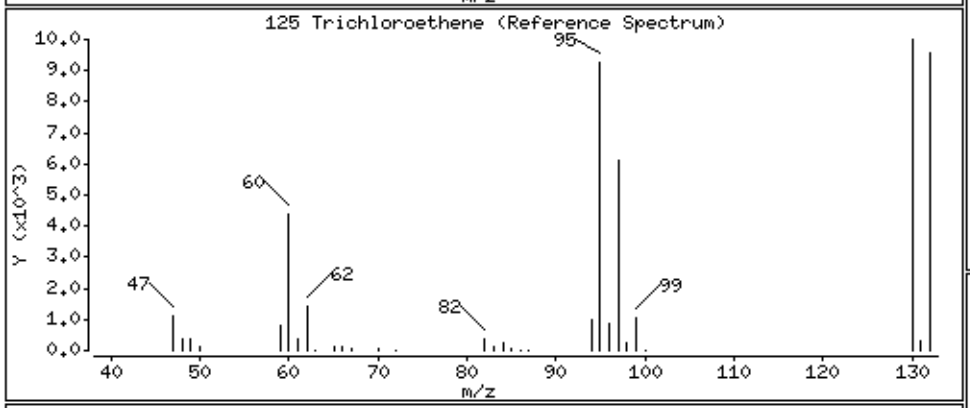
Column diameter: 0.25

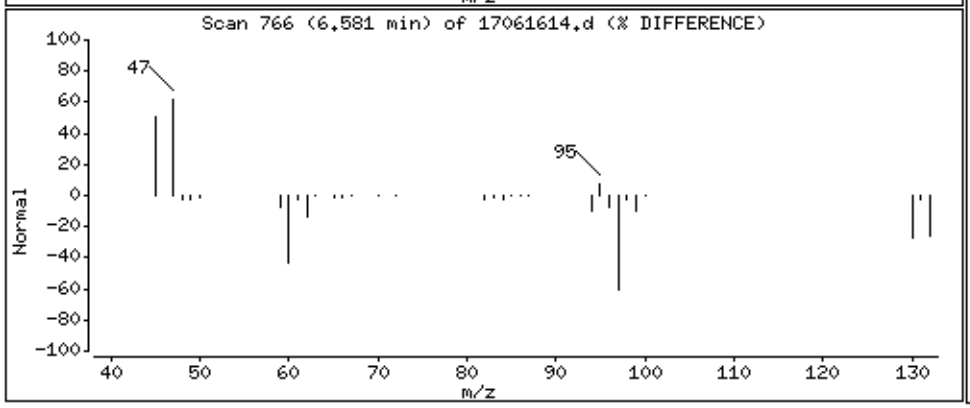
125 Trichloroethene

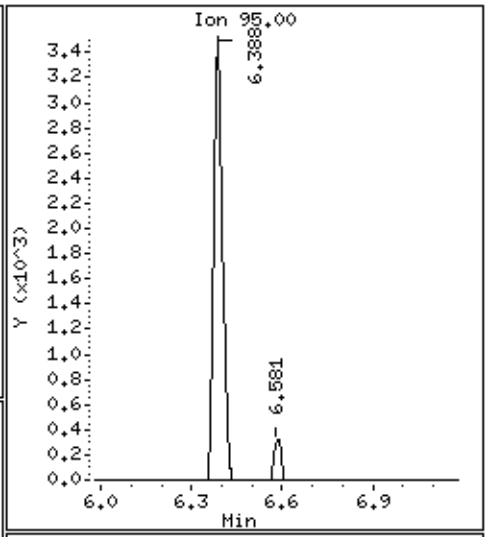
Concentration: 0.2291 PPBV

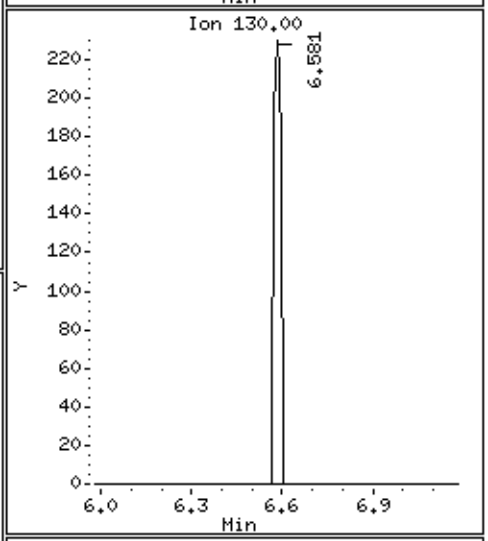


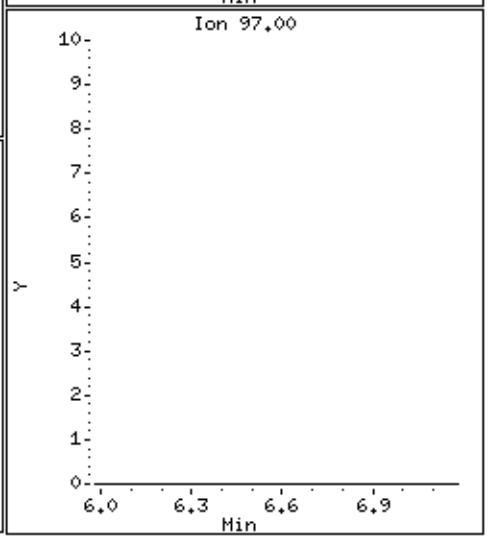












Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

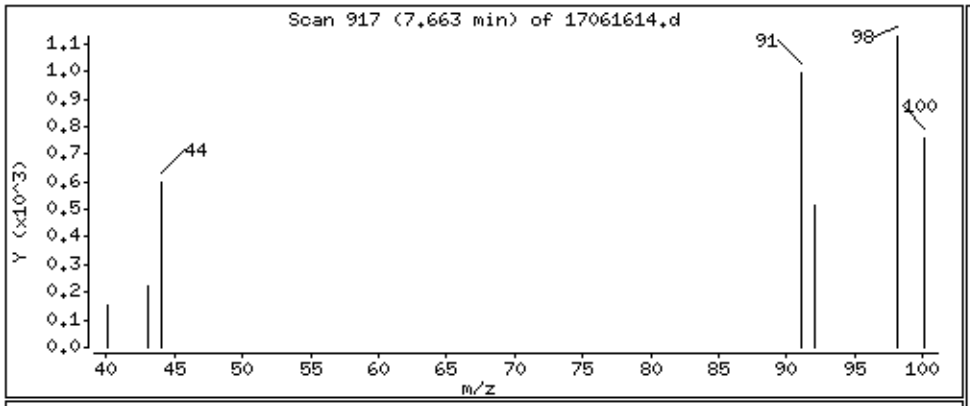
Operator: ea

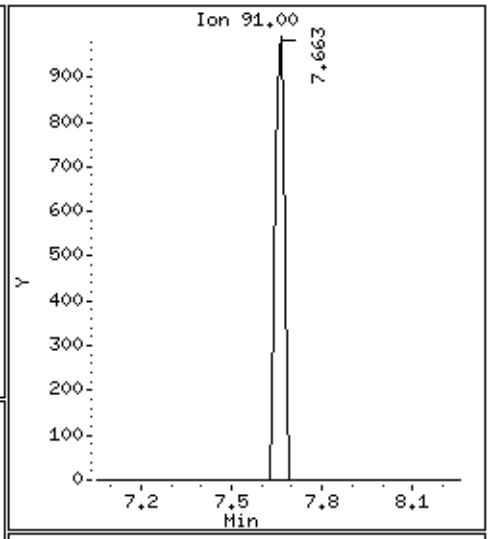
Column phase: RTX-624

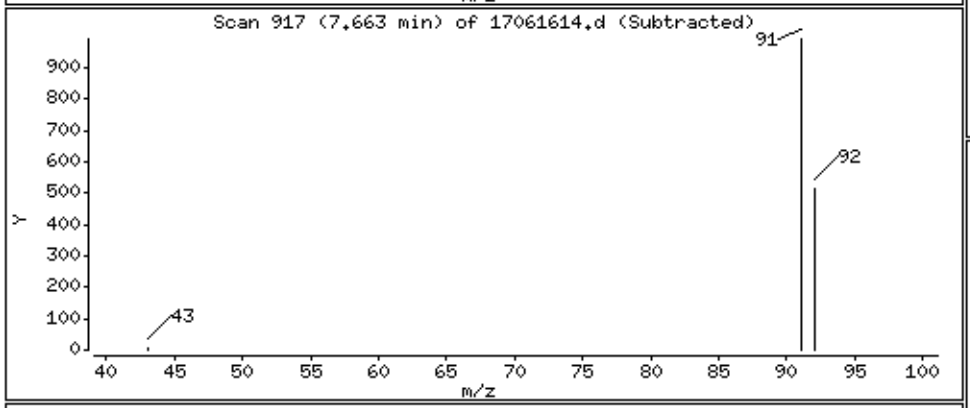
Column diameter: 0.25

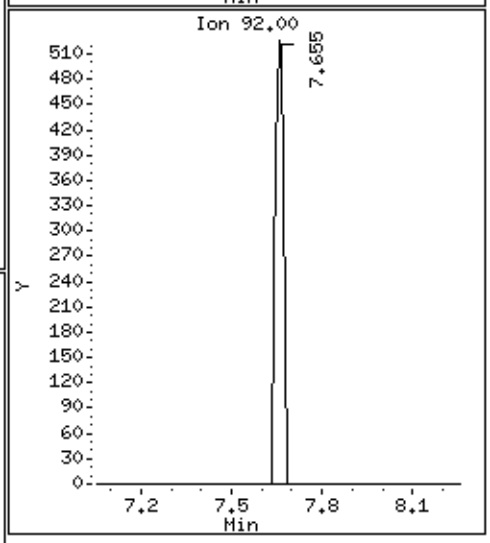
147 Toluene

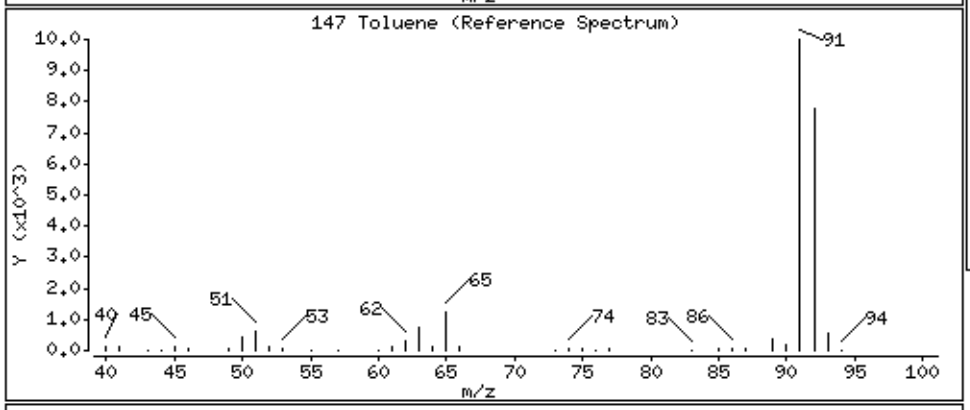
Concentration: 0.3551 PPBV

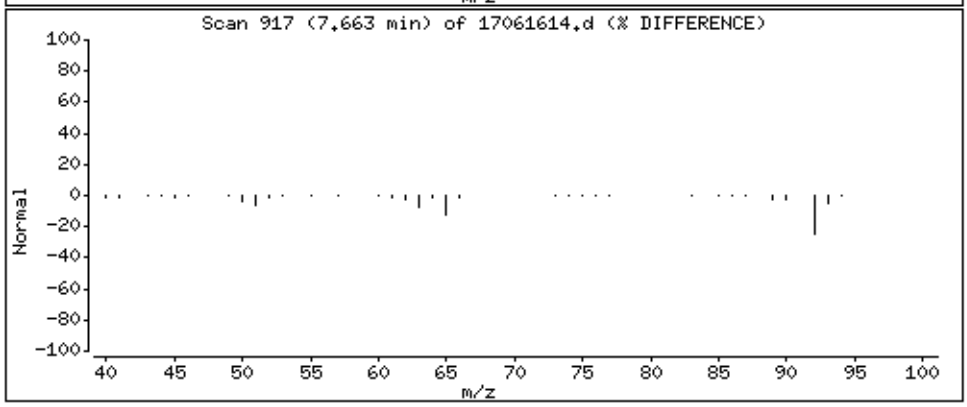












Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

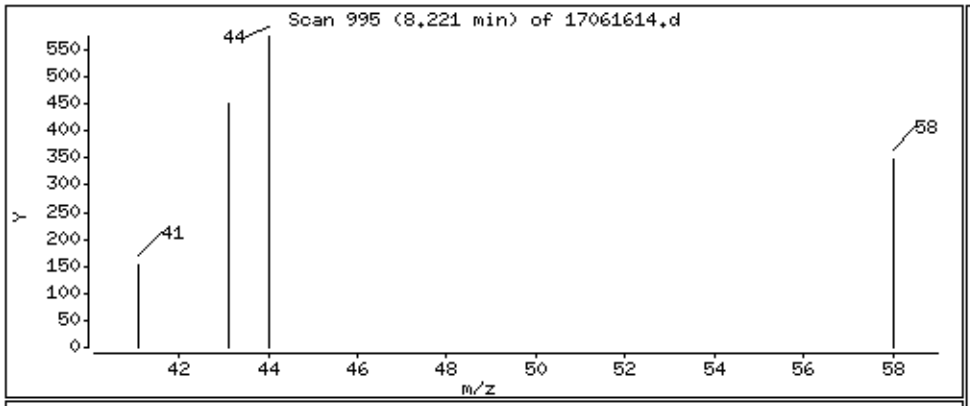
Operator: ea

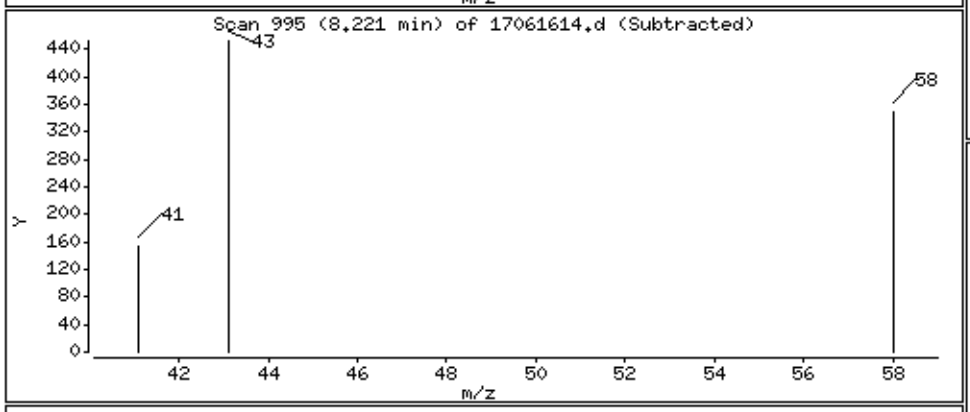
Column phase: RTX-624

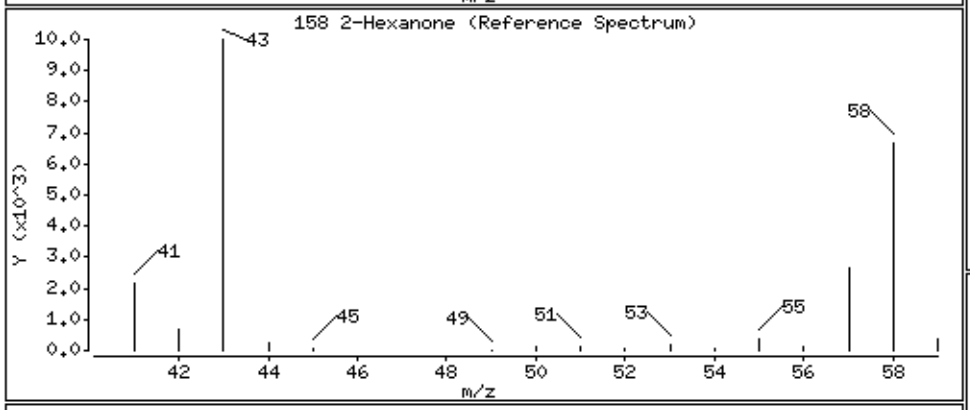
Column diameter: 0.25

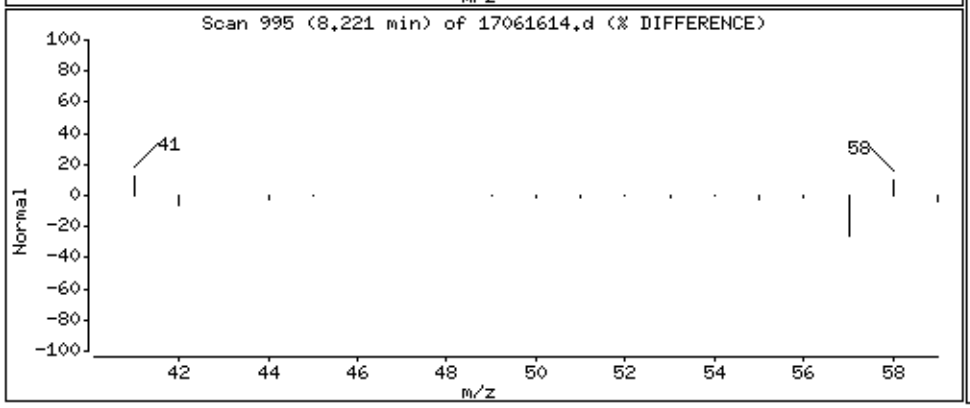
158 2-Hexanone

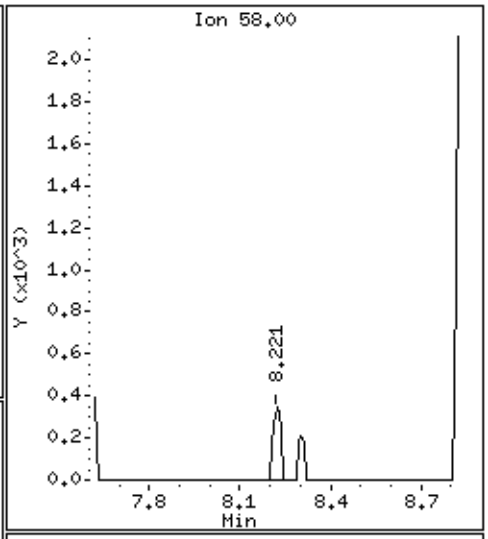
Concentration: 0.3313 PPBV

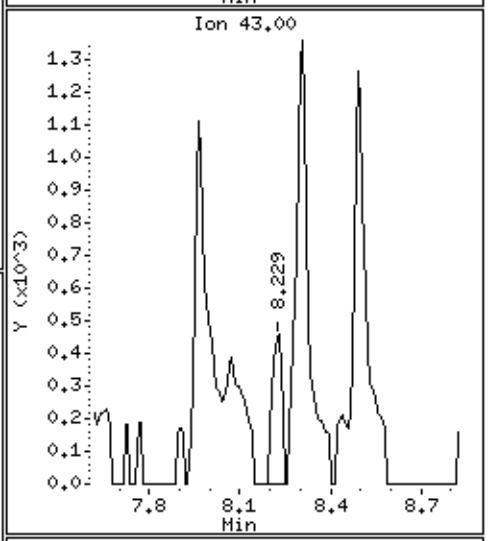


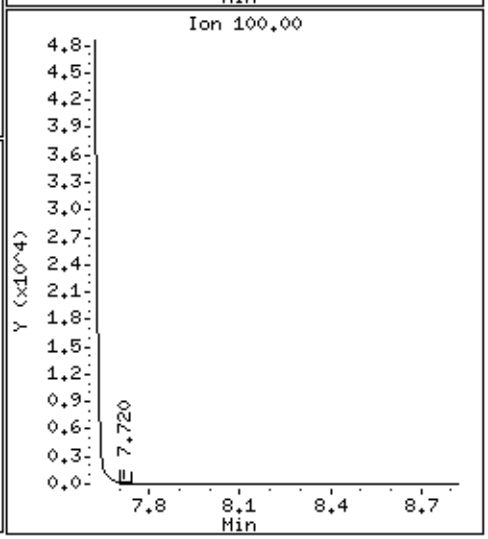












Data File: /chem/msd17.i/16jun16.b/17061614.d

Date : 16-JUN-2016 21:40

Client ID:

Instrument: msd17.i

Sample Info: 200ml 1L1606

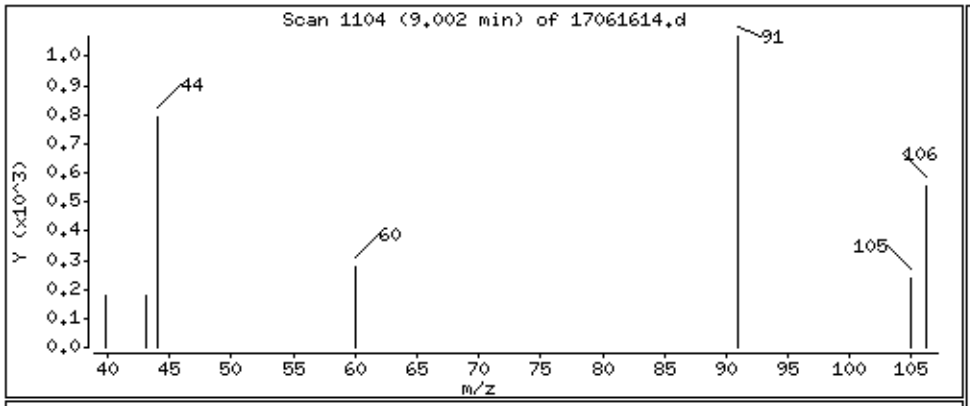
Operator: ea

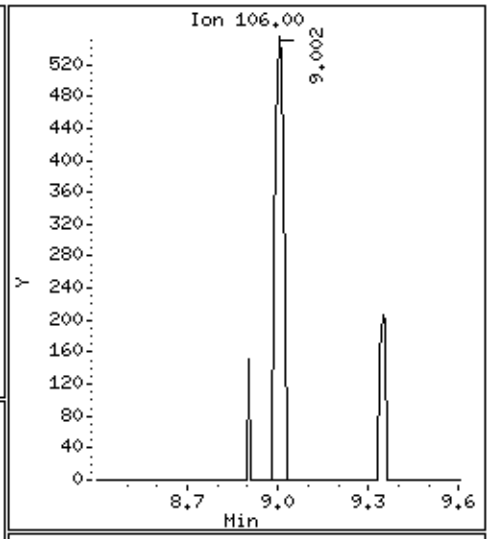
Column phase: RTX-624

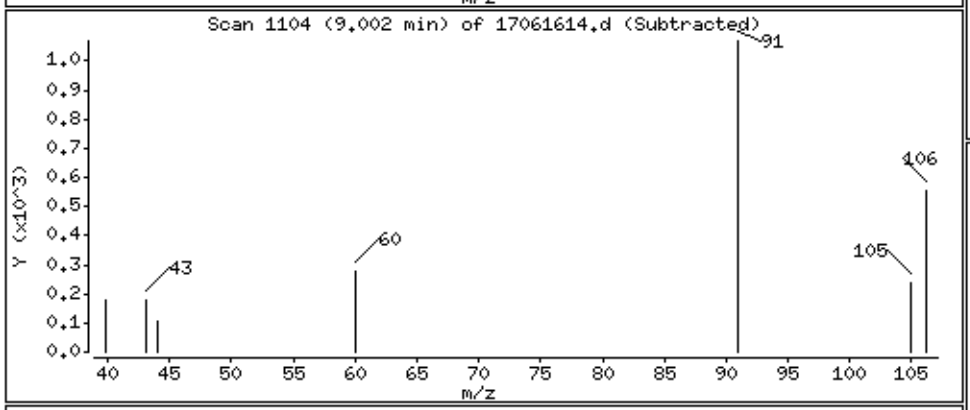
Column diameter: 0.25

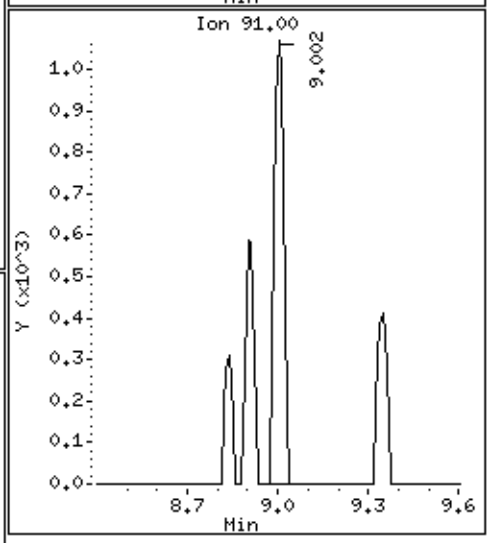
169 m,p-Xylene

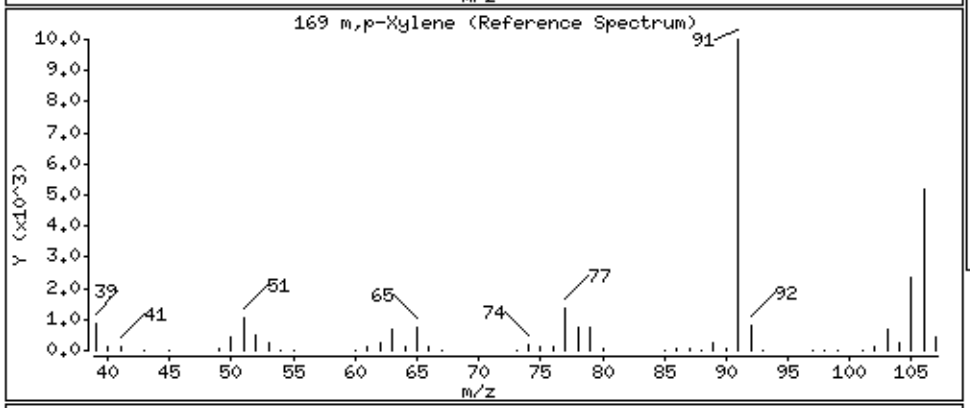
Concentration: 0.3010 PPBV

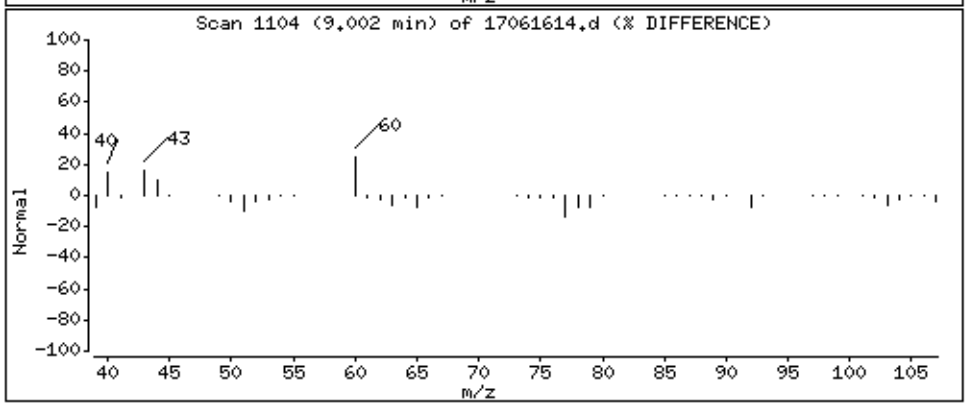












QC Results and Raw Data

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Client Sample ID: Lab Blank

Lab ID#: 1606298B-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061606a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/16/16 04:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected UJ	10	Not Detected UJ
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected UJ	3.8	Not Detected UJ
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1606298B-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061606a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/16/16 04:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061606a.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 16-JUN-2016 16:08
Operator : jcw Inst ID: msd17.i
Smp Info : 200ml 35149
Misc Info : HUMID
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 15:02 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO15Nmdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	74927	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	58296			48.69- 108.69	77.80
5.499	5.499 (1.000)	49	52618			54.63- 114.63	70.23
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.388	6.388 (1.000)	114	296882	25.0000		80.00- 120.00	100.00
6.388	6.388 (1.000)	88	43099			0.00- 45.20	14.52
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	306338	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	150444			20.04- 80.04	49.11
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.037	6.037 (1.098)	65	71371	23.0633	23.063	80.00- 120.00	100.00
6.037	6.037 (1.098)	67	39302			34.58- 94.58	55.07

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	319697	25.5709	25.571	80.00- 120.00	100.00
7.605	7.605 (1.191)	70	28329			0.00- 39.40	8.86
7.605	7.605 (1.191)	100	208114			35.49- 95.49	65.10
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.826	9.819 (1.112)	174	228531	25.4780	25.478	80.00- 120.00	100.00
9.826	9.819 (1.112)	95	218723			71.35- 131.35	95.71
9.826	9.819 (1.112)	176	219051			68.09- 128.09	95.85

Report Date: 17-Jun-2016 07:37

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061606a.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: jcw
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: HUMID

Calibration Date: 16-JUN-2016
Calibration Time: 14:10
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	74927	-0.68
123 1,4-Difluorobenze	302627	181576	423678	296882	-1.90
163 Chlorobenzene-d5	299663	179798	419528	306338	2.23

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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: 17-Jun-2016 07:37

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: jcw
Data Type: MS DATA
SampleType: BLANK
SpikeList File: AT12bromoform.spk
Quant Type: ISTD
Sublist File: TO15Nmdl.sub
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: HUMID

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	23.063	92.25	70-130
$ 146 Toluene-d8	25.000	25.571	102.28	70-130
$ 177 4-Bromofluorobenze	25.000	25.478	101.91	70-130

Data File: /chem/msd17.i/16jun16.b/17061606a.d

Date : 16-JUN-2016 16:08

Client ID: Lab Blank

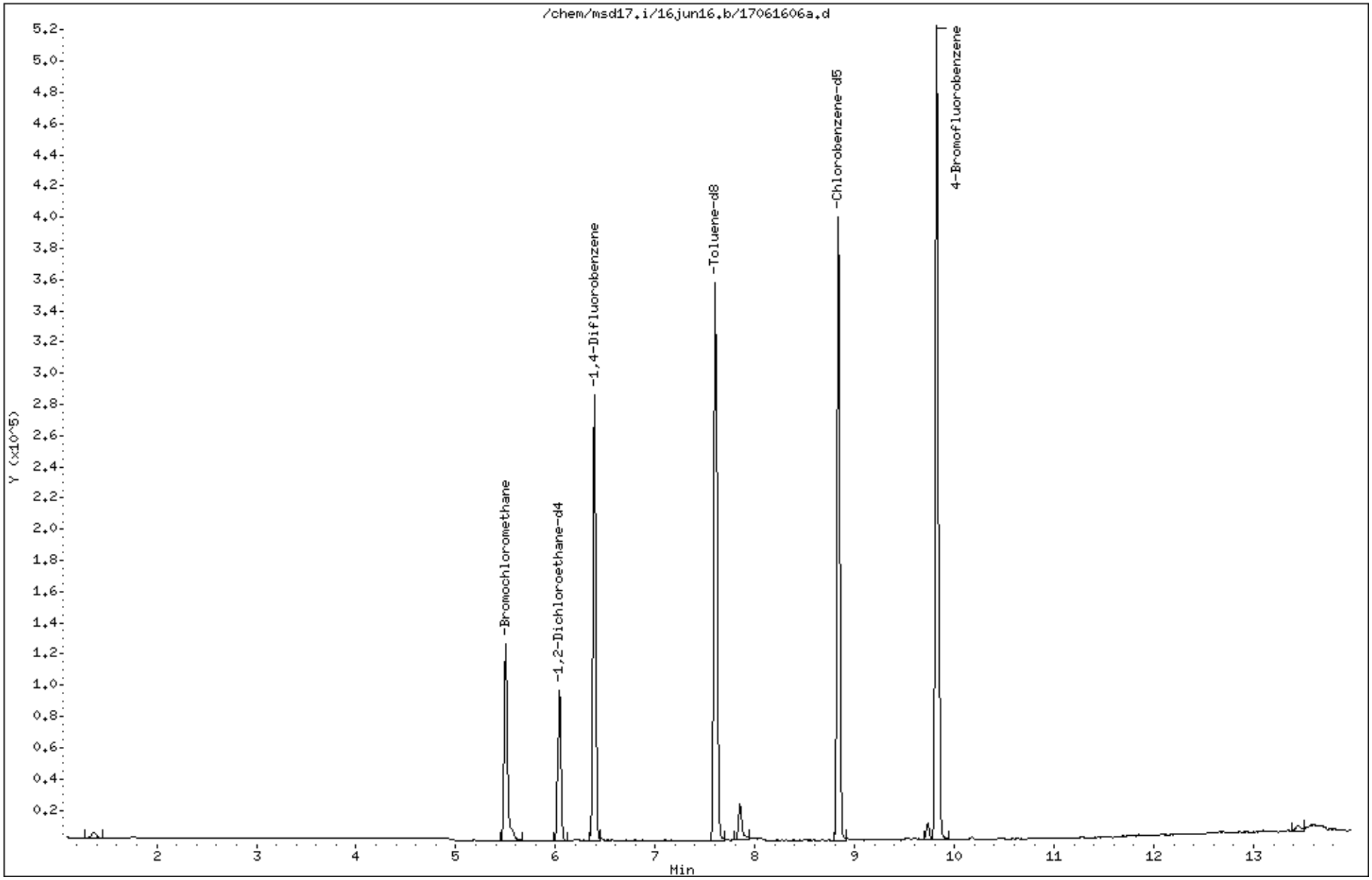
Sample Info: 200ml 35149

Column phase: RTX-624

Instrument: msd17.i

Operator: jcw

Column diameter: 0.25



LEVEL-IV VALIDATABLE

EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1606298B

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	B7SS-1(061216)	92		102		100				0
02	B7SS-1D(061216)	91		101		102				0
03	B7SS-2(061216)	91		101		100				0
04	B7SS-3(061216)	92		101		100				0
05	B7SS-4(061216)	93		102		102				0
06	B7SS-5(061216)	93		100		102				0
07	B7SS-6(061216)	93		103		100				0
08	Lab Blank	92		102		102				0
09	CCV	94		101		104				0
10	LCS	93		102		103				0
11	LCSD	95		102		104				0
12										0
13										0
14										0
15										0
16										0
17										0
18										0
19										0
20										0
21										0
22										0
23										0
24										0

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

EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:	AIR TOXICS, LTD	SDG No:	1606298B
Lab File ID:	17061602.d	Date Analyzed:	06/16/2016
Instrument ID:	msd17.i	Time Analyzed:	02:10 PM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	299663		8.84		302627		6.39		75443		5.5	
	UPPER LIMIT	419528		09.17		423678		06.72		105620		05.83	
	LOWER LIMIT	179798		08.51		181576		06.06		45266		05.17	
	CLIENT SAMPLE NO												
01	B7SS-1(061216)	303347		8.84		295296		6.39		74665		5.5	
02	B7SS-1D(061216)	299239		8.84		294227		6.39		75133		5.5	
03	B7SS-2(061216)	303976		8.84		294742		6.39		73953		5.5	
04	B7SS-3(061216)	301189		8.84		294505		6.39		73655		5.5	
05	B7SS-4(061216)	299963		8.84		292521		6.39		73993		5.5	
06	B7SS-5(061216)	308574		8.84		301110		6.39		75353		5.5	
07	B7SS-6(061216)	308269		8.84		299064		6.39		74839		5.5	
08	Lab Blank	306338		8.84		296882		6.39		74927		5.5	
09	CCV	299663		8.84		302627		6.39		75443		5.5	
10	LCS	299975		8.84		299438		6.39		76341		5.5	
11	LCSD	301348		8.84		303475		6.39		74513		5.5	
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

'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

* Designates values outside of QC limits

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 17061604.d & 17061603.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/16/16 & 6/16/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	84		85		1.2	
79-34-5	1,1,2,2-Tetrachloroethane	95		96		1.0	
79-00-5	1,1,2-Trichloroethane	91		89		2.2	
75-34-3	1,1-Dichloroethane	77		79		2.6	
75-35-4	1,1-Dichloroethene	82		85		3.6	
120-82-1	1,2,4-Trichlorobenzene	99		101		2.0	
95-63-6	1,2,4-Trimethylbenzene	94		95		1.0	
106-93-4	1,2-Dibromoethane (EDB)	91		92		1.1	
95-50-1	1,2-Dichlorobenzene	94		96		2.1	
107-06-2	1,2-Dichloroethane	85		85		0	
78-87-5	1,2-Dichloropropane	85		84		1.2	
108-67-8	1,3,5-Trimethylbenzene	96		97		1.0	
106-99-0	1,3-Butadiene	69		71		2.8	
541-73-1	1,3-Dichlorobenzene	94		94		0	
106-46-7	1,4-Dichlorobenzene	95		96		1.0	
123-91-1	1,4-Dioxane	90		90		0	
540-84-1	2,2,4-Trimethylpentane	77		80		3.8	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	77		80		3.8	
591-78-6	2-Hexanone	85		85		0	
67-63-0	2-Propanol	73		76		4.0	
107-05-1	3-Chloropropene	70		71		1.4	
622-96-8	4-Ethyltoluene	92		93		1.1	
108-10-1	4-Methyl-2-pentanone	88		88		0	
67-64-1	Acetone	69		72		4.2	
100-44-7	alpha-Chlorotoluene	95		95		0	
71-43-2	Benzene	86		85		1.2	
75-27-4	Bromodichloromethane	90		90		0	
75-25-2	Bromoform	99		98		1.0	
74-83-9	Bromomethane	104		104		0	
75-15-0	Carbon Disulfide	66		68		3.0	
56-23-5	Carbon Tetrachloride	87		89		2.3	
108-90-7	Chlorobenzene	88		88		0	
75-00-3	Chloroethane	71		73		2.8	
67-66-3	Chloroform	83		86		3.6	
74-87-3	Chloromethane	65		69		6.0	
156-59-2	cis-1,2-Dichloroethene	85		89		4.6	
10061-01-5	cis-1,3-Dichloropropene	83		83		0	
98-82-8	Cumene	91		91		0	
110-82-7	Cyclohexane	82		85		3.6	
124-48-1	Dibromochloromethane	93		93		0	
64-17-5	Ethanol	63		62		1.6	
100-41-4	Ethyl Benzene	90		90		0	
75-69-4	Freon 11	85		87		2.3	
76-13-1	Freon 113	83		85		2.4	
76-14-2	Freon 114	89		90		1.1	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 17061604.d & 17061603.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/16/16 & 6/16/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-71-8	Freon 12	83		85		2.4	
142-82-5	Heptane	85		85		0	
87-68-3	Hexachlorobutadiene	98		100		2.0	
110-54-3	Hexane	72		75		4.1	
108-38-3	m,p-Xylene	89		90		1.1	
1634-04-4	Methyl tert-butyl ether	76		79		3.9	
75-09-2	Methylene Chloride	70		72		2.8	
91-20-3	Naphthalene	128		131		2.3	
95-47-6	o-Xylene	91		91		0	
103-65-1	Propylbenzene	92		93		1.1	
100-42-5	Styrene	92		91		1.1	
127-18-4	Tetrachloroethene	94		93		1.1	
109-99-9	Tetrahydrofuran	69		71		2.8	
108-88-3	Toluene	91		90		1.1	
156-60-5	trans-1,2-Dichloroethene	86		88		2.3	
10061-02-6	trans-1,3-Dichloropropene	86		84		2.4	
79-01-6	Trichloroethene	88		87		1.1	
75-01-4	Vinyl Chloride	75		78		3.9	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2016 18:11
End Cal Date : 12-APR-2016 20:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd17.i/12apr16.b/176q0412a.m
Cal Date : 13-Apr-2016 09:28 jwu
Curve Type : Average

Calibration File Names:
Level 2: /chem/msd17.i/12apr16.b/17041202.d
Level 3: /chem/msd17.i/12apr16.b/17041203.d
Level 4: /chem/msd17.i/12apr16.b/17041204.d
Level 5: /chem/msd17.i/12apr16.b/17041205.d
Level 6: /chem/msd17.i/12apr16.b/17041206.d
Level 7: /chem/msd17.i/12apr16.b/17041207.d
Level 8: /chem/msd17.i/12apr16.b/17041208.d

Compound	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	50.000 Level 6	100.000 Level 7	___ RRF	% RSD
	200.000 Level 8							
9 Propylene	+++++	0.52890	0.55207	0.45662	0.49410	0.50181		
	0.48134						0.50247	6.765
11 Freon 12	1.67849	2.32314	2.35912	2.09189	2.25326	2.28985		
	2.19931						2.17072	10.788
15 Freon 114	1.77537	1.96191	2.02956	1.82056	1.95847	2.05148		
	2.02105						1.94549	5.512
17 Chloromethane	+++++	0.76632	0.76484	0.60572	0.64349	0.48780		
	0.55249						0.63678	17.696
23 Butane	+++++	0.13924	0.17881	0.15362	0.15727	0.16101		
	0.15654						0.15775	8.096
25 Vinyl Chloride	0.53307	0.85951	0.89783	0.78565	0.84538	0.86620		
	0.83838						0.80372	15.439
26 1,3-Butadiene	0.45752	0.58419	0.62196	0.56878	0.58406	0.59974		
	0.58055						0.57097	9.251

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2016 18:11
End Cal Date : 12-APR-2016 20:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd17.i/12apr16.b/176q0412a.m
Cal Date : 13-Apr-2016 09:28 jwu
Curve Type : Average

Compound	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	50.000 Level 6	100.000 Level 7	200.000 Level 8	___ RRF	% RSD
29 Bromomethane	0.53400	0.31457	0.62111	0.77313	0.82899	0.80203	0.84791	0.67453	29.156
30 Chloroethane	+++++	0.46633	0.50375	0.41055	0.44447	0.45428	0.43799	0.45290	6.880
31 Isopentane	+++++	0.80253	0.79742	0.73719	0.74939	0.75690	0.72937	0.76213	4.049
35 Freon 11	2.19534	2.44756	2.42303	2.21633	2.33511	2.39652	2.33696	2.33583	4.201
42 Ethanol	+++++	0.36196	0.27055	0.25702	0.26881	0.27482	0.27444	0.28460	13.509
49 Freon 113	1.93344	2.23809	2.16321	2.01525	2.03137	2.09200	2.03545	2.07269	4.893
50 1,1-Dichloroethene	0.48950	0.67993	0.68586	0.62019	0.66806	0.68958	0.67503	0.64402	11.179
52 Acetone	+++++	0.45479	0.42982	0.36186	0.37291	0.38700	0.37175	0.39635	9.417
56 Carbon Disulfide	+++++	3.10720	2.99525	2.66648	2.88967	2.98653	2.90627	2.92524	5.079
57 2-Propanol	+++++	1.26643	1.14944	1.09981	1.18324	1.17549	1.14416	1.16976	4.763

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2016 18:11
End Cal Date : 12-APR-2016 20:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd17.i/12apr16.b/176q0412a.m
Cal Date : 13-Apr-2016 09:28 jwu
Curve Type : Average

Compound	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	50.000 Level 6	100.000 Level 7	200.000 Level 8	___ RRF	% RSD
58 3-Chloropropene	+++++	0.51529	0.48223	0.42166	0.47569	0.48963	0.48719	0.47862	6.477
66 Methylene Chloride	+++++	0.88321	0.92406	0.77613	0.84871	0.88598	0.85011	0.86137	5.820
71 tert-Butyl alcohol	+++++	1.85146	1.84600	1.65295	1.73180	1.77410	1.75500	1.76855	4.216
72 Methyl tert-butyl ether	2.40532	2.74512	2.76332	2.68488	2.71607	2.77280	2.70150	2.68415	4.735
73 trans-1,2-Dichloroethene	0.55115	0.71699	0.75693	0.67487	0.72037	0.73689	0.72566	0.69755	9.916
78 Hexane	1.23951	1.39376	1.42051	1.30794	1.39159	1.43598	1.37004	1.36562	5.063
82 1,1-Dichloroethane	1.39990	1.80517	1.81868	1.58313	1.70249	1.72482	1.68285	1.67386	8.623
83 Isopropyl ether	+++++	2.55898	2.53586	2.45964	2.51340	2.56082	2.45789	2.51443	1.848
86 Vinyl Acetate	+++++	0.26281	0.27672	0.25719	0.29504	0.30222	0.29475	0.28146	6.649
88 Ethyl-tert-butyl ether	+++++	3.11315	2.93088	2.83646	2.95108	2.98273	2.92145	2.95596	3.084

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2016 18:11
End Cal Date : 12-APR-2016 20:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd17.i/12apr16.b/176q0412a.m
Cal Date : 13-Apr-2016 09:28 jwu
Curve Type : Average

Compound	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	50.000 Level 6	100.000 Level 7	200.000 Level 8	___ RRF	% RSD
91 cis-1,2-Dichloroethene	0.52937	0.80338	0.84306	0.71887	0.79062	0.81167	0.80627	0.75760	14.193
92 2-Butanone	+++++	0.56147	0.53479	0.48146	0.53788	0.55185	0.54429	0.53529	5.247
99 Tetrahydrofuran	0.92152	0.89074	0.88568	0.78438	0.84600	0.86171	0.84072	0.86154	5.117
100 Chloroform	1.80086	2.28766	2.29964	2.06533	2.23562	2.26971	2.21063	2.16706	8.291
102 Cyclohexane	1.40917	1.45950	1.59574	1.53201	1.55293	1.58124	1.53994	1.52436	4.395
103 1,1,1-Trichloroethane	2.21202	2.35777	2.34410	2.26463	2.32279	2.34953	2.30321	2.30772	2.296
106 Carbon Tetrachloride	2.17865	2.39543	2.43518	2.38614	2.48132	2.51107	2.45060	2.40548	4.546
113 2,2,4-Trimethylpentane	4.08613	4.74044	4.83065	4.53791	4.79545	4.93393	4.81372	4.67689	6.141
116 Benzene	0.82998	0.84156	0.85650	0.79175	0.83542	0.84941	0.83829	0.83470	2.503
119 tert-Amyl methyl ether	+++++	0.81164	0.79479	0.79551	0.82734	0.86578	0.85046	0.82425	3.547

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2016 18:11
End Cal Date : 12-APR-2016 20:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd17.i/12apr16.b/176q0412a.m
Cal Date : 13-Apr-2016 09:28 jwu
Curve Type : Average

Compound	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	50.000 Level 6	100.000 Level 7	200.000 Level 8	___ RRF	% RSD
120 1,2-Dichloroethane	0.27716	0.30704	0.32389	0.28844	0.30040	0.30542	0.30042	0.30040	4.908
121 Heptane	0.26408	0.29018	0.29732	0.29045	0.30307	0.30476	0.29860	0.29264	4.709
125 Trichloroethene	0.36558	0.41577	0.42221	0.39334	0.41855	0.42045	0.42008	0.40799	5.189
127 Methylcyclohexane	2.08826	2.26725	2.26187	2.19441	2.30113	2.32256	2.25832	2.24197	3.511
132 1,2-Dichloropropane	0.26628	0.30060	0.31029	0.28933	0.29900	0.30313	0.29800	0.29523	4.816
136 1,4-Dioxane	+++++	0.21584	0.21955	0.20469	0.21629	0.21860	0.21544	0.21507	2.482
138 Bromodichloromethane	0.57064	0.61924	0.64013	0.57719	0.61532	0.61805	0.61569	0.60804	4.094
144 cis-1,3-Dichloropropene	0.46730	0.53261	0.54853	0.51192	0.54440	0.55687	0.55473	0.53091	6.027
145 4-Methyl-2-pentanone	0.18747	0.22609	0.22976	0.22977	0.24308	0.23668	0.23827	0.22730	8.146
147 Toluene	1.12195	1.13640	1.18581	1.12594	1.16427	1.18561	1.16385	1.15483	2.327

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2016 18:11
End Cal Date : 12-APR-2016 20:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd17.i/12apr16.b/176q0412a.m
Cal Date : 13-Apr-2016 09:28 jwu
Curve Type : Average

Compound	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	50.000 Level 6	100.000 Level 7	200.000 Level 8	___ RRF	% RSD
150 trans-1,3-Dichloropropene	0.45349	0.47831	0.49225	0.47485	0.50936	0.51788	0.51115	0.49104	4.773
155 1,1,2-Trichloroethane	0.38704	0.43271	0.42804	0.41512	0.43310	0.43718	0.42833	0.42307	4.101
156 Tetrachloroethene	0.66279	0.68745	0.70251	0.69236	0.70567	0.71834	0.70224	0.69591	2.532
158 2-Hexanone	+++++	0.33537	0.32981	0.33113	0.34072	0.35139	0.34436	0.33880	2.451
160 Dibromochloromethane	0.72686	0.77497	0.78206	0.78404	0.83209	0.84648	0.83997	0.79807	5.441
161 1,2-Dibromoethane (EDB)	0.61534	0.68672	0.68710	0.67597	0.69860	0.71179	0.70142	0.68242	4.660
165 Chlorobenzene	1.10493	1.07286	1.07210	1.04407	1.07575	1.08171	1.06770	1.07416	1.682
167 Ethyl Benzene	0.53322	0.51283	0.52500	0.54460	0.54588	0.55053	0.54148	0.53622	2.500
169 m,p-Xylene	0.65514	0.66883	0.66442	0.68315	0.69098	0.69798	0.68218	0.67752	2.256
171 o-Xylene	0.66327	0.59796	0.61410	0.63469	0.64992	0.65050	0.63359	0.63486	3.565

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2016 18:11
End Cal Date : 12-APR-2016 20:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd17.i/12apr16.b/176q0412a.m
Cal Date : 13-Apr-2016 09:28 jwu
Curve Type : Average

Compound	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	50.000 Level 6	100.000 Level 7	200.000 Level 8	___ RRF	% RSD
172 Styrene	0.91297	0.96201	0.97127	1.05311	1.08965	1.09526	1.07340	1.02252	7.099
174 Bromoform	0.78184	0.86509	0.86441	0.91208	0.94408	0.96413	0.94678	0.89692	7.164
175 Cumene	1.85103	1.88068	1.88423	1.97685	1.98221	1.99816	1.95029	1.93192	3.041
181 1,1,2,2-Tetrachloroethane	0.95420	0.89742	0.91063	0.93983	0.94400	0.93748	0.91524	0.92840	2.230
182 Propylbenzene	2.16707	2.17334	2.14532	2.28914	2.23126	2.26863	2.20630	2.21158	2.443
188 4-Ethyltoluene	0.57434	0.60718	0.61845	0.64406	0.64714	0.63839	0.62066	0.62146	4.098
190 1,3,5-Trimethylbenzene	0.75746	0.82547	0.84471	0.90189	0.88820	0.89723	0.89166	0.85809	6.176
196 1,2,4-Trimethylbenzene	0.70056	0.74605	0.75502	0.79545	0.78902	0.78575	0.77533	0.76388	4.356
208 1,3-Dichlorobenzene	1.26199	1.28514	1.26094	1.29727	1.29274	1.29966	1.27494	1.28181	1.260
209 1,4-Dichlorobenzene	1.21251	1.25494	1.26138	1.31389	1.31888	1.30524	1.27298	1.27712	3.002

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2016 18:11
End Cal Date : 12-APR-2016 20:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd17.i/12apr16.b/176q0412a.m
Cal Date : 13-Apr-2016 09:28 jwu
Curve Type : Average

Compound	0.50000 Level 2	2.000 Level 3	5.000 Level 4	20.000 Level 5	50.000 Level 6	100.000 Level 7	200.000 Level 8	___ RRF	% RSD
212 alpha-Chlorotoluene	1.36873	1.39538	1.40642	1.53150	1.54692	1.57980	1.54676	1.48222	5.937
214 1,2-Dichlorobenzene	1.16780	1.21750	1.21578	1.25254	1.24756	1.24336	1.20845	1.22185	2.414
226 1,2,4-Trichlorobenzene	+++++	1.07171	1.17401	1.11602	1.26147	1.30084	1.27492	1.19983	7.796
227 Hexachlorobutadiene	+++++	0.95339	1.05245	0.96318	1.07106	1.08644	1.07016	1.03278	5.691
228 Naphthalene	+++++	+++++	1.76066	1.70506	1.97139	2.02362	1.97734	1.88761	7.632
$ 117 1,2-Dichloroethane-d4	1.00827	1.04495	1.03956	1.02123	0.98572	1.09072	1.03725	1.03253	3.192
$ 146 Toluene-d8	1.04601	1.05051	1.05698	1.04668	1.06349	1.05196	1.05402	1.05281	0.579
$ 177 4-Bromofluorobenzene	0.72660	0.74039	0.73336	0.72661	0.73463	0.73126	0.73124	0.73201	0.656

Calibration History

Method : /chem/msd17.i/12apr16.b/176q0412a.m
Start Cal Date: 12-APR-2016 18:11
End Cal Date : 12-APR-2016 20:45

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 0.50000		
12-APR-2016 18:11	AT12low	/chem/msd17.i/12apr16.b/17041202.d
Cal Level: 3 , Cal Amount: 2.00000		
12-APR-2016 18:38	AT12mdl	/chem/msd17.i/12apr16.b/17041203.d
Cal Level: 4 , Cal Amount: 5.00000		
12-APR-2016 19:04	AT12mdl	/chem/msd17.i/12apr16.b/17041204.d
Cal Level: 5 , Cal Amount: 20.00000		
12-APR-2016 19:27	AT12	/chem/msd17.i/12apr16.b/17041205.d
Cal Level: 6 , Cal Amount: 50.00000		
12-APR-2016 19:52	AT12	/chem/msd17.i/12apr16.b/17041206.d
Cal Level: 7 , Cal Amount: 100.00000		
12-APR-2016 20:19	AT12	/chem/msd17.i/12apr16.b/17041207.d
Cal Level: 8 , Cal Amount: 200.00000		
12-APR-2016 20:45	AT12	/chem/msd17.i/12apr16.b/17041208.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

```
+------------------+-----------------+----------------------------------------+
| Ccal Level: 6 , Ccal Amount: 50.000                                        |
+==========================================================================+
|12-APR-2016 19:52 |AT12             |/chem/msd17.i/12apr16.b/17041206.d      |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 6 , Ccal Amount: 50.000                                        |
+==========================================================================+
|12-APR-2016 19:52 |AT12             |/chem/msd17.i/12apr16.b/17041206a.d     |
+------------------+-----------------+----------------------------------------+
```

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 12-APR-2016 18:11
End Cal Date : 12-APR-2016 20:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd17.i/12apr16.b/176q0412a.m
Cal Date : 13-Apr-2016 09:28 jwu
Curve Type : Average

Calibration File Names:
Level 2: /chem/msd17.i/12apr16.b/17041202.d
Level 3: /chem/msd17.i/12apr16.b/17041203.d
Level 4: /chem/msd17.i/12apr16.b/17041204.d
Level 5: /chem/msd17.i/12apr16.b/17041205.d
Level 6: /chem/msd17.i/12apr16.b/17041206.d
Level 7: /chem/msd17.i/12apr16.b/17041207.d
Level 8: /chem/msd17.i/12apr16.b/17041208.d

JW 4/13/16

Compound	0.50000 Level 2 / 200.000 Level 8	2.000 Level 3	5.000 Level 4	20.000 Level 5	50.000 Level 6	100.000 Level 7	RRF	% RSD
9 Propylene	+++++ / 0.48134	0.52890	0.55207	0.45662	0.49410	0.50181	0.50247	6.765
11 Freon 12	1.67849 / 2.19931	2.32314	2.35912	2.09189	2.25326	2.28985	2.17072	10.788
15 Freon 114	1.77537 / 2.02105	1.96191	2.02956	1.82056	1.95847	2.05148	1.94549	5.512
17 Chloromethane	+++++ / 0.55249	0.76632	0.76484	0.60572	0.64349	0.48780	0.63678	17.696
23 Butane	+++++ / 0.15654	0.13924	0.17881	0.15362	0.15727	0.16101	0.15775	8.096
25 Vinyl Chloride	0.53307 / 0.83838	0.85951	0.89783	0.78565	0.84538	0.86620	0.80372	15.439
26 1,3-Butadiene	0.45752 / 0.58055	0.58419	0.62196	0.56878	0.58406	0.59974	0.57097	9.251

Initial Calibration Narrative

176q0412A.m

A multi-point initial calibration was analyzed on MSD-17 on 4/12/16 for AT-12.

ICAL: 0 out

Naphthalene is calibrated at 0.5ppbv, 2.0ppbv, 5.0ppbv, 10ppbv, and 20ppbv.

ICV: 0 out.
File: 17041212, 100ml: 2759-246A (100ppbv->50ppbv)

In-house controls and DoD – evaluate per project

BFB TUNE FILE:
A) 17041201

MDL: The TO-15 MDL was analyzed 03/08/16 and 03/09/16.

MSD17

BFB verification of 176/174 ratio: (303573/313856) * 100 =96.72%			
IS/S Std.#:	2789-16	Exp. Date:	6/16/2016
BCM	103,652		
1,4-DFB	426,046		
CB-d5	405,255		

Method TO-15/TO-14	
SOP# 6	
Vacuum: NA	
Please check all standards	
Surrogate# 2789-16	Exp. Date: 6/16/2016
Surrogate# NA	Exp. Date: NA

Verified CCV vs ICAL mid-point (-40%): gh

Method: 176Q0412a.m

Use	File #	Enter/Scan Sample IDs	Canister#	Cart Pos.	Pressure	Amount	DF	Verify Load	Loaded Init	Date Analyzed	Time Analyzed	Review Init	Comments
√	17041201	BFB Tune Check	2759-292	12	36ng	1.0mL	1.00	gh	gh	04/12/16	1737	jcw/sab	
√	17041202	ICAL LEVEL 2	2789-65	1	0.5ppbv(5.0ppbv)	20ml	1.00	gh	gh	04/12/16	1811	jcw/sab	Exp. 5/24/16;
√	17041203	ICAL LEVEL 3	2789-65	1	2.0ppbv(5.0ppbv)	80ml	1.00	gh	gh	04/12/16	1838	jcw/sab	Exp. 5/24/16;
√	17041204	ICAL LEVEL 4	2789-65	1	5.0ppbv(5.0ppbv)	200ml	1.00	gh	gh	04/12/16	1904	jcw/sab	Exp. 5/24/16;
√	17041205	ICAL LEVEL 5	2759-276	13	20ppbv(200ppbv)	20ml	1.00	gh	gh	04/12/16	1927	jcw/sab	Exp. 5/24/16;
√	17041206	ICAL LEVEL 6	2759-276	13	50ppbv(200ppbv)	50ml	1.00	gh	gh	04/12/16	1952	jcw/sab	Exp. 5/24/16;
√	17041207	ICAL LEVEL 7	2759-276	13	100ppbv(200ppbv)	100ml	1.00	gh	gh	04/12/16	2019	jcw/sab	Exp. 5/24/16;
√	17041208	ICAL LEVEL 8	2759-276	13	200ppbv(200ppbv)	200ml	1.00	gh	gh	04/12/16	2045	jcw/sab	Exp. 5/24/16;
X	17041209	System blank	35133	12	Humid	200ml	1.00	gh	gh	04/12/16	2112	jcw/-	
X	17041210	System blank	35133	12	Humid	200ml	1.00	gh	gh	04/12/16	2138	jcw/-	
√	17041211	System blank	35133	12	Humid	200ml	1.00	gh	gh	04/12/16	2218	jcw/sab	ok for ICV
√	17041212	ICV	2759-246A	14	50ppbv(100ppbv)	100ml	1.00	gh	gh	04/12/16	2254	jcw/sab	exp. 5/16/16

JW 9/13/16

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

Bromochloromethane
Target Compounds:
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
Surrogates:
1,2-Dichloroethane-d4

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

Chlorobenzene-d5
Target Compounds:
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
Surrogates:
Bromofluorobenzene

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/12apr16.b/17041212.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 12-APR-2016 22:54
Operator : gh Inst ID: msd17.i
Smp Info : 100ml 2759-246A
Misc Info : 50ppbv(100ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/12apr16.b/176q0412a.m
Meth Date : 13-Apr-2016 09:26 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 20:45 Cal File: 17041208.d
Als bottle: 14 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.506	5.506 (1.000)	130	101985	25.0000		80.00- 120.00	100.00
5.506	5.506 (1.000)	128	79666			48.69- 108.69	78.12
5.499	5.506 (1.000)	49	80006			54.63- 114.63	78.45
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.387	6.387 (1.000)	114	428684	25.0000		80.00- 120.00	100.00
6.387	6.387 (1.000)	88	63384			0.00- 45.20	14.79
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	403894	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	204101			20.04- 80.04	50.53
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.036	6.037 (1.096)	65	108535	25.7675	25.767	80.00- 120.00	100.00
6.036	6.037 (1.096)	67	61959			34.58- 94.58	57.09

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	453156	25.1016	25.102	80.00- 120.00	100.00
7.605	7.598 (1.191)	70	42051			0.00- 39.40	9.28
7.605	7.605 (1.191)	100	299733			35.49- 95.49	66.14
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.826	9.811 (1.112)	174	302380	25.5686	25.569	80.00- 120.00	100.00
9.826	9.811 (1.112)	95	304470			71.35- 131.35	100.69
9.826	9.811 (1.112)	176	293325			68.09- 128.09	97.01
9 Propylene					CAS #: 115-07-1		
1.509	1.502 (0.274)	41	96326	46.9931	46.993	80.00- 120.00	100.00
1.509	1.502 (0.274)	42	64807			37.85- 97.85	67.28
1.509	1.502 (0.274)	39	65912			37.93- 97.93	68.43
11 Freon 12					CAS #: 75-71-8		
1.538	1.538 (0.279)	85	458529	51.7805	51.780	80.00- 120.00	100.00
1.538	1.538 (0.279)	87	148950			2.58- 62.58	32.48
15 Freon 114					CAS #: 76-14-2		
1.660	1.660 (0.301)	135	419655	52.8772	52.877	80.00- 120.00	100.00
1.660	1.660 (0.301)	137	132431			1.60- 61.60	31.56
17 Chloromethane					CAS #: 74-87-3		
1.796	1.739 (0.326)	50	98640	37.9725	37.972	80.00- 120.00	100.00
1.796	1.739 (0.326)	52	31698			2.00- 62.00	32.14
23 Butane					CAS #: 106-97-8		
1.825	1.817 (0.331)	58	31885	49.5474	49.547	80.00- 120.00	100.00
1.825	1.817 (0.331)	43	199858			587.84- 647.84	626.81
25 Vinyl Chloride					CAS #: 75-01-4		
1.860	1.853 (0.338)	62	175507	53.5297	53.530	80.00- 120.00	100.00
1.860	1.853 (0.338)	64	57733			3.15- 63.15	32.89
26 1,3-Butadiene					CAS #: 106-99-0		
1.882	1.882 (0.342)	54	115449	49.5656	49.566	80.00- 120.00	100.00
1.882	1.882 (0.342)	39	97819			51.92- 111.92	84.73
29 Bromomethane					CAS #: 74-83-9		
2.240	2.233 (0.407)	94	162512	59.0589	59.059	80.00- 120.00	100.00
2.240	2.233 (0.407)	96	153847			63.57- 123.57	94.67
30 Chloroethane					CAS #: 75-00-3		
2.355	2.348 (0.428)	64	94817	51.3205	51.320	80.00- 120.00	100.00
2.348	2.348 (0.426)	66	30188			1.86- 61.86	31.84

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
2.348	2.348 (0.426)	49	19694			0.00- 51.05	20.77
31 Isopentane					CAS #: 78-78-4		
2.369	2.369 (0.430)	43	147150	47.3295	47.330	80.00- 120.00	100.00
2.369	2.369 (0.430)	57	127092			52.34- 112.34	86.37
35 Freon 11					CAS #: 75-69-4		
2.605	2.598 (0.473)	101	485152	50.9143	50.914	80.00- 120.00	100.00
2.605	2.598 (0.473)	103	318063			35.21- 95.21	65.56
42 Ethanol					CAS #: 64-17-5		
2.949	2.949 (0.536)	45	52600	45.3060	45.306	80.00- 120.00	100.00
2.949	2.949 (0.536)	43	10590			0.00- 50.21	20.13
2.949	2.949 (0.536)	46	20401			8.20- 68.20	38.79
49 Freon 113					CAS #: 76-13-1		
3.243	3.243 (0.589)	151	404907	47.8879	47.888	80.00- 120.00	100.00
3.243	3.243 (0.589)	153	259605			34.59- 94.59	64.11
3.243	3.243 (0.589)	101	439125			78.63- 138.63	108.45
50 1,1-Dichloroethene					CAS #: 75-35-4		
3.279	3.279 (0.595)	98	134803	51.3101	51.310	80.00- 120.00	100.00
3.279	3.279 (0.595)	96	211405			124.95- 184.95	156.83
3.279	3.279 (0.595)	61	266422			168.97- 228.97	197.64
52 Acetone					CAS #: 67-64-1		
3.443	3.436 (0.625)	58	76356	47.2241	47.224	80.00- 120.00	100.00
3.443	3.436 (0.625)	43	186157			226.10- 286.10	243.80
56 Carbon Disulfide					CAS #: 75-15-0		
3.522	3.515 (0.640)	76	510779	42.8032	42.803	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
3.615	3.615 (0.657)	45	226810	47.5301	47.530	80.00- 120.00	100.00
3.615	3.615 (0.657)	43	51910			0.00- 48.33	22.89
3.615	3.615 (0.657)	59	11107			0.00- 34.85	4.90
58 3-Chloropropene					CAS #: 107-05-1		
3.759	3.759 (0.683)	76	91744	46.9888	46.989	80.00- 120.00	100.00
3.759	3.759 (0.683)	41	161249			151.01- 211.01	175.76
66 Methylene Chloride					CAS #: 75-09-2		
3.945	3.945 (0.716)	49	171367	48.7690	48.769	80.00- 120.00	100.00
3.945	3.945 (0.716)	84	188804			81.18- 141.18	110.18
3.945	3.945 (0.716)	51	54672			1.84- 61.84	31.90

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
4.153	4.153 (0.754)	73	531451	48.5357	48.536	80.00- 120.00	100.00
4.153	4.153 (0.754)	57	106525			0.00- 50.25	20.04
4.153	4.153 (0.754)	41	80737			0.00- 45.26	15.19
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
4.181	4.181 (0.759)	98	125741	44.1881	44.188	80.00- 120.00	100.00
4.181	4.181 (0.759)	61	227499			152.76- 212.76	180.93
4.181	4.181 (0.759)	96	193909			127.34- 187.34	154.21
78 Hexane					CAS #: 110-54-3		
4.389	4.389 (0.797)	57	277702	49.8485	49.848	80.00- 120.00	100.00
4.389	4.389 (0.797)	43	144749			21.17- 81.17	52.12
4.389	4.389 (0.797)	86	55347			0.00- 49.59	19.93
82 1,1-Dichloroethane					CAS #: 75-34-3		
4.683	4.683 (0.850)	63	336893	49.3373	49.337	80.00- 120.00	100.00
4.683	4.683 (0.850)	65	109666			1.59- 61.59	32.55
83 Isopropyl ether					CAS #: 108-20-3		
4.153	4.661 (0.754)	45	20902	2.03775	2.038	80.00- 120.00	100.00
4.389	4.661 (0.797)	87	3596			9.63- 69.63	17.20
4.181	4.661 (0.759)	59	7381			0.00- 43.69	35.31
86 Vinyl Acetate					CAS #: 108-05-4		
4.726	4.718 (0.858)	86	57675	50.2322	50.232	80.00- 120.00	100.00
4.718	4.718 (0.857)	43	392923			689.25- 749.25	681.27
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
5.270	5.263 (0.957)	98	175879	56.9083	56.908	80.00- 120.00	100.00
5.270	5.263 (0.957)	96	275310			127.08- 187.08	156.53
5.263	5.263 (0.956)	61	286412			135.30- 195.30	162.85
92 2-Butanone					CAS #: 78-93-3		
5.292	5.292 (0.961)	72	105459	48.2945	48.294	80.00- 120.00	100.00
5.292	5.292 (0.961)	43	292453			251.52- 311.52	277.31
5.292	5.292 (0.961)	57	27854			0.00- 57.81	26.41
99 Tetrahydrofuran					CAS #: 109-99-9		
5.499	5.492 (0.999)	42	164661	46.8512	46.851	80.00- 120.00	100.00
5.499	5.492 (0.999)	71	93189			26.57- 86.57	56.59
5.499	5.492 (0.999)	72	100533			30.33- 90.33	61.05
100 Chloroform					CAS #: 67-66-3		
5.564	5.564 (1.010)	83	440121	49.7856	49.786	80.00- 120.00	100.00
5.564	5.564 (1.010)	85	286691			34.18- 94.18	65.14

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
102 Cyclohexane					CAS #: 110-82-7		
5.657	5.657 (1.027)	84	310320	49.9029	49.903	80.00- 120.00	100.00
5.657	5.657 (1.027)	56	304057			67.82- 127.82	97.98
5.657	5.657 (1.027)	41	126112			12.04- 72.04	40.64
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.678	5.678 (1.031)	97	454803	48.3107	48.311	80.00- 120.00	100.00
5.678	5.678 (1.031)	99	294192			34.84- 94.84	64.69
106 Carbon Tetrachloride					CAS #: 56-23-5		
5.793	5.793 (1.052)	119	469104	47.8047	47.805	80.00- 120.00	100.00
5.793	5.793 (1.052)	117	486818			73.08- 133.08	103.78
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.986	5.986 (1.087)	57	942327	49.3910	49.391	80.00- 120.00	100.00
5.986	5.986 (1.087)	56	296847			2.25- 62.25	31.50
5.986	5.986 (1.087)	41	195796			0.00- 49.06	20.78
116 Benzene					CAS #: 71-43-2		
6.015	6.015 (0.942)	78	681432	47.6096	47.610	80.00- 120.00	100.00
6.015	6.015 (0.942)	77	163432			0.00- 53.87	23.98
119 tert-Amyl methyl ether					CAS #: 994-05-8		
5.564	6.079 (1.010)	87	47434	14.1070	14.107	80.00- 120.00	100.00
5.664	6.079 (1.029)	73	206			370.90- 430.90	0.43
5.657	6.079 (1.027)	55	106495			58.01- 118.01	224.51
120 1,2-Dichloroethane					CAS #: 107-06-2		
6.108	6.108 (0.956)	62	247362	48.0220	48.022	80.00- 120.00	100.00
6.108	6.108 (0.956)	64	82363			3.62- 63.62	33.30
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	243201	48.4660	48.466	80.00- 120.00	100.00
6.158	6.158 (0.964)	43	305907			96.69- 156.69	125.78
6.158	6.158 (0.964)	57	214756			58.40- 118.40	88.30
125 Trichloroethene					CAS #: 79-01-6		
6.581	6.581 (1.030)	95	382724	54.7059	54.706	80.00- 120.00	100.00
6.581	6.581 (1.030)	130	437755			84.60- 144.60	114.38
6.581	6.581 (1.030)	97	249172			34.77- 94.77	65.10
127 Methylcyclohexane					CAS #: 108-87-2		
6.681	6.681 (1.213)	83	452906	49.5201	49.520	80.00- 120.00	100.00
6.681	6.681 (1.213)	98	213762			16.97- 76.97	47.20
6.681	6.674 (1.213)	55	289777			33.99- 93.99	63.98

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
132 1,2-Dichloropropane						CAS #: 78-87-5	
6.817	6.817 (1.067)	63	246761	48.7432	48.743	80.00- 120.00	100.00
6.817	6.817 (1.067)	62	170334			38.70- 98.70	69.03
6.817	6.817 (1.067)	41	93493			8.21- 68.21	37.89
136 1,4-Dioxane						CAS #: 123-91-1	
6.910	6.910 (1.082)	88	171414	46.4802	46.480	80.00- 120.00	100.00
6.910	6.910 (1.082)	58	98973			27.44- 87.44	57.74
6.910	6.910 (1.082)	57	31503			0.00- 47.84	18.38
138 Bromodichloromethane						CAS #: 75-27-4	
7.046	7.046 (1.103)	83	513580	49.2585	49.258	80.00- 120.00	100.00
7.046	7.046 (1.103)	85	329667			34.54- 94.54	64.19
144 cis-1,3-Dichloropropene						CAS #: 10061-01-5	
7.426	7.426 (1.163)	75	421534	46.3037	46.304	80.00- 120.00	100.00
7.426	7.426 (1.163)	77	136092			2.23- 62.23	32.28
7.426	7.419 (1.163)	39	134723			1.93- 61.93	31.96
145 4-Methyl-2-pentanone						CAS #: 108-10-1	
7.534	7.526 (1.179)	58	188711	48.4167	48.417	80.00- 120.00	100.00
7.534	7.526 (1.179)	43	392833			175.29- 235.29	208.17
7.534	7.534 (1.179)	85	102642			22.79- 82.79	54.39
147 Toluene						CAS #: 108-88-3	
7.655	7.655 (1.198)	91	949731	47.9605	47.960	80.00- 120.00	100.00
7.655	7.655 (1.198)	92	555026			28.86- 88.86	58.44
150 trans-1,3-Dichloropropene						CAS #: 10061-02-6	
7.899	7.899 (0.894)	75	391438	49.3419	49.342	80.00- 120.00	100.00
7.899	7.899 (0.894)	77	126939			2.74- 62.74	32.43
7.899	7.899 (0.894)	39	124683			1.87- 61.87	31.85
155 1,1,2-Trichloroethane						CAS #: 79-00-5	
8.056	8.056 (0.912)	97	333317	48.7657	48.766	80.00- 120.00	100.00
8.056	8.056 (0.912)	99	210780			31.91- 91.91	63.24
8.056	8.056 (0.912)	83	278704			54.42- 114.42	83.62
156 Tetrachloroethene						CAS #: 127-18-4	
8.092	8.092 (0.916)	166	550837	48.9941	48.994	80.00- 120.00	100.00
8.092	8.092 (0.916)	129	376161			38.60- 98.60	68.29
8.092	8.092 (0.916)	131	363443			36.89- 96.89	65.98
158 2-Hexanone						CAS #: 591-78-6	
8.221	8.221 (0.930)	58	259198	47.3549	47.355	80.00- 120.00	100.00
8.221	8.221 (0.930)	43	382020			121.26- 181.26	147.39

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone (continued)							
8.221	8.221 (0.930)	100	68843			0.00- 55.92	26.56
160 Dibromochloromethane					CAS #: 124-48-1		
8.372	8.372 (0.947)	129	643793	49.9321	49.932	80.00- 120.00	100.00
8.372	8.372 (0.947)	127	498780			46.88- 106.88	77.48
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
8.486	8.486 (0.960)	107	542560	49.2118	49.212	80.00- 120.00	100.00
8.486	8.486 (0.960)	109	514235			65.10- 125.10	94.78
165 Chlorobenzene					CAS #: 108-90-7		
8.859	8.859 (1.002)	112	828043	47.7152	47.715	80.00- 120.00	100.00
8.859	8.859 (1.002)	114	264492			1.88- 61.88	31.94
8.859	8.859 (1.002)	77	438840			22.25- 82.25	53.00
167 Ethyl Benzene					CAS #: 100-41-4		
8.909	8.909 (1.008)	106	410395	47.3733	47.373	80.00- 120.00	100.00
8.909	8.902 (1.008)	91	1250622			268.56- 328.56	304.74
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	526621	48.1111	48.111	80.00- 120.00	100.00
9.002	9.002 (1.019)	91	1006631			159.69- 219.69	191.15
171 o-Xylene					CAS #: 95-47-6		
9.346	9.346 (1.058)	106	499331	48.6836	48.684	80.00- 120.00	100.00
9.346	9.346 (1.058)	91	1009104			168.78- 228.78	202.09
172 Styrene					CAS #: 100-42-5		
9.367	9.367 (1.060)	104	776487	47.0038	47.004	80.00- 120.00	100.00
9.367	9.360 (1.060)	78	346467			13.63- 73.63	44.62
174 Bromoform					CAS #: 75-25-2		
9.575	9.568 (1.083)	173	972152	67.0896	67.090	80.00- 120.00	100.00
9.575	9.568 (1.083)	171	496916			21.51- 81.51	51.12
175 Cumene					CAS #: 98-82-8		
9.632	9.625 (1.090)	105	1508807	48.3411	48.341	80.00- 120.00	100.00
9.632	9.625 (1.090)	120	424427			0.00- 57.69	28.13
9.632	9.625 (1.090)	51	100284			0.00- 36.59	6.65
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.955	9.940 (1.126)	83	636748	42.4526	42.453	80.00- 120.00	100.00
9.955	9.940 (1.126)	85	415495			34.20- 94.20	65.25
182 Propylbenzene					CAS #: 103-65-1		
9.976	9.969 (1.129)	91	1737967	48.6420	48.642	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
182 Propylbenzene (continued)							
9.976	9.969 (1.129)	120	444281			0.00- 55.61	25.56
9.976	9.969 (1.129)	105	67241			0.00- 33.98	3.87
188 4-Ethyltoluene					CAS #: 622-96-8		
10.069	10.062 (1.139)	120	486970	48.5023	48.502	80.00- 120.00	100.00
10.069	10.062 (1.139)	105	1512767			279.77- 339.77	310.65
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
10.127	10.112 (1.146)	120	674481	48.6532	48.653	80.00- 120.00	100.00
10.127	10.112 (1.146)	105	1333409			170.95- 230.95	197.69
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
10.449	10.435 (1.182)	120	597609	48.4242	48.424	80.00- 120.00	100.00
10.449	10.435 (1.182)	105	1240021			178.76- 238.76	207.50
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.743	10.721 (1.216)	146	988951	47.7555	47.755	80.00- 120.00	100.00
10.743	10.721 (1.216)	148	629708			33.80- 93.80	63.67
10.743	10.721 (1.216)	111	366312			7.11- 67.11	37.04
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.821	10.800 (1.225)	146	985727	47.7748	47.775	80.00- 120.00	100.00
10.821	10.800 (1.225)	148	634985			33.65- 93.65	64.42
10.821	10.800 (1.225)	111	349364			5.53- 65.53	35.44
212 alpha-Chlorotoluene					CAS #: 100-44-7		
10.943	10.915 (1.238)	91	1169338	48.8316	48.832	80.00- 120.00	100.00
10.943	10.915 (1.238)	126	280205			0.00- 53.94	23.96
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
11.151	11.129 (1.262)	146	943519	47.7973	47.797	80.00- 120.00	100.00
11.151	11.129 (1.262)	148	599674			33.47- 93.47	63.56
11.151	11.129 (1.262)	111	360833			7.89- 67.89	38.24
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
12.569	12.526 (1.422)	180	931542	48.0569	48.057	80.00- 120.00	100.00
12.569	12.526 (1.422)	182	889168			67.03- 127.03	95.45
227 Hexachlorobutadiene					CAS #: 87-68-3		
12.655	12.612 (1.432)	225	796377	47.7291	47.729	80.00- 120.00	100.00
12.655	12.612 (1.432)	223	501073			32.58- 92.58	62.92
228 Naphthalene					CAS #: 91-20-3		
12.841	12.798 (1.453)	128	169614	5.56187	5.562	80.00- 120.00	100.00
12.841	12.798 (1.453)	127	22901			0.00- 42.95	13.50

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17041212.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd17.i/12apr16.b/176q0412a.m
Misc Info: 50ppbv(100ppbv)

Calibration Date: 12-APR-2016
Calibration Time: 19:52
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	103652	62191	145113	101985	-1.61
123 1,4-Difluorobenze	426046	255628	596464	428684	0.62
163 Chlorobenzene-d5	405255	243153	567357	403894	-0.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.51	0.13
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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-Apr-2016 09:27

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 12apr16
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: AT12bromoform.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd17.i/12apr16.b/176q0412a.m
Misc Info: 50ppbv(100ppbv)

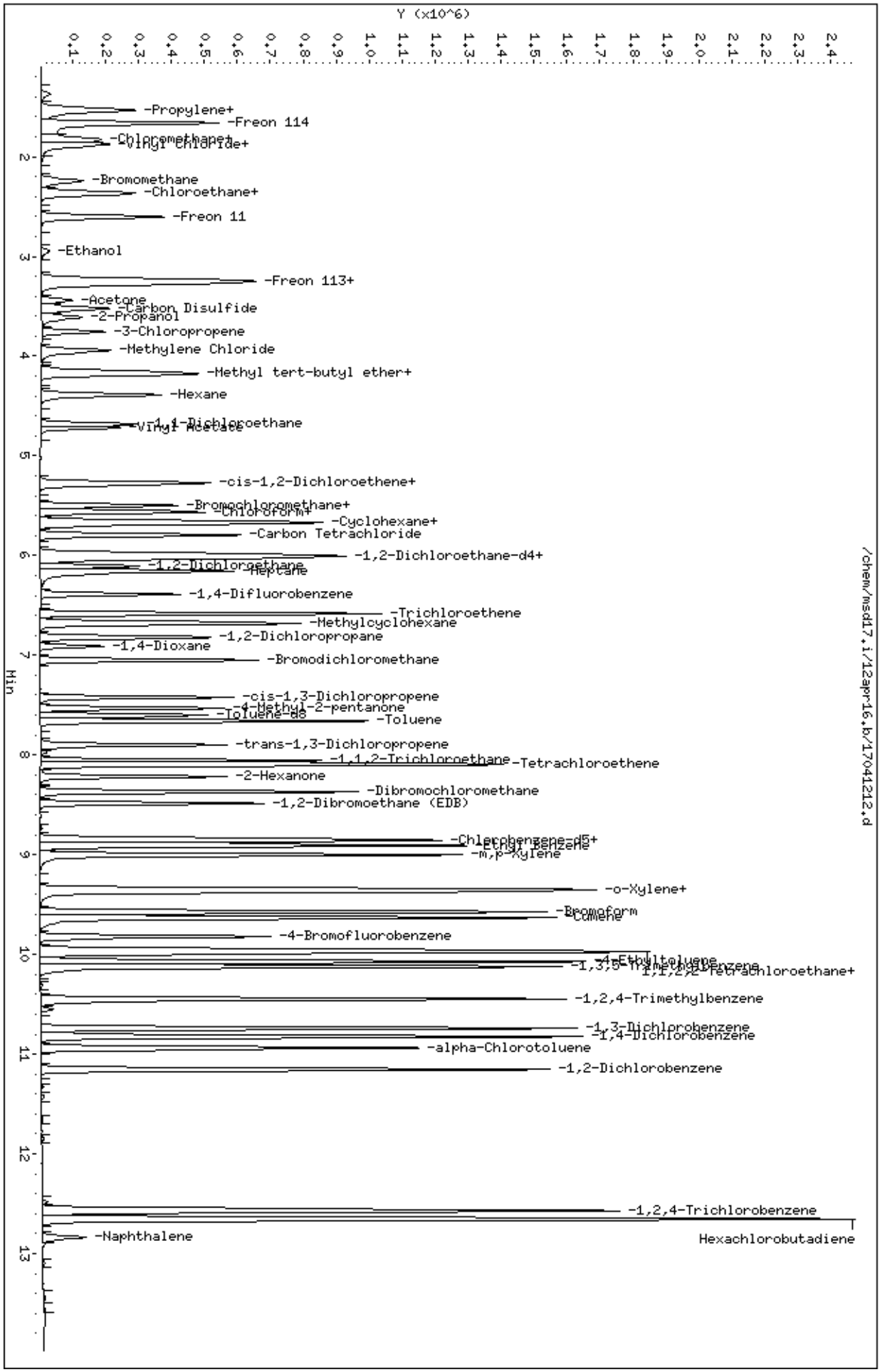
SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	50.000	46.993	93.99	70-130
11 Freon 12	50.000	51.780	103.56	70-130
15 Freon 114	50.000	52.877	105.75	70-130
17 Chloromethane	50.000	37.972	75.95	70-130
23 Butane	50.000	49.547	99.09	70-130
25 Vinyl Chloride	50.000	53.530	107.06	70-130
26 1,3-Butadiene	50.000	49.566	99.13	70-130
29 Bromomethane	50.000	59.059	118.12	70-130
30 Chloroethane	50.000	51.320	102.64	70-130
31 Isopentane	50.000	47.330	94.66	70-130
35 Freon 11	50.000	50.914	101.83	70-130
42 Ethanol	50.000	45.306	90.61	70-130
49 Freon 113	50.000	47.888	95.78	70-130
50 1,1-Dichloroethene	50.000	51.310	102.62	70-130
52 Acetone	50.000	47.224	94.45	70-130
56 Carbon Disulfide	50.000	42.803	85.61	70-130
57 2-Propanol	50.000	47.530	95.06	70-130
58 3-Chloropropene	50.000	46.989	93.98	70-130
66 Methylene Chloride	50.000	48.769	97.54	70-130
72 Methyl tert-butyl	50.000	48.536	97.07	70-130
73 trans-1,2-Dichloro	42.500	44.188	103.97	70-130
78 Hexane	50.000	49.848	99.70	70-130
82 1,1-Dichloroethane	50.000	49.337	98.67	70-130
86 Vinyl Acetate	50.000	50.232	100.46	70-130
91 cis-1,2-Dichloroet	56.500	56.908	100.72	70-130
92 2-Butanone	50.000	48.294	96.59	70-130
99 Tetrahydrofuran	50.000	46.851	93.70	70-130
100 Chloroform	50.000	49.786	99.57	70-130
103 1,1,1-Trichloroeth	50.000	48.311	96.62	70-130
106 Carbon Tetrachlori	50.000	47.805	95.61	70-130
102 Cyclohexane	50.000	49.903	99.81	70-130
113 2,2,4-Trimethylpen	50.000	49.391	98.78	70-130
116 Benzene	50.000	47.610	95.22	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	50.000	48.022	96.04	70-130
121 Heptane	50.000	48.466	96.93	70-130
125 Trichloroethene	50.000	54.706	109.41	70-130
127 Methylcyclohexane	50.000	49.520	99.04	70-130
132 1,2-Dichloropropan	50.000	48.743	97.49	70-130
136 1,4-Dioxane	50.000	46.480	92.96	70-130
138 Bromodichlorometha	50.000	49.258	98.52	70-130
144 cis-1,3-Dichloropr	50.000	46.304	92.61	70-130
145 4-Methyl-2-pentano	50.000	48.417	96.83	70-130
147 Toluene	50.000	47.960	95.92	70-130
150 trans-1,3-Dichloro	50.000	49.342	98.68	70-130
155 1,1,2-Trichloroeth	50.000	48.766	97.53	70-130
156 Tetrachloroethene	50.000	48.994	97.99	70-130
158 2-Hexanone	50.000	47.355	94.71	70-130
160 Dibromochlorometha	50.000	49.932	99.86	70-130
161 1,2-Dibromoethane	50.000	49.212	98.42	70-130
165 Chlorobenzene	50.000	47.715	95.43	70-130
167 Ethyl Benzene	50.000	47.373	94.75	70-130
169 m,p-Xylene	50.000	48.111	96.22	70-130
171 o-Xylene	50.000	48.684	97.37	70-130
172 Styrene	50.000	47.004	94.01	70-130
174 Bromoform	65.000	67.090	103.21	70-130
175 Cumene	50.000	48.341	96.68	70-130
181 1,1,2,2-Tetrachlor	50.000	42.453	84.91	70-130
182 Propylbenzene	50.000	48.642	97.28	70-130
188 4-Ethyltoluene	50.000	48.502	97.00	70-130
190 1,3,5-Trimethylben	50.000	48.653	97.31	70-130
196 1,2,4-Trimethylben	50.000	48.424	96.85	70-130
208 1,3-Dichlorobenzen	50.000	47.755	95.51	70-130
209 1,4-Dichlorobenzen	50.000	47.775	95.55	70-130
212 alpha-Chlorotoluen	50.000	48.832	97.66	70-130
214 1,2-Dichlorobenzen	50.000	47.797	95.59	70-130
226 1,2,4-Trichloroben	50.000	48.057	96.11	70-130
227 Hexachlorobutadien	50.000	47.729	95.46	70-130
228 Naphthalene	5.000	5.562	111.24	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	25.767	103.07	70-130
$ 146 Toluene-d8	25.000	25.102	100.41	70-130
$ 177 4-Bromofluorobenze	25.000	25.569	102.27	70-130

Data File: /chem/msd17.i/12apr16.b/17041212.d
Date : 12-APR-2016 22:54
Client ID: ICV
Sample Info: 100ml 2759-246A
Column phase: RTX-624

Instrument: msd17.i
Operator: gh
Column diameter: 0.25



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/12apr16.b/17041202.d
Lab Smp Id: ICAL LEVEL 2 Client Smp ID: ICAL
Inj Date : 12-APR-2016 18:11
Operator : gh Inst ID: msd17.i
Smp Info : 20ml 2789-65
Misc Info : 0.5ppbv(5.0ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/12apr16.b/176q0412a.m
Meth Date : 13-Apr-2016 09:25 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 18:11 Cal File: 17041202.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12low.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	107865	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	82354			48.69- 108.69	76.35
5.492	5.492 (1.000)	49	90577			54.63- 114.63	83.97
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.388	6.388 (1.000)	114	432059	25.0000		80.00- 120.00	100.00
6.388	6.388 (1.000)	88	63911			0.00- 45.20	14.79
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	418307	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	204625			20.04- 80.04	48.92
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.037	6.037 (1.098)	65	108757	25.0000	24.413	80.00- 120.00	100.00
6.037	6.037 (1.098)	67	60498			34.58- 94.58	55.63

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8						CAS #: 2037-26-5	
7.598	7.598 (1.190)	98	451939	25.0000	24.839	80.00- 120.00	100.00
7.598	7.598 (1.190)	70	43076			0.00- 39.40	9.53
7.598	7.598 (1.190)	100	297088			35.49- 95.49	65.74
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4	
9.811	9.811 (1.110)	174	303941	25.0000	24.815	80.00- 120.00	100.00
9.811	9.811 (1.110)	95	313149			71.35- 131.35	103.03
9.811	9.811 (1.110)	176	294652			68.09- 128.09	96.94
11 Freon 12						CAS #: 75-71-8	
1.531	1.531 (0.278)	85	3621	0.50000	0.3866	80.00- 120.00	100.00(a)
1.531	1.531 (0.278)	87	1362			2.58- 62.58	37.61
15 Freon 114						CAS #: 76-14-2	
1.653	1.653 (0.301)	135	3830	0.50000	0.4563	80.00- 120.00	100.00(a)
1.653	1.653 (0.301)	137	1140			1.60- 61.60	29.77
25 Vinyl Chloride						CAS #: 75-01-4	
1.846	1.846 (0.336)	62	1150	0.50000	0.3316	80.00- 120.00	100.00(a)
1.839	1.839 (0.334)	64	773			3.15- 63.15	67.22
26 1,3-Butadiene						CAS #: 106-99-0	
1.875	1.875 (0.341)	54	987	0.50000	0.4006	80.00- 120.00	100.00(a)
1.875	1.875 (0.341)	39	1471			51.92- 111.92	149.04
29 Bromomethane						CAS #: 74-83-9	
2.233	2.233 (0.406)	94	1152	0.50000	0.3958	80.00- 120.00	100.00(a)
2.226	2.226 (0.405)	96	1165			63.57- 123.57	101.13
35 Freon 11						CAS #: 75-69-4	
2.591	2.591 (0.471)	101	4736	0.50000	0.4699	80.00- 120.00	100.00(a)
2.591	2.591 (0.471)	103	2917			35.21- 95.21	61.59
49 Freon 113						CAS #: 76-13-1	
3.236	3.236 (0.588)	151	4171	0.50000	0.4664	80.00- 120.00	100.00(a)
3.236	3.236 (0.588)	153	2817			34.59- 94.59	67.54
3.236	3.236 (0.588)	101	4796			78.63- 138.63	114.98
50 1,1-Dichloroethene						CAS #: 75-35-4	
3.272	3.272 (0.595)	98	1056	0.50000	0.3800	80.00- 120.00	100.00(a)
3.272	3.272 (0.595)	96	1857			124.95- 184.95	175.85
3.272	3.272 (0.595)	61	2350			168.97- 228.97	222.54
72 Methyl tert-butyl ether						CAS #: 1634-04-4	
4.160	4.160 (0.756)	73	5189	0.50000	0.4481	80.00- 120.00	100.00(a)

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   72 Methyl tert-butyl ether (continued)
  4.160   4.160 (0.756)    57       972                     0.00-  50.25    18.73
  4.153   4.153 (0.755)    41      2037                     0.00-  45.26    39.26
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                      CAS #: 156-60-5
  4.181   4.181 (0.760)    98      1189 0.50000   0.3951  80.00- 120.00   100.00(a)
  4.181   4.181 (0.760)    61      2535                  152.76- 212.76   213.20
  4.181   4.181 (0.760)    96      1697                  127.34- 187.34   142.72
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
  4.389   4.389 (0.798)    57      2674 0.50000   0.4538  80.00- 120.00   100.00(a)
  4.389   4.389 (0.798)    43      1896                   21.17-  81.17    70.91
  4.396   4.396 (0.799)    86       480                    0.00-  49.59    17.95
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                            CAS #: 75-34-3
  4.676   4.676 (0.850)    63      3020 0.50000   0.4182  80.00- 120.00   100.00(a)
  4.676   4.676 (0.850)    65       927                    1.59-  61.59    30.70
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
  5.263   5.263 (0.957)    98      1142 0.50000   0.3494  80.00- 120.00   100.00(a)
  5.263   5.263 (0.957)    96      2014                  127.08- 187.08   176.36
  5.263   5.263 (0.957)    61      2288                  135.30- 195.30   200.35
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                               CAS #: 109-99-9
  5.506   5.506 (1.001)    42      1988 0.50000   0.5348  80.00- 120.00   100.00
  5.506   5.506 (1.001)    71       990                   26.57-  86.57    49.80
  5.499   5.499 (1.000)    72       905                   30.33-  90.33    45.52
-------------------------------------------------------------------------------
  100 Chloroform                                    CAS #: 67-66-3
  5.557   5.557 (1.010)    83      3885 0.50000   0.4155  80.00- 120.00   100.00(a)
  5.557   5.557 (1.010)    85      2539                   34.18-  94.18    65.35
-------------------------------------------------------------------------------
  102 Cyclohexane                                   CAS #: 110-82-7
  5.657   5.657 (1.029)    84      3040 0.50000   0.4622  80.00- 120.00   100.00(a)
  5.657   5.657 (1.029)    56      3033                   67.82- 127.82    99.77
  5.657   5.657 (1.029)    41      1574                   12.04-  72.04    51.78
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                         CAS #: 71-55-6
  5.678   5.678 (1.033)    97      4772 0.50000   0.4793  80.00- 120.00   100.00(a)
  5.678   5.678 (1.033)    99      3096                   34.84-  94.84    64.88
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
  5.793   5.793 (1.053)   119      4700 0.50000   0.4528  80.00- 120.00   100.00(a)
  5.793   5.793 (1.053)   117      4871                   73.08- 133.08   103.64
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
  5.986   5.986 (1.089)    57      8815 0.50000   0.4368  80.00- 120.00   100.00(a)
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  113 2,2,4-Trimethylpentane (continued)
  5.986   5.986 (1.089)    56      2797                     2.25-  62.25    31.73
  5.979   5.979 (1.087)    41      2193                     0.00-  49.06    24.88
-------------------------------------------------------------------------------
  116 Benzene                                        CAS #: 71-43-2
  6.015   6.015 (0.942)    78      7172 0.50000   0.4972  80.00- 120.00   100.00(a)
  6.015   6.015 (0.942)    77      1588                     0.00-  53.87    22.14
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                             CAS #: 107-06-2
  6.101   6.101 (0.955)    62      2395 0.50000   0.4613  80.00- 120.00   100.00(a)
  6.101   6.101 (0.955)    64       554                     3.62-  63.62    23.13
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
  6.158   6.158 (0.964)    71      2282 0.50000   0.4512  80.00- 120.00   100.00(a)
  6.158   6.158 (0.964)    43      2509                    96.69- 156.69   109.95
  6.151   6.151 (0.963)    57      1972                    58.40- 118.40    86.42
-------------------------------------------------------------------------------
  125 Trichloroethene                                CAS #: 79-01-6
  6.581   6.581 (1.030)    95      3159 0.50000   0.4480  80.00- 120.00   100.00(a)
  6.581   6.581 (1.030)   130      3622                    84.60- 144.60   114.66
  6.581   6.581 (1.030)    97      1685                    34.77-  94.77    53.34
-------------------------------------------------------------------------------
  127 Methylcyclohexane                              CAS #: 108-87-2
  6.674   6.674 (1.214)    83      4505 0.50000   0.4657  80.00- 120.00   100.00(a)
  6.681   6.681 (1.215)    98      1891                    16.97-  76.97    41.98
  6.674   6.674 (1.214)    55      2831                    33.99-  93.99    62.84
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                            CAS #: 78-87-5
  6.817   6.817 (1.067)    63      2301 0.50000   0.4510  80.00- 120.00   100.00(a)
  6.817   6.817 (1.067)    62      1751                    38.70-  98.70    76.10
  6.817   6.817 (1.067)    41      1109                     8.21-  68.21    48.20
-------------------------------------------------------------------------------
  138 Bromodichloromethane                           CAS #: 75-27-4
  7.046   7.046 (1.103)    83      4931 0.50000   0.4692  80.00- 120.00   100.00(a)
  7.046   7.046 (1.103)    85      3034                    34.54-  94.54    61.53
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                        CAS #: 10061-01-5
  7.426   7.426 (1.163)    75      4038 0.50000   0.4401  80.00- 120.00   100.00(a)
  7.426   7.426 (1.163)    77      1646                     2.23-  62.23    40.76
  7.419   7.419 (1.161)    39      1149                     1.93-  61.93    28.45
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                           CAS #: 108-10-1
  7.534   7.534 (1.179)    58      1620 0.50000   0.4124  80.00- 120.00   100.00(a)
  7.534   7.534 (1.179)    43      4363                   175.29- 235.29   269.32
  7.534   7.534 (1.179)    85       889                    22.79-  82.79    54.88
-------------------------------------------------------------------------------
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  147 Toluene                                        CAS #: 108-88-3
  7.655   7.655 (1.198)    91      9695 0.50000   0.4858  80.00- 120.00   100.00(a)
  7.655   7.655 (1.198)    92      5563                   28.86-  88.86    57.38
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                      CAS #: 10061-02-6
  7.906   7.906 (0.895)    75      3794 0.50000   0.4618  80.00- 120.00   100.00(a)
  7.906   7.906 (0.895)    77      2210                    2.74-  62.74    58.25
  7.899   7.899 (0.894)    39      1179                    1.87-  61.87    31.08
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                          CAS #: 79-00-5
  8.056   8.056 (0.912)    97      3238 0.50000   0.4574  80.00- 120.00   100.00(a)
  8.056   8.056 (0.912)    99      2034                   31.91-  91.91    62.82
  8.056   8.056 (0.912)    83      2522                   54.42- 114.42    77.89
-------------------------------------------------------------------------------
  156 Tetrachloroethene                              CAS #: 127-18-4
  8.092   8.092 (0.916)   166      5545 0.50000   0.4762  80.00- 120.00   100.00(a)
  8.092   8.092 (0.916)   129      3613                   38.60-  98.60    65.16
  8.092   8.092 (0.916)   131      3909                   36.89-  96.89    70.50
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
  8.372   8.372 (0.947)   129      6081 0.50000   0.4554  80.00- 120.00   100.00(a)
  8.372   8.372 (0.947)   127      4899                   46.88- 106.88    80.56
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
  8.486   8.486 (0.960)   107      5148 0.50000   0.4508  80.00- 120.00   100.00(a)
  8.486   8.486 (0.960)   109      4962                   65.10- 125.10    96.39
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
  8.859   8.859 (1.002)   112      9244 0.50000   0.5143  80.00- 120.00   100.00
  8.859   8.859 (1.002)   114      3054                    1.88-  61.88    33.04
  8.852   8.852 (1.002)    77      8443                   22.25-  82.25    91.33
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
  8.902   8.902 (1.007)   106      4461 0.50000   0.4972  80.00- 120.00   100.00(a)
  8.909   8.909 (1.008)    91     13062                  268.56- 328.56   292.80
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
  9.002   9.002 (1.019)   106      5481 0.50000   0.4835  80.00- 120.00   100.00(a)
  9.002   9.002 (1.019)    91     10326                  159.69- 219.69   188.40
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
  9.346   9.346 (1.058)   106      5549 0.50000   0.5224  80.00- 120.00   100.00
  9.339   9.339 (1.057)    91     10111                  168.78- 228.78   182.21
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
  9.367   9.367 (1.060)   104      7638 0.50000   0.4464  80.00- 120.00   100.00(a)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
172 Styrene (continued)							
9.367	9.367 (1.060)	78	3631			13.63- 73.63	47.54
174 Bromoform					CAS #: 75-25-2		
9.568	9.568 (1.083)	173	6541	0.50000	0.4358	80.00- 120.00	100.00(a)
9.568	9.568 (1.083)	171	3356			21.51- 81.51	51.31
175 Cumene					CAS #: 98-82-8		
9.625	9.625 (1.089)	105	15486	0.50000	0.4791	80.00- 120.00	100.00(a)
9.625	9.625 (1.089)	120	4172			0.00- 57.69	26.94
9.625	9.625 (1.089)	51	1027			0.00- 36.59	6.63
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.940	9.940 (1.125)	83	7983	0.50000	0.5139	80.00- 120.00	100.00
9.940	9.940 (1.125)	85	5092			34.20- 94.20	63.79
182 Propylbenzene					CAS #: 103-65-1		
9.969	9.969 (1.128)	91	18130	0.50000	0.4899	80.00- 120.00	100.00(a)
9.969	9.969 (1.128)	120	4607			0.00- 55.61	25.41
9.969	9.969 (1.128)	105	737			0.00- 33.98	4.07
188 4-Ethyltoluene					CAS #: 622-96-8		
10.055	10.055 (1.138)	120	4805	0.50000	0.4621	80.00- 120.00	100.00(a)
10.055	10.055 (1.138)	105	15695			279.77- 339.77	326.64
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
10.112	10.112 (1.144)	120	6337	0.50000	0.4414	80.00- 120.00	100.00(a)
10.112	10.112 (1.144)	105	14037			170.95- 230.95	221.51
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
10.427	10.427 (1.180)	120	5861	0.50000	0.4586	80.00- 120.00	100.00(a)
10.427	10.427 (1.180)	105	13026			178.76- 238.76	222.25
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.721	10.721 (1.213)	146	10558	0.50000	0.4923	80.00- 120.00	100.00(a)
10.721	10.721 (1.213)	148	6003			33.80- 93.80	56.86
10.721	10.721 (1.213)	111	3562			7.11- 67.11	33.74
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.800	10.800 (1.222)	146	10144	0.50000	0.4747	80.00- 120.00	100.00(a)
10.800	10.800 (1.222)	148	6439			33.65- 93.65	63.48
10.800	10.800 (1.222)	111	3274			5.53- 65.53	32.28
212 alpha-Chlorotoluene					CAS #: 100-44-7		
10.915	10.915 (1.235)	91	11451	0.50000	0.4617	80.00- 120.00	100.00(a)
10.915	10.915 (1.235)	126	2356			0.00- 53.94	20.57

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene						CAS #: 95-50-1		
11.129	11.129	(1.259)	146	9770	0.50000	0.4779	80.00- 120.00	100.00(a)
11.129	11.129	(1.259)	148	6197			33.47- 93.47	63.43
11.129	11.129	(1.259)	111	3684			7.89- 67.89	37.71

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17041202.d
Lab Smp Id: ICAL LEVEL 2
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd17.i/12apr16.b/176q0412a.m
Misc Info: 0.5ppbv(5.0ppbv)

Calibration Date: 12-APR-2016
Calibration Time: 19:52
Client Smp ID: ICAL
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	103652	62191	145113	107865	4.06
123 1,4-Difluorobenze	426046	255628	596464	432059	1.41
163 Chlorobenzene-d5	405255	243153	567357	418307	3.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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.

Data File: /chem/msd17.i/12apr16.b/17041202.d

Date : 12-APR-2016 18:11

Client ID: ICAL

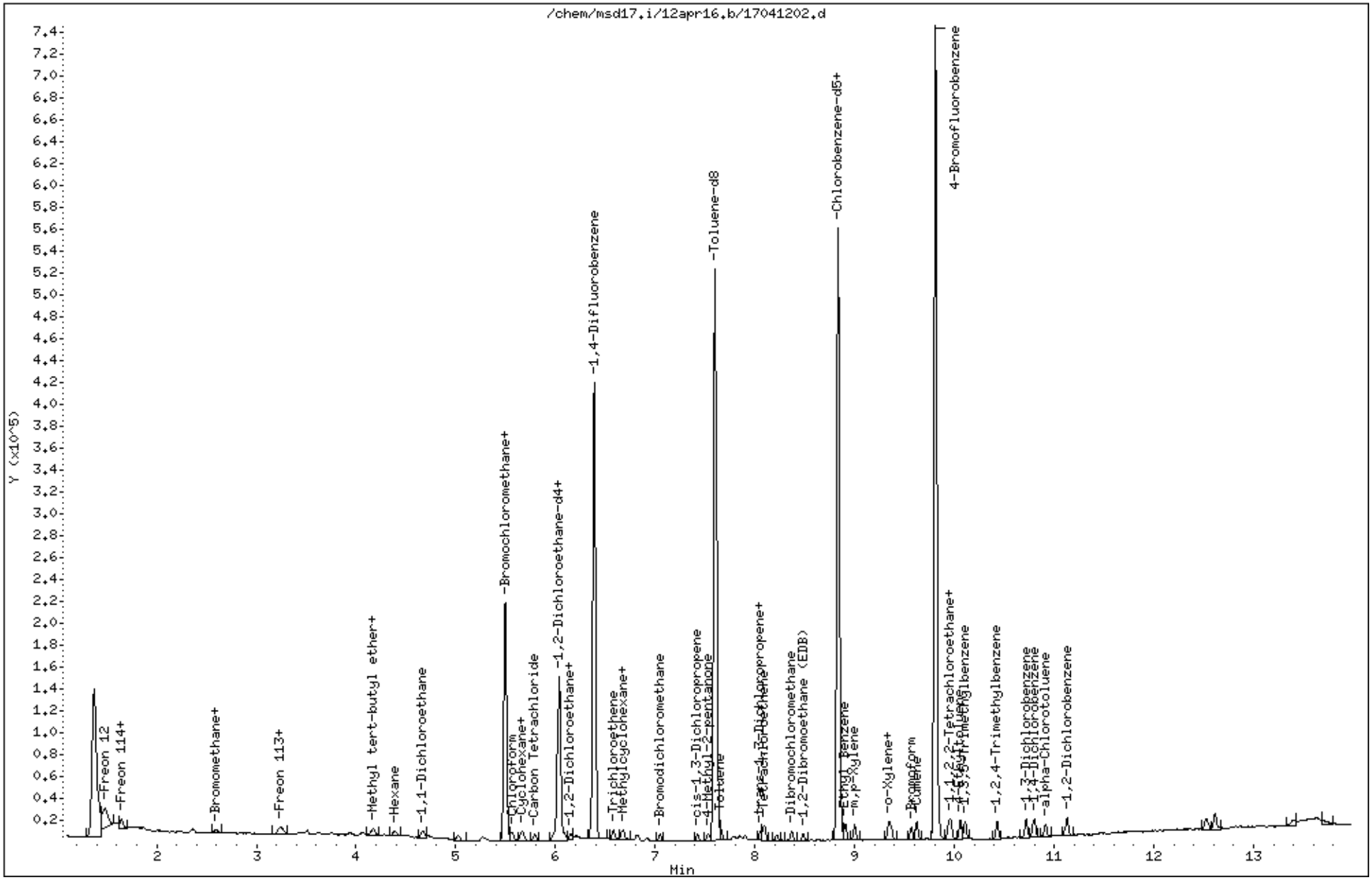
Sample Info: 20ml 2789-65

Column phase: RTX-624

Instrument: msd17.i

Operator: gh

Column diameter: 0.25



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/12apr16.b/17041203.d
Lab Smp Id: ICAL LEVEL 3 Client Smp ID: ICAL
Inj Date : 12-APR-2016 18:38
Operator : gh Inst ID: msd17.i
Smp Info : 80ml 2789-65
Misc Info : 2.0ppbv(5.0ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/12apr16.b/176q0412a.m
Meth Date : 13-Apr-2016 09:25 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 18:38 Cal File: 17041203.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12mdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	102878	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	79744			48.69- 108.69	77.51
5.499	5.499 (1.000)	49	87154			54.63- 114.63	84.72
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.388	6.388 (1.000)	114	434343	25.0000		80.00- 120.00	100.00
6.388	6.388 (1.000)	88	64725			0.00- 45.20	14.90
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	413614	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	207626			20.04- 80.04	50.20
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.037	6.037 (1.098)	65	107502	25.0000	25.301	80.00- 120.00	100.00
6.037	6.037 (1.098)	67	60566			34.58- 94.58	56.34

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	456281	25.0000	24.945	80.00- 120.00	100.00
7.598	7.598 (1.190)	70	42111			0.00- 39.40	9.23
7.605	7.605 (1.191)	100	299003			35.49- 95.49	65.53
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.811	9.811 (1.110)	174	306234	25.0000	25.286	80.00- 120.00	100.00
9.811	9.811 (1.110)	95	309703			71.35- 131.35	101.13
9.811	9.811 (1.110)	176	295158			68.09- 128.09	96.38
9 Propylene					CAS #: 115-07-1		
1.510	1.510 (0.274)	41	4353	2.00000	2.105	80.00- 120.00	100.00
1.510	1.510 (0.274)	42	2654			37.85- 97.85	60.97
1.502	1.502 (0.273)	39	2736			37.93- 97.93	62.85
11 Freon 12					CAS #: 75-71-8		
1.538	1.538 (0.280)	85	19120	2.00000	2.140	80.00- 120.00	100.00
1.538	1.538 (0.280)	87	6087			2.58- 62.58	31.84
15 Freon 114					CAS #: 76-14-2		
1.660	1.660 (0.302)	135	16147	2.00000	2.017	80.00- 120.00	100.00
1.660	1.660 (0.302)	137	4689			1.60- 61.60	29.04
17 Chloromethane					CAS #: 74-87-3		
1.760	1.760 (0.320)	50	6307	2.00000	2.407	80.00- 120.00	100.00(a)
1.767	1.767 (0.321)	52	1672			2.00- 62.00	26.51
23 Butane					CAS #: 106-97-8		
1.818	1.818 (0.330)	58	1146	2.00000	1.765	80.00- 120.00	100.00(a)
1.818	1.818 (0.330)	43	8403			587.84- 647.84	733.25
25 Vinyl Chloride					CAS #: 75-01-4		
1.853	1.853 (0.337)	62	7074	2.00000	2.139	80.00- 120.00	100.00
1.853	1.853 (0.337)	64	2610			3.15- 63.15	36.90
26 1,3-Butadiene					CAS #: 106-99-0		
1.875	1.875 (0.341)	54	4808	2.00000	2.046	80.00- 120.00	100.00
1.875	1.875 (0.341)	39	5171			51.92- 111.92	107.55
29 Bromomethane					CAS #: 74-83-9		
2.233	2.233 (0.406)	94	2589	2.00000	0.9327	80.00- 120.00	100.00(a)
2.240	2.240 (0.407)	96	2229			63.57- 123.57	86.10
30 Chloroethane					CAS #: 75-00-3		
2.348	2.348 (0.427)	64	3838	2.00000	2.059	80.00- 120.00	100.00
2.355	2.355 (0.428)	66	1064			1.86- 61.86	27.72

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
2.348	2.348 (0.427)	49	604			0.00- 51.05	15.74
31 Isopentane					CAS #: 78-78-4		
2.369	2.369 (0.431)	43	6605	2.00000	2.106	80.00- 120.00	100.00
2.369	2.369 (0.431)	57	5356			52.34- 112.34	81.09
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	20144	2.00000	2.096	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	13244			35.21- 95.21	65.75
42 Ethanol					CAS #: 64-17-5		
2.964	2.964 (0.539)	45	2979	2.00000	2.544	80.00- 120.00	100.00
2.949	2.949 (0.536)	43	216			0.00- 50.21	7.25
2.964	2.964 (0.539)	46	685			8.20- 68.20	22.99
49 Freon 113					CAS #: 76-13-1		
3.243	3.243 (0.590)	151	18420	2.00000	2.160	80.00- 120.00	100.00
3.243	3.243 (0.590)	153	11736			34.59- 94.59	63.71
3.236	3.236 (0.588)	101	19807			78.63- 138.63	107.53
50 1,1-Dichloroethene					CAS #: 75-35-4		
3.279	3.279 (0.596)	98	5596	2.00000	2.112	80.00- 120.00	100.00
3.279	3.279 (0.596)	96	8611			124.95- 184.95	153.88
3.279	3.279 (0.596)	61	11303			168.97- 228.97	201.98
52 Acetone					CAS #: 67-64-1		
3.436	3.436 (0.625)	58	3743	2.00000	2.295	80.00- 120.00	100.00(a)
3.436	3.436 (0.625)	43	9265			226.10- 286.10	247.53
56 Carbon Disulfide					CAS #: 75-15-0		
3.515	3.515 (0.639)	76	25573	2.00000	2.124	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
3.615	3.615 (0.657)	45	10423	2.00000	2.165	80.00- 120.00	100.00
3.615	3.615 (0.657)	43	2516			0.00- 48.33	24.14
3.608	3.608 (0.656)	59	450			0.00- 34.85	4.32
58 3-Chloropropene					CAS #: 107-05-1		
3.752	3.752 (0.682)	76	4241	2.00000	2.153	80.00- 120.00	100.00
3.752	3.752 (0.682)	41	8026			151.01- 211.01	189.25
66 Methylene Chloride					CAS #: 75-09-2		
3.945	3.945 (0.717)	49	7269	2.00000	2.051	80.00- 120.00	100.00(a)
3.945	3.945 (0.717)	84	8360			81.18- 141.18	115.01
3.945	3.945 (0.717)	51	2559			1.84- 61.84	35.20

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
71 tert-Butyl alcohol					CAS #: 75-65-0		
4.074	4.074 (0.741)	59	15238	2.00000	2.094	80.00- 120.00	100.00
4.067	4.067 (0.739)	41	3294			0.00- 46.25	21.62
4.074	4.074 (0.741)	57	1640			0.00- 40.11	10.76
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
4.160	4.160 (0.756)	73	22593	2.00000	2.045	80.00- 120.00	100.00
4.160	4.160 (0.756)	57	4931			0.00- 50.25	21.83
4.160	4.160 (0.756)	41	4767			0.00- 45.26	21.10
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
4.181	4.181 (0.760)	98	5901	2.00000	2.056	80.00- 120.00	100.00
4.181	4.181 (0.760)	61	10433			152.76- 212.76	176.80
4.181	4.181 (0.760)	96	9661			127.34- 187.34	163.72
78 Hexane					CAS #: 110-54-3		
4.389	4.389 (0.798)	57	11471	2.00000	2.041	80.00- 120.00	100.00
4.389	4.389 (0.798)	43	6465			21.17- 81.17	56.36
4.396	4.396 (0.799)	86	2281			0.00- 49.59	19.88
82 1,1-Dichloroethane					CAS #: 75-34-3		
4.683	4.683 (0.852)	63	14857	2.00000	2.157	80.00- 120.00	100.00
4.676	4.676 (0.850)	65	4561			1.59- 61.59	30.70
83 Isopropyl ether					CAS #: 108-20-3		
4.668	4.668 (0.849)	45	21061	2.00000	2.035	80.00- 120.00	100.00
4.668	4.668 (0.849)	87	8070			9.63- 69.63	38.32
4.668	4.668 (0.849)	59	2958			0.00- 43.69	14.04
86 Vinyl Acetate					CAS #: 108-05-4		
4.726	4.726 (0.859)	86	2163	2.00000	1.868	80.00- 120.00	100.00(a)
4.726	4.726 (0.859)	43	18776			689.25- 749.25	868.05
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
5.027	5.027 (0.914)	59	25622	2.00000	2.106	80.00- 120.00	100.00
5.027	5.027 (0.914)	87	11676			19.00- 79.00	45.57
5.027	5.027 (0.914)	41	4047			0.00- 44.58	15.80
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
5.270	5.270 (0.958)	98	6612	2.00000	2.121	80.00- 120.00	100.00
5.263	5.263 (0.957)	96	10553			127.08- 187.08	159.60
5.263	5.263 (0.957)	61	10999			135.30- 195.30	166.35
92 2-Butanone					CAS #: 78-93-3		
5.299	5.299 (0.964)	72	4621	2.00000	2.098	80.00- 120.00	100.00
5.299	5.299 (0.964)	43	13327			251.52- 311.52	288.40

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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   92 2-Butanone (continued)
  5.299   5.299 (0.964)    57      1181                     0.00-  57.81    25.56
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                CAS #: 109-99-9
  5.499   5.499 (1.000)    42      7331 2.00000    2.068  80.00- 120.00   100.00
  5.506   5.506 (1.001)    71      4105                   26.57-  86.57    56.00
  5.506   5.506 (1.001)    72      5019                   30.33-  90.33    68.46
-------------------------------------------------------------------------------
  100 Chloroform                                     CAS #: 67-66-3
  5.564   5.564 (1.012)    83     18828 2.00000    2.111  80.00- 120.00   100.00
  5.564   5.564 (1.012)    85     12291                   34.18-  94.18    65.28
-------------------------------------------------------------------------------
  102 Cyclohexane                                    CAS #: 110-82-7
  5.657   5.657 (1.029)    84     12012 2.00000    1.915  80.00- 120.00   100.00
  5.657   5.657 (1.029)    56     12840                   67.82- 127.82   106.89
  5.657   5.657 (1.029)    41      6286                   12.04-  72.04    52.33
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                          CAS #: 71-55-6
  5.678   5.678 (1.033)    97     19405 2.00000    2.043  80.00- 120.00   100.00
  5.678   5.678 (1.033)    99     12473                   34.84-  94.84    64.28
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                           CAS #: 56-23-5
  5.793   5.793 (1.053)   119     19715 2.00000    1.992  80.00- 120.00   100.00
  5.793   5.793 (1.053)   117     20150                   73.08- 133.08   102.21
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                         CAS #: 540-84-1
  5.986   5.986 (1.089)    57     39015 2.00000    2.027  80.00- 120.00   100.00
  5.986   5.986 (1.089)    56     13262                    2.25-  62.25    33.99
  5.986   5.986 (1.089)    41      7844                    0.00-  49.06    20.11
-------------------------------------------------------------------------------
  116 Benzene                                        CAS #: 71-43-2
  6.015   6.015 (0.942)    78     29242 2.00000    2.016  80.00- 120.00   100.00
  6.015   6.015 (0.942)    77      6842                    0.00-  53.87    23.40
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                         CAS #: 994-05-8
  6.080   6.080 (1.105)    87      6680 2.00000    1.969  80.00- 120.00   100.00(a)
  6.080   6.080 (1.105)    73     27132                  370.90- 430.90   406.17
  6.080   6.080 (1.105)    55      6098                   58.01- 118.01    91.29
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                             CAS #: 107-06-2
  6.108   6.108 (0.956)    62     10669 2.00000    2.044  80.00- 120.00   100.00
  6.108   6.108 (0.956)    64      3444                    3.62-  63.62    32.28
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
  6.158   6.158 (0.964)    71     10083 2.00000    1.983  80.00- 120.00   100.00
  6.158   6.158 (0.964)    43     15710                   96.69- 156.69   155.81
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
121 Heptane (continued)							
6.158	6.158 (0.964)	57	8550			58.40- 118.40	84.80
125 Trichloroethene					CAS #: 79-01-6		
6.581	6.581 (1.030)	95	14447	2.00000	2.038	80.00- 120.00	100.00
6.581	6.581 (1.030)	130	15986			84.60- 144.60	110.65
6.581	6.581 (1.030)	97	9806			34.77- 94.77	67.88
127 Methylcyclohexane					CAS #: 108-87-2		
6.681	6.681 (1.215)	83	18660	2.00000	2.022	80.00- 120.00	100.00
6.681	6.681 (1.215)	98	8483			16.97- 76.97	45.46
6.681	6.681 (1.215)	55	12073			33.99- 93.99	64.70
132 1,2-Dichloropropane					CAS #: 78-87-5		
6.817	6.817 (1.067)	63	10445	2.00000	2.036	80.00- 120.00	100.00
6.817	6.817 (1.067)	62	7054			38.70- 98.70	67.53
6.817	6.817 (1.067)	41	4357			8.21- 68.21	41.71
136 1,4-Dioxane					CAS #: 123-91-1		
6.918	6.918 (1.083)	88	7500	2.00000	2.007	80.00- 120.00	100.00
6.910	6.910 (1.082)	58	4754			27.44- 87.44	63.39
6.910	6.910 (1.082)	57	1404			0.00- 47.84	18.72
138 Bromodichloromethane					CAS #: 75-27-4		
7.047	7.047 (1.103)	83	21517	2.00000	2.037	80.00- 120.00	100.00
7.047	7.047 (1.103)	85	13457			34.54- 94.54	62.54
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
7.426	7.426 (1.163)	75	18507	2.00000	2.006	80.00- 120.00	100.00
7.426	7.426 (1.163)	77	6145			2.23- 62.23	33.20
7.426	7.426 (1.163)	39	6043			1.93- 61.93	32.65
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.534	7.534 (1.179)	58	7856	2.00000	1.989	80.00- 120.00	100.00
7.534	7.534 (1.179)	43	16953			175.29- 235.29	215.80
7.534	7.534 (1.179)	85	4190			22.79- 82.79	53.34
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	39487	2.00000	1.968	80.00- 120.00	100.00
7.655	7.655 (1.198)	92	22776			28.86- 88.86	57.68
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.899	7.899 (0.894)	75	15827	2.00000	1.948	80.00- 120.00	100.00
7.899	7.899 (0.894)	77	7847			2.74- 62.74	49.58
7.899	7.899 (0.894)	39	5639			1.87- 61.87	35.63

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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
  8.057   8.057 (0.912)    97     14318 2.00000    2.046  80.00- 120.00   100.00
  8.057   8.057 (0.912)    99      8824                   31.91-  91.91    61.63
  8.057   8.057 (0.912)    83     11869                   54.42- 114.42    82.90
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
  8.092   8.092 (0.916)   166     22747 2.00000    1.976  80.00- 120.00   100.00
  8.092   8.092 (0.916)   129     15673                   38.60-  98.60    68.90
  8.092   8.092 (0.916)   131     15257                   36.89-  96.89    67.07
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
  8.221   8.221 (0.930)    58     11097 2.00000    1.980  80.00- 120.00   100.00(a)
  8.221   8.221 (0.930)    43     15905                  121.26- 181.26   143.33
  8.221   8.221 (0.930)   100      2793                    0.00-  55.92    25.17
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
  8.372   8.372 (0.947)   129     25643 2.00000    1.942  80.00- 120.00   100.00
  8.372   8.372 (0.947)   127     19713                   46.88- 106.88    76.87
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
  8.486   8.486 (0.960)   107     22723 2.00000    2.013  80.00- 120.00   100.00
  8.486   8.486 (0.960)   109     20695                   65.10- 125.10    91.08
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
  8.859   8.859 (1.002)   112     35500 2.00000    1.998  80.00- 120.00   100.00
  8.859   8.859 (1.002)   114     11365                    1.88-  61.88    32.01
  8.859   8.859 (1.002)    77     22580                   22.25-  82.25    63.61
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
  8.909   8.909 (1.008)   106     16969 2.00000    1.913  80.00- 120.00   100.00
  8.909   8.909 (1.008)    91     52497                  268.56- 328.56   309.37
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
  9.002   9.002 (1.019)   106     22131 2.00000    1.974  80.00- 120.00   100.00
  9.002   9.002 (1.019)    91     40844                  159.69- 219.69   184.56
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
  9.346   9.346 (1.058)   106     19786 2.00000    1.884  80.00- 120.00   100.00
  9.346   9.346 (1.058)    91     41908                  168.78- 228.78   211.81
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
  9.367   9.367 (1.060)   104     31832 2.00000    1.882  80.00- 120.00   100.00
  9.360   9.360 (1.059)    78     13583                   13.63-  73.63    42.67
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
  9.568   9.568 (1.083)   173     28625 2.00000    1.929  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  174 Bromoform (continued)
  9.568   9.568 (1.083)   171     14355                    21.51-  81.51    50.15
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
  9.625   9.625 (1.089)   105     62230 2.00000    1.947  80.00- 120.00   100.00
  9.625   9.625 (1.089)   120     17198                     0.00-  57.69    27.64
  9.625   9.625 (1.089)    51      4231                     0.00-  36.59     6.80
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
  9.940   9.940 (1.125)    83     29695 2.00000    1.933  80.00- 120.00   100.00
  9.940   9.940 (1.125)    85     18881                    34.20-  94.20    63.58
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
  9.969   9.969 (1.128)    91     71914 2.00000    1.965  80.00- 120.00   100.00
  9.969   9.969 (1.128)   120     17835                     0.00-  55.61    24.80
  9.969   9.969 (1.128)   105      2648                     0.00-  33.98     3.68
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 10.055  10.055 (1.138)   120     20091 2.00000    1.954  80.00- 120.00   100.00
 10.055  10.055 (1.138)   105     63376                   279.77- 339.77   315.44
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 10.112  10.112 (1.144)   120     27314 2.00000    1.924  80.00- 120.00   100.00
 10.112  10.112 (1.144)   105     54191                   170.95- 230.95   198.40
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 10.435  10.435 (1.181)   120     24686 2.00000    1.953  80.00- 120.00   100.00
 10.435  10.435 (1.181)   105     50423                   178.76- 238.76   204.26
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 10.721  10.721 (1.213)   146     42524 2.00000    2.005  80.00- 120.00   100.00
 10.721  10.721 (1.213)   148     26405                    33.80-  93.80    62.09
 10.721  10.721 (1.213)   111     15532                     7.11-  67.11    36.53
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 10.800  10.800 (1.222)   146     41525 2.00000    1.965  80.00- 120.00   100.00
 10.800  10.800 (1.222)   148     26663                    33.65-  93.65    64.21
 10.800  10.800 (1.222)   111     15306                     5.53-  65.53    36.86
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 10.915  10.915 (1.235)    91     46172 2.00000    1.883  80.00- 120.00   100.00
 10.915  10.915 (1.235)   126     10952                     0.00-  53.94    23.72
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 11.129  11.129 (1.259)   146     40286 2.00000    1.993  80.00- 120.00   100.00
 11.129  11.129 (1.259)   148     25795                    33.47-  93.47    64.03
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene (continued)							
11.122	11.122 (1.259)	111	15105			7.89- 67.89	37.49
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
12.526	12.526 (1.417)	180	35462	2.00000	1.786	80.00- 120.00	100.00(a)
12.526	12.526 (1.417)	182	32780			67.03- 127.03	92.44
227 Hexachlorobutadiene					CAS #: 87-68-3		
12.612	12.612 (1.427)	225	31547	2.00000	1.846	80.00- 120.00	100.00(a)
12.612	12.612 (1.427)	223	19926			32.58- 92.58	63.16
228 Naphthalene					CAS #: 91-20-3		
12.798	12.798 (1.448)	128	5830	0.20000	0.1867	80.00- 120.00	100.00(a)
12.798	12.798 (1.448)	127	660			0.00- 42.95	11.32

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17041203.d
Lab Smp Id: ICAL LEVEL 3
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd17.i/12apr16.b/176q0412a.m
Misc Info: 2.0ppbv(5.0ppbv)

Calibration Date: 12-APR-2016
Calibration Time: 19:52
Client Smp ID: ICAL
Level: LOW
Sample Type: AIR

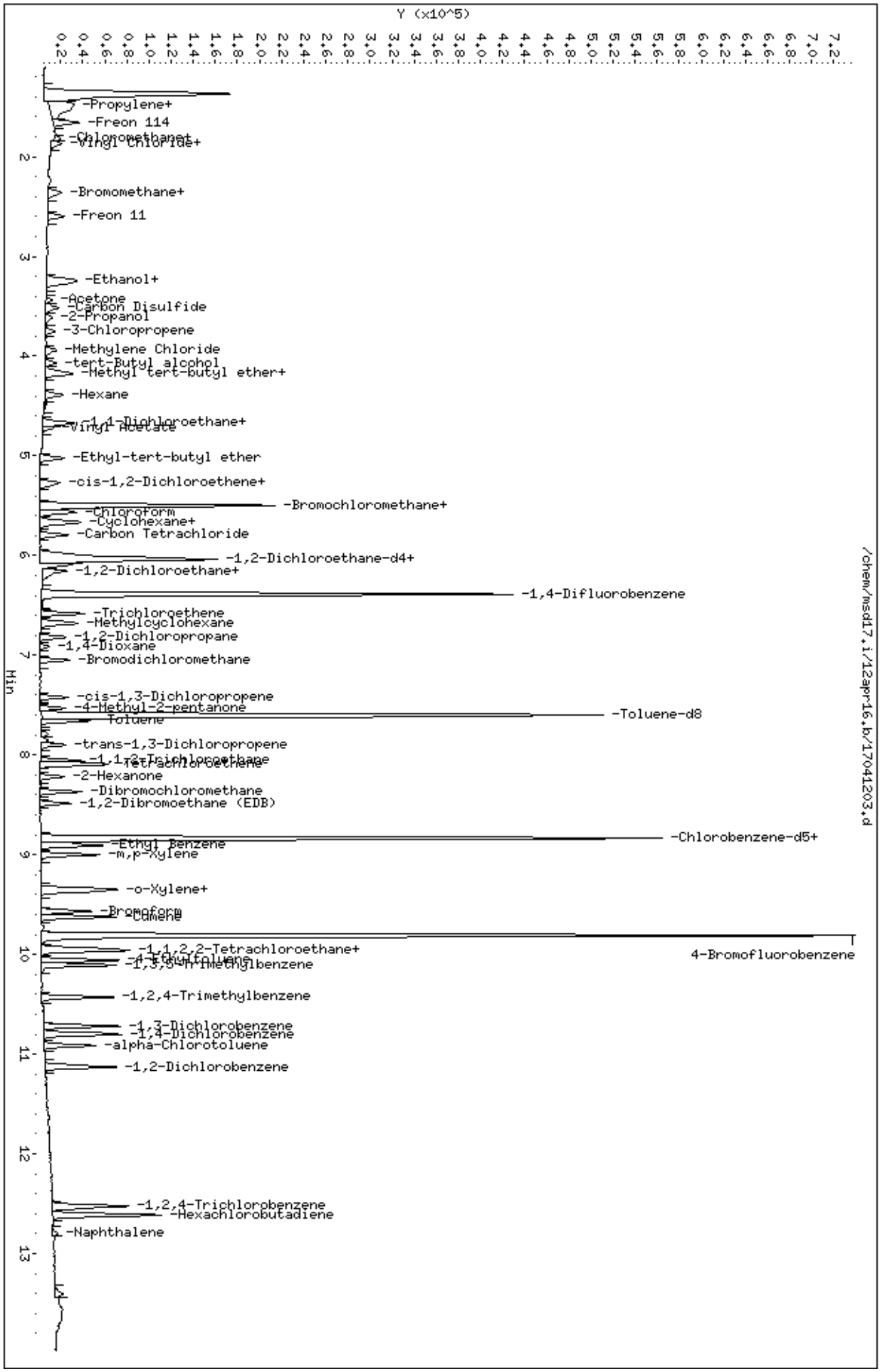
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	103652	62191	145113	102878	-0.75
123 1,4-Difluorobenze	426046	255628	596464	434343	1.95
163 Chlorobenzene-d5	405255	243153	567357	413614	2.06

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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.

Data File: /chem/msd17.i/12apr16.b/17041203.d
Date : 12-APR-2016 18:38
Client ID: ICAL
Sample Info: 80ml 2789-65
Column phase: RTX-624

Instrument: msd17.i
Operator: gh
Column diameter: 0.25



Column diameter: 0.25

Page 1

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/12apr16.b/17041204.d
Lab Smp Id: ICAL LEVEL 4 Client Smp ID: ICAL
Inj Date : 12-APR-2016 19:04
Operator : gh Inst ID: msd17.i
Smp Info : 200ml 2789-65
Misc Info : 5.0ppbv(5.0ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/12apr16.b/176q0412a.m
Meth Date : 13-Apr-2016 09:25 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:04 Cal File: 17041204.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12mdl.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	106173	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	81956			48.69- 108.69	77.19
5.499	5.499 (1.000)	49	88799			54.63- 114.63	83.64
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.388	6.388 (1.000)	114	438684	25.0000		80.00- 120.00	100.00
6.388	6.388 (1.000)	88	65239			0.00- 45.20	14.87
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	424584	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	213724			20.04- 80.04	50.34
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.037	6.037 (1.098)	65	110373	25.0000	25.170	80.00- 120.00	100.00
6.037	6.037 (1.098)	67	61264			34.58- 94.58	55.51

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	463681	25.0000	25.099	80.00- 120.00	100.00
7.598	7.598 (1.190)	70	44168			0.00- 39.40	9.53
7.605	7.605 (1.191)	100	306426			35.49- 95.49	66.09
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.811	9.811 (1.110)	174	311374	25.0000	25.046	80.00- 120.00	100.00
9.811	9.811 (1.110)	95	316203			71.35- 131.35	101.55
9.811	9.811 (1.110)	176	300494			68.09- 128.09	96.51
9 Propylene					CAS #: 115-07-1		
1.502	1.502 (0.273)	41	11723	5.00000	5.494	80.00- 120.00	100.00
1.502	1.502 (0.273)	42	7949			37.85- 97.85	67.81
1.502	1.502 (0.273)	39	7829			37.93- 97.93	66.78
11 Freon 12					CAS #: 75-71-8		
1.531	1.531 (0.278)	85	50095	5.00000	5.434	80.00- 120.00	100.00
1.531	1.531 (0.278)	87	15730			2.58- 62.58	31.40
15 Freon 114					CAS #: 76-14-2		
1.653	1.653 (0.301)	135	43097	5.00000	5.216	80.00- 120.00	100.00
1.653	1.653 (0.301)	137	13528			1.60- 61.60	31.39
17 Chloromethane					CAS #: 74-87-3		
1.732	1.732 (0.315)	50	16241	5.00000	6.006	80.00- 120.00	100.00
1.732	1.732 (0.315)	52	4103			2.00- 62.00	25.26
23 Butane					CAS #: 106-97-8		
1.810	1.810 (0.329)	58	3797	5.00000	5.668	80.00- 120.00	100.00
1.810	1.810 (0.329)	43	22280			587.84- 647.84	586.78
25 Vinyl Chloride					CAS #: 75-01-4		
1.853	1.853 (0.337)	62	19065	5.00000	5.585	80.00- 120.00	100.00
1.853	1.853 (0.337)	64	6656			3.15- 63.15	34.91
26 1,3-Butadiene					CAS #: 106-99-0		
1.875	1.875 (0.341)	54	13207	5.00000	5.446	80.00- 120.00	100.00
1.875	1.875 (0.341)	39	12191			51.92- 111.92	92.31
29 Bromomethane					CAS #: 74-83-9		
2.233	2.233 (0.406)	94	13189	5.00000	4.604	80.00- 120.00	100.00(a)
2.233	2.233 (0.406)	96	12977			63.57- 123.57	98.39
30 Chloroethane					CAS #: 75-00-3		
2.348	2.348 (0.427)	64	10697	5.00000	5.561	80.00- 120.00	100.00
2.348	2.348 (0.427)	66	2855			1.86- 61.86	26.69

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
2.348	2.348 (0.427)	49	1941			0.00- 51.05	18.15
31 Isopentane					CAS #: 78-78-4		
2.362	2.362 (0.429)	43	16933	5.00000	5.232	80.00- 120.00	100.00
2.362	2.362 (0.429)	57	13739			52.34- 112.34	81.14
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	51452	5.00000	5.187	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	33605			35.21- 95.21	65.31
42 Ethanol					CAS #: 64-17-5		
2.956	2.956 (0.538)	45	5745	5.00000	4.753	80.00- 120.00	100.00
2.949	2.949 (0.536)	43	1452			0.00- 50.21	25.27
2.956	2.956 (0.538)	46	2147			8.20- 68.20	37.37
49 Freon 113					CAS #: 76-13-1		
3.236	3.236 (0.588)	151	45935	5.00000	5.218	80.00- 120.00	100.00
3.236	3.236 (0.588)	153	28464			34.59- 94.59	61.97
3.236	3.236 (0.588)	101	48985			78.63- 138.63	106.64
50 1,1-Dichloroethene					CAS #: 75-35-4		
3.272	3.272 (0.595)	98	14564	5.00000	5.325	80.00- 120.00	100.00
3.272	3.272 (0.595)	96	23517			124.95- 184.95	161.47
3.272	3.272 (0.595)	61	29869			168.97- 228.97	205.09
52 Acetone					CAS #: 67-64-1		
3.444	3.444 (0.626)	58	9127	5.00000	5.422	80.00- 120.00	100.00
3.436	3.436 (0.625)	43	21269			226.10- 286.10	233.03
56 Carbon Disulfide					CAS #: 75-15-0		
3.508	3.508 (0.638)	76	63603	5.00000	5.120	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
3.615	3.615 (0.657)	45	24408	5.00000	4.913	80.00- 120.00	100.00
3.615	3.615 (0.657)	43	5313			0.00- 48.33	21.77
3.615	3.615 (0.657)	59	1134			0.00- 34.85	4.65
58 3-Chloropropene					CAS #: 107-05-1		
3.752	3.752 (0.682)	76	10240	5.00000	5.038	80.00- 120.00	100.00
3.752	3.752 (0.682)	41	19863			151.01- 211.01	193.97
66 Methylene Chloride					CAS #: 75-09-2		
3.945	3.945 (0.717)	49	19622	5.00000	5.364	80.00- 120.00	100.00
3.945	3.945 (0.717)	84	21047			81.18- 141.18	107.26
3.945	3.945 (0.717)	51	6175			1.84- 61.84	31.47

```
                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   71 tert-Butyl alcohol                            CAS #: 75-65-0
  4.067   4.067 (0.739)    59     39199 5.00000    5.219  80.00- 120.00   100.00
  4.067   4.067 (0.739)    41      7324                     0.00-  46.25    18.68
  4.074   4.074 (0.741)    57      3742                     0.00-  40.11     9.55
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                       CAS #: 1634-04-4
  4.153   4.153 (0.755)    73     58678 5.00000    5.147  80.00- 120.00   100.00
  4.153   4.153 (0.755)    57     12247                     0.00-  50.25    20.87
  4.153   4.153 (0.755)    41     10560                     0.00-  45.26    18.00
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                      CAS #: 156-60-5
  4.181   4.181 (0.760)    98     16073 5.00000    5.426  80.00- 120.00   100.00
  4.181   4.181 (0.760)    61     29314                   152.76- 212.76   182.38
  4.181   4.181 (0.760)    96     25039                   127.34- 187.34   155.78
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
  4.389   4.389 (0.798)    57     30164 5.00000    5.201  80.00- 120.00   100.00
  4.389   4.389 (0.798)    43     16280                    21.17-  81.17    53.97
  4.389   4.389 (0.798)    86      5934                     0.00-  49.59    19.67
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                            CAS #: 75-34-3
  4.676   4.676 (0.850)    63     38619 5.00000    5.432  80.00- 120.00   100.00
  4.676   4.676 (0.850)    65     12131                     1.59-  61.59    31.41
-------------------------------------------------------------------------------
   83 Isopropyl ether                               CAS #: 108-20-3
  4.661   4.661 (0.848)    45     53848 5.00000    5.043  80.00- 120.00   100.00
  4.661   4.661 (0.848)    87     21403                     9.63-  69.63    39.75
  4.661   4.661 (0.848)    59      7580                     0.00-  43.69    14.08
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                 CAS #: 108-05-4
  4.719   4.719 (0.858)    86      5876 5.00000    4.916  80.00- 120.00   100.00
  4.719   4.719 (0.858)    43     47502                   689.25- 749.25   808.41
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                        CAS #: 637-92-3
  5.027   5.027 (0.914)    59     62236 5.00000    4.958  80.00- 120.00   100.00
  5.027   5.027 (0.914)    87     29724                    19.00-  79.00    47.76
  5.019   5.019 (0.913)    41      9355                     0.00-  44.58    15.03
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
  5.263   5.263 (0.957)    98     17902 5.00000    5.564  80.00- 120.00   100.00
  5.263   5.263 (0.957)    96     27066                   127.08- 187.08   151.19
  5.263   5.263 (0.957)    61     28310                   135.30- 195.30   158.14
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
  5.292   5.292 (0.962)    72     11356 5.00000    4.995  80.00- 120.00   100.00
  5.292   5.292 (0.962)    43     34282                   251.52- 311.52   301.88
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   92 2-Butanone (continued)
  5.292   5.292 (0.962)    57      3115                     0.00-  57.81    27.43
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                CAS #: 109-99-9
  5.499   5.499 (1.000)    42     18807 5.00000    5.140  80.00- 120.00   100.00
  5.499   5.499 (1.000)    71     10327                    26.57-  86.57    54.91
  5.499   5.499 (1.000)    72     12128                    30.33-  90.33    64.49
-------------------------------------------------------------------------------
  100 Chloroform                                     CAS #: 67-66-3
  5.557   5.557 (1.010)    83     48832 5.00000    5.306  80.00- 120.00   100.00
  5.557   5.557 (1.010)    85     31850                    34.18-  94.18    65.22
-------------------------------------------------------------------------------
  102 Cyclohexane                                    CAS #: 110-82-7
  5.657   5.657 (1.029)    84     33885 5.00000    5.234  80.00- 120.00   100.00
  5.657   5.657 (1.029)    56     33106                    67.82- 127.82    97.70
  5.657   5.657 (1.029)    41     14963                    12.04-  72.04    44.16
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                          CAS #: 71-55-6
  5.678   5.678 (1.033)    97     49776 5.00000    5.079  80.00- 120.00   100.00
  5.678   5.678 (1.033)    99     32193                    34.84-  94.84    64.68
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                           CAS #: 56-23-5
  5.793   5.793 (1.053)   119     51710 5.00000    5.062  80.00- 120.00   100.00
  5.793   5.793 (1.053)   117     53142                    73.08- 133.08   102.77
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                         CAS #: 540-84-1
  5.986   5.986 (1.089)    57    102577 5.00000    5.164  80.00- 120.00   100.00
  5.986   5.986 (1.089)    56     33321                     2.25-  62.25    32.48
  5.986   5.986 (1.089)    41     19376                     0.00-  49.06    18.89
-------------------------------------------------------------------------------
  116 Benzene                                        CAS #: 71-43-2
  6.015   6.015 (0.942)    78     75147 5.00000    5.131  80.00- 120.00   100.00
  6.015   6.015 (0.942)    77     17673                     0.00-  53.87    23.52
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                         CAS #: 994-05-8
  6.080   6.080 (1.105)    87     16877 5.00000    4.821  80.00- 120.00   100.00
  6.080   6.080 (1.105)    73     67807                   370.90- 430.90   401.77
  6.080   6.080 (1.105)    55     16114                    58.01- 118.01    95.48
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                             CAS #: 107-06-2
  6.101   6.101 (0.955)    62     28417 5.00000    5.391  80.00- 120.00   100.00
  6.101   6.101 (0.955)    64      9368                     3.62-  63.62    32.97
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
  6.158   6.158 (0.964)    71     26086 5.00000    5.080  80.00- 120.00   100.00
  6.158   6.158 (0.964)    43     35483                    96.69- 156.69   136.02
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
121 Heptane (continued)							
6.158	6.158 (0.964)	57	24510			58.40- 118.40	93.96
125 Trichloroethene					CAS #: 79-01-6		
6.581	6.581 (1.030)	95	37043	5.00000	5.174	80.00- 120.00	100.00
6.581	6.581 (1.030)	130	41369			84.60- 144.60	111.68
6.581	6.581 (1.030)	97	24325			34.77- 94.77	65.67
127 Methylcyclohexane					CAS #: 108-87-2		
6.681	6.681 (1.215)	83	48030	5.00000	5.044	80.00- 120.00	100.00
6.681	6.681 (1.215)	98	23007			16.97- 76.97	47.90
6.674	6.674 (1.214)	55	31841			33.99- 93.99	66.29
132 1,2-Dichloropropane					CAS #: 78-87-5		
6.817	6.817 (1.067)	63	27224	5.00000	5.255	80.00- 120.00	100.00
6.817	6.817 (1.067)	62	18387			38.70- 98.70	67.54
6.817	6.817 (1.067)	41	10980			8.21- 68.21	40.33
136 1,4-Dioxane					CAS #: 123-91-1		
6.910	6.910 (1.082)	88	19263	5.00000	5.104	80.00- 120.00	100.00
6.910	6.910 (1.082)	58	11356			27.44- 87.44	58.95
6.910	6.910 (1.082)	57	3893			0.00- 47.84	20.21
138 Bromodichloromethane					CAS #: 75-27-4		
7.047	7.047 (1.103)	83	56163	5.00000	5.264	80.00- 120.00	100.00
7.047	7.047 (1.103)	85	35132			34.54- 94.54	62.55
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
7.426	7.426 (1.163)	75	48126	5.00000	5.166	80.00- 120.00	100.00
7.426	7.426 (1.163)	77	16193			2.23- 62.23	33.65
7.419	7.419 (1.161)	39	15924			1.93- 61.93	33.09
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.534	7.534 (1.179)	58	20158	5.00000	5.054	80.00- 120.00	100.00
7.534	7.534 (1.179)	43	43065			175.29- 235.29	213.64
7.534	7.534 (1.179)	85	10601			22.79- 82.79	52.59
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	104039	5.00000	5.134	80.00- 120.00	100.00
7.655	7.655 (1.198)	92	60666			28.86- 88.86	58.31
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.899	7.899 (0.894)	75	41800	5.00000	5.012	80.00- 120.00	100.00
7.899	7.899 (0.894)	77	18283			2.74- 62.74	43.74
7.899	7.899 (0.894)	39	13913			1.87- 61.87	33.28

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
  8.057   8.057 (0.912)    97     36348 5.00000    5.059  80.00- 120.00   100.00
  8.057   8.057 (0.912)    99     22953                   31.91-  91.91    63.15
  8.057   8.057 (0.912)    83     30969                   54.42- 114.42    85.20
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
  8.092   8.092 (0.916)   166     59655 5.00000    5.047  80.00- 120.00   100.00
  8.092   8.092 (0.916)   129     40541                   38.60-  98.60    67.96
  8.092   8.092 (0.916)   131     40393                   36.89-  96.89    67.71
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
  8.221   8.221 (0.930)    58     28006 5.00000    4.867  80.00- 120.00   100.00
  8.221   8.221 (0.930)    43     42717                  121.26- 181.26   152.53
  8.221   8.221 (0.930)   100      7225                    0.00-  55.92    25.80
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
  8.372   8.372 (0.947)   129     66410 5.00000    4.900  80.00- 120.00   100.00
  8.372   8.372 (0.947)   127     51306                   46.88- 106.88    77.26
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
  8.486   8.486 (0.960)   107     58346 5.00000    5.034  80.00- 120.00   100.00
  8.486   8.486 (0.960)   109     55452                   65.10- 125.10    95.04
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
  8.859   8.859 (1.002)   112     91039 5.00000    4.990  80.00- 120.00   100.00
  8.859   8.859 (1.002)   114     29448                    1.88-  61.88    32.35
  8.859   8.859 (1.002)    77     52561                   22.25-  82.25    57.73
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
  8.909   8.909 (1.008)   106     44581 5.00000    4.895  80.00- 120.00   100.00
  8.902   8.902 (1.007)    91    135172                  268.56- 328.56   303.21
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
  9.002   9.002 (1.019)   106     56420 5.00000    4.903  80.00- 120.00   100.00
  9.002   9.002 (1.019)    91    108908                  159.69- 219.69   193.03
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
  9.346   9.346 (1.058)   106     52147 5.00000    4.836  80.00- 120.00   100.00
  9.346   9.346 (1.058)    91    106746                  168.78- 228.78   204.70
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
  9.367   9.367 (1.060)   104     82477 5.00000    4.749  80.00- 120.00   100.00
  9.360   9.360 (1.059)    78     35956                   13.63-  73.63    43.60
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
  9.568   9.568 (1.083)   173     73403 5.00000    4.819  80.00- 120.00   100.00
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  174 Bromoform (continued)
  9.568   9.568 (1.083)   171     38506                    21.51-  81.51    52.46
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
  9.625   9.625 (1.089)   105    160003 5.00000    4.876  80.00- 120.00   100.00
  9.625   9.625 (1.089)   120     44531                     0.00-  57.69    27.83
  9.625   9.625 (1.089)    51     10228                     0.00-  36.59     6.39
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
  9.940   9.940 (1.125)    83     77328 5.00000    4.904  80.00- 120.00   100.00
  9.940   9.940 (1.125)    85     50557                    34.20-  94.20    65.38
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
  9.969   9.969 (1.128)    91    182174 5.00000    4.850  80.00- 120.00   100.00
  9.969   9.969 (1.128)   120     47298                     0.00-  55.61    25.96
  9.962   9.962 (1.127)   105      6927                     0.00-  33.98     3.80
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 10.055  10.055 (1.138)   120     52517 5.00000    4.976  80.00- 120.00   100.00
 10.055  10.055 (1.138)   105    162265                   279.77- 339.77   308.98
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 10.112  10.112 (1.144)   120     71730 5.00000    4.922  80.00- 120.00   100.00
 10.112  10.112 (1.144)   105    143076                   170.95- 230.95   199.46
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 10.435  10.435 (1.181)   120     64114 5.00000    4.942  80.00- 120.00   100.00
 10.428  10.428 (1.180)   105    131064                   178.76- 238.76   204.42
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 10.721  10.721 (1.213)   146    107075 5.00000    4.918  80.00- 120.00   100.00
 10.721  10.721 (1.213)   148     67942                    33.80-  93.80    63.45
 10.721  10.721 (1.213)   111     38786                     7.11-  67.11    36.22
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 10.800  10.800 (1.222)   146    107112 5.00000    4.938  80.00- 120.00   100.00
 10.800  10.800 (1.222)   148     68397                    33.65-  93.65    63.86
 10.800  10.800 (1.222)   111     38082                     5.53-  65.53    35.55
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 10.915  10.915 (1.235)    91    119429 5.00000    4.744  80.00- 120.00   100.00
 10.915  10.915 (1.235)   126     27216                     0.00-  53.94    22.79
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 11.129  11.129 (1.259)   146    103240 5.00000    4.975  80.00- 120.00   100.00
 11.129  11.129 (1.259)   148     65181                    33.47-  93.47    63.14
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene (continued)							
11.122	11.122 (1.259)	111	39136			7.89- 67.89	37.91
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
12.526	12.526 (1.417)	180	99693	5.00000	4.892	80.00- 120.00	100.00
12.526	12.526 (1.417)	182	95246			67.03- 127.03	95.54
227 Hexachlorobutadiene					CAS #: 87-68-3		
12.612	12.612 (1.427)	225	89371	5.00000	5.095	80.00- 120.00	100.00
12.612	12.612 (1.427)	223	54618			32.58- 92.58	61.11
228 Naphthalene					CAS #: 91-20-3		
12.798	12.798 (1.448)	128	14951	0.50000	0.4664	80.00- 120.00	100.00(a)
12.791	12.791 (1.447)	127	1965			0.00- 42.95	13.14

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17041204.d
Lab Smp Id: ICAL LEVEL 4
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd17.i/12apr16.b/176q0412a.m
Misc Info: 5.0ppbv(5.0ppbv)

Calibration Date: 12-APR-2016
Calibration Time: 19:52
Client Smp ID: ICAL
Level: LOW
Sample Type: AIR

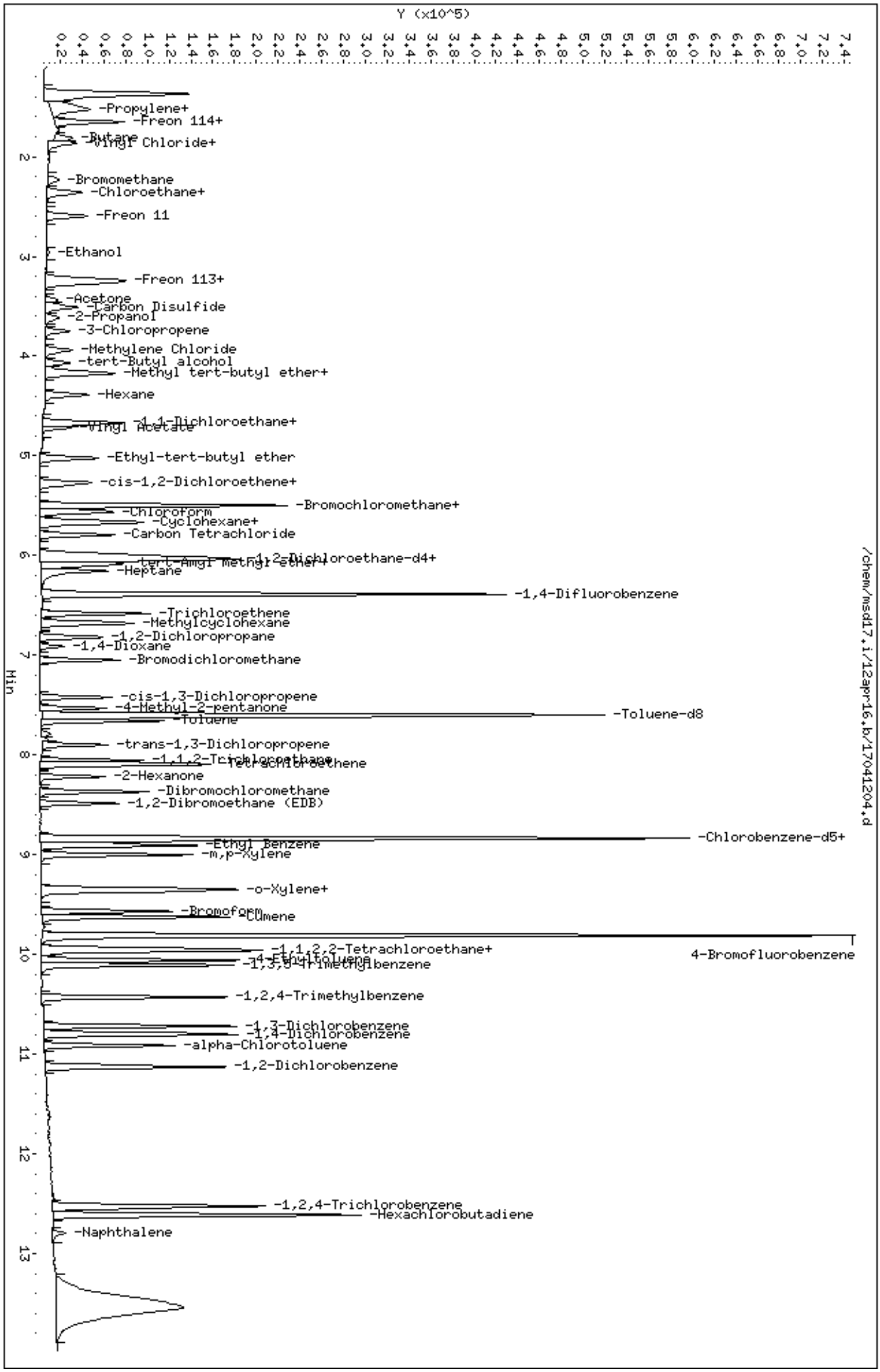
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	103652	62191	145113	106173	2.43
123 1,4-Difluorobenze	426046	255628	596464	438684	2.97
163 Chlorobenzene-d5	405255	243153	567357	424584	4.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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.

Data File: /chem/msd17.i/12apr16.b/17041204.d
Date : 12-APR-2016 19:04
Client ID: ICAL
Sample Info: 200ml 2789-65
Column phase: RTX-624

Instrument: msd17.i
Operator: gh
Column diameter: 0.25



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Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/12apr16.b/17041205.d
Lab Smp Id: ICAL LEVEL 5 Client Smp ID: ICAL
Inj Date : 12-APR-2016 19:27
Operator : gh Inst ID: msd17.i
Smp Info : 20ml 2795-276
Misc Info : 20ppbv(200ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/12apr16.b/176q0412a.m
Meth Date : 13-Apr-2016 09:25 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:27 Cal File: 17041205.d
Als bottle: 13 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	104974	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	81856			48.69- 108.69	77.98
5.499	5.499 (1.000)	49	86643			54.63- 114.63	82.54
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.388	6.388 (1.000)	114	426482	25.0000		80.00- 120.00	100.00
6.388	6.388 (1.000)	88	63605			0.00- 45.20	14.91
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	408585	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	200577			20.04- 80.04	49.09
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.037	6.037 (1.098)	65	107203	25.0000	24.726	80.00- 120.00	100.00
6.037	6.037 (1.098)	67	61478			34.58- 94.58	57.35

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.598	7.598 (1.190)	98	446392	25.0000	24.854	80.00- 120.00	100.00
7.598	7.598 (1.190)	70	43009			0.00- 39.40	9.63
7.598	7.598 (1.190)	100	292126			35.49- 95.49	65.44
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.811	9.811 (1.110)	174	296882	25.0000	24.816	80.00- 120.00	100.00
9.811	9.811 (1.110)	95	307251			71.35- 131.35	103.49
9.811	9.811 (1.110)	176	293104			68.09- 128.09	98.73
9 Propylene					CAS #: 115-07-1		
1.502	1.502 (0.273)	41	38347	20.0000	18.175	80.00- 120.00	100.00
1.502	1.502 (0.273)	42	26743			37.85- 97.85	69.74
1.502	1.502 (0.273)	39	27403			37.93- 97.93	71.46
11 Freon 12					CAS #: 75-71-8		
1.531	1.531 (0.278)	85	175675	20.0000	19.274	80.00- 120.00	100.00
1.531	1.531 (0.278)	87	57086			2.58- 62.58	32.50
15 Freon 114					CAS #: 76-14-2		
1.653	1.653 (0.301)	135	152889	20.0000	18.716	80.00- 120.00	100.00
1.653	1.653 (0.301)	137	48757			1.60- 61.60	31.89
17 Chloromethane					CAS #: 74-87-3		
1.746	1.746 (0.317)	50	50868	20.0000	19.024	80.00- 120.00	100.00
1.746	1.746 (0.317)	52	16699			2.00- 62.00	32.83
23 Butane					CAS #: 106-97-8		
1.810	1.810 (0.329)	58	12901	20.0000	19.476	80.00- 120.00	100.00
1.810	1.810 (0.329)	43	77721			587.84- 647.84	602.44
25 Vinyl Chloride					CAS #: 75-01-4		
1.846	1.846 (0.336)	62	65978	20.0000	19.550	80.00- 120.00	100.00
1.853	1.853 (0.337)	64	22105			3.15- 63.15	33.50
26 1,3-Butadiene					CAS #: 106-99-0		
1.875	1.875 (0.341)	54	47766	20.0000	19.923	80.00- 120.00	100.00
1.875	1.875 (0.341)	39	39453			51.92- 111.92	82.60
29 Bromomethane					CAS #: 74-83-9		
2.233	2.233 (0.406)	94	64927	20.0000	22.923	80.00- 120.00	100.00
2.233	2.233 (0.406)	96	62323			63.57- 123.57	95.99
30 Chloroethane					CAS #: 75-00-3		
2.348	2.348 (0.427)	64	34478	20.0000	18.130	80.00- 120.00	100.00
2.348	2.348 (0.427)	66	11379			1.86- 61.86	33.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
2.348	2.348 (0.427)	49	7494			0.00- 51.05	21.74
31 Isopentane					CAS #: 78-78-4		
2.362	2.362 (0.429)	43	61909	20.0000	19.346	80.00- 120.00	100.00
2.362	2.362 (0.429)	57	52291			52.34- 112.34	84.46
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	186126	20.0000	18.977	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	121529			35.21- 95.21	65.29
42 Ethanol					CAS #: 64-17-5		
2.949	2.949 (0.536)	45	21584	20.0000	18.062	80.00- 120.00	100.00
2.942	2.942 (0.535)	43	4243			0.00- 50.21	19.66
2.942	2.942 (0.535)	46	7981			8.20- 68.20	36.98
49 Freon 113					CAS #: 76-13-1		
3.243	3.243 (0.590)	151	169239	20.0000	19.446	80.00- 120.00	100.00
3.236	3.236 (0.588)	153	109530			34.59- 94.59	64.72
3.236	3.236 (0.588)	101	185887			78.63- 138.63	109.84
50 1,1-Dichloroethene					CAS #: 75-35-4		
3.272	3.272 (0.595)	98	52083	20.0000	19.260	80.00- 120.00	100.00
3.272	3.272 (0.595)	96	80735			124.95- 184.95	155.01
3.272	3.272 (0.595)	61	103456			168.97- 228.97	198.64
52 Acetone					CAS #: 67-64-1		
3.436	3.436 (0.625)	58	30389	20.0000	18.260	80.00- 120.00	100.00
3.436	3.436 (0.625)	43	74403			226.10- 286.10	244.84
56 Carbon Disulfide					CAS #: 75-15-0		
3.508	3.508 (0.638)	76	223929	20.0000	18.231	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
3.608	3.608 (0.656)	45	92361	20.0000	18.804	80.00- 120.00	100.00
3.608	3.608 (0.656)	43	17251			0.00- 48.33	18.68
3.608	3.608 (0.656)	59	4146			0.00- 34.85	4.49
58 3-Chloropropene					CAS #: 107-05-1		
3.752	3.752 (0.682)	76	35411	20.0000	17.620	80.00- 120.00	100.00
3.752	3.752 (0.682)	41	66801			151.01- 211.01	188.64
66 Methylene Chloride					CAS #: 75-09-2		
3.945	3.945 (0.717)	49	65179	20.0000	18.021	80.00- 120.00	100.00
3.945	3.945 (0.717)	84	72432			81.18- 141.18	111.13
3.938	3.938 (0.716)	51	20929			1.84- 61.84	32.11

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
71 tert-Butyl alcohol					CAS #: 75-65-0		
4.067	4.067 (0.739)	59	138813	20.0000	18.693	80.00- 120.00	100.00
4.067	4.067 (0.739)	41	23557			0.00- 46.25	16.97
4.067	4.067 (0.739)	57	13936			0.00- 40.11	10.04
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
4.153	4.153 (0.755)	73	225474	20.0000	20.005	80.00- 120.00	100.00
4.153	4.153 (0.755)	57	45401			0.00- 50.25	20.14
4.153	4.153 (0.755)	41	35308			0.00- 45.26	15.66
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
4.181	4.181 (0.760)	98	56675	20.0000	19.350	80.00- 120.00	100.00
4.181	4.181 (0.760)	61	99877			152.76- 212.76	176.23
4.181	4.181 (0.760)	96	87734			127.34- 187.34	154.80
78 Hexane					CAS #: 110-54-3		
4.389	4.389 (0.798)	57	109840	20.0000	19.155	80.00- 120.00	100.00
4.389	4.389 (0.798)	43	58385			21.17- 81.17	53.15
4.389	4.389 (0.798)	86	21341			0.00- 49.59	19.43
82 1,1-Dichloroethane					CAS #: 75-34-3		
4.676	4.676 (0.850)	63	132950	20.0000	18.916	80.00- 120.00	100.00
4.676	4.676 (0.850)	65	42295			1.59- 61.59	31.81
83 Isopropyl ether					CAS #: 108-20-3		
4.661	4.661 (0.848)	45	206559	20.0000	19.564	80.00- 120.00	100.00
4.661	4.661 (0.848)	87	81765			9.63- 69.63	39.58
4.661	4.661 (0.848)	59	28668			0.00- 43.69	13.88
86 Vinyl Acetate					CAS #: 108-05-4		
4.719	4.719 (0.858)	86	21599	20.0000	18.276	80.00- 120.00	100.00
4.719	4.719 (0.858)	43	159103			689.25- 749.25	736.62
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
5.019	5.019 (0.913)	59	238204	20.0000	19.191	80.00- 120.00	100.00
5.019	5.019 (0.913)	87	115814			19.00- 79.00	48.62
5.019	5.019 (0.913)	41	35227			0.00- 44.58	14.79
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
5.263	5.263 (0.957)	98	60370	20.0000	18.977	80.00- 120.00	100.00
5.263	5.263 (0.957)	96	95740			127.08- 187.08	158.59
5.263	5.263 (0.957)	61	102448			135.30- 195.30	169.70
92 2-Butanone					CAS #: 78-93-3		
5.292	5.292 (0.962)	72	40433	20.0000	17.989	80.00- 120.00	100.00
5.292	5.292 (0.962)	43	118058			251.52- 311.52	291.98

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
92 2-Butanone (continued)							
5.292	5.292 (0.962)	57	11159			0.00- 57.81	27.60
99 Tetrahydrofuran					CAS #: 109-99-9		
5.499	5.499 (1.000)	42	65872	20.0000	18.209	80.00- 120.00	100.00
5.499	5.499 (1.000)	71	36262			26.57- 86.57	55.05
5.499	5.499 (1.000)	72	39550			30.33- 90.33	60.04
100 Chloroform					CAS #: 67-66-3		
5.557	5.557 (1.010)	83	173445	20.0000	19.061	80.00- 120.00	100.00
5.557	5.557 (1.010)	85	110955			34.18- 94.18	63.97
102 Cyclohexane					CAS #: 110-82-7		
5.657	5.657 (1.029)	84	128657	20.0000	20.100	80.00- 120.00	100.00
5.657	5.657 (1.029)	56	123456			67.82- 127.82	95.96
5.657	5.657 (1.029)	41	53092			12.04- 72.04	41.27
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.678	5.678 (1.033)	97	190182	20.0000	19.626	80.00- 120.00	100.00
5.678	5.678 (1.033)	99	122219			34.84- 94.84	64.26
106 Carbon Tetrachloride					CAS #: 56-23-5		
5.793	5.793 (1.053)	119	200386	20.0000	19.839	80.00- 120.00	100.00
5.793	5.793 (1.053)	117	205605			73.08- 133.08	102.60
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.986	5.986 (1.089)	57	381090	20.0000	19.406	80.00- 120.00	100.00
5.986	5.986 (1.089)	56	119049			2.25- 62.25	31.24
5.986	5.986 (1.089)	41	73859			0.00- 49.06	19.38
116 Benzene					CAS #: 71-43-2		
6.015	6.015 (0.942)	78	270133	20.0000	18.971	80.00- 120.00	100.00
6.015	6.015 (0.942)	77	63781			0.00- 53.87	23.61
119 tert-Amyl methyl ether					CAS #: 994-05-8		
6.080	6.080 (1.105)	87	66806	20.0000	19.302	80.00- 120.00	100.00
6.080	6.080 (1.105)	73	264072			370.90- 430.90	395.28
6.080	6.080 (1.105)	55	58660			58.01- 118.01	87.81
120 1,2-Dichloroethane					CAS #: 107-06-2		
6.101	6.101 (0.955)	62	98413	20.0000	19.204	80.00- 120.00	100.00
6.101	6.101 (0.955)	64	32180			3.62- 63.62	32.70
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	99098	20.0000	19.850	80.00- 120.00	100.00
6.158	6.158 (0.964)	43	129839			96.69- 156.69	131.02

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
121 Heptane (continued)							
6.158	6.158 (0.964)	57	86778			58.40- 118.40	87.57
125 Trichloroethene					CAS #: 79-01-6		
6.581	6.581 (1.030)	95	134201	20.0000	19.281	80.00- 120.00	100.00
6.581	6.581 (1.030)	130	153627			84.60- 144.60	114.48
6.581	6.581 (1.030)	97	87428			34.77- 94.77	65.15
127 Methylcyclohexane					CAS #: 108-87-2		
6.674	6.674 (1.214)	83	184285	20.0000	19.576	80.00- 120.00	100.00
6.681	6.681 (1.215)	98	88514			16.97- 76.97	48.03
6.674	6.674 (1.214)	55	119972			33.99- 93.99	65.10
132 1,2-Dichloropropane					CAS #: 78-87-5		
6.817	6.817 (1.067)	63	98714	20.0000	19.600	80.00- 120.00	100.00
6.817	6.817 (1.067)	62	68684			38.70- 98.70	69.58
6.817	6.817 (1.067)	41	38522			8.21- 68.21	39.02
136 1,4-Dioxane					CAS #: 123-91-1		
6.910	6.910 (1.082)	88	69838	20.0000	19.035	80.00- 120.00	100.00
6.910	6.910 (1.082)	58	40491			27.44- 87.44	57.98
6.910	6.910 (1.082)	57	12818			0.00- 47.84	18.35
138 Bromodichloromethane					CAS #: 75-27-4		
7.046	7.046 (1.103)	83	196928	20.0000	18.985	80.00- 120.00	100.00
7.046	7.046 (1.103)	85	126869			34.54- 94.54	64.42
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
7.426	7.426 (1.163)	75	174660	20.0000	19.285	80.00- 120.00	100.00
7.419	7.419 (1.161)	77	56746			2.23- 62.23	32.49
7.419	7.419 (1.161)	39	57733			1.93- 61.93	33.05
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.526	7.526 (1.178)	58	78393	20.0000	20.217	80.00- 120.00	100.00
7.526	7.526 (1.178)	43	166441			175.29- 235.29	212.32
7.534	7.534 (1.179)	85	42721			22.79- 82.79	54.50
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	384155	20.0000	19.500	80.00- 120.00	100.00
7.655	7.655 (1.198)	92	227816			28.86- 88.86	59.30
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.899	7.899 (0.894)	75	155214	20.0000	19.340	80.00- 120.00	100.00
7.899	7.899 (0.894)	77	51999			2.74- 62.74	33.50
7.899	7.899 (0.894)	39	51263			1.87- 61.87	33.03

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  155 1,1,2-Trichloroethane                          CAS #: 79-00-5
  8.056   8.056 (0.912)    97    135690 20.0000   19.624  80.00- 120.00   100.00
  8.056   8.056 (0.912)    99     84314                   31.91-  91.91    62.14
  8.056   8.056 (0.912)    83    115656                   54.42- 114.42    85.24
-------------------------------------------------------------------------------
  156 Tetrachloroethene                              CAS #: 127-18-4
  8.092   8.092 (0.916)   166    226309 20.0000   19.898  80.00- 120.00   100.00
  8.092   8.092 (0.916)   129    153267                   38.60-  98.60    67.72
  8.092   8.092 (0.916)   131    148458                   36.89-  96.89    65.60
-------------------------------------------------------------------------------
  158 2-Hexanone                                     CAS #: 591-78-6
  8.221   8.221 (0.930)    58    108236 20.0000   19.547  80.00- 120.00   100.00
  8.221   8.221 (0.930)    43    161772                  121.26- 181.26   149.46
  8.221   8.221 (0.930)   100     27656                    0.00-  55.92    25.55
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
  8.372   8.372 (0.947)   129    256279 20.0000   19.648  80.00- 120.00   100.00
  8.372   8.372 (0.947)   127    199122                   46.88- 106.88    77.70
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
  8.486   8.486 (0.960)   107    220953 20.0000   19.811  80.00- 120.00   100.00
  8.486   8.486 (0.960)   109    207927                   65.10- 125.10    94.10
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
  8.859   8.859 (1.002)   112    341272 20.0000   19.440  80.00- 120.00   100.00
  8.859   8.859 (1.002)   114    109391                    1.88-  61.88    32.05
  8.859   8.859 (1.002)    77    182108                   22.25-  82.25    53.36
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
  8.902   8.902 (1.007)   106    178012 20.0000   20.312  80.00- 120.00   100.00
  8.902   8.902 (1.007)    91    526217                  268.56- 328.56   295.61
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
  9.002   9.002 (1.019)   106    223299 20.0000   20.166  80.00- 120.00   100.00
  9.002   9.002 (1.019)    91    423877                  159.69- 219.69   189.82
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
  9.346   9.346 (1.058)   106    207461 20.0000   19.995  80.00- 120.00   100.00
  9.339   9.339 (1.057)    91    423411                  168.78- 228.78   204.09
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
  9.367   9.367 (1.060)   104    344229 20.0000   20.598  80.00- 120.00   100.00
  9.360   9.360 (1.059)    78    154558                   13.63-  73.63    44.90
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
  9.568   9.568 (1.083)   173    298129 20.0000   20.338  80.00- 120.00   100.00
```

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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  174 Bromoform (continued)
  9.568   9.568 (1.083)   171    152395                    21.51-  81.51    51.12
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
  9.625   9.625 (1.089)   105    646170 20.0000   20.465  80.00- 120.00   100.00
  9.625   9.625 (1.089)   120    181519                     0.00-  57.69    28.09
  9.625   9.625 (1.089)    51     43617                     0.00-  36.59     6.75
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
  9.940   9.940 (1.125)    83    307199 20.0000   20.246  80.00- 120.00   100.00
  9.940   9.940 (1.125)    85    199686                    34.20-  94.20    65.00
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
  9.969   9.969 (1.128)    91    748246 20.0000   20.701  80.00- 120.00   100.00
  9.969   9.969 (1.128)   120    189309                     0.00-  55.61    25.30
  9.969   9.969 (1.128)   105     28715                     0.00-  33.98     3.84
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 10.062  10.062 (1.139)   120    210521 20.0000   20.727  80.00- 120.00   100.00
 10.062  10.062 (1.139)   105    667187                   279.77- 339.77   316.92
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 10.112  10.112 (1.144)   120    294798 20.0000   21.021  80.00- 120.00   100.00
 10.112  10.112 (1.144)   105    580682                   170.95- 230.95   196.98
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 10.435  10.435 (1.181)   120    260007 20.0000   20.826  80.00- 120.00   100.00
 10.435  10.435 (1.181)   105    542440                   178.76- 238.76   208.63
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 10.721  10.721 (1.213)   146    424036 20.0000   20.241  80.00- 120.00   100.00
 10.721  10.721 (1.213)   148    272020                    33.80-  93.80    64.15
 10.721  10.721 (1.213)   111    158411                     7.11-  67.11    37.36
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 10.800  10.800 (1.222)   146    429469 20.0000   20.576  80.00- 120.00   100.00
 10.800  10.800 (1.222)   148    275657                    33.65-  93.65    64.19
 10.800  10.800 (1.222)   111    153672                     5.53-  65.53    35.78
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 10.915  10.915 (1.235)    91    500597 20.0000   20.665  80.00- 120.00   100.00
 10.915  10.915 (1.235)   126    119947                     0.00-  53.94    23.96
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 11.129  11.129 (1.259)   146    409414 20.0000   20.502  80.00- 120.00   100.00
 11.129  11.129 (1.259)   148    260724                    33.47-  93.47    63.68
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene (continued)							
11.129	11.129 (1.259)	111	157757			7.89- 67.89	38.53
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
12.526	12.526 (1.417)	180	364792	20.0000	18.603	80.00- 120.00	100.00
12.526	12.526 (1.417)	182	346602			67.03- 127.03	95.01
227 Hexachlorobutadiene					CAS #: 87-68-3		
12.612	12.612 (1.427)	225	314834	20.0000	18.652	80.00- 120.00	100.00
12.612	12.612 (1.427)	223	196379			32.58- 92.58	62.38
228 Naphthalene					CAS #: 91-20-3		
12.798	12.798 (1.448)	128	55733	2.00000	1.806	80.00- 120.00	100.00
12.798	12.798 (1.448)	127	7509			0.00- 42.95	13.47

Report Date: 13-Apr-2016 09:25

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17041205.d
Lab Smp Id: ICAL LEVEL 5
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd17.i/12apr16.b/176q0412a.m
Misc Info: 20ppbv(200ppbv)

Calibration Date: 12-APR-2016
Calibration Time: 19:52
Client Smp ID: ICAL
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	103652	62191	145113	104974	1.28
123 1,4-Difluorobenze	426046	255628	596464	426482	0.10
163 Chlorobenzene-d5	405255	243153	567357	408585	0.82

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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.

Data File: /chem/msd17.i/12apr16.b/17041205.d

Date : 12-APR-2016 19:27

Client ID: ICAL

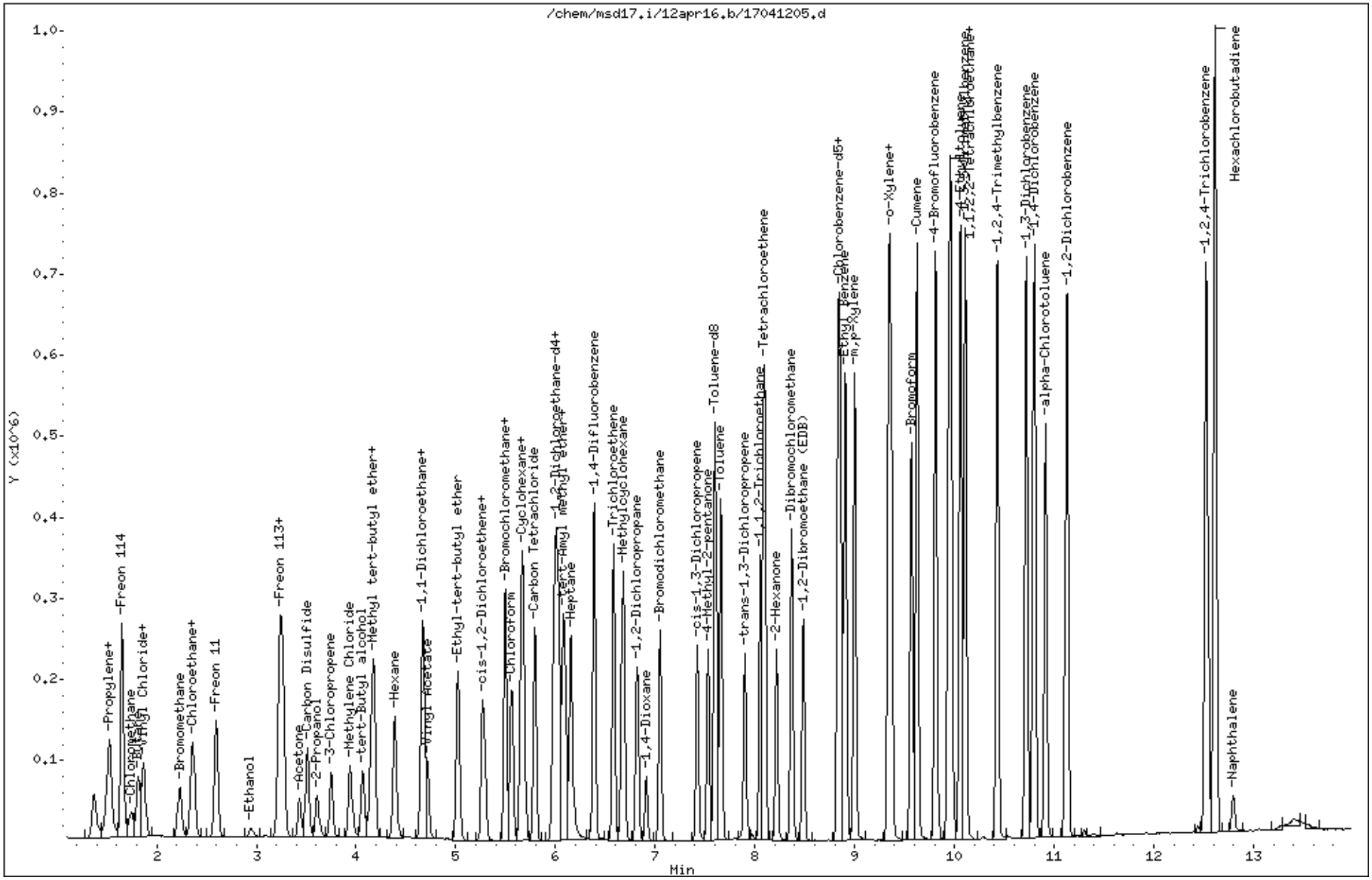
Sample Info: 20ml 2795-276

Column phase: RTX-624

Instrument: msd17.i

Operator: gh

Column diameter: 0.25



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/12apr16.b/17041206.d
Lab Smp Id: ICAL LEVEL 6 Client Smp ID: ICAL
Inj Date : 12-APR-2016 19:52
Operator : gh Inst ID: msd17.i
Smp Info : 50ml 2795-276
Misc Info : 50ppbv(200ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/12apr16.b/176q0412a.m
Meth Date : 13-Apr-2016 09:28 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 13 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	103652	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	81564			48.69- 108.69	78.69
5.499	5.499 (1.000)	49	87725			54.63- 114.63	84.63
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.387	6.387 (1.000)	114	426046	25.0000		80.00- 120.00	100.00
6.387	6.387 (1.000)	88	64766			0.00- 45.20	15.20
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	405255	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	202799			20.04- 80.04	50.04
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.036	6.036 (1.098)	65	102172	25.0000	23.867	80.00- 120.00	100.00
6.036	6.036 (1.098)	67	65986			34.58- 94.58	64.58

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	453095	25.0000	25.254	80.00- 120.00	100.00
7.598	7.598 (1.190)	70	42576			0.00- 39.40	9.40
7.598	7.598 (1.190)	100	296744			35.49- 95.49	65.49
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.811	9.811 (1.110)	174	297714	25.0000	25.090	80.00- 120.00	100.00
9.811	9.811 (1.110)	95	301740			71.35- 131.35	101.35
9.811	9.811 (1.110)	176	292025			68.09- 128.09	98.09
9 Propylene					CAS #: 115-07-1		
1.502	1.502 (0.273)	41	102428	50.0000	49.166	80.00- 120.00	100.00
1.502	1.502 (0.273)	42	69497			37.85- 97.85	67.85
1.502	1.502 (0.273)	39	69575			37.93- 97.93	67.93
11 Freon 12					CAS #: 75-71-8		
1.531	1.531 (0.278)	85	467109	50.0000	51.901	80.00- 120.00	100.00
1.531	1.531 (0.278)	87	152196			2.58- 62.58	32.58
15 Freon 114					CAS #: 76-14-2		
1.653	1.653 (0.301)	135	405999	50.0000	50.334	80.00- 120.00	100.00
1.653	1.653 (0.301)	137	128297			1.60- 61.60	31.60
17 Chloromethane					CAS #: 74-87-3		
1.746	1.746 (0.317)	50	133399	50.0000	50.527	80.00- 120.00	100.00
1.746	1.746 (0.317)	52	42685			2.00- 62.00	32.00
23 Butane					CAS #: 106-97-8		
1.817	1.817 (0.330)	58	32603	50.0000	49.848	80.00- 120.00	100.00
1.817	1.817 (0.330)	43	201434			587.84- 647.84	617.84
25 Vinyl Chloride					CAS #: 75-01-4		
1.853	1.853 (0.337)	62	175251	50.0000	52.592	80.00- 120.00	100.00
1.853	1.853 (0.337)	64	58104			3.15- 63.15	33.15
26 1,3-Butadiene					CAS #: 106-99-0		
1.875	1.875 (0.341)	54	121077	50.0000	51.146	80.00- 120.00	100.00
1.875	1.875 (0.341)	39	99187			51.92- 111.92	81.92
29 Bromomethane					CAS #: 74-83-9		
2.233	2.233 (0.406)	94	171853	50.0000	61.449	80.00- 120.00	100.00
2.233	2.233 (0.406)	96	160811			63.57- 123.57	93.57
30 Chloroethane					CAS #: 75-00-3		
2.348	2.348 (0.427)	64	92140	50.0000	49.070	80.00- 120.00	100.00
2.348	2.348 (0.427)	66	29359			1.86- 61.86	31.86

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
2.348	2.348 (0.427)	49	19399			0.00- 51.05	21.05
31 Isopentane					CAS #: 78-78-4		
2.369	2.369 (0.431)	43	155352	50.0000	49.164	80.00- 120.00	100.00
2.369	2.369 (0.431)	57	127916			52.34- 112.34	82.34
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	484077	50.0000	49.984	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	315656			35.21- 95.21	65.21
42 Ethanol					CAS #: 64-17-5		
2.949	2.949 (0.536)	45	55726	50.0000	47.226	80.00- 120.00	100.00
2.949	2.949 (0.536)	43	11262			0.00- 50.21	20.21
2.949	2.949 (0.536)	46	21286			8.20- 68.20	38.20
49 Freon 113					CAS #: 76-13-1		
3.243	3.243 (0.590)	151	421111	50.0000	49.003	80.00- 120.00	100.00
3.243	3.243 (0.590)	153	271988			34.59- 94.59	64.59
3.243	3.243 (0.590)	101	457443			78.63- 138.63	108.63
50 1,1-Dichloroethene					CAS #: 75-35-4		
3.279	3.279 (0.596)	98	138491	50.0000	51.866	80.00- 120.00	100.00
3.279	3.279 (0.596)	96	214588			124.95- 184.95	154.95
3.279	3.279 (0.596)	61	275555			168.97- 228.97	198.97
52 Acetone					CAS #: 67-64-1		
3.436	3.436 (0.625)	58	77306	50.0000	47.043	80.00- 120.00	100.00
3.436	3.436 (0.625)	43	197981			226.10- 286.10	256.10
56 Carbon Disulfide					CAS #: 75-15-0		
3.515	3.515 (0.639)	76	599041	50.0000	49.392	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
3.608	3.608 (0.656)	45	245291	50.0000	50.576	80.00- 120.00	100.00
3.608	3.608 (0.656)	43	44954			0.00- 48.33	18.33
3.608	3.608 (0.656)	59	11898			0.00- 34.85	4.85
58 3-Chloropropene					CAS #: 107-05-1		
3.759	3.759 (0.683)	76	98612	50.0000	49.694	80.00- 120.00	100.00
3.751	3.751 (0.682)	41	178496			151.01- 211.01	181.01
66 Methylene Chloride					CAS #: 75-09-2		
3.945	3.945 (0.717)	49	175941	50.0000	49.265	80.00- 120.00	100.00
3.945	3.945 (0.717)	84	195610			81.18- 141.18	111.18
3.945	3.945 (0.717)	51	56019			1.84- 61.84	31.84

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
71 tert-Butyl alcohol					CAS #: 75-65-0		
4.067	4.067 (0.739)	59	359010	50.0000	48.961	80.00- 120.00	100.00
4.067	4.067 (0.739)	41	58347			0.00- 46.25	16.25
4.067	4.067 (0.739)	57	36305			0.00- 40.11	10.11
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
4.153	4.153 (0.755)	73	563052	50.0000	50.595	80.00- 120.00	100.00
4.153	4.153 (0.755)	57	114000			0.00- 50.25	20.25
4.153	4.153 (0.755)	41	85949			0.00- 45.26	15.26
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
4.181	4.181 (0.760)	98	149335	50.0000	51.636	80.00- 120.00	100.00
4.181	4.181 (0.760)	61	272919			152.76- 212.76	182.76
4.181	4.181 (0.760)	96	234964			127.34- 187.34	157.34
78 Hexane					CAS #: 110-54-3		
4.389	4.389 (0.798)	57	288483	50.0000	50.951	80.00- 120.00	100.00
4.389	4.389 (0.798)	43	147612			21.17- 81.17	51.17
4.389	4.389 (0.798)	86	56517			0.00- 49.59	19.59
82 1,1-Dichloroethane					CAS #: 75-34-3		
4.683	4.683 (0.852)	63	352933	50.0000	50.855	80.00- 120.00	100.00
4.683	4.683 (0.852)	65	111478			1.59- 61.59	31.59
83 Isopropyl ether					CAS #: 108-20-3		
4.661	4.661 (0.848)	45	521038	50.0000	49.979	80.00- 120.00	100.00
4.661	4.661 (0.848)	87	206492			9.63- 69.63	39.63
4.661	4.661 (0.848)	59	71354			0.00- 43.69	13.69
86 Vinyl Acetate					CAS #: 108-05-4		
4.718	4.718 (0.858)	86	61162	50.0000	52.412	80.00- 120.00	100.00
4.718	4.718 (0.858)	43	439905			689.25- 749.25	719.25
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
5.019	5.019 (0.913)	59	611771	50.0000	49.917	80.00- 120.00	100.00
5.027	5.027 (0.914)	87	299739			19.00- 79.00	49.00
5.019	5.019 (0.913)	41	89205			0.00- 44.58	14.58
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
5.263	5.263 (0.957)	98	163898	50.0000	52.179	80.00- 120.00	100.00
5.263	5.263 (0.957)	96	257443			127.08- 187.08	157.08
5.263	5.263 (0.957)	61	270916			135.30- 195.30	165.30
92 2-Butanone					CAS #: 78-93-3		
5.292	5.292 (0.962)	72	111505	50.0000	50.242	80.00- 120.00	100.00
5.292	5.292 (0.962)	43	313914			251.52- 311.52	281.52

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   92 2-Butanone (continued)
  5.292   5.292 (0.962)    57     31006                     0.00-  57.81    27.81
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                CAS #: 109-99-9
  5.492   5.492 (0.999)    42    175380 50.0000   49.098  80.00- 120.00   100.00
  5.492   5.492 (0.999)    71     99219                   26.57-  86.57    56.57
  5.492   5.492 (0.999)    72    105807                   30.33-  90.33    60.33
-------------------------------------------------------------------------------
  100 Chloroform                                     CAS #: 67-66-3
  5.564   5.564 (1.012)    83    463452 50.0000   51.582  80.00- 120.00   100.00
  5.564   5.564 (1.012)    85    297460                   34.18-  94.18    64.18
-------------------------------------------------------------------------------
  102 Cyclohexane                                    CAS #: 110-82-7
  5.657   5.657 (1.029)    84    321929 50.0000   50.937  80.00- 120.00   100.00
  5.657   5.657 (1.029)    56    314913                   67.82- 127.82    97.82
  5.657   5.657 (1.029)    41    135341                   12.04-  72.04    42.04
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                          CAS #: 71-55-6
  5.678   5.678 (1.033)    97    481524 50.0000   50.326  80.00- 120.00   100.00
  5.678   5.678 (1.033)    99    312203                   34.84-  94.84    64.84
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                           CAS #: 56-23-5
  5.793   5.793 (1.053)   119    514387 50.0000   51.576  80.00- 120.00   100.00
  5.793   5.793 (1.053)   117    530215                   73.08- 133.08   103.08
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                         CAS #: 540-84-1
  5.986   5.986 (1.089)    57    994116 50.0000   51.267  80.00- 120.00   100.00
  5.986   5.986 (1.089)    56    320562                    2.25-  62.25    32.25
  5.986   5.986 (1.089)    41    189464                    0.00-  49.06    19.06
-------------------------------------------------------------------------------
  116 Benzene                                        CAS #: 71-43-2
  6.015   6.015 (0.942)    78    711853 50.0000   50.043  80.00- 120.00   100.00
  6.015   6.015 (0.942)    77    169942                    0.00-  53.87    23.87
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                         CAS #: 994-05-8
  6.079   6.079 (1.105)    87    171510 50.0000   50.187  80.00- 120.00   100.00
  6.079   6.079 (1.105)    73    687578                  370.90- 430.90   400.90
  6.079   6.079 (1.105)    55    150943                   58.01- 118.01    88.01
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                             CAS #: 107-06-2
  6.101   6.101 (0.955)    62    255970 50.0000   50.001  80.00- 120.00   100.00
  6.101   6.101 (0.955)    64     86053                    3.62-  63.62    33.62
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
  6.158   6.158 (0.964)    71    258241 50.0000   51.782  80.00- 120.00   100.00
  6.158   6.158 (0.964)    43    327168                   96.69- 156.69   126.69
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
121 Heptane (continued)							
6.158	6.158 (0.964)	57	228279			58.40- 118.40	88.40
125 Trichloroethene					CAS #: 79-01-6		
6.581	6.581 (1.030)	95	356642	50.0000	51.293	80.00- 120.00	100.00
6.581	6.581 (1.030)	130	408725			84.60- 144.60	114.60
6.581	6.581 (1.030)	97	230993			34.77- 94.77	64.77
127 Methylcyclohexane					CAS #: 108-87-2		
6.681	6.681 (1.215)	83	477033	50.0000	51.319	80.00- 120.00	100.00
6.681	6.681 (1.215)	98	224061			16.97- 76.97	46.97
6.681	6.681 (1.215)	55	305230			33.99- 93.99	63.99
132 1,2-Dichloropropane					CAS #: 78-87-5		
6.817	6.817 (1.067)	63	254772	50.0000	50.637	80.00- 120.00	100.00
6.817	6.817 (1.067)	62	175028			38.70- 98.70	68.70
6.817	6.817 (1.067)	41	97338			8.21- 68.21	38.21
136 1,4-Dioxane					CAS #: 123-91-1		
6.910	6.910 (1.082)	88	184298	50.0000	50.283	80.00- 120.00	100.00
6.910	6.910 (1.082)	58	105855			27.44- 87.44	57.44
6.910	6.910 (1.082)	57	32884			0.00- 47.84	17.84
138 Bromodichloromethane					CAS #: 75-27-4		
7.046	7.046 (1.103)	83	524308	50.0000	50.599	80.00- 120.00	100.00
7.046	7.046 (1.103)	85	338365			34.54- 94.54	64.54
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
7.419	7.419 (1.161)	75	463881	50.0000	51.271	80.00- 120.00	100.00
7.426	7.426 (1.163)	77	149496			2.23- 62.23	32.23
7.419	7.419 (1.161)	39	148128			1.93- 61.93	31.93
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.526	7.526 (1.178)	58	207125	50.0000	53.470	80.00- 120.00	100.00
7.526	7.526 (1.178)	43	425215			175.29- 235.29	205.29
7.534	7.534 (1.179)	85	109341			22.79- 82.79	52.79
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	992065	50.0000	50.408	80.00- 120.00	100.00
7.655	7.655 (1.198)	92	583934			28.86- 88.86	58.86
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.899	7.899 (0.894)	75	412845	50.0000	51.865	80.00- 120.00	100.00
7.899	7.899 (0.894)	77	135153			2.74- 62.74	32.74
7.899	7.899 (0.894)	39	131566			1.87- 61.87	31.87

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.056	8.056 (0.912)	97	351030	50.0000	51.185	80.00- 120.00	100.00
8.056	8.056 (0.912)	99	217338			31.91- 91.91	61.91
8.056	8.056 (0.912)	83	296349			54.42- 114.42	84.42
156 Tetrachloroethene					CAS #: 127-18-4		
8.092	8.092 (0.916)	166	571954	50.0000	50.702	80.00- 120.00	100.00
8.092	8.092 (0.916)	129	392364			38.60- 98.60	68.60
8.092	8.092 (0.916)	131	382588			36.89- 96.89	66.89
158 2-Hexanone					CAS #: 591-78-6		
8.221	8.221 (0.930)	58	276161	50.0000	50.284	80.00- 120.00	100.00
8.221	8.221 (0.930)	43	417732			121.26- 181.26	151.26
8.221	8.221 (0.930)	100	71594			0.00- 55.92	25.92
160 Dibromochloromethane					CAS #: 124-48-1		
8.372	8.372 (0.947)	129	674415	50.0000	52.131	80.00- 120.00	100.00
8.372	8.372 (0.947)	127	518490			46.88- 106.88	76.88
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
8.486	8.486 (0.960)	107	566222	50.0000	51.186	80.00- 120.00	100.00
8.486	8.486 (0.960)	109	538466			65.10- 125.10	95.10
165 Chlorobenzene					CAS #: 108-90-7		
8.859	8.859 (1.002)	112	871909	50.0000	50.074	80.00- 120.00	100.00
8.859	8.859 (1.002)	114	277998			1.88- 61.88	31.88
8.859	8.859 (1.002)	77	455545			22.25- 82.25	52.25
167 Ethyl Benzene					CAS #: 100-41-4		
8.902	8.902 (1.007)	106	442439	50.0000	50.901	80.00- 120.00	100.00
8.902	8.902 (1.007)	91	1320949			268.56- 328.56	298.56
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	560048	50.0000	50.993	80.00- 120.00	100.00
9.002	9.002 (1.019)	91	1062359			159.69- 219.69	189.69
171 o-Xylene					CAS #: 95-47-6		
9.346	9.346 (1.058)	106	526770	50.0000	51.186	80.00- 120.00	100.00
9.339	9.339 (1.057)	91	1047091			168.78- 228.78	198.78
172 Styrene					CAS #: 100-42-5		
9.360	9.360 (1.059)	104	883172	50.0000	53.282	80.00- 120.00	100.00
9.360	9.360 (1.059)	78	385333			13.63- 73.63	43.63
174 Bromoform					CAS #: 75-25-2		
9.568	9.568 (1.083)	173	765185	50.0000	52.629	80.00- 120.00	100.00

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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  174 Bromoform (continued)
  9.568   9.568 (1.083)   171    394120                    21.51-  81.51    51.51
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
  9.625   9.625 (1.089)   105   1606599 50.0000   51.301  80.00- 120.00   100.00
  9.625   9.625 (1.089)   120    444885                     0.00-  57.69    27.69
  9.625   9.625 (1.089)    51    105809                     0.00-  36.59     6.59
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
  9.940   9.940 (1.125)    83    765122 50.0000   50.840  80.00- 120.00   100.00
  9.940   9.940 (1.125)    85    491215                    34.20-  94.20    64.20
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
  9.969   9.969 (1.128)    91   1808461 50.0000   50.445  80.00- 120.00   100.00
  9.969   9.969 (1.128)   120    463206                     0.00-  55.61    25.61
  9.969   9.969 (1.128)   105     72003                     0.00-  33.98     3.98
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 10.055  10.055 (1.138)   120    524512 50.0000   52.066  80.00- 120.00   100.00
 10.055  10.055 (1.138)   105   1624793                   279.77- 339.77   309.77
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 10.112  10.112 (1.144)   120    719892 50.0000   51.754  80.00- 120.00   100.00
 10.112  10.112 (1.144)   105   1446653                   170.95- 230.95   200.95
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 10.427  10.427 (1.180)   120    639511 50.0000   51.646  80.00- 120.00   100.00
 10.427  10.427 (1.180)   105   1335020                   178.76- 238.76   208.76
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 10.721  10.721 (1.213)   146   1047782 50.0000   50.426  80.00- 120.00   100.00
 10.721  10.721 (1.213)   148    668443                    33.80-  93.80    63.80
 10.721  10.721 (1.213)   111    388875                     7.11-  67.11    37.11
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 10.800  10.800 (1.222)   146   1068968 50.0000   51.635  80.00- 120.00   100.00
 10.800  10.800 (1.222)   148    680425                    33.65-  93.65    63.65
 10.800  10.800 (1.222)   111    379854                     5.53-  65.53    35.53
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 10.915  10.915 (1.235)    91   1253793 50.0000   52.183  80.00- 120.00   100.00
 10.915  10.915 (1.235)   126    300206                     0.00-  53.94    23.94
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 11.129  11.129 (1.259)   146   1011159 50.0000   51.052  80.00- 120.00   100.00
 11.129  11.129 (1.259)   148    641818                    33.47-  93.47    63.47
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  214 1,2-Dichlorobenzene (continued)
 11.122  11.122 (1.259)   111    383081                     7.89-  67.89    37.89
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 12.526  12.526 (1.417)   180   1022438 50.0000   52.569  80.00- 120.00   100.00
 12.526  12.526 (1.417)   182    992098                    67.03- 127.03    97.03
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                           CAS #: 87-68-3
 12.612  12.612 (1.427)   225    868105 50.0000   51.853  80.00- 120.00   100.00
 12.612  12.612 (1.427)   223    543285                    32.58-  92.58    62.58
-------------------------------------------------------------------------------
  228 Naphthalene                                   CAS #: 91-20-3
 12.798  12.798 (1.448)   128    159783 5.00000    5.222  80.00- 120.00   100.00
 12.798  12.798 (1.448)   127     20692                     0.00-  42.95    12.95
-------------------------------------------------------------------------------
```

Report Date: 13-Apr-2016 09:28

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17041206.d
Lab Smp Id: ICAL LEVEL 6
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd17.i/12apr16.b/176q0412a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 12-APR-2016
Calibration Time: 19:52
Client Smp ID: ICAL
Level: LOW
Sample Type: AIR

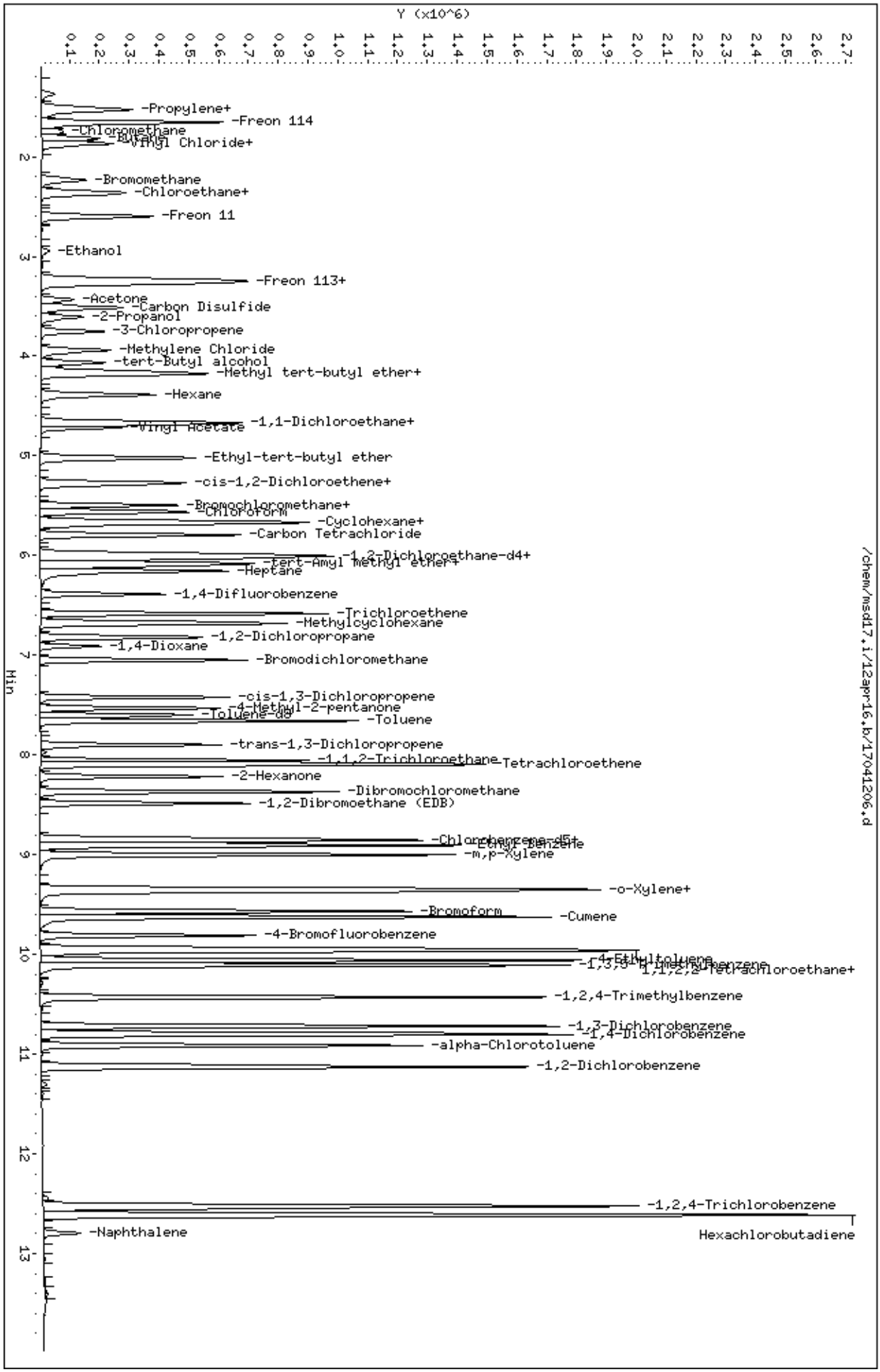
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	103652	62191	145113	103652	0.00
123 1,4-Difluorobenze	426046	255628	596464	426046	0.00
163 Chlorobenzene-d5	405255	243153	567357	405255	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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.

Data File: /chem/msd17.i/12apr16.b/17041206.d
Date : 12-APR-2016 19:52
Client ID: ICAL
Sample Info: 50ml 2795-276
Column phase: RTX-624

Instrument: msd17.i
Operator: gh
Column diameter: 0.25



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/12apr16.b/17041207.d
Lab Smp Id: ICAL LEVEL 7 Client Smp ID: ICAL
Inj Date : 12-APR-2016 20:19
Operator : gh Inst ID: msd17.i
Smp Info : 100ml 2795-276
Misc Info : 100ppbv(200ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/12apr16.b/176q0412a.m
Meth Date : 13-Apr-2016 09:25 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 20:19 Cal File: 17041207.d
Als bottle: 13 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.506	5.506 (1.000)	130	102629	25.0000		80.00- 120.00	100.00
5.506	5.506 (1.000)	128	80081			48.69- 108.69	78.03
5.499	5.499 (1.000)	49	80575			54.63- 114.63	78.51
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.387	6.387 (1.000)	114	428252	25.0000		80.00- 120.00	100.00
6.387	6.387 (1.000)	88	63395			0.00- 45.20	14.80
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	405304	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	202091			20.04- 80.04	49.86
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.036	6.036 (1.096)	65	111939	25.0000	26.409	80.00- 120.00	100.00
6.036	6.036 (1.096)	67	68608			34.58- 94.58	61.29

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8						CAS #: 2037-26-5	
7.605	7.605 (1.191)	98	450502	25.0000	24.980	80.00- 120.00	100.00
7.605	7.605 (1.191)	70	43676			0.00- 39.40	9.69
7.605	7.605 (1.191)	100	302178			35.49- 95.49	67.08
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4	
9.811	9.811 (1.110)	174	296381	25.0000	24.974	80.00- 120.00	100.00
9.811	9.811 (1.110)	95	302256			71.35- 131.35	101.98
9.811	9.811 (1.110)	176	290729			68.09- 128.09	98.09
9 Propylene						CAS #: 115-07-1	
1.509	1.509 (0.274)	41	206000	100.000	99.868	80.00- 120.00	100.00
1.509	1.509 (0.274)	42	140631			37.85- 97.85	68.27
1.509	1.509 (0.274)	39	140308			37.93- 97.93	68.11
11 Freon 12						CAS #: 75-71-8	
1.538	1.538 (0.279)	85	940021	100.000	105.49	80.00- 120.00	100.00
1.538	1.538 (0.279)	87	307649			2.58- 62.58	32.73
15 Freon 114						CAS #: 76-14-2	
1.667	1.667 (0.303)	135	842164	100.000	105.45	80.00- 120.00	100.00
1.667	1.667 (0.303)	137	264893			1.60- 61.60	31.45
17 Chloromethane						CAS #: 74-87-3	
1.796	1.796 (0.326)	50	200250	100.000	76.605	80.00- 120.00	100.00
1.796	1.796 (0.326)	52	62954			2.00- 62.00	31.44
23 Butane						CAS #: 106-97-8	
1.824	1.824 (0.331)	58	66096	100.000	102.06	80.00- 120.00	100.00
1.824	1.824 (0.331)	43	407833			587.84- 647.84	617.03
25 Vinyl Chloride						CAS #: 75-01-4	
1.860	1.860 (0.338)	62	355587	100.000	107.77	80.00- 120.00	100.00
1.860	1.860 (0.338)	64	116894			3.15- 63.15	32.87
26 1,3-Butadiene						CAS #: 106-99-0	
1.889	1.889 (0.343)	54	246203	100.000	105.04	80.00- 120.00	100.00
1.889	1.889 (0.343)	39	211237			51.92- 111.92	85.80
29 Bromomethane						CAS #: 74-83-9	
2.240	2.240 (0.407)	94	329246	100.000	118.90	80.00- 120.00	100.00
2.240	2.240 (0.407)	96	311794			63.57- 123.57	94.70
30 Chloroethane						CAS #: 75-00-3	
2.355	2.355 (0.428)	64	186491	100.000	100.31	80.00- 120.00	100.00
2.355	2.355 (0.428)	66	59570			1.86- 61.86	31.94

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
2.355	2.355 (0.428)	49	39207			0.00- 51.05	21.02
31 Isopentane					CAS #: 78-78-4		
2.369	2.369 (0.430)	43	310719	100.000	99.313	80.00- 120.00	100.00
2.369	2.369 (0.430)	57	260345			52.34- 112.34	83.79
35 Freon 11					CAS #: 75-69-4		
2.605	2.605 (0.473)	101	983808	100.000	102.60	80.00- 120.00	100.00
2.605	2.605 (0.473)	103	638871			35.21- 95.21	64.94
42 Ethanol					CAS #: 64-17-5		
2.949	2.949 (0.536)	45	112817	100.000	96.563	80.00- 120.00	100.00
2.949	2.949 (0.536)	43	20579			0.00- 50.21	18.24
2.949	2.949 (0.536)	46	43696			8.20- 68.20	38.73
49 Freon 113					CAS #: 76-13-1		
3.243	3.243 (0.589)	151	858798	100.000	100.93	80.00- 120.00	100.00
3.250	3.250 (0.590)	153	548011			34.59- 94.59	63.81
3.243	3.243 (0.589)	101	934401			78.63- 138.63	108.80
50 1,1-Dichloroethene					CAS #: 75-35-4		
3.279	3.279 (0.595)	98	283085	100.000	107.07	80.00- 120.00	100.00
3.279	3.279 (0.595)	96	444441			124.95- 184.95	157.00
3.279	3.279 (0.595)	61	564087			168.97- 228.97	199.26
52 Acetone					CAS #: 67-64-1		
3.443	3.443 (0.625)	58	158868	100.000	97.639	80.00- 120.00	100.00
3.443	3.443 (0.625)	43	386571			226.10- 286.10	243.33
56 Carbon Disulfide					CAS #: 75-15-0		
3.522	3.522 (0.640)	76	1226018	100.000	102.10	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
3.615	3.615 (0.657)	45	482556	100.000	100.49	80.00- 120.00	100.00
3.615	3.615 (0.657)	43	88778			0.00- 48.33	18.40
3.615	3.615 (0.657)	59	22622			0.00- 34.85	4.69
58 3-Chloropropene					CAS #: 107-05-1		
3.759	3.759 (0.683)	76	201002	100.000	102.30	80.00- 120.00	100.00
3.759	3.759 (0.683)	41	360172			151.01- 211.01	179.19
66 Methylene Chloride					CAS #: 75-09-2		
3.945	3.945 (0.716)	49	363707	100.000	102.86	80.00- 120.00	100.00
3.945	3.945 (0.716)	84	399789			81.18- 141.18	109.92
3.945	3.945 (0.716)	51	114913			1.84- 61.84	31.59

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
71 tert-Butyl alcohol					CAS #: 75-65-0		
4.067	4.067 (0.739)	59	728297	100.000	100.31	80.00- 120.00	100.00
4.067	4.067 (0.739)	41	117163			0.00- 46.25	16.09
4.074	4.074 (0.740)	57	71702			0.00- 40.11	9.85
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
4.152	4.152 (0.754)	73	1138279	100.000	103.30	80.00- 120.00	100.00
4.152	4.152 (0.754)	57	229334			0.00- 50.25	20.15
4.152	4.152 (0.754)	41	172047			0.00- 45.26	15.11
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
4.188	4.188 (0.761)	98	302504	100.000	105.64	80.00- 120.00	100.00
4.188	4.188 (0.761)	61	551582			152.76- 212.76	182.34
4.188	4.188 (0.761)	96	475209			127.34- 187.34	157.09
78 Hexane					CAS #: 110-54-3		
4.389	4.389 (0.797)	57	589493	100.000	105.15	80.00- 120.00	100.00
4.389	4.389 (0.797)	43	303558			21.17- 81.17	51.49
4.389	4.389 (0.797)	86	116283			0.00- 49.59	19.73
82 1,1-Dichloroethane					CAS #: 75-34-3		
4.683	4.683 (0.850)	63	708067	100.000	103.04	80.00- 120.00	100.00
4.683	4.683 (0.850)	65	231310			1.59- 61.59	32.67
83 Isopropyl ether					CAS #: 108-20-3		
4.661	4.661 (0.846)	45	1051259	100.000	101.84	80.00- 120.00	100.00
4.661	4.661 (0.846)	87	422131			9.63- 69.63	40.15
4.661	4.661 (0.846)	59	148453			0.00- 43.69	14.12
86 Vinyl Acetate					CAS #: 108-05-4		
4.726	4.726 (0.858)	86	124067	100.000	107.38	80.00- 120.00	100.00
4.718	4.718 (0.857)	43	899153			689.25- 749.25	724.73
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
5.019	5.019 (0.912)	59	1224460	100.000	100.90	80.00- 120.00	100.00
5.026	5.026 (0.913)	87	604402			19.00- 79.00	49.36
5.019	5.019 (0.912)	41	172350			0.00- 44.58	14.08
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
5.270	5.270 (0.957)	98	333205	100.000	107.14	80.00- 120.00	100.00
5.270	5.270 (0.957)	96	521672			127.08- 187.08	156.56
5.270	5.270 (0.957)	61	551649			135.30- 195.30	165.56
92 2-Butanone					CAS #: 78-93-3		
5.291	5.291 (0.961)	72	226544	100.000	103.09	80.00- 120.00	100.00
5.291	5.291 (0.961)	43	628101			251.52- 311.52	277.25

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
92 2-Butanone (continued)							
5.291	5.291 (0.961)	57	61463			0.00- 57.81	27.13
99 Tetrahydrofuran					CAS #: 109-99-9		
5.492	5.492 (0.997)	42	353747	100.000	100.02	80.00- 120.00	100.00
5.492	5.492 (0.997)	71	197186			26.57- 86.57	55.74
5.492	5.492 (0.997)	72	211886			30.33- 90.33	59.90
100 Chloroform					CAS #: 67-66-3		
5.564	5.564 (1.010)	83	931752	100.000	104.74	80.00- 120.00	100.00
5.564	5.564 (1.010)	85	612174			34.18- 94.18	65.70
102 Cyclohexane					CAS #: 110-82-7		
5.664	5.664 (1.029)	84	649123	100.000	103.73	80.00- 120.00	100.00
5.657	5.657 (1.027)	56	637315			67.82- 127.82	98.18
5.657	5.657 (1.027)	41	268186			12.04- 72.04	41.32
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.678	5.678 (1.031)	97	964520	100.000	101.81	80.00- 120.00	100.00
5.678	5.678 (1.031)	99	626165			34.84- 94.84	64.92
106 Carbon Tetrachloride					CAS #: 56-23-5		
5.793	5.793 (1.052)	119	1030836	100.000	104.39	80.00- 120.00	100.00
5.793	5.793 (1.052)	117	1066930			73.08- 133.08	103.50
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.986	5.986 (1.087)	57	2025459	100.000	105.50	80.00- 120.00	100.00
5.986	5.986 (1.087)	56	622293			2.25- 62.25	30.72
5.986	5.986 (1.087)	41	387358			0.00- 49.06	19.12
116 Benzene					CAS #: 71-43-2		
6.015	6.015 (0.942)	78	1455044	100.000	101.76	80.00- 120.00	100.00
6.015	6.015 (0.942)	77	345048			0.00- 53.87	23.71
119 tert-Amyl methyl ether					CAS #: 994-05-8		
6.079	6.079 (1.104)	87	355416	100.000	105.04	80.00- 120.00	100.00
6.079	6.079 (1.104)	73	1403614			370.90- 430.90	394.92
6.079	6.079 (1.104)	55	303879			58.01- 118.01	85.50
120 1,2-Dichloroethane					CAS #: 107-06-2		
6.108	6.108 (0.956)	62	523191	100.000	101.67	80.00- 120.00	100.00
6.108	6.108 (0.956)	64	173206			3.62- 63.62	33.11
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	522058	100.000	104.14	80.00- 120.00	100.00
6.158	6.158 (0.964)	43	656712			96.69- 156.69	125.79

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
121 Heptane (continued)							
6.158	6.158 (0.964)	57	450300			58.40- 118.40	86.25
125 Trichloroethene					CAS #: 79-01-6		
6.581	6.581 (1.030)	95	720229	100.000	103.05	80.00- 120.00	100.00
6.581	6.581 (1.030)	130	828400			84.60- 144.60	115.02
6.581	6.581 (1.030)	97	470036			34.77- 94.77	65.26
127 Methylcyclohexane					CAS #: 108-87-2		
6.681	6.681 (1.213)	83	953450	100.000	103.59	80.00- 120.00	100.00
6.681	6.681 (1.213)	98	453004			16.97- 76.97	47.51
6.681	6.681 (1.213)	55	615058			33.99- 93.99	64.51
132 1,2-Dichloropropane					CAS #: 78-87-5		
6.817	6.817 (1.067)	63	519272	100.000	102.68	80.00- 120.00	100.00
6.817	6.817 (1.067)	62	355020			38.70- 98.70	68.37
6.817	6.817 (1.067)	41	194713			8.21- 68.21	37.50
136 1,4-Dioxane					CAS #: 123-91-1		
6.910	6.910 (1.082)	88	374467	100.000	101.64	80.00- 120.00	100.00
6.910	6.910 (1.082)	58	216500			27.44- 87.44	57.82
6.910	6.910 (1.082)	57	67308			0.00- 47.84	17.97
138 Bromodichloromethane					CAS #: 75-27-4		
7.046	7.046 (1.103)	83	1058718	100.000	101.65	80.00- 120.00	100.00
7.046	7.046 (1.103)	85	681721			34.54- 94.54	64.39
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
7.426	7.426 (1.163)	75	953921	100.000	104.89	80.00- 120.00	100.00
7.426	7.426 (1.163)	77	302356			2.23- 62.23	31.70
7.426	7.426 (1.163)	39	302408			1.93- 61.93	31.70
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.533	7.533 (1.179)	58	405443	100.000	104.13	80.00- 120.00	100.00
7.526	7.526 (1.178)	43	852685			175.29- 235.29	210.31
7.533	7.533 (1.179)	85	222152			22.79- 82.79	54.79
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	2030964	100.000	102.66	80.00- 120.00	100.00
7.655	7.655 (1.198)	92	1179047			28.86- 88.86	58.05
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.899	7.899 (0.894)	75	839602	100.000	105.47	80.00- 120.00	100.00
7.899	7.899 (0.894)	77	270270			2.74- 62.74	32.19
7.899	7.899 (0.894)	39	262536			1.87- 61.87	31.27

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.056	8.056 (0.912)	97	708759	100.000	103.33	80.00- 120.00	100.00
8.056	8.056 (0.912)	99	441841			31.91- 91.91	62.34
8.056	8.056 (0.912)	83	593844			54.42- 114.42	83.79
156 Tetrachloroethene					CAS #: 127-18-4		
8.092	8.092 (0.916)	166	1164577	100.000	103.22	80.00- 120.00	100.00
8.092	8.092 (0.916)	129	791606			38.60- 98.60	67.97
8.092	8.092 (0.916)	131	770295			36.89- 96.89	66.14
158 2-Hexanone					CAS #: 591-78-6		
8.221	8.221 (0.930)	58	569678	100.000	103.72	80.00- 120.00	100.00
8.221	8.221 (0.930)	43	844580			121.26- 181.26	148.26
8.221	8.221 (0.930)	100	151445			0.00- 55.92	26.58
160 Dibromochloromethane					CAS #: 124-48-1		
8.372	8.372 (0.947)	129	1372327	100.000	106.07	80.00- 120.00	100.00
8.372	8.372 (0.947)	127	1059361			46.88- 106.88	77.19
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
8.486	8.486 (0.960)	107	1153961	100.000	104.30	80.00- 120.00	100.00
8.486	8.486 (0.960)	109	1089755			65.10- 125.10	94.44
165 Chlorobenzene					CAS #: 108-90-7		
8.859	8.859 (1.002)	112	1753686	100.000	100.70	80.00- 120.00	100.00
8.859	8.859 (1.002)	114	563961			1.88- 61.88	32.16
8.859	8.859 (1.002)	77	897839			22.25- 82.25	51.20
167 Ethyl Benzene					CAS #: 100-41-4		
8.909	8.909 (1.008)	106	892523	100.000	102.67	80.00- 120.00	100.00
8.909	8.909 (1.008)	91	2679661			268.56- 328.56	300.23
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	1131573	100.000	103.02	80.00- 120.00	100.00
9.002	9.002 (1.019)	91	2163879			159.69- 219.69	191.23
171 o-Xylene					CAS #: 95-47-6		
9.346	9.346 (1.058)	106	1054596	100.000	102.46	80.00- 120.00	100.00
9.346	9.346 (1.058)	91	2117614			168.78- 228.78	200.80
172 Styrene					CAS #: 100-42-5		
9.367	9.367 (1.060)	104	1775661	100.000	107.11	80.00- 120.00	100.00
9.360	9.360 (1.059)	78	777062			13.63- 73.63	43.76
174 Bromoform					CAS #: 75-25-2		
9.568	9.568 (1.083)	173	1563069	100.000	107.49	80.00- 120.00	100.00

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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
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  174 Bromoform (continued)
  9.568   9.568 (1.083)   171    798660                    21.51-  81.51    51.10
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
  9.625   9.625 (1.089)   105   3239452 100.000   103.43  80.00- 120.00   100.00
  9.625   9.625 (1.089)   120    904452                     0.00-  57.69    27.92
  9.625   9.625 (1.089)    51    211887                     0.00-  36.59     6.54
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
  9.940   9.940 (1.125)    83   1519864 100.000   100.98  80.00- 120.00   100.00
  9.940   9.940 (1.125)    85    994634                    34.20-  94.20    65.44
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
  9.969   9.969 (1.128)    91   3677940 100.000   102.58  80.00- 120.00   100.00
  9.969   9.969 (1.128)   120    932035                     0.00-  55.61    25.34
  9.969   9.969 (1.128)   105    142003                     0.00-  33.98     3.86
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 10.062  10.062 (1.139)   120   1034972 100.000   102.72  80.00- 120.00   100.00
 10.062  10.062 (1.139)   105   3214854                   279.77- 339.77   310.62
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 10.112  10.112 (1.144)   120   1454606 100.000   104.56  80.00- 120.00   100.00
 10.112  10.112 (1.144)   105   2927394                   170.95- 230.95   201.25
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 10.434  10.434 (1.181)   120   1273877 100.000   102.86  80.00- 120.00   100.00
 10.434  10.434 (1.181)   105   2648243                   178.76- 238.76   207.89
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 10.721  10.721 (1.213)   146   2107037 100.000   101.39  80.00- 120.00   100.00
 10.721  10.721 (1.213)   148   1353717                    33.80-  93.80    64.25
 10.721  10.721 (1.213)   111    769618                     7.11-  67.11    36.53
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 10.800  10.800 (1.222)   146   2116073 100.000   102.20  80.00- 120.00   100.00
 10.800  10.800 (1.222)   148   1364233                    33.65-  93.65    64.47
 10.800  10.800 (1.222)   111    757037                     5.53-  65.53    35.78
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 10.914  10.914 (1.235)    91   2561191 100.000   106.58  80.00- 120.00   100.00
 10.914  10.914 (1.235)   126    612175                     0.00-  53.94    23.90
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 11.129  11.129 (1.259)   146   2015757 100.000   101.76  80.00- 120.00   100.00
 11.129  11.129 (1.259)   148   1284600                    33.47-  93.47    63.73
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene (continued)							
11.122	11.122 (1.259)	111	768547			7.89- 67.89	38.13
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
12.526	12.526 (1.417)	180	2108944	100.000	108.42	80.00- 120.00	100.00
12.526	12.526 (1.417)	182	2017372			67.03- 127.03	95.66
227 Hexachlorobutadiene					CAS #: 87-68-3		
12.612	12.612 (1.427)	225	1761350	100.000	105.20	80.00- 120.00	100.00
12.612	12.612 (1.427)	223	1093836			32.58- 92.58	62.10
228 Naphthalene					CAS #: 91-20-3		
12.798	12.798 (1.448)	128	328072	10.0000	10.720	80.00- 120.00	100.00
12.798	12.798 (1.448)	127	42272			0.00- 42.95	12.88

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17041207.d
Lab Smp Id: ICAL LEVEL 7
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd17.i/12apr16.b/176q0412a.m
Misc Info: 100ppbv(200ppbv)

Calibration Date: 12-APR-2016
Calibration Time: 19:52
Client Smp ID: ICAL
Level: LOW
Sample Type: AIR

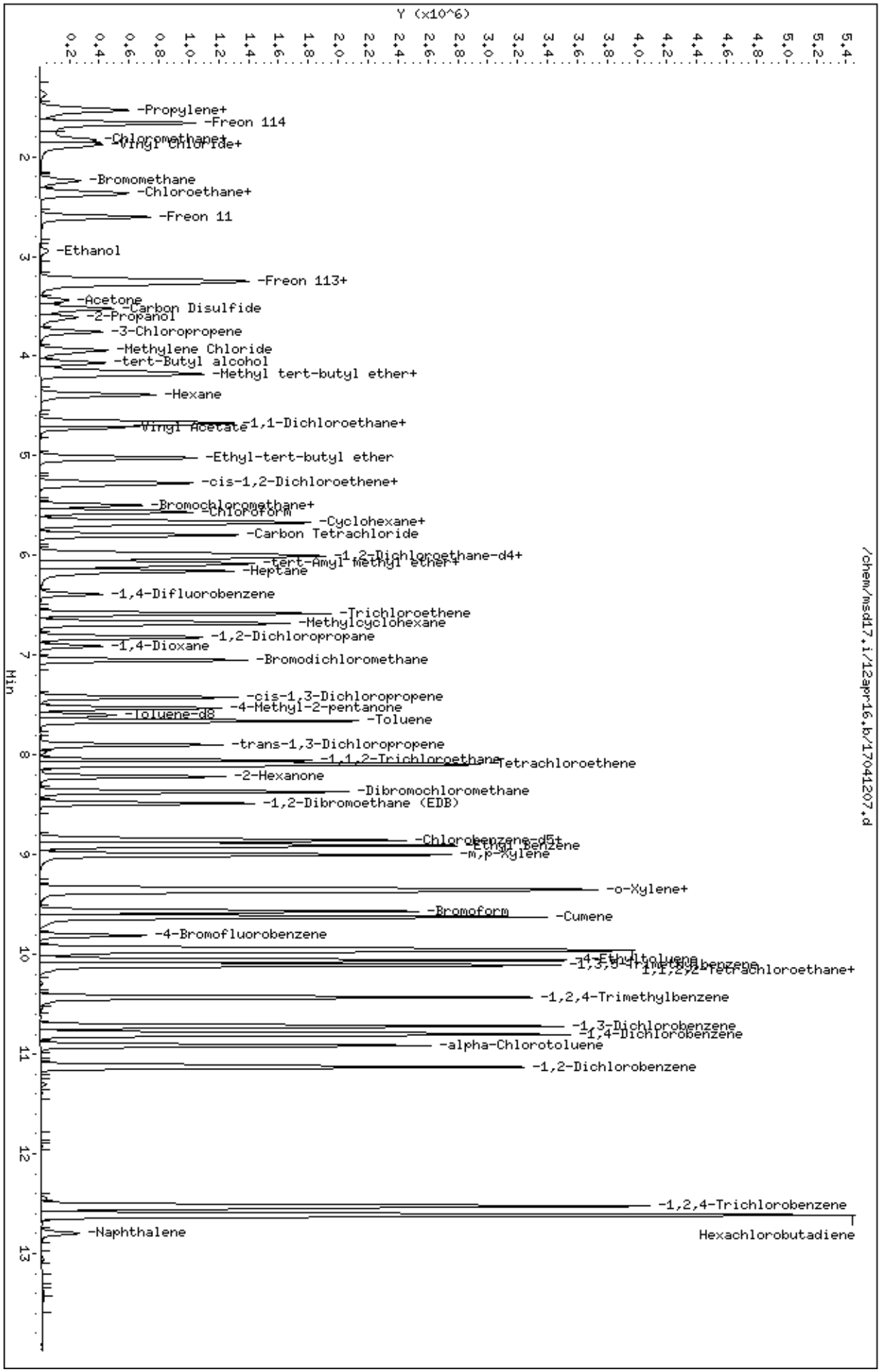
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	103652	62191	145113	102629	-0.99
123 1,4-Difluorobenze	426046	255628	596464	428252	0.52
163 Chlorobenzene-d5	405255	243153	567357	405304	0.01

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.51	0.13
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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.

Data File: /chem/msd17.i/12apr16.b/17041207.d
Date : 12-APR-2016 20:19
Client ID: ICAL
Sample Info: 100ml 2795-276
Column phase: RTX-624

Instrument: msd17.i
Operator: gh
Column diameter: 0.25



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Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/12apr16.b/17041208.d
Lab Smp Id: ICAL LEVEL 8 Client Smp ID: ICAL
Inj Date : 12-APR-2016 20:45
Operator : gh Inst ID: msd17.i
Smp Info : 200ml 2795-276
Misc Info : 200ppbv(200ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/12apr16.b/176q0412a.m
Meth Date : 13-Apr-2016 09:26 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 20:45 Cal File: 17041208.d
Als bottle: 13 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.506	5.506 (1.000)	130	103856	25.0000		80.00- 120.00	100.00
5.506	5.506 (1.000)	128	80630			48.69- 108.69	77.64
5.506	5.506 (1.000)	49	72461			54.63- 114.63	69.77
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.387	6.387 (1.000)	114	428417	25.0000		80.00- 120.00	100.00
6.387	6.387 (1.000)	88	63395			0.00- 45.20	14.80
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	408316	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	203109			20.04- 80.04	49.74
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.037	6.037 (1.096)	65	107725	25.0000	25.114	80.00- 120.00	100.00
6.037	6.037 (1.096)	67	70660			34.58- 94.58	65.59

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	451561	25.0000	25.029	80.00- 120.00	100.00
7.598	7.598 (1.190)	70	42668			0.00- 39.40	9.45
7.605	7.605 (1.191)	100	296793			35.49- 95.49	65.73
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.811	9.811 (1.110)	174	298577	25.0000	24.974	80.00- 120.00	100.00
9.811	9.811 (1.110)	95	301080			71.35- 131.35	100.84
9.811	9.811 (1.110)	176	291758			68.09- 128.09	97.72
9 Propylene					CAS #: 115-07-1		
1.502	1.502 (0.273)	41	399917	200.000	191.59	80.00- 120.00	100.00
1.502	1.502 (0.273)	42	272163			37.85- 97.85	68.05
1.502	1.502 (0.273)	39	276563			37.93- 97.93	69.16
11 Freon 12					CAS #: 75-71-8		
1.538	1.538 (0.279)	85	1827295	200.000	202.63	80.00- 120.00	100.00(A)
1.538	1.538 (0.279)	87	595641			2.58- 62.58	32.60
15 Freon 114					CAS #: 76-14-2		
1.660	1.660 (0.301)	135	1679186	200.000	207.77	80.00- 120.00	100.00(A)
1.660	1.660 (0.301)	137	531363			1.60- 61.60	31.64
17 Chloromethane					CAS #: 74-87-3		
1.739	1.739 (0.316)	50	459035	200.000	173.53	80.00- 120.00	100.00
1.739	1.739 (0.316)	52	144184			2.00- 62.00	31.41
23 Butane					CAS #: 106-97-8		
1.817	1.817 (0.330)	58	130065	200.000	198.47	80.00- 120.00	100.00
1.817	1.817 (0.330)	43	802509			587.84- 647.84	617.01
25 Vinyl Chloride					CAS #: 75-01-4		
1.853	1.853 (0.337)	62	696568	200.000	208.63	80.00- 120.00	100.00(A)
1.853	1.853 (0.337)	64	226775			3.15- 63.15	32.56
26 1,3-Butadiene					CAS #: 106-99-0		
1.882	1.882 (0.342)	54	482349	200.000	203.36	80.00- 120.00	100.00(A)
1.882	1.882 (0.342)	39	413956			51.92- 111.92	85.82
29 Bromomethane					CAS #: 74-83-9		
2.233	2.233 (0.406)	94	704481	200.000	251.40	80.00- 120.00	100.00(A)
2.233	2.233 (0.406)	96	660726			63.57- 123.57	93.79
30 Chloroethane					CAS #: 75-00-3		
2.348	2.348 (0.426)	64	363902	200.000	193.42	80.00- 120.00	100.00
2.348	2.348 (0.426)	66	119928			1.86- 61.86	32.96

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
2.348	2.348 (0.426)	49	78462			0.00- 51.05	21.56
31 Isopentane					CAS #: 78-78-4		
2.369	2.369 (0.430)	43	605995	200.000	191.40	80.00- 120.00	100.00
2.369	2.369 (0.430)	57	511884			52.34- 112.34	84.47
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	1941659	200.000	200.10	80.00- 120.00	100.00(A)
2.598	2.598 (0.472)	103	1274173			35.21- 95.21	65.62
42 Ethanol					CAS #: 64-17-5		
2.949	2.949 (0.536)	45	228019	200.000	192.86	80.00- 120.00	100.00
2.949	2.949 (0.536)	43	41827			0.00- 50.21	18.34
2.949	2.949 (0.536)	46	84857			8.20- 68.20	37.21
49 Freon 113					CAS #: 76-13-1		
3.243	3.243 (0.589)	151	1691150	200.000	196.41	80.00- 120.00	100.00
3.243	3.243 (0.589)	153	1094246			34.59- 94.59	64.70
3.243	3.243 (0.589)	101	1837247			78.63- 138.63	108.64
50 1,1-Dichloroethene					CAS #: 75-35-4		
3.279	3.279 (0.595)	98	560844	200.000	209.63	80.00- 120.00	100.00(A)
3.279	3.279 (0.595)	96	876178			124.95- 184.95	156.22
3.279	3.279 (0.595)	61	1105614			168.97- 228.97	197.13
52 Acetone					CAS #: 67-64-1		
3.436	3.436 (0.624)	58	308868	200.000	187.58	80.00- 120.00	100.00
3.436	3.436 (0.624)	43	757622			226.10- 286.10	245.29
56 Carbon Disulfide					CAS #: 75-15-0		
3.515	3.515 (0.638)	76	2414671	200.000	198.70	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
3.615	3.615 (0.657)	45	950625	200.000	195.62	80.00- 120.00	100.00
3.615	3.615 (0.657)	43	167883			0.00- 48.33	17.66
3.615	3.615 (0.657)	59	44010			0.00- 34.85	4.63
58 3-Chloropropene					CAS #: 107-05-1		
3.759	3.759 (0.683)	76	404777	200.000	203.58	80.00- 120.00	100.00(A)
3.759	3.759 (0.683)	41	719201			151.01- 211.01	177.68
66 Methylene Chloride					CAS #: 75-09-2		
3.945	3.945 (0.716)	49	706311	200.000	197.39	80.00- 120.00	100.00
3.945	3.945 (0.716)	84	780104			81.18- 141.18	110.45
3.945	3.945 (0.716)	51	223294			1.84- 61.84	31.61

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
71 tert-Butyl alcohol					CAS #: 75-65-0		
4.067	4.067 (0.739)	59	1458141	200.000	198.47	80.00- 120.00	100.00
4.067	4.067 (0.739)	41	238386			0.00- 46.25	16.35
4.067	4.067 (0.739)	57	145178			0.00- 40.11	9.96
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
4.153	4.153 (0.754)	73	2244540	200.000	201.29	80.00- 120.00	100.00(A)
4.153	4.153 (0.754)	57	450409			0.00- 50.25	20.07
4.153	4.153 (0.754)	41	333946			0.00- 45.26	14.88
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
4.181	4.181 (0.759)	98	602913	200.000	208.06	80.00- 120.00	100.00(A)
4.181	4.181 (0.759)	61	1076643			152.76- 212.76	178.57
4.181	4.181 (0.759)	96	934931			127.34- 187.34	155.07
78 Hexane					CAS #: 110-54-3		
4.389	4.389 (0.797)	57	1138299	200.000	200.65	80.00- 120.00	100.00(A)
4.389	4.389 (0.797)	43	585534			21.17- 81.17	51.44
4.389	4.389 (0.797)	86	229252			0.00- 49.59	20.14
82 1,1-Dichloroethane					CAS #: 75-34-3		
4.683	4.683 (0.850)	63	1398195	200.000	201.07	80.00- 120.00	100.00(A)
4.683	4.683 (0.850)	65	447974			1.59- 61.59	32.04
83 Isopropyl ether					CAS #: 108-20-3		
4.661	4.661 (0.846)	45	2042134	200.000	195.50	80.00- 120.00	100.00
4.661	4.661 (0.846)	87	824908			9.63- 69.63	40.39
4.661	4.661 (0.846)	59	284496			0.00- 43.69	13.93
86 Vinyl Acetate					CAS #: 108-05-4		
4.718	4.718 (0.857)	86	244893	200.000	209.45	80.00- 120.00	100.00(A)
4.718	4.718 (0.857)	43	1750493			689.25- 749.25	714.80
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
5.019	5.019 (0.912)	59	2427285	200.000	197.66	80.00- 120.00	100.00
5.019	5.019 (0.912)	87	1192749			19.00- 79.00	49.14
5.019	5.019 (0.912)	41	337707			0.00- 44.58	13.91
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
5.263	5.263 (0.956)	98	669886	200.000	212.85	80.00- 120.00	100.00(A)
5.263	5.263 (0.956)	96	1036181			127.08- 187.08	154.68
5.263	5.263 (0.956)	61	1085113			135.30- 195.30	161.98
92 2-Butanone					CAS #: 78-93-3		
5.292	5.292 (0.961)	72	452223	200.000	203.36	80.00- 120.00	100.00(A)
5.292	5.292 (0.961)	43	1240907			251.52- 311.52	274.40

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   92 2-Butanone (continued)
  5.292   5.292 (0.961)    57    122367                     0.00-  57.81    27.06
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                CAS #: 109-99-9
  5.492   5.492 (0.997)    42    698508 200.000   195.17  80.00- 120.00   100.00
  5.492   5.492 (0.997)    71    398256                   26.57-  86.57    57.02
  5.492   5.492 (0.997)    72    422563                   30.33-  90.33    60.50
-------------------------------------------------------------------------------
  100 Chloroform                                     CAS #: 67-66-3
  5.564   5.564 (1.010)    83   1836697 200.000   204.02  80.00- 120.00   100.00(A)
  5.564   5.564 (1.010)    85   1189815                   34.18-  94.18    64.78
-------------------------------------------------------------------------------
  102 Cyclohexane                                    CAS #: 110-82-7
  5.657   5.657 (1.027)    84   1279454 200.000   202.04  80.00- 120.00   100.00(A)
  5.657   5.657 (1.027)    56   1242619                   67.82- 127.82    97.12
  5.657   5.657 (1.027)    41    524393                   12.04-  72.04    40.99
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                          CAS #: 71-55-6
  5.678   5.678 (1.031)    97   1913621 200.000   199.61  80.00- 120.00   100.00
  5.678   5.678 (1.031)    99   1236400                   34.84-  94.84    64.61
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                           CAS #: 56-23-5
  5.793   5.793 (1.052)   119   2036077 200.000   203.75  80.00- 120.00   100.00(A)
  5.793   5.793 (1.052)   117   2101370                   73.08- 133.08   103.21
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                         CAS #: 540-84-1
  5.986   5.986 (1.087)    57   3999470 200.000   205.85  80.00- 120.00   100.00(A)
  5.986   5.986 (1.087)    56   1212713                    2.25-  62.25    30.32
  5.986   5.986 (1.087)    41    755982                    0.00-  49.06    18.90
-------------------------------------------------------------------------------
  116 Benzene                                        CAS #: 71-43-2
  6.015   6.015 (0.942)    78   2873085 200.000   200.86  80.00- 120.00   100.00(A)
  6.015   6.015 (0.942)    77    677751                    0.00-  53.87    23.59
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                         CAS #: 994-05-8
  6.079   6.079 (1.104)    87    706607 200.000   206.36  80.00- 120.00   100.00(A)
  6.079   6.079 (1.104)    73   2788587                  370.90- 430.90   394.64
  6.079   6.079 (1.104)    55    587526                   58.01- 118.01    83.15
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                             CAS #: 107-06-2
  6.108   6.108 (0.956)    62   1029629 200.000   200.01  80.00- 120.00   100.00(A)
  6.108   6.108 (0.956)    64    340559                    3.62-  63.62    33.08
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
  6.158   6.158 (0.964)    71   1023414 200.000   204.08  80.00- 120.00   100.00(A)
  6.158   6.158 (0.964)    43   1271505                   96.69- 156.69   124.24
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
121 Heptane (continued)							
6.158	6.158 (0.964)	57	856268			58.40- 118.40	83.67
125 Trichloroethene					CAS #: 79-01-6		
6.581	6.581 (1.030)	95	1439748	200.000	205.92	80.00- 120.00	100.00(A)
6.581	6.581 (1.030)	130	1645257			84.60- 144.60	114.27
6.581	6.581 (1.030)	97	931611			34.77- 94.77	64.71
127 Methylcyclohexane					CAS #: 108-87-2		
6.681	6.681 (1.213)	83	1876321	200.000	201.46	80.00- 120.00	100.00(A)
6.681	6.681 (1.213)	98	896435			16.97- 76.97	47.78
6.674	6.674 (1.212)	55	1215694			33.99- 93.99	64.79
132 1,2-Dichloropropane					CAS #: 78-87-5		
6.817	6.817 (1.067)	63	1021351	200.000	201.88	80.00- 120.00	100.00(A)
6.817	6.817 (1.067)	62	705636			38.70- 98.70	69.09
6.817	6.817 (1.067)	41	382033			8.21- 68.21	37.40
136 1,4-Dioxane					CAS #: 123-91-1		
6.910	6.910 (1.082)	88	738400	200.000	200.35	80.00- 120.00	100.00(A)
6.910	6.910 (1.082)	58	429820			27.44- 87.44	58.21
6.910	6.910 (1.082)	57	133355			0.00- 47.84	18.06
138 Bromodichloromethane					CAS #: 75-27-4		
7.046	7.046 (1.103)	83	2110184	200.000	202.52	80.00- 120.00	100.00(A)
7.046	7.046 (1.103)	85	1367449			34.54- 94.54	64.80
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
7.426	7.426 (1.163)	75	1901251	200.000	208.97	80.00- 120.00	100.00(A)
7.426	7.426 (1.163)	77	609625			2.23- 62.23	32.06
7.419	7.419 (1.161)	39	601514			1.93- 61.93	31.64
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.526	7.526 (1.178)	58	816637	200.000	209.65	80.00- 120.00	100.00(A)
7.526	7.526 (1.178)	43	1682938			175.29- 235.29	206.08
7.534	7.534 (1.179)	85	441230			22.79- 82.79	54.03
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	3988908	200.000	201.56	80.00- 120.00	100.00(A)
7.655	7.655 (1.198)	92	2334455			28.86- 88.86	58.52
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.899	7.899 (0.894)	75	1669683	200.000	208.19	80.00- 120.00	100.00(A)
7.899	7.899 (0.894)	77	538252			2.74- 62.74	32.24
7.899	7.899 (0.894)	39	520445			1.87- 61.87	31.17

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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
  8.056   8.056 (0.912)    97   1399147 200.000   202.48  80.00- 120.00   100.00(A)
  8.056   8.056 (0.912)    99    875781                   31.91-  91.91    62.59
  8.056   8.056 (0.912)    83   1180913                   54.42- 114.42    84.40
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
  8.092   8.092 (0.916)   166   2293894 200.000   201.82  80.00- 120.00   100.00(A)
  8.092   8.092 (0.916)   129   1567291                   38.60-  98.60    68.32
  8.092   8.092 (0.916)   131   1528664                   36.89-  96.89    66.64
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
  8.221   8.221 (0.930)    58   1124876 200.000   203.29  80.00- 120.00   100.00(A)
  8.221   8.221 (0.930)    43   1662260                  121.26- 181.26   147.77
  8.221   8.221 (0.930)   100    301392                    0.00-  55.92    26.79
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
  8.372   8.372 (0.947)   129   2743789 200.000   210.50  80.00- 120.00   100.00(A)
  8.372   8.372 (0.947)   127   2108713                   46.88- 106.88    76.85
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
  8.486   8.486 (0.960)   107   2291201 200.000   205.57  80.00- 120.00   100.00(A)
  8.486   8.486 (0.960)   109   2154531                   65.10- 125.10    94.04
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
  8.859   8.859 (1.002)   112   3487673 200.000   198.80  80.00- 120.00   100.00
  8.859   8.859 (1.002)   114   1115033                    1.88-  61.88    31.97
  8.859   8.859 (1.002)    77   1790704                   22.25-  82.25    51.34
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
  8.909   8.909 (1.008)   106   1768757 200.000   201.96  80.00- 120.00   100.00(A)
  8.902   8.902 (1.007)    91   5280794                  268.56- 328.56   298.56
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
  9.002   9.002 (1.019)   106   2228357 200.000   201.37  80.00- 120.00   100.00(A)
  9.002   9.002 (1.019)    91   4245170                  159.69- 219.69   190.51
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
  9.346   9.346 (1.058)   106   2069636 200.000   199.60  80.00- 120.00   100.00
  9.346   9.346 (1.058)    91   4149014                  168.78- 228.78   200.47
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
  9.367   9.367 (1.060)   104   3506289 200.000   209.95  80.00- 120.00   100.00(A)
  9.360   9.360 (1.059)    78   1529218                   13.63-  73.63    43.61
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
  9.568   9.568 (1.083)   173   3092686 200.000   211.12  80.00- 120.00   100.00(A)
```

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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  174 Bromoform (continued)
  9.568   9.568 (1.083)   171   1582434                    21.51-  81.51    51.17
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
  9.625   9.625 (1.089)   105   6370671 200.000   201.90  80.00- 120.00   100.00(A)
  9.625   9.625 (1.089)   120   1775421                     0.00-  57.69    27.87
  9.625   9.625 (1.089)    51    412816                     0.00-  36.59     6.48
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
  9.940   9.940 (1.125)    83   2989653 200.000   197.16  80.00- 120.00   100.00
  9.940   9.940 (1.125)    85   1934870                    34.20-  94.20    64.72
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
  9.969   9.969 (1.128)    91   7206928 200.000   199.52  80.00- 120.00   100.00
  9.969   9.969 (1.128)   120   1837910                     0.00-  55.61    25.50
  9.969   9.969 (1.128)   105    274207                     0.00-  33.98     3.80
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 10.062  10.062 (1.139)   120   2027399 200.000   199.74  80.00- 120.00   100.00
 10.062  10.062 (1.139)   105   6310234                   279.77- 339.77   311.25
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 10.112  10.112 (1.144)   120   2912622 200.000   207.82  80.00- 120.00   100.00(A)
 10.112  10.112 (1.144)   105   5832357                   170.95- 230.95   200.24
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 10.435  10.435 (1.181)   120   2532624 200.000   203.00  80.00- 120.00   100.00(A)
 10.435  10.435 (1.181)   105   5254627                   178.76- 238.76   207.48
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 10.721  10.721 (1.213)   146   4164626 200.000   198.93  80.00- 120.00   100.00
 10.721  10.721 (1.213)   148   2649512                    33.80-  93.80    63.62
 10.721  10.721 (1.213)   111   1525922                     7.11-  67.11    36.64
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 10.800  10.800 (1.222)   146   4158232 200.000   199.35  80.00- 120.00   100.00
 10.800  10.800 (1.222)   148   2657236                    33.65-  93.65    63.90
 10.800  10.800 (1.222)   111   1491702                     5.53-  65.53    35.87
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 10.915  10.915 (1.235)    91   5052535 200.000   208.71  80.00- 120.00   100.00(A)
 10.915  10.915 (1.235)   126   1216031                     0.00-  53.94    24.07
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 11.129  11.129 (1.259)   146   3947422 200.000   197.80  80.00- 120.00   100.00
 11.129  11.129 (1.259)   148   2511607                    33.47-  93.47    63.63
```

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  214 1,2-Dichlorobenzene (continued)
 11.129  11.129 (1.259)   111   1512908                     7.89-  67.89    38.33
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 12.526  12.526 (1.417)   180   4164548 200.000   212.52  80.00- 120.00   100.00(A)
 12.526  12.526 (1.417)   182   3988087                   67.03- 127.03    95.76
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                           CAS #: 87-68-3
 12.612  12.612 (1.427)   225   3495703 200.000   207.24  80.00- 120.00   100.00(A)
 12.612  12.612 (1.427)   223   2200882                   32.58-  92.58    62.96
-------------------------------------------------------------------------------
  228 Naphthalene                                   CAS #: 91-20-3
 12.798  12.798 (1.448)   128    645904 20.0000   20.951  80.00- 120.00   100.00(A)
 12.798  12.798 (1.448)   127     83632                     0.00-  42.95    12.95
-------------------------------------------------------------------------------
```

QC Flag Legend

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

Report Date: 13-Apr-2016 09:26

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17041208.d
Lab Smp Id: ICAL LEVEL 8
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msd17.i/12apr16.b/176q0412a.m
Misc Info: 200ppbv(200ppbv)

Calibration Date: 12-APR-2016
Calibration Time: 19:52
Client Smp ID: ICAL
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	103652	62191	145113	103856	0.20
123 1,4-Difluorobenze	426046	255628	596464	428417	0.56
163 Chlorobenzene-d5	405255	243153	567357	408316	0.76

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.51	0.13
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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.

Data File: /chem/msd17.i/12apr16.b/17041208.d

Date : 12-APR-2016 20:45

Client ID: ICAL

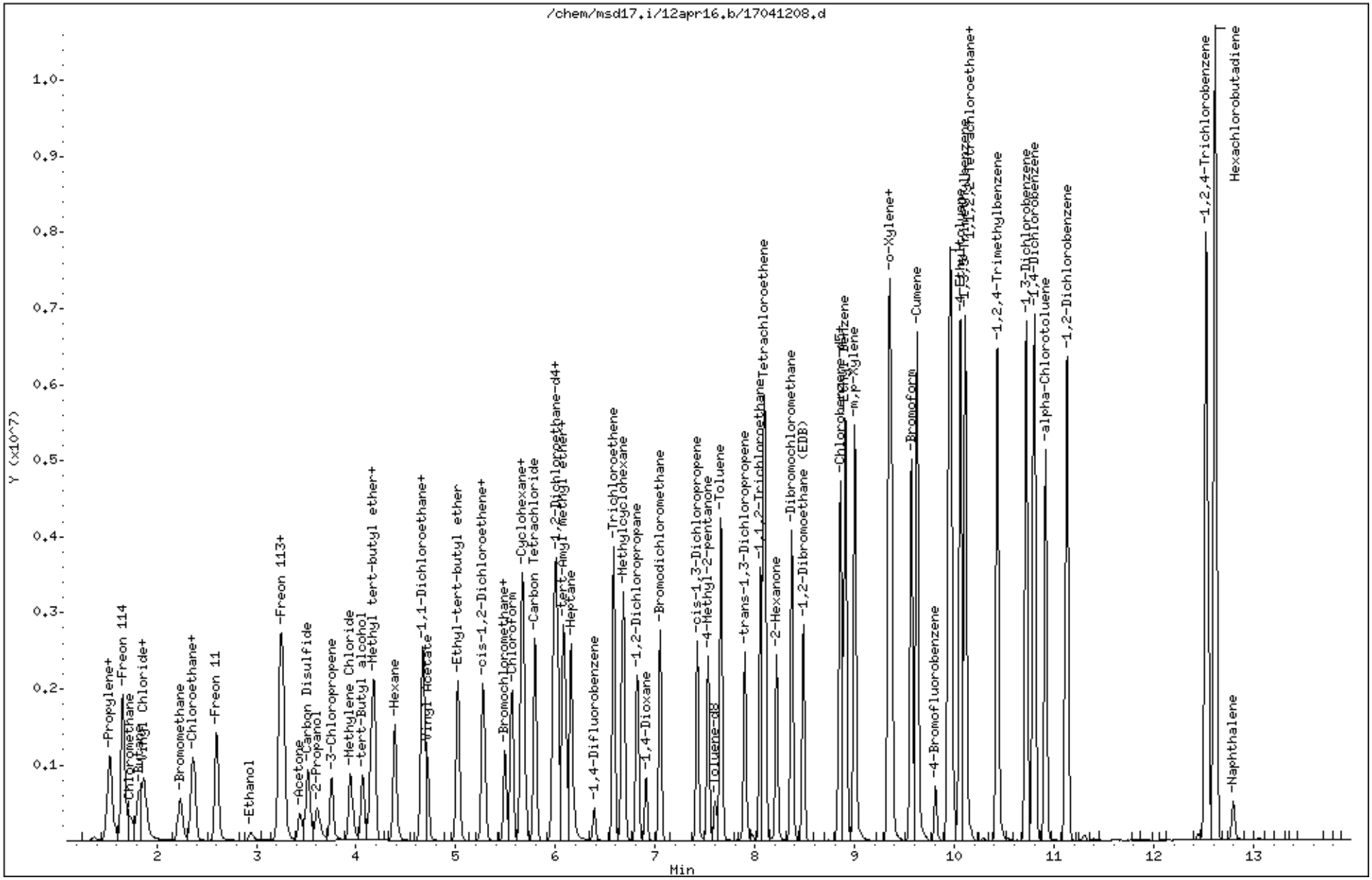
Sample Info: 200ml 2795-276

Column phase: RTX-624

Instrument: msd17.i

Operator: gh

Column diameter: 0.25



Report Date : 08-Mar-2016 18:00

MSD-17 Page 1

MDL 3/8/15
0.5 ppbv RL
2759-288A (2.5 ppbv) = 40mL

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

MDL Verification
0.2 ppbv (1.0 ppbv)
40mL of
2759-300
File 17031009

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07
FILENAME:	17030806	17030807	17030809	17030810	17030811	17030812	17030813
INJ.DATE:	08-MAR-2016	08-MAR-2016	08-MAR-2016	08-MAR-2016	08-MAR-2016	08-MAR-2016	08-MAR-2016
INJ.TIME:	13:59	14:24	15:17	15:42	16:07	16:33	16:58

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL	RL (ppbv)
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	466.61	471.02	497.48	460.72	468.87	458.82	481.03	472.08	13.36	42.00	500
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	471.52	519.47	512.07	523.24	497.29	466.12	479.91	495.66	23.46	73.74	500
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Reviewer 1 _____ Date: 3/10/16
Reviewer 2 _____ Date: 3/11/16

All compounds → Ratio of mean recovered concentration and MDL value is between 1 and 20.

$\bar{X}$ = 0.0853 ppbv
= 85.3 pptv

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL	RL (ppbv)
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	395.12	388.09	398.42	406.32	413.37	374.03	385.94	394.47	13.20	41.48	500
26 1,3-Butadiene	391.12	334.89	381.02	425.07	408.68	341.24	351.72	376.25	34.68	109.00	
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	461.33	498.41	513.15	488.79	550.51	490.97	523.54	503.81	28.52	89.65	500
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL	RL(ppbv)
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	520.51	560.49	551.50	537.60	593.34	488.15	519.77	538.77	33.84	106.36	500
50 1,1-Dichloroethene	441.06	441.82	404.54	452.14	434.93	477.75	375.27	432.50	33.31	104.68	500
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
57 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
58 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL	RL (ppb)
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
72 Methyl tert-butyl ethe	482.94	469.21	488.40	454.27	473.29	449.28	457.05	467.78	14.87	46.75	500
73 trans-1,2-Dichloroethe	430.92	500.92	424.07	403.45	485.69	377.84	451.65	439.22	43.72	137.40	↓
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	518.35	476.80	496.86	526.34	492.23	463.21	450.96	489.25	27.65	86.92	500
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	461.55	403.95	458.96	445.16	458.80	458.34	454.89	448.81	20.49	64.40	500
83 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

	Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL	RL (ppbv)
	87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	88 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	91 cis-1,2-Dichloroethene	465.90	476.71	476.28	447.28	476.15	444.92	444.71	461.71	15.51	48.74	500
	92 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
*	98 Bromochloromethane	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00	
	99 Tetrahydrofuran	454.13	469.18	426.99	419.66	457.43	385.84	526.13	448.34	44.41	139.57	500
	100 Chloroform	477.66	473.20	444.27	458.23	496.55	456.46	457.64	466.29	17.39	54.65	↓
	101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	102 Cyclohexane	420.94	459.89	427.48	426.72	489.23	434.29	425.81	440.62	24.99	78.55	500
	103 1,1,1-Trichloroethane	500.04	512.61	508.97	484.63	520.28	496.38	487.60	501.50	13.15	41.34	↓
	104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	106 Carbon Tetrachloride	494.19	540.26	535.62	504.42	544.55	511.56	523.01	521.94	19.23	60.45	500
	107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
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Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL	RL (ppb)
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	459.22	425.93	437.28	443.90	464.19	444.55	443.51	445.51	12.88	40.48	500
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	492.48	485.71	475.41	505.05	527.70	493.84	514.69	499.27	17.83	56.05	500
$ 117 1,2-Dichloroethane-d4	21994.91	22562.04	22213.68	22135.47	22579.22	22184.42	22975.38	22377.88	341.88	1074.52	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
120 1,2-Dichloroethane	471.48	456.28	478.95	487.54	478.88	451.57	462.68	469.63	13.23	41.57	500
121 Heptane	453.78	467.58	420.54	450.03	483.19	456.11	455.97	455.31	19.03	59.74	↓
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 1,4-Difluorobenzene	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	479.18	510.17	467.82	485.92	524.56	510.55	537.29	502.21	25.30	79.53	500
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	454.02	459.13	478.54	474.76	511.64	451.18	465.66	470.70	20.71	65.08	500
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 3-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	464.73	524.47	479.77	506.05	531.92	484.61	415.88	486.77	39.57	124.38	500
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
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Method File: /chem/msd17.i/08mar16.b/176q0202a.m
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Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL	RL (ppbv)
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
136 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
138 Bromodichloromethane	494.00	455.64	468.25	458.40	495.17	473.72	494.83	477.14	17.45	54.84	500
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
144 cis-1,3-Dichloropropen	473.73	509.60	445.20	435.06	460.22	404.52	431.72	451.44	33.80	106.23	500
145 4-Methyl-2-pentanone	403.83	401.84	414.98	393.95	444.95	386.22	489.81	419.37	36.35	114.26	↓
$ 146 Toluene-d8	25101.93	24759.43	25028.23	24887.80	25373.45	24977.70	24897.72	25004.61	198.51	623.92	
147 Toluene	483.32	488.40	504.07	483.00	517.37	484.26	488.28	492.67	13.10	41.17	500
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
150 trans-1,3-Dichloroprop	463.18	466.66	420.22	442.68	482.91	450.12	452.42	454.03	19.86	62.43	500
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 1,1,2-Trichloroethane	467.98	491.42	476.76	443.48	534.95	469.75	508.94	484.76	30.06	94.49	500
156 Tetrachloroethene	546.47	582.76	568.15	607.29	675.09	572.88	613.17	595.12	42.05	132.17	↓
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
158 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL	RL (µg/m³)
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
160 Dibromochloromethane	477.67	460.31	505.23	486.49	555.67	475.08	506.94	495.34	31.36	98.56	500 ↓
161 1,2-Dibromoethane (EDB	476.44	437.63	470.79	484.73	512.39	493.54	497.82	481.91	23.94	75.25	
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 163 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00	
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
165 Chlorobenzene	501.23	521.72	478.50	472.89	562.88	470.82	501.89	501.42	32.83	103.17	500
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
167 Ethyl Benzene	471.82	485.85	422.76	445.22	539.86	454.87	491.34	467.39	37.66	118.37	500
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
169 m,p-Xylene	425.16	440.30	463.17	450.42	493.54	460.54	466.69	457.12	21.66	68.08	500
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
171 o-Xylene	449.47	445.89	473.85	454.46	513.83	457.70	446.80	463.14	24.29	76.35	500 ↓
172 Styrene	375.36	369.33	367.95	382.33	437.16	373.70	355.84	380.24	26.38	82.92	
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
174 Bromoform	472.03	530.56	514.92	504.34	588.25	495.54	490.35	513.71	37.73	118.60	500 ↓
175 Cumene	427.64	451.17	456.58	444.55	516.73	448.91	451.56	456.74	28.03	88.09	
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 177 4-Bromofluorobenzene	27289.65	27233.50	27670.91	27428.51	27715.74	27565.44	27738.02	27520.25	205.83	646.92	
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
181 1,1,2,2-Tetrachloroeth	408.40	436.59	421.30	423.97	493.18	435.64	437.25	436.62	27.05	85.03	500 ↓
182 Propylbenzene	466.99	474.33	451.66	491.83	547.62	505.03	487.94	489.34	31.08	97.68	

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Method File: /chem/msd17.i/08mar16.b/176q0202a.m
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Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL	RL (ppbv)
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
188 4-Ethyltoluene	498.37	518.77	501.98	509.90	560.43	514.64	530.00	519.15	21.03	66.10	500
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
190 1,3,5-Trimethylbenzene	446.66	450.03	461.34	476.10	506.46	446.90	456.09	463.37	21.62	67.95	500
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
196 1,2,4-Trimethylbenzene	511.29	524.59	462.43	475.11	562.16	478.23	489.06	500.41	34.69	109.03	500
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL	RL (ppb)
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
208 1,3-Dichlorobenzene	495.89	525.72	505.53	486.49	638.93	519.43	547.07	531.29	51.53	161.95	500 ↓
209 1,4-Dichlorobenzene	493.66	499.65	491.58	492.43	592.87	501.55	496.94	509.81	36.81	115.70	
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
212 alpha-Chlorotoluene	419.19	419.44	417.89	426.29	480.87	419.50	439.68	431.83	22.94	72.11	500
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
214 1,2-Dichlorobenzene	473.86	513.21	496.00	503.67	643.97	519.33	503.05	521.87	55.75	175.22	500
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
226 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
227 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
228 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 1,2-Dichloroethene (To	896.83	977.63	900.36	850.74	961.84	822.75	896.35	900.93	55.17	173.40
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 239 Total Xylene	874.63	886.19	937.02	904.88	1007.37	918.24	913.49	920.26	43.59	136.99
M 240 3 and 4-Ethyltoluene	498.37	528.77	501.98	509.90	560.43	514.64	530.00	519.15	21.03	66.10
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TPH reference MineralS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

NA

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Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10 C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Report Date : 09-Mar-2016 14:18

MSD-17
MDL 3/8/15
2.0 ppbv RL
2759-187 (5.0 ppbv) = 80mL

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Inst ID: msd17.i

MDL Verification
1.0 ppbv
cs 3/10/16 ~~0.2 ppbv~~ (1.0 ppbv)
cs 3/10/16 ~~40mL~~ 200mL of
2759-300
File ~~17031009~~ cs 3/10/16
17031010

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	17030823	17030824	17030825	17030826	17030827	17030828	17030829	17030830
INJ.DATE:	08-MAR-2016	08-MAR-2016	08-MAR-2016	08-MAR-2016	08-MAR-2016	08-MAR-2016	09-MAR-2016	09-MAR-2016
INJ.TIME:	21:48	22:14	22:40	23:07	23:33	23:59	00:25	00:51

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL (ppbv)
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	2081.55	2161.75	2174.36	2142.51	1983.46	2210.27	2030.06	2055.32	2104.91	79.21	237.48	2000
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	1511.92	1644.08	1669.48	1642.82	1584.55	1603.74	1646.12	1616.76	1614.94	49.63	148.78	5000

Reviewer 1 [signature] Date: 3/10/16
Reviewer 2 [signature] Date: 3/11/16

$\overline{X}$ = 0.262 ppbv
= 262 pptv

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL (ppbv)
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	1512.50	1401.61	1336.95	1479.20	1270.74	1560.15	1472.77	1672.16	1463.26	126.84	380.26	2000
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
26 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	2146.74	2151.48	2131.65	2324.07	2118.35	2355.32	2173.80	2211.19	2201.58	90.11	270.15	5000
30 Chloroethane	1810.99	1731.67	1845.60	1893.97	1818.37	1867.14	1696.44	1785.43	1806.20	66.73	200.06	2000
31 Isopentane	1843.67	1868.08	1838.51	1818.25	1949.54	1946.19	1861.81	1800.04	1865.76	55.18	165.44	1
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL (ppbv)
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	1436.73	1732.17	1597.97	1416.92	1570.56	1575.35	1521.04	1446.07	1537.10	105.15	315.25	2000
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
50 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	2979.98	3043.20	2941.72	3107.92	3020.76	2892.16	3150.48	2967.02	3012.91	86.00	257.82	5000
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	1965.33	1927.71	1909.64	1977.59	1917.01	1940.44	1950.05	1968.32	1944.51	25.06	75.13	2000
57 2-Propanol	1290.97	1157.57	1196.48	1287.28	1274.62	1353.04	1309.93	1268.10	1267.25	62.38	187.01	2000
58 3-Chloropropene	1869.69	1826.51	1749.16	1777.11	1743.60	1846.31	1651.75	1851.02	1790.14	72.85	218.42	↓
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL (ppbv)
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	1866.63	1813.40	1922.15	1811.86	1780.53	1846.22	1763.80	1859.34	1832.99	51.16	153.37	5000
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	1770.90	1759.14	1762.08	1783.51	1760.89	1857.11	1738.08	1896.26	1791.00	55.38	166.03	2000
72 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
73 trans-1,2-Dichloroethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1 Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
83 Isopropyl ether	1604.73	1586.19	1645.49	1626.74	1550.43	1597.27	1564.23	1616.37	1598.93	31.63	94.81	2000
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	1680.93	1608.02	1768.67	1634.36	1675.21	1568.56	1336.58	1556.67	1603.63	127.64	382.68	2000

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87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	1680.92	1740.92	1746.46	1700.55	1726.60	1757.80	1657.26	1663.22	1709.21	39.18	117.46	2000
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
92 2-Butanone	1736.67	1600.35	1782.38	1719.08	1616.40	1826.20	1740.36	1830.99	1731.55	86.32	258.80	2000
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00	
99 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
100 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
103 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 117 1,2-Dichloroethane-d4	22662.19	22713.29	22589.92	22990.00	22456.80	23102.35	22399.87	22331.85	22655.78	274.86	824.02	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	1837.43	1793.20	1962.21	1826.36	1863.49	1912.86	1712.59	1964.12	1859.03	86.12	258.20	2000
120 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
121 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 1,4-Difluorobenzene	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL(ppb)
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
136 1,4-Dioxane	1086.86	1170.57	1169.23	1139.33	1137.78	1097.86	1148.73	1056.69	1125.88	41.09	123.17	2000
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
138 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
144 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
145 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 146 Toluene-d8	25140.25	25186.36	24907.24	24563.37	24871.40	24888.60	25024.75	25278.96	24982.62	226.34	678.58	
147 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
150 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
156 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
158 2-Hexanone	1018.56	1020.63	984.35	1059.83	999.00	1032.25	999.04	1055.14	1021.10	27.03	81.04	2000

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
159 Butyl Acetate	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
160 Dibromochloromethane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
161 1,2-Dibromoethane (EDB	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
162 1-Nonene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
* 163 Chlorobenzene-d5	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	25000.00	0.00	0.00
164 1-Chlorohexane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
165 Chlorobenzene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
166 Butyl Ether	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
167 Ethyl Benzene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
168 1,1,1,2-Tetrachloroeth	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
169 m,p-Xylene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
170 Nonane	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
171 o-Xylene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
172 Styrene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
173 2-Heptanone	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
174 Bromoform	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
175 Cumene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
176 Cyclohexanone	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
$ 177 4-Bromofluorobenzene	27015.72	28209.24	27763.86	27959.47	27616.19	27334.59	27591.46	27393.35	27622.99	375.34	1125.27
178 1-Decene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
179 alpha-Pinene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
180 Bromobenzene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
181 1,1,2,2-Tetrachloroeth	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
182 Propylbenzene	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
188 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
190 1,3,5-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
196 1,2,4-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL (ppbv)
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
208 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
209 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
212 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
214 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
226 1,2,4-Trichlorobenzene	1802.28	2480.65	2539.39	2608.24	2536.39	2526.40	2549.38	2532.17	2446.86	262.78	787.81	2000
227 Hexachlorobutadiene	1911.02	2544.16	2688.27	2775.81	2762.57	2766.92	2767.67	2708.49	2615.61	294.89	884.09	↓
228 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 1,2-Dichloroethene (To	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 239 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
245 TPH reference MineralS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/08mar16.b/176q0202a.m
Batch File: /chem/msd17.i/08mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref He	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref D	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
265 C10-C12 Aliphatic ref	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naph	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Report Date : 09-Mar-2016 16:35

MSD-17
MDL 3/9/15
Naphthalene only
1.0 ppbv RL
2759-213A (10 ppbv Naph) = 20mL

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/09mar16.b/176q0202a.m
Batch File: /chem/msd17.i/09mar16.b
Inst ID: msd17.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	17030907	17030908	17030909	17030910	17030911	17030912	17030913	17030914
INJ.DATE:	09-MAR-2016	09-MAR-2016	09-MAR-2016	09-MAR-2016	09-MAR-2016	09-MAR-2016	09-MAR-2016	09-MAR-2016
INJ.TIME:	12:37	13:01	13:24	13:48	14:11	14:34	14:58	15:22

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

MDL Verification
~~1.0~~ 0.3 ppbv (0.5 ppbv)
CB 3/10/16
120mL of
2759-187
File 17031011

Reviewer 1 [signature] Date: 3/10/16
Reviewer 2 [signature] Date: 3/11/16

$\bar{X}$ = 129.8 ppbv
= 0.1298 ppbv

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd17.i/09mar16.b/176q0202a.m
Batch File: /chem/msd17.i/09mar16.b
Inst ID: msd17.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL (ppbv)
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
208 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
209 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
212 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
214 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
226 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
227 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
228 Naphthalene	1002.68	1025.19	1084.09	1061.48	1120.54	1111.12	1113.88	1093.91	1076.49	43.31	129.85	1000
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Client Sample ID: CCV

Lab ID#: 1606298B-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/16/16 02:10 PM**	

Compound	%Recovery
Freon 12	84
Freon 114	87
Chloromethane	69 Q
Vinyl Chloride	77
1,3-Butadiene	72
Bromomethane	102
Chloroethane	72
Freon 11	86
Ethanol	60 Q
Freon 113	88
1,1-Dichloroethene	86
Acetone	74
2-Propanol	74
Carbon Disulfide	78
3-Chloropropene	77
Methylene Chloride	73
Methyl tert-butyl ether	81
trans-1,2-Dichloroethene	87
Hexane	76
1,1-Dichloroethane	80
2-Butanone (Methyl Ethyl Ketone)	82
cis-1,2-Dichloroethene	92
Tetrahydrofuran	72
Chloroform	88
1,1,1-Trichloroethane	87
Cyclohexane	86
Carbon Tetrachloride	90
2,2,4-Trimethylpentane	81
Benzene	88
1,2-Dichloroethane	88
Heptane	88
Trichloroethene	89
1,2-Dichloropropane	87
1,4-Dioxane	90
Bromodichloromethane	91
cis-1,3-Dichloropropene	90
4-Methyl-2-pentanone	88
Toluene	93
trans-1,3-Dichloropropene	87
1,1,2-Trichloroethane	93
Tetrachloroethene	95
2-Hexanone	82

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Client Sample ID: CCV

Lab ID#: 1606298B-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/16/16 02:10 PM**	

Compound	**%Recovery**
Dibromochloromethane	95
1,2-Dibromoethane (EDB)	94
Chlorobenzene	92
Ethyl Benzene	92
m,p-Xylene	92
o-Xylene	91
Styrene	95
Bromoform	99
Cumene	93
1,1,2,2-Tetrachloroethane	98
Propylbenzene	94
4-Ethyltoluene	94
1,3,5-Trimethylbenzene	96
1,2,4-Trimethylbenzene	95
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	96
1,2-Dichlorobenzene	97
1,2,4-Trichlorobenzene	90
Hexachlorobutadiene	90
Naphthalene	114

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	104	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd17.i Injection Date: 16-JUN-2016 14:10
Lab File ID: 17061602.d Init. Cal. Date(s): 12-APR-2016 12-APR-2016
Analysis Type: AIR Init. Cal. Times: 18:11 20:45
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd17.i/16jun16.b/176q0412a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	%D / %DRIFT	MAX	CURVE TYPE	
$ 117 1,2-Dichloroethane-d4	1.03253	0.97064	0.010	5.99385	30.00000		Averaged	
$ 146 Toluene-d8	1.05281	1.06351	0.010	-1.01630	30.00000		Averaged	
$ 177 4-Bromofluorobenzene	0.73201	0.75900	0.010	-3.68713	30.00000		Averaged	
9 Propylene	0.50247	0.33549	0.010	33.23189	40.00000		Averaged	
11 Freon 12	2.17072	1.83465	0.010	15.48206	30.00000		Averaged	
15 Freon 114	1.94549	1.69784	0.010	12.72935	30.00000		Averaged	
17 Chloromethane	0.63678	0.43800	0.010	31.21620	30.00000		Averaged	<-
23 Butane	0.15775	0.11183	0.010	29.10754	40.00000		Averaged	
25 Vinyl Chloride	0.80372	0.62014	0.010	22.84055	30.00000		Averaged	
26 1,3-Butadiene	0.57097	0.40990	0.010	28.21008	30.00000		Averaged	
29 Bromomethane	0.67453	0.68701	0.010	-1.84936	30.00000		Averaged	
30 Chloroethane	0.45290	0.32468	0.010	28.31127	30.00000		Averaged	
31 Isopentane	0.76213	0.51133	0.010	32.90865	40.00000		Averaged	
35 Freon 11	2.33583	2.00445	0.010	14.18710	30.00000		Averaged	
42 Ethanol	0.28460	0.17056	0.010	40.07036	30.00000		Averaged	<-
49 Freon 113	2.07269	1.81908	0.010	12.23553	30.00000		Averaged	
50 1,1-Dichloroethene	0.64402	0.55461	0.010	13.88319	30.00000		Averaged	
52 Acetone	0.39635	0.29447	0.010	25.70432	30.00000		Averaged	
56 Carbon Disulfide	2.92524	2.29617	0.010	21.50475	30.00000		Averaged	
57 2-Propanol	1.16976	0.86125	0.010	26.37367	30.00000		Averaged	
58 3-Chloropropene	0.47862	0.36927	0.010	22.84585	30.00000		Averaged	
66 Methylene Chloride	0.86137	0.63044	0.010	26.80964	30.00000		Averaged	
71 tert-Butyl alcohol	1.76855	1.34146	0.010	24.14947	40.00000		Averaged	
72 Methyl tert-butyl ether	2.68415	2.17717	0.010	18.88789	30.00000		Averaged	
73 trans-1,2-Dichloroethene	0.69755	0.60566	0.010	13.17290	30.00000		Averaged	
78 Hexane	1.36562	1.04541	0.010	23.44839	30.00000		Averaged	
82 1,1-Dichloroethane	1.67386	1.33996	0.010	19.94818	30.00000		Averaged	
83 Isopropyl ether	2.51443	1.84364	0.010	26.67783	40.00000		Averaged	
86 Vinyl Acetate	0.28146	0.24143	0.010	14.21946	30.00000		Averaged	
88 Ethyl-tert-butyl ether	2.95596	2.29521	0.010	22.35318	40.00000		Averaged	
91 cis-1,2-Dichloroethene	0.75760	0.69968	0.010	7.64562	30.00000		Averaged	
92 2-Butanone	0.53529	0.43978	0.010	17.84352	30.00000		Averaged	
99 Tetrahydrofuran	0.86154	0.62056	0.010	27.97043	30.00000		Averaged	
100 Chloroform	2.16706	1.90578	0.010	12.05693	30.00000		Averaged	
102 Cyclohexane	1.52436	1.31279	0.010	13.87959	30.00000		Averaged	
103 1,1,1-Trichloroethane	2.30772	2.01903	0.010	12.50968	30.00000		Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd17.i Injection Date: 16-JUN-2016 14:10
Lab File ID: 17061602.d Init. Cal. Date(s): 12-APR-2016 12-APR-2016
Analysis Type: AIR Init. Cal. Times: 18:11 20:45
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd17.i/16jun16.b/176q0412a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
106 Carbon Tetrachloride	2.40548	2.17628	0.010	9.52846	30.00000	Averaged
113 2,2,4-Trimethylpentane	4.67689	3.77805	0.010	19.21876	30.00000	Averaged
116 Benzene	0.83470	0.73205	0.010	12.29771	30.00000	Averaged
119 tert-Amyl methyl ether	0.82425	0.69822	0.010	15.29021	40.00000	Averaged
120 1,2-Dichloroethane	0.30040	0.26337	0.010	12.32646	30.00000	Averaged
121 Heptane	0.29264	0.25647	0.010	12.35967	30.00000	Averaged
125 Trichloroethene	0.40799	0.36510	0.010	10.51406	30.00000	Averaged
127 Methylcyclohexane	2.24197	1.92923	0.010	13.94937	30.00000	Averaged
132 1,2-Dichloropropane	0.29523	0.25600	0.010	13.28715	30.00000	Averaged
136 1,4-Dioxane	0.21507	0.19318	0.010	10.17763	30.00000	Averaged
138 Bromodichloromethane	0.60804	0.55219	0.010	9.18421	30.00000	Averaged
144 cis-1,3-Dichloropropene	0.53091	0.47835	0.010	9.89957	30.00000	Averaged
145 4-Methyl-2-pentanone	0.22730	0.20115	0.010	11.50559	30.00000	Averaged
147 Toluene	1.15483	1.07898	0.010	6.56808	30.00000	Averaged
150 trans-1,3-Dichloropropene	0.49104	0.42797	0.010	12.84500	30.00000	Averaged
155 1,1,2-Trichloroethane	0.42307	0.39200	0.010	7.34383	30.00000	Averaged
156 Tetrachloroethene	0.69591	0.66276	0.010	4.76258	30.00000	Averaged
158 2-Hexanone	0.33880	0.27794	0.010	17.96397	30.00000	Averaged
160 Dibromochloromethane	0.79807	0.75761	0.010	5.06923	30.00000	Averaged
161 1,2-Dibromoethane (EDB)	0.68242	0.64440	0.010	5.57180	30.00000	Averaged
165 Chlorobenzene	1.07416	0.98404	0.010	8.38990	30.00000	Averaged
167 Ethyl Benzene	0.53622	0.49096	0.010	8.43965	30.00000	Averaged
169 m,p-Xylene	0.67752	0.62298	0.010	8.05085	30.00000	Averaged
171 o-Xylene	0.63486	0.57963	0.010	8.69982	30.00000	Averaged
172 Styrene	1.02252	0.97578	0.010	4.57102	30.00000	Averaged
174 Bromoform	0.89692	0.88603	0.010	1.21386	30.00000	Averaged
175 Cumene	1.93192	1.80005	0.010	6.82602	30.00000	Averaged
181 1,1,2,2-Tetrachloroethane	0.92840	0.90718	0.010	2.28609	30.00000	Averaged
182 Propylbenzene	2.21158	2.06802	0.010	6.49131	30.00000	Averaged
188 4-Ethyltoluene	0.62146	0.58482	0.010	5.89589	30.00000	Averaged
190 1,3,5-Trimethylbenzene	0.85809	0.82704	0.010	3.61765	30.00000	Averaged
196 1,2,4-Trimethylbenzene	0.76388	0.72273	0.010	5.38799	30.00000	Averaged
208 1,3-Dichlorobenzene	1.28181	1.23448	0.010	3.69234	30.00000	Averaged
209 1,4-Dichlorobenzene	1.27712	1.25268	0.010	1.91383	30.00000	Averaged
212 alpha-Chlorotoluene	1.48222	1.42600	0.010	3.79289	30.00000	Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd17.i Injection Date: 16-JUN-2016 14:10
Lab File ID: 17061602.d Init. Cal. Date(s): 12-APR-2016 12-APR-2016
Analysis Type: AIR Init. Cal. Times: 18:11 20:45
Lab Sample ID: CCV Quant Type: ISTD
Method: /var/chem/msd17.i/16jun16.b/176q0412a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
214 1,2-Dichlorobenzene	1.22185	1.18769	0.010	2.79593	30.00000	Averaged
226 1,2,4-Trichlorobenzene	1.19983	1.08466	0.010	9.59877	30.00000	Averaged
227 Hexachlorobutadiene	1.03278	0.92539	0.010	10.39849	30.00000	Averaged
228 Naphthalene	1.88761	2.15973	0.010	-14.41564	40.00000	Averaged

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061602.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 16-JUN-2016 14:10
Operator : jcw Inst ID: msd17.i
Smp Info : 50mL 2789-137
Misc Info : 50ppbv (200ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /var/chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 14:41 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
5.499	5.499 (1.000)	130	75443	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	58676			48.69- 108.69	77.78
5.499	5.499 (1.000)	49	53485			54.63- 114.63	70.89
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
6.388	6.388 (1.000)	114	302627	25.0000		80.00- 120.00	100.00
6.388	6.388 (1.000)	88	42730			0.00- 45.20	14.12
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
8.837	8.837 (1.000)	117	299663	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	144488			20.04- 80.04	48.22
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
6.037	6.037 (1.098)	65	73228	25.0000	23.502	80.00- 120.00	100.00
6.037	6.037 (1.098)	67	43071			34.58- 94.58	58.82

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	321846	25.0000	25.254	80.00- 120.00	100.00
7.605	7.605 (1.191)	70	29151			0.00- 39.40	9.06
7.605	7.605 (1.191)	100	215090			35.49- 95.49	66.83
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.819	9.819 (1.111)	174	227445	25.0000	25.922	80.00- 120.00	100.00
9.811	9.811 (1.110)	95	218153			71.35- 131.35	95.91
9.819	9.819 (1.111)	176	223242			68.09- 128.09	98.15
9 Propylene					CAS #: 115-07-1		
1.502	1.502 (0.273)	41	50621	50.0000	33.384	80.00- 120.00	100.00
1.502	1.502 (0.273)	42	33922			37.85- 97.85	67.01
1.502	1.502 (0.273)	39	35429			37.93- 97.93	69.99
11 Freon 12					CAS #: 75-71-8		
1.531	1.531 (0.278)	85	276823	50.0000	42.259	80.00- 120.00	100.00
1.531	1.531 (0.278)	87	91163			2.58- 62.58	32.93
15 Freon 114					CAS #: 76-14-2		
1.653	1.653 (0.301)	135	256180	50.0000	43.635	80.00- 120.00	100.00
1.653	1.653 (0.301)	137	80974			1.60- 61.60	31.61
17 Chloromethane					CAS #: 74-87-3		
1.746	1.746 (0.317)	50	66088	50.0000	34.392	80.00- 120.00	100.00
1.746	1.746 (0.317)	52	21490			2.00- 62.00	32.52
23 Butane					CAS #: 106-97-8		
1.818	1.818 (0.330)	58	16874	50.0000	35.446	80.00- 120.00	100.00
1.818	1.818 (0.330)	43	99592			587.84- 647.84	590.21
25 Vinyl Chloride					CAS #: 75-01-4		
1.853	1.853 (0.337)	62	93571	50.0000	38.580	80.00- 120.00	100.00
1.853	1.853 (0.337)	64	29974			3.15- 63.15	32.03
26 1,3-Butadiene					CAS #: 106-99-0		
1.875	1.875 (0.341)	54	61848	50.0000	35.895	80.00- 120.00	100.00
1.875	1.875 (0.341)	39	50213			51.92- 111.92	81.19
29 Bromomethane					CAS #: 74-83-9		
2.233	2.233 (0.406)	94	103660	50.0000	50.925	80.00- 120.00	100.00
2.233	2.233 (0.406)	96	99024			63.57- 123.57	95.53
30 Chloroethane					CAS #: 75-00-3		
2.348	2.348 (0.427)	64	48989	50.0000	35.844	80.00- 120.00	100.00
2.348	2.348 (0.427)	66	16040			1.86- 61.86	32.74

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
2.348	2.348 (0.427)	49	10516			0.00- 51.05	21.47
31 Isopentane					CAS #: 78-78-4		
2.369	2.369 (0.431)	43	77152	50.0000	33.546	80.00- 120.00	100.00
2.369	2.369 (0.431)	57	67738			52.34- 112.34	87.80
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	302443	50.0000	42.906	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	197627			35.21- 95.21	65.34
42 Ethanol					CAS #: 64-17-5		
2.949	2.949 (0.536)	45	25735	50.0000	29.965	80.00- 120.00	100.00
2.949	2.949 (0.536)	43	5269			0.00- 50.21	20.47
2.949	2.949 (0.536)	46	9763			8.20- 68.20	37.94
49 Freon 113					CAS #: 76-13-1		
3.243	3.243 (0.590)	151	274474	50.0000	43.882	80.00- 120.00	100.00
3.243	3.243 (0.590)	153	177407			34.59- 94.59	64.64
3.236	3.236 (0.588)	101	284515			78.63- 138.63	103.66
50 1,1-Dichloroethene					CAS #: 75-35-4		
3.272	3.272 (0.595)	98	83683	50.0000	43.058	80.00- 120.00	100.00
3.272	3.272 (0.595)	96	129415			124.95- 184.95	154.65
3.272	3.272 (0.595)	61	154605			168.97- 228.97	184.75
52 Acetone					CAS #: 67-64-1		
3.429	3.429 (0.624)	58	44432	50.0000	37.148	80.00- 120.00	100.00
3.429	3.429 (0.624)	43	111585			226.10- 286.10	251.14
56 Carbon Disulfide					CAS #: 75-15-0		
3.508	3.508 (0.638)	76	346460	50.0000	39.248	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
3.608	3.608 (0.656)	45	129951	50.0000	36.813	80.00- 120.00	100.00
3.608	3.608 (0.656)	43	24929			0.00- 48.33	19.18
3.608	3.608 (0.656)	59	6350			0.00- 34.85	4.89
58 3-Chloropropene					CAS #: 107-05-1		
3.752	3.752 (0.682)	76	55718	50.0000	38.577	80.00- 120.00	100.00
3.752	3.752 (0.682)	41	93160			151.01- 211.01	167.20
66 Methylene Chloride					CAS #: 75-09-2		
3.938	3.938 (0.716)	49	95124	50.0000	36.595	80.00- 120.00	100.00
3.945	3.945 (0.717)	84	114164			81.18- 141.18	120.02
3.945	3.945 (0.717)	51	29646			1.84- 61.84	31.17

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
71 tert-Butyl alcohol					CAS #: 75-65-0		
4.067	4.067 (0.739)	59	202407	50.0000	37.925	80.00- 120.00	100.00
4.067	4.067 (0.739)	41	34293			0.00- 46.25	16.94
4.067	4.067 (0.739)	57	20083			0.00- 40.11	9.92
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
4.153	4.153 (0.755)	73	328504	50.0000	40.556	80.00- 120.00	100.00
4.153	4.153 (0.755)	57	62700			0.00- 50.25	19.09
4.153	4.153 (0.755)	41	48567			0.00- 45.26	14.78
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
4.181	4.181 (0.760)	98	91386	50.0000	43.414	80.00- 120.00	100.00
4.181	4.181 (0.760)	61	156832			152.76- 212.76	171.61
4.181	4.181 (0.760)	96	143499			127.34- 187.34	157.03
78 Hexane					CAS #: 110-54-3		
4.389	4.389 (0.798)	57	157737	50.0000	38.276	80.00- 120.00	100.00
4.389	4.389 (0.798)	43	77709			21.17- 81.17	49.26
4.389	4.389 (0.798)	86	32449			0.00- 49.59	20.57
82 1,1-Dichloroethane					CAS #: 75-34-3		
4.676	4.676 (0.850)	63	202181	50.0000	40.026	80.00- 120.00	100.00
4.676	4.676 (0.850)	65	65884			1.59- 61.59	32.59
83 Isopropyl ether					CAS #: 108-20-3		
4.661	4.661 (0.848)	45	278179	50.0000	36.661	80.00- 120.00	100.00
4.661	4.661 (0.848)	87	125885			9.63- 69.63	45.25
4.661	4.661 (0.848)	59	40798			0.00- 43.69	14.67
86 Vinyl Acetate					CAS #: 108-05-4		
4.719	4.719 (0.858)	86	36429	50.0000	42.890	80.00- 120.00	100.00
4.719	4.719 (0.858)	43	231623			689.25- 749.25	635.82
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
5.019	5.019 (0.913)	59	346315	50.0000	38.823	80.00- 120.00	100.00
5.019	5.019 (0.913)	87	178995			19.00- 79.00	51.69
5.019	5.019 (0.913)	41	50765			0.00- 44.58	14.66
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
5.263	5.263 (0.957)	98	105572	50.0000	46.177	80.00- 120.00	100.00
5.263	5.263 (0.957)	96	159482			127.08- 187.08	151.06
5.263	5.263 (0.957)	61	156469			135.30- 195.30	148.21
92 2-Butanone					CAS #: 78-93-3		
5.292	5.292 (0.962)	72	66356	50.0000	41.078	80.00- 120.00	100.00
5.292	5.292 (0.962)	43	168622			251.52- 311.52	254.12

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
92 2-Butanone (continued)							
5.292	5.292 (0.962)	57	17355			0.00- 57.81	26.15
99 Tetrahydrofuran					CAS #: 109-99-9		
5.492	5.492 (0.999)	42	93634	50.0000	36.015	80.00- 120.00	100.00
5.492	5.492 (0.999)	71	57780			26.57- 86.57	61.71
5.492	5.492 (0.999)	72	61665			30.33- 90.33	65.86
100 Chloroform					CAS #: 67-66-3		
5.564	5.564 (1.012)	83	287556	50.0000	43.972	80.00- 120.00	100.00
5.564	5.564 (1.012)	85	188692			34.18- 94.18	65.62
102 Cyclohexane					CAS #: 110-82-7		
5.657	5.657 (1.029)	84	198081	50.0000	43.060	80.00- 120.00	100.00
5.657	5.657 (1.029)	56	181891			67.82- 127.82	91.83
5.657	5.657 (1.029)	41	75766			12.04- 72.04	38.25
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.678	5.678 (1.033)	97	304644	50.0000	43.745	80.00- 120.00	100.00
5.678	5.678 (1.033)	99	199021			34.84- 94.84	65.33
106 Carbon Tetrachloride					CAS #: 56-23-5		
5.793	5.793 (1.053)	119	328370	50.0000	45.236	80.00- 120.00	100.00
5.793	5.793 (1.053)	117	346238			73.08- 133.08	105.44
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.986	5.986 (1.089)	57	570055	50.0000	40.391	80.00- 120.00	100.00
5.986	5.986 (1.089)	56	172667			2.25- 62.25	30.29
5.986	5.986 (1.089)	41	113288			0.00- 49.06	19.87
116 Benzene					CAS #: 71-43-2		
6.015	6.015 (0.942)	78	443077	50.0000	43.851	80.00- 120.00	100.00
6.015	6.015 (0.942)	77	105135			0.00- 53.87	23.73
119 tert-Amyl methyl ether					CAS #: 994-05-8		
6.080	6.080 (1.105)	87	105352	50.0000	42.355	80.00- 120.00	100.00
6.080	6.080 (1.105)	73	412851			370.90- 430.90	391.88
6.080	6.080 (1.105)	55	91515			58.01- 118.01	86.87
120 1,2-Dichloroethane					CAS #: 107-06-2		
6.108	6.108 (0.956)	62	159405	50.0000	43.837	80.00- 120.00	100.00
6.101	6.101 (0.955)	64	52933			3.62- 63.62	33.21
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	155229	50.0000	43.820	80.00- 120.00	100.00
6.158	6.158 (0.964)	43	183059			96.69- 156.69	117.93

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
121 Heptane (continued)							
6.158	6.158 (0.964)	57	132776			58.40- 118.40	85.54
125 Trichloroethene					CAS #: 79-01-6		
6.581	6.581 (1.030)	95	220977	50.0000	44.743	80.00- 120.00	100.00
6.581	6.581 (1.030)	130	259114			84.60- 144.60	117.26
6.581	6.581 (1.030)	97	142781			34.77- 94.77	64.61
127 Methylcyclohexane					CAS #: 108-87-2		
6.681	6.681 (1.215)	83	291094	50.0000	43.025	80.00- 120.00	100.00
6.681	6.681 (1.215)	98	141550			16.97- 76.97	48.63
6.681	6.681 (1.215)	55	180112			33.99- 93.99	61.87
132 1,2-Dichloropropane					CAS #: 78-87-5		
6.817	6.817 (1.067)	63	154948	50.0000	43.356	80.00- 120.00	100.00
6.817	6.817 (1.067)	62	105305			38.70- 98.70	67.96
6.817	6.817 (1.067)	41	58357			8.21- 68.21	37.66
136 1,4-Dioxane					CAS #: 123-91-1		
6.910	6.910 (1.082)	88	116924	50.0000	44.911	80.00- 120.00	100.00
6.910	6.910 (1.082)	58	63980			27.44- 87.44	54.72
6.910	6.910 (1.082)	57	20296			0.00- 47.84	17.36
138 Bromodichloromethane					CAS #: 75-27-4		
7.047	7.047 (1.103)	83	334217	50.0000	45.408	80.00- 120.00	100.00
7.047	7.047 (1.103)	85	213200			34.54- 94.54	63.79
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
7.426	7.426 (1.163)	75	289524	50.0000	45.050	80.00- 120.00	100.00
7.426	7.426 (1.163)	77	93782			2.23- 62.23	32.39
7.426	7.426 (1.163)	39	88692			1.93- 61.93	30.63
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.534	7.534 (1.179)	58	121747	50.0000	44.247	80.00- 120.00	100.00
7.534	7.534 (1.179)	43	243341			175.29- 235.29	199.87
7.534	7.534 (1.179)	85	67670			22.79- 82.79	55.58
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	653059	50.0000	46.716	80.00- 120.00	100.00
7.655	7.655 (1.198)	92	380276			28.86- 88.86	58.23
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.899	7.899 (0.894)	75	256493	50.0000	43.577	80.00- 120.00	100.00
7.899	7.899 (0.894)	77	82522			2.74- 62.74	32.17
7.899	7.899 (0.894)	39	77191			1.87- 61.87	30.09

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  155 1,1,2-Trichloroethane                          CAS #: 79-00-5
  8.057   8.057 (0.912)    97    234938 50.0000   46.328  80.00- 120.00   100.00
  8.057   8.057 (0.912)    99    148941                   31.91-  91.91    63.40
  8.057   8.057 (0.912)    83    194444                   54.42- 114.42    82.76
-------------------------------------------------------------------------------
  156 Tetrachloroethene                              CAS #: 127-18-4
  8.092   8.092 (0.916)   166    397212 50.0000   47.619  80.00- 120.00   100.00
  8.092   8.092 (0.916)   129    264469                   38.60-  98.60    66.58
  8.092   8.092 (0.916)   131    255088                   36.89-  96.89    64.22
-------------------------------------------------------------------------------
  158 2-Hexanone                                     CAS #: 591-78-6
  8.221   8.221 (0.930)    58    166574 50.0000   41.018  80.00- 120.00   100.00
  8.221   8.221 (0.930)    43    244639                  121.26- 181.26   146.87
  8.221   8.221 (0.930)   100     46345                    0.00-  55.92    27.82
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
  8.372   8.372 (0.947)   129    454056 50.0000   47.465  80.00- 120.00   100.00
  8.372   8.372 (0.947)   127    350556                   46.88- 106.88    77.21
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
  8.486   8.486 (0.960)   107    386203 50.0000   47.214  80.00- 120.00   100.00
  8.486   8.486 (0.960)   109    367672                   65.10- 125.10    95.20
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
  8.859   8.859 (1.002)   112    589760 50.0000   45.805  80.00- 120.00   100.00
  8.859   8.859 (1.002)   114    189130                    1.88-  61.88    32.07
  8.859   8.859 (1.002)    77    308885                   22.25-  82.25    52.37
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
  8.909   8.909 (1.008)   106    294247 50.0000   45.780  80.00- 120.00   100.00
  8.909   8.909 (1.008)    91    877689                  268.56- 328.56   298.28
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
  9.002   9.002 (1.019)   106    373367 50.0000   45.974  80.00- 120.00   100.00
  9.002   9.002 (1.019)    91    704163                  159.69- 219.69   188.60
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
  9.346   9.346 (1.058)   106    347387 50.0000   45.650  80.00- 120.00   100.00
  9.346   9.346 (1.058)    91    691001                  168.78- 228.78   198.91
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
  9.367   9.367 (1.060)   104    584813 50.0000   47.714  80.00- 120.00   100.00
  9.367   9.367 (1.060)    78    246011                   13.63-  73.63    42.07
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
  9.568   9.568 (1.083)   173    531020 50.0000   49.393  80.00- 120.00   100.00
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
174 Bromoform (continued)							
9.568	9.568 (1.083)	171	273228			21.51- 81.51	51.45
175 Cumene					CAS #: 98-82-8		
9.625	9.625 (1.089)	105	1078816	50.0000	46.587	80.00- 120.00	100.00
9.625	9.625 (1.089)	120	305310			0.00- 57.69	28.30
9.625	9.625 (1.089)	51	68067			0.00- 36.59	6.31
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.940	9.940 (1.125)	83	543695	50.0000	48.857	80.00- 120.00	100.00
9.940	9.940 (1.125)	85	357428			34.20- 94.20	65.74
182 Propylbenzene					CAS #: 103-65-1		
9.969	9.969 (1.128)	91	1239418	50.0000	46.754	80.00- 120.00	100.00
9.969	9.969 (1.128)	120	318822			0.00- 55.61	25.72
9.969	9.969 (1.128)	105	48285			0.00- 33.98	3.90
188 4-Ethyltoluene					CAS #: 622-96-8		
10.062	10.062 (1.139)	120	350497	50.0000	47.052	80.00- 120.00	100.00
10.062	10.062 (1.139)	105	1158314			279.77- 339.77	330.48
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
10.112	10.112 (1.144)	120	495669	50.0000	48.191	80.00- 120.00	100.00
10.112	10.112 (1.144)	105	915236			170.95- 230.95	184.65
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
10.435	10.435 (1.181)	120	433148	50.0000	47.306	80.00- 120.00	100.00
10.435	10.435 (1.181)	105	893489			178.76- 238.76	206.28
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.721	10.721 (1.213)	146	739858	50.0000	48.154	80.00- 120.00	100.00
10.721	10.721 (1.213)	148	475743			33.80- 93.80	64.30
10.721	10.721 (1.213)	111	267695			7.11- 67.11	36.18
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.800	10.800 (1.222)	146	750761	50.0000	49.043	80.00- 120.00	100.00
10.800	10.800 (1.222)	148	477444			33.65- 93.65	63.59
10.800	10.800 (1.222)	111	255185			5.53- 65.53	33.99
212 alpha-Chlorotoluene					CAS #: 100-44-7		
10.922	10.922 (1.236)	91	854637	50.0000	48.104	80.00- 120.00	100.00
10.922	10.922 (1.236)	126	204780			0.00- 53.94	23.96
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
11.129	11.129 (1.259)	146	711815	50.0000	48.602	80.00- 120.00	100.00
11.129	11.129 (1.259)	148	456290			33.47- 93.47	64.10

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene (continued)							
11.129	11.129 (1.259)	111	262666			7.89- 67.89	36.90
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
12.533	12.533 (1.418)	180	650065	50.0000	45.201	80.00- 120.00	100.00
12.533	12.533 (1.418)	182	630837			67.03- 127.03	97.04
227 Hexachlorobutadiene					CAS #: 87-68-3		
12.619	12.619 (1.428)	225	554609	50.0000	44.801	80.00- 120.00	100.00
12.619	12.619 (1.428)	223	343681			32.58- 92.58	61.97
228 Naphthalene					CAS #: 91-20-3		
12.798	12.798 (1.448)	128	129438	5.00000	5.721	80.00- 120.00	100.00
12.798	12.798 (1.448)	127	18220			0.00- 42.95	14.08

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061602.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: jcw
Method File: /var/chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 50ppbv (200ppbv)

Calibration Date: 16-JUN-2016
Calibration Time: 14:10
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

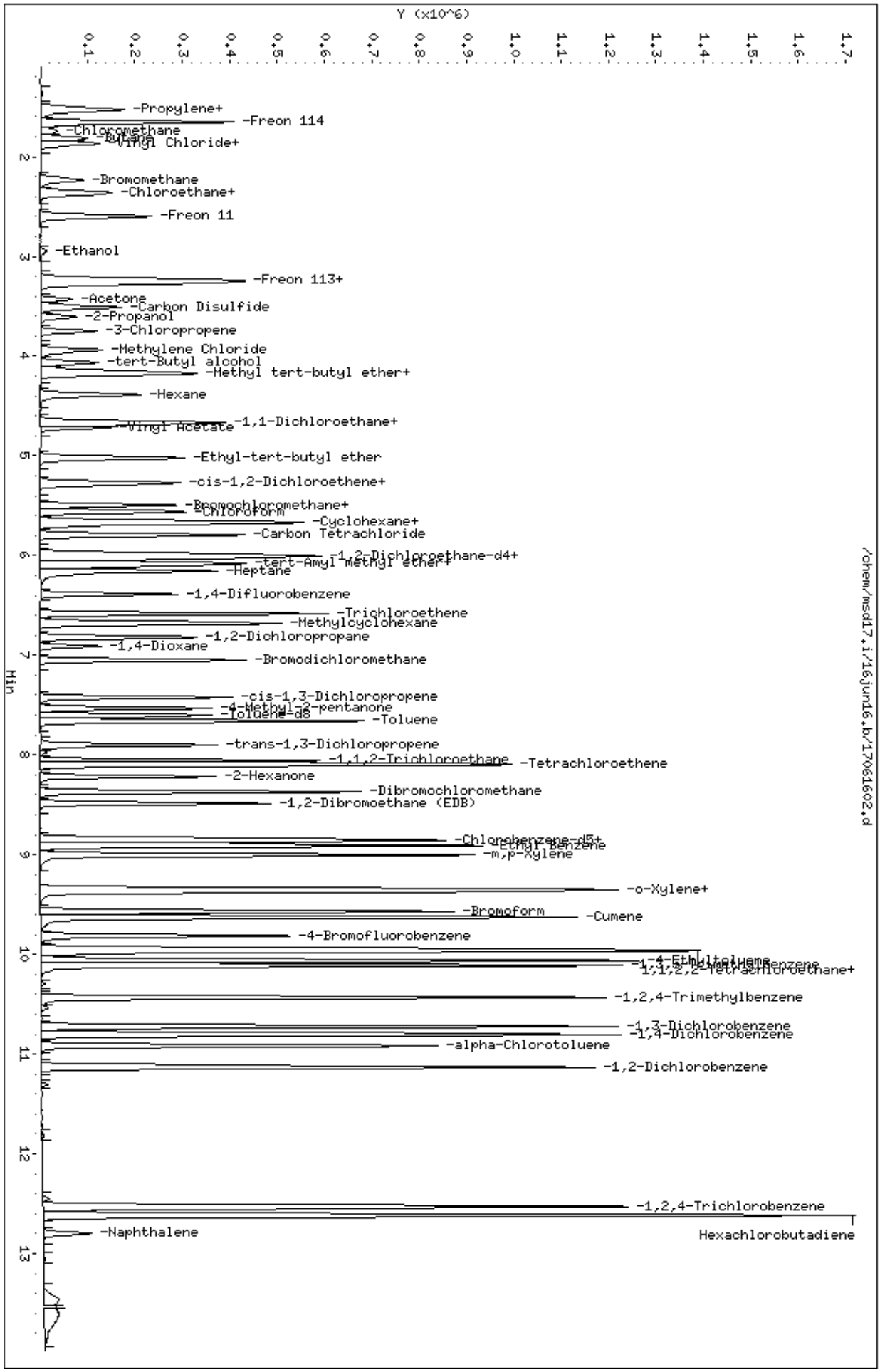
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	75443	0.00
123 1,4-Difluorobenze	302627	181576	423678	302627	0.00
163 Chlorobenzene-d5	299663	179798	419528	299663	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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.

Data File: /chem/msd17.i/16jun16.b/17061602.d
Date : 16-JUN-2016 14:10
Client ID: CCV
Sample Info: 50mL 2789-137
Column phase: RTX-624

Instrument: msd17.i
Operator: jcw
Column diameter: 0.25



Column diameter: 0.25

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Client Sample ID: LCS

Lab ID#: 1606298B-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/16/16 02:35 PM**	

Compound	%Recovery	Method Limits
Freon 12	83	70-130
Freon 114	89	70-130
Chloromethane	65 Q	70-130
Vinyl Chloride	75	70-130
1,3-Butadiene	69 Q	70-130
Bromomethane	104	70-130
Chloroethane	71	70-130
Freon 11	85	70-130
Ethanol	63 Q	70-130
Freon 113	83	70-130
1,1-Dichloroethene	82	70-130
Acetone	69 Q	70-130
2-Propanol	73	70-130
Carbon Disulfide	66 Q	70-130
3-Chloropropene	70	70-130
Methylene Chloride	70	70-130
Methyl tert-butyl ether	76	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	72	70-130
1,1-Dichloroethane	77	70-130
2-Butanone (Methyl Ethyl Ketone)	77	70-130
cis-1,2-Dichloroethene	85	70-130
Tetrahydrofuran	69 Q	70-130
Chloroform	83	70-130
1,1,1-Trichloroethane	84	70-130
Cyclohexane	82	70-130
Carbon Tetrachloride	87	70-130
2,2,4-Trimethylpentane	77	70-130
Benzene	86	70-130
1,2-Dichloroethane	85	70-130
Heptane	85	70-130
Trichloroethene	88	70-130
1,2-Dichloropropane	85	70-130
1,4-Dioxane	90	70-130
Bromodichloromethane	90	70-130
cis-1,3-Dichloropropene	83	70-130
4-Methyl-2-pentanone	88	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	86	70-130
1,1,2-Trichloroethane	91	70-130
Tetrachloroethene	94	70-130
2-Hexanone	85	70-130

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Client Sample ID: LCS

Lab ID#: 1606298B-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/16/16 02:35 PM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	93	70-130
1,2-Dibromoethane (EDB)	91	70-130
Chlorobenzene	88	70-130
Ethyl Benzene	90	70-130
m,p-Xylene	89	70-130
o-Xylene	91	70-130
Styrene	92	70-130
Bromoform	99	70-130
Cumene	91	70-130
1,1,2,2-Tetrachloroethane	95	70-130
Propylbenzene	92	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	96	70-130
1,2,4-Trimethylbenzene	94	70-130
1,3-Dichlorobenzene	94	70-130
1,4-Dichlorobenzene	95	70-130
alpha-Chlorotoluene	95	70-130
1,2-Dichlorobenzene	94	70-130
1,2,4-Trichlorobenzene	99	70-130
Hexachlorobutadiene	98	70-130
Naphthalene	128	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	103	70-130

Report Date: 16-Jun-2016 15:03

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCS
Client Smp ID: LCS
Level: LOW
Operator: jcw
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT12bromoform.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	50.000	30.039	60.08*	70-130
11 Freon 12	50.000	41.722	83.44	70-130
15 Freon 114	50.000	44.588	89.18	70-130
17 Chloromethane	50.000	32.405	64.81*	70-130
23 Butane	50.000	35.004	70.01	60-140
25 Vinyl Chloride	50.000	37.663	75.33	70-130
26 1,3-Butadiene	50.000	34.302	68.60*	70-130
29 Bromomethane	50.000	52.015	104.03	70-130
30 Chloroethane	50.000	35.598	71.20	70-130
31 Isopentane	50.000	31.822	63.64	60-140
35 Freon 11	50.000	42.542	85.08	70-130
42 Ethanol	50.000	31.744	63.49*	70-130
49 Freon 113	50.000	41.692	83.38	70-130
50 1,1-Dichloroethene	50.000	40.916	81.83	70-130
52 Acetone	50.000	34.563	69.13*	70-130
56 Carbon Disulfide	50.000	33.144	66.29*	70-130
57 2-Propanol	50.000	36.581	73.16	70-130
58 3-Chloropropene	50.000	34.784	69.57*	70-130
66 Methylene Chloride	50.000	35.252	70.50	70-130
72 Methyl tert-butyl	50.000	38.146	76.29	70-130
73 trans-1,2-Dichloro	42.500	36.393	85.63	70-130
78 Hexane	50.000	35.887	71.77	70-130
82 1,1-Dichloroethane	50.000	38.644	77.29	70-130
86 Vinyl Acetate	50.000	39.902	79.80	70-130
91 cis-1,2-Dichloroet	56.500	47.811	84.62	70-130
92 2-Butanone	50.000	38.722	77.44	70-130
99 Tetrahydrofuran	50.000	34.413	68.83*	70-130
100 Chloroform	50.000	41.674	83.35	70-130
103 1,1,1-Trichloroeth	50.000	42.219	84.44	70-130
106 Carbon Tetrachlori	50.000	43.613	87.23	70-130
102 Cyclohexane	50.000	41.089	82.18	70-130
113 2,2,4-Trimethylpen	50.000	38.727	77.45	70-130
116 Benzene	50.000	42.841	85.68	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	50.000	42.703	85.41	70-130
121 Heptane	50.000	42.649	85.30	70-130
125 Trichloroethene	50.000	44.214	88.43	70-130
127 Methylcyclohexane	50.000	41.849	83.70	70-130
132 1,2-Dichloropropan	50.000	42.572	85.14	70-130
136 1,4-Dioxane	50.000	45.144	90.29	70-130
138 Bromodichlorometha	50.000	45.019	90.04	70-130
144 cis-1,3-Dichloropr	50.000	41.620	83.24	70-130
145 4-Methyl-2-pentano	50.000	44.295	88.59	70-130
147 Toluene	50.000	45.662	91.32	70-130
150 trans-1,3-Dichloro	50.000	42.811	85.62	70-130
155 1,1,2-Trichloroeth	50.000	45.372	90.74	70-130
156 Tetrachloroethene	50.000	47.033	94.07	70-130
158 2-Hexanone	50.000	42.454	84.91	70-130
160 Dibromochlorometha	50.000	46.362	92.72	70-130
161 1,2-Dibromoethane	50.000	45.359	90.72	70-130
165 Chlorobenzene	50.000	43.898	87.80	70-130
167 Ethyl Benzene	50.000	44.802	89.60	70-130
169 m,p-Xylene	50.000	44.708	89.42	70-130
171 o-Xylene	50.000	45.589	91.18	70-130
172 Styrene	50.000	45.858	91.72	70-130
174 Bromoform	65.000	64.146	98.69	70-130
175 Cumene	50.000	45.635	91.27	70-130
181 1,1,2,2-Tetrachlor	50.000	47.608	95.22	70-130
182 Propylbenzene	50.000	45.992	91.99	70-130
188 4-Ethyltoluene	50.000	45.911	91.82	70-130
190 1,3,5-Trimethylben	50.000	47.938	95.88	70-130
196 1,2,4-Trimethylben	50.000	47.116	94.23	70-130
208 1,3-Dichlorobenzen	50.000	47.061	94.12	70-130
209 1,4-Dichlorobenzen	50.000	47.312	94.62	70-130
212 alpha-Chlorotoluen	50.000	47.601	95.20	70-130
214 1,2-Dichlorobenzen	50.000	47.011	94.02	70-130
226 1,2,4-Trichloroben	50.000	49.373	98.75	70-130
227 Hexachlorobutadien	50.000	49.069	98.14	70-130
228 Naphthalene	5.000	6.386	127.73	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	23.175	92.70	70-130
$ 146 Toluene-d8	25.000	25.516	102.06	70-130
$ 177 4-Bromofluorobenze	25.000	25.783	103.13	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061603.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 16-JUN-2016 14:35
Operator : jcw Inst ID: msd17.i
Smp Info : 50mL 2789-113
Misc Info : 50ppbv (200ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 15:02 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 14 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane					CAS #: 74-97-5		
5.499	5.499 (1.000)	130	76341	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	57768			48.69- 108.69	75.67
5.499	5.499 (1.000)	49	52261			54.63- 114.63	68.46
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
6.387	6.388 (1.000)	114	299438	25.0000		80.00- 120.00	100.00
6.387	6.388 (1.000)	88	44824			0.00- 45.20	14.97
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
8.837	8.837 (1.000)	117	299975	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	144177			20.04- 80.04	48.06
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
6.036	6.037 (1.098)	65	73069	23.1747	23.175	80.00- 120.00	100.00
6.036	6.037 (1.098)	67	40375			34.58- 94.58	55.26

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8						CAS #: 2037-26-5	
7.605	7.605 (1.191)	98	321758	25.5161	25.516	80.00- 120.00	100.00
7.605	7.605 (1.191)	70	29038			0.00- 39.40	9.02
7.605	7.605 (1.191)	100	213637			35.49- 95.49	66.40
$ 177 4-Bromofluorobenzene						CAS #: 460-00-4	
9.818	9.819 (1.111)	174	226467	25.7835	25.783	80.00- 120.00	100.00
9.811	9.819 (1.110)	95	214768			71.35- 131.35	94.83
9.818	9.819 (1.111)	176	220053			68.09- 128.09	97.17
9 Propylene						CAS #: 115-07-1	
1.502	1.502 (0.273)	41	46091	30.0390	30.039	80.00- 120.00	100.00(R)
1.502	1.502 (0.273)	42	31253			37.85- 97.85	67.81
1.502	1.502 (0.273)	39	33213			37.93- 97.93	72.06
11 Freon 12						CAS #: 75-71-8	
1.531	1.531 (0.278)	85	276560	41.7222	41.722	80.00- 120.00	100.00
1.531	1.531 (0.278)	87	91138			2.58- 62.58	32.95
15 Freon 114						CAS #: 76-14-2	
1.653	1.653 (0.301)	135	264887	44.5877	44.588	80.00- 120.00	100.00
1.653	1.653 (0.301)	137	85854			1.60- 61.60	32.41
17 Chloromethane						CAS #: 74-87-3	
1.739	1.746 (0.316)	50	63012	32.4054	32.405	80.00- 120.00	100.00(R)
1.746	1.746 (0.317)	52	21108			2.00- 62.00	33.50
23 Butane						CAS #: 106-97-8	
1.817	1.818 (0.330)	58	16862	35.0044	35.004	80.00- 120.00	100.00
1.817	1.818 (0.330)	43	100217			587.84- 647.84	594.34
25 Vinyl Chloride						CAS #: 75-01-4	
1.853	1.853 (0.337)	62	92436	37.6634	37.663	80.00- 120.00	100.00
1.853	1.853 (0.337)	64	30190			3.15- 63.15	32.66
26 1,3-Butadiene						CAS #: 106-99-0	
1.875	1.875 (0.341)	54	59806	34.3015	34.302	80.00- 120.00	100.00(R)
1.875	1.875 (0.341)	39	48292			51.92- 111.92	80.75
29 Bromomethane						CAS #: 74-83-9	
2.233	2.233 (0.406)	94	107139	52.0147	52.015	80.00- 120.00	100.00
2.233	2.233 (0.406)	96	104953			63.57- 123.57	97.96
30 Chloroethane						CAS #: 75-00-3	
2.347	2.348 (0.427)	64	49232	35.5984	35.598	80.00- 120.00	100.00
2.347	2.348 (0.427)	66	16160			1.86- 61.86	32.82

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
2.347	2.348 (0.427)	49	11049			0.00- 51.05	22.44
31 Isopentane					CAS #: 78-78-4		
2.369	2.369 (0.431)	43	74060	31.8225	31.822	80.00- 120.00	100.00
2.369	2.369 (0.431)	57	66516			52.34- 112.34	89.81
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	303446	42.5424	42.542	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	197311			35.21- 95.21	65.02
42 Ethanol					CAS #: 64-17-5		
2.942	2.949 (0.535)	45	27588	31.7445	31.744	80.00- 120.00	100.00(R)
2.949	2.949 (0.536)	43	5445			0.00- 50.21	19.74
2.942	2.949 (0.535)	46	10159			8.20- 68.20	36.82
49 Freon 113					CAS #: 76-13-1		
3.243	3.243 (0.590)	151	263876	41.6916	41.692	80.00- 120.00	100.00
3.243	3.243 (0.590)	153	168283			34.59- 94.59	63.77
3.243	3.243 (0.590)	101	273341			78.63- 138.63	103.59
50 1,1-Dichloroethene					CAS #: 75-35-4		
3.279	3.272 (0.596)	98	80466	40.9161	40.916	80.00- 120.00	100.00
3.271	3.272 (0.595)	96	125470			124.95- 184.95	155.93
3.271	3.272 (0.595)	61	151355			168.97- 228.97	188.10
52 Acetone					CAS #: 67-64-1		
3.429	3.429 (0.624)	58	41832	34.5627	34.563	80.00- 120.00	100.00(R)
3.429	3.429 (0.624)	43	104771			226.10- 286.10	250.46
56 Carbon Disulfide					CAS #: 75-15-0		
3.508	3.508 (0.638)	76	296061	33.1438	33.144	80.00- 120.00	100.00(R)
57 2-Propanol					CAS #: 67-63-0		
3.608	3.608 (0.656)	45	130668	36.5809	36.581	80.00- 120.00	100.00
3.608	3.608 (0.656)	43	25637			0.00- 48.33	19.62
3.608	3.608 (0.656)	59	6493			0.00- 34.85	4.97
58 3-Chloropropene					CAS #: 107-05-1		
3.751	3.752 (0.682)	76	50838	34.7843	34.784	80.00- 120.00	100.00(R)
3.751	3.752 (0.682)	41	87179			151.01- 211.01	171.48
66 Methylene Chloride					CAS #: 75-09-2		
3.945	3.938 (0.717)	49	92723	35.2519	35.252	80.00- 120.00	100.00
3.945	3.938 (0.717)	84	113479			81.18- 141.18	122.38
3.945	3.938 (0.717)	51	29427			1.84- 61.84	31.74

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
4.152	4.153 (0.755)	73	312660	38.1460	38.146	80.00- 120.00	100.00
4.152	4.153 (0.755)	57	60199			0.00- 50.25	19.25
4.152	4.153 (0.755)	41	47197			0.00- 45.26	15.10
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
4.181	4.181 (0.760)	98	77520	36.3932	36.393	80.00- 120.00	100.00
4.181	4.181 (0.760)	61	128789			152.76- 212.76	166.14
4.181	4.181 (0.760)	96	120453			127.34- 187.34	155.38
78 Hexane					CAS #: 110-54-3		
4.389	4.389 (0.798)	57	149655	35.8875	35.887	80.00- 120.00	100.00
4.389	4.389 (0.798)	43	76185			21.17- 81.17	50.91
4.389	4.389 (0.798)	86	32321			0.00- 49.59	21.60
82 1,1-Dichloroethane					CAS #: 75-34-3		
4.675	4.676 (0.850)	63	197526	38.6444	38.644	80.00- 120.00	100.00
4.675	4.676 (0.850)	65	65351			1.59- 61.59	33.08
86 Vinyl Acetate					CAS #: 108-05-4		
4.718	4.719 (0.858)	86	34294	39.9016	39.902	80.00- 120.00	100.00
4.718	4.719 (0.858)	43	214449			689.25- 749.25	625.33
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
5.263	5.263 (0.957)	98	110608	47.8108	47.811	80.00- 120.00	100.00
5.263	5.263 (0.957)	96	172604			127.08- 187.08	156.05
5.263	5.263 (0.957)	61	168522			135.30- 195.30	152.36
92 2-Butanone					CAS #: 78-93-3		
5.291	5.292 (0.962)	72	63295	38.7224	38.722	80.00- 120.00	100.00
5.291	5.292 (0.962)	43	160091			251.52- 311.52	252.93
5.291	5.292 (0.962)	57	16604			0.00- 57.81	26.23
99 Tetrahydrofuran					CAS #: 109-99-9		
5.492	5.492 (0.999)	42	90534	34.4128	34.413	80.00- 120.00	100.00(R)
5.492	5.492 (0.999)	71	54783			26.57- 86.57	60.51
5.492	5.492 (0.999)	72	59780			30.33- 90.33	66.03
100 Chloroform					CAS #: 67-66-3		
5.564	5.564 (1.012)	83	275773	41.6737	41.674	80.00- 120.00	100.00
5.564	5.564 (1.012)	85	182423			34.18- 94.18	66.15
102 Cyclohexane					CAS #: 110-82-7		
5.657	5.657 (1.029)	84	191265	41.0894	41.089	80.00- 120.00	100.00
5.657	5.657 (1.029)	56	174476			67.82- 127.82	91.22
5.657	5.657 (1.029)	41	75500			12.04- 72.04	39.47

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
5.678	5.678 (1.033)	97	297516	42.2191	42.219	80.00- 120.00	100.00
5.678	5.678 (1.033)	99	191723			34.84- 94.84	64.44
106 Carbon Tetrachloride					CAS #: 56-23-5		
5.793	5.793 (1.053)	119	320358	43.6129	43.613	80.00- 120.00	100.00
5.793	5.793 (1.053)	117	327524			73.08- 133.08	102.24
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.986	5.986 (1.089)	57	553086	38.7273	38.727	80.00- 120.00	100.00
5.986	5.986 (1.089)	56	175368			2.25- 62.25	31.71
5.986	5.986 (1.089)	41	115772			0.00- 49.06	20.93
116 Benzene					CAS #: 71-43-2		
6.015	6.015 (0.942)	78	428306	42.8407	42.841	80.00- 120.00	100.00
6.015	6.015 (0.942)	77	102215			0.00- 53.87	23.86
119 tert-Amyl methyl ether					CAS #: 994-05-8		
5.564	6.080 (1.012)	87	29924	11.8889	11.889	80.00- 120.00	100.00
6.015	6.080 (1.094)	73	6485			370.90- 430.90	21.67
5.657	6.080 (1.029)	55	63379			58.01- 118.01	211.80
120 1,2-Dichloroethane					CAS #: 107-06-2		
6.108	6.108 (0.956)	62	153646	42.7030	42.703	80.00- 120.00	100.00
6.108	6.108 (0.956)	64	51080			3.62- 63.62	33.25
121 Heptane					CAS #: 142-82-5		
6.158	6.158 (0.964)	71	149488	42.6489	42.649	80.00- 120.00	100.00
6.158	6.158 (0.964)	43	175044			96.69- 156.69	117.10
6.158	6.158 (0.964)	57	127966			58.40- 118.40	85.60
125 Trichloroethene					CAS #: 79-01-6		
6.581	6.581 (1.030)	95	216062	44.2137	44.214	80.00- 120.00	100.00
6.581	6.581 (1.030)	130	252519			84.60- 144.60	116.87
6.581	6.581 (1.030)	97	139646			34.77- 94.77	64.63
127 Methylcyclohexane					CAS #: 108-87-2		
6.681	6.681 (1.215)	83	286508	41.8493	41.849	80.00- 120.00	100.00
6.681	6.681 (1.215)	98	138846			16.97- 76.97	48.46
6.681	6.681 (1.215)	55	177038			33.99- 93.99	61.79
132 1,2-Dichloropropane					CAS #: 78-87-5		
6.817	6.817 (1.067)	63	150543	42.5725	42.572	80.00- 120.00	100.00
6.817	6.817 (1.067)	62	103849			38.70- 98.70	68.98
6.817	6.817 (1.067)	41	56584			8.21- 68.21	37.59

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
136 1,4-Dioxane					CAS #: 123-91-1		
6.910	6.910 (1.082)	88	116293	45.1445	45.144	80.00- 120.00	100.00
6.910	6.910 (1.082)	58	63032			27.44- 87.44	54.20
6.910	6.910 (1.082)	57	19753			0.00- 47.84	16.99
138 Bromodichloromethane					CAS #: 75-27-4		
7.046	7.047 (1.103)	83	327864	45.0192	45.019	80.00- 120.00	100.00
7.046	7.047 (1.103)	85	214351			34.54- 94.54	65.38
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
7.426	7.426 (1.163)	75	264661	41.6201	41.620	80.00- 120.00	100.00
7.426	7.426 (1.163)	77	85838			2.23- 62.23	32.43
7.426	7.426 (1.163)	39	80420			1.93- 61.93	30.39
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.533	7.534 (1.179)	58	120594	44.2949	44.295	80.00- 120.00	100.00
7.533	7.534 (1.179)	43	240876			175.29- 235.29	199.74
7.533	7.534 (1.179)	85	68839			22.79- 82.79	57.08
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	631604	45.6624	45.662	80.00- 120.00	100.00
7.655	7.655 (1.198)	92	365140			28.86- 88.86	57.81
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.906	7.899 (0.895)	75	252246	42.8114	42.811	80.00- 120.00	100.00
7.906	7.899 (0.895)	77	81066			2.74- 62.74	32.14
7.899	7.899 (0.894)	39	74865			1.87- 61.87	29.68
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.056	8.057 (0.912)	97	230328	45.3718	45.372	80.00- 120.00	100.00
8.056	8.057 (0.912)	99	143519			31.91- 91.91	62.31
8.056	8.057 (0.912)	83	189864			54.42- 114.42	82.43
156 Tetrachloroethene					CAS #: 127-18-4		
8.099	8.092 (0.916)	166	392737	47.0333	47.033	80.00- 120.00	100.00
8.092	8.092 (0.916)	129	255331			38.60- 98.60	65.01
8.092	8.092 (0.916)	131	249788			36.89- 96.89	63.60
158 2-Hexanone					CAS #: 591-78-6		
8.221	8.221 (0.930)	58	172587	42.4545	42.454	80.00- 120.00	100.00
8.221	8.221 (0.930)	43	249178			121.26- 181.26	144.38
8.221	8.221 (0.930)	100	47203			0.00- 55.92	27.35
160 Dibromochloromethane					CAS #: 124-48-1		
8.372	8.372 (0.947)	129	443958	46.3615	46.362	80.00- 120.00	100.00
8.372	8.372 (0.947)	127	342854			46.88- 106.88	77.23

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
8.486	8.486 (0.960)	107	371415	45.3590	45.359	80.00- 120.00	100.00
8.486	8.486 (0.960)	109	354076			65.10- 125.10	95.33
165 Chlorobenzene					CAS #: 108-90-7		
8.859	8.859 (1.002)	112	565794	43.8980	43.898	80.00- 120.00	100.00
8.859	8.859 (1.002)	114	182272			1.88- 61.88	32.22
8.859	8.859 (1.002)	77	295419			22.25- 82.25	52.21
167 Ethyl Benzene					CAS #: 100-41-4		
8.909	8.909 (1.008)	106	288262	44.8024	44.802	80.00- 120.00	100.00
8.909	8.909 (1.008)	91	842989			268.56- 328.56	292.44
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	363459	44.7080	44.708	80.00- 120.00	100.00
9.002	9.002 (1.019)	91	680139			159.69- 219.69	187.13
171 o-Xylene					CAS #: 95-47-6		
9.346	9.346 (1.058)	106	347287	45.5895	45.589	80.00- 120.00	100.00
9.346	9.346 (1.058)	91	685542			168.78- 228.78	197.40
172 Styrene					CAS #: 100-42-5		
9.367	9.367 (1.060)	104	562648	45.8583	45.858	80.00- 120.00	100.00
9.367	9.367 (1.060)	78	240516			13.63- 73.63	42.75
174 Bromoform					CAS #: 75-25-2		
9.568	9.568 (1.083)	173	690344	64.1459	64.146	80.00- 120.00	100.00
9.568	9.568 (1.083)	171	350999			21.51- 81.51	50.84
175 Cumene					CAS #: 98-82-8		
9.625	9.625 (1.089)	105	1057875	45.6352	45.635	80.00- 120.00	100.00
9.625	9.625 (1.089)	120	297053			0.00- 57.69	28.08
9.625	9.625 (1.089)	51	65878			0.00- 36.59	6.23
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.940	9.940 (1.125)	83	530354	47.6086	47.608	80.00- 120.00	100.00
9.940	9.940 (1.125)	85	344757			34.20- 94.20	65.01
182 Propylbenzene					CAS #: 103-65-1		
9.969	9.969 (1.128)	91	1220492	45.9925	45.992	80.00- 120.00	100.00
9.969	9.969 (1.128)	120	315625			0.00- 55.61	25.86
9.969	9.969 (1.128)	105	47238			0.00- 33.98	3.87
188 4-Ethyltoluene					CAS #: 622-96-8		
10.062	10.062 (1.139)	120	342354	45.9111	45.911	80.00- 120.00	100.00
10.062	10.062 (1.139)	105	1064320			279.77- 339.77	310.88

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
10.112	10.112 (1.144)	120	493582	47.9384	47.938	80.00- 120.00	100.00
10.112	10.112 (1.144)	105	969532			170.95- 230.95	196.43
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
10.434	10.435 (1.181)	120	431860	47.1163	47.116	80.00- 120.00	100.00
10.434	10.435 (1.181)	105	883332			178.76- 238.76	204.54
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.721	10.721 (1.213)	146	723824	47.0613	47.061	80.00- 120.00	100.00
10.721	10.721 (1.213)	148	464906			33.80- 93.80	64.23
10.721	10.721 (1.213)	111	259524			7.11- 67.11	35.85
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.800	10.800 (1.222)	146	725022	47.3124	47.312	80.00- 120.00	100.00
10.800	10.800 (1.222)	148	468738			33.65- 93.65	64.65
10.800	10.800 (1.222)	111	248203			5.53- 65.53	34.23
212 alpha-Chlorotoluene					CAS #: 100-44-7		
10.914	10.922 (1.235)	91	846587	47.6009	47.601	80.00- 120.00	100.00
10.922	10.922 (1.236)	126	204002			0.00- 53.94	24.10
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
11.129	11.129 (1.259)	146	689236	47.0114	47.011	80.00- 120.00	100.00
11.129	11.129 (1.259)	148	445191			33.47- 93.47	64.59
11.129	11.129 (1.259)	111	256739			7.89- 67.89	37.25
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
12.533	12.533 (1.418)	180	710808	49.3728	49.373	80.00- 120.00	100.00
12.533	12.533 (1.418)	182	678980			67.03- 127.03	95.52
227 Hexachlorobutadiene					CAS #: 87-68-3		
12.619	12.619 (1.428)	225	608081	49.0691	49.069	80.00- 120.00	100.00
12.619	12.619 (1.428)	223	380247			32.58- 92.58	62.53
228 Naphthalene					CAS #: 91-20-3		
12.798	12.798 (1.448)	128	144651	6.38650	6.386	80.00- 120.00	100.00
12.798	12.798 (1.448)	127	18657			0.00- 42.95	12.90

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061603.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: jcw
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 50ppbv (200ppbv)

Calibration Date: 16-JUN-2016
Calibration Time: 14:10
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

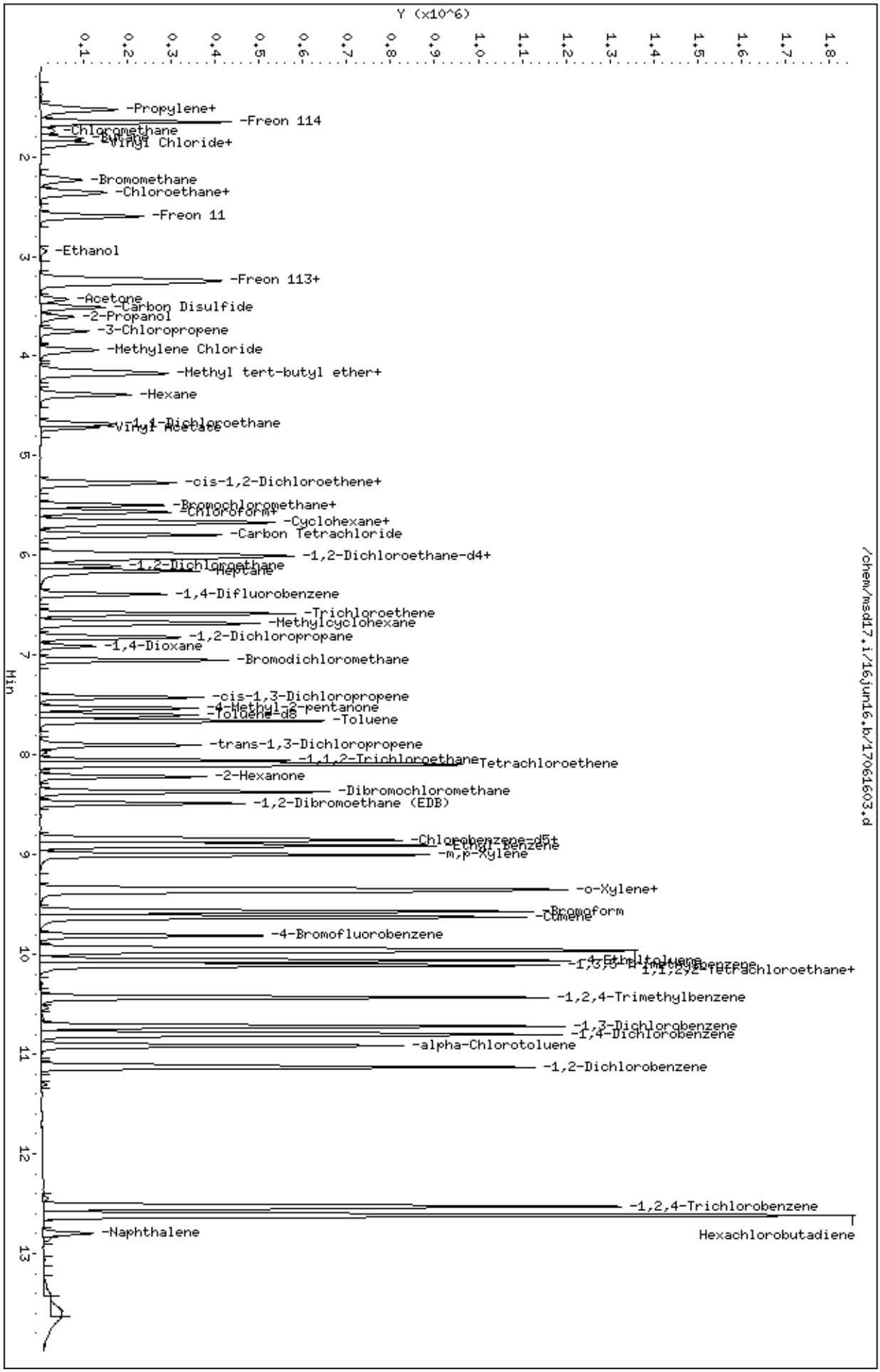
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	76341	1.19
123 1,4-Difluorobenze	302627	181576	423678	299438	-1.05
163 Chlorobenzene-d5	299663	179798	419528	299975	0.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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.

Data File: /chem/msd17.i/16jun16.b/17061603.d
Date : 16-JUN-2016 14:35
Client ID: LCS
Sample Info: 50mL 2789-113
Column phase: RTX-624

Instrument: msd17.i
Operator: jcw
Column diameter: 0.25



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Client Sample ID: LCSD

Lab ID#: 1606298B-18AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/16/16 03:00 PM**	

Compound	%Recovery	Method Limits
Freon 12	85	70-130
Freon 114	90	70-130
Chloromethane	69 Q	70-130
Vinyl Chloride	78	70-130
1,3-Butadiene	71	70-130
Bromomethane	104	70-130
Chloroethane	73	70-130
Freon 11	87	70-130
Ethanol	62 Q	70-130
Freon 113	85	70-130
1,1-Dichloroethene	85	70-130
Acetone	72	70-130
2-Propanol	76	70-130
Carbon Disulfide	68 Q	70-130
3-Chloropropene	71	70-130
Methylene Chloride	72	70-130
Methyl tert-butyl ether	79	70-130
trans-1,2-Dichloroethene	88	70-130
Hexane	75	70-130
1,1-Dichloroethane	79	70-130
2-Butanone (Methyl Ethyl Ketone)	80	70-130
cis-1,2-Dichloroethene	89	70-130
Tetrahydrofuran	71	70-130
Chloroform	86	70-130
1,1,1-Trichloroethane	85	70-130
Cyclohexane	85	70-130
Carbon Tetrachloride	89	70-130
2,2,4-Trimethylpentane	80	70-130
Benzene	85	70-130
1,2-Dichloroethane	85	70-130
Heptane	85	70-130
Trichloroethene	87	70-130
1,2-Dichloropropane	84	70-130
1,4-Dioxane	90	70-130
Bromodichloromethane	90	70-130
cis-1,3-Dichloropropene	83	70-130
4-Methyl-2-pentanone	88	70-130
Toluene	90	70-130
trans-1,3-Dichloropropene	84	70-130
1,1,2-Trichloroethane	89	70-130
Tetrachloroethene	93	70-130
2-Hexanone	85	70-130

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Client Sample ID: LCSD

Lab ID#: 1606298B-18AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17061604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/16/16 03:00 PM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	93	70-130
1,2-Dibromoethane (EDB)	92	70-130
Chlorobenzene	88	70-130
Ethyl Benzene	90	70-130
m,p-Xylene	90	70-130
o-Xylene	91	70-130
Styrene	91	70-130
Bromoform	98	70-130
Cumene	91	70-130
1,1,2,2-Tetrachloroethane	96	70-130
Propylbenzene	93	70-130
4-Ethyltoluene	93	70-130
1,3,5-Trimethylbenzene	97	70-130
1,2,4-Trimethylbenzene	95	70-130
1,3-Dichlorobenzene	94	70-130
1,4-Dichlorobenzene	96	70-130
alpha-Chlorotoluene	95	70-130
1,2-Dichlorobenzene	96	70-130
1,2,4-Trichlorobenzene	101	70-130
Hexachlorobutadiene	100	70-130
Naphthalene	131	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	104	70-130

Report Date: 16-Jun-2016 15:34

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 16jun16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCSD
Client Smp ID: LCSD
Level: LOW
Operator: jcw
Data Type: MS DATA
SampleType: LCSD
SpikeList File: AT12bromoform.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 50ppbv (200ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	50.000	30.839	61.68*	70-130
11 Freon 12	50.000	42.371	84.74	70-130
15 Freon 114	50.000	45.186	90.37	70-130
17 Chloromethane	50.000	34.543	69.09*	70-130
23 Butane	50.000	36.476	72.95	60-140
25 Vinyl Chloride	50.000	39.237	78.47	70-130
26 1,3-Butadiene	50.000	35.493	70.99	70-130
29 Bromomethane	50.000	52.071	104.14	70-130
30 Chloroethane	50.000	36.466	72.93	70-130
31 Isopentane	50.000	33.815	67.63	60-140
35 Freon 11	50.000	43.581	87.16	70-130
42 Ethanol	50.000	31.163	62.33*	70-130
49 Freon 113	50.000	42.583	85.17	70-130
50 1,1-Dichloroethene	50.000	42.346	84.69	70-130
52 Acetone	50.000	35.943	71.89	70-130
56 Carbon Disulfide	50.000	34.161	68.32*	70-130
57 2-Propanol	50.000	38.283	76.57	70-130
58 3-Chloropropene	50.000	35.331	70.66	70-130
66 Methylene Chloride	50.000	36.276	72.55	70-130
72 Methyl tert-butyl	50.000	39.697	79.39	70-130
73 trans-1,2-Dichloro	42.500	37.298	87.76	70-130
78 Hexane	50.000	37.519	75.04	70-130
82 1,1-Dichloroethane	50.000	39.505	79.01	70-130
86 Vinyl Acetate	50.000	42.187	84.37	70-130
91 cis-1,2-Dichloroet	56.500	50.223	88.89	70-130
92 2-Butanone	50.000	40.093	80.19	70-130
99 Tetrahydrofuran	50.000	35.726	71.45	70-130
100 Chloroform	50.000	42.903	85.81	70-130
103 1,1,1-Trichloroeth	50.000	42.716	85.43	70-130
106 Carbon Tetrachlori	50.000	44.335	88.67	70-130
102 Cyclohexane	50.000	42.316	84.63	70-130
113 2,2,4-Trimethylpen	50.000	39.932	79.86	70-130
116 Benzene	50.000	42.490	84.98	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	50.000	42.603	85.21	70-130
121 Heptane	50.000	42.330	84.66	70-130
125 Trichloroethene	50.000	43.464	86.93	70-130
127 Methylcyclohexane	50.000	43.195	86.39	70-130
132 1,2-Dichloropropan	50.000	42.042	84.08	70-130
136 1,4-Dioxane	50.000	44.840	89.68	70-130
138 Bromodichlorometha	50.000	45.012	90.02	70-130
144 cis-1,3-Dichloropr	50.000	41.522	83.04	70-130
145 4-Methyl-2-pentano	50.000	44.016	88.03	70-130
147 Toluene	50.000	45.174	90.35	70-130
150 trans-1,3-Dichloro	50.000	41.938	83.88	70-130
155 1,1,2-Trichloroeth	50.000	44.674	89.35	70-130
156 Tetrachloroethene	50.000	46.336	92.67	70-130
158 2-Hexanone	50.000	42.711	85.42	70-130
160 Dibromochlorometha	50.000	46.457	92.91	70-130
161 1,2-Dibromoethane	50.000	45.934	91.87	70-130
165 Chlorobenzene	50.000	43.981	87.96	70-130
167 Ethyl Benzene	50.000	44.931	89.86	70-130
169 m,p-Xylene	50.000	45.103	90.21	70-130
171 o-Xylene	50.000	45.675	91.35	70-130
172 Styrene	50.000	45.646	91.29	70-130
174 Bromoform	65.000	63.711	98.02	70-130
175 Cumene	50.000	45.739	91.48	70-130
181 1,1,2,2-Tetrachlor	50.000	47.941	95.88	70-130
182 Propylbenzene	50.000	46.622	93.24	70-130
188 4-Ethyltoluene	50.000	46.541	93.08	70-130
190 1,3,5-Trimethylben	50.000	48.345	96.69	70-130
196 1,2,4-Trimethylben	50.000	47.325	94.65	70-130
208 1,3-Dichlorobenzen	50.000	47.293	94.59	70-130
209 1,4-Dichlorobenzen	50.000	48.219	96.44	70-130
212 alpha-Chlorotoluen	50.000	47.730	95.46	70-130
214 1,2-Dichlorobenzen	50.000	48.131	96.26	70-130
226 1,2,4-Trichloroben	50.000	50.479	100.96	70-130
227 Hexachlorobutadien	50.000	50.264	100.53	70-130
228 Naphthalene	5.000	6.563	131.25	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	25.000	23.707	94.83	70-130
$ 146 Toluene-d8	25.000	25.501	102.00	70-130
$ 177 4-Bromofluorobenze	25.000	25.900	103.60	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED EPA TO14A

Data file : /chem/msd17.i/16jun16.b/17061604.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 16-JUN-2016 15:00
Operator : jcw Inst ID: msd17.i
Smp Info : 50mL 2789-113
Misc Info : 50ppbv (200ppbv)
Comment : STANDARD LEVEL GC/MS
Method : /chem/msd17.i/16jun16.b/176q0412a.m
Meth Date : 16-Jun-2016 15:02 jwu Quant Type: ISTD
Cal Date : 12-APR-2016 19:52 Cal File: 17041206.d
Als bottle: 14 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane					CAS #: 74-97-5		
5.499	5.499 (1.000)	130	74513	25.0000		80.00- 120.00	100.00
5.499	5.499 (1.000)	128	58809			48.69- 108.69	78.92
5.499	5.499 (1.000)	49	53650			54.63- 114.63	72.00
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
6.388	6.388 (1.000)	114	303475	25.0000		80.00- 120.00	100.00
6.388	6.388 (1.000)	88	44719			0.00- 45.20	14.74
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
8.837	8.837 (1.000)	117	301348	25.0000		80.00- 120.00	100.00
8.837	8.837 (1.000)	82	144919			20.04- 80.04	48.09
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
6.037	6.037 (1.098)	65	72957	23.7068	23.707	80.00- 120.00	100.00
6.037	6.037 (1.098)	67	42157			34.58- 94.58	57.78

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8					CAS #: 2037-26-5		
7.605	7.605 (1.191)	98	325901	25.5008	25.501	80.00- 120.00	100.00
7.598	7.605 (1.190)	70	29752			0.00- 39.40	9.13
7.605	7.605 (1.191)	100	215096			35.49- 95.49	66.00
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
9.819	9.819 (1.111)	174	228537	25.9006	25.900	80.00- 120.00	100.00
9.812	9.819 (1.110)	95	220716			71.35- 131.35	96.58
9.819	9.819 (1.111)	176	221325			68.09- 128.09	96.84
9 Propylene					CAS #: 115-07-1		
1.502	1.502 (0.273)	41	46185	30.8387	30.839	80.00- 120.00	100.00(R)
1.502	1.502 (0.273)	42	31777			37.85- 97.85	68.80
1.502	1.502 (0.273)	39	32771			37.93- 97.93	70.96
11 Freon 12					CAS #: 75-71-8		
1.531	1.531 (0.278)	85	274138	42.3714	42.371	80.00- 120.00	100.00
1.531	1.531 (0.278)	87	88386			2.58- 62.58	32.24
15 Freon 114					CAS #: 76-14-2		
1.653	1.653 (0.301)	135	262013	45.1859	45.186	80.00- 120.00	100.00
1.653	1.653 (0.301)	137	84197			1.60- 61.60	32.13
17 Chloromethane					CAS #: 74-87-3		
1.739	1.746 (0.316)	50	65560	34.5429	34.543	80.00- 120.00	100.00(R)
1.739	1.746 (0.316)	52	22328			2.00- 62.00	34.06
23 Butane					CAS #: 106-97-8		
1.818	1.818 (0.330)	58	17150	36.4756	36.476	80.00- 120.00	100.00
1.818	1.818 (0.330)	43	100212			587.84- 647.84	584.33
25 Vinyl Chloride					CAS #: 75-01-4		
1.846	1.853 (0.336)	62	93992	39.2370	39.237	80.00- 120.00	100.00
1.853	1.853 (0.337)	64	29907			3.15- 63.15	31.82
26 1,3-Butadiene					CAS #: 106-99-0		
1.875	1.875 (0.341)	54	60401	35.4927	35.493	80.00- 120.00	100.00
1.875	1.875 (0.341)	39	50148			51.92- 111.92	83.03
29 Bromomethane					CAS #: 74-83-9		
2.233	2.233 (0.406)	94	104686	52.0706	52.071	80.00- 120.00	100.00
2.233	2.233 (0.406)	96	98253			63.57- 123.57	93.85
30 Chloroethane					CAS #: 75-00-3		
2.348	2.348 (0.427)	64	49225	36.4666	36.466	80.00- 120.00	100.00
2.348	2.348 (0.427)	66	16257			1.86- 61.86	33.03

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
30 Chloroethane (continued)							
2.348	2.348 (0.427)	49	10740			0.00- 51.05	21.82
31 Isopentane					CAS #: 78-78-4		
2.369	2.369 (0.431)	43	76813	33.8151	33.815	80.00- 120.00	100.00
2.369	2.369 (0.431)	57	68316			52.34- 112.34	88.94
35 Freon 11					CAS #: 75-69-4		
2.598	2.598 (0.472)	101	303414	43.5814	43.581	80.00- 120.00	100.00
2.598	2.598 (0.472)	103	198326			35.21- 95.21	65.36
42 Ethanol					CAS #: 64-17-5		
2.949	2.949 (0.536)	45	26434	31.1629	31.163	80.00- 120.00	100.00(R)
2.942	2.949 (0.535)	43	5534			0.00- 50.21	20.94
2.949	2.949 (0.536)	46	10200			8.20- 68.20	38.59
49 Freon 113					CAS #: 76-13-1		
3.243	3.243 (0.590)	151	263067	42.5834	42.583	80.00- 120.00	100.00
3.243	3.243 (0.590)	153	168682			34.59- 94.59	64.12
3.243	3.243 (0.590)	101	272445			78.63- 138.63	103.56
50 1,1-Dichloroethene					CAS #: 75-35-4		
3.272	3.272 (0.595)	98	81283	42.3455	42.346	80.00- 120.00	100.00
3.272	3.272 (0.595)	96	126312			124.95- 184.95	155.40
3.272	3.272 (0.595)	61	153379			168.97- 228.97	188.70
52 Acetone					CAS #: 67-64-1		
3.429	3.429 (0.624)	58	42461	35.9430	35.943	80.00- 120.00	100.00
3.429	3.429 (0.624)	43	105810			226.10- 286.10	249.19
56 Carbon Disulfide					CAS #: 75-15-0		
3.508	3.508 (0.638)	76	297843	34.1613	34.161	80.00- 120.00	100.00(R)
57 2-Propanol					CAS #: 67-63-0		
3.608	3.608 (0.656)	45	133475	38.2834	38.283	80.00- 120.00	100.00
3.608	3.608 (0.656)	43	27051			0.00- 48.33	20.27
3.608	3.608 (0.656)	59	6619			0.00- 34.85	4.96
58 3-Chloropropene					CAS #: 107-05-1		
3.752	3.752 (0.682)	76	50401	35.3313	35.331	80.00- 120.00	100.00
3.752	3.752 (0.682)	41	86308			151.01- 211.01	171.24
66 Methylene Chloride					CAS #: 75-09-2		
3.945	3.938 (0.717)	49	93133	36.2764	36.276	80.00- 120.00	100.00
3.945	3.938 (0.717)	84	112904			81.18- 141.18	121.23
3.945	3.938 (0.717)	51	29903			1.84- 61.84	32.11

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
4.153	4.153 (0.755)	73	317583	39.6971	39.697	80.00- 120.00	100.00
4.153	4.153 (0.755)	57	60604			0.00- 50.25	19.08
4.153	4.153 (0.755)	41	47154			0.00- 45.26	14.85
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
4.181	4.181 (0.760)	98	77544	37.2976	37.298	80.00- 120.00	100.00
4.181	4.181 (0.760)	61	131790			152.76- 212.76	169.96
4.181	4.181 (0.760)	96	121882			127.34- 187.34	157.18
78 Hexane					CAS #: 110-54-3		
4.389	4.389 (0.798)	57	152712	37.5190	37.519	80.00- 120.00	100.00
4.389	4.389 (0.798)	43	76890			21.17- 81.17	50.35
4.389	4.389 (0.798)	86	33023			0.00- 49.59	21.62
82 1,1-Dichloroethane					CAS #: 75-34-3		
4.676	4.676 (0.850)	63	197089	39.5048	39.505	80.00- 120.00	100.00
4.676	4.676 (0.850)	65	64321			1.59- 61.59	32.64
86 Vinyl Acetate					CAS #: 108-05-4		
4.719	4.719 (0.858)	86	35390	42.1870	42.187	80.00- 120.00	100.00
4.719	4.719 (0.858)	43	220879			689.25- 749.25	624.13
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
5.263	5.263 (0.957)	98	113407	50.2233	50.223	80.00- 120.00	100.00
5.263	5.263 (0.957)	96	175005			127.08- 187.08	154.32
5.263	5.263 (0.957)	61	170040			135.30- 195.30	149.94
92 2-Butanone					CAS #: 78-93-3		
5.292	5.292 (0.962)	72	63966	40.0929	40.093	80.00- 120.00	100.00
5.292	5.292 (0.962)	43	162090			251.52- 311.52	253.40
5.292	5.292 (0.962)	57	16982			0.00- 57.81	26.55
99 Tetrahydrofuran					CAS #: 109-99-9		
5.492	5.492 (0.999)	42	91739	35.7263	35.726	80.00- 120.00	100.00
5.492	5.492 (0.999)	71	55568			26.57- 86.57	60.57
5.492	5.492 (0.999)	72	59895			30.33- 90.33	65.29
100 Chloroform					CAS #: 67-66-3		
5.564	5.564 (1.012)	83	277112	42.9034	42.903	80.00- 120.00	100.00
5.564	5.564 (1.012)	85	180761			34.18- 94.18	65.23
102 Cyclohexane					CAS #: 110-82-7		
5.657	5.657 (1.029)	84	192258	42.3160	42.316	80.00- 120.00	100.00
5.657	5.657 (1.029)	56	177274			67.82- 127.82	92.21
5.657	5.657 (1.029)	41	74887			12.04- 72.04	38.95

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane						CAS #: 71-55-6	
5.678	5.678 (1.033)	97	293811	42.7162	42.716	80.00- 120.00	100.00
5.678	5.678 (1.033)	99	191555			34.84- 94.84	65.20
106 Carbon Tetrachloride						CAS #: 56-23-5	
5.793	5.793 (1.053)	119	317865	44.3351	44.335	80.00- 120.00	100.00
5.793	5.793 (1.053)	117	327612			73.08- 133.08	103.07
113 2,2,4-Trimethylpentane						CAS #: 540-84-1	
5.986	5.986 (1.089)	57	556636	39.9321	39.932	80.00- 120.00	100.00
5.986	5.986 (1.089)	56	176978			2.25- 62.25	31.79
5.986	5.986 (1.089)	41	116524			0.00- 49.06	20.93
116 Benzene						CAS #: 71-43-2	
6.015	6.015 (0.942)	78	430528	42.4901	42.490	80.00- 120.00	100.00
6.015	6.015 (0.942)	77	103349			0.00- 53.87	24.01
119 tert-Amyl methyl ether						CAS #: 994-05-8	
5.564	6.080 (1.012)	87	29849	12.1500	12.150	80.00- 120.00	100.00
6.015	6.080 (1.094)	73	6721			370.90- 430.90	22.52
5.657	6.080 (1.029)	55	61576			58.01- 118.01	206.29
120 1,2-Dichloroethane						CAS #: 107-06-2	
6.108	6.108 (0.956)	62	155354	42.6034	42.603	80.00- 120.00	100.00
6.108	6.108 (0.956)	64	50675			3.62- 63.62	32.62
121 Heptane						CAS #: 142-82-5	
6.158	6.158 (0.964)	71	150372	42.3304	42.330	80.00- 120.00	100.00
6.158	6.158 (0.964)	43	174368			96.69- 156.69	115.96
6.158	6.158 (0.964)	57	131253			58.40- 118.40	87.29
125 Trichloroethene						CAS #: 79-01-6	
6.581	6.581 (1.030)	95	215260	43.4636	43.464	80.00- 120.00	100.00
6.581	6.581 (1.030)	130	255125			84.60- 144.60	118.52
6.581	6.581 (1.030)	97	140517			34.77- 94.77	65.28
127 Methylcyclohexane						CAS #: 108-87-2	
6.681	6.681 (1.215)	83	288642	43.1954	43.195	80.00- 120.00	100.00
6.681	6.681 (1.215)	98	141817			16.97- 76.97	49.13
6.681	6.681 (1.215)	55	176175			33.99- 93.99	61.04
132 1,2-Dichloropropane						CAS #: 78-87-5	
6.817	6.817 (1.067)	63	150671	42.0419	42.042	80.00- 120.00	100.00
6.817	6.817 (1.067)	62	102966			38.70- 98.70	68.34
6.817	6.817 (1.067)	41	56694			8.21- 68.21	37.63

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
136 1,4-Dioxane					CAS #: 123-91-1		
6.911	6.910 (1.082)	88	117065	44.8397	44.840	80.00- 120.00	100.00
6.911	6.910 (1.082)	58	65039			27.44- 87.44	55.56
6.911	6.910 (1.082)	57	19527			0.00- 47.84	16.68
138 Bromodichloromethane					CAS #: 75-27-4		
7.047	7.047 (1.103)	83	332235	45.0125	45.012	80.00- 120.00	100.00
7.047	7.047 (1.103)	85	212896			34.54- 94.54	64.08
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
7.426	7.426 (1.163)	75	267595	41.5217	41.522	80.00- 120.00	100.00
7.426	7.426 (1.163)	77	86277			2.23- 62.23	32.24
7.426	7.426 (1.163)	39	81818			1.93- 61.93	30.58
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.534	7.534 (1.179)	58	121449	44.0156	44.016	80.00- 120.00	100.00
7.534	7.534 (1.179)	43	244654			175.29- 235.29	201.45
7.534	7.534 (1.179)	85	70105			22.79- 82.79	57.72
147 Toluene					CAS #: 108-88-3		
7.655	7.655 (1.198)	91	633268	45.1736	45.174	80.00- 120.00	100.00
7.655	7.655 (1.198)	92	368211			28.86- 88.86	58.14
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
7.899	7.899 (0.894)	75	248234	41.9385	41.938	80.00- 120.00	100.00
7.899	7.899 (0.894)	77	79755			2.74- 62.74	32.13
7.899	7.899 (0.894)	39	76599			1.87- 61.87	30.86
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.057	8.057 (0.912)	97	227825	44.6743	44.674	80.00- 120.00	100.00
8.057	8.057 (0.912)	99	142599			31.91- 91.91	62.59
8.057	8.057 (0.912)	83	190850			54.42- 114.42	83.77
156 Tetrachloroethene					CAS #: 127-18-4		
8.092	8.092 (0.916)	166	388687	46.3362	46.336	80.00- 120.00	100.00
8.092	8.092 (0.916)	129	256353			38.60- 98.60	65.95
8.092	8.092 (0.916)	131	250037			36.89- 96.89	64.33
158 2-Hexanone					CAS #: 591-78-6		
8.221	8.221 (0.930)	58	174423	42.7106	42.711	80.00- 120.00	100.00
8.221	8.221 (0.930)	43	247921			121.26- 181.26	142.14
8.221	8.221 (0.930)	100	48400			0.00- 55.92	27.75
160 Dibromochloromethane					CAS #: 124-48-1		
8.372	8.372 (0.947)	129	446910	46.4571	46.457	80.00- 120.00	100.00
8.372	8.372 (0.947)	127	343895			46.88- 106.88	76.95

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
8.486	8.486 (0.960)	107	377845	45.9340	45.934	80.00- 120.00	100.00
8.486	8.486 (0.960)	109	357673			65.10- 125.10	94.66
165 Chlorobenzene					CAS #: 108-90-7		
8.859	8.859 (1.002)	112	569465	43.9815	43.981	80.00- 120.00	100.00
8.859	8.859 (1.002)	114	183577			1.88- 61.88	32.24
8.859	8.859 (1.002)	77	299502			22.25- 82.25	52.59
167 Ethyl Benzene					CAS #: 100-41-4		
8.909	8.909 (1.008)	106	290414	44.9312	44.931	80.00- 120.00	100.00
8.909	8.909 (1.008)	91	851432			268.56- 328.56	293.18
169 m,p-Xylene					CAS #: 108-38-3		
9.002	9.002 (1.019)	106	368349	45.1031	45.103	80.00- 120.00	100.00
9.002	9.002 (1.019)	91	689400			159.69- 219.69	187.16
171 o-Xylene					CAS #: 95-47-6		
9.346	9.346 (1.058)	106	349528	45.6746	45.675	80.00- 120.00	100.00
9.346	9.346 (1.058)	91	692826			168.78- 228.78	198.22
172 Styrene					CAS #: 100-42-5		
9.367	9.367 (1.060)	104	562605	45.6459	45.646	80.00- 120.00	100.00
9.360	9.367 (1.059)	78	240559			13.63- 73.63	42.76
174 Bromoform					CAS #: 75-25-2		
9.568	9.568 (1.083)	173	688801	63.7109	63.711	80.00- 120.00	100.00
9.568	9.568 (1.083)	171	352808			21.51- 81.51	51.22
175 Cumene					CAS #: 98-82-8		
9.625	9.625 (1.089)	105	1065131	45.7388	45.739	80.00- 120.00	100.00
9.625	9.625 (1.089)	120	300747			0.00- 57.69	28.24
9.625	9.625 (1.089)	51	65242			0.00- 36.59	6.13
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
9.940	9.940 (1.125)	83	536503	47.9411	47.941	80.00- 120.00	100.00
9.940	9.940 (1.125)	85	350240			34.20- 94.20	65.28
182 Propylbenzene					CAS #: 103-65-1		
9.969	9.969 (1.128)	91	1242851	46.6217	46.622	80.00- 120.00	100.00
9.969	9.969 (1.128)	120	324447			0.00- 55.61	26.11
9.969	9.969 (1.128)	105	47927			0.00- 33.98	3.86
188 4-Ethyltoluene					CAS #: 622-96-8		
10.062	10.062 (1.139)	120	348640	46.5411	46.541	80.00- 120.00	100.00
10.062	10.062 (1.139)	105	1139544			279.77- 339.77	326.85

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
10.112	10.112 (1.144)	120	500050	48.3453	48.345	80.00- 120.00	100.00
10.112	10.112 (1.144)	105	921391			170.95- 230.95	184.26
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
10.435	10.435 (1.181)	120	435763	47.3255	47.325	80.00- 120.00	100.00
10.435	10.435 (1.181)	105	897918			178.76- 238.76	206.06
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
10.721	10.721 (1.213)	146	730715	47.2928	47.293	80.00- 120.00	100.00
10.721	10.721 (1.213)	148	470376			33.80- 93.80	64.37
10.721	10.721 (1.213)	111	258032			7.11- 67.11	35.31
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
10.807	10.800 (1.223)	146	742298	48.2191	48.219	80.00- 120.00	100.00
10.807	10.800 (1.223)	148	472471			33.65- 93.65	63.65
10.800	10.800 (1.222)	111	252222			5.53- 65.53	33.98
212 alpha-Chlorotoluene					CAS #: 100-44-7		
10.922	10.922 (1.236)	91	852776	47.7304	47.730	80.00- 120.00	100.00
10.922	10.922 (1.236)	126	208073			0.00- 53.94	24.40
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
11.130	11.129 (1.259)	146	708875	48.1307	48.131	80.00- 120.00	100.00
11.130	11.129 (1.259)	148	448959			33.47- 93.47	63.33
11.130	11.129 (1.259)	111	259324			7.89- 67.89	36.58
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
12.534	12.533 (1.418)	180	730062	50.4792	50.479	80.00- 120.00	100.00
12.534	12.533 (1.418)	182	710364			67.03- 127.03	97.30
227 Hexachlorobutadiene					CAS #: 87-68-3		
12.619	12.619 (1.428)	225	625746	50.2645	50.264	80.00- 120.00	100.00
12.619	12.619 (1.428)	223	387920			32.58- 92.58	61.99
228 Naphthalene					CAS #: 91-20-3		
12.806	12.798 (1.449)	128	149321	6.56265	6.563	80.00- 120.00	100.00
12.806	12.798 (1.449)	127	20074			0.00- 42.95	13.44

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd17.i
Lab File ID: 17061604.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: jcw
Method File: /chem/msd17.i/16jun16.b/176q0412a.m
Misc Info: 50ppbv (200ppbv)

Calibration Date: 16-JUN-2016
Calibration Time: 14:10
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

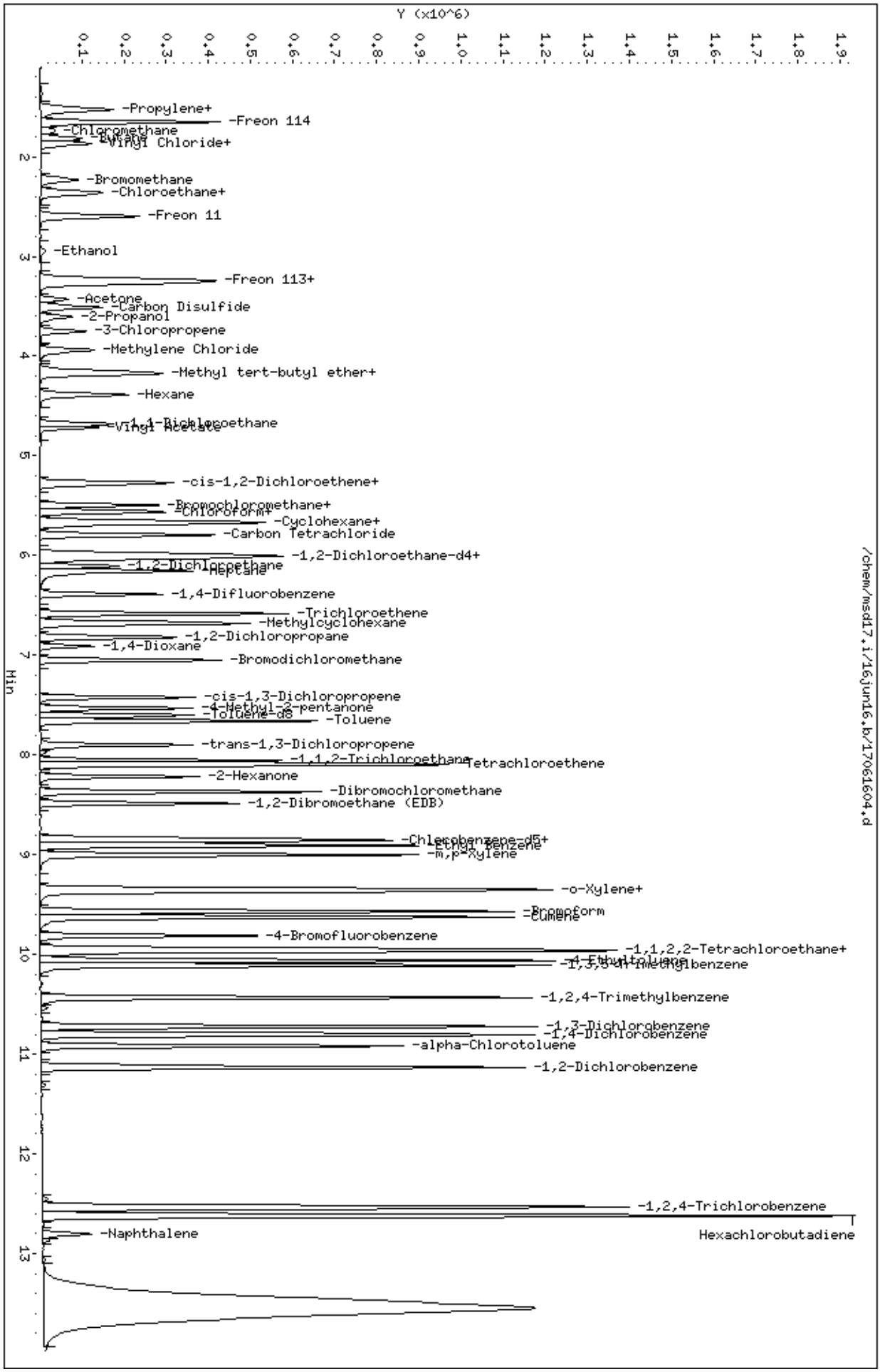
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	75443	45266	105620	74513	-1.23
123 1,4-Difluorobenze	302627	181576	423678	303475	0.28
163 Chlorobenzene-d5	299663	179798	419528	301348	0.56

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	5.50	5.17	5.83	5.50	0.00
123 1,4-Difluorobenze	6.39	6.06	6.72	6.39	0.00
163 Chlorobenzene-d5	8.84	8.51	9.17	8.84	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.

Data File: /chem/msd17.i/16jun16.b/17061604.d
Date : 16-JUN-2016 15:00
Client ID: LCSD
Sample Info: 50mL 2789-113
Column phase: RTX-624

Instrument: msd17.i
Operator: jcw
Column diameter: 0.25



MSD17

BFB verification of 176/174 ratio: (100936/103904) * 100 = 97.14%			
IS/S Std.#:	2789-154	Exp. Date:	9/1/2016
BCM	75,443		
1,4-DFB	302,627		
CB-d5	299,663		

Method TO-15/TO-14			
SOP# 6			
Vacuum: NA			
Please check all standards			
Surrogate# 2789-154		Exp. Date:	9/1/2016
Surrogate# NA		Exp. Date:	NA

Verified CCV vs ICAL mid-point (-40%): jcw

Method: 176Q0412a.m

Use	File #	Enter/Scan Sample IDs	Canister#	Cart Pos.	Pressure	Amount	DF	Verify Load	Loaded Init	Date Analyzed	Time Analyzed	Review Init	Comments
√	17061601	BFB Tune Check	2789-154	12	36ng	1.0mL	1.00	jcw	jcw	06/16/16	1335	jcw	Exp.9/1/16.
√	17061602	CCV	2789-137	13	50ppbv (200ppbv)	50mL	1.00	jcw	jcw	06/16/16	1410	jcw	Exp. 8/12/16;2 OUT
√	17061603	LCS	2789-113	14	50ppbv (200ppbv)	50mL	1.00	jcw	jcw	06/16/16	1435	jcw	Exp.8/4/16; 6 OUT
√	17061604	LCSD	2789-113	14	50ppbv (200ppbv)	50mL	1.00	jcw	jcw	06/16/16	1500	jcw	Exp.8/4/16; 4 OUT
X	17061605	System Blank	35149	12	HUMID	200ml	1.00	jcw	jcw	06/16/16	1534	jcw	>rl
√	17061606	Lab Blank	35149	12	HUMID	200ml	1.00	jcw	jcw	06/16/16	1608	ea	"a"
√	17061607	1606298E-16A	35677	1	3.5 Hg->14.8 psi	200ml	2.27	ea	ea	06/16/16	1835	ea	
√	17061608	1606298B-09A	37677	2	3.9 Hg->15 psi	200ml	2.32	ea	ea	06/16/16	1902	ea	
√	17061609	1606298B-10A	34581	3	5.7 Hg->14.9 psi	200ml	2.48	ea	ea	06/16/16	1928	ea	
√	17061610	1606298B-11A	36539	4	3.9 Hg->15 psi	200ml	2.32	ea	ea	06/16/16	1954	ea	
√	17061611	1606298B-12A	n2040	5	2.6 Hg->14.8 psi	200ml	2.20	ea	ea	06/16/16	2020	ea	
√	17061612	1606298B-13A	35658	6	5.1 Hg->14.7 psi	200ml	2.41	ea	ea	06/16/16	2047	ea	
√	17061613	1606298B-14A	1L2744	7	3.7 Hg->14.8 psi	200ml	2.29	ea	ea	06/16/16	2113	ea	
√	17061614	1606298B-15A	1L1606	8	4.9 Hg->15.1 psi	200ml	2.42	ea	ea	06/16/16	2140	ea	
√	17061615	1606285A-03A	36380	9	5.5 Hg->15 psi	200ml	2.47	jcw	ea	06/16/16	2206	jcw	
√	17061616	1606295-01A	35632	10	6.0 Hg->15 psi	200ml	2.52	jcw	ea	06/16/16	2232	jcw	
√	17061617	1606295-02A	31770	11	4.5 Hg->15 psi	200ml	2.38	jcw	ea	06/16/16	2259	jcw	
	17061618	1606295-03A	37823	1	19.0 Hg->15 psi	100ml	11.0		jcw	06/17/16			
	17061619	1606267-01A	33547	2	2.5 Hg->5 psi	20ml	14.6		jcw	06/17/16			

6/17/16

Eurofins Air Toxics Inc.

Data file : /var/chem/msd17.i/12apr16.b/17041201.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 12-APR-2016 17:37
Operator : gh Inst ID: msd17.i
Smp Info : 1.0mL# 2789-16; BFB; BFB
Misc Info : 36ng
Comment :
Method : /var/chem/msd17.i/12apr16.b/bfb30.m
Meth Date : 12-Apr-2016 17:59 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

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

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
9.819	9.840	-0.021	95	331285			100.00- 100.00	100.00
9.819	9.840	-0.021	50	42456			8.00- 40.00	12.82
9.819	9.840	-0.021	75	143117			30.00- 66.00	43.20
9.819	9.840	-0.021	96	22416			5.00- 9.00	6.77
9.819	9.840	-0.021	173	0			0.00- 1.99	0.00
9.819	9.840	-0.021	174	313856			50.00- 120.00	94.74
9.819	9.840	-0.021	175	24440			4.00- 9.00	7.79
9.819	9.840	-0.021	176	303573			93.00- 101.00	96.72
9.819	9.840	-0.021	177	20742			5.00- 9.00	6.83

Data File: /var/chem/msd17.i/12apr16.b/17041201.d

Date : 12-APR-2016 17:37

Client ID: BFB

Instrument: msd17.i

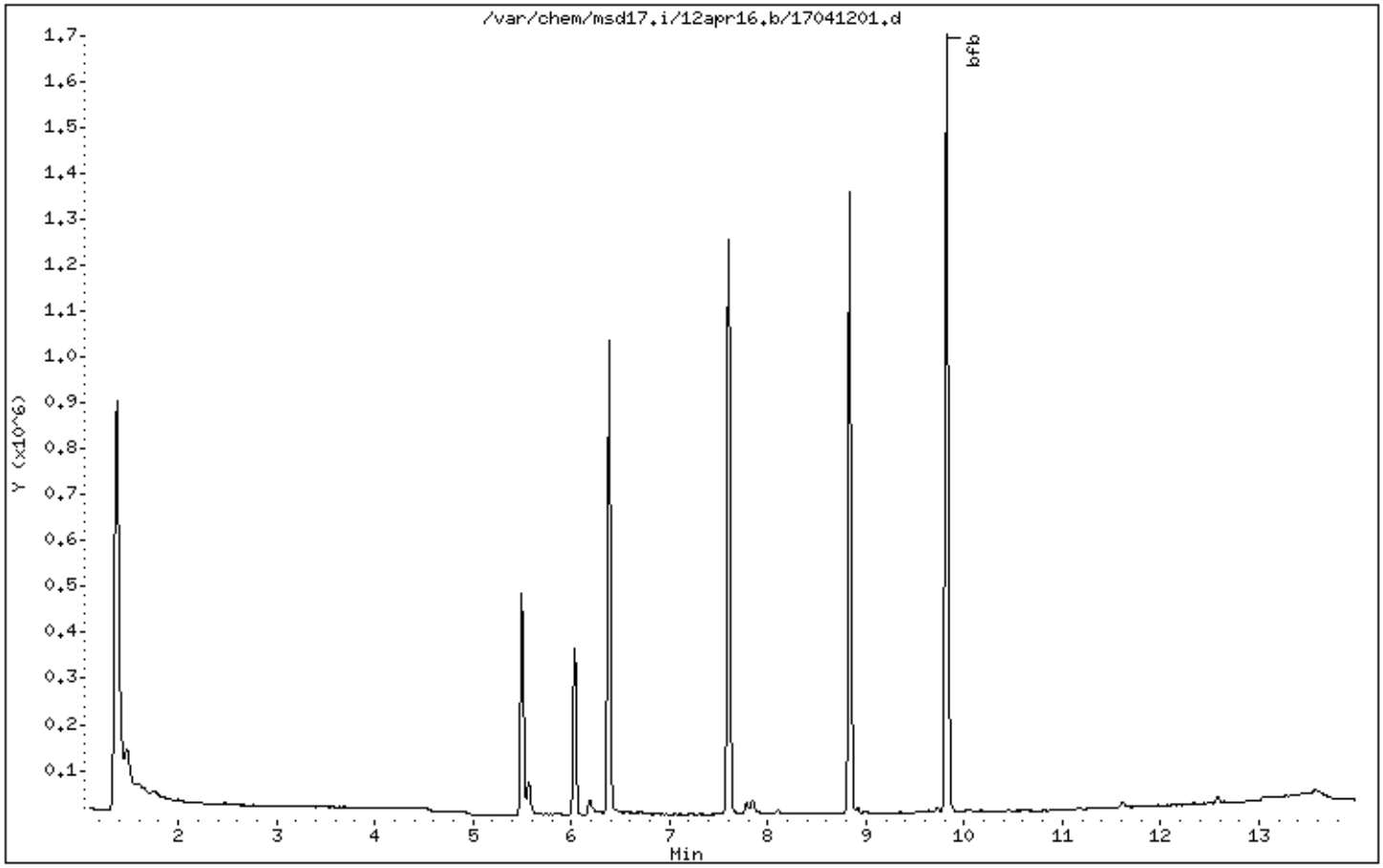
Sample Info: 1.0mL# 2789-16; BFB; BFB

Volume Injected (uL): 1.0

Operator: gh

Column phase:

Column diameter: 2.00



Data File: /var/chem/msd17.i/12apr16.b/17041201.d

Date : 12-APR-2016 17:37

Client ID: BFB

Instrument: msd17.i

Sample Info: 1.0mL# 2789-16; BFB; BFB

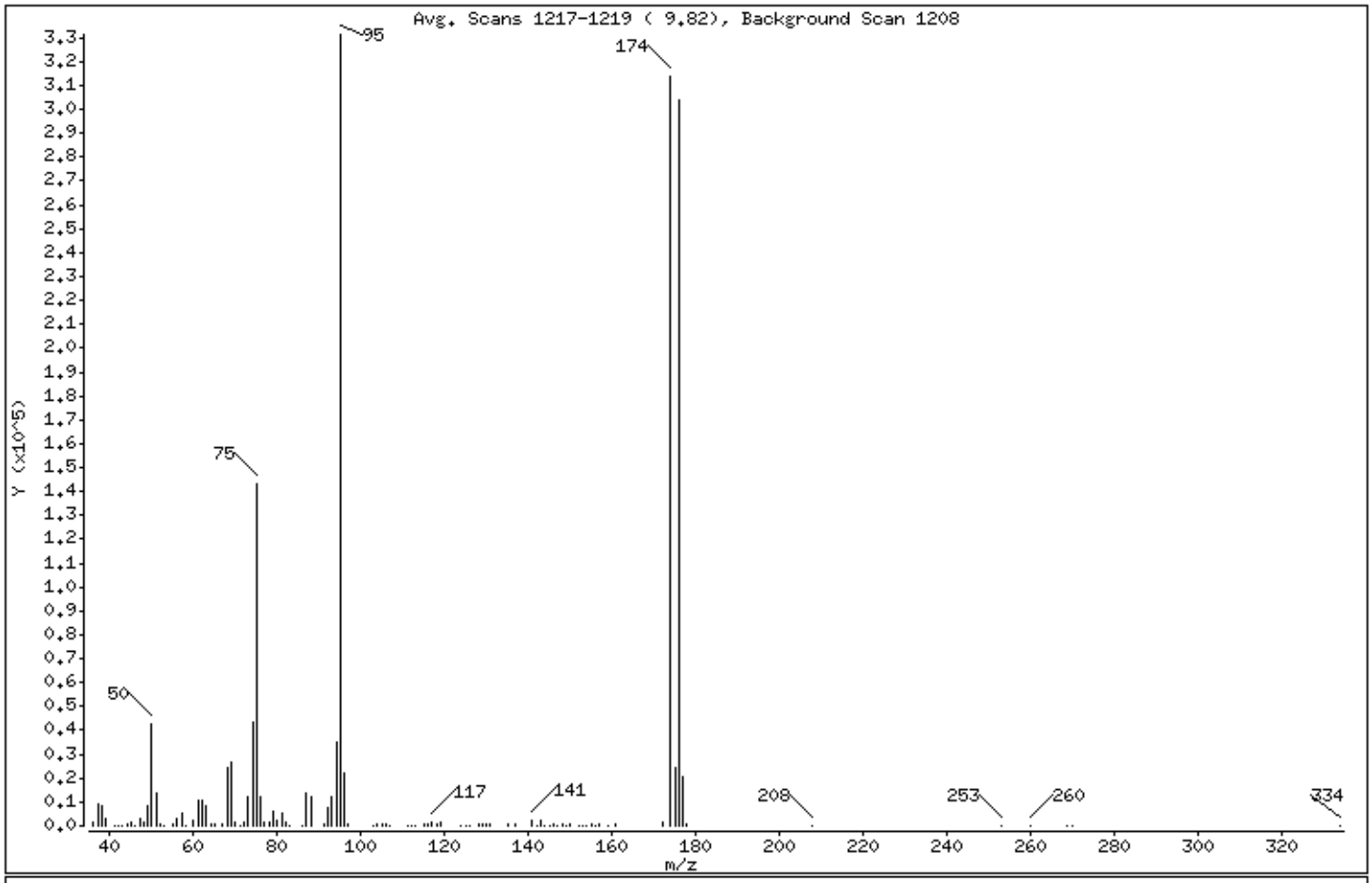
Volume Injected (uL): 1.0

Operator: gh

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	12.82
75	30.00 - 66.00% of mass 95	43.20
96	5.00 - 9.00% of mass 95	6.77
173	Less than 1.99% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	94.74
175	4.00 - 9.00% of mass 174	7.38 (7.79)
176	93.00 - 101.00% of mass 174	91.63 (96.72)
177	5.00 - 9.00% of mass 176	6.26 (6.83)

Data File: /var/chem/msd17.i/12apr16.b/17041201.d

Date : 12-APR-2016 17:37

Client ID: BFB

Instrument: msd17.i

Sample Info: 1.0mL# 2789-16; BFB; BFB

Volume Injected (uL): 1.0

Operator: gh

Column phase:

Column diameter: 2.00

Data File: 17041201.d
Spectrum: Avg. Scans 1217-1219 (9.82), Background Scan 1208
Location of Maximum: 95.00
Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1653	67.00	752	103.00	178	146.00	584
37.00	9330	68.00	24664	104.00	992	147.00	238
38.00	7999	69.00	26392	105.00	452	148.00	942
39.00	3142	70.00	1877	106.00	1014	149.00	187
41.00	60	71.00	160	107.00	323	150.00	443
42.00	12	72.00	1502	111.00	257	152.00	105
43.00	113	73.00	12161	112.00	203	153.00	133
44.00	742	74.00	43456	113.00	242	154.00	158
45.00	1903	75.00	143104	115.00	387	155.00	901
46.00	69	76.00	11819	116.00	823	156.00	51
47.00	2825	77.00	1506	117.00	1816	157.00	556
48.00	1261	78.00	1348	118.00	1034	159.00	373
49.00	8648	79.00	6117	119.00	1468	161.00	402
50.00	42456	80.00	1991	124.00	119	172.00	1252
51.00	13770	81.00	5706	125.00	50	174.00	313856
52.00	624	82.00	1419	126.00	223	175.00	24440
53.00	110	83.00	228	128.00	1036	176.00	303552
55.00	670	86.00	102	129.00	543	177.00	20736
56.00	2870	87.00	13436	130.00	1077	178.00	558
57.00	5487	88.00	12295	131.00	412	208.00	53
58.00	226	91.00	990	135.00	524	253.00	44
60.00	2254	92.00	7936	137.00	499	260.00	116
61.00	10667	93.00	11926	141.00	2450	269.00	47
62.00	10895	94.00	34936	142.00	246	270.00	52
63.00	8047	95.00	331264	143.00	2355	334.00	51
64.00	872	96.00	22416	144.00	119		
65.00	648	97.00	552	145.00	234		

Eurofins Air Toxics Inc.

Data file : /var/chem/msd17.i/16jun16.b/17061601.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 16-JUN-2016 13:35
Operator : jcw Inst ID: msd17.i
Smp Info : 1.0mL# 2789-154; BFB; BFB
Misc Info : 36ng
Comment :
Method : /var/chem/msd17.i/16jun16.b/bfb30.m
Meth Date : 16-Jun-2016 13:59 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

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

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
9.826	9.840	-0.014	95	99400			100.00- 100.00	95.66
9.826	9.840	-0.014	50	11346			8.00- 40.00	11.41
9.826	9.840	-0.014	75	40168			30.00- 66.00	40.41
9.826	9.840	-0.014	96	6335			5.00- 9.00	6.37
9.826	9.840	-0.014	173	0			0.00- 1.99	0.00
9.826	9.840	-0.014	174	103909			50.00- 120.00	104.54
9.826	9.840	-0.014	175	8371			4.00- 9.00	8.06
9.826	9.840	-0.014	176	100936			93.00- 101.00	97.14
9.826	9.840	-0.014	177	6478			5.00- 9.00	6.42

Data File: /var/chem/msd17.i/16jun16.b/17061601.d

Date : 16-JUN-2016 13:35

Client ID: BFB

Instrument: msd17.i

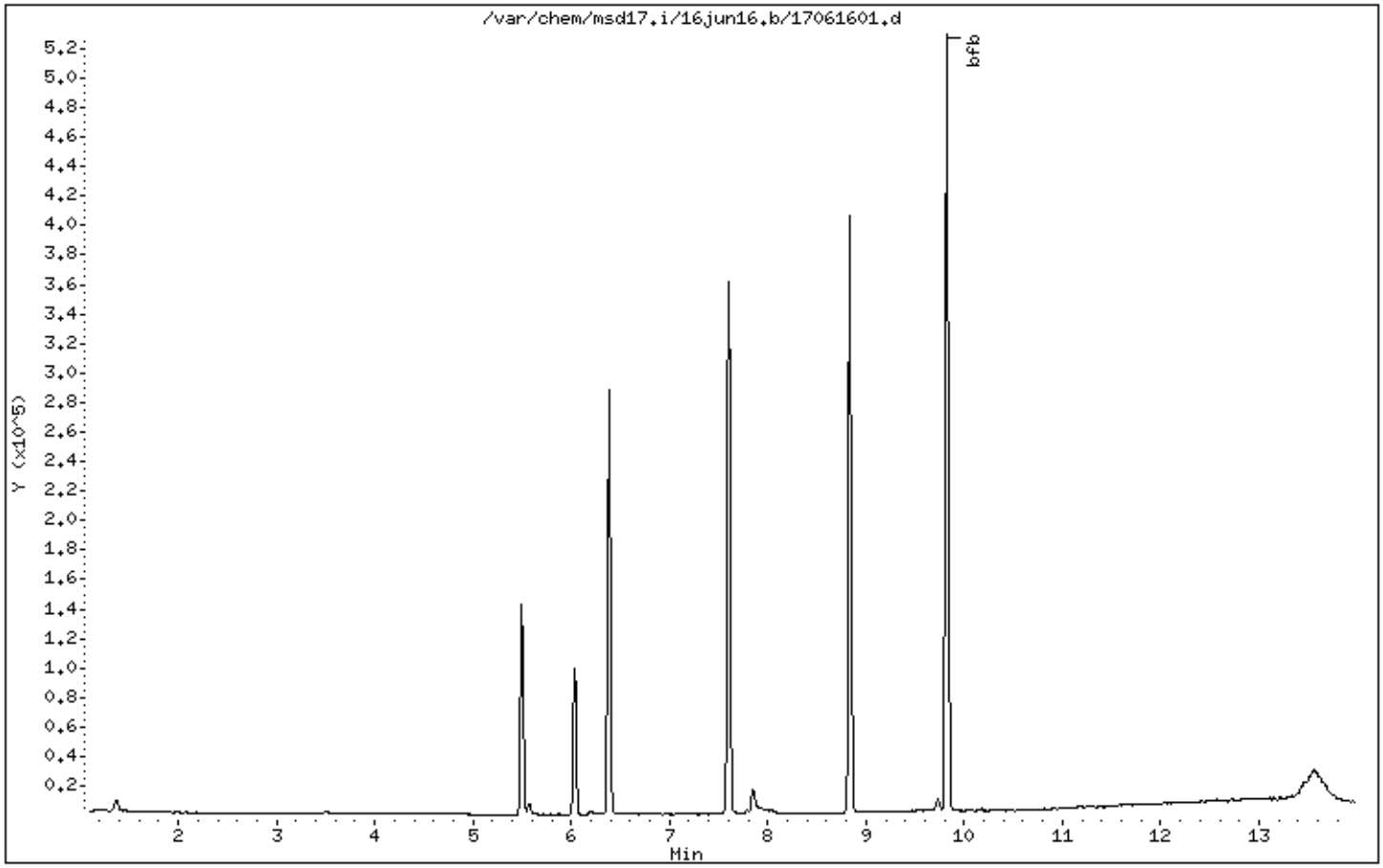
Sample Info: 1.0mL# 2789-154; BFB; BFB

Volume Injected (uL): 1.0

Operator: jcw

Column phase:

Column diameter: 2.00



Data File: /var/chem/msd17.i/16jun16.b/17061601.d

Date : 16-JUN-2016 13:35

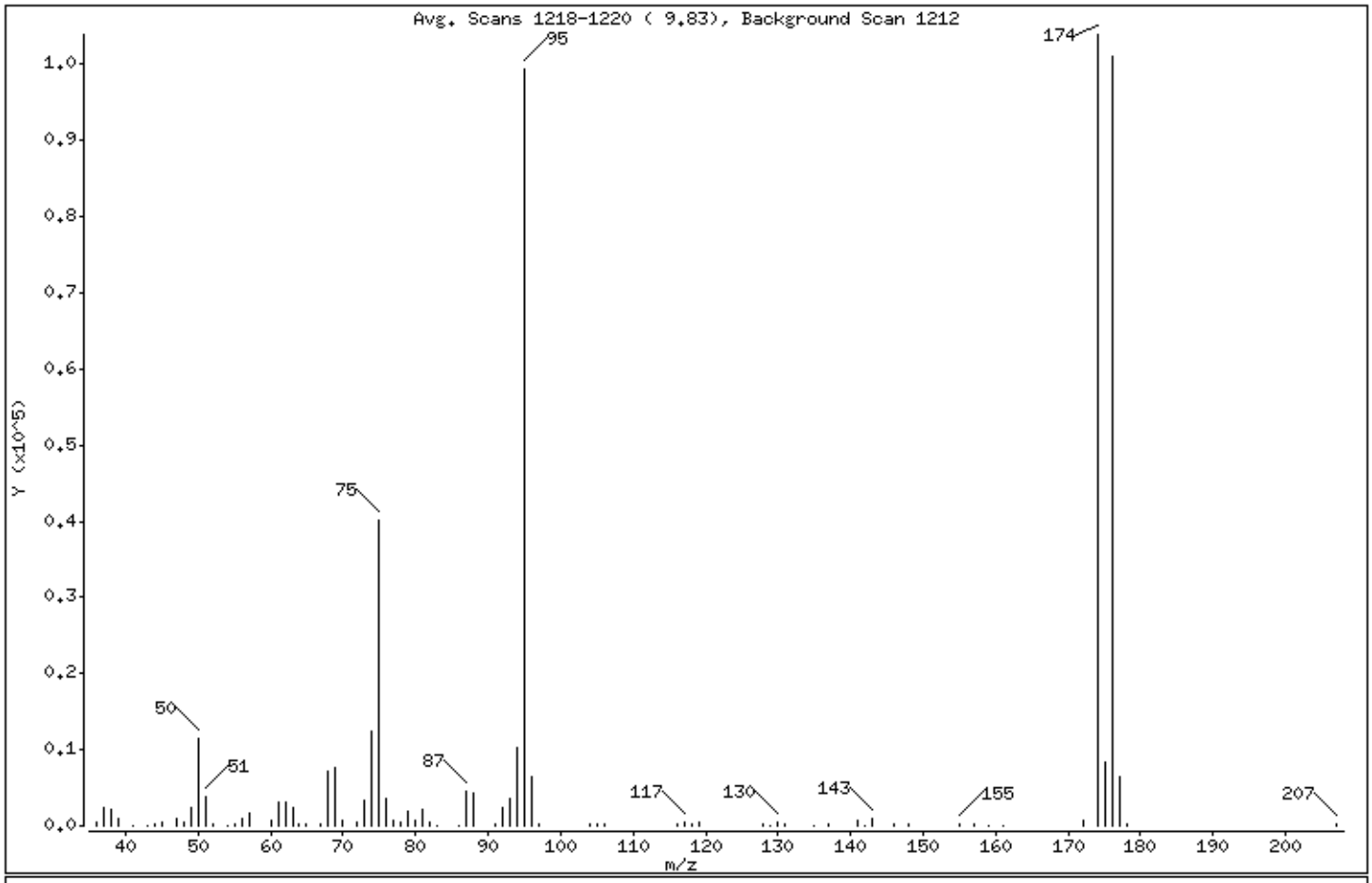
Client ID: BFB Instrument: msd17.i

Sample Info: 1.0mL# 2789-154; BFB; BFB

Volume Injected (uL): 1.0 Operator: jcw

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	11.41
75	30.00 - 66.00% of mass 95	40.41
96	5.00 - 9.00% of mass 95	6.37
173	Less than 1.99% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	104.54
175	4.00 - 9.00% of mass 174	8.42 (8.06)
176	93.00 - 101.00% of mass 174	101.55 (97.14)
177	5.00 - 9.00% of mass 176	6.52 (6.42)

Data File: /var/chem/msd17.i/16jun16.b/17061601.d

Date : 16-JUN-2016 13:35

Client ID: BFB

Instrument: msd17.i

Sample Info: 1.0mL# 2789-154; BFB; BFB

Volume Injected (uL): 1.0

Operator: jcw

Column phase:

Column diameter: 2.00

Data File: 17061601.d
Spectrum: Avg. Scans 1218-1220 (9.83), Background Scan 1212
Location of Maximum: 174.00
Number of points: 79

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	443	62.00	3019	86.00	103	131.00	124
37.00	2342	63.00	2459	87.00	4426	135.00	95
38.00	2149	64.00	307	88.00	4283	137.00	178
39.00	1027	65.00	337	91.00	274	141.00	656
41.00	27	67.00	185	92.00	2327	142.00	112
43.00	24	68.00	7182	93.00	3690	143.00	845
44.00	144	69.00	7698	94.00	10376	146.00	169
45.00	561	70.00	700	95.00	99400	148.00	241
47.00	967	72.00	390	96.00	6335	155.00	249
48.00	386	73.00	3433	97.00	253	157.00	194
49.00	2282	74.00	12361	104.00	305	159.00	50
50.00	11346	75.00	40168	105.00	208	161.00	50
51.00	3733	76.00	3691	106.00	309	172.00	786
52.00	195	77.00	610	116.00	294	174.00	103904
54.00	59	78.00	508	117.00	496	175.00	8371
55.00	194	79.00	1963	118.00	316	176.00	100936
56.00	846	80.00	627	119.00	383	177.00	6478
57.00	1730	81.00	2035	128.00	337	178.00	190
60.00	601	82.00	553	129.00	112	207.00	187
61.00	3072	83.00	80	130.00	362		

Shipping/ Receiving Documents

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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 Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Brian Whittaker 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

eurofins | Air Toxics

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited 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

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Terry Taylor
Collected by: (Print and Sign)
Company AMAI Email
Address 2700 Westchester City Purchase State NY Zip 10577
Phone 914-251-0400 Fax

Project Info:
P.O. #
Project # Building 7 VI
Project Name

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas:
N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	B7IA-1(061016)	6L1283	6/11/16	1850	TO-15	30	7		
	B7IA-1D(061016)	Ø3536	6/11/16	1850	TO-15	30	6.5		
	B7IA-2(061016)	0Ø389	6/11/16	1950	TO-15	30	7		
	B7IA-3(061016)	0Ø354	6/11/16	1947	TO-15	30	9		
	B7IA-4(061016)	NØ584	6/11/16	1919	TO-15	30	8		
	B7IA-5(061016)	34423	6/11/16	1909	TO-15	30	5		
	B7IA-6(061016)	44Ø	6/11/16	1937	TO-15	28	6		
	B7AA(061016)	25249	6/11/16	1825	TO-15	30	9		
09A	B7SS-1(061216)	37677	6/12/16	1252	TO-15	30	5		
10A	B7SS-1D(061216)	34581	6/12/16	1251	TO-15	30	5		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	13 Jun 16 1700	FedEx (Trk# 7765 0601 1091)	
		[signature]	6-14-16 1000

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEX		NA	Good	Yes No None	1606298

Form 1293 rev. 11

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Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited 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

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Terry Taylor
Collected by: (Print and Sign): [signature]
Company: AMAI Email:
Address: 2700 Westchester City: Purchase State: NY Zip: 0577
Phone: 914-251-0400 Fax:

Project Info:
P.O. #:
Project #: Building 7 VI
Project Name:

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
11A	B7SS-2(061216)	36539	6/12/16	1347	TO-15	30	5		
12A	B7SS-3(061216)	N2Ø4Ø	6/12/16	1705	TO-15	21	3		
13A	B7SS-4(061216)	35658	6/12/16	1620	TO-15	30	5		
14A	B7SS-5(061216)	1L2744	6/12/16	1116	TO-15	30	5		
15A	B7SS-6(061216)	1L1606	6/12/16	1748	TO-15	29	5		
16A	B15SS-1(061216)	35677	6/12/16	2012	TO-15	30	5		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	13JUN16 1700	FedEx (TrK# 7765 0601 1091)	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
		MHEATL	6-14-16 1000
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx		Na	Good	Yes No None	1606278

Form 1293 rev.11

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SAMPLE RECEIPT SUMMARY

WORKORDER 1606298B

Client

Mr. Terry Taylor
Anderson Mulholland &
Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577
Sales Rep: N/A

Phone

(914) 251-0400

Fax

Date Promised: 06/27/16
Date Completed: 6/24/16
Date Received: 6/14/16
PO#:
Project#: Building 7 VI

Total $: $ 910.00
Logged By: MH

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
09A	B7SS-1(061216)	TO-15	6/12/2016	3.9 "Hg	$125.00
10A	B7SS-1D(061216)	TO-15	6/12/2016	5.7 "Hg	$125.00
11A	B7SS-2(061216)	TO-15	6/12/2016	3.9 "Hg	$125.00
12A	B7SS-3(061216)	TO-15	6/12/2016	2.6 "Hg	$125.00
13A	B7SS-4(061216)	TO-15	6/12/2016	5.1 "Hg	$125.00
14A	B7SS-5(061216)	TO-15	6/12/2016	3.7 "Hg	$125.00
15A	B7SS-6(061216)	TO-15	6/12/2016	4.9 "Hg	$125.00
16A	Lab Blank	TO-15	NA	NA	$0.00
17A	CCV	TO-15	NA	NA	$0.00
18A	LCS	TO-15	NA	NA	$0.00
18AA	LCSD	TO-15	NA	NA	$0.00

Misc. ChargeseCVP (7) @ $5.00 each. $35.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: BMS/19256

BILL TO: Accounts Payable
Anderson Mulholland & Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577

Analysis Code: TO-14A

TERMS:

Reporting Method: TO-15 + Naph

Other Records

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure ("Hg)})*(14.7\text{psi}/30\text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
0.0	1.34	2.02
0.2	1.35	2.03
0.4	1.36	2.05
0.5	1.36	2.05
0.6	1.37	2.06
0.8	1.38	2.08
1.0	1.39	2.09
1.2	1.40	2.10
1.4	1.40	2.12
1.5	1.41	2.13
1.6	1.42	2.13
1.8	1.42	2.15
2.0	1.44	2.16
2.2	1.45	2.18
2.4	1.46	2.20
2.5	1.46	2.20
2.6	1.47	2.21
2.8	1.48	2.23
3.0	1.49	2.24
3.2	1.50	2.26
3.4	1.51	2.28
3.5	1.52	2.29
3.6	1.52	2.30
3.8	1.53	2.31
4.0	1.55	2.33
4.2	1.56	2.35
4.4	1.57	2.37
4.5	1.58	2.38
4.6	1.58	2.39
4.8	1.60	2.40
5.0	1.61	2.42
5.2	1.62	2.44
5.4	1.63	2.46
5.5	1.64	2.47
5.6	1.65	2.48
5.8	1.66	2.50
6.0	1.68	2.52
6.2	1.69	2.55
6.4	1.70	2.57
6.5	1.71	2.58
6.6	1.72	2.59
6.8	1.73	2.61
7.0	1.75	2.64
7.2	1.76	2.66
7.4	1.78	2.68
7.5	1.79	2.69
7.6	1.79	2.70

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
7.7	1.80	2.72
7.8	1.81	2.73
8.0	1.83	2.76
8.2	1.84	2.78
8.4	1.86	2.81
8.5	1.87	2.82
8.6	1.88	2.83
8.8	1.90	2.86
9.0	1.91	2.89
9.2	1.93	2.91
9.4	1.95	2.94
9.5	1.96	2.96
9.6	1.97	2.97
9.8	1.99	3.00
10.0	2.01	3.03
10.2	2.03	3.06
10.4	2.05	3.09
10.5	2.06	3.11
10.6	2.07	3.12
10.8	2.09	3.16
11.0	2.12	3.19
11.2	2.14	3.22
11.4	2.16	3.26
11.5	2.17	3.28
11.6	2.18	3.29
11.8	2.21	3.33
12.0	2.23	3.37
12.2	2.26	3.40
12.4	2.28	3.44
12.5	2.30	3.46
12.6	2.31	3.48
12.8	2.34	3.52
13.0	2.36	3.56
13.2	2.39	3.61
13.4	2.42	3.65
13.5	2.44	3.67
13.6	2.45	3.70
13.8	2.48	3.74
14.0	2.51	3.79
14.2	2.54	3.84
14.4	2.58	3.88
14.5	2.59	3.91
14.6	2.61	3.94
14.8	2.64	3.99
15.0	2.68	4.04
15.2	2.72	4.10
15.4	2.75	4.15

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
15.5	2.77	4.18
15.6	2.79	4.21
15.8	2.83	4.27
16.0	2.87	4.33
16.2	2.91	4.39
16.4	2.96	4.46
16.5	2.98	4.49
16.6	3.00	4.52
16.8	3.05	4.59
17.0	3.09	4.66
17.2	3.14	4.74
17.4	3.19	4.81
17.5	3.22	4.85
17.6	3.24	4.89
17.8	3.30	4.97
18.0	3.35	5.05
18.2	3.41	5.14
18.4	3.47	5.22
18.5	3.50	5.27
18.6	3.53	5.32
18.8	3.59	5.41
19.0	3.65	5.51
19.2	3.72	5.61
19.4	3.79	5.72
19.5	3.83	5.77
19.6	3.87	5.83
19.8	3.94	5.94
20.0	4.02	6.06
20.2	4.10	6.18
20.4	4.19	6.31
20.5	4.23	6.38
20.6	4.28	6.45
20.8	4.37	6.59
21.0	4.47	6.73
21.2	4.57	6.89
21.4	4.67	7.05
21.5	4.73	7.13
21.6	4.79	7.22
21.8	4.90	7.39
22.0	5.03	7.58
22.4	5.29	7.98

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
22.5	5.36	8.08
22.6	5.43	8.19
22.8	5.58	8.42
23.0	5.74	8.66
23.2	5.91	8.91
23.4	6.09	9.18
23.5	6.19	9.32
23.6	6.28	9.47
23.8	6.48	9.78
24.0	6.70	10.10
24.2	6.93	10.45
24.4	7.18	10.82
24.5	7.31	11.02
24.6	7.45	11.22
24.8	7.73	11.66
25.0	8.04	12.12
25.2	8.38	12.63
25.4	8.74	13.18
25.5	8.93	13.47
25.6	9.14	13.78
25.8	9.57	14.43
26.0	10.05	15.15
26.2	10.58	15.95
26.4	11.17	16.84
26.5	11.49	17.32
26.6	11.82	17.83
26.8	12.56	18.94
27.0	13.40	20.20
27.2	14.36	21.65
27.4	15.46	23.31
27.5	16.08	24.24
27.6	16.75	25.26
27.8	18.27	27.55
28.0	20.10	30.31
28.2	22.34	33.67
28.4	25.13	37.88
28.5	26.80	40.41
28.6	28.72	43.29
28.8	33.50	50.51
29.0	40.20	60.61

Compound List

TO-15 + Naph

CAS Number	Compound	Detection Limit ppbv	Type
75-71-8	Freon 12	0.50	
76-14-2	Freon 114	0.50	
75-35-4	1,1-Dichloroethene	0.50	
67-64-1	Acetone	5.0	
67-63-0	2-Propanol	2.0	
75-15-0	Carbon Disulfide	2.0	
107-05-1	3-Chloropropene	2.0	
75-09-2	Methylene Chloride	5.0	
1634-04-4	Methyl tert-butyl ether	0.50	
156-60-5	trans-1,2-Dichloroethene	0.50	
110-54-3	Hexane	0.50	
75-34-3	1,1-Dichloroethane	0.50	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	2.0	
156-59-2	cis-1,2-Dichloroethene	0.50	
109-99-9	Tetrahydrofuran	0.50	
67-66-3	Chloroform	0.50	
71-55-6	1,1,1-Trichloroethane	0.50	
110-82-7	Cyclohexane	0.50	
56-23-5	Carbon Tetrachloride	0.50	
540-84-1	2,2,4-Trimethylpentane	0.50	
71-43-2	Benzene	0.50	
107-06-2	1,2-Dichloroethane	0.50	
142-82-5	Heptane	0.50	
79-01-6	Trichloroethene	0.50	
78-87-5	1,2-Dichloropropane	0.50	
123-91-1	1,4-Dioxane	2.0	
75-27-4	Bromodichloromethane	0.50	
10061-01-5	cis-1,3-Dichloropropene	0.50	
108-10-1	4-Methyl-2-pentanone	0.50	
108-88-3	Toluene	0.50	
10061-02-6	trans-1,3-Dichloropropene	0.50	
79-00-5	1,1,2-Trichloroethane	0.50	
127-18-4	Tetrachloroethene	0.50	
591-78-6	2-Hexanone	2.0	
124-48-1	Dibromochloromethane	0.50	
106-93-4	1,2-Dibromoethane (EDB)	0.50	
108-90-7	Chlorobenzene	0.50	
100-41-4	Ethyl Benzene	0.50	
108-38-3	m,p-Xylene	0.50	
95-47-6	o-Xylene	0.50	
100-42-5	Styrene	0.50	
75-25-2	Bromoform	0.50	
98-82-8	Cumene	0.50	
79-34-5	1,1,2,2-Tetrachloroethane	0.50	
103-65-1	Propylbenzene	0.50	
622-96-8	4-Ethyltoluene	0.50	

Compound List

TO-15 + Naph

CAS Number	Compound	Detection Limit ppbv	Type
108-67-8	1,3,5-Trimethylbenzene	0.50	
95-63-6	1,2,4-Trimethylbenzene	0.50	
541-73-1	1,3-Dichlorobenzene	0.50	
106-46-7	1,4-Dichlorobenzene	0.50	
100-44-7	alpha-Chlorotoluene	0.50	
95-50-1	1,2-Dichlorobenzene	0.50	
120-82-1	1,2,4-Trichlorobenzene	2.0	
87-68-3	Hexachlorobutadiene	2.0	
2037-26-5	Toluene-d8		
17060-07-0	1,2-Dichloroethane-d4		
460-00-4	4-Bromofluorobenzene		
91-20-3	Naphthalene	1.0	
74-87-3	Chloromethane	5.0	
75-01-4	Vinyl Chloride	0.50	
106-99-0	1,3-Butadiene	0.50	
74-83-9	Bromomethane	5.0	
75-00-3	Chloroethane	2.0	
75-69-4	Freon 11	0.50	
64-17-5	Ethanol	2.0	
76-13-1	Freon 113	0.50	

Eurofins Air Toxics, Inc.	Data Review Checklist			Release Date: 02/23/16
Workorder # 16062981B	Form F1.27	Revision #13	Revision Date: 02/23/16	Page 1 of 2

S1	S2	S3	S4	D	Section 1 – Spec Out				
					Initials/Instrument/Date	S1: 6/16/17	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				
					Manual Integrations included and approved				
					Chain of Custody verified for special comments (add comments below)				
					Non-standard Target sublist verified (MDL, LOD, RL, control limits, etc.)				

Profile, analyses, reporting, special notes and unusual circumstances:

5 2nd CCV, 6 and LCS

A1	A2	A3	A4	D	Section 2 – Sample Analysis				
					Initials/Date	A1: HD 6/16/16	A2:	A3:	A4:
					IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, initial/Final Pressures, and Canister #s Verified				
					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 CIAAs 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: 09A-15D FMH leads

D1	D2	D3	D4	T	3T	Section 3 – Target Data Reduction	Technical Review Needed? Circle one: Yes/No		T:	
						Initials/Instrument/Date USD-17	D1: HRB 6/24/16	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: J-flag to the MDL

A	3T	Section 4- Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
		Initials/Date: HRB 6/24/16	3rd Tier: *(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) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Workorder # :				**Reason for Reissue:**
W	T	3T	Q	
				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

Additional Comments:

Write Up (Initials/Date)	**Tech Review** (Initials/Date)	***3rd Tier Review** ** 3rd Tier Report Review is for DoD & Client Specific projects only* (Initials/Date)	**QA Review** (Initials/Date)

Workorder # :				**Reason for Reissue:**
W	T	3T	Q	
				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

Additional Comments:

Write Up (Initials/Date)	**Tech Review** (Initials/Date)	***3rd Tier Review** ** 3rd Tier Report Review is for DoD & Client Specific projects only* (Initials/Date)	**QA Review** (Initials/Date)

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Not Applicable