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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-17 VI

INVENTORY SHEET

Work Order #: 1605307

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Comments:

Completed by:

Vera Belitsky	Vera Belitsky / Document Control	5/24/16
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1605307

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 #**	BMS Building 7
DATE RECEIVED:	05/17/2016	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	05/18/2016		

FRACTION #	NAME	TEST
01A	B7IA-1	Modified TO-17 VI
02A	B7IA-1D	Modified TO-17 VI
03A	B7IA-2	Modified TO-17 VI
04A	B7IA-3	Modified TO-17 VI
05A	B7IA-4	Modified TO-17 VI
06A	B7IA-5	Modified TO-17 VI
07A	B7IA-6	Modified TO-17 VI
08A	B7AA-1 (05132016)	Modified TO-17 VI
09A	Blank	Modified TO-17 VI
10A	Lab Blank	Modified TO-17 VI
11A	CCV	Modified TO-17 VI
12A	LCS	Modified TO-17 VI
12AA	LCSD	Modified TO-17 VI

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 05/18/16

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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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified EPA Method TO-17 (VI Tubes)
Anderson Mulholland & Associates, Inc.
Workorder# 1605307

Nine TO-17 VI Tube samples were received on May 17, 2016. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for compound separation and detection.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

Requirement	***TO-17***	***ATL Modifications***
Initial Calibration	%RSD</=30% with 2 allowed out up to 40%	VOC list: %RSD</=30% with 2 allowed out up to 40% SVOC list: %RSD</=30% with 2 allowed out up to 40%
Daily Calibration	%D for each target compound within +/-30%.	Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene within +/-40%D
Audit Accuracy	70-130%	Second source recovery limits for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene = 60-140%.
Distributed Volume Pairs	Collection of distributed volume pairs required for monitoring ambient air to insure high quality.	If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints.
Analytical Precision	</=20% RPD	<30% RPD for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Sampling volume was supplied by the client. A sampling volume of 17.3 L was used to convert ng to ug/m3 for sample Blank and the associated Lab Blank.

As per project specific client request the laboratory has reported estimated values for Naphthalene hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the sorbent media was certified may be false positives.

Definition of Data Qualifying Flags

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

B - Compound present in blank (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
B7IA-1	1605307-01A	5/14/2016	5/17/2016	NA	3	5/17/2016	NA	Good
B7IA-1D	1605307-02A	5/14/2016	5/17/2016	NA	3	5/17/2016	NA	Good
B7IA-2	1605307-03A	5/14/2016	5/17/2016	NA	3	5/17/2016	NA	Good
B7IA-3	1605307-04A	5/14/2016	5/17/2016	NA	3	5/17/2016	NA	Good
B7IA-4	1605307-05A	5/14/2016	5/17/2016	NA	3	5/17/2016	NA	Good
B7IA-5	1605307-06A	5/14/2016	5/17/2016	NA	3	5/17/2016	NA	Good
B7IA-6	1605307-07A	5/14/2016	5/17/2016	NA	3	5/17/2016	NA	Good
B7AA-1 (05132016)	1605307-08A	5/14/2016	5/17/2016	NA	3	5/17/2016	NA	Good
Blank	1605307-09A	5/16/2016	5/17/2016	NA	1	5/17/2016	NA	Good
Lab Blank	1605307-10A	NA	NA	NA	NA	5/17/2016	NA	Good
CCV	1605307-11A	NA	NA	NA	NA	5/17/2016	NA	Good
LCS	1605307-12A	NA	NA	NA	NA	5/17/2016	NA	Good
LCSD	1605307-12AA	NA	NA	NA	NA	5/17/2016	NA	Good

Sample Results and Raw Data

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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B7IA-1

Lab ID#: 1605307-01A

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.011	0.058	0.020	0.10

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Client Sample ID: B7IA-1

Lab ID#: 1605307-01A

EPA METHOD TO-17

File Name:	**6051710**	**Date of Extraction: NA**	**Date of Collection: 5/14/16 8:08:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 05:01 PM**

Compound	**Rpt. Limit (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ppbv)**	**Amount (ug/m3)**
Naphthalene	0.011	0.058	0.020	0.10

Air Sample Volume(L): 17.3
Container Type: TO-17 VI Tube

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	84	50-150

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EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051710.d
Lab Smp Id: 1605307-01A
Inj Date : 17-MAY-2016 17:01
Operator : CT Inst ID: msd6.i
Smp Info : ;1605307-01A
Misc Info : G0148950
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 18-May-2016 10:12 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Naph_MDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene							CAS #: 460-00-4	
11.428	11.449	(1.000)	174	426020	36.0000		80.00- 120.00	100.00
11.428	11.449	(1.000)	95	480593			92.70- 152.70	112.81
11.428	11.449	(1.000)	176	410557			68.24- 128.24	96.37
$ 108 Naphthalene-d8							CAS #: 1146-65-2	
15.704	15.704	(1.374)	136	504364	21.0196	21.020	80.00- 120.00	100.00
15.704	15.704	(1.374)	108	44930			0.00- 39.41	8.91
109 Naphthalene							CAS #: 91-20-3	
15.740	15.747	(1.377)	128	50619	1.77108	1.771	80.00- 120.00	100.00
15.740	15.747	(1.377)	127	7427			0.00- 43.01	14.67

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6051710.d
Lab Smp Id: 1605307-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0148950

Calibration Date: 17-MAY-2016
Calibration Time: 12:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	400960	240576	561344	426020	6.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.45	11.12	11.78	11.43	-0.19

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: 18-May-2016 10:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 17may16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1605307-01A
Level: LOW Operator: CT
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: Naph_MDL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0148950

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	21.020	84.08	50-150

Data File: /chem/msd6.i/17may16.b/6051710.d

Page 1

Date : 17-MAY-2016 17:01

Client ID:

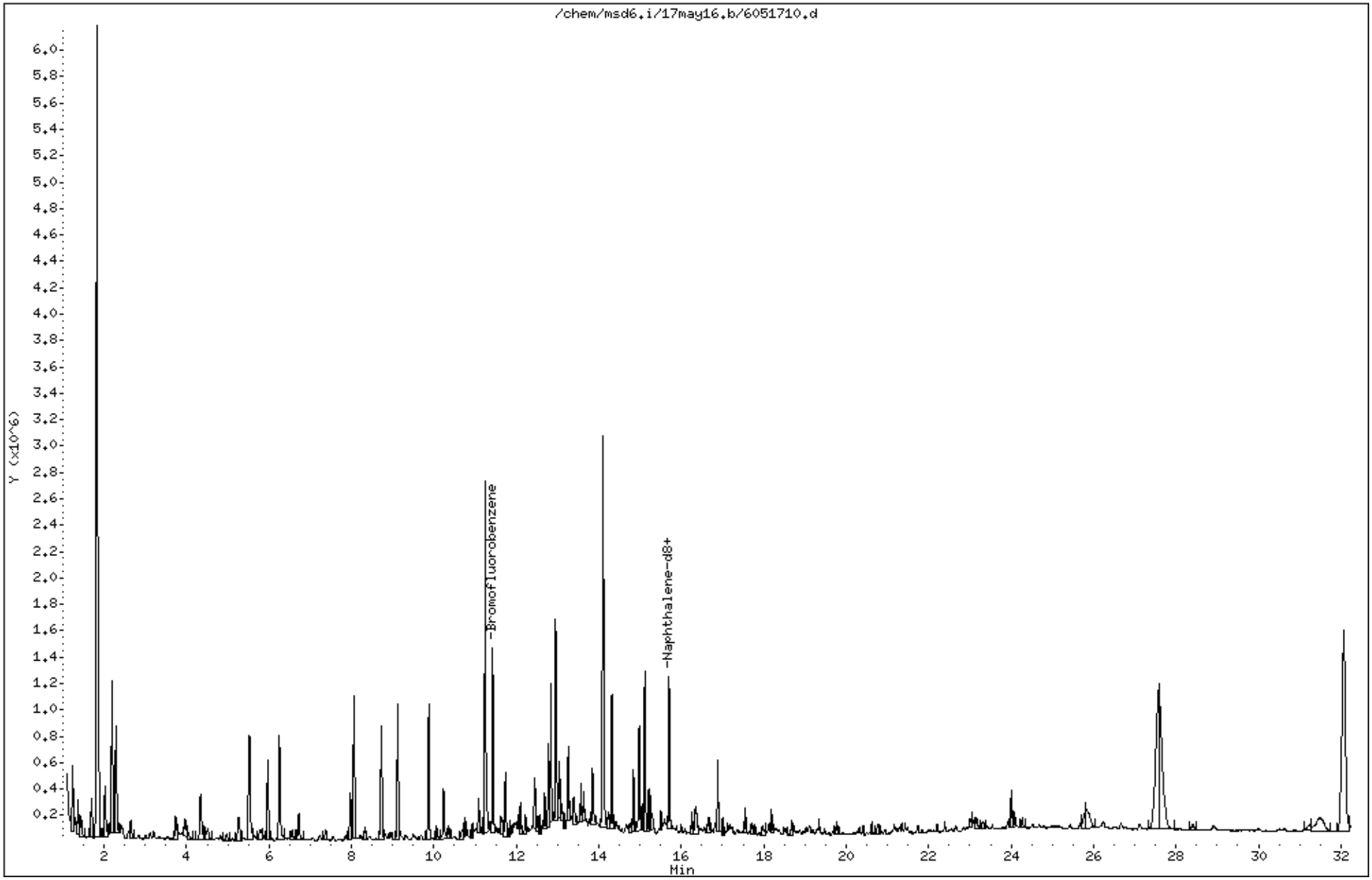
Instrument: msd6.i

Sample Info: ;1605307-01A

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/17may16.b/6051710.d

Date : 17-MAY-2016 17:01

Client ID:

Instrument: msd6.i

Sample Info: ;1605307-01A

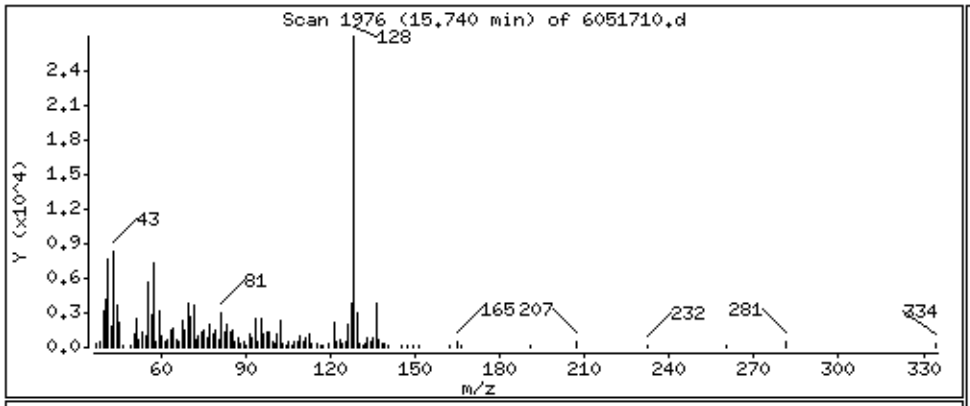
Operator: CT

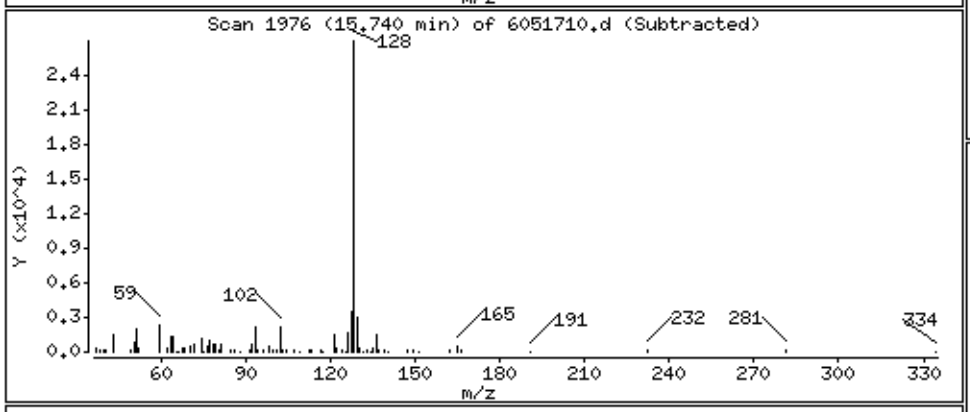
Column phase: RTx-624

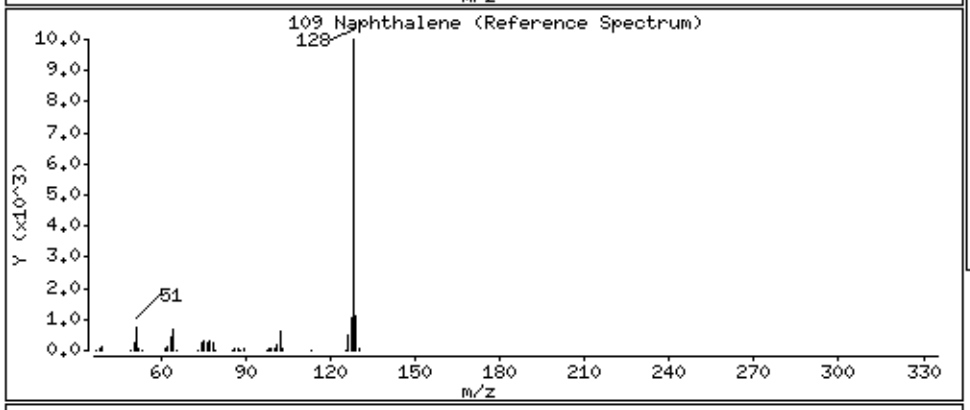
Column diameter: 0.53

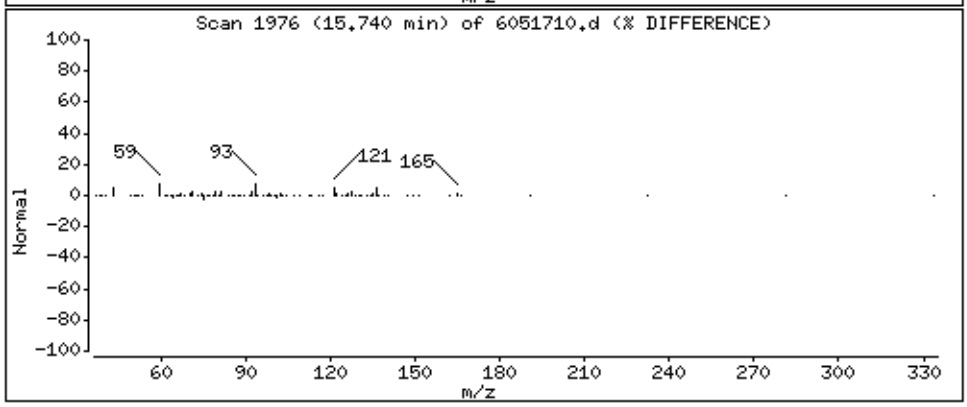
109 Naphthalene

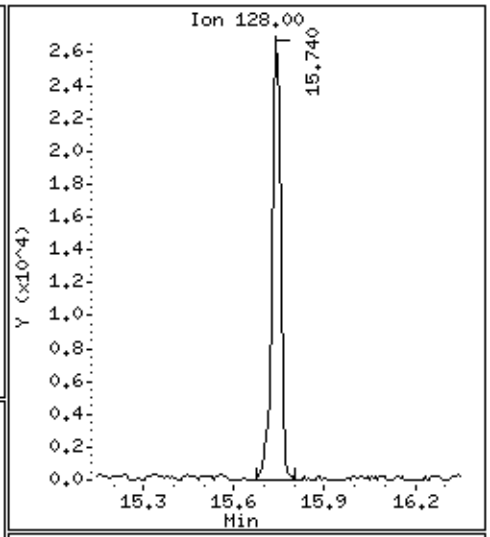
Concentration: 1.771 NG

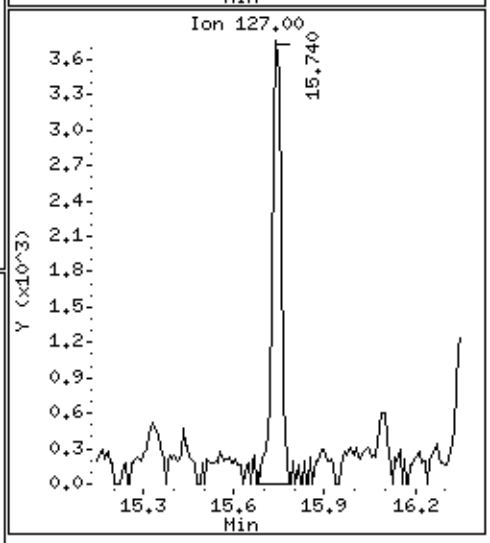












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B7IA-1D

Lab ID#: 1605307-02A

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.011	0.058	0.026	0.14

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Client Sample ID: B7IA-1D

Lab ID#: 1605307-02A

EPA METHOD TO-17

File Name:	**6051711**	**Date of Extraction: NA**	**Date of Collection: 5/14/16 8:08:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 05:40 PM**

Compound	**Rpt. Limit (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ppbv)**	**Amount (ug/m3)**
Naphthalene	0.011	0.058	0.026	0.14

Air Sample Volume(L): 17.1
Container Type: TO-17 VI Tube

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	65	50-150

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EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051711.d
Lab Smp Id: 1605307-02A
Inj Date : 17-MAY-2016 17:40
Operator : CT Inst ID: msd6.i
Smp Info : ;1605307-02A
Misc Info : G0145528
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 18-May-2016 10:12 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Naph_MDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene						CAS #: 460-00-4		
11.428	11.449	(1.000)	174	425688	36.0000		80.00- 120.00	100.00
11.428	11.449	(1.000)	95	484775			92.70- 152.70	113.88
11.428	11.449	(1.000)	176	412468			68.24- 128.24	96.89
$ 108 Naphthalene-d8						CAS #: 1146-65-2		
15.704	15.704	(1.374)	136	388238	16.1926	16.193	80.00- 120.00	100.00
15.704	15.704	(1.374)	108	35210			0.00- 39.41	9.07
109 Naphthalene						CAS #: 91-20-3		
15.740	15.747	(1.377)	128	67727	2.37148	2.371	80.00- 120.00	100.00
15.740	15.747	(1.377)	127	8343			0.00- 43.01	12.32

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6051711.d
Lab Smp Id: 1605307-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0145528

Calibration Date: 17-MAY-2016
Calibration Time: 12:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	400960	240576	561344	425688	6.17

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.45	11.12	11.78	11.43	-0.19

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: 18-May-2016 10:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 17may16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1605307-02A
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: Naph_MDL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0145528

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	16.193	64.77	50-150

Data File: /chem/msd6.i/17may16.b/6051711.d

Date : 17-MAY-2016 17:40

Client ID:

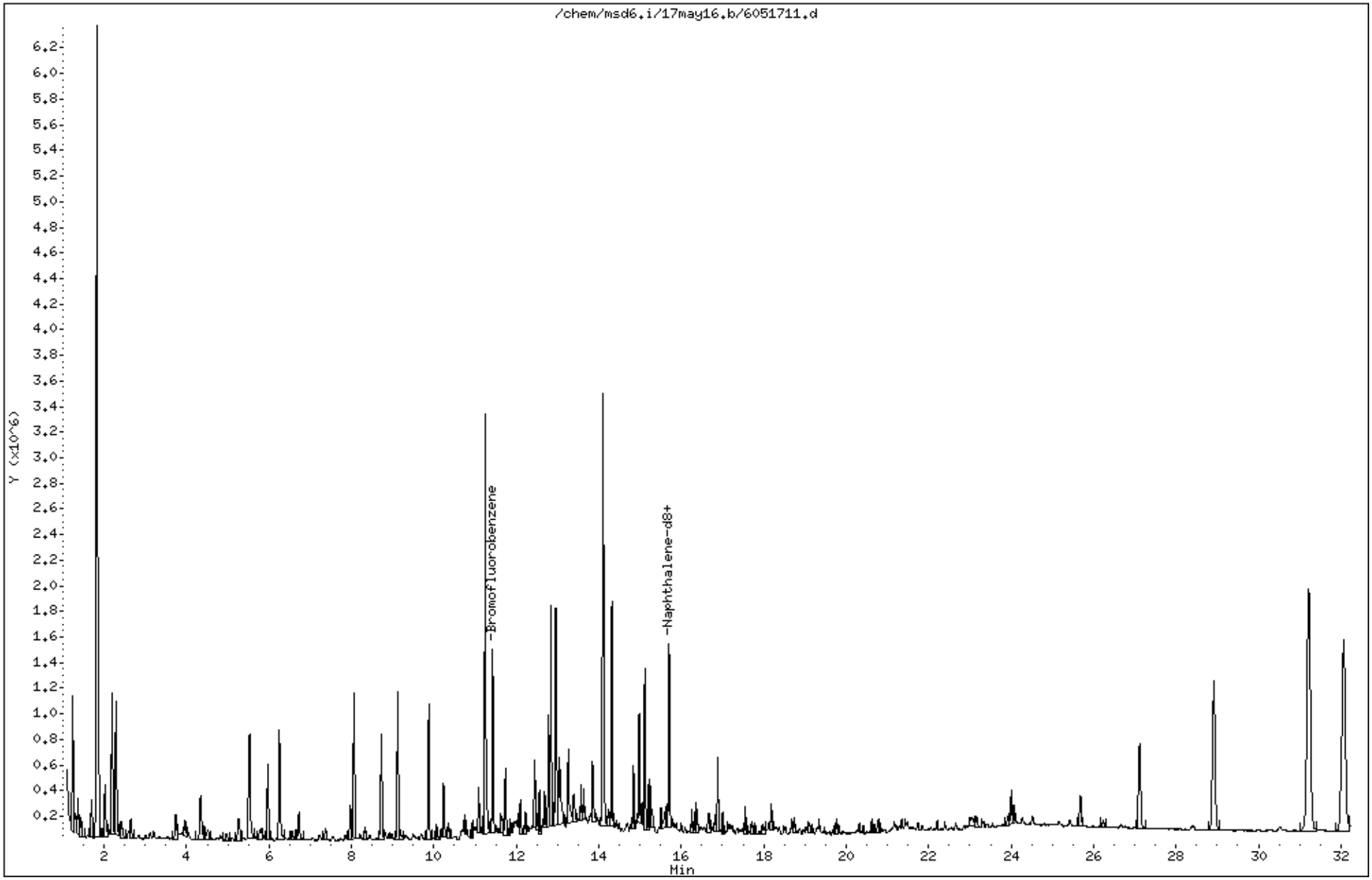
Instrument: msd6.i

Sample Info: ;1605307-02A

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/17may16.b/6051711.d

Date : 17-MAY-2016 17:40

Client ID:

Instrument: msd6.i

Sample Info: ;1605307-02A

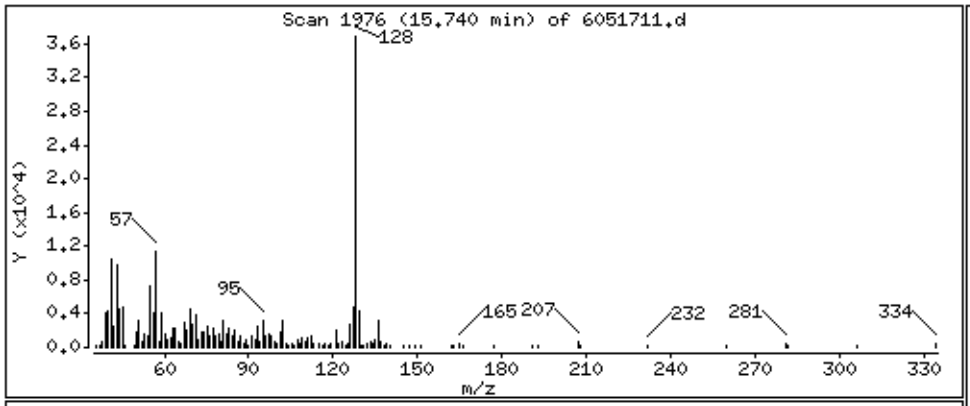
Operator: CT

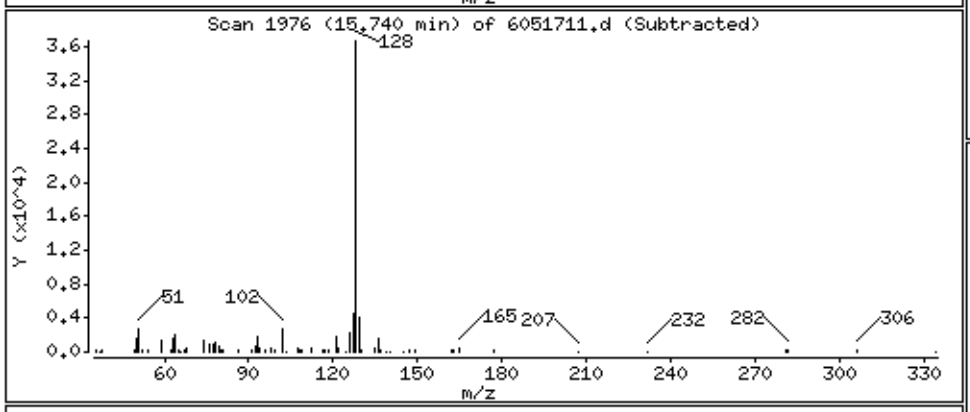
Column phase: RTx-624

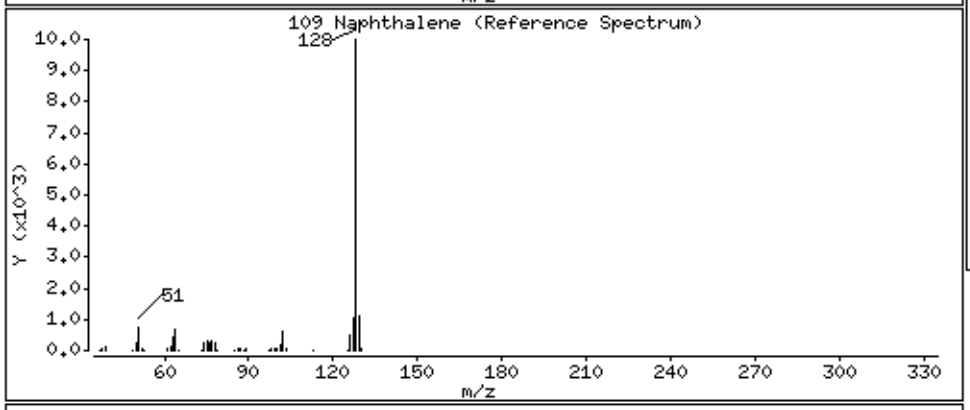
Column diameter: 0.53

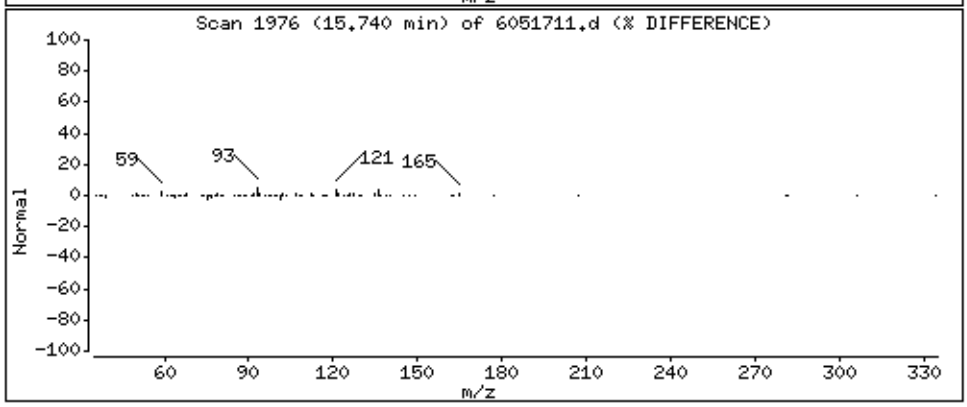
109 Naphthalene

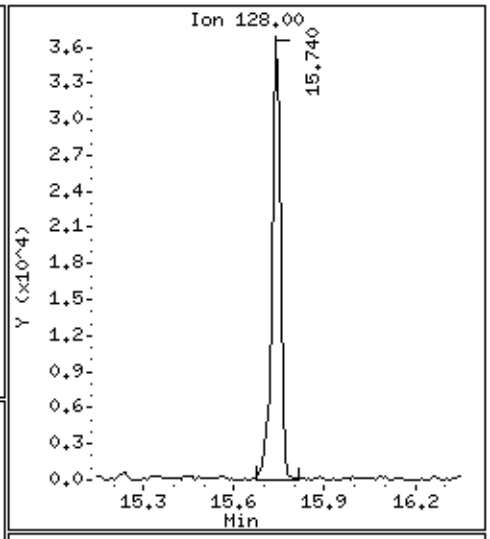
Concentration: 2.371 NG

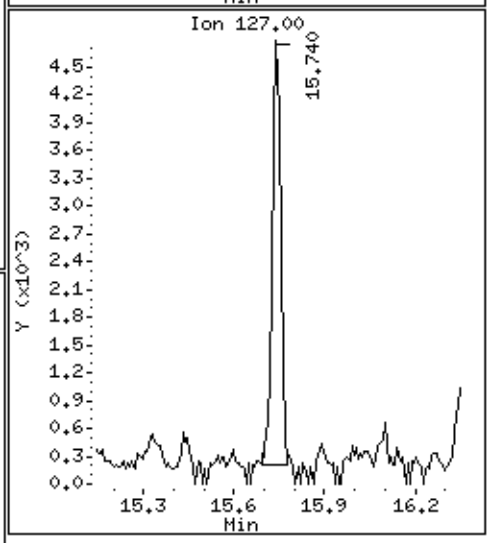












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B7IA-2

Lab ID#: 1605307-03A

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.034	0.18	0.071	0.37

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Client Sample ID: B7IA-2

Lab ID#: 1605307-03A

EPA METHOD TO-17

File Name:	**6051712**	**Date of Extraction: NA**	**Date of Collection: 5/14/16 8:23:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 06:20 PM**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.034	0.18	0.071	0.37

Air Sample Volume(L): 5.60
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	87	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051712.d
Lab Smp Id: 1605307-03A
Inj Date : 17-MAY-2016 18:20
Operator : CT Inst ID: msd6.i
Smp Info : ;1605307-03A
Misc Info : G0137120
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 18-May-2016 10:12 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Naph_MDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.428	11.449 (1.000)	174	424665	36.0000		80.00- 120.00	100.00
11.428	11.449 (1.000)	95	478594			92.70- 152.70	112.70
11.428	11.449 (1.000)	176	409577			68.24- 128.24	96.45
$ 108 Naphthalene-d8						CAS #: 1146-65-2	
15.704	15.704 (1.374)	136	518943	21.6962	21.696	80.00- 120.00	100.00
15.704	15.704 (1.374)	108	48703			0.00- 39.41	9.39
109 Naphthalene						CAS #: 91-20-3	
15.740	15.747 (1.377)	128	59591	2.09163	2.092	80.00- 120.00	100.00
15.740	15.747 (1.377)	127	8543			0.00- 43.01	14.34

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6051712.d
Lab Smp Id: 1605307-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0137120

Calibration Date: 17-MAY-2016
Calibration Time: 12:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	400960	240576	561344	424665	5.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.45	11.12	11.78	11.43	-0.19

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: 18-May-2016 10:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 17may16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1605307-03A
Level: LOW Operator: CT
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: Naph_MDL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0137120

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	21.696	86.78	50-150

Data File: /chem/msd6.i/17may16.b/6051712.d

Date : 17-MAY-2016 18:20

Client ID:

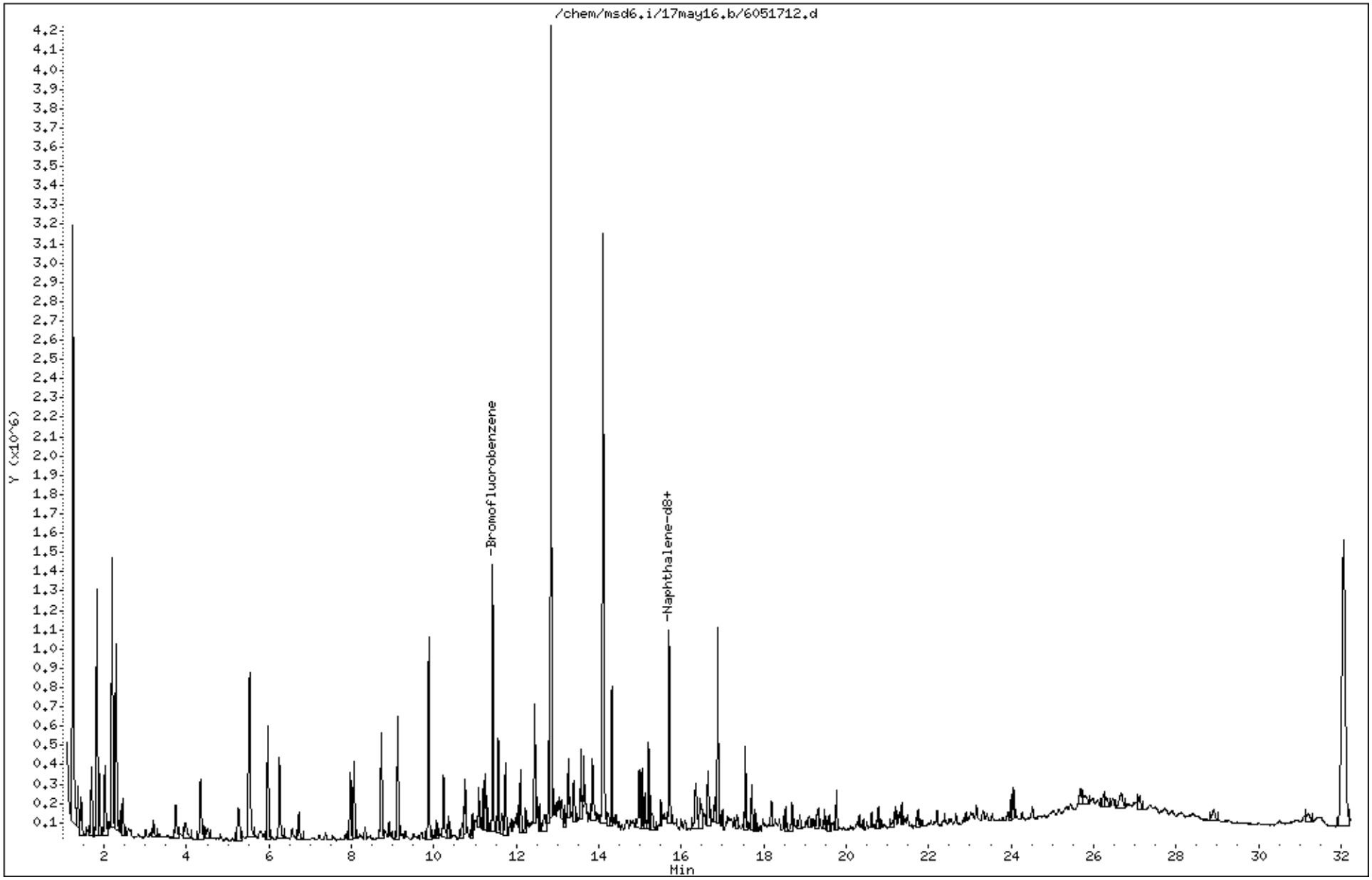
Instrument: msd6.i

Sample Info: ;1605307-03A

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/17may16.b/6051712.d

Date : 17-MAY-2016 18:20

Client ID:

Instrument: msd6.i

Sample Info: ;1605307-03A

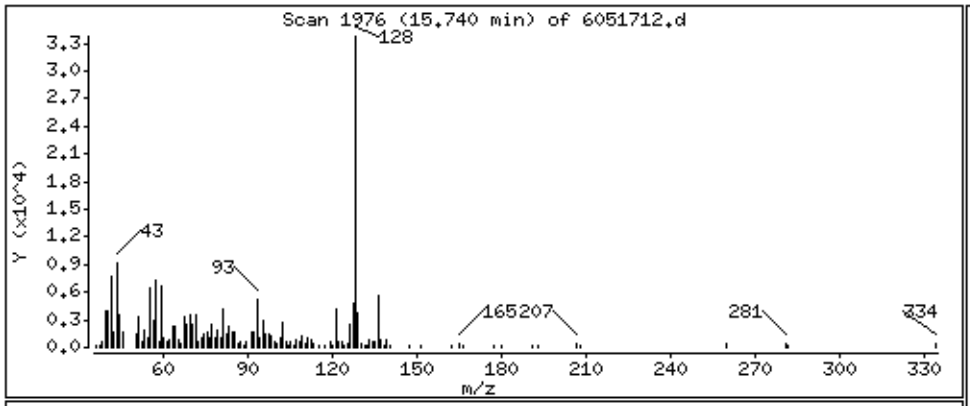
Operator: CT

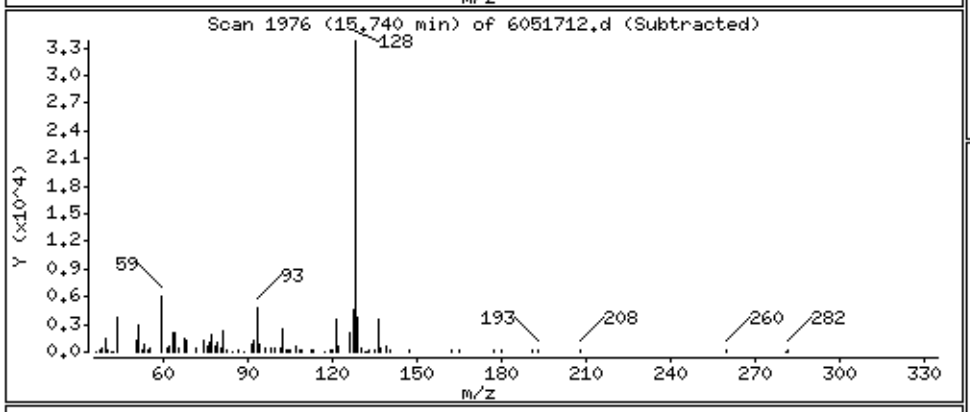
Column phase: RTx-624

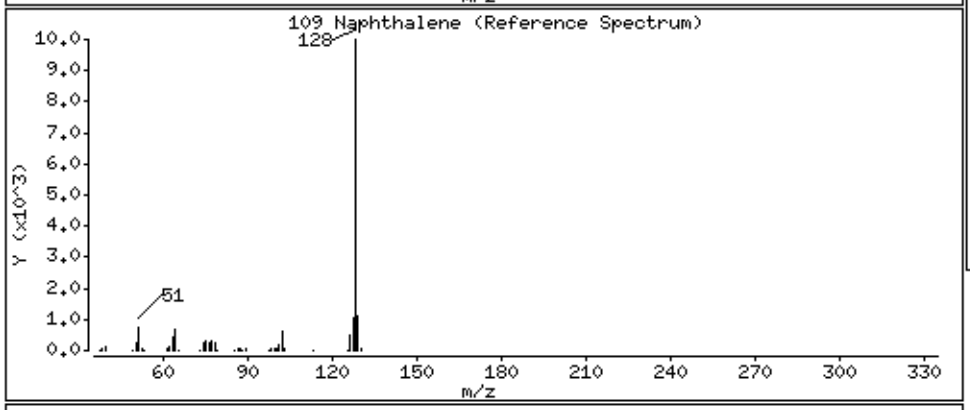
Column diameter: 0.53

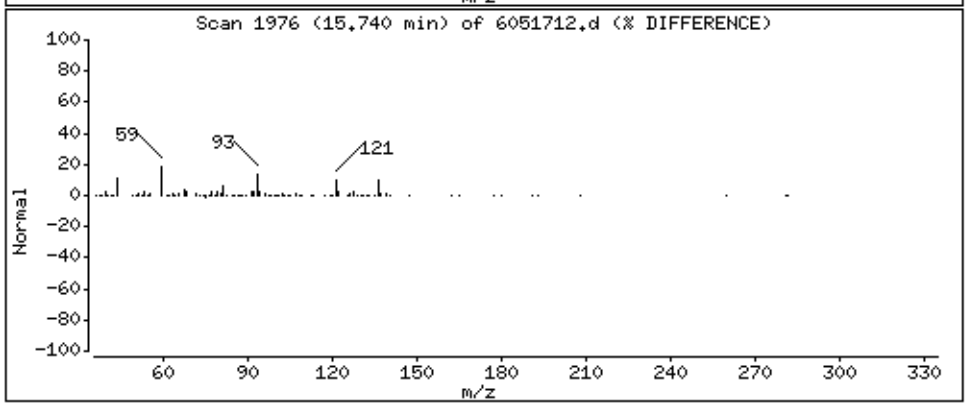
109 Naphthalene

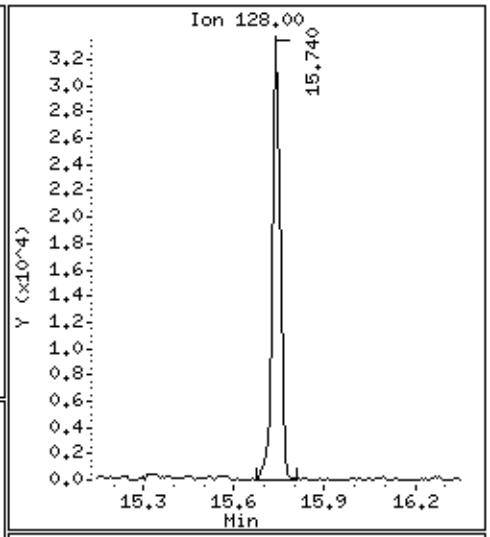
Concentration: 2.092 NG

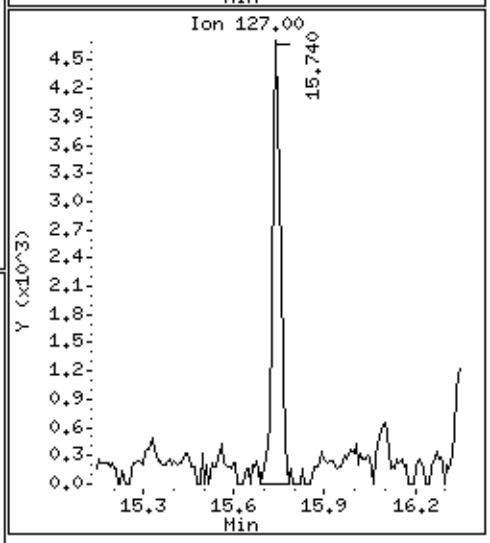












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B7IA-3

Lab ID#: 1605307-04A

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.011	0.058	0.051	0.27

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Client Sample ID: B7IA-3

Lab ID#: 1605307-04A

EPA METHOD TO-17

File Name:	**6051713**	**Date of Extraction: NA**	**Date of Collection: 5/14/16 8:28:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 07:00 PM**

Compound	**Rpt. Limit (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ppbv)**	**Amount (ug/m3)**
Naphthalene	0.011	0.058	0.051	0.27

Air Sample Volume(L): 17.2
Container Type: TO-17 VI Tube

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	86	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051713.d
Lab Smp Id: 1605307-04A
Inj Date : 17-MAY-2016 19:00
Operator : CT Inst ID: msd6.i
Smp Info : ;1605307-04A
Misc Info : G0145501
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 18-May-2016 10:12 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Naph_MDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene							CAS #: 460-00-4	
11.428	11.449	(1.000)	174	426164	36.0000		80.00- 120.00	100.00
11.428	11.449	(1.000)	95	489568			92.70- 152.70	114.88
11.428	11.449	(1.000)	176	417422			68.24- 128.24	97.95
$ 108 Naphthalene-d8							CAS #: 1146-65-2	
15.704	15.704	(1.374)	136	518429	21.5985	21.598	80.00- 120.00	100.00
15.704	15.704	(1.374)	108	47359			0.00- 39.41	9.14
109 Naphthalene							CAS #: 91-20-3	
15.740	15.747	(1.377)	128	132254	4.62575	4.626	80.00- 120.00	100.00
15.740	15.747	(1.377)	127	18470			0.00- 43.01	13.97

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6051713.d
Lab Smp Id: 1605307-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0145501

Calibration Date: 17-MAY-2016
Calibration Time: 12:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	400960	240576	561344	426164	6.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.45	11.12	11.78	11.43	-0.19

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: 18-May-2016 10:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 17may16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1605307-04A
Level: LOW Operator: CT
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: Naph_MDL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0145501

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	21.598	86.39	50-150

Data File: /chem/msd6.i/17may16.b/6051713.d

Date : 17-MAY-2016 19:00

Client ID:

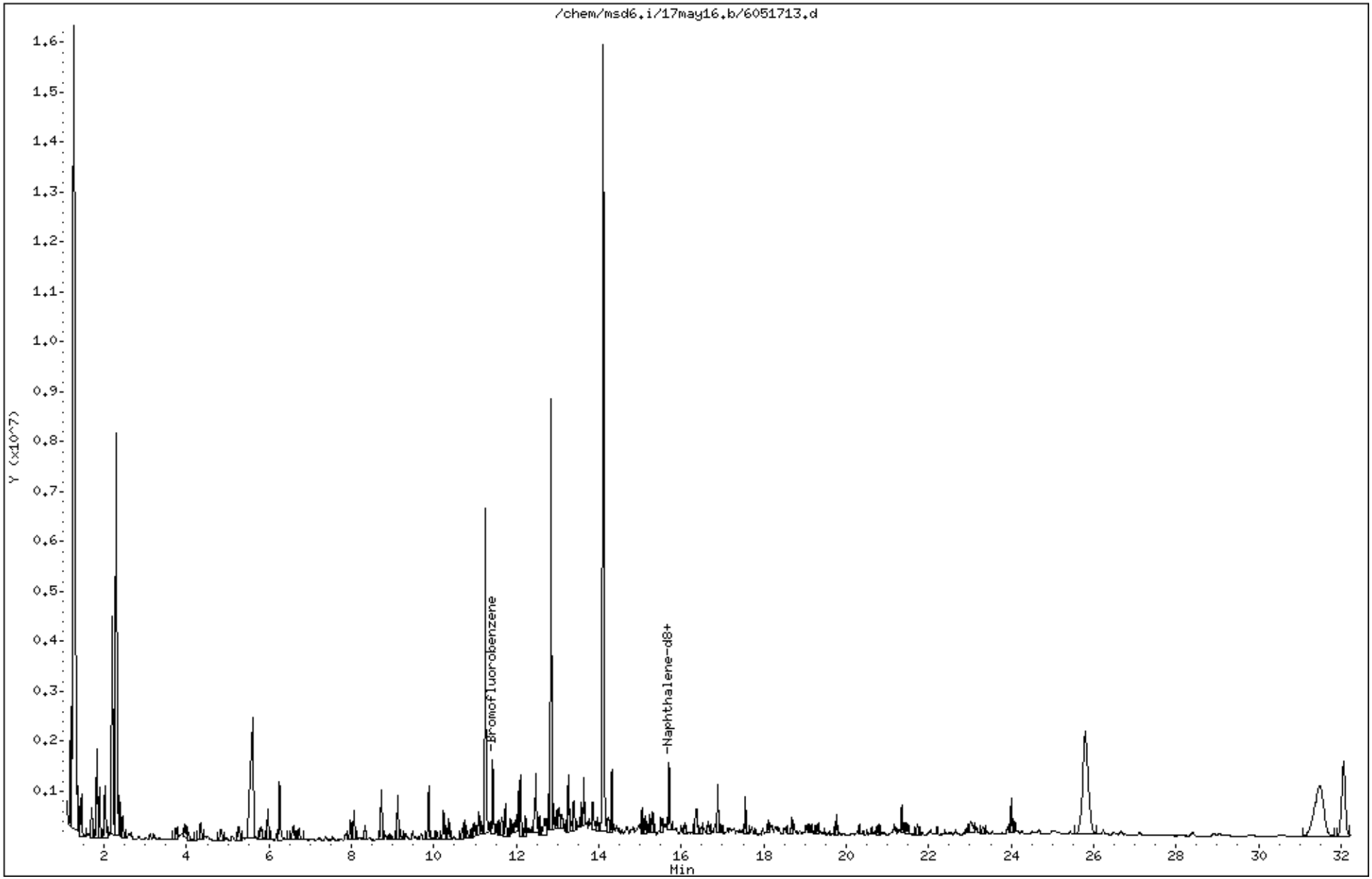
Sample Info: ;1605307-04A

Column phase: RTx-624

Instrument: msd6.i

Operator: CT

Column diameter: 0.53



Data File: /chem/msd6.i/17may16.b/6051713.d

Date : 17-MAY-2016 19:00

Client ID:

Instrument: msd6.i

Sample Info: ;1605307-04A

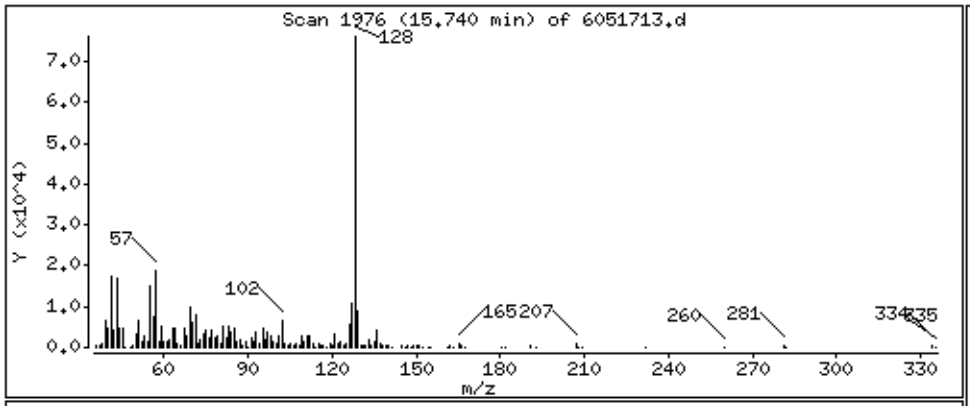
Operator: CT

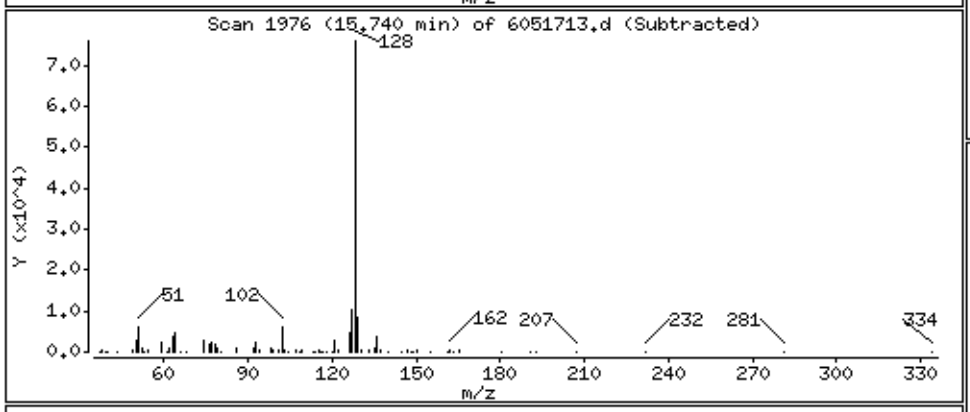
Column phase: RTx-624

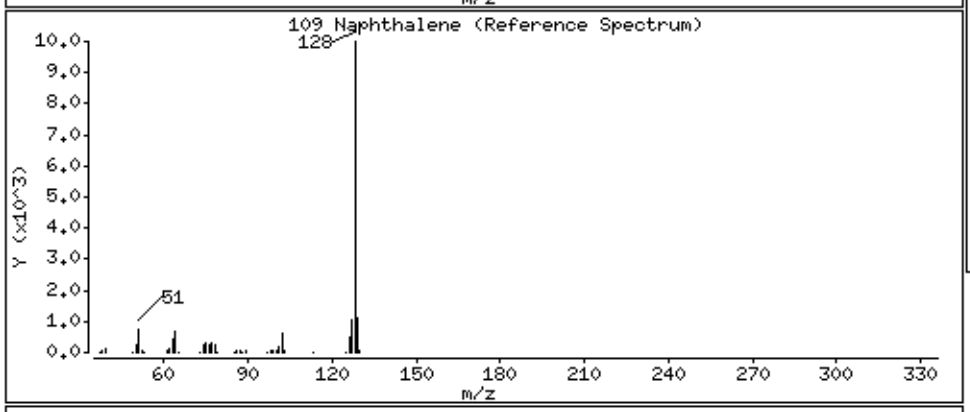
Column diameter: 0.53

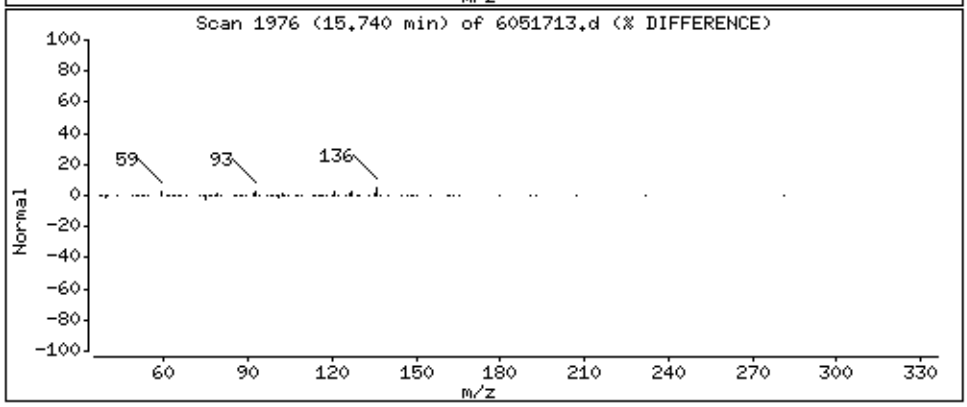
109 Naphthalene

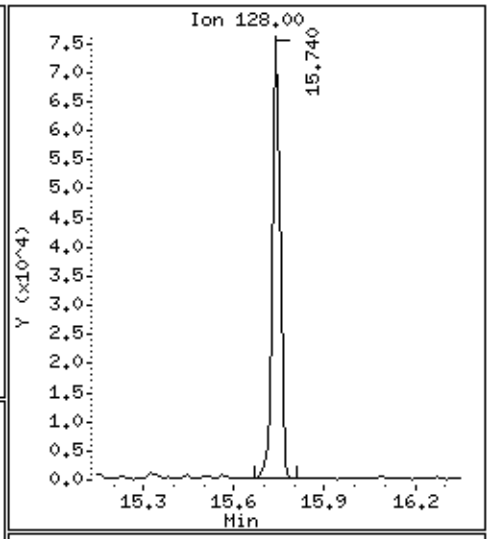
Concentration: 4.626 NG

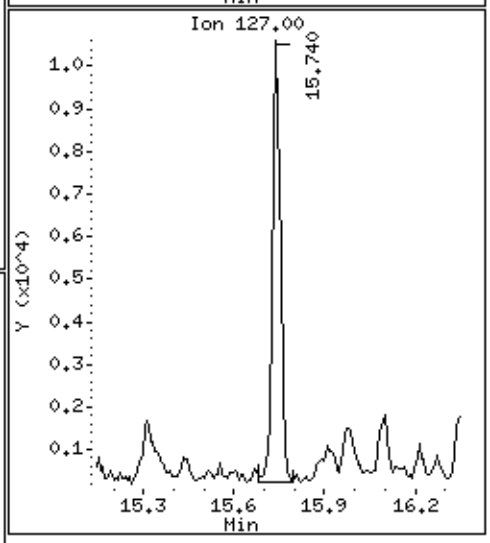












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B7IA-4

Lab ID#: 1605307-05A

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.026	0.14	0.019 J	0.10 J

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Client Sample ID: B7IA-4

Lab ID#: 1605307-05A

EPA METHOD TO-17

File Name:	**6051714**	**Date of Extraction: NA**	**Date of Collection: 5/14/16 12:31:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 07:39 PM**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.026	0.14	0.019 J	0.10 J

Air Sample Volume(L): 7.30

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	79	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051714.d
Lab Smp Id: 1605307-05A
Inj Date : 17-MAY-2016 19:39
Operator : CT Inst ID: msd6.i
Smp Info : ;1605307-05A
Misc Info : G0143663
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 18-May-2016 10:12 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Naph_MDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.428	11.449 (1.000)	174	434935	36.0000		80.00- 120.00	100.00
11.428	11.449 (1.000)	95	488881			92.70- 152.70	112.40
11.428	11.449 (1.000)	176	424695			68.24- 128.24	97.65
$ 108 Naphthalene-d8						CAS #: 1146-65-2	
15.704	15.704 (1.374)	136	482509	19.6966	19.696	80.00- 120.00	100.00
15.704	15.704 (1.374)	108	43723			0.00- 39.41	9.06
109 Naphthalene						CAS #: 91-20-3	
15.740	15.747 (1.377)	128	21271	0.72900	0.7290	80.00- 120.00	100.00(a)
15.740	15.747 (1.377)	127	3089			0.00- 43.01	14.53

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: msd6.i
Lab File ID: 6051714.d
Lab Smp Id: 1605307-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0143663

Calibration Date: 17-MAY-2016
Calibration Time: 12:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	400960	240576	561344	434935	8.47

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.45	11.12	11.78	11.43	-0.19

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: 18-May-2016 10:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 17may16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1605307-05A
Level: LOW Operator: CT
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: Naph_MDL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0143663

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	19.696	78.79	50-150

Data File: /chem/msd6.i/17may16.b/6051714.d

Date : 17-MAY-2016 19:39

Client ID:

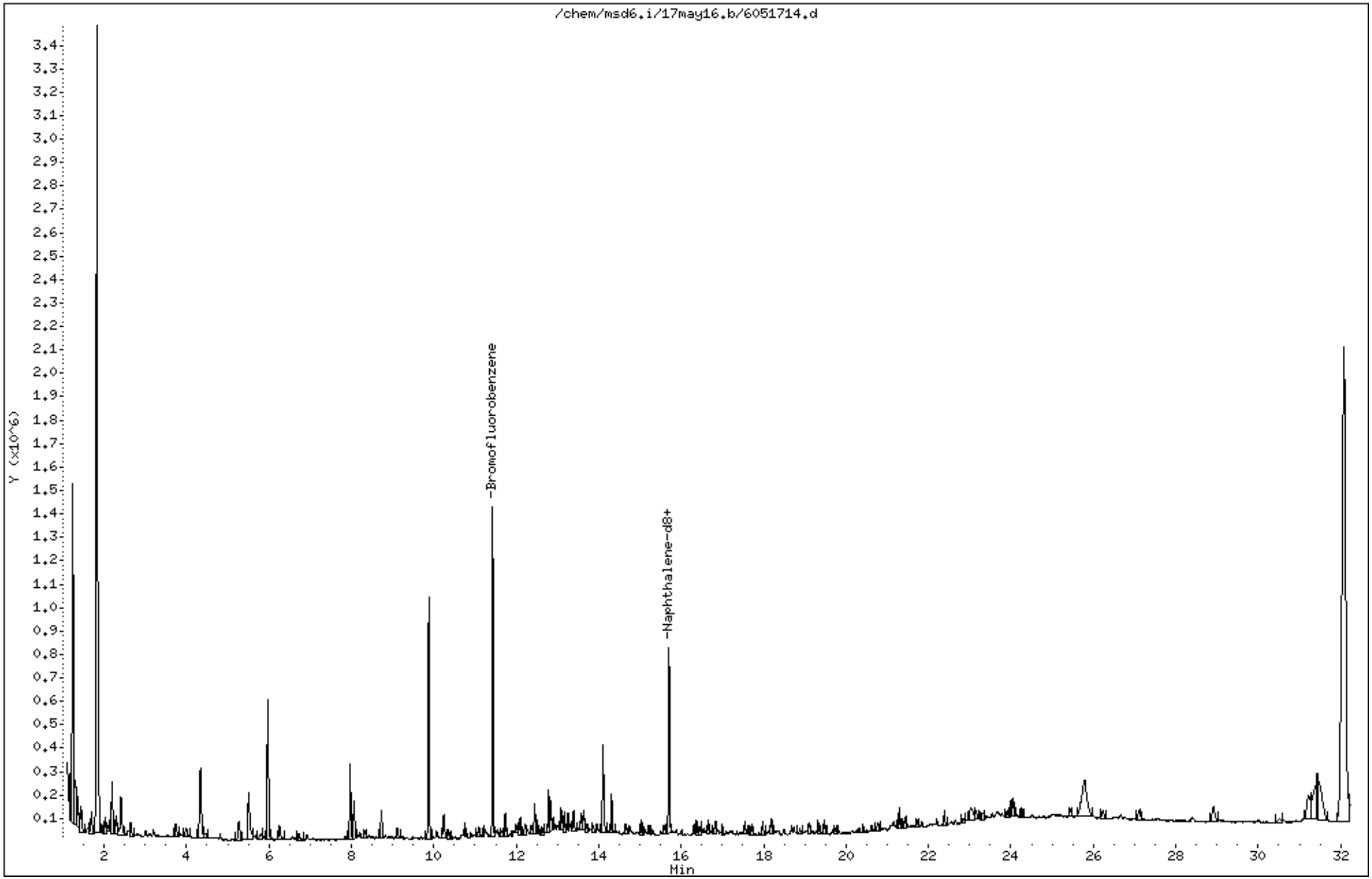
Sample Info: :1605307-05A

Column phase: RTx-624

Instrument: msd6.i

Operator: CT

Column diameter: 0.53



Data File: /chem/msd6.i/17may16.b/6051714.d

Date : 17-MAY-2016 19:39

Client ID:

Instrument: msd6.i

Sample Info: ;1605307-05A

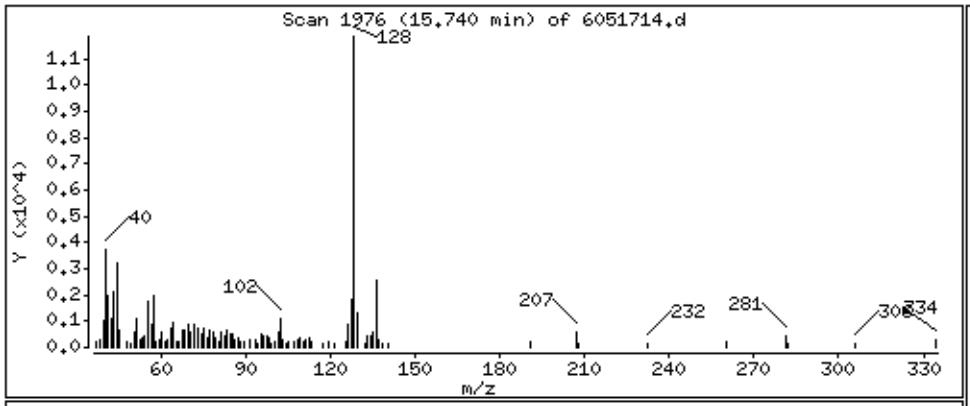
Operator: CT

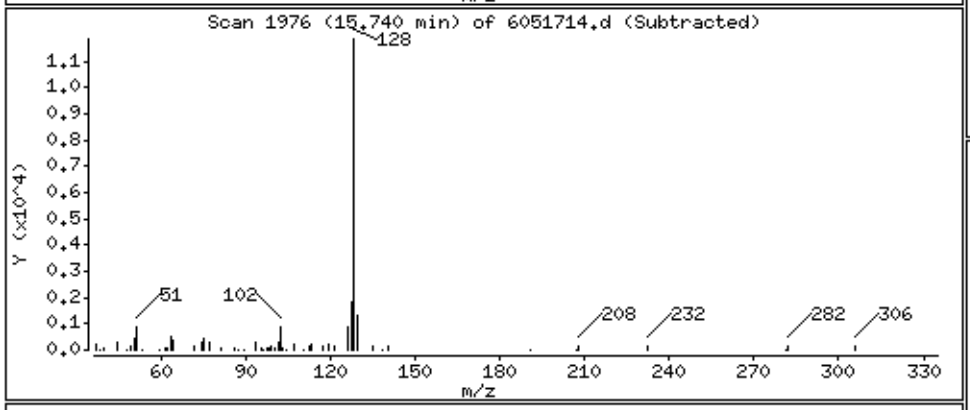
Column phase: RTx-624

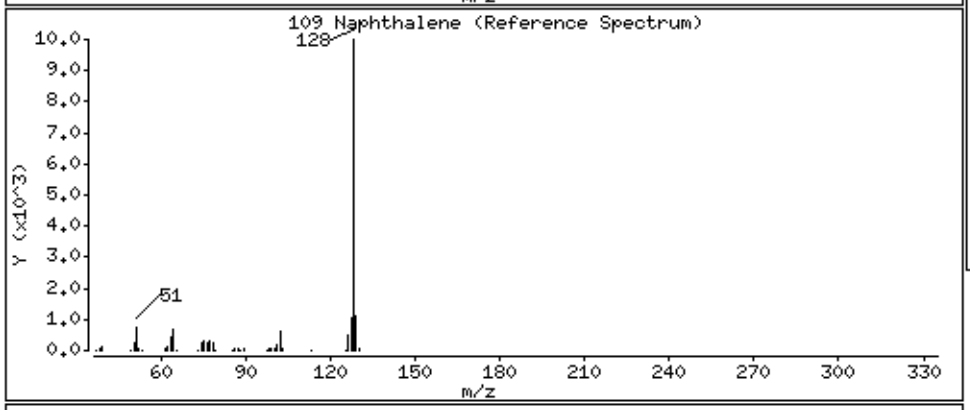
Column diameter: 0.53

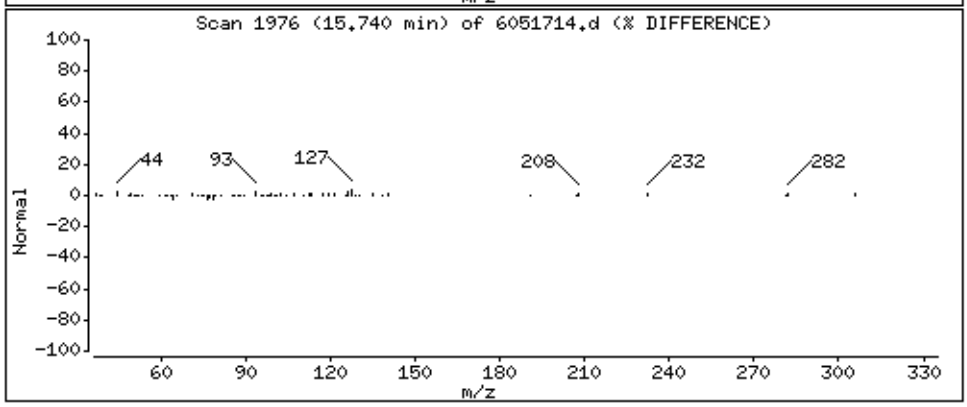
109 Naphthalene

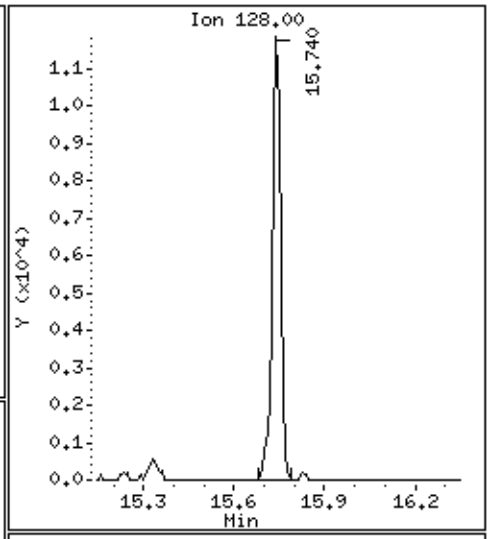
Concentration: 0.7290 NG

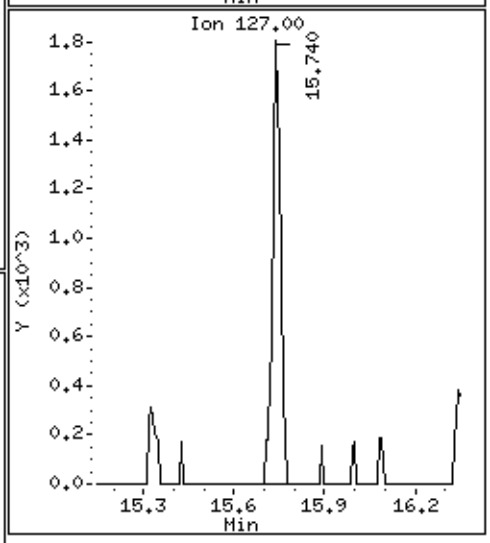












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B7IA-5

Lab ID#: 1605307-06A

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.011	0.059	0.060	0.31

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Client Sample ID: B7IA-5

Lab ID#: 1605307-06A

EPA METHOD TO-17

File Name:	**6051715**	**Date of Extraction: NA**	**Date of Collection: 5/14/16 7:53:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 08:19 PM**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.011	0.059	0.060	0.31

Air Sample Volume(L): 16.9
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	78	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051715.d
Lab Smp Id: 1605307-06A
Inj Date : 17-MAY-2016 20:19
Operator : CT Inst ID: msd6.i
Smp Info : ;1605307-06A
Misc Info : G0135691
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 18-May-2016 10:12 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Naph_MDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.428	11.449 (1.000)	174	430911	36.0000		80.00- 120.00	100.00
11.428	11.449 (1.000)	95	486369			92.70- 152.70	112.87
11.428	11.449 (1.000)	176	422459			68.24- 128.24	98.04
$ 108 Naphthalene-d8						CAS #: 1146-65-2	
15.704	15.704 (1.374)	136	472073	19.4506	19.450	80.00- 120.00	100.00
15.704	15.704 (1.374)	108	42976			0.00- 39.41	9.10
109 Naphthalene						CAS #: 91-20-3	
15.740	15.747 (1.377)	128	152483	5.27453	5.274	80.00- 120.00	100.00
15.740	15.747 (1.377)	127	21175			0.00- 43.01	13.89

Report Date: 18-May-2016 10:15

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6051715.d
Lab Smp Id: 1605307-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0135691

Calibration Date: 17-MAY-2016
Calibration Time: 12:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	400960	240576	561344	430911	7.47

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.45	11.12	11.78	11.43	-0.19

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: 18-May-2016 10:15

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 17may16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1605307-06A
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: Naph_MDL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0135691

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	19.450	77.80	50-150

Data File: /chem/msd6.i/17may16.b/6051715.d

Page 1

Date : 17-MAY-2016 20:19

Client ID:

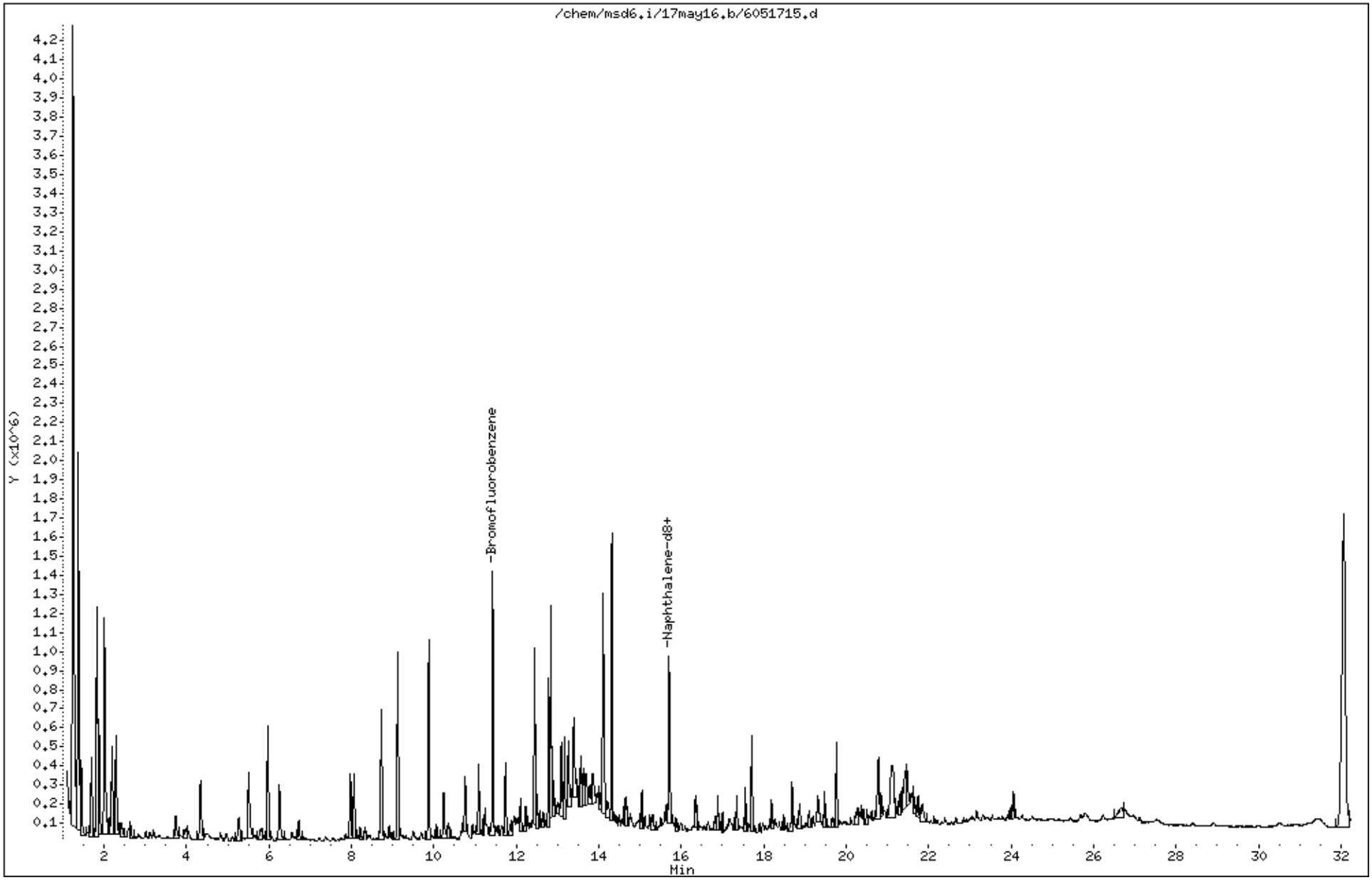
Instrument: msd6.i

Sample Info: ;1605307-06A

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/17may16.b/6051715.d

Date : 17-MAY-2016 20:19

Client ID:

Instrument: msd6.i

Sample Info: ;1605307-06A

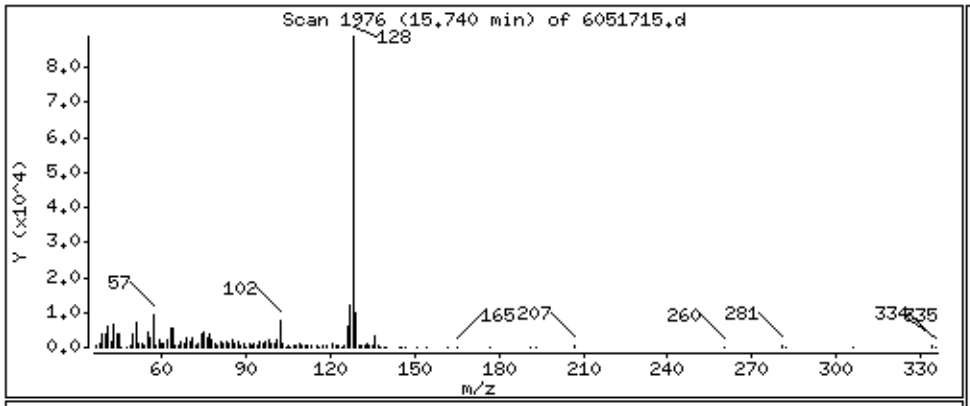
Operator: CT

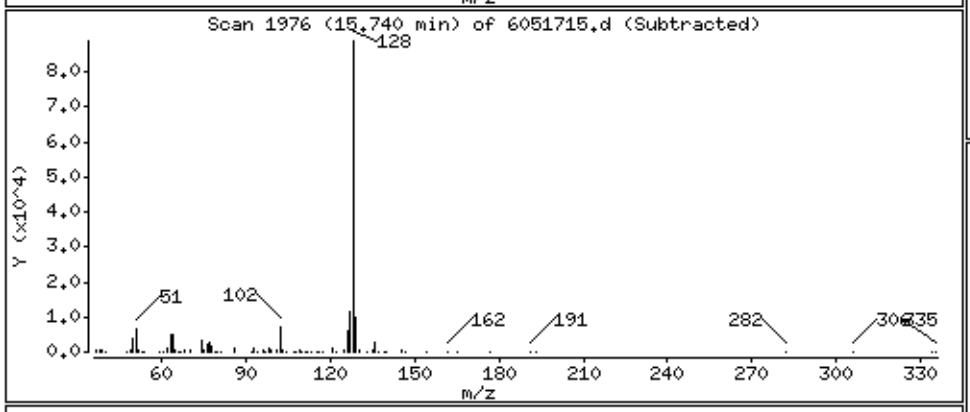
Column phase: RTx-624

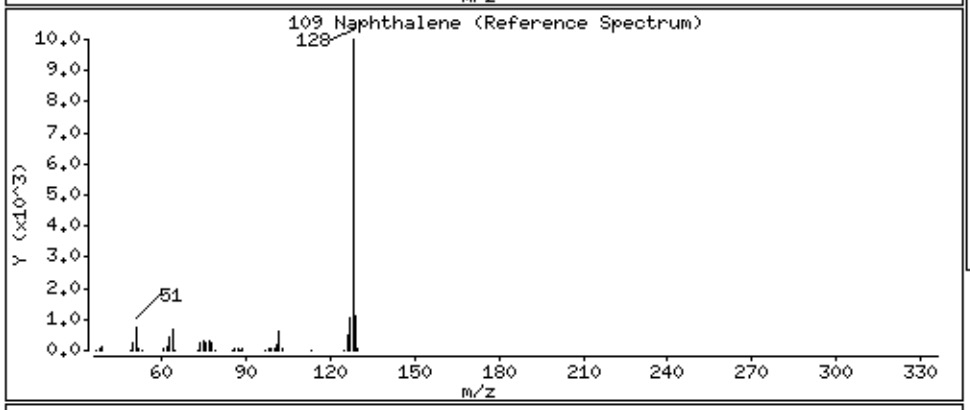
Column diameter: 0.53

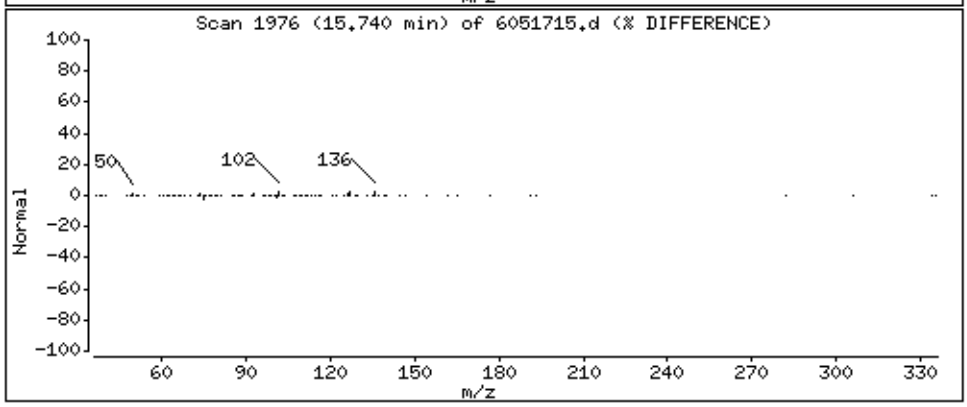
109 Naphthalene

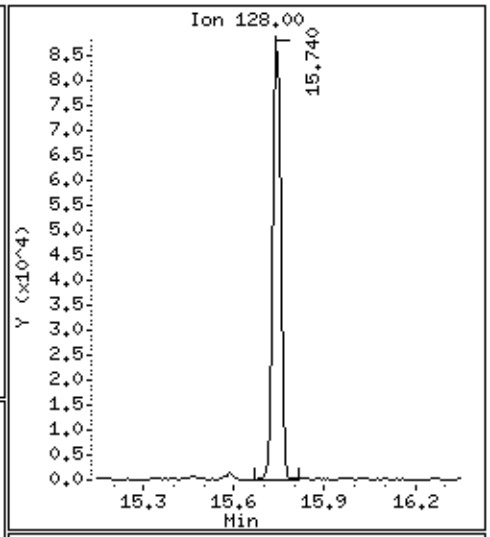
Concentration: 5.274 NG

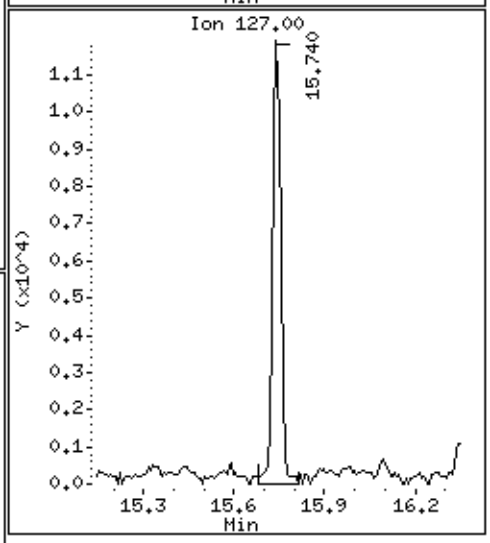












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B7IA-6

Lab ID#: 1605307-07A

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.056	0.29	0.058	0.30

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Client Sample ID: B7IA-6

Lab ID#: 1605307-07A

EPA METHOD TO-17

File Name:	**6051716**	**Date of Extraction: NA**	**Date of Collection: 5/14/16 8:52:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 08:59 PM**

Compound	**Rpt. Limit (ppbv)**	**Rpt. Limit (ug/m3)**	**Amount (ppbv)**	**Amount (ug/m3)**
Naphthalene	0.056	0.29	0.058	0.30

Air Sample Volume(L): 3.40
Container Type: TO-17 VI Tube

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	79	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051716.d
Lab Smp Id: 1605307-07A
Inj Date : 17-MAY-2016 20:59
Operator : CT Inst ID: msd6.i
Smp Info : ;1605307-07A
Misc Info : G0147259
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 18-May-2016 10:12 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Naph_MDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.428	11.449 (1.000)	174	433244	36.0000		80.00- 120.00	100.00
11.428	11.449 (1.000)	95	487492			92.70- 152.70	112.52
11.428	11.449 (1.000)	176	424123			68.24- 128.24	97.89
$ 108 Naphthalene-d8						CAS #: 1146-65-2	
15.704	15.704 (1.374)	136	482937	19.7910	19.791	80.00- 120.00	100.00
15.704	15.704 (1.374)	108	44045			0.00- 39.41	9.12
109 Naphthalene						CAS #: 91-20-3	
15.740	15.747 (1.377)	128	29932	1.02983	1.030	80.00- 120.00	100.00
15.740	15.747 (1.377)	127	4220			0.00- 43.01	14.10

Report Date: 18-May-2016 10:15

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6051716.d
Lab Smp Id: 1605307-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0147259

Calibration Date: 17-MAY-2016
Calibration Time: 12:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	400960	240576	561344	433244	8.05

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.45	11.12	11.78	11.43	-0.19

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: 18-May-2016 10:15

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 17may16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1605307-07A
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: Naph_MDL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0147259

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	19.791	79.16	50-150

Data File: /chem/msd6.i/17may16.b/6051716.d

Date : 17-MAY-2016 20:59

Client ID:

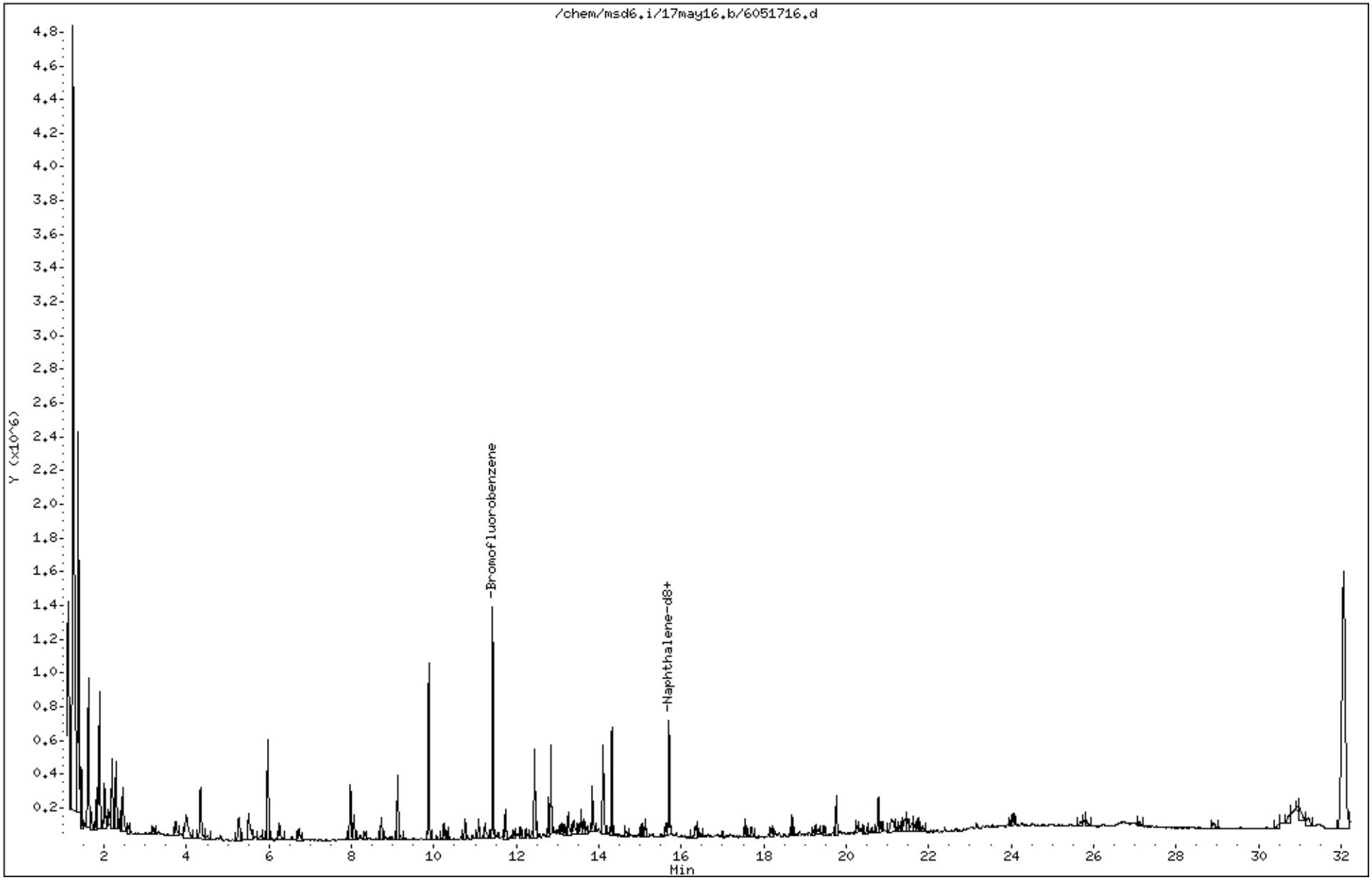
Instrument: msd6.i

Sample Info: ;1605307-07A

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msd6.i/17may16.b/6051716.d

Date : 17-MAY-2016 20:59

Client ID:

Instrument: msd6.i

Sample Info: ;1605307-07A

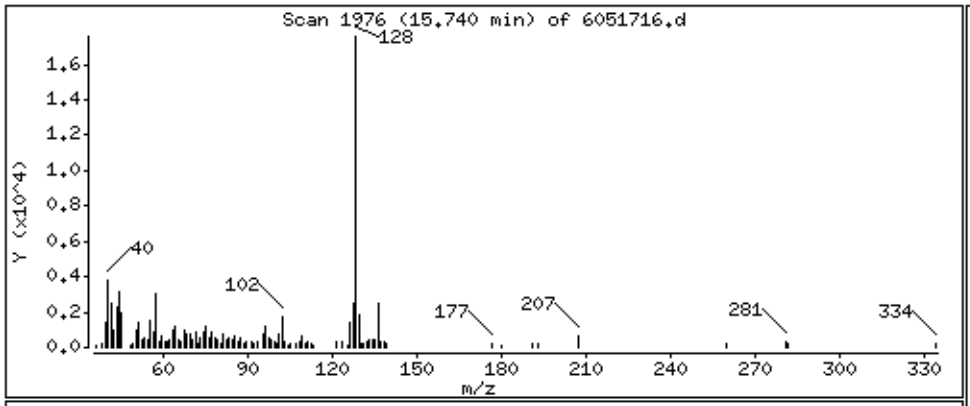
Operator: CT

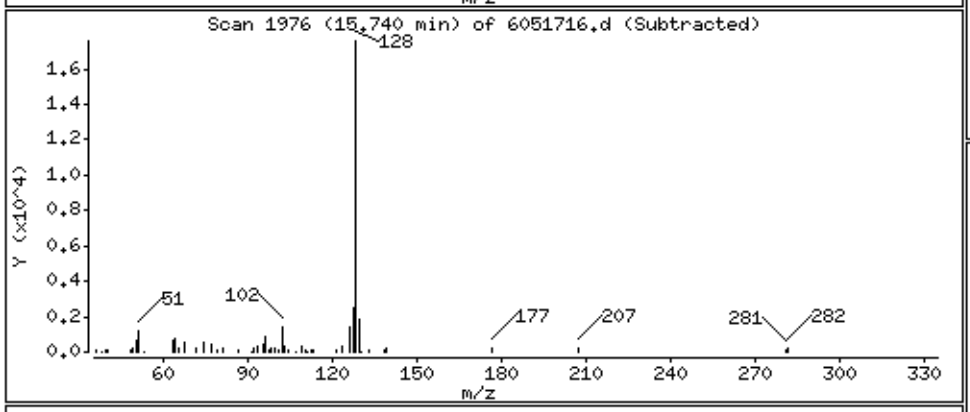
Column phase: RTx-624

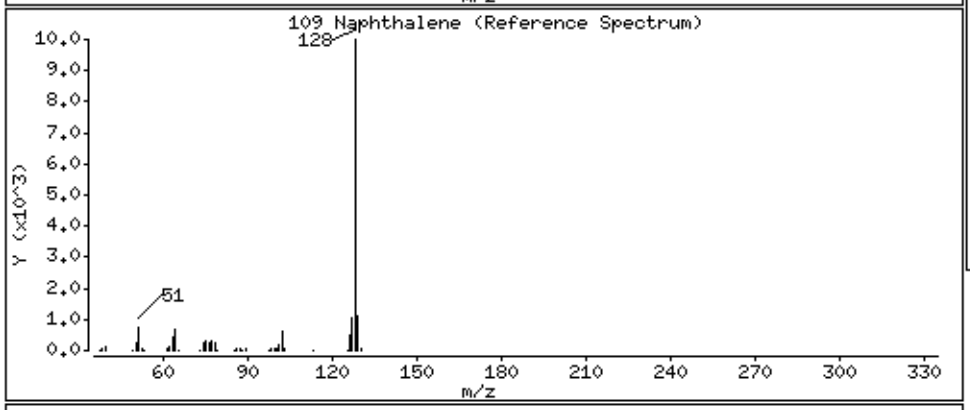
Column diameter: 0.53

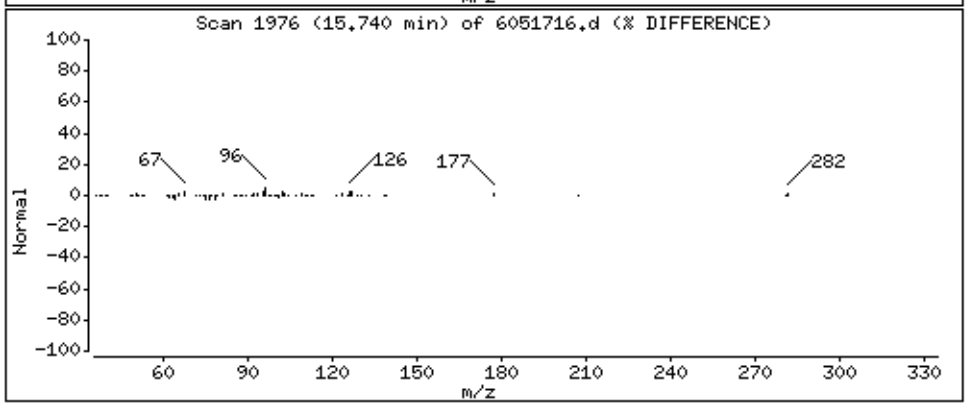
109 Naphthalene

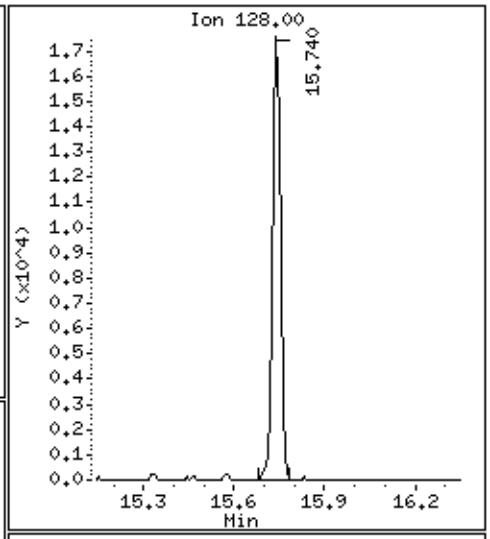
Concentration: 1.030 NG

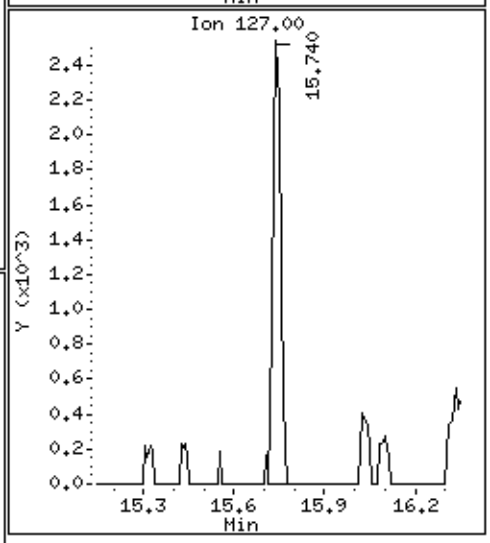












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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: B7AA-1 (05132016)

Lab ID#: 1605307-08A

No Detections Were Found.

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Client Sample ID: B7AA-1 (05132016)

Lab ID#: 1605307-08A

EPA METHOD TO-17

File Name:	**6051717**	**Date of Extraction: NA**	**Date of Collection: 5/14/16 2:00:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 09:38 PM**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.050	0.26	Not Detected	Not Detected

Air Sample Volume(L): 3.80
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	78	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051717.d
Lab Smp Id: 1605307-08A
Inj Date : 17-MAY-2016 21:38
Operator : CT Inst ID: msd6.i
Smp Info : ;1605307-08A
Misc Info : G0147721
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 18-May-2016 10:12 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Naph_MDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene							CAS #: 460-00-4	
11.428	11.449	(1.000)	174	433286	36.0000		80.00- 120.00	100.00
11.428	11.449	(1.000)	95	489673			92.70- 152.70	113.01
11.428	11.449	(1.000)	176	422211			68.24- 128.24	97.44
$ 108 Naphthalene-d8							CAS #: 1146-65-2	
15.704	15.704	(1.374)	136	476668	19.5322	19.532	80.00- 120.00	100.00
15.697	15.704	(1.374)	108	42998			0.00- 39.41	9.02

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6051717.d
Lab Smp Id: 1605307-08A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0147721

Calibration Date: 17-MAY-2016
Calibration Time: 12:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	400960	240576	561344	433286	8.06

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.45	11.12	11.78	11.43	-0.19

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: 18-May-2016 10:15

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 17may16
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1605307-08A
Level: LOW Operator: CT
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk Quant Type: ISTD
Sublist File: Naph_MDL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0147721

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	19.532	78.13	50-150

Data File: /chem/msd6.i/17may16.b/6051717.d

Date : 17-MAY-2016 21:38

Client ID:

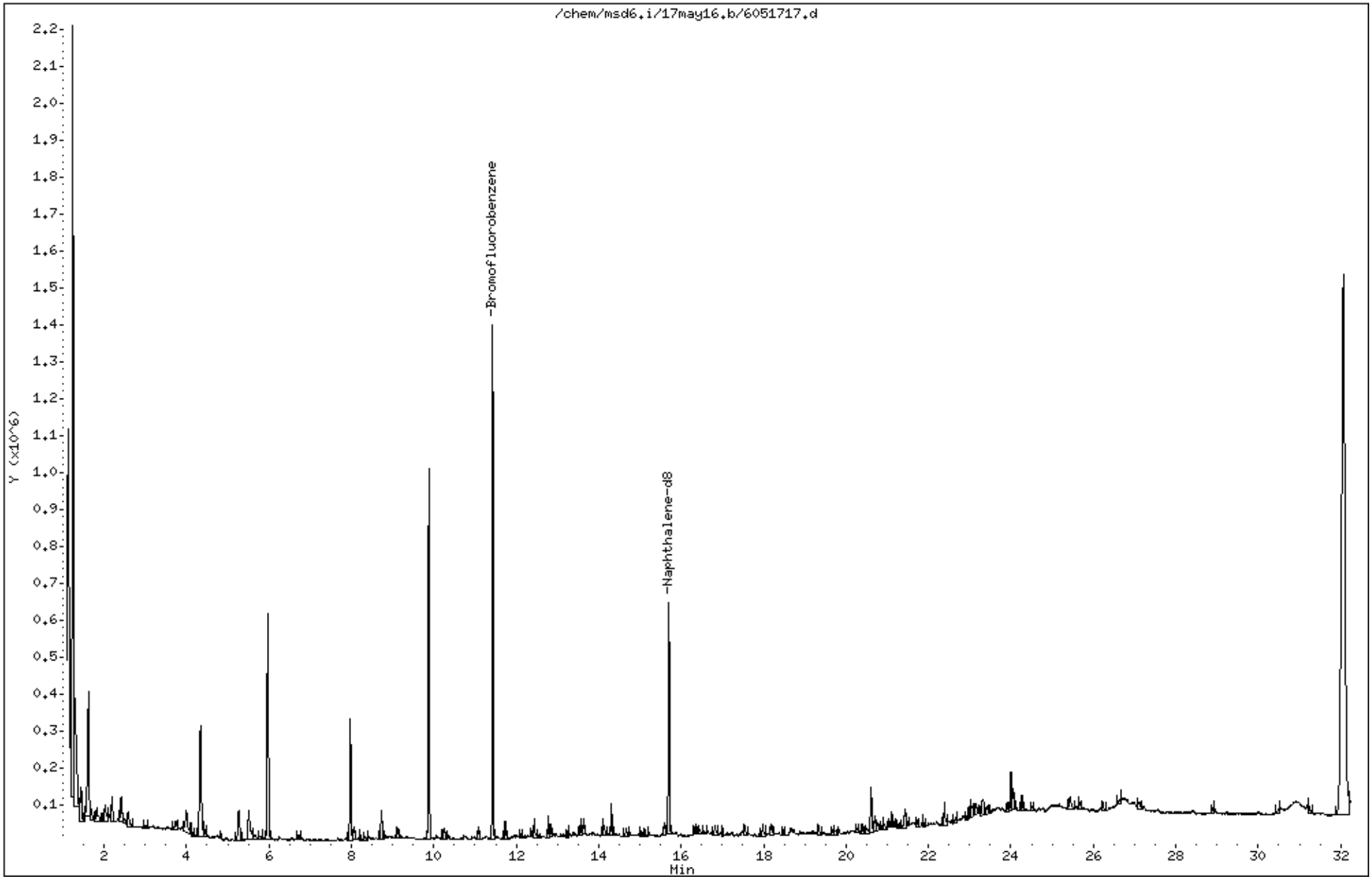
Sample Info: ;1605307-08A

Column phase: RTx-624

Instrument: msd6.i

Operator: CT

Column diameter: 0.53



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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: Blank

Lab ID#: 1605307-09A

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.011	0.058	0.010 J	0.055 J

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Client Sample ID: Blank

Lab ID#: 1605307-09A

EPA METHOD TO-17

File Name:	**6051709**	**Date of Extraction: NA**	**Date of Collection: 5/16/16 10:35:00 AM**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 04:21 PM**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.011	0.058	0.010 J	0.055 J

Air Sample Volume(L): 17.3

J = Estimated value.

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	76	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051709.d
Lab Smp Id: 1605307-09A
Inj Date : 17-MAY-2016 16:21
Operator : CT Inst ID: msd6.i
Smp Info : ;1605307-09A
Misc Info : G0143690
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 18-May-2016 10:12 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Naph_MDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.428	11.449 (1.000)	174	428502	36.0000		80.00- 120.00	100.00
11.428	11.449 (1.000)	95	491451			92.70- 152.70	114.69
11.428	11.449 (1.000)	176	416507			68.24- 128.24	97.20
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.704	15.704 (1.374)	136	460800	19.0928	19.093	80.00- 120.00	100.00
15.704	15.704 (1.374)	108	41720			0.00- 39.41	9.05
109 Naphthalene					CAS #: 91-20-3		
15.740	15.747 (1.377)	128	27177	0.94536	0.9454	80.00- 120.00	100.00(a)
15.747	15.747 (1.378)	127	3722			0.00- 43.01	13.70

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: msd6.i
Lab File ID: 6051709.d
Lab Smp Id: 1605307-09A
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0143690

Calibration Date: 17-MAY-2016
Calibration Time: 12:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	400960	240576	561344	428502	6.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.45	11.12	11.78	11.43	-0.19

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: 18-May-2016 10:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 17may16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1605307-09A
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: Naph_MDL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: G0143690

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	19.093	76.37	50-150

Data File: /chem/msd6.i/17may16.b/6051709.d

Date : 17-MAY-2016 16:21

Client ID:

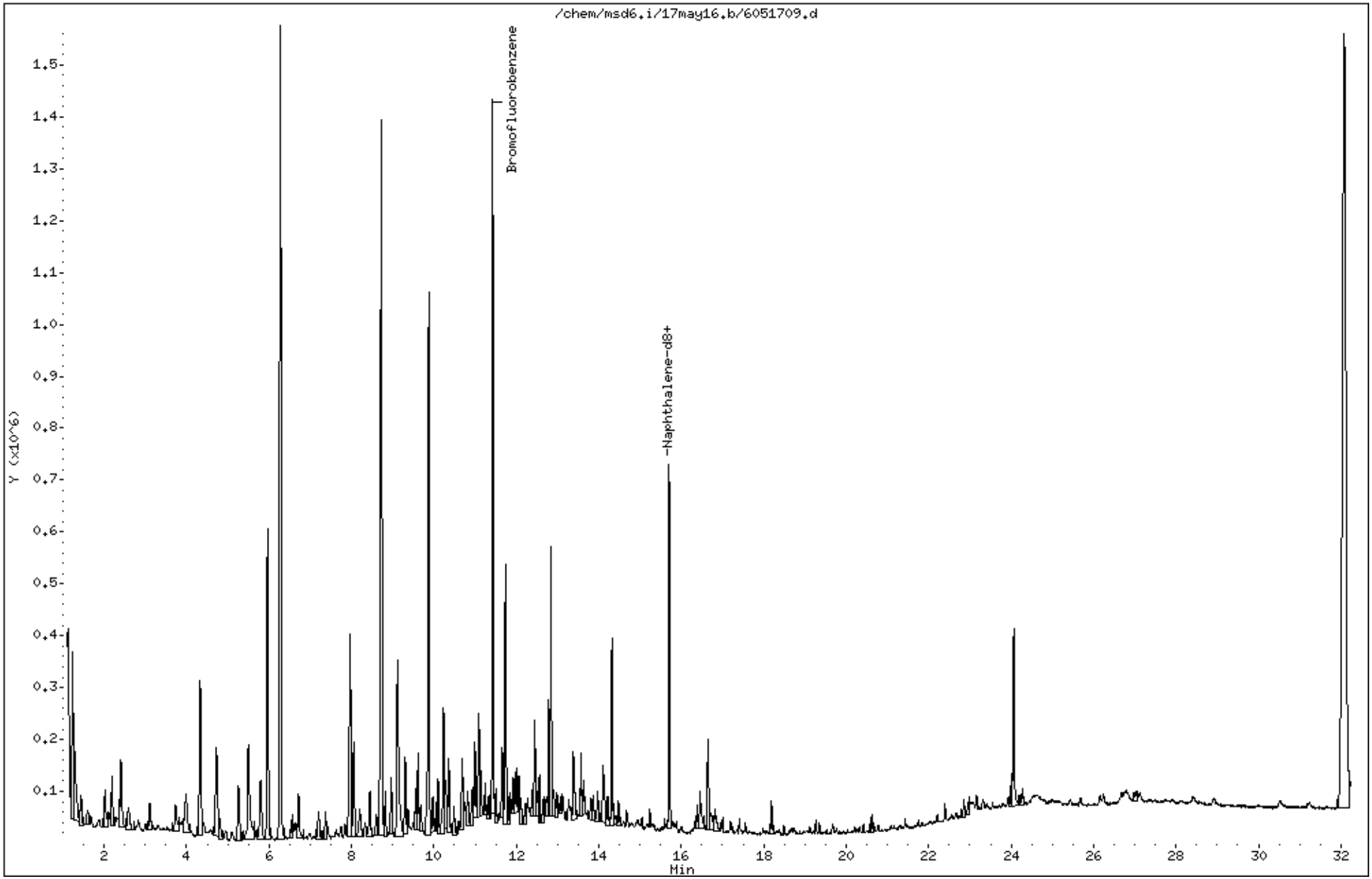
Sample Info: ;1605307-09A

Column phase: RTx-624

Instrument: msd6.i

Operator: CT

Column diameter: 0.53



Data File: /chem/msd6.i/17may16.b/6051709.d

Date : 17-MAY-2016 16:21

Client ID:

Instrument: msd6.i

Sample Info: ;1605307-09A

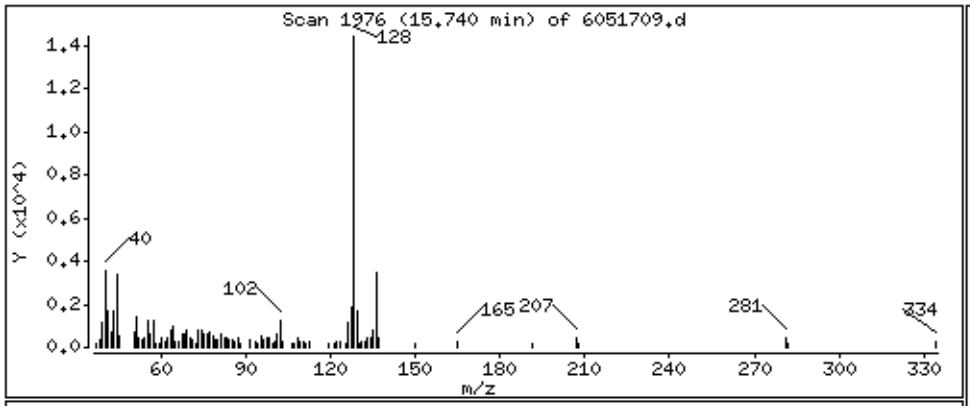
Operator: CT

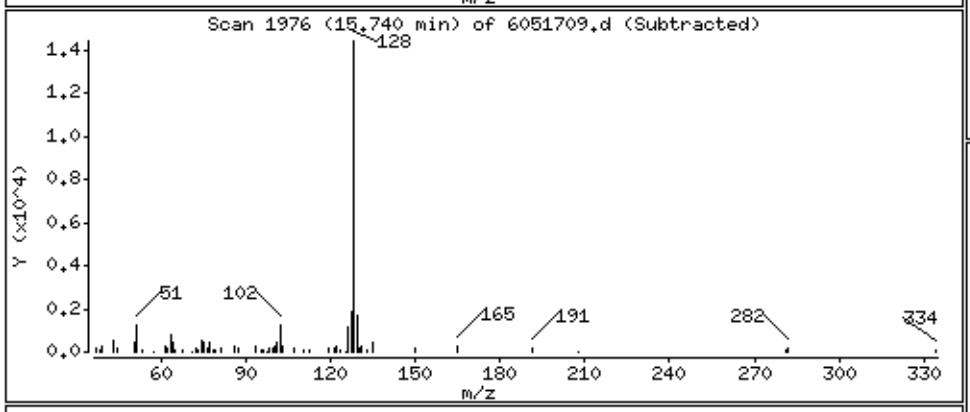
Column phase: RTx-624

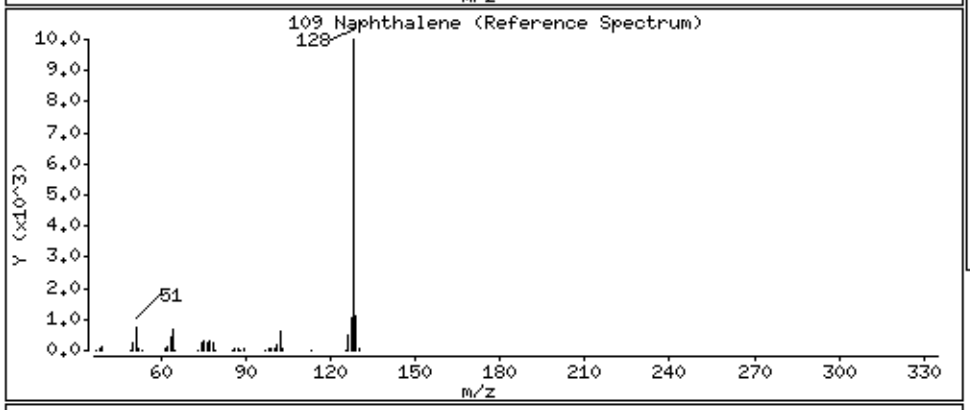
Column diameter: 0.53

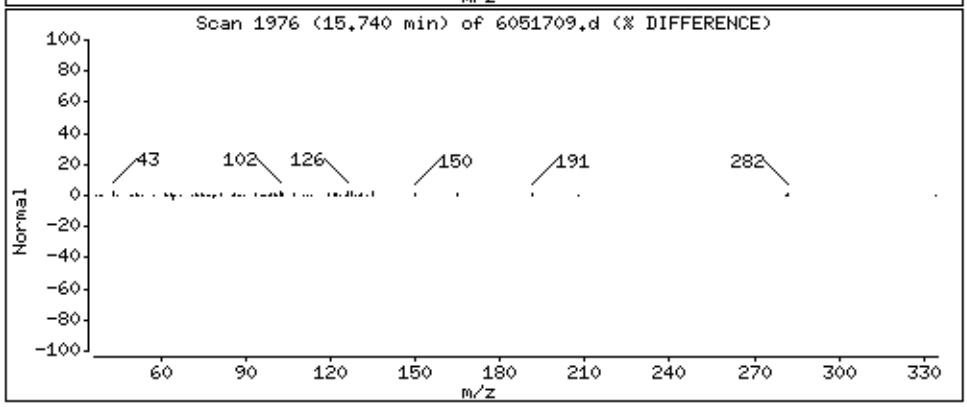
109 Naphthalene

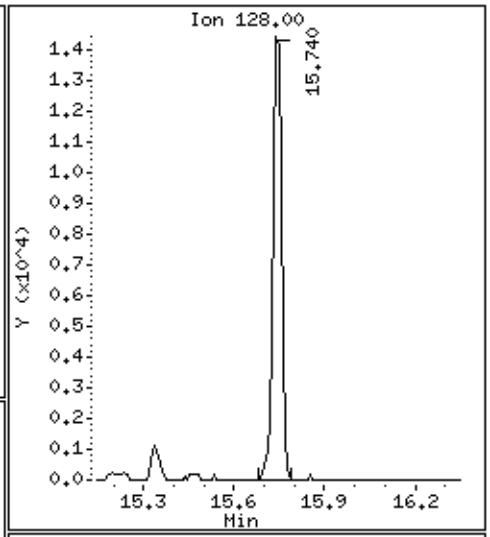
Concentration: 0.9454 NG

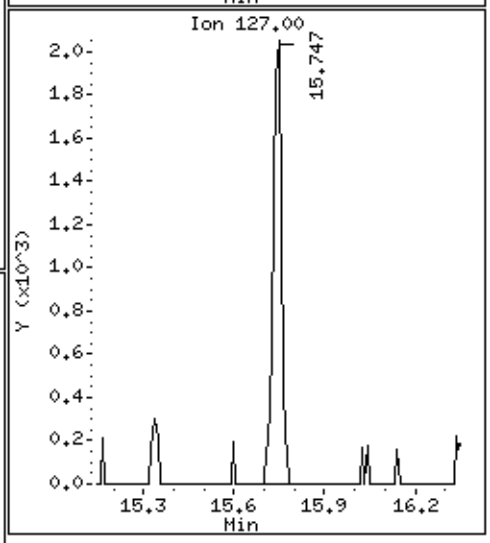












QC Results and Raw Data

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1605307-10A

EPA METHOD TO-17

File Name:	**6051708a**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 03:20 PM**

Compound	Rpt. Limit (ppbv)	Rpt. Limit (ug/m3)	Amount (ppbv)	Amount (ug/m3)
Naphthalene	0.011	0.058	Not Detected	Not Detected

Air Sample Volume(L): 17.3
Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	81	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051708a.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 17-MAY-2016 15:20
Operator : CT Inst ID: msd6.i
Smp Info : ;Lab Blank;Lab Blank
Misc Info : DP G0143617
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 18-May-2016 10:12 atoyama Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Naph_MDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene							CAS #: 460-00-4	
11.442	11.449	(1.000)	174	400075	36.0000		80.00- 120.00	100.00
11.442	11.449	(1.000)	95	456990			92.70- 152.70	114.23
11.442	11.449	(1.000)	176	388972			68.24- 128.24	97.22
$ 108 Naphthalene-d8							CAS #: 1146-65-2	
15.704	15.704	(1.372)	136	454893	20.1873	20.187	80.00- 120.00	100.00
15.704	15.704	(1.372)	108	40886			0.00- 39.41	8.99

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6051708a.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: DP G0143617

Calibration Date: 17-MAY-2016
Calibration Time: 12:53
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	400960	240576	561344	400075	-0.22

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.45	11.12	11.78	11.44	-0.06

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: 18-May-2016 10:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 17may16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: BLANK
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: Naph_MDL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: DP G0143617

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 108 Naphthalene-d8	25.000	20.187	80.75	50-150

Data File: /chem/msd6.i/17may16.b/6051708a.d

Date : 17-MAY-2016 15:20

Client ID: Lab Blank

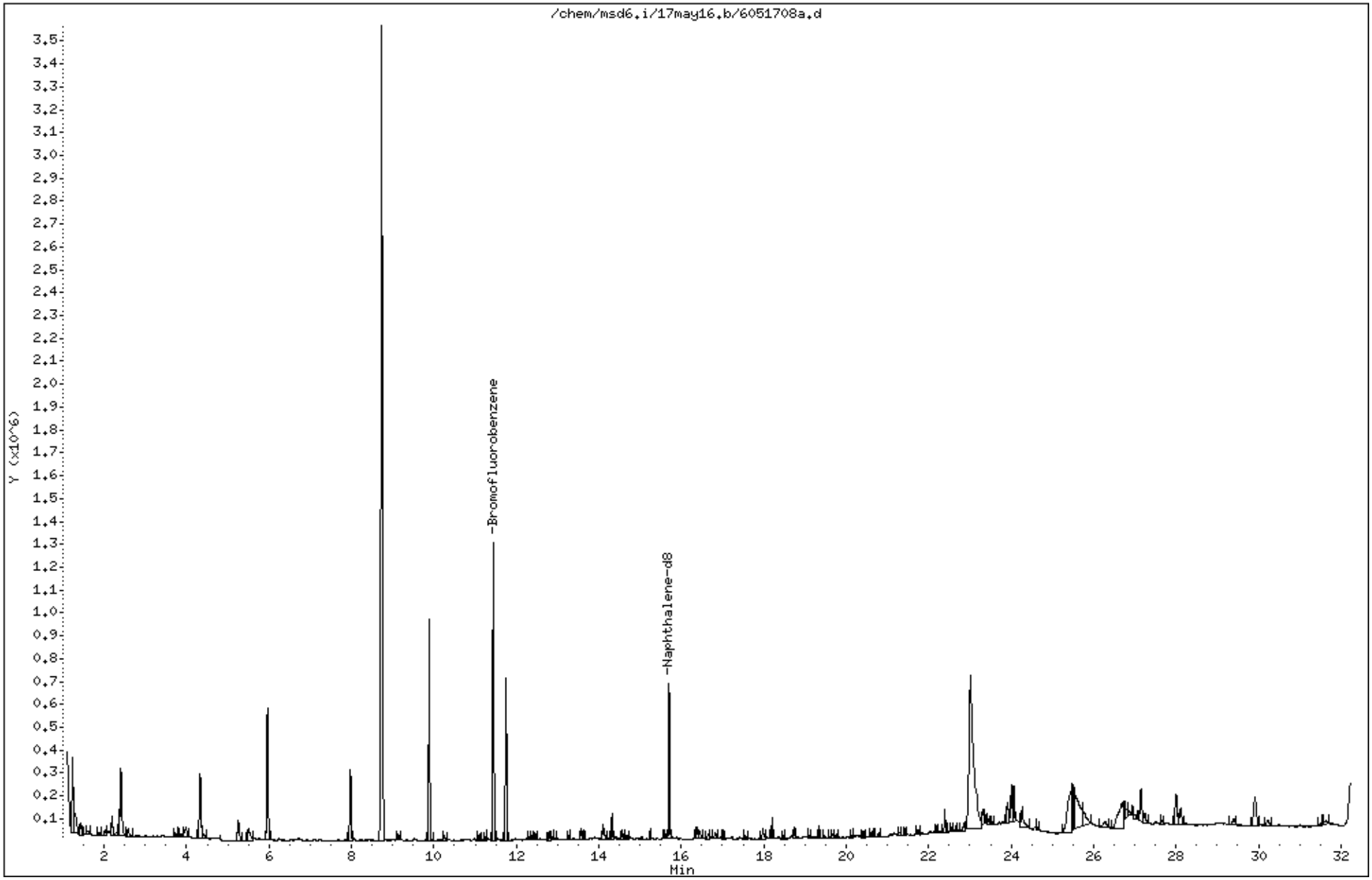
Instrument: msd6.i

Sample Info: ;Lab Blank;Lab Blank

Operator: CT

Column phase: RTx-624

Column diameter: 0.53



LEVEL-IV VALIDATABLE

EPA METHOD TO-17

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1605307

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		Naphthalene-d8	#		#		#		#	TOTAL OUT
01	B7IA-1	84								0
02	B7IA-1D	65								0
03	B7IA-2	87								0
04	B7IA-3	86								0
05	B7IA-4	79								0
06	B7IA-5	78								0
07	B7IA-6	79								0
08	B7AA-1 (05132016)	78								0
09	Blank	76								0
10	Lab Blank	81								0
11	CCV	79								0
12	LCS	85								0
13	LCSD	84								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

Naphthalene-d8 50 - 150

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

EPA Method TO-17

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD

Lab File ID: 6051705.d

Instrument ID: msd6.i

SDG No: 1605307

Date Analyzed: 05/17/2016

Time Analyzed: 12:53 PM

		4-Bromofluorobenzene Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	24-HOUR STD	400960		11.45									
	UPPER LIMIT	561344		11.78									
	LOWER LIMIT	240576		11.12									
	CLIENT SAMPLE NO												
01	B7IA-1	426020		11.43									
02	B7IA-1D	425688		11.43									
03	B7IA-2	424665		11.43									
04	B7IA-3	426164		11.43									
05	B7IA-4	434935		11.43									
06	B7IA-5	430911		11.43									
07	B7IA-6	433244		11.43									
08	B7AA-1 (05132016)	433286		11.43									
09	Blank	428502		11.43									
10	Lab Blank	400075		11.44									
11	CCV	400960		11.45									
12	LCS	411914		11.44									
13	LCSD	358587		11.43									
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: 6051706.d & 6051704.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 5/17/16 & 5/17/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
91-20-3	Naphthalene	96		95		1.0	

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 : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Calibration File Names:
Level 1: /chem/msd6.i/31mar16.b/6033102.d
Level 2: /chem/msd6.i/31mar16.b/6033103.d
Level 3: /chem/msd6.i/31mar16.b/6033124.d
Level 4: /chem/msd6.i/31mar16.b/6033105.d
Level 5: /chem/msd6.i/31mar16.b/6033106.d
Level 6: /chem/msd6.i/31mar16.b/6033107.d
Level 7: /chem/msd6.i/31mar16.b/6033108.d
Level 8: /chem/msd6.i/31mar16.b/6033109.d

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	250.000 Level 7	500.000 Level 8						
1 Propylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
2 Dichlorodifluoromethane/Fr12	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
3 Freon 114	0.43434	0.50438	0.46707	0.48648	0.46956	0.48011		
	0.46076	0.43325					0.46699	5.245
4 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
5 Butane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
6 Vinyl Chloride	+++++	0.78321	0.74359	0.74519	0.72714	0.73029		
	0.71377	0.68797					0.73302	4.024
7 1,3-Butadiene	0.68393	0.75219	0.76889	0.69240	0.69313	0.68346		
	0.67615	0.65229					0.70031	5.648

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
8 Bromomethane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
9 Chloroethane	+++++ 0.33066	0.57428 0.33772	0.51412	0.49029	0.35236	0.34512	0.42065	24.269
10 Isopentane	0.52006 0.52964	0.58077 0.50850	0.53285	0.55268	0.53265	0.54051	0.53721	4.080
11 Trichlorofluoromethane/Fr11	0.78668 0.88131	0.82414 0.86669	0.81064	0.82142	0.81851	0.82252	0.82899	3.681
12 Vinyl Bromide	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
13 Ethanol	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
14 1,1-Dichloroethene	0.33167 0.31984	0.36642 0.30253	0.35631	0.34028	0.32681	0.32712	0.33387	6.079
15 Freon 113	0.45328 0.48053	0.49891 0.45556	0.47579	0.49345	0.48071	0.49016	0.47855	3.492
16 Acetone	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
17 Freon123a	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
18 Carbon Disulfide	2.29051	2.26136	1.96757	1.92455	1.83125	1.81845		
	1.79347	1.73565					1.95285	10.874
19 2-Propanol	+++++	+++++	2.43821	1.98720	1.64559	1.64661		
	1.63926	1.54449					1.81689	18.732
20 Pentane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
21 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
22 Methylene Chloride	+++++	+++++	+++++	1.12901	0.82715	0.77875		
	0.73542	0.70004					0.83408	20.574
23 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
24 tert-Butyl-Alcohol	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
25 trans-1,2-Dichloroethene	0.31164	0.36344	0.33360	0.33667	0.33469	0.33638		
	0.33063	0.32217					0.33365	4.431
26 MTBE	1.34430	1.48980	1.20558	1.38905	1.41987	1.46776		
	1.41649	+++++					1.39041	6.804
27 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
28 Hexane	0.98564 0.94589	1.06377 0.90953	0.95880	0.99012	0.96562	0.96435	0.97296	4.561
29 1,1-Dichloroethane	0.83277 0.88510	0.96616 0.85834	0.85720	0.90583	0.88939	0.89790	0.88659	4.551
30 Isopropyl ether	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Vinyl Acetate	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
32 Chloroprene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
33 1-Propanol	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
34 2,2-Dichloropropane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
35 t-Butylethyl Ether	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
36 Ethyl Acetate	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
37 cis-1,2-Dichloroethene	0.35705 0.35119	0.38817 0.34296	0.35262	0.36192	0.35283	0.35513	0.35773	3.754

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
38 2-Butanone	+++++	+++++	+++++	0.50064	0.35580	0.33977		
	0.31888	0.31064					0.36515	21.303
39 2-Chloroethyl vinyl ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
41 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
42 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
43 Octane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
44 Chloroform	0.86608	0.92272	0.84837	0.86536	0.84484	0.84156		
	0.81969	0.80341					0.85150	4.200
45 1,1,1-Trichloroethane	0.15288	0.16993	0.15049	0.17314	0.17851	0.18278		
	0.18012	0.17557					0.17043	7.192
46 Cyclohexane	0.16860	0.17767	0.16996	0.17285	0.17396	0.17795		
	0.17679	0.17275					0.17382	2.004
47 Carbon Tetrachloride	0.12269	0.15394	0.12421	0.15000	0.15869	0.16393		
	0.16092	0.15698					0.14892	10.929
48 Benzene	+++++	0.66399	0.49658	0.53393	0.51142	0.45199		
	0.44472	0.42815					0.50440	15.897

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
	250.000 Level 7	500.000 Level 8						
50 1,2-Dichloroethane	0.15933	0.15691	0.15160	0.15562	0.15648	0.15877		
	0.15429	0.14938					0.15530	2.206
51 2,2,4-Trimethylpentane	0.49973	0.54592	0.52863	0.53346	0.54052	0.54040		
	0.53175	0.50023					0.52758	3.394
52 tert-amyl-Methyl Ether	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
53 Heptane	0.12264	0.12283	0.11578	0.11695	0.11746	0.11845		
	0.11814	0.11558					0.11848	2.375
55 Decane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
56 Trichloroethene	0.13949	0.15009	0.15559	0.15010	0.13390	0.12909		
	0.12851	0.12196					0.13859	8.816
57 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
58 Methyl Cyclohexane	0.20444	0.22215	0.21248	0.21336	0.21980	0.22047		
	0.21961	0.21410					0.21580	2.723
59 1,2-Dichloropropane	0.11093	0.11768	0.10456	0.11386	0.12082	0.12295		
	0.12180	0.11845					0.11638	5.376
60 1,4-Dioxane	0.10123	0.10267	0.09620	0.09773	0.09818	0.10036		
	0.09996	0.09766					0.09925	2.175

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
61 Undecane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
62 Bromodichloromethane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
63 1,3-Dichloropropane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
64 cis-1,3-Dichloropropene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
65 4-Methyl-2-pentanone	0.10665 0.11734	0.11890 0.11250	0.11166	0.11031	0.11739	0.11919	0.11424	4.033
67 Toluene	0.66470 0.54954	0.61072 0.52446	0.57867	0.55937	0.56301	0.56215	0.57658	7.494
68 1,1,1,2-Tetrachloroethane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
69 trans-1,3-Dichloropropene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
70 1,1,2-Trichloroethane	0.11963 0.11668	0.11796 0.11206	0.11364	0.11321	0.11764	0.11889	0.11622	2.457
71 Tetrachloroethene	0.14377 0.15809	0.15540 0.15363	0.14835	0.14917	0.15388	0.15667	0.15237	3.184

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
72 2-Hexanone	0.16540 0.18228	0.18093 0.17719	0.15857	0.16002	0.18082	0.18541	0.17383	6.191
73 Dibromochloromethane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
74 1,2-Dibromoethane	0.13352 0.14778	0.14528 0.14316	0.13736	0.13374	0.14951	0.15454	0.14311	5.353
75 Bromobenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
76 1,2,3-Trichloropropane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
77 2-Chlorotoluene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
78 4-Chlorotoluene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
80 tert-Butylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
81 Chlorobenzene	0.36313 0.36915	0.38755 0.35181	0.36474	0.36260	0.37707	0.37701	0.36913	3.007
82 Ethyl Benzene	0.19498 0.20352	0.20886 0.19641	0.19970	0.19414	0.20281	0.20707	0.20094	2.753

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
83 sec-Butylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
84 m,p-Xylene	0.27303 0.25458	0.29447 0.24963	0.25520	0.24445	0.25428	0.25923	0.26061	6.136
85 p-Cymene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
86 1,2,3-Trimethylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
87 Butylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
88 o-Xylene	0.52509 0.53454	0.58187 0.50589	0.55003	0.53323	0.55368	0.55287	0.54215	4.201
89 Styrene	0.95659 0.92371	1.03957 0.86703	0.89822	0.88466	0.95185	0.95779	0.93493	5.836
90 Bromoform	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
91 Cumene	1.32369 1.40841	1.56761 1.21565	1.47863	1.43301	1.49662	1.48287	1.42581	7.779
93 1,2-Dibromo-3-Chloropropane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
94 1,1,2,2-Tetrachloroethane	0.40857 0.51904	0.46373 0.49485	0.40040	0.42904	0.51127	0.54374	0.47133	11.477
95 1,3,5-Trichlorobenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
96 Propylbenzene	1.55942 1.66749	1.92359 1.31431	1.78149	1.69849	1.78132	1.76610	1.68653	10.881
97 4-Ethyltoluene	0.36990 0.43691	0.47488 0.41253	0.44799	0.41943	0.45433	0.45484	0.43385	7.547
98 1,3,5-Trimethylbenzene	0.52724 0.60794	0.67607 0.56918	0.63645	0.59626	0.64266	0.63765	0.61168	7.713
99 1,2,3-Trichlorobenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
100 1,2,4-Trimethylbenzene	0.48950 0.56173	0.66554 0.52708	0.59193	0.54494	0.59324	0.58613	0.57001	9.242
101 1,3-Dichlorobenzene	0.57935 0.69708	0.81719 0.65407	0.74373	0.69424	0.73513	0.72293	0.70547	9.861
102 1,4-Dichlorobenzene	0.56889 0.69619	0.81897 0.65623	0.74424	0.68559	0.74161	0.72347	0.70440	10.400
103 Phenol	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
217 2-Methylphenol	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
218 3-Methylphenol/4-Methylphenol	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
104 alpha-Chlorotoluene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
105 1,2-Dichlorobenzene	0.52722 0.66492	0.74531 0.63036	0.70648	0.66191	0.70576	0.69098	0.66662	9.931
106 1,2,4-Trichlorobenzene	0.42101 0.46904	0.51528 0.46666	0.42701	0.39468	0.50041	0.47234	0.45830	8.966
107 Hexachlorobutadiene	0.26643 0.25289	0.20223 0.25445	0.20383	0.19078	0.26141	0.25217	0.23552	13.114
109 Naphthalene	3.62499 1.95606	3.19161 +++++	2.07042	1.94161	2.09201	2.02971	2.41520	28.653
110 2-Methylnaphthalene	1.52644 1.27856	1.88591 +++++	1.25746	1.20809	1.31226	1.30348	1.39603	17.074
111 1-Methylnaphthalene	1.32010 1.17025	1.66046 +++++	1.14509	1.10097	1.20330	1.18726	1.25535	15.215
112 Acenaphthylene	+++++ 1.96568	2.64033 +++++	1.86920	1.78696	2.05622	1.98360	2.05033	14.824

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 04-Apr-2016 12:10 lantonic
Curve Type : Average

Compound	1.000 Level 1 250.000 Level 7	5.000 Level 2 500.000 Level 8	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
113 Acenaphthene	+++++	1.32614	1.01025	0.98706	1.08437	1.10654		
	1.13570	+++++					1.10834	10.909
114 Fluorene	+++++	1.37714	0.99376	0.92314	0.93835	1.15032		
	1.21431	+++++					1.09950	16.326
115 Phenanthrene	+++++	2.35766	1.73275	1.53938	1.88832	1.78064		
	1.83840	+++++					1.85619	14.737
116 Anthracene	+++++	2.06316	1.64806	1.42879	1.82892	1.74945		
	1.83022	+++++					1.75810	12.037
117 Fluoranthene	+++++	1.89609	1.35152	1.02252	1.28168	1.02065		
	1.17435	+++++					1.29114	25.184
118 Pyrene	+++++	2.01334	1.39158	1.06047	1.32129	1.04297		
	1.21775	+++++					1.34123	26.627
$ 49 1,2-Dichloroethane-d4	+++++	0.12574	0.12324	0.12145	0.12306	0.12325		
	0.11437	+++++					0.12185	3.213
$ 66 Toluene-d8	+++++	0.45318	0.46598	0.45779	0.48658	0.48059		
	0.46603	+++++					0.46836	2.758
$ 108 Naphthalene-d8	+++++	2.64559	1.89004	1.83829	1.87907	1.93518		
	1.97772	+++++					2.02765	15.117

Calibration History

Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Start Cal Date: 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
30-MAR-2016 18:14	VOC+naphsnoSS	/chem/msd6.i/31mar16.b/6033102.d
Cal Level: 2 , Cal Amount: 5.00000		
30-MAR-2016 18:54	VOC+PAH_ICAL	/chem/msd6.i/31mar16.b/6033103.d
Cal Level: 3 , Cal Amount: 10.00000		
31-MAR-2016 10:19	PAHical	/chem/msd6.i/31mar16.b/6033124.d
30-MAR-2016 19:34	VOC_L1	/chem/msd6.i/31mar16.b/6033104.d
Cal Level: 4 , Cal Amount: 25.00000		
30-MAR-2016 20:13	VOC+PAH_ICAL	/chem/msd6.i/31mar16.b/6033105.d
Cal Level: 5 , Cal Amount: 50.00000		
30-MAR-2016 20:53	VOC+PAH_ICAL	/chem/msd6.i/31mar16.b/6033106.d
Cal Level: 6 , Cal Amount: 100.00000		
30-MAR-2016 21:33	VOC+PAH_ICAL	/chem/msd6.i/31mar16.b/6033107.d
Cal Level: 7 , Cal Amount: 250.00000		
30-MAR-2016 22:12	VOC+PAH_ICAL	/chem/msd6.i/31mar16.b/6033108.d
Cal Level: 8 , Cal Amount: 500.00000		

```
+=================================================================================+
|30-MAR-2016 22:52 |VOC_ICALnoSS     |/chem/msd6.i/31mar16.b/6033109.d        |
+------------------+-----------------+----------------------------------------+


Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 5
+------------------+-----------------+----------------------------------------+
| Ccal Level: 5 , Ccal Amount: 50.000                                          |
+=================================================================================+
|30-MAR-2016 20:53 |VOC+PAH_ICAL     |/chem/msd6.i/31mar16.b/6033106.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 5 , Ccal Amount: 50.000                                          |
+=================================================================================+
|30-MAR-2016 20:53 |VOC+PAH_ICAL     |/chem/msd6.i/31mar16.b/6033106a.d       |
+------------------+-----------------+----------------------------------------+
```

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-MAR-2016 18:14
End Cal Date : 31-MAR-2016 10:19
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd6.i/31mar16.b/616z0331vi.m
Cal Date : 31-Mar-2016 11:04 lantonic
Curve Type : Average

DB 4/1/16
LA 3/31/16

Calibration File Names:
Level 1: /chem/msd6.i/31mar16.b/6033102.d
Level 2: /chem/msd6.i/31mar16.b/6033103.d
Level 3: /chem/msd6.i/31mar16.b/6033124.d
Level 4: /chem/msd6.i/31mar16.b/6033105.d
Level 5: /chem/msd6.i/31mar16.b/6033106.d
Level 6: /chem/msd6.i/31mar16.b/6033107.d
Level 7: /chem/msd6.i/31mar16.b/6033108.d
Level 8: /chem/msd6.i/31mar16.b/6033109.d

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

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD
	250.000 Level 7	500.000 Level 8						
3 Freon 114	0.43434	0.50438	0.46707	0.48648	0.46956	0.48016		
	0.46076	0.43325					0.46700	5.246
6 Vinyl Chloride	0.70211	0.78321	0.74359	0.74519	0.72714	0.73029		
	0.71377	0.68797					0.72916	4.034
7 1,3-Butadiene	0.68393	0.75219	0.76889	0.69240	0.69313	0.68346		
	0.67615	0.65229					0.70031	5.648
9 Chloroethane	+++++	0.57428	0.51412	0.49029	0.36050	0.35427		
	0.33066	0.33772					0.42312	23.662
10 Isopentane	0.52006	0.58077	0.53285	0.55268	0.53265	0.54051		
	0.52964	0.50850					0.53721	4.080
11 Trichlorofluoromethane/Fr11	0.78668	0.82414	0.81064	0.82142	0.81851	0.82301		
	0.88131	0.86669					0.82905	3.679
15 Freon 113	0.45328	0.49891	0.47579	0.49345	0.48071	0.49016		
	0.48053	0.45556					0.47855	3.492

Initial Calibration Narrative

An 8 point calibration curve was performed on instrument MSD-6 using VI sorbent media on March 31, 2016 for VOC+PAH compounds.

- The VOC compounds were spiked in a vapor phase onto the VI tubes using the ATIS.
- The PAH compounds were spiked directly onto the tube.
- ICAL name: 616z0331vi.m
- Units: in ng
- Markes Unity Method: VI.mth
- Chemstation Method: TO17+PAH.m
- DE study for PAH @ 100ng : file # 6033111.d (passed)
- DE study for PAH @ 250ng : file # 6033112.d (passed)
- The Level 3 was reanalyzed for PAH's only due to unacceptable linearity of several PAH compounds.
- VOC ICV file: 6033113.d
- PAH ICV file: 6033125.d
- **The RL for Vinyl Chloride was raised from 2.6ng to 5.1ng due to the MDL study.**
- MDL: 4/1/16

@ Air Toxics Ltd. Run Log for MSD-6 Method TO14 & TO15
BFB verification of 176/174 Ratio: (266965 / 272448) x100% = 97.99%
Standard ID 2299-607 Exp. date 7/13/16
Bromochloromethane 225139 File ID: 6033113
1,4-Difluorobenzene 874568 Compound: toluene
Chlorobenzene-d5 795881 InitialIS: UA
Verification CCV IS vs ICAL mid-point (-40%)
Calculation Check: BFB: 515685
UA 3/31/16

~~ppbv~~ ng of compound = (Area of sample / Area of IS) * (Concentration of IS / RRF) = (1402763 / 804807) * (24.0 / 0.57659) = 72.550ng

Method: 6162033/VI.m

Data Directory: C:\msdchem\1\DATA\31Mar16.b\

Use	SampleName		Port pos.	Injection Time	Init.
1) ✓	6033101.D Comments: OK for tube cert. ;BFB;BFB	60143775	11	30 Mar 2016 17:35	UA
2) ✓	6033102.D Comments ;VI VOC+PAH ICAL1,1.0ngSurr	2516-232-1ml(6/11/16),274	1	30 Mar 2016 18:14	
3) ✓	6033103.D Comments ;VI VOC+PAH ICAL2,2.0ngSurr	2516-232-2ml(6/11/16),274	2	30 Mar 2016 18:54	
4) ✓	6033104.D Comments: for VOC's only ;VI VOC+PAH ICAL3,5.0ngSurr	2516-232-3ml(6/11/16),274	3	30 Mar 2016 19:34	
5) ✓	6033105.D Comments ;VI VOC+PAH ICAL4,10ngSurr	2516-232-6ml(6/11/16),274	4	30 Mar 2016 20:13	
6) ✓	6033106.D Comments ;VI VOC+PAH ICAL5,25ngSurr	2516-232-20ml(6/11/16),27	5	30 Mar 2016 20:53	
7) ✓	6033107.D Comments ;VI VOC+PAH ICAL6,50ngSurr	2516-232-50ml(6/11/16),27	6	30 Mar 2016 21:33	
8) ✓	6033108.D Comments ;VI VOC+PAH ICAL7,100ngSurr	2516-232-100ml(6/11/16),2	7	30 Mar 2016 22:12	
9) ✓	6033109.D Comments ;VI VOC+PAH ICAL8,noSurr	2516-232-200ml(6/11/16),n	8	30 Mar 2016 22:52	
10) ✓	6033110.D Comments ;Blank	G0149258	1	30 Mar 2016 23:32	
11) ✓	6033111.D Comments ;VI PAH DE study,100ng	G0150893	6	31 Mar 2016 00:11	
12) ✓	6033112.D Comments ;VI PAH DE study,250ng	G0150557	7	31 Mar 2016 00:51	
13) ✓	6033113.D Comments: for VOC's only ;VI VOC+PAH ICV/LCS;LCS, 25ngS	2516-231-20ml(6/11/16),27	9	31 Mar 2016 1:31	
13) ✓	6033114.D Comments: for VOC's only ;VI VOC+PAH LCSD;LCSD, 25ngS	2516-231-20ml(6/11/16),27	9	31 Mar 2016 2:10	
14) ✓	6033115.D Comments ;Lab Blank;Lab Blank	G0153856	10	31 Mar 2016 2:50	
15) X	6033116.D Comments: tube leak ;VI Tube Cert	G0143655	12	31 Mar 2016 3:29	
16) ✓	6033117.D Comments ;VI Tube Cert	G0132020	13	31 Mar 2016 4:08	

Lauren Antonucci 2/31/16

17) ✓ 6033118.D Comments 2-mn, 1-mn ~ RL
;VI Tube Cert G0147211 14 31 Mar 2016 4:48 LA

18) ✓ 6033119.D Comments
;VI Tube Cert G0149256 15 31 Mar 2016 5:28

19) X 6033120.D Comments front-inlet shutdown
;VI Tube Cert G0139965 16 31 Mar 2016 6:07

20) X XXXXXXX.D Comments re-used file -- tube leak -- no data exists.
;VI Tube Cert G0148382 17 31 Mar 2016 X:XX

21) ✓ 6033121.D Comments
;VI Tube Cert G0147226 18 31 Mar 2016 8:12

22) ✓ 6033122.D Comments
;VI Tube Cert G0132025 19 31 Mar 2016 8:51

23) ✓ 6033123.D Comments
;VI Tube Cert G0143671 20 31 Mar 2016 9:31

24) ✓ 6033124.D Comments
;VI PAH ICAL 3 2744-31-10(7/5/16) 1 31 Mar 2016 10:19

25) ✓ 6033125.D Comments
;VI PAH ICV/LCS;LCS 2744-32-50(7/20/16) 2 31 Mar 2016 10:58

Lynette Antonucelli 3/31/16

Desorption Efficiency (%DE) Verification - EPA Method TO-17

Target Method:	616z0331vi
Instrument Method:	TO17+PAH.m
Initial Run File:	6033108
Repeat Run File:	6033112

Compound	Enter mass (ng) Initial Run (m_i)	Repeat Run (m_r)	%DE
Naphthalene	202.5	0.3	99.9%
2-Methylnaphthalene	228.9	0.2	99.9%
Acenaphthylene	221.0	0.2	99.9%
Acenaphthene	285.4	0.1	100.0%
Fluorene	316.1	1.4	99.6%
Phenanthrene	249.5	2.9	98.9%
Anthracene	272.6	5.6	98.0%
Fluoranthene*	280.8	25.4	91.7%
Pyrene*	253.6	22.8	91.8%

Acceptance criterion $\geq$ 95%
*Acceptance criterion $\geq$ 90%

$$\%DE = [(m_i)/(m_i + m_r)] \times 100\%$$

Where m_i = mass measured in initial run (ng)
m_r = mass measured in repeat run (ng)

Desorption Efficiency (%DE) Verification - EPA Method TO-17

Target Method:	616z0331vi
Instrument Method:	TO17+PAH.m
Initial Run File:	6033107
Repeat Run File:	6033111

Compound	Enter mass (ng) Initial Run (m_i)	Repeat Run (m_r)	%DE
Naphthalene	84.0	0.2	99.8%
2-Methylnaphthalene	93.4	0.2	99.8%
Acenaphthylene	96.7	0.2	99.8%
Acenaphthene	99.8	0.1	99.9%
Fluorene	104.6	1.0	99.1%
Phenanthrene	95.9	2.0	98.0%
Anthracene	99.5	2.9	97.2%
Fluoranthene*	79.0	12.7	**86.2%**
Pyrene*	77.8	12.6	**86.1%**

Acceptance criterion $\geq$ 95%
*Acceptance criterion $\geq$ 90%

$$\%DE = [(m_i)/(m_i + m_r)] \times 100\%$$

Where m_i = mass measured in initial run (ng)
m_r = mass measured in repeat run (ng)

of ppbv to ng based on amount spiked onto TO-17 tube

Mass (ng) = Amount (ppbv) * (MW/24.45)* Vol spiked (mL) * (1L/1000 mL)

Enter working standard #1 conc		200							
Enter working standard #2 conc		1000							
Working Standard (Enter 1 or 2)		2	2	2	2	2	2	2	2
Volume spiked (mL) =>		1	2	3	6	20	50	100	200
Compound	**MW**	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**	**Level 7**	**Level 8**
Propylene	42.08	1.72	3.44	5.16	10.3	34.4	86.1	172	344
Freon 12	120.92	4.95	9.89	14.84	29.7	98.9	247.3	495	989
Freon 114	170.93	6.99	13.98	20.97	41.9	139.8	349.6	699	1398
Chloromethane	50.49	2.07	4.13	6.20	12.4	41.3	103.3	207	413
Butane	58.12	2.38	4.75	7.13	14.3	47.5	118.9	238	475
Vinyl Chloride	62.5	2.56	5.11	7.67	15.3	51.1	127.8	256	511
1,3-Butadiene	54.09	2.21	4.42	6.64	13.3	44.2	110.6	221	442
Bromomethane	94.95	3.88	7.77	11.65	23.3	77.7	194.2	388	777
Chloroethane	64.52	2.64	5.28	7.92	15.8	52.8	131.9	264	528
Isopentane	72.15	2.95	5.90	8.85	17.7	59.0	147.5	295	590
Freon 11	137.37	5.62	11.24	16.86	33.7	112.4	280.9	562	1124
Ethanol	46.07	1.88	3.77	5.65	11.3	37.7	94.2	188	377
1,1-Dichloroethene	96.95	3.97	7.93	11.90	23.8	79.3	198.3	397	793
Freon 113	187.39	7.66	15.33	22.99	46.0	153.3	383.2	766	1533
Carbon disulfide	76.14	3.11	6.23	9.34	18.7	62.3	155.7	311	623
Acetone	58.08	2.38	4.75	7.13	14.3	47.5	118.8	238	475
3-Chloropropene	76.53	3.13	6.26	9.39	18.8	62.6	156.5	313	626
2-Propanol	60.09	2.46	4.92	7.37	14.7	49.2	122.9	246	492
Methylene Chloride	84.94	3.47	6.95	10.42	20.8	69.5	173.7	347	695
trans-1,2-Dichloroethene	96.94	3.96	7.93	11.89	23.8	79.3	198.2	396	793
MTBE	88.15	3.61	7.21	10.82	21.6	72.1	180.3	361	721
tert-Butyl alcohol	74.12	3.03	6.06	9.09	18.2	60.6	151.6	303	606
Hexane	86.17	3.52	7.05	10.57	21.1	70.5	176.2	352	705
1,1-dichloroethane	98.97	4.05	8.10	12.14	24.3	81.0	202.4	405	810
Isopropyl ether	102.18	4.18	8.36	12.54	25.1	83.6	209.0	418	836
Vinyl acetate	86.09	3.52	7.04	10.56	21.1	70.4	176.1	352	704
t-butylethyl ether	102.17	4.18	8.36	12.54	25.1	83.6	208.9	418	836
cis-1,2-Dichloroethene	96.94	3.96	7.93	11.89	23.8	79.3	198.2	396	793
2-butanone	72.1	2.95	5.90	8.85	17.7	59.0	147.4	295	590
Tetrahydrofuran	72.1	2.95	5.90	8.85	17.7	59.0	147.4	295	590

Chloroform	119.39	4.88	9.77	14.65	29.3	97.7	244.2	488	977
Cyclohexane	84.16	3.44	6.88	10.33	20.7	68.8	172.1	344	688
1,1,1-Trichloroethane	133.42	5.46	10.91	16.37	32.7	109.1	272.8	546	1091
Carbon tetrachloride	153.84	6.29	12.58	18.88	37.8	125.8	314.6	629	1258
2,2,4-Trimethylpentane	114.23	4.67	9.34	14.02	28.0	93.4	233.6	467	934
Benzene	78.11	3.19	6.39	9.58	19.2	63.9	159.7	319	639
tert-amyl-methyl ether	102.18	4.18	8.36	12.54	25.1	83.6	209.0	418	836
1,2-Dichloroethane	98.96	4.05	8.09	12.14	24.3	80.9	202.4	405	809
Heptane	100.2	4.10	8.20	12.29	24.6	82.0	204.9	410	820
Trichloroethene	131.4	5.37	10.75	16.12	32.2	107.5	268.7	537	1075
Methylcyclohexane	98.19	4.02	8.03	12.05	24.1	80.3	200.8	402	803
1,2-Dichloropropane	112.99	4.62	9.24	13.86	27.7	92.4	231.1	462	924
1,4-Dioxane	88.11	3.60	7.21	10.81	21.6	72.1	180.2	360	721
Bromodichloromethane	163.83	6.70	13.40	20.10	40.2	134.0	335.0	670	1340
cis-1,3-Dichloropropene	110.97	4.54	9.08	13.62	27.2	90.8	226.9	454	908
4-Methyl-2-pentanone	100.16	4.10	8.19	12.29	24.6	81.9	204.8	410	819
Toluene	92.13	3.77	7.54	11.30	22.6	75.4	188.4	377	754
trans-1,3-Dichloropropene	110.97	4.54	9.08	13.62	27.2	90.8	226.9	454	908
1,1,2-Trichloroethane	133.42	5.46	10.91	16.37	32.7	109.1	272.8	546	1091
Tetrachloroethene	165.85	6.78	13.57	20.35	40.7	135.7	339.2	678	1357
2-Hexanone	100.16	4.10	8.19	12.29	24.6	81.9	204.8	410	819
Dibromochloromethane	208.29	8.52	17.04	25.56	51.1	170.4	426.0	852	1704
1,2-Dibromoethane	187.861	7.68	15.37	23.05	46.1	153.7	384.2	768	1537
Chlorobenzene	112.56	4.60	9.21	13.81	27.6	92.1	230.2	460	921
ethyl benzene	106.16	4.34	8.68	13.03	26.1	86.8	217.1	434	868
m,p-Xylene	106.17	4.34	8.68	13.03	26.1	86.8	217.1	434	868
o-Xylene	106.17	4.34	8.68	13.03	26.1	86.8	217.1	434	868
Styrene	104.14	4.26	8.52	12.78	25.6	85.2	213.0	426	852
Bromoform	252.77	10.34	20.68	31.01	62.0	206.8	516.9	1034	2068
cumene	120.19	4.92	9.83	14.75	29.5	98.3	245.8	492	983
1,1,2,2-Tetrachloroethane	167.86	6.87	13.73	20.60	41.2	137.3	343.3	687	1373
Propylbenzene	120.2	4.92	9.83	14.75	29.5	98.3	245.8	492	983
4-Ethyltoluene	120.2	4.92	9.83	14.75	29.5	98.3	245.8	492	983
1,3,5-Trimethylbenzene	120.2	4.92	9.83	14.75	29.5	98.3	245.8	492	983
1,2,4-Trimethylbenzene	120.2	4.92	9.83	14.75	29.5	98.3	245.8	492	983
1,3-Dichlorobenzene	147.01	6.01	12.03	18.04	36.1	120.3	300.6	601	1203
1,4-Dichlorobenzene	147.01	6.01	12.03	18.04	36.1	120.3	300.6	601	1203
alpha-Chlorotoluene	126.58	5.18	10.35	15.53	31.1	103.5	258.9	518	1035
1,2-Dichlorobenzene	147.01	6.01	12.03	18.04	36.1	120.3	300.6	601	1203
1,2,4-Trichlorobenzene	181.46	7.42	14.84	22.27	44.5	148.4	371.1	742	1484

Hexachlorobutadiene	260.76	10.67	21.33	32.00	64.0	213.3	533.3	1067	2133
Naphthalene	128	0.52	1.05	1.57	3.14	10.47	26.18	52.35	104.70

Compound	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**	**Level 7**	**Level 8**
Naphthalene	1.00	5.0	10.0	25	50	25	100	250
2-Methylnaphthalene	1.00	5.0	10.0	25	50	25	100	250
1-Methylnaphthalene	1.00	5.0	10.0	25	50	25	100	250
Acenaphthylene	1.00	5.0	10.0	25	50	25	100	250
Acenaphthene	1.00	5.0	10.0	25	50	25	100	250
Fluorene	1.00	5.0	10.0	25	50	25	100	250
Phenanthrene	1.00	5.0	10.0	25	50	25	100	250
Anthracene	1.00	5.0	10.0	25	50	25	100	250
Fluoranthene	1.00	5.0	10.0	25	50	25	100	250
Pyrene	1.00	5.0	10.0	25	50	25	100	250

Mass (ng) = Amount (ppbv) * (MW/24.45)* Vol spiked (mL) * (1L/1000 mL)

Enter IS/Surr standard concen **1000**

5

Internal Standards/Surrogates	**MW**
Bromofluorobenzene	174.998
Bromochloromethane	129.39
1,4-Difluorobenzene	114.0928
Chlorobenzene-d5	117.56

Field Surrogates	**Mass (ng)**
1,2-Dichloroethane-d4	25
Toluene-d8	25
Naphthalene-d8	25

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033125.d
Lab Smp Id: VI PAH ICV/LCS Client Smp ID: LCS
Inj Date : 31-MAR-2016 10:58
Operator : LA Inst ID: msd6.i
Smp Info : ;VI PAH ICV/LCS;LCS
Misc Info : 2744-32-50(7/20/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAHical.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	497715	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	613990			92.70- 152.70	123.36
11.464	11.464 (1.000)	176	487002			68.24- 128.24	97.85
109 Naphthalene					CAS #: 91-20-3		
15.783	15.783 (1.377)	128	1604416	48.0491	48.049	80.00- 120.00	100.00
15.783	15.790 (1.377)	127	209626			0.00- 43.01	13.07
110 2-Methylnaphthalene					CAS #: 91-57-6		
17.237	17.237 (1.504)	142	1053731	54.5956	54.596	80.00- 120.00	100.00
17.237	17.237 (1.504)	141	921513			57.55- 117.55	87.45
17.237	17.237 (1.504)	115	348162			2.88- 62.88	33.04
111 1-Methylnaphthalene					CAS #: 90-12-0		
17.452	17.459 (1.522)	142	950307	54.7547	54.755	80.00- 120.00	100.00
17.452	17.459 (1.522)	141	865783			60.83- 120.83	91.11
17.452	17.452 (1.522)	115	330530			4.35- 64.35	34.78
112 Acenaphthylene					CAS #: 208-96-8		
19.307	19.315 (1.684)	152	1604635	56.6074	56.607	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
112 Acenaphthylene (continued)							
19.307	19.307 (1.684)	151	325131			0.00- 50.47	20.26
19.307	19.307 (1.684)	153	207869			0.00- 42.99	12.95
113 Acenaphthene					CAS #: 83-32-9		
19.572	19.572 (1.707)	154	816408	53.2789	53.279	80.00- 120.00	100.00
19.572	19.572 (1.707)	152	435494			23.49- 83.49	53.34
19.572	19.572 (1.707)	153	901879			81.41- 141.41	110.47
114 Fluorene					CAS #: 86-73-7		
20.726	20.726 (1.808)	166	774445	50.9467	50.947	80.00- 120.00	100.00
20.726	20.726 (1.808)	165	747347			66.52- 126.52	96.50
115 Phenanthrene					CAS #: 85-01-8		
22.910	22.910 (1.998)	178	1356859	52.8729	52.873	80.00- 120.00	100.00
22.910	22.910 (1.998)	176	266887			0.00- 49.64	19.67
22.910	22.910 (1.998)	179	208417			0.00- 45.22	15.36
116 Anthracene					CAS #: 120-12-7		
23.018	23.018 (2.008)	178	1298307	53.4140	53.414	80.00- 120.00	100.00
23.018	23.018 (2.008)	176	244520			0.00- 49.04	18.83
23.018	23.018 (2.008)	179	197754			0.00- 45.28	15.23
117 Fluoranthene					CAS #: 206-44-0		
26.255	26.256 (2.290)	202	1029889	57.6953	57.695	80.00- 120.00	100.00
26.255	26.256 (2.290)	101	188420			0.00- 48.21	18.30
118 Pyrene					CAS #: 129-00-0		
27.122	27.129 (2.366)	202	1052297	56.7487	56.749	80.00- 120.00	100.00
27.122	27.122 (2.366)	101	224095			0.00- 51.09	21.30
27.122	27.129 (2.366)	100	183935			0.00- 47.66	17.48

Report Date: 04-Apr-2016 12:10

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033125.d
Lab Smp Id: VI PAH ICV/LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2744-32-50(7/20/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	515685	309411	721959	497715	-3.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 04-Apr-2016 12:10

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31mar16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI PAH ICV/LCS
Client Smp ID: LCS
Level: LOW
Operator: LA
Data Type: MS DATA
SampleType: LCS
SpikeList File: PAH.spk
Quant Type: ISTD
Sublist File: PAHical.sub
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2744-32-50(7/20/16)

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
109 Naphthalene	50.000	48.049	96.10	70-130
110 2-Methylnaphthalen	50.000	54.596	109.19	70-130
111 1-Methylnaphthalen	50.000	54.755	109.51	70-130
112 Acenaphthylene	50.000	56.607	113.21	70-130
113 Acenaphthene	50.000	53.279	106.56	70-130
114 Fluorene	50.000	50.947	101.89	60-140
115 Phenanthrene	50.000	52.873	105.75	60-140
116 Anthracene	50.000	53.414	106.83	60-140
117 Fluoranthene	50.000	57.695	115.39	60-140
118 Pyrene	50.000	56.749	113.50	60-140

Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

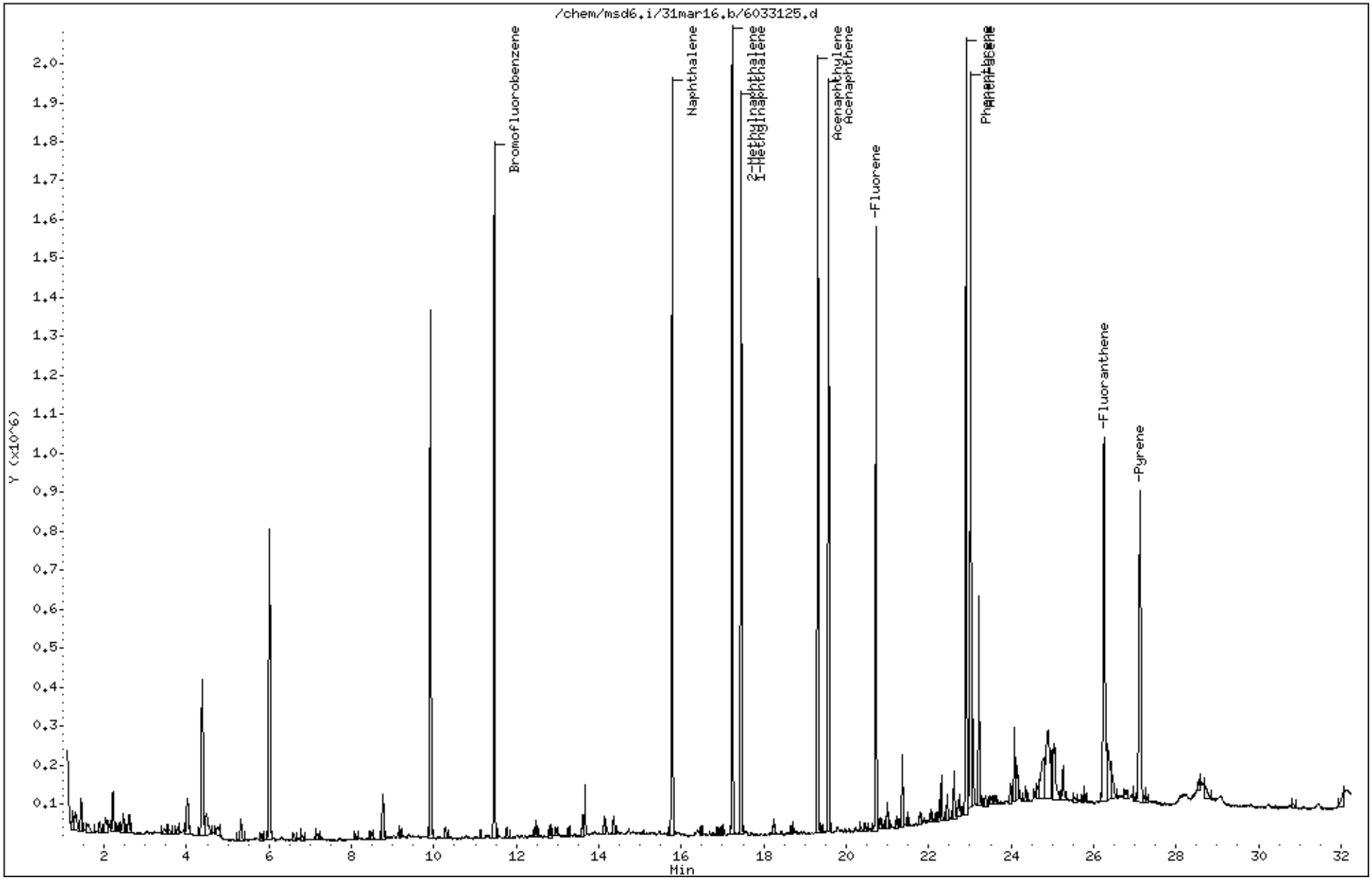
Sample Info: ;VI PAH ICV/LCS;LCS

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

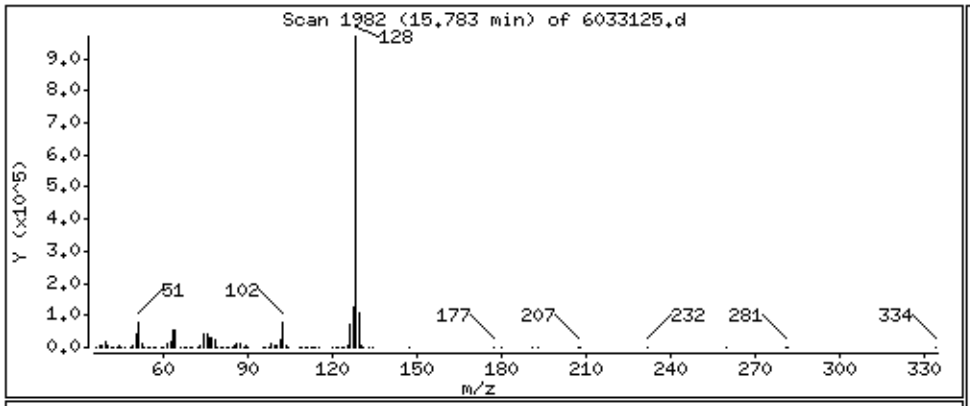
Operator: LA

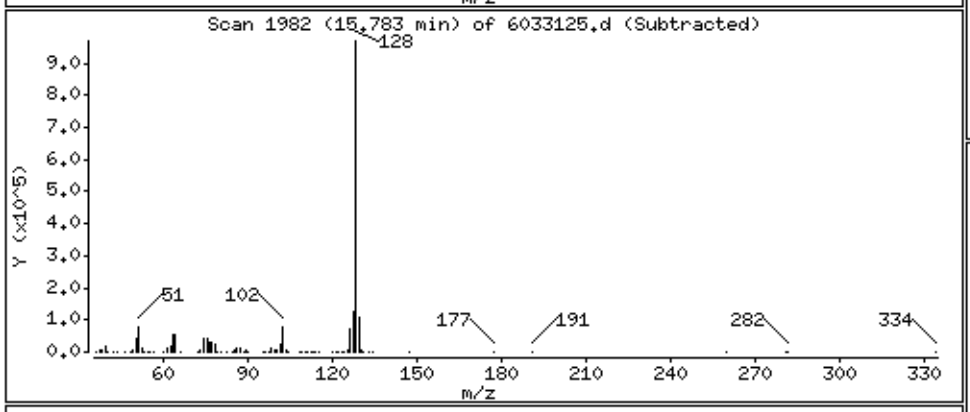
Column phase: RTx-624

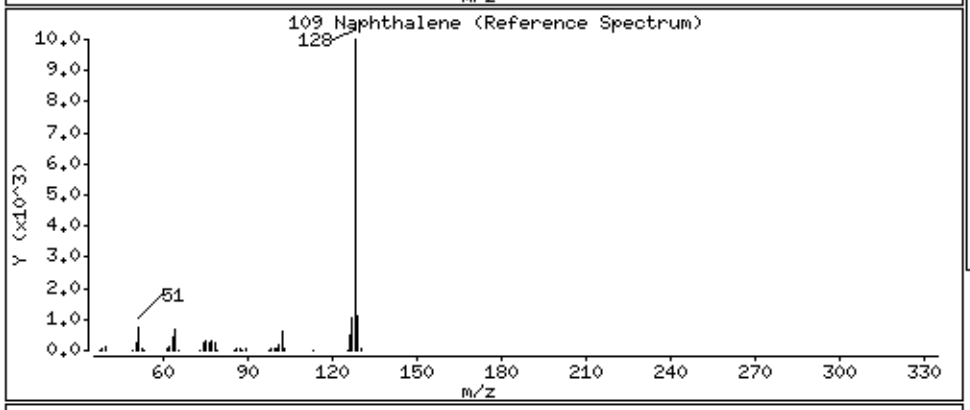
Column diameter: 0.53

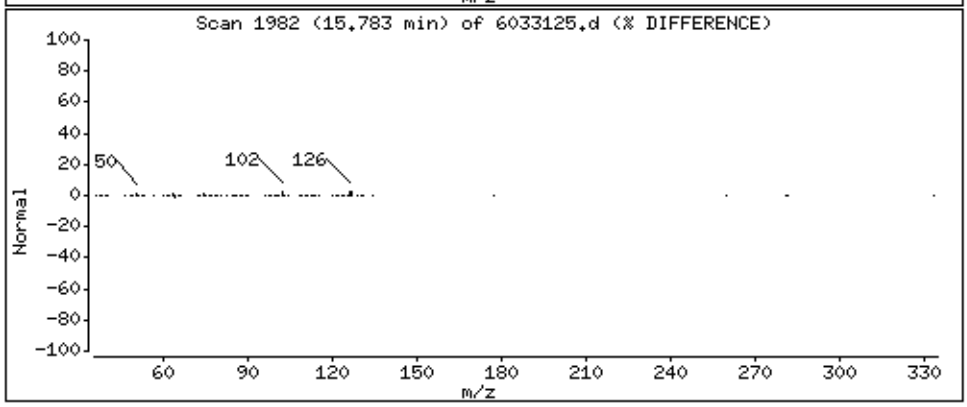
109 Naphthalene

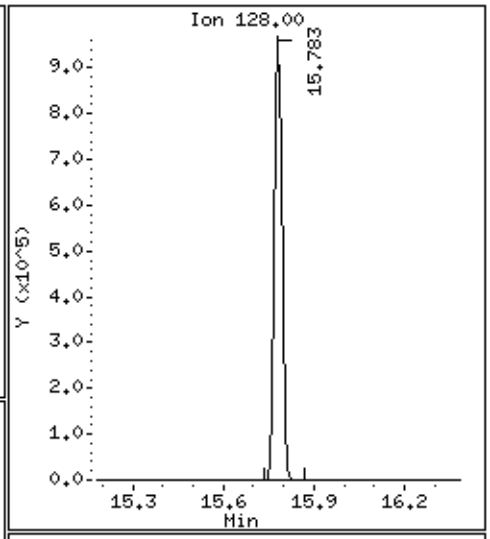
Concentration: 48.049 NG

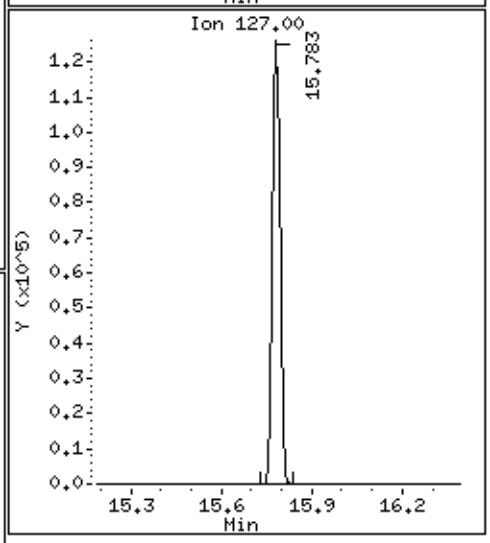












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

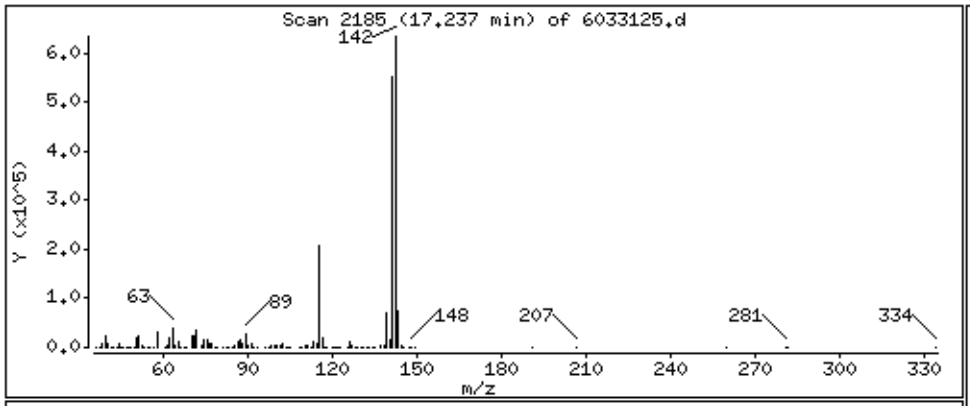
Operator: LA

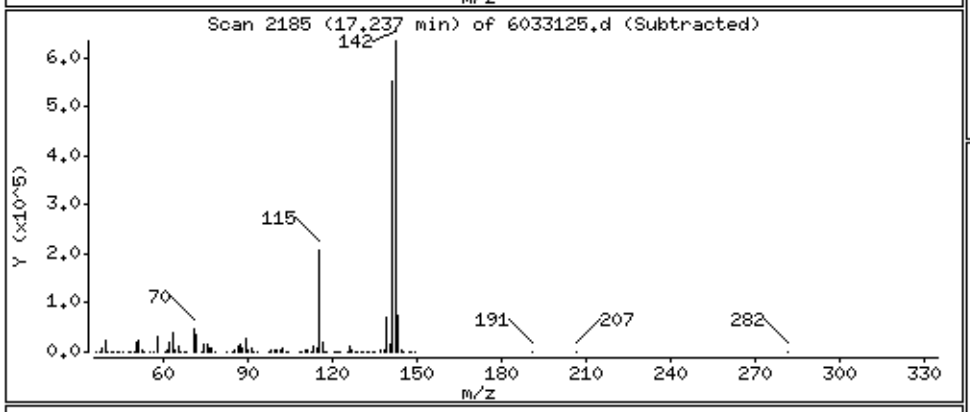
Column phase: RTx-624

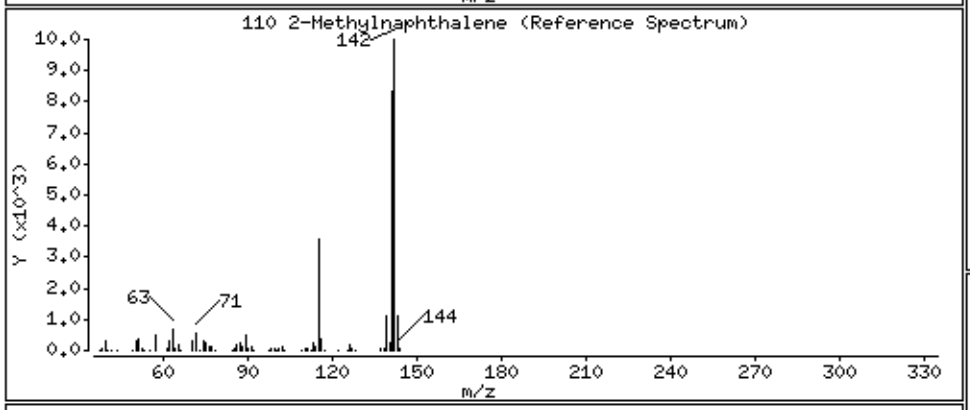
Column diameter: 0.53

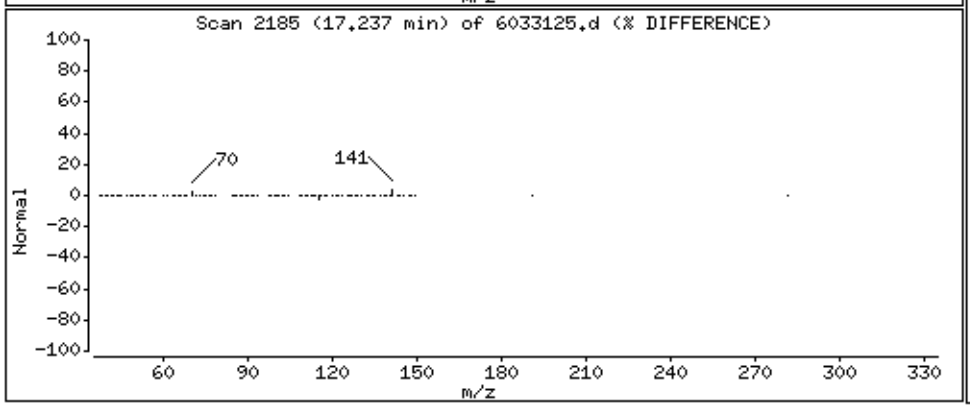
110 2-Methylnaphthalene

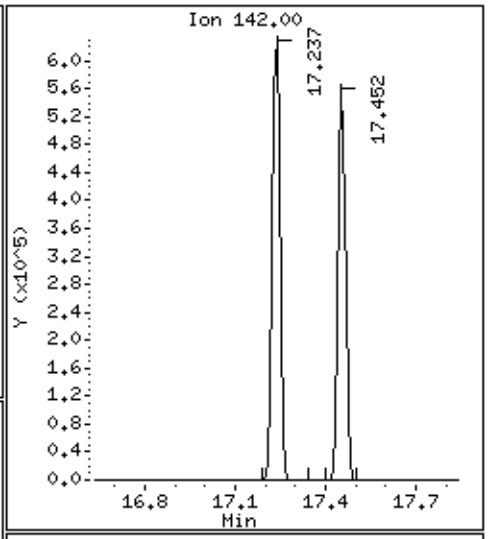
Concentration: 54.596 NG

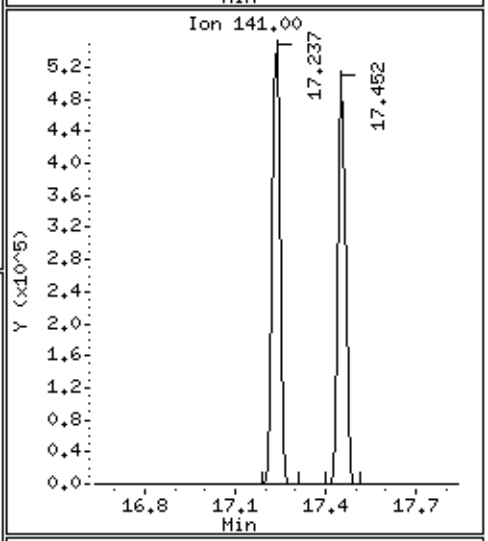


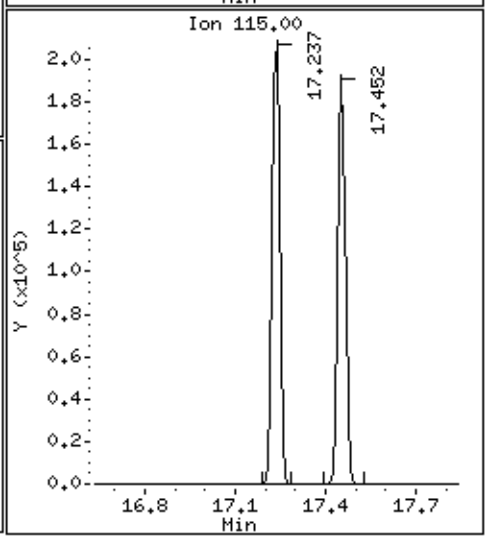












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

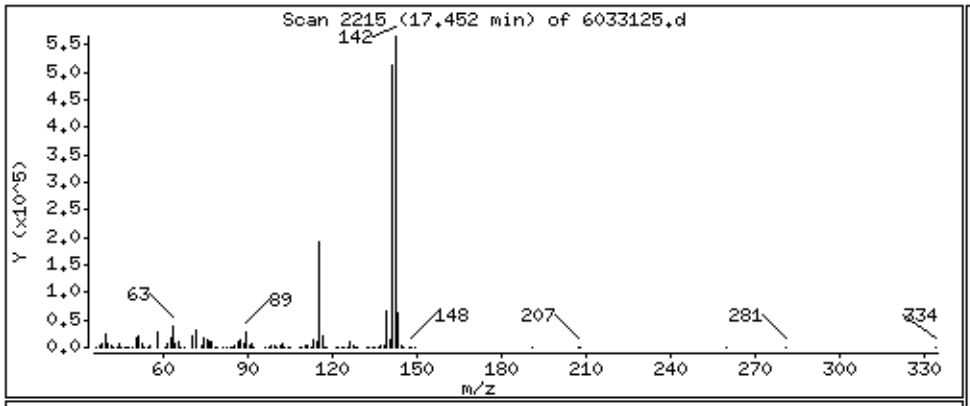
Operator: LA

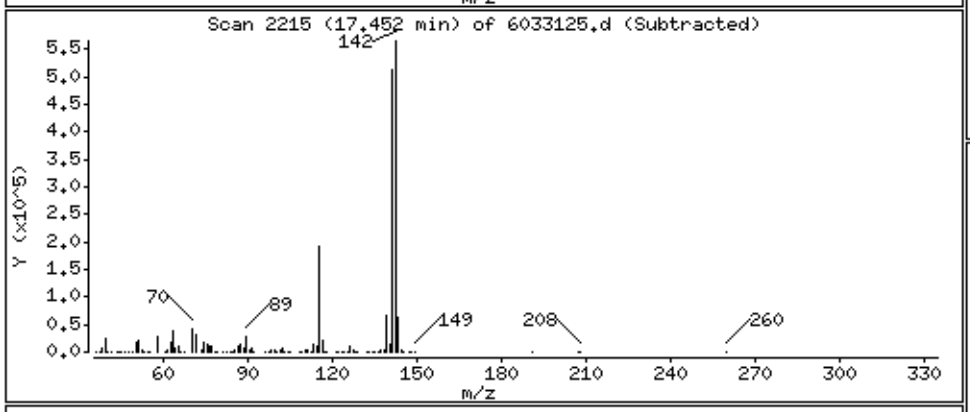
Column phase: RTx-624

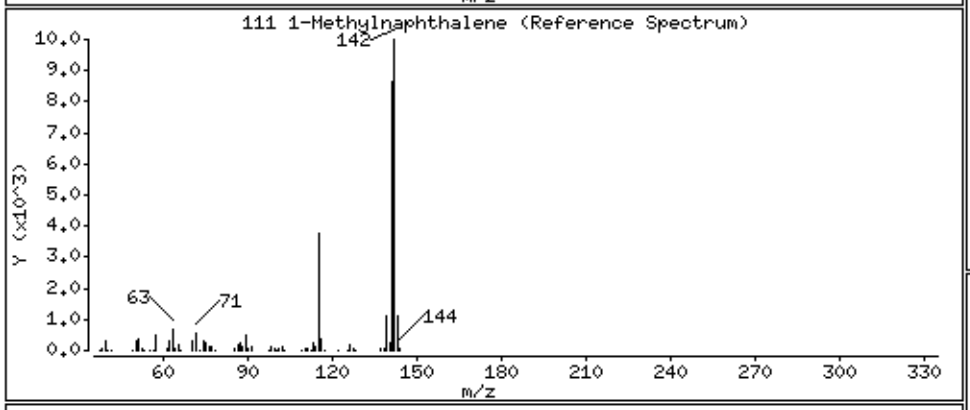
Column diameter: 0.53

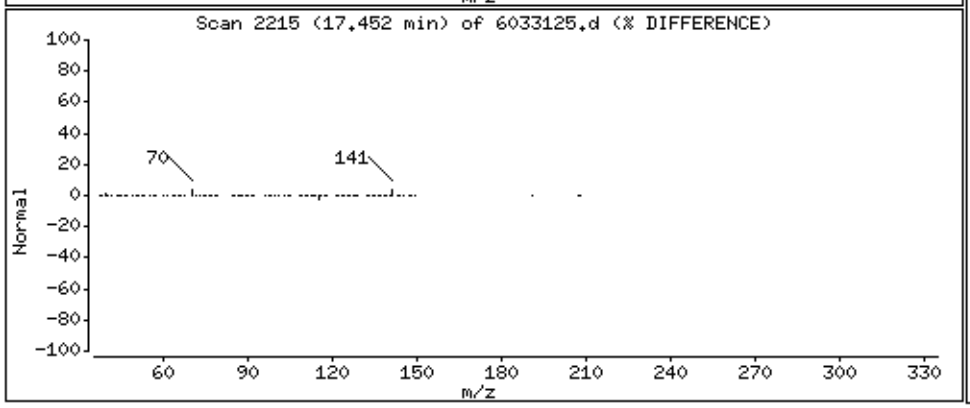
111 1-Methylnaphthalene

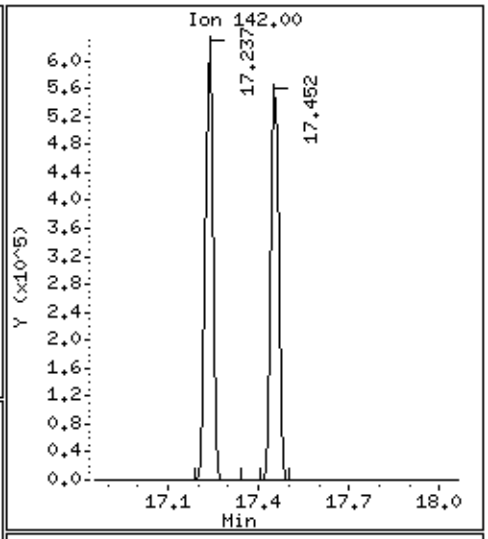
Concentration: 54.755 NG

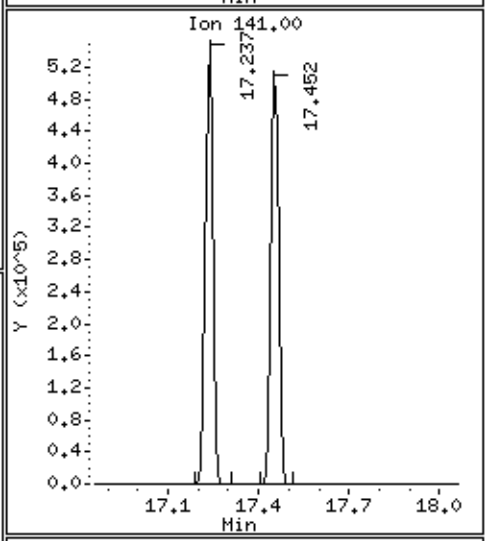


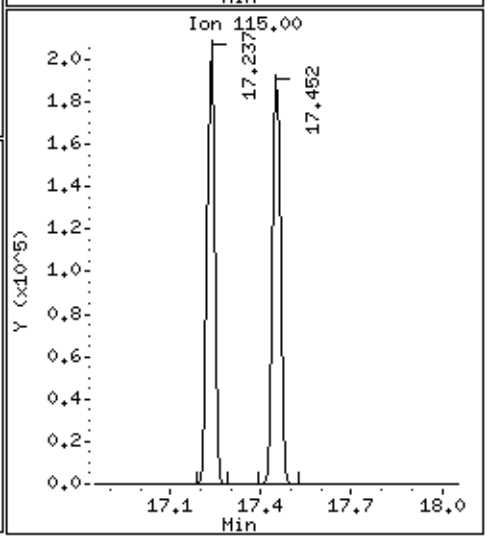












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

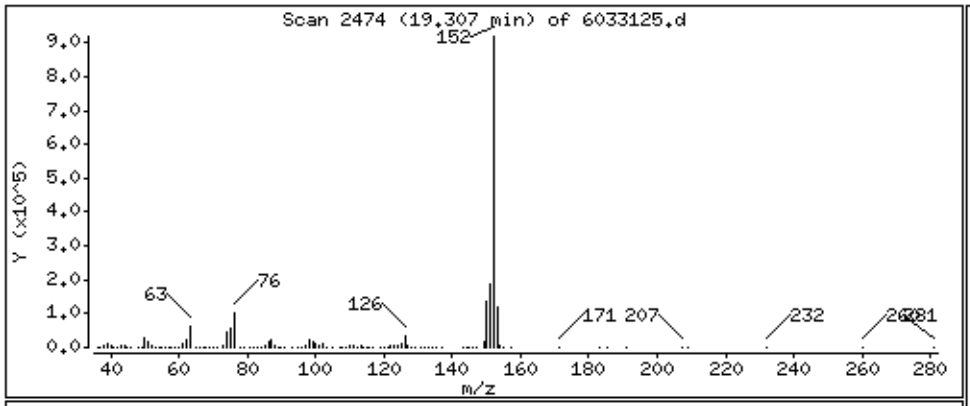
Operator: LA

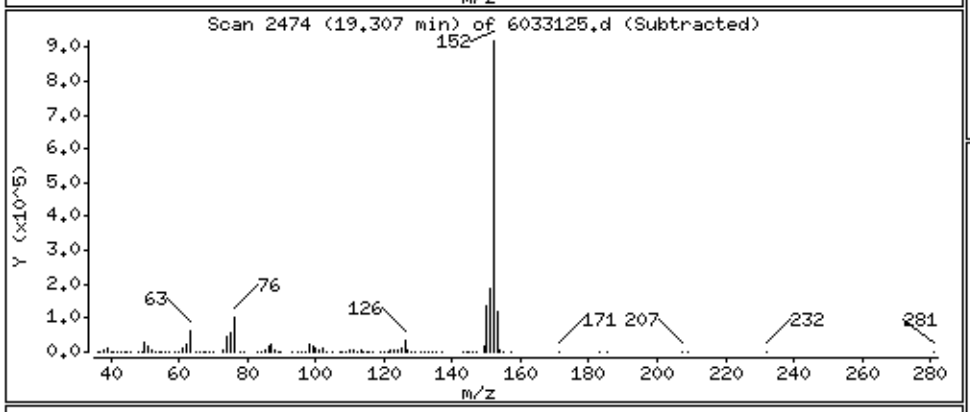
Column phase: RTx-624

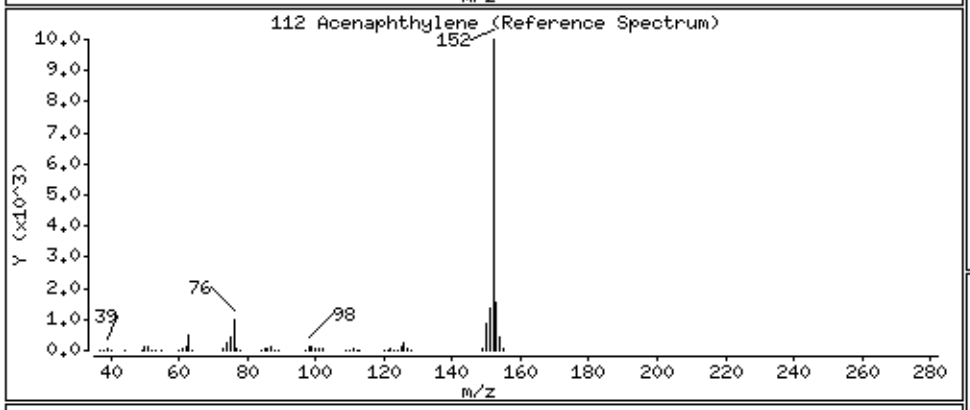
Column diameter: 0.53

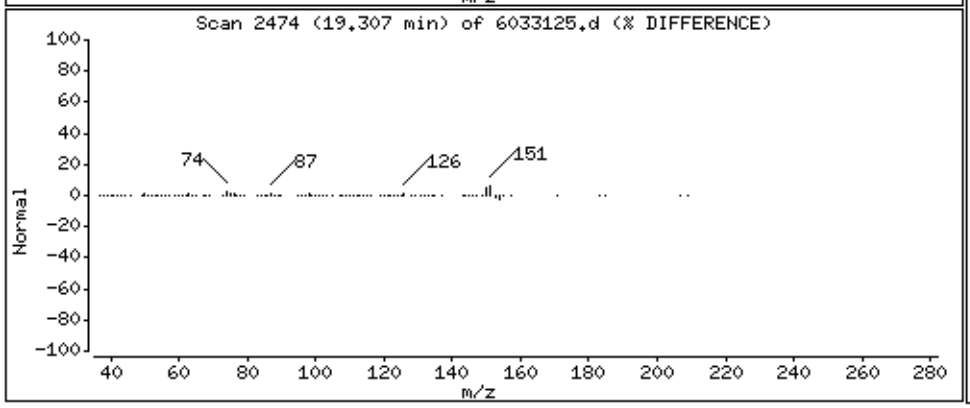
112 Acenaphthylene

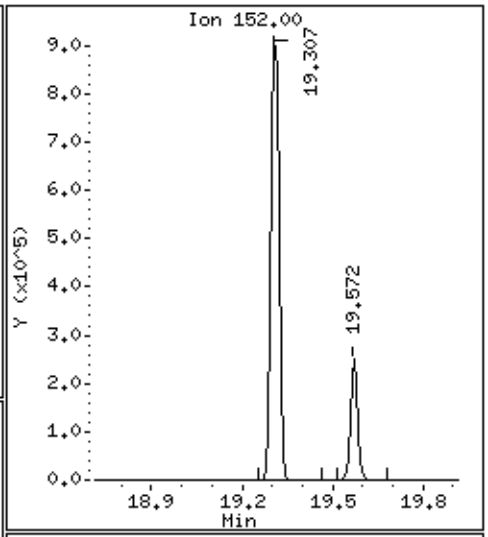
Concentration: 56.607 NG

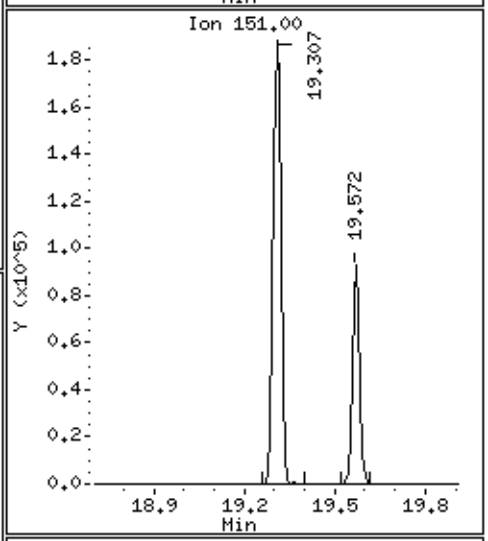


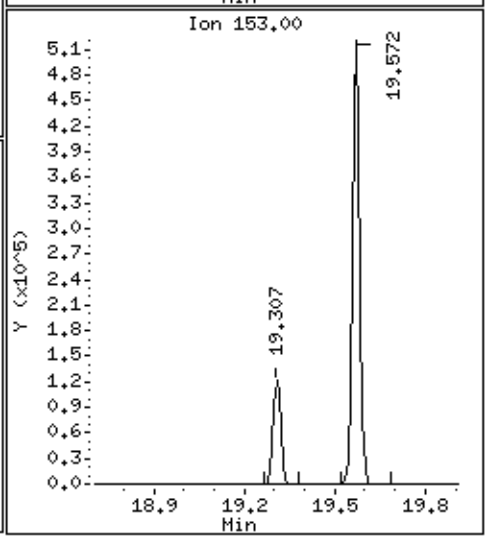












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

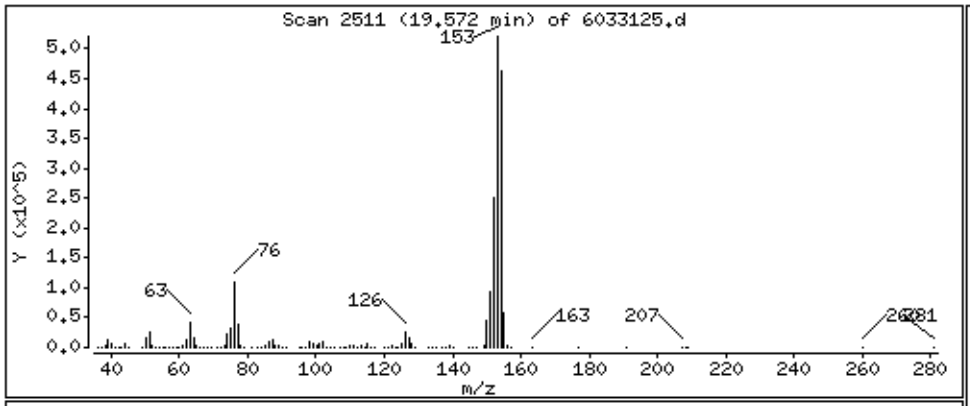
Operator: LA

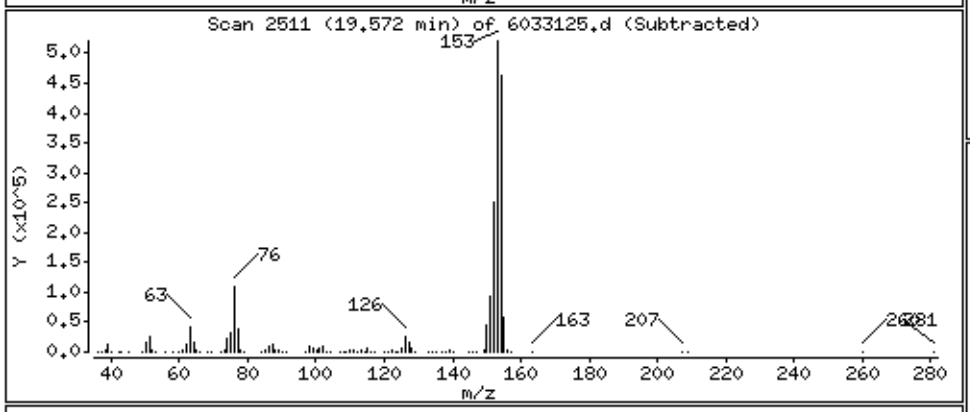
Column phase: RTx-624

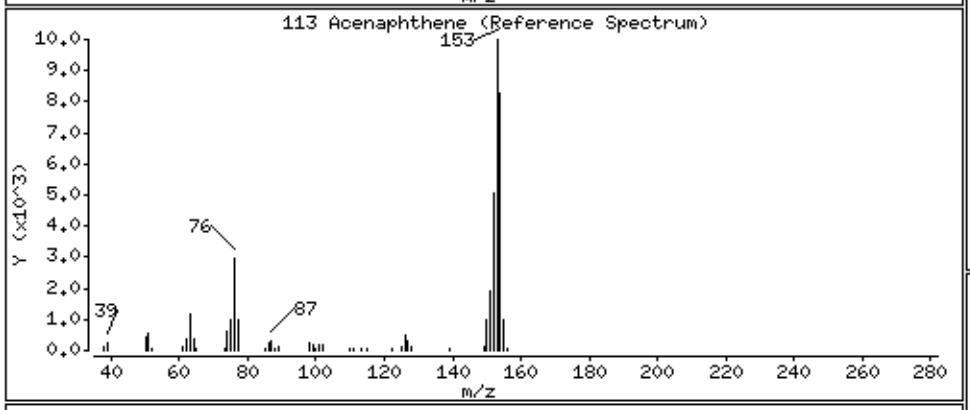
Column diameter: 0.53

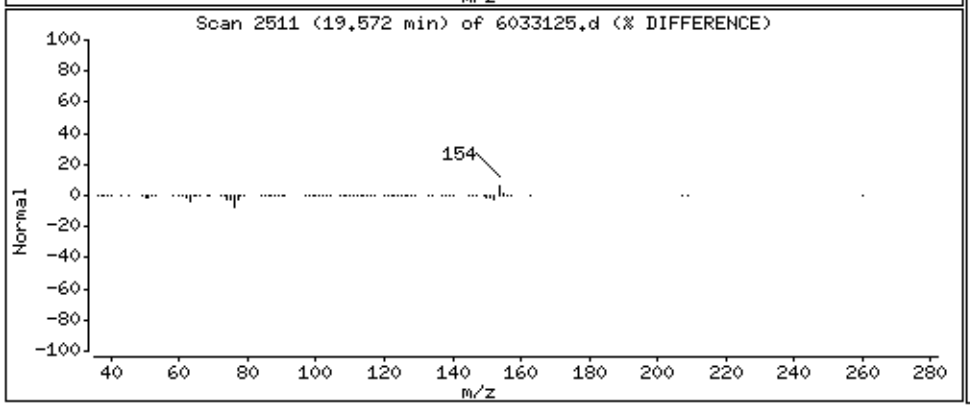
113 Acenaphthene

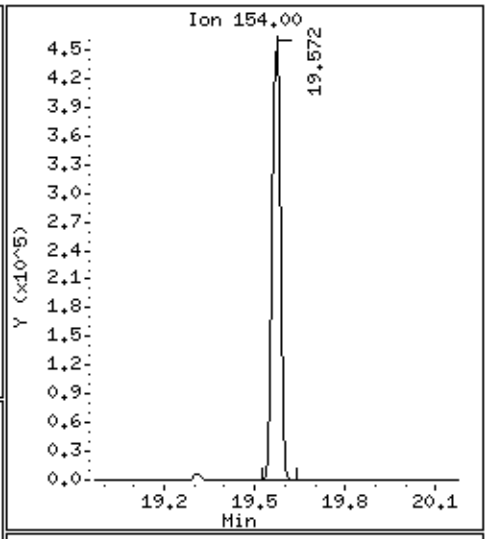
Concentration: 53.279 NG

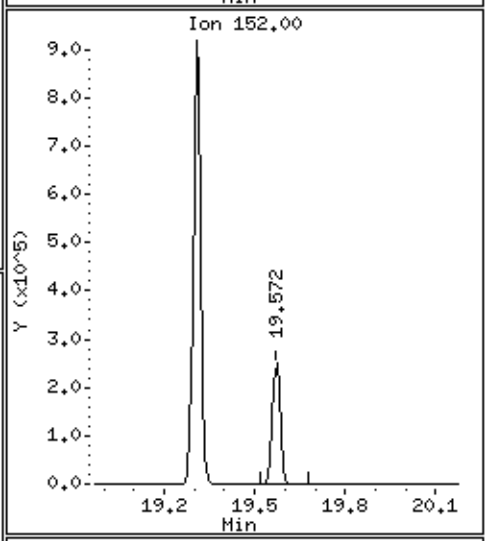


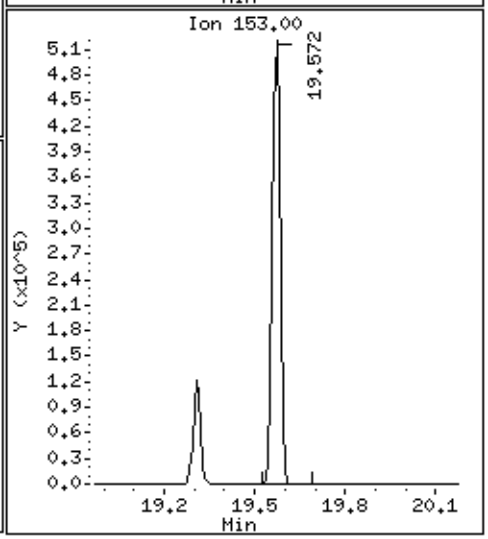












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

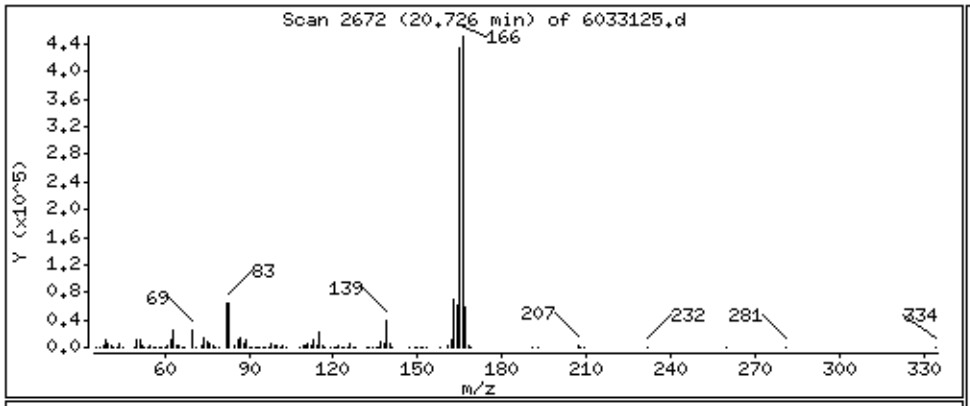
Operator: LA

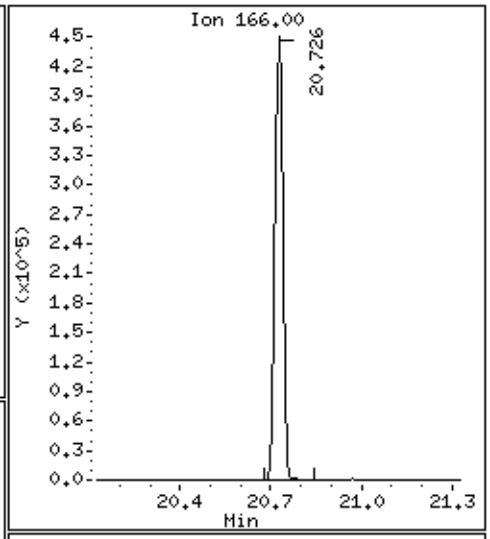
Column phase: RTx-624

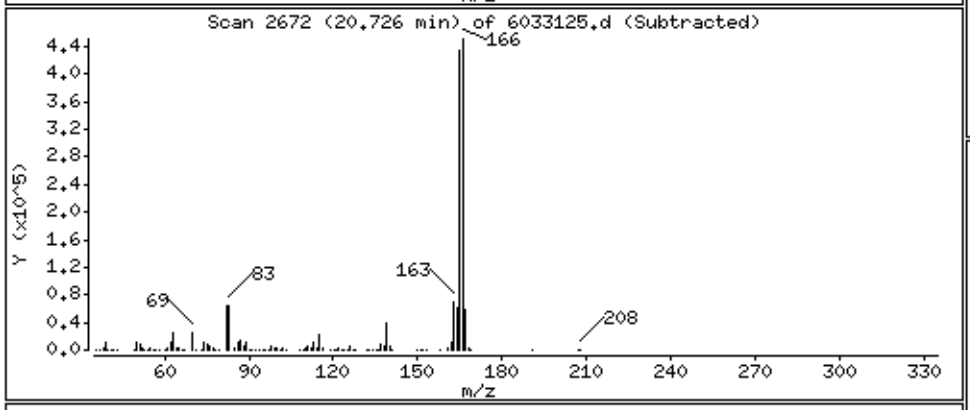
Column diameter: 0.53

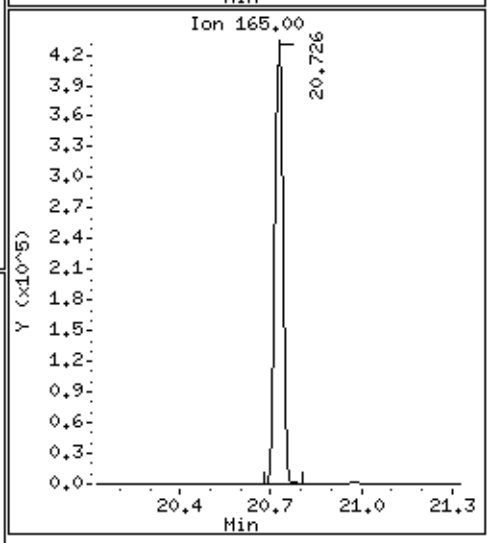
114 Fluorene

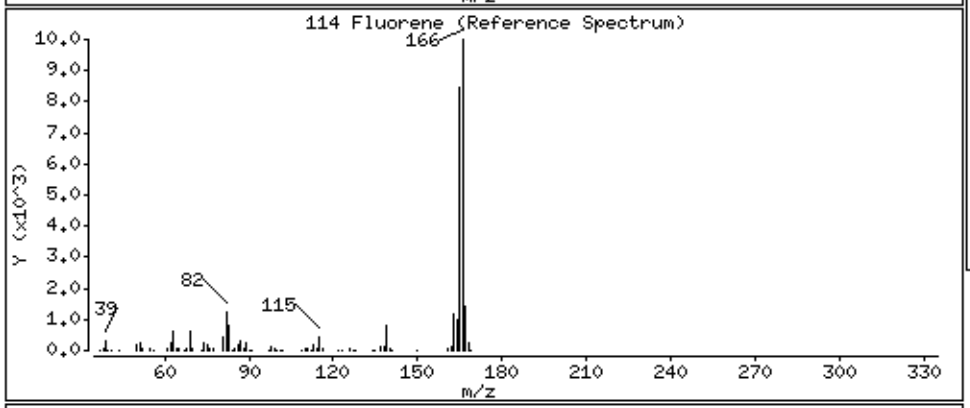
Concentration: 50.947 NG

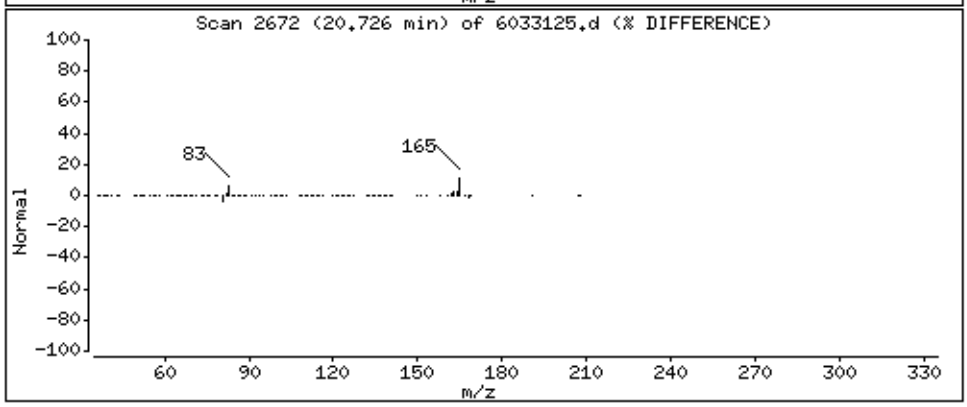












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

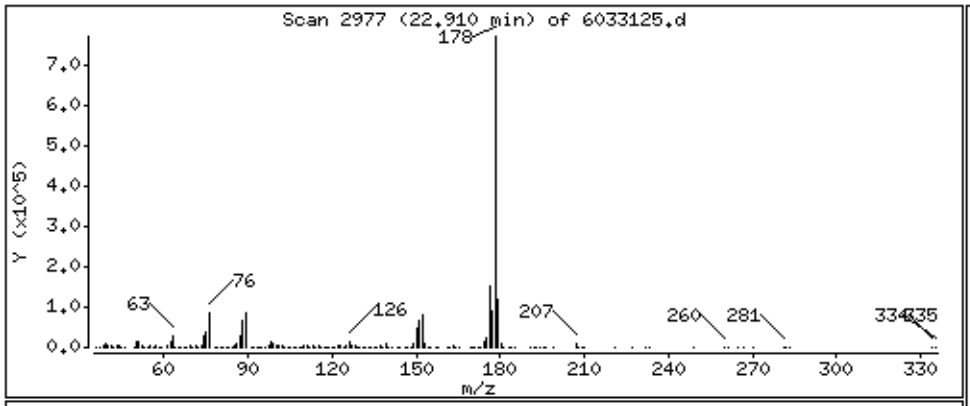
Operator: LA

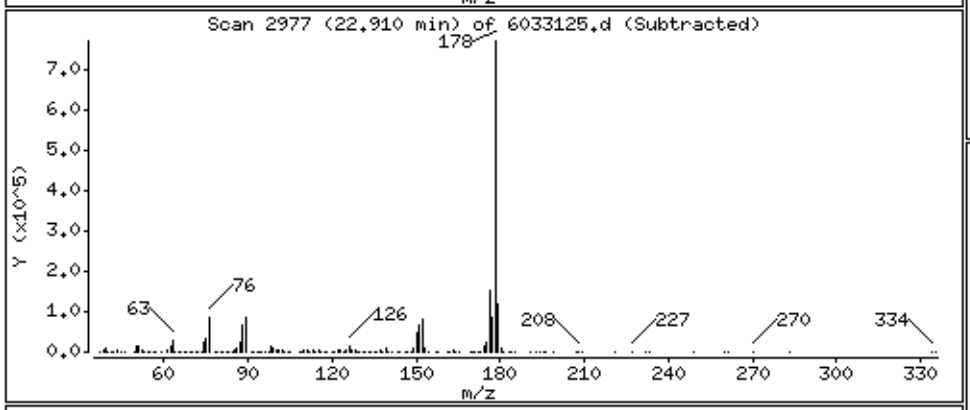
Column phase: RTx-624

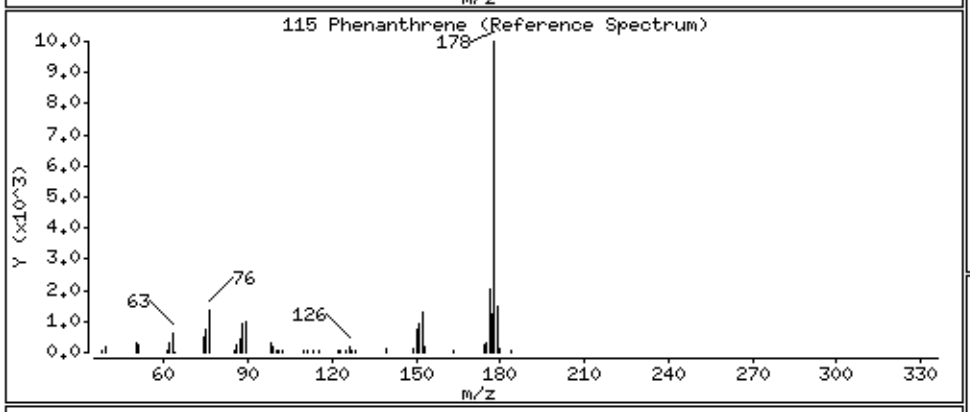
Column diameter: 0.53

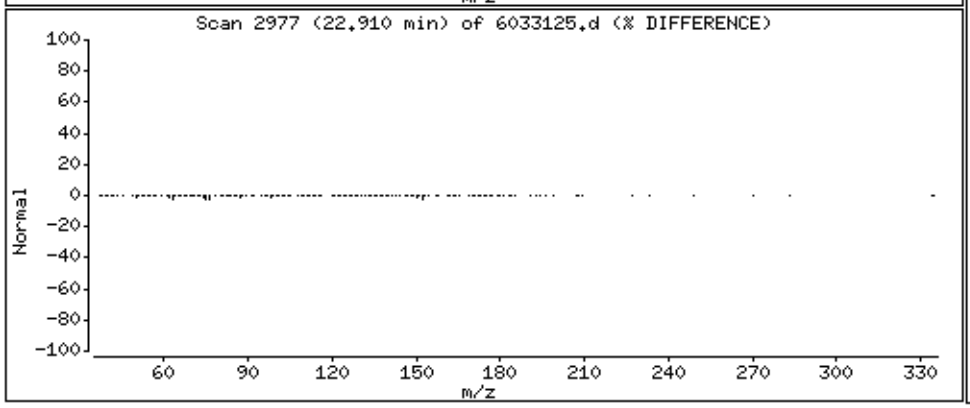
115 Phenanthrene

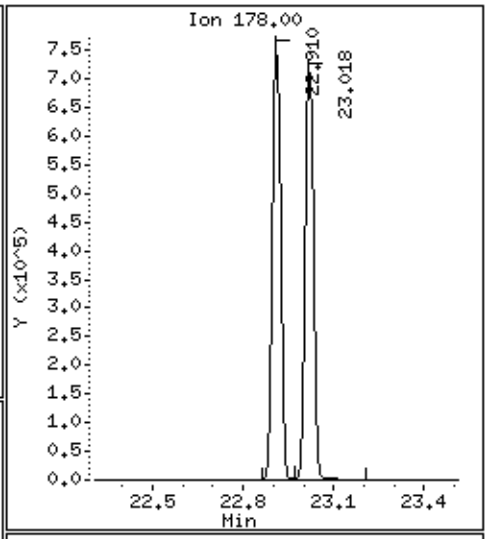
Concentration: 52.873 NG

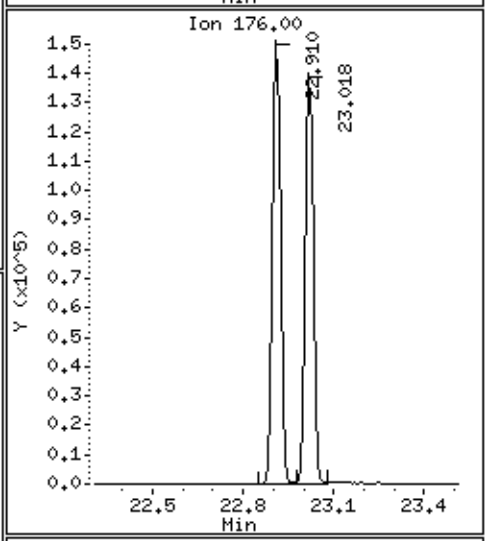


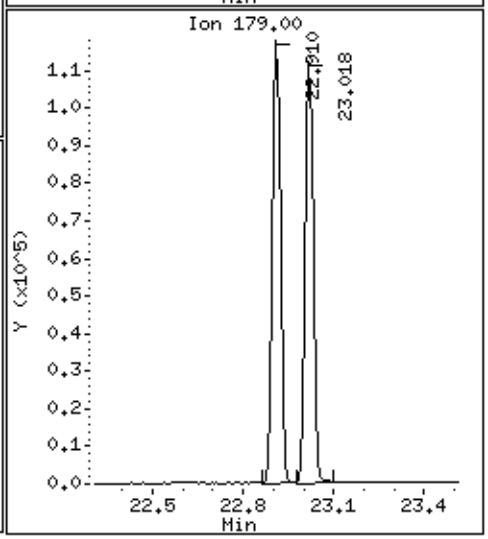












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

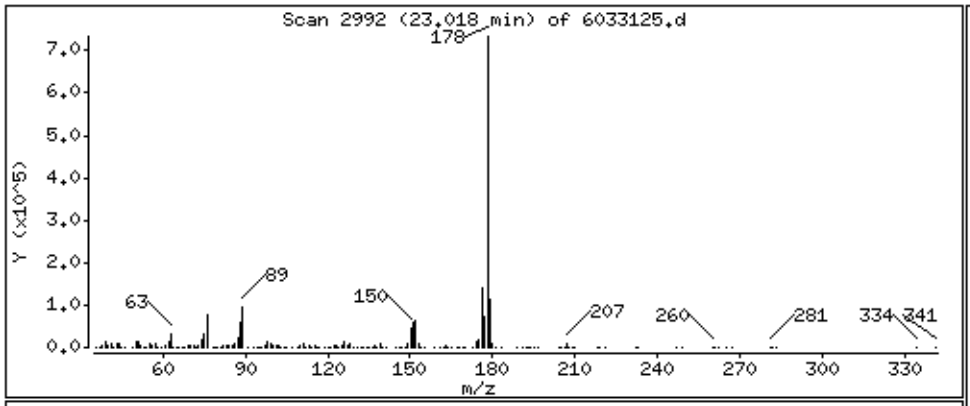
Operator: LA

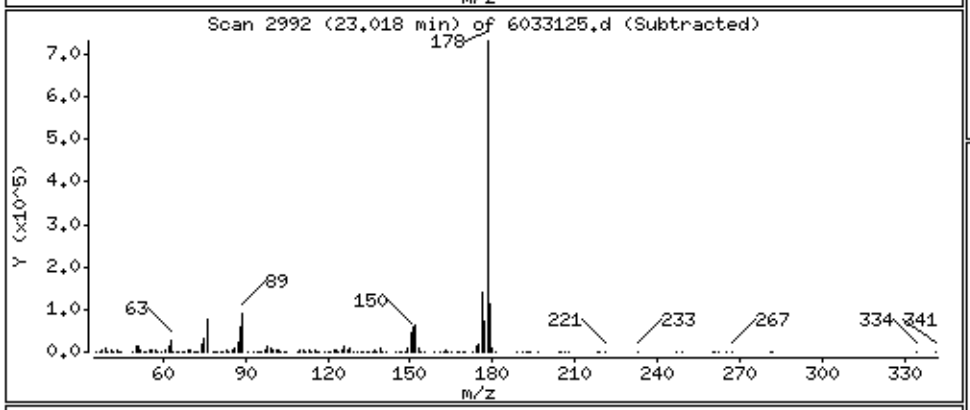
Column phase: RTx-624

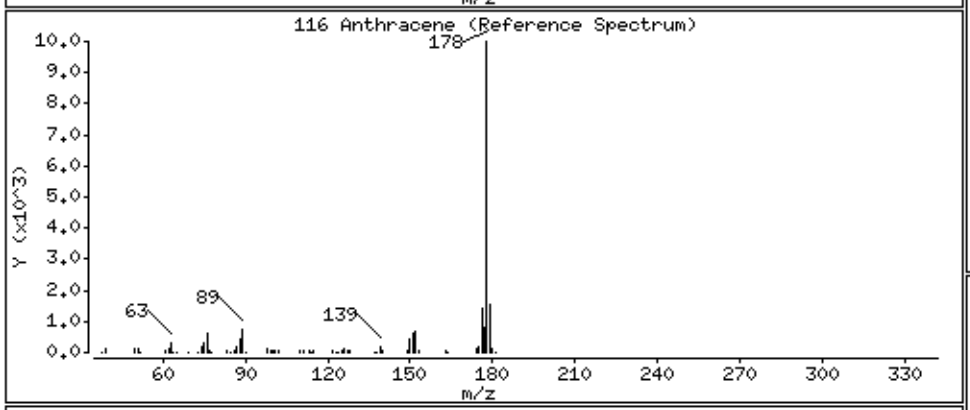
Column diameter: 0.53

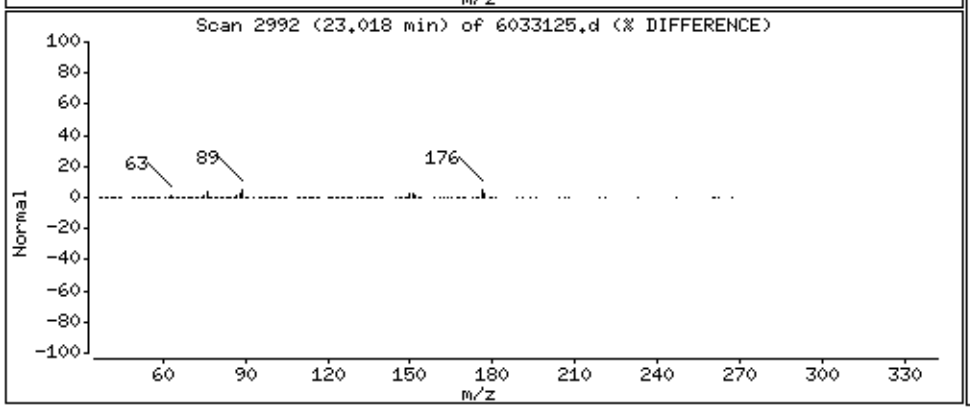
116 Anthracene

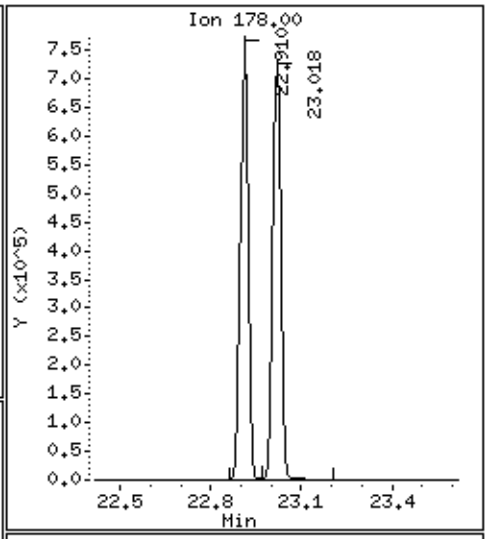
Concentration: 53.414 NG

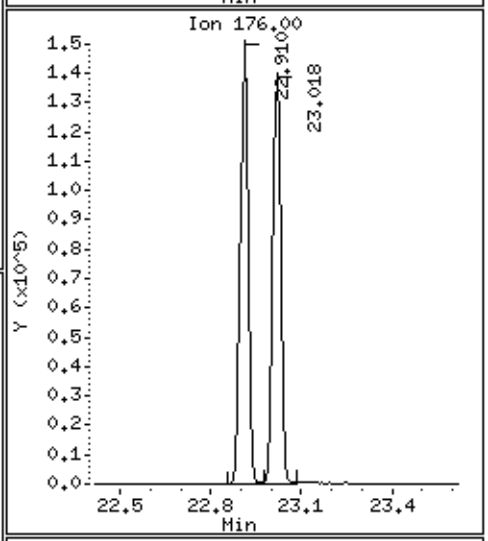


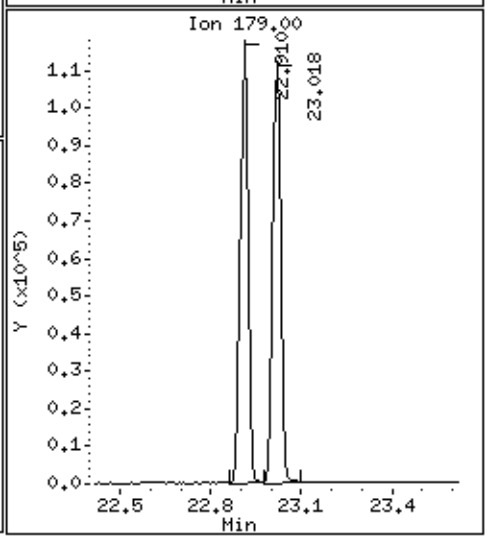












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

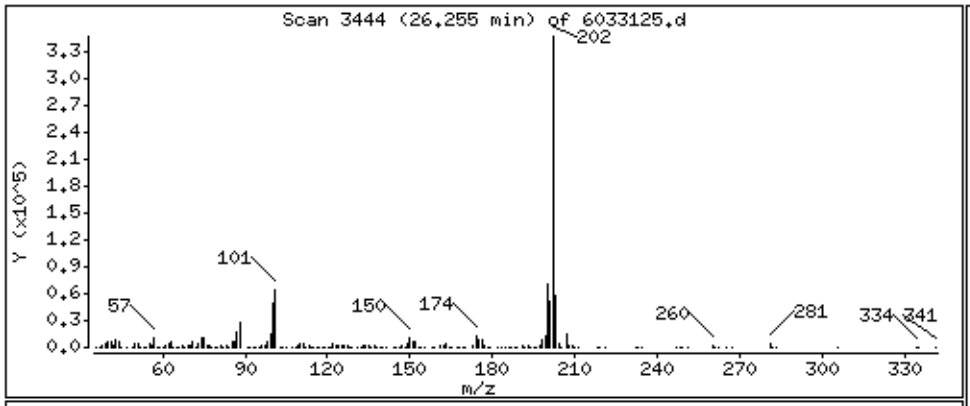
Operator: LA

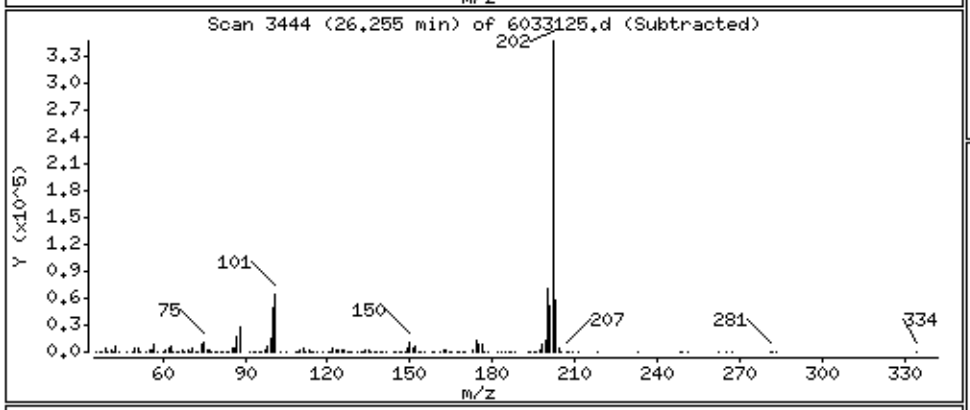
Column phase: RTx-624

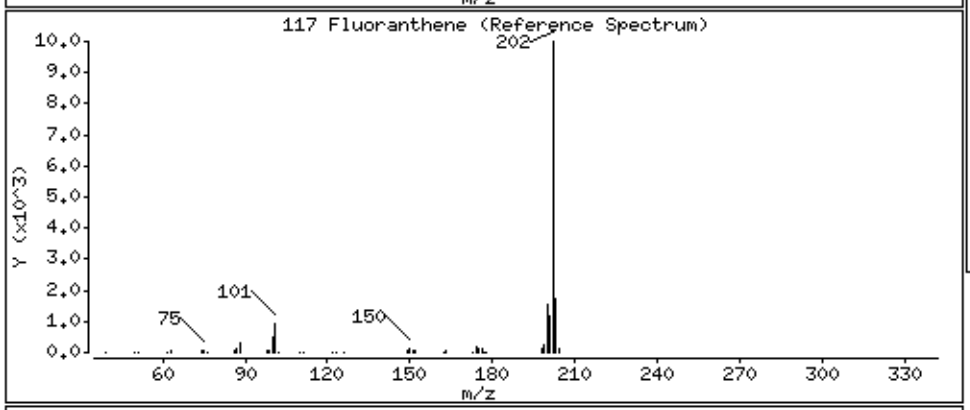
Column diameter: 0.53

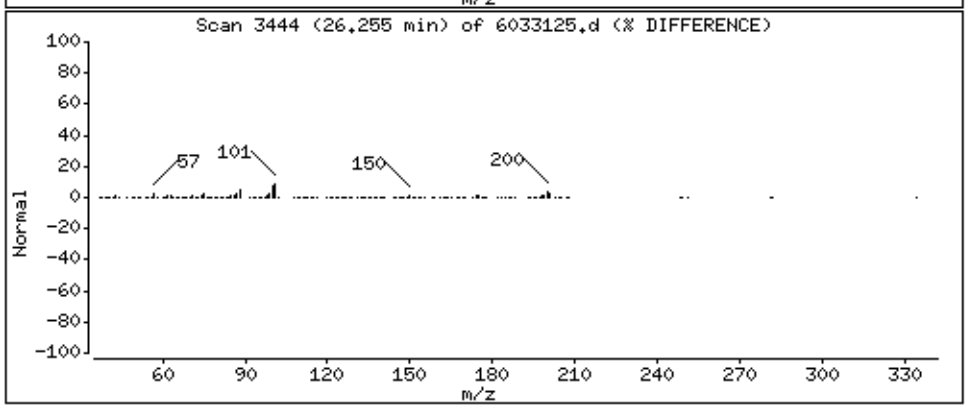
117 Fluoranthene

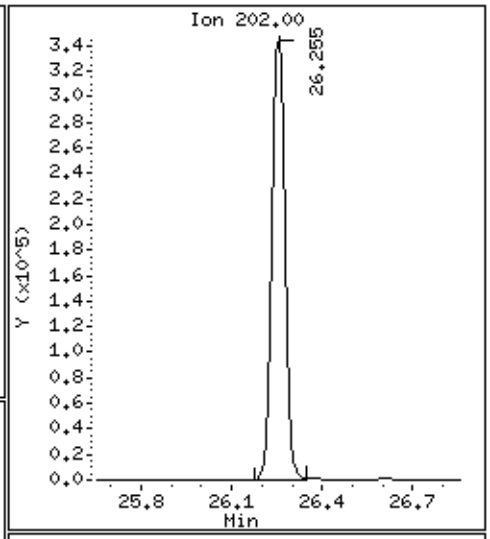
Concentration: 57.695 NG

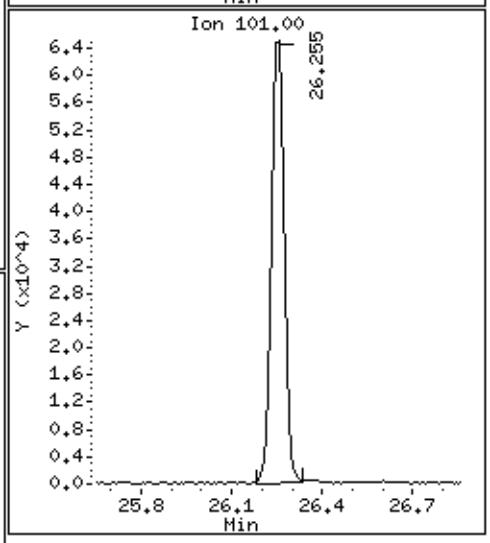












Data File: /chem/msd6.i/31mar16.b/6033125.d

Date : 31-MAR-2016 10:58

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI PAH ICV/LCS;LCS

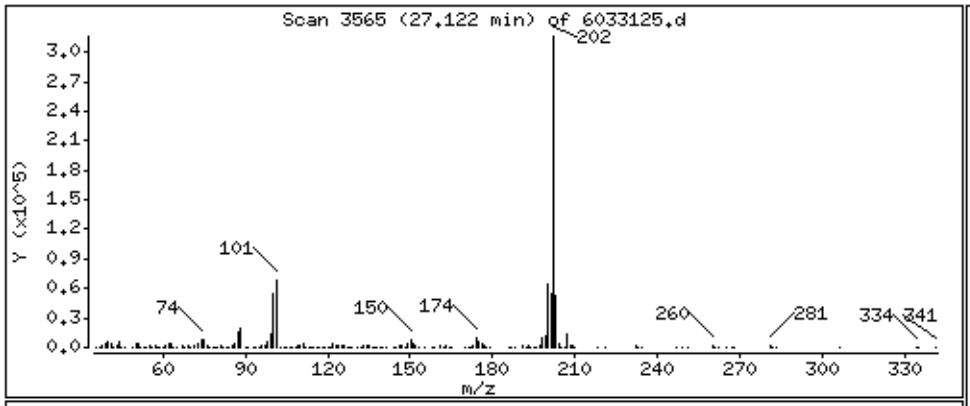
Operator: LA

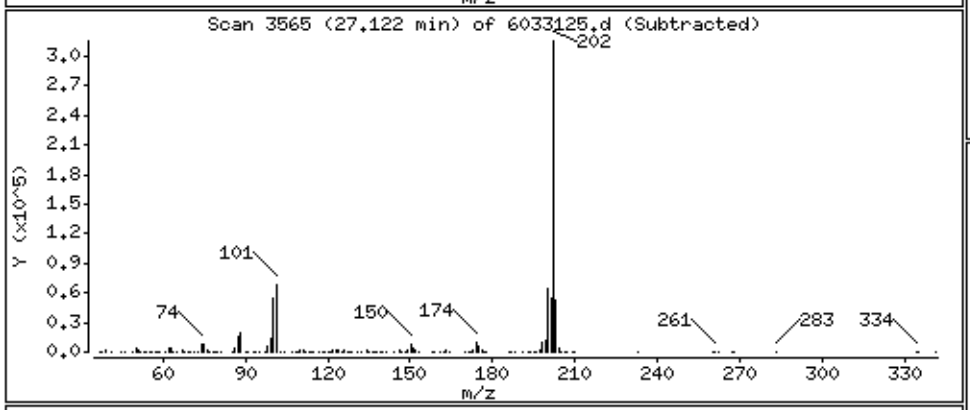
Column phase: RTx-624

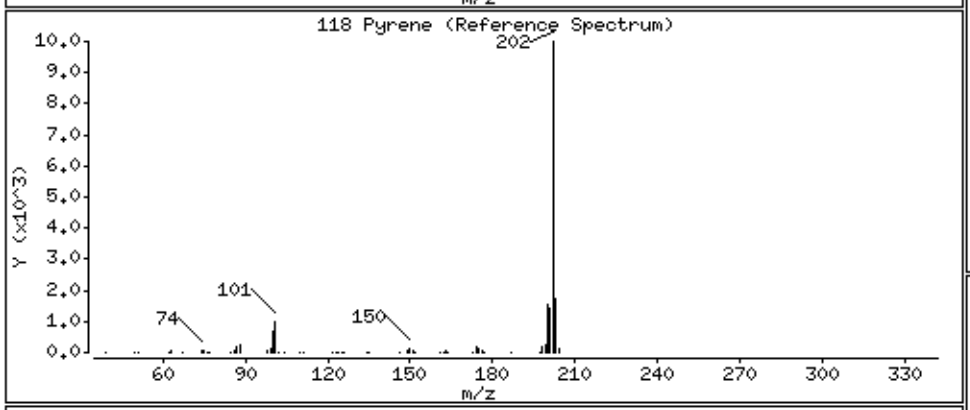
Column diameter: 0.53

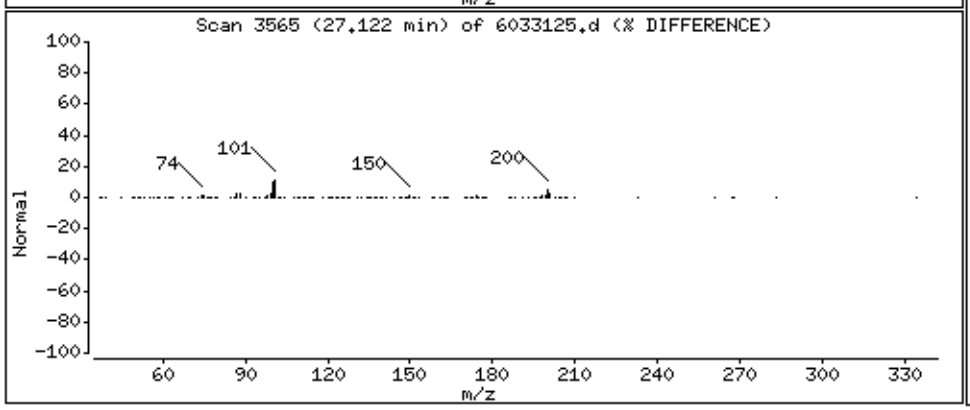
118 Pyrene

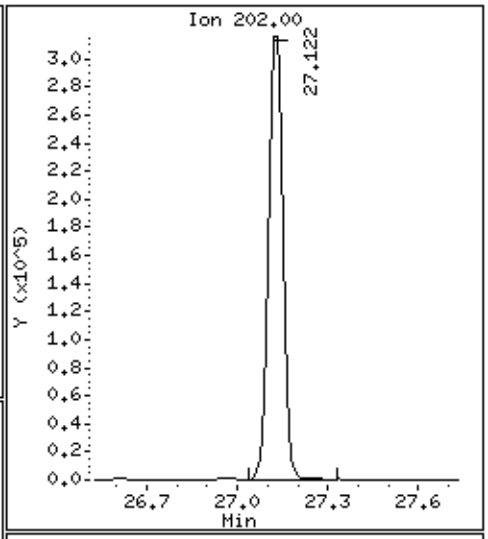
Concentration: 56.749 NG

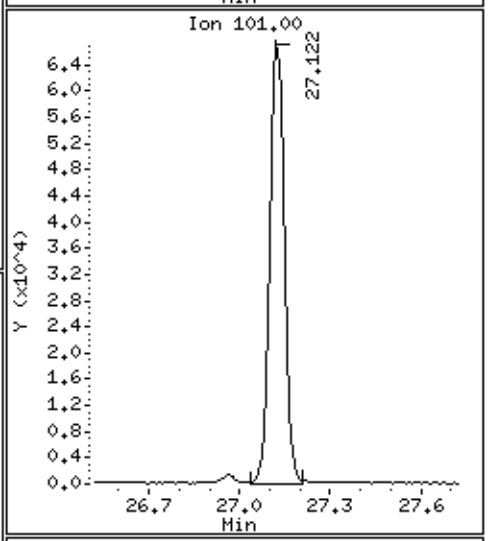


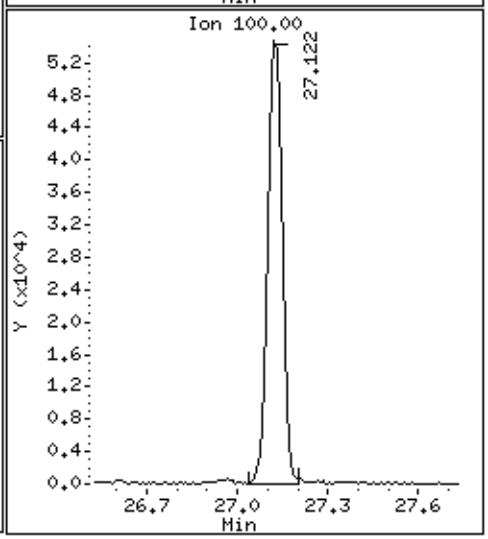












Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033113.d
Lab Smp Id: VI VOC+PAH ICV/LCS Client Smp ID: LCS, 25ngSurr
Inj Date : 31-MAR-2016 01:31
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr
Misc Info : 2516-231-20ml(6/11/16),2744-32-50(7/20/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC_L1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.387	4.372 (1.000)	130	229505	26.0000		80.00- 120.00	100.00
4.387	4.372 (1.000)	128	176904			48.25- 108.25	77.08
4.387	4.372 (1.000)	49	315391			107.14- 167.14	137.42
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
6.013	6.006 (1.000)	114	873306	23.0000		80.00- 120.00	100.00
6.013	6.006 (1.000)	88	133968			0.00- 45.65	15.34
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.924	9.910 (1.000)	117	804807	24.0000		80.00- 120.00	100.00
9.924	9.910 (1.000)	82	422024			23.14- 83.14	52.44
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.485	11.464 (1.000)	174	508146	36.0000		80.00- 120.00	100.00
11.478	11.464 (1.000)	95	640829			92.70- 152.70	126.11
11.485	11.464 (1.000)	176	499109			68.24- 128.24	98.22
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.311	5.318 (0.883)	65	114294	24.7032	24.703	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
$ 49 1,2-Dichloroethane-d4 (continued)							
5.311	5.318 (0.883)	67	59792			22.28- 82.28	52.31
$ 66 Toluene-d8					CAS #: 2037-26-5		
8.011	8.011 (0.807)	98	387362	24.6637	24.664	80.00- 120.00	100.00
8.011	8.011 (0.807)	70	42445			0.00- 40.54	10.96
8.018	8.011 (0.808)	100	252096			35.01- 95.01	65.08
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.755	15.747 (1.372)	136	642430	22.4464	22.446	80.00- 120.00	100.00
15.755	15.747 (1.372)	108	60640			0.00- 39.41	9.44
3 Freon 114					CAS #: 76-14-2		
1.269	1.269 (0.289)	135	617534	149.807	149.81	80.00- 120.00	100.00
1.269	1.269 (0.289)	137	198482			2.17- 62.17	32.14
6 Vinyl Chloride					CAS #: 75-01-4		
1.395	1.395 (0.318)	62	337956	52.2305	52.230	80.00- 120.00	100.00
1.395	1.395 (0.318)	64	126947			12.66- 72.66	37.56
7 1,3-Butadiene					CAS #: 106-99-0		
1.409	1.409 (0.321)	54	265044	42.8758	42.876	80.00- 120.00	100.00
1.395	1.409 (0.318)	39	421518			133.58- 193.58	159.04
9 Chloroethane					CAS #: 75-00-3		
1.661	1.661 (0.379)	64	169580	45.6704	45.670	80.00- 120.00	100.00
1.661	1.661 (0.379)	66	48897			0.00- 58.31	28.83
1.661	1.661 (0.379)	49	50299			0.00- 59.65	29.66
10 Isopentane					CAS #: 78-78-4		
1.703	1.717 (0.388)	57	283885	59.8663	59.866	80.00- 120.00	100.00
1.703	1.717 (0.388)	43	464575			134.33- 194.33	163.65
11 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
1.828	1.828 (0.417)	101	852578	116.511	116.51	80.00- 120.00	100.00
1.828	1.828 (0.417)	103	558768			35.98- 95.98	65.54
15 Freon 113					CAS #: 76-13-1		
2.195	2.209 (0.500)	151	637481	150.912	150.91	80.00- 120.00	100.00
2.195	2.209 (0.500)	153	407337			34.66- 94.66	63.90
2.195	2.209 (0.500)	101	760728			88.64- 148.64	119.33
14 1,1-Dichloroethene					CAS #: 75-35-4		
2.202	2.202 (0.502)	98	227185	77.0873	77.087	80.00- 120.00	100.00
2.202	2.202 (0.502)	96	356315			127.15- 187.15	156.84
2.202	2.202 (0.502)	61	595959			230.60- 290.60	262.32

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.388 (0.543)	76	892494	51.7747	51.775	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.310	2.310 (0.526)	45	808640	50.4205	50.420	80.00- 120.00	100.00
2.310	2.310 (0.526)	43	150372			0.00- 49.91	18.60
2.310	2.310 (0.526)	59	27600			0.00- 33.48	3.41
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.595)	49	502659	68.2731	68.273	80.00- 120.00	100.00
2.610	2.610 (0.595)	84	344089			38.62- 98.62	68.45
2.610	2.610 (0.595)	51	154634			0.43- 60.43	30.76
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.868 (0.651)	98	201479	68.4091	68.409	80.00- 120.00	100.00
2.854	2.868 (0.651)	61	465651			200.79- 260.79	231.12
2.854	2.868 (0.651)	96	318210			126.39- 186.39	157.94
26 MTBE					CAS #: 1634-04-4		
2.832	2.840 (0.646)	73	959414	78.1709	78.171	80.00- 120.00	100.00
2.832	2.840 (0.646)	57	238788			0.00- 54.76	24.89
2.832	2.840 (0.646)	41	257793			0.00- 56.57	26.87
28 Hexane					CAS #: 110-54-3		
3.133	3.140 (0.714)	57	595132	69.2943	69.294	80.00- 120.00	100.00
3.133	3.140 (0.714)	43	431993			41.77- 101.77	72.59
3.133	3.140 (0.714)	86	80421			0.00- 43.88	13.51
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.320	3.327 (0.757)	63	641712	81.9976	81.998	80.00- 120.00	100.00
3.320	3.327 (0.757)	65	202840			1.71- 61.71	31.61
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.036	4.043 (0.920)	98	269863	85.4604	85.460	80.00- 120.00	100.00
4.036	4.043 (0.920)	96	426378			126.11- 186.11	158.00
4.036	4.043 (0.920)	61	574827			179.91- 239.91	213.01
38 2-Butanone					CAS #: 78-93-3		
4.014	4.021 (0.915)	72	186497	57.8612	57.861	80.00- 120.00	100.00(a)
4.014	4.021 (0.915)	43	948458			469.10- 529.10	508.56
4.014	4.021 (0.915)	57	69198			6.15- 66.15	37.10
44 Chloroform					CAS #: 67-66-3		
4.559	4.573 (1.039)	83	731038	97.2600	97.260	80.00- 120.00	100.00
4.566	4.573 (1.041)	85	478368			35.99- 95.99	65.44

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.881 (0.811)	84	460526	69.7789	69.779	80.00- 120.00	100.00
4.874	4.881 (0.811)	56	612725			102.79- 162.79	133.05
4.874	4.881 (0.811)	41	391308			54.37- 114.37	84.97
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.781	4.788 (0.795)	97	762809	117.880	117.88	80.00- 120.00	100.00
4.781	4.788 (0.795)	99	494734			34.68- 94.68	64.86
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.017 (0.833)	119	778553	137.688	137.69	80.00- 120.00	100.00
5.010	5.017 (0.833)	117	809698			73.19- 133.19	104.00
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.540 (0.920)	57	1895883	94.6423	94.642	80.00- 120.00	100.00
5.533	5.540 (0.920)	56	606846			1.74- 61.74	32.01
5.533	5.540 (0.920)	41	582681			0.34- 60.34	30.73
48 Benzene					CAS #: 71-43-2		
5.325	5.325 (0.886)	78	1123854	58.6811	58.681	80.00- 120.00	100.00
5.325	5.325 (0.886)	77	266445			0.00- 53.53	23.71
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.440 (0.902)	62	489063	82.9402	82.940	80.00- 120.00	100.00
5.425	5.440 (0.902)	64	159916			2.15- 62.15	32.70
53 Heptane					CAS #: 142-82-5		
5.834	5.841 (0.970)	71	364422	81.0085	81.008	80.00- 120.00	100.00
5.834	5.841 (0.970)	43	812319			188.80- 248.80	222.91
5.834	5.841 (0.970)	57	374775			71.78- 131.78	102.84
56 Trichloroethene					CAS #: 79-01-6		
6.314	6.321 (1.050)	95	529864	100.691	100.69	80.00- 120.00	100.00
6.314	6.321 (1.050)	130	550702			74.74- 134.74	103.93
6.314	6.321 (1.050)	97	343640			34.87- 94.87	64.85
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.614	6.629 (1.100)	83	667572	81.4711	81.471	80.00- 120.00	100.00
6.614	6.629 (1.100)	98	296712			14.22- 74.22	44.45
6.614	6.629 (1.100)	55	593918			58.24- 118.24	88.97
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.686 (1.111)	63	434537	98.3340	98.334	80.00- 120.00	100.00
6.679	6.686 (1.111)	62	300119			39.32- 99.32	69.07
6.679	6.686 (1.111)	41	278763			37.26- 97.26	64.15

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.794	6.801 (1.130)	88	266355	70.6792	70.679	80.00- 120.00	100.00
6.794	6.801 (1.130)	58	195352			41.28- 101.28	73.34
6.794	6.801 (1.130)	57	88109			0.62- 60.62	33.08
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.904	7.904 (1.314)	58	366465	84.4823	84.482	80.00- 120.00	100.00
7.904	7.904 (1.314)	43	1087063			263.34- 323.34	296.63
7.904	7.904 (1.314)	85	153294			12.32- 72.32	41.83
67 Toluene					CAS #: 108-88-3		
8.104	8.104 (0.817)	91	1402763	72.5514	72.551	80.00- 120.00	100.00
8.104	8.104 (0.817)	92	819642			28.18- 88.18	58.43
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.720	8.713 (1.450)	97	489191	110.861	110.86	80.00- 120.00	100.00
8.720	8.713 (1.450)	99	304354			32.32- 92.32	62.22
8.720	8.713 (1.450)	83	415890			54.42- 114.42	85.02
71 Tetrachloroethene					CAS #: 127-18-4		
8.778	8.771 (0.884)	166	682302	133.538	133.54	80.00- 120.00	100.00
8.778	8.771 (0.884)	129	538830			47.21- 107.21	78.97
8.778	8.771 (0.884)	131	517603			44.68- 104.68	75.86
72 2-Hexanone					CAS #: 591-78-6		
9.036	9.028 (0.910)	58	494811	84.8869	84.887	80.00- 120.00	100.00
9.036	9.028 (0.910)	43	1058965			181.19- 241.19	214.01
9.036	9.028 (0.910)	100	91743			0.00- 48.53	18.54
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.308	9.301 (0.938)	107	765434	159.498	159.50	80.00- 120.00	100.00
9.315	9.301 (0.939)	109	725296			64.88- 124.88	94.76
81 Chlorobenzene					CAS #: 108-90-7		
9.967	9.953 (1.004)	112	1140019	92.0976	92.098	80.00- 120.00	100.00
9.967	9.953 (1.004)	114	370408			2.37- 62.37	32.49
9.967	9.953 (1.004)	77	638553			25.58- 85.58	56.01
82 Ethyl Benzene					CAS #: 100-41-4		
10.117	10.103 (1.019)	106	584178	86.6975	86.697	80.00- 120.00	100.00
10.117	10.103 (1.019)	91	1834105			283.92- 343.92	313.96
84 m,p-Xylene					CAS #: 108-38-3		
10.296	10.289 (1.038)	106	734504	84.0469	84.047	80.00- 120.00	100.00
10.296	10.289 (1.038)	91	1458878			168.48- 228.48	198.62

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
88 o-Xylene					CAS #: 95-47-6		
10.783	10.769 (0.939)	106	697333	91.1245	91.124	80.00- 120.00	100.00
10.783	10.769 (0.939)	91	1467193			179.05- 239.05	210.40
89 Styrene					CAS #: 100-42-5		
10.812	10.805 (0.941)	104	1175183	89.0517	89.052	80.00- 120.00	100.00
10.812	10.805 (0.941)	78	566245			17.71- 77.71	48.18
91 Cumene					CAS #: 98-82-8		
11.270	11.249 (0.981)	105	2110252	104.854	104.85	80.00- 120.00	100.00
11.270	11.256 (0.981)	120	568646			0.00- 56.88	26.95
11.270	11.256 (0.981)	51	228007			0.00- 40.57	10.80
94 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
11.700	11.686 (1.019)	83	1057471	158.949	158.95	80.00- 120.00	100.00
11.700	11.693 (1.019)	85	692178			35.63- 95.63	65.46
96 Propylbenzene					CAS #: 103-65-1		
11.808	11.786 (1.028)	91	2552755	107.233	107.23	80.00- 120.00	100.00
11.808	11.801 (1.028)	120	607088			0.00- 53.76	23.78
11.808	11.801 (1.028)	105	94275			0.00- 33.79	3.69
97 4-Ethyltoluene					CAS #: 622-96-8		
11.972	11.965 (1.042)	120	632486	103.282	103.28	80.00- 120.00	100.00
11.972	11.958 (1.042)	105	2081868			299.98- 359.98	329.16
98 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
12.058	12.051 (1.050)	120	888334	102.888	102.89	80.00- 120.00	100.00
12.058	12.044 (1.050)	105	1785498			169.84- 229.84	200.99
100 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
12.524	12.517 (1.090)	120	823847	102.394	102.39	80.00- 120.00	100.00
12.524	12.517 (1.090)	105	1803633			188.24- 248.24	218.93
101 1,3-Dichlorobenzene					CAS #: 541-73-1		
12.846	12.846 (1.118)	146	1256074	126.140	126.14	80.00- 120.00	100.00
12.846	12.846 (1.118)	148	802286			33.94- 93.94	63.87
12.846	12.839 (1.118)	111	496532			9.99- 69.99	39.53
102 1,4-Dichlorobenzene					CAS #: 106-46-7		
12.990	12.982 (1.131)	146	1255786	126.302	126.30	80.00- 120.00	100.00
12.990	12.982 (1.131)	148	799177			33.56- 93.56	63.64
12.990	12.982 (1.131)	111	484528			8.12- 68.12	38.58
105 1,2-Dichlorobenzene					CAS #: 95-50-1		
13.427	13.419 (1.169)	146	1192903	126.778	126.78	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
105 1,2-Dichlorobenzene (continued)								
13.427	13.419	(1.169)	148	756304			33.25- 93.25	63.40
13.427	13.419	(1.169)	111	491193			11.16- 71.16	41.18
106 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
15.475	15.475	(1.347)	180	992601	153.439	153.44	80.00- 120.00	100.00
15.475	15.475	(1.347)	182	939230			64.82- 124.82	94.62
107 Hexachlorobutadiene						CAS #: 87-68-3		
15.683	15.683	(1.365)	225	732447	220.320	220.32	80.00- 120.00	100.00
15.683	15.683	(1.365)	223	456349			32.09- 92.09	62.30

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: msd6.i
Lab File ID: 6033113.d
Lab Smp Id: VI VOC+PAH ICV/LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-231-20ml(6/11/16),2744-32-50(7/20/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Client Smp ID: LCS, 25ngSurr
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	229505	1.94
54 1,4-Difluorobenze	874568	524741	1224395	873306	-0.14
79 Chlorobenzene-d5	795881	477529	1114233	804807	1.12
92 Bromofluorobenzen	515685	309411	721959	508146	-1.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.39	0.16
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.92	0.14
92 Bromofluorobenzen	11.46	11.13	11.79	11.49	0.19

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: 04-Apr-2016 12:09

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 31mar16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI VOC+PAH ICV/LCS
Client Smp ID: LCS, 25ngSurr
Level: LOW
Operator: LA
Data Type: MS DATA
SampleType: LCS
SpikeList File: VOClcs.spk
Quant Type: ISTD
Sublist File: VOC_L1.sub
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-231-20ml(6/11/16),2744-32-50(7/20/16)

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
3 Freon 114	139.80	149.81	107.16	70-130
6 Vinyl Chloride	51.100	52.230	102.21	70-130
7 1,3-Butadiene	44.200	42.876	97.00	70-130
9 Chloroethane	52.800	45.670	86.50	70-130
10 Isopentane	59.000	59.866	101.47	70-130
11 Trichlorofluoromet	112.40	116.51	103.66	70-130
14 1,1-Dichloroethene	79.300	77.087	97.21	70-130
15 Freon 113	153.30	150.91	98.44	70-130
18 Carbon Disulfide	62.300	51.775	83.11	70-130
19 2-Propanol	49.200	50.420	102.48	70-130
22 Methylene Chloride	69.500	68.273	98.23	70-130
25 trans-1,2-Dichloro	79.300	68.409	86.27	70-130
26 MTBE	72.100	78.171	108.42	70-130
28 Hexane	70.500	69.294	98.29	70-130
29 1,1-Dichloroethane	81.000	81.998	101.23	70-130
37 cis-1,2-Dichloroet	79.300	85.460	107.77	70-130
38 2-Butanone	59.000	57.861	98.07	70-130
44 Chloroform	97.700	97.260	99.55	70-130
45 1,1,1-Trichloroeth	109.10	117.88	108.05	70-130
46 Cyclohexane	68.800	69.779	101.42	70-130
47 Carbon Tetrachlori	125.80	137.69	109.45	70-130
48 Benzene	63.900	58.681	91.83	70-130
50 1,2-Dichloroethane	80.900	82.940	102.52	70-130
51 2,2,4-Trimethylpen	93.400	94.642	101.33	70-130
53 Heptane	82.000	81.008	98.79	70-130
56 Trichloroethene	107.50	100.69	93.67	70-130
58 Methyl Cyclohexane	80.300	81.471	101.46	70-130
59 1,2-Dichloropropan	92.400	98.334	106.42	70-130
60 1,4-Dioxane	72.100	70.679	98.03	70-130
65 4-Methyl-2-pentano	81.900	84.482	103.15	70-130
67 Toluene	75.400	72.551	96.22	70-130
70 1,1,2-Trichloroeth	109.10	110.86	101.61	70-130
71 Tetrachloroethene	135.70	133.54	98.41	70-130

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
72 2-Hexanone	81.900	84.887	103.65	70-130
74 1,2-Dibromoethane	153.70	159.50	103.77	70-130
81 Chlorobenzene	92.100	92.098	100.00	70-130
82 Ethyl Benzene	86.800	86.697	99.88	70-130
84 m,p-Xylene	86.800	84.047	96.83	70-130
88 o-Xylene	86.800	91.124	104.98	70-130
89 Styrene	85.200	89.052	104.52	70-130
91 Cumene	98.300	104.85	106.67	70-130
94 1,1,2,2-Tetrachlor	137.30	158.95	115.77	70-130
96 Propylbenzene	98.300	107.23	109.09	70-130
97 4-Ethyltoluene	98.300	103.28	105.07	70-130
98 1,3,5-Trimethylben	98.300	102.89	104.67	70-130
100 1,2,4-Trimethylben	98.300	102.39	104.17	70-130
101 1,3-Dichlorobenzen	120.30	126.14	104.85	70-130
102 1,4-Dichlorobenzen	120.30	126.30	104.99	70-130
105 1,2-Dichlorobenzen	120.30	126.78	105.38	70-130
106 1,2,4-Trichloroben	148.40	153.44	103.40	70-130
107 Hexachlorobutadien	213.30	220.32	103.29	70-130

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 49 1,2-Dichloroethane	25.000	24.703	98.81	50-150
$ 66 Toluene-d8	25.000	24.664	98.65	50-150
$ 108 Naphthalene-d8	25.000	22.446	89.79	50-150

Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

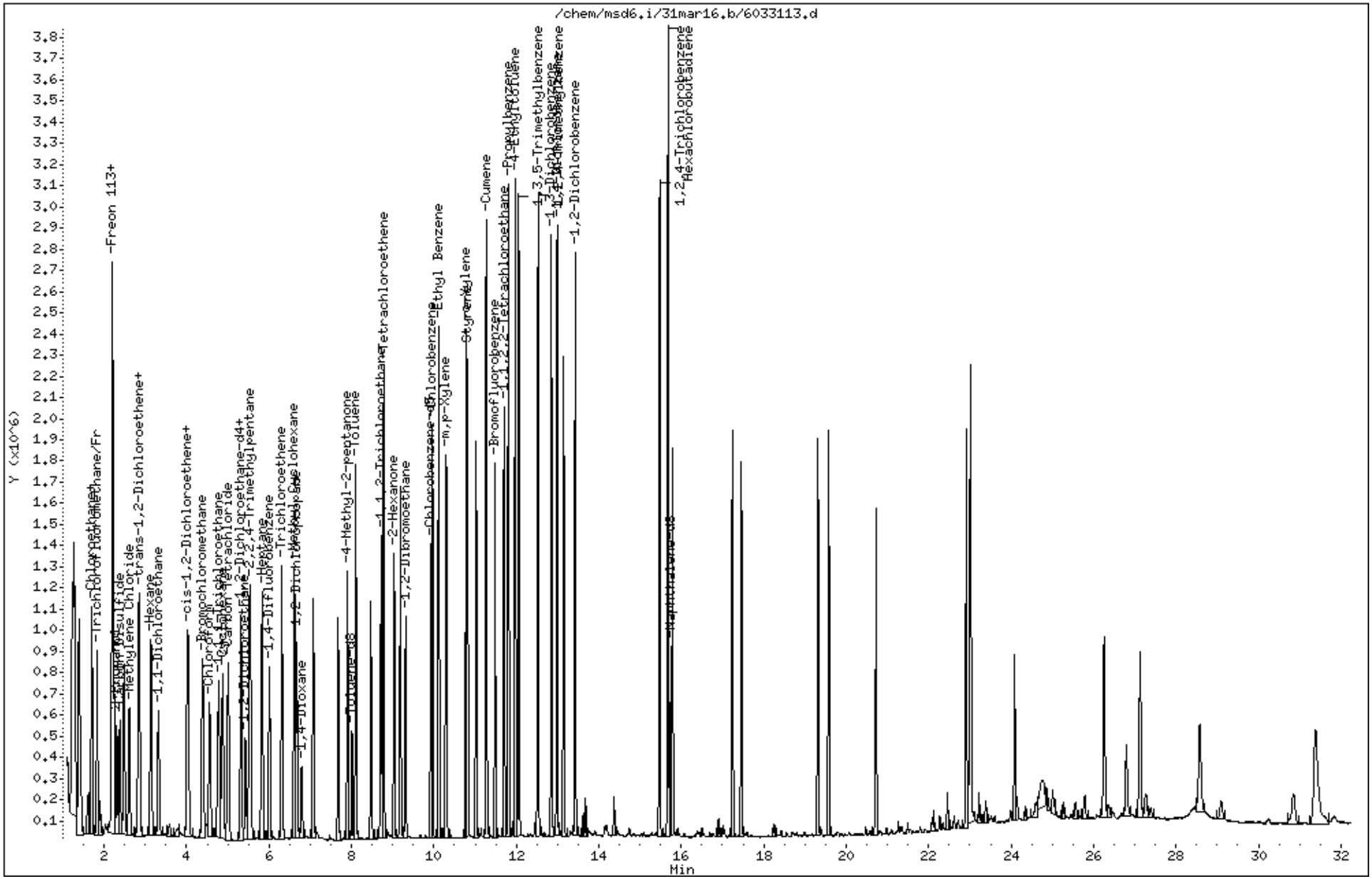
Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

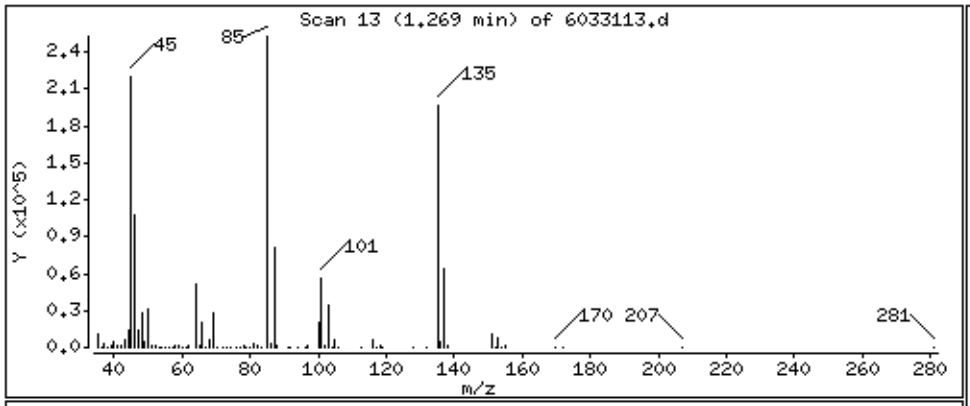
Operator: LA

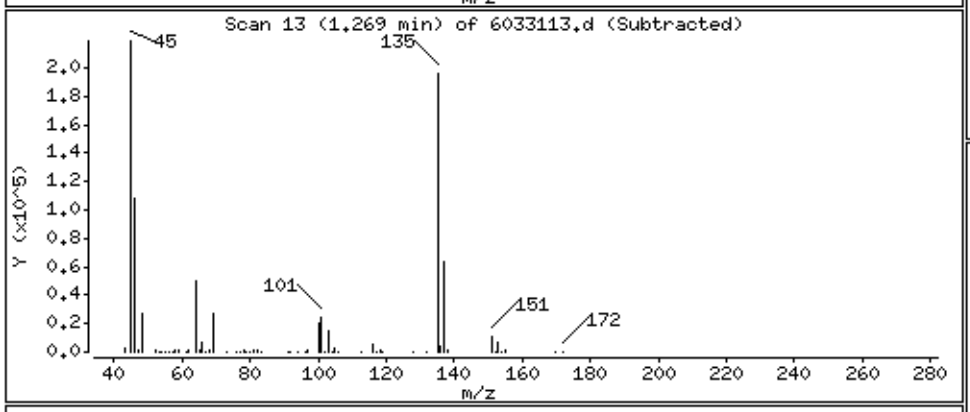
Column phase: RTx-624

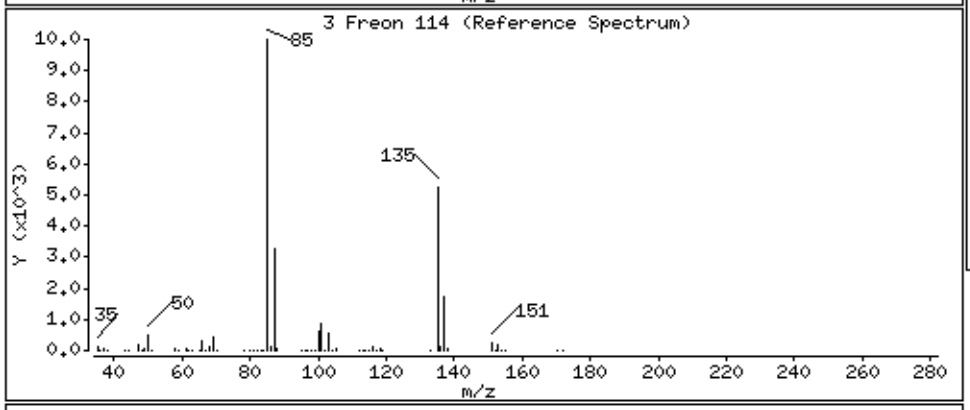
Column diameter: 0.53

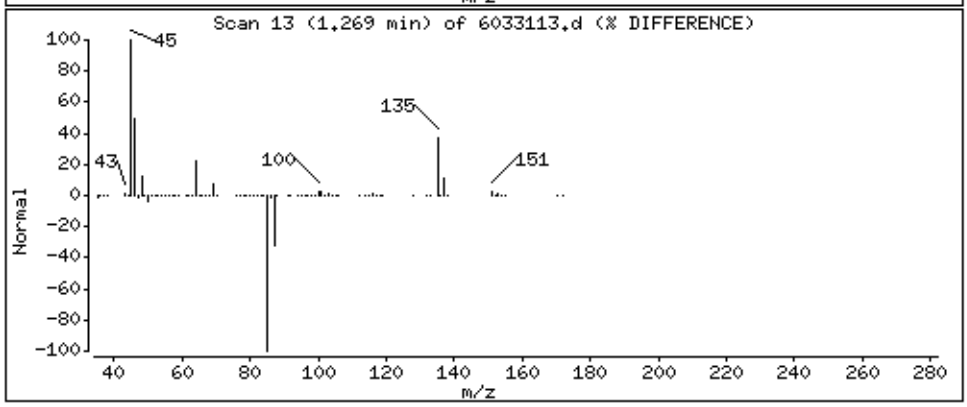
3 Freon 114

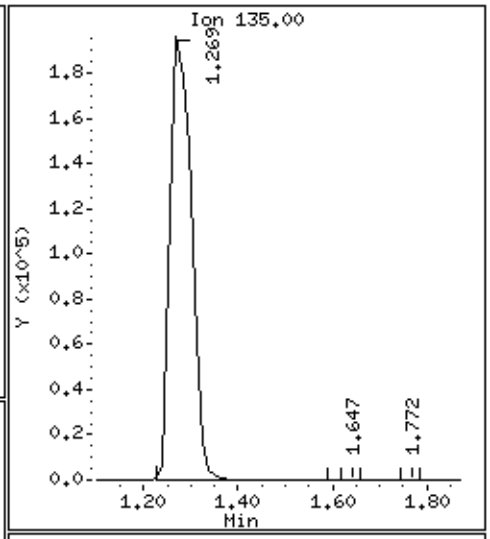
Concentration: 149.81 NG

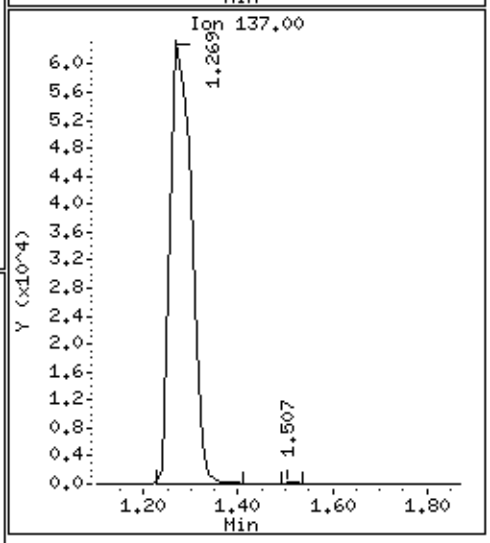












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

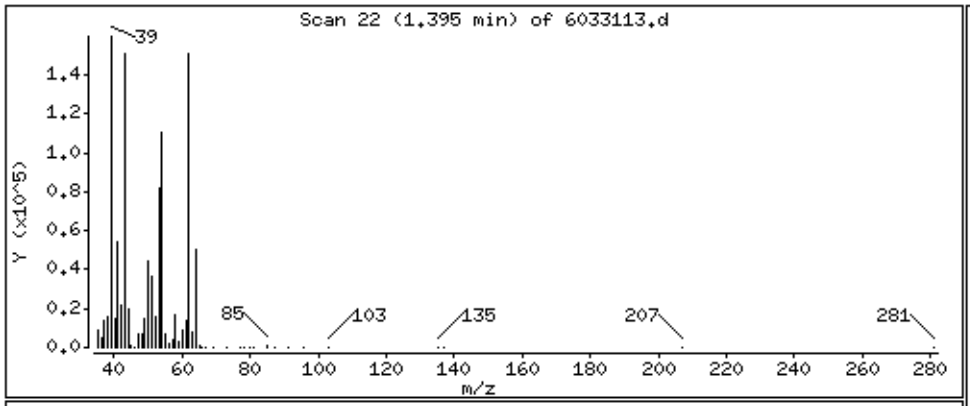
Operator: LA

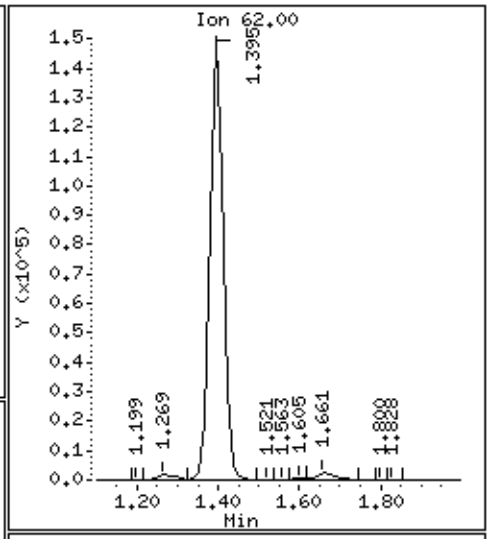
Column phase: RTx-624

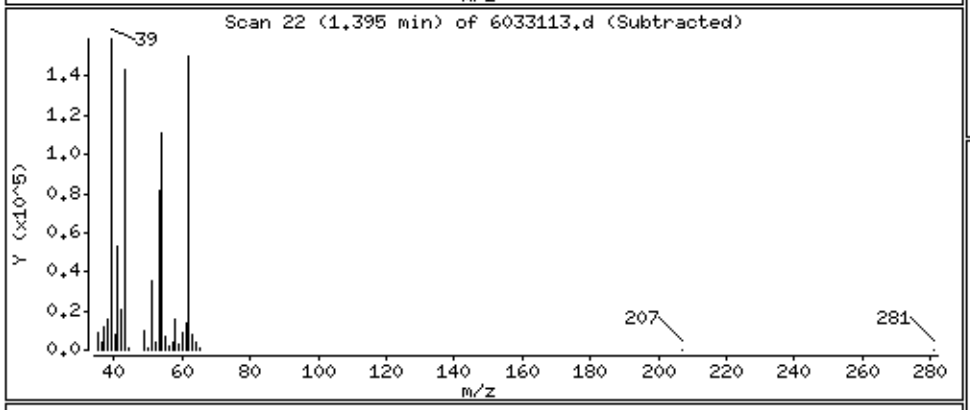
Column diameter: 0.53

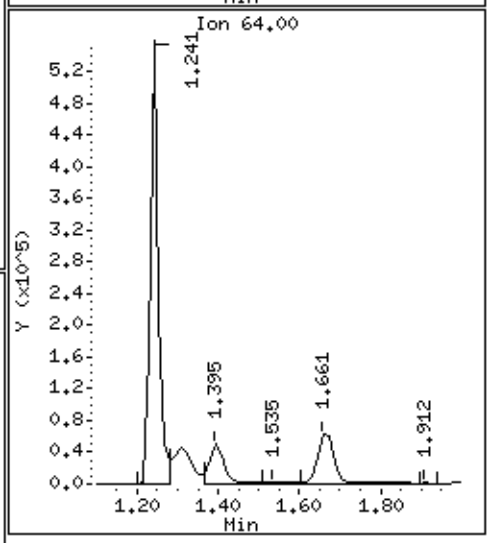
6 Vinyl Chloride

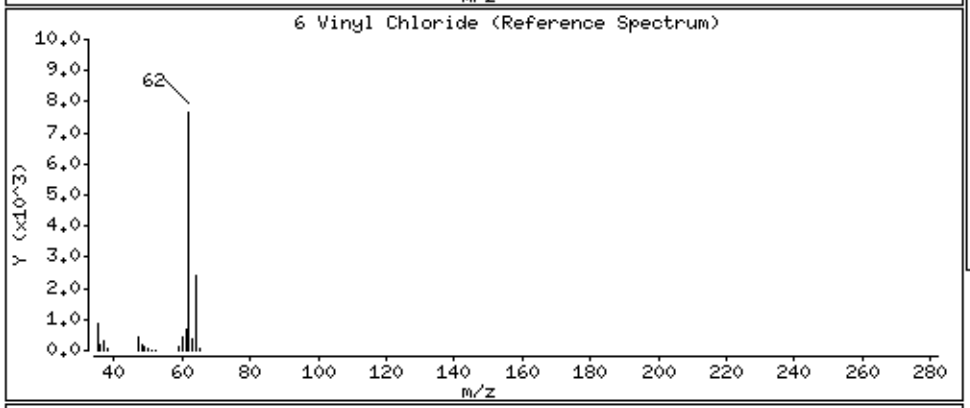
Concentration: 52.230 NG

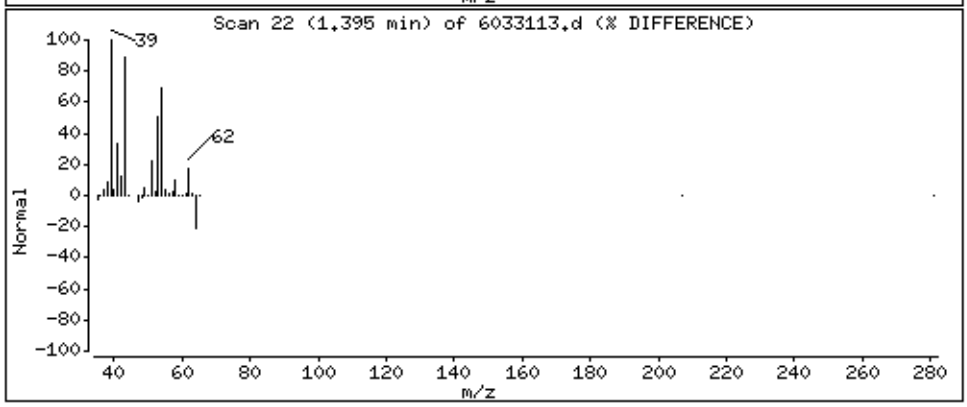












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

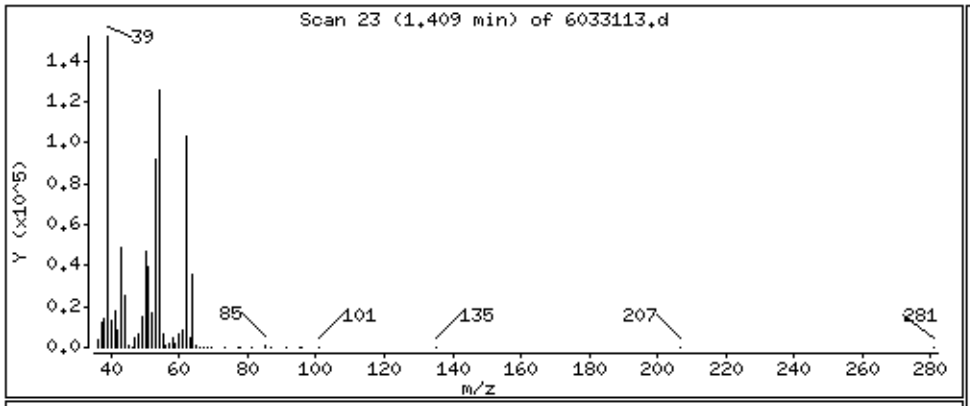
Operator: LA

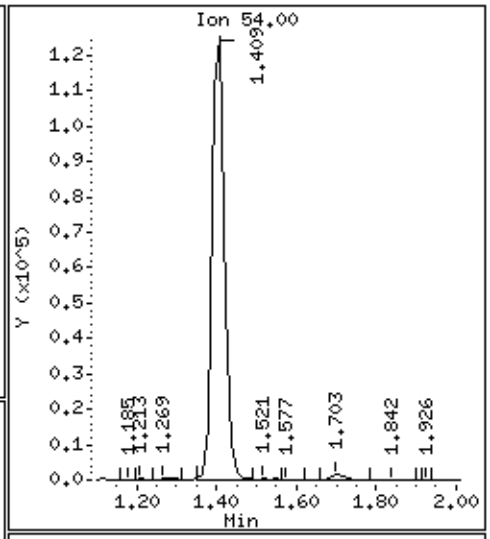
Column phase: RTx-624

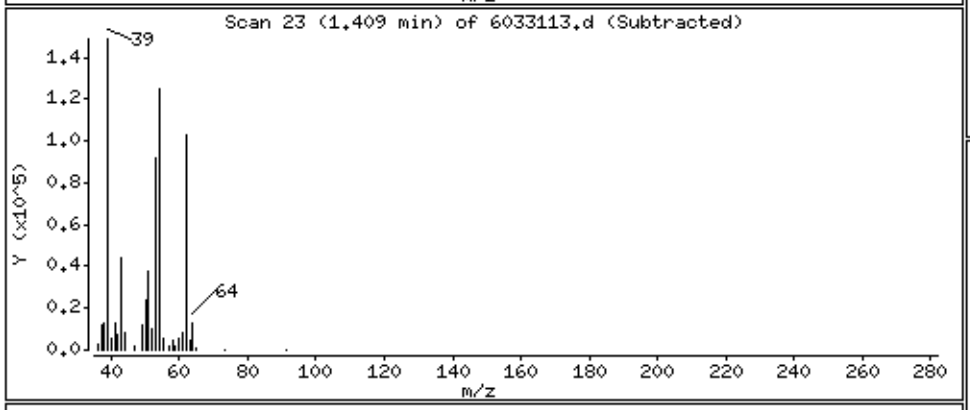
Column diameter: 0.53

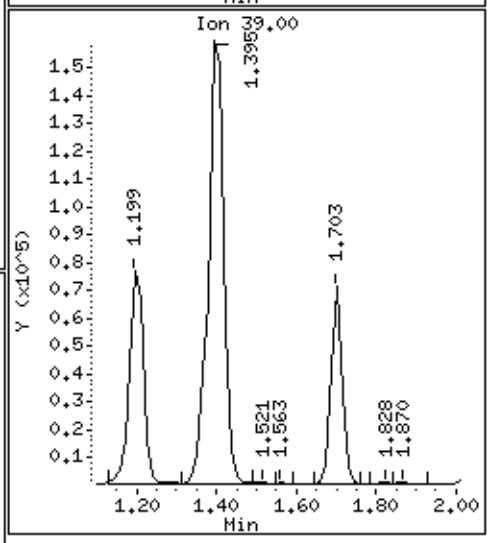
7 1,3-Butadiene

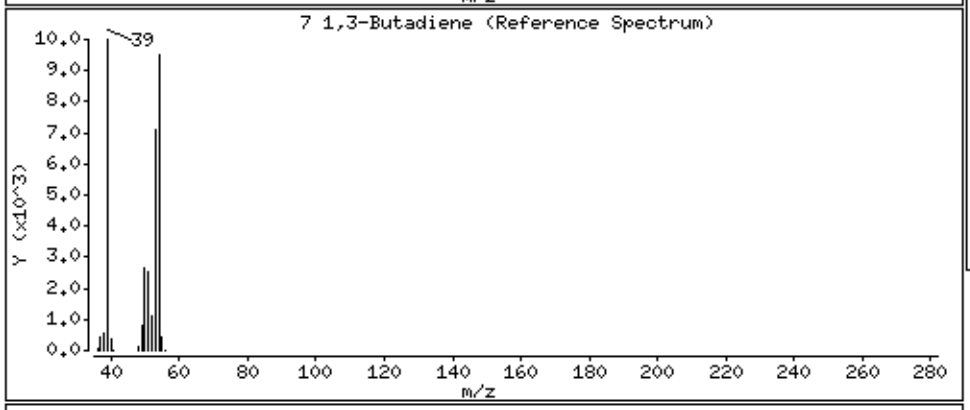
Concentration: 42.876 NG

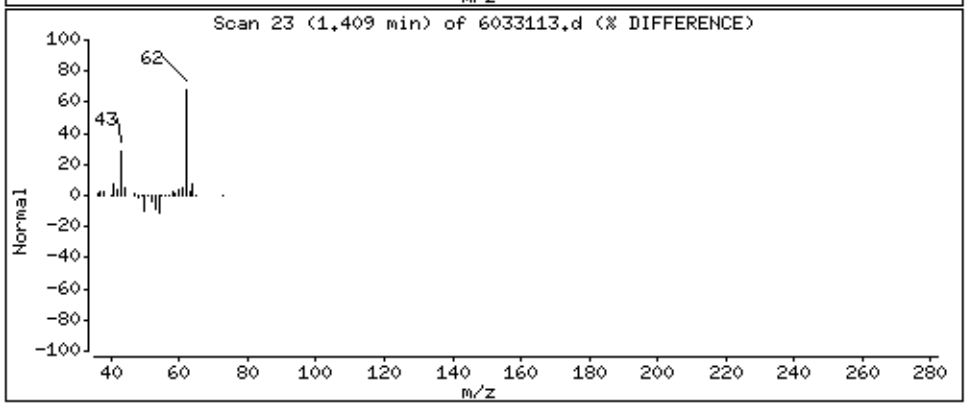












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

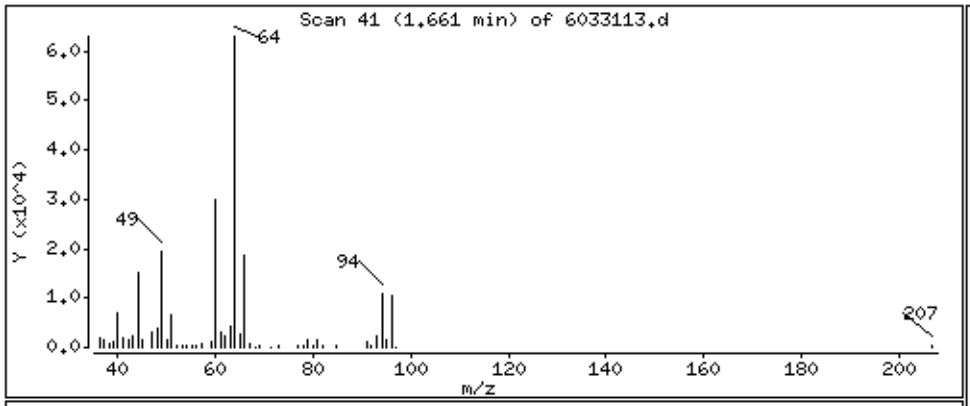
Operator: LA

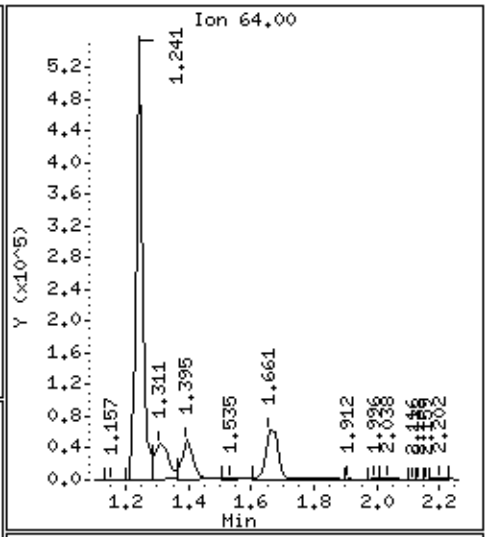
Column phase: RTx-624

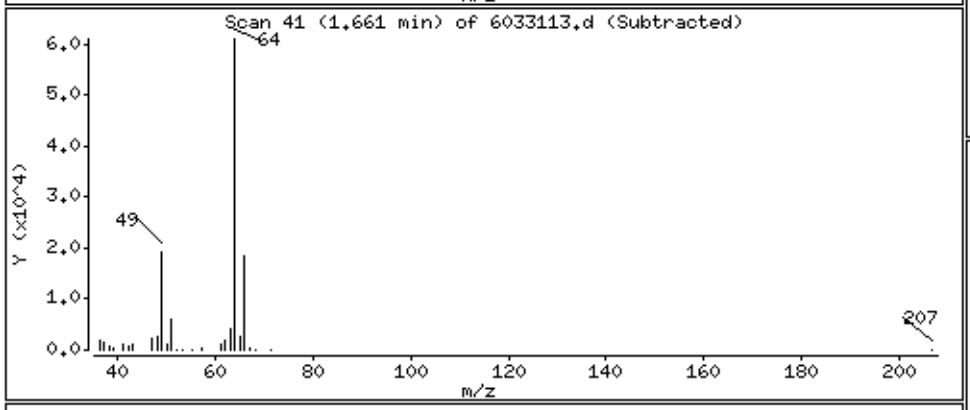
Column diameter: 0.53

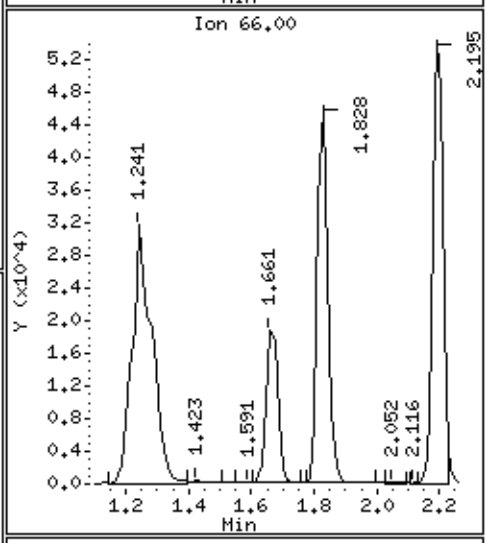
9 Chloroethane

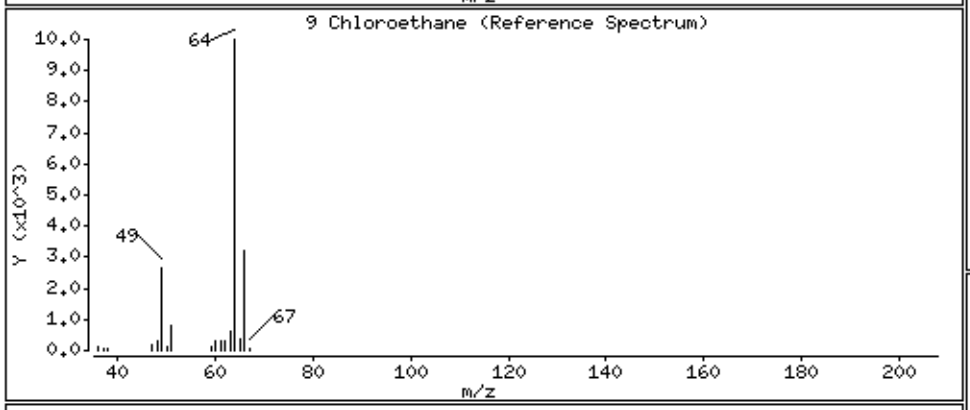
Concentration: 45.670 NG

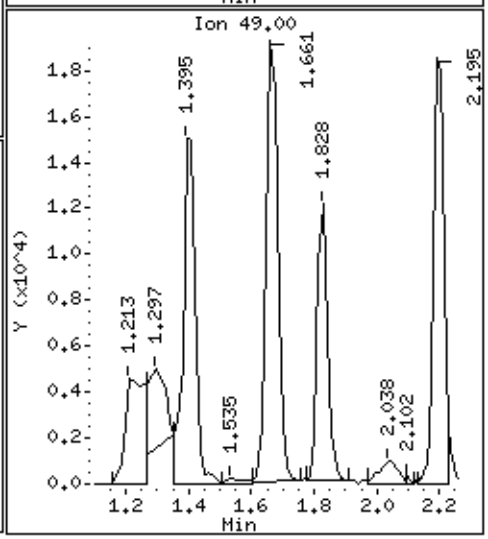


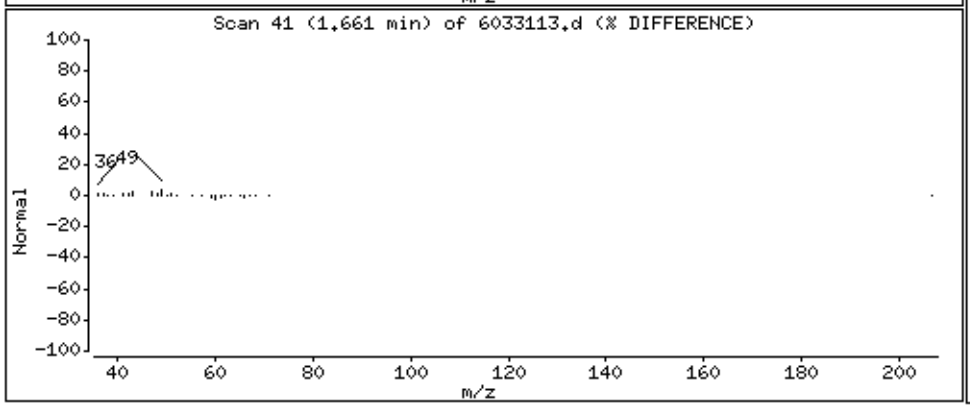












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

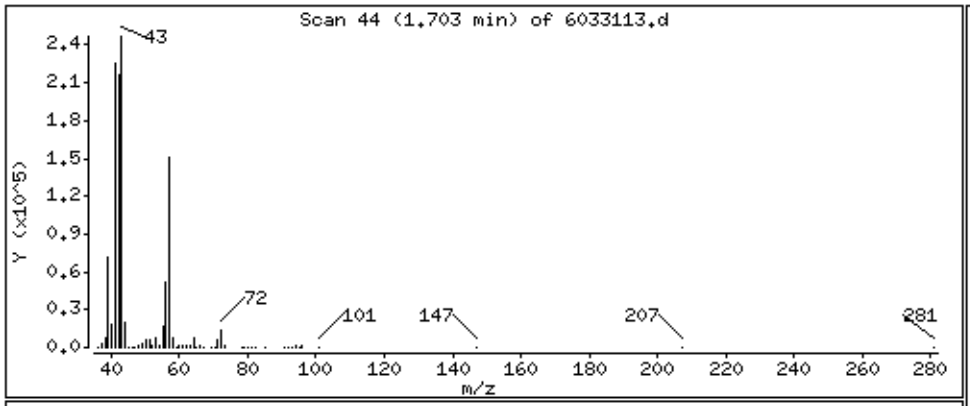
Operator: LA

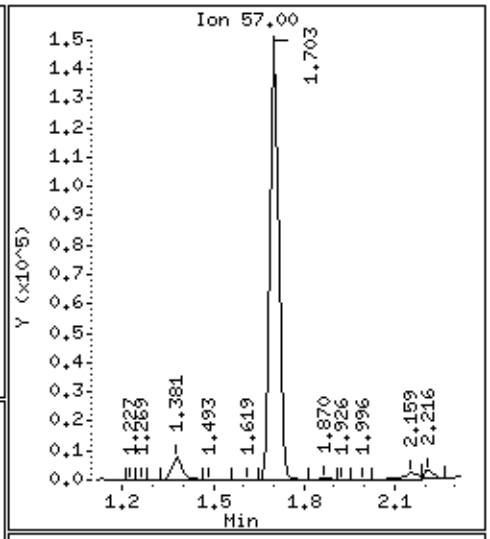
Column phase: RTx-624

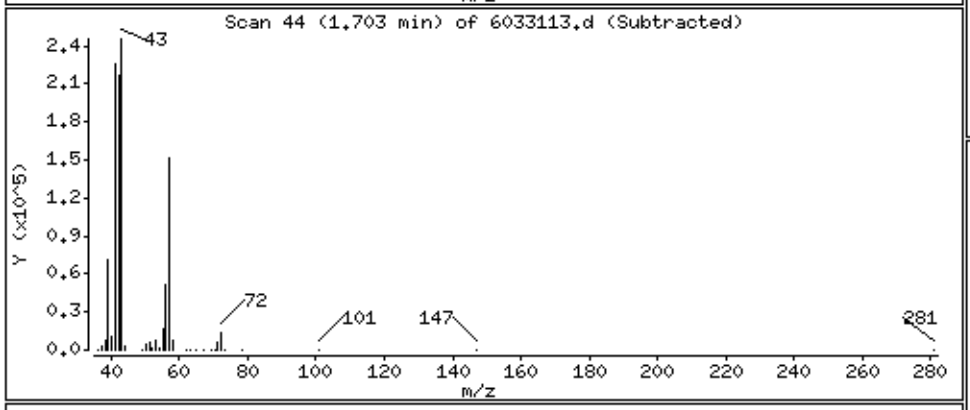
Column diameter: 0.53

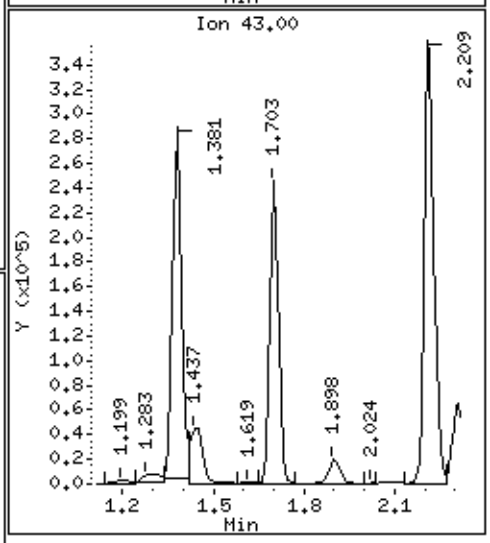
10 Isopentane

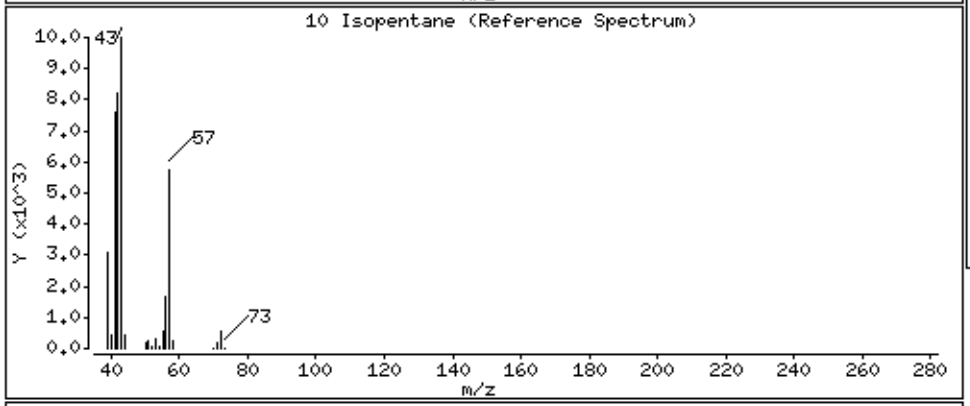
Concentration: 59.866 NG

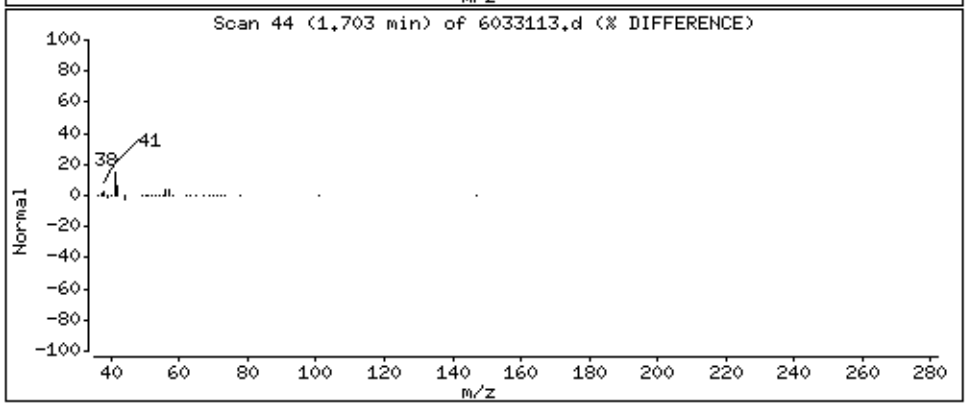












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

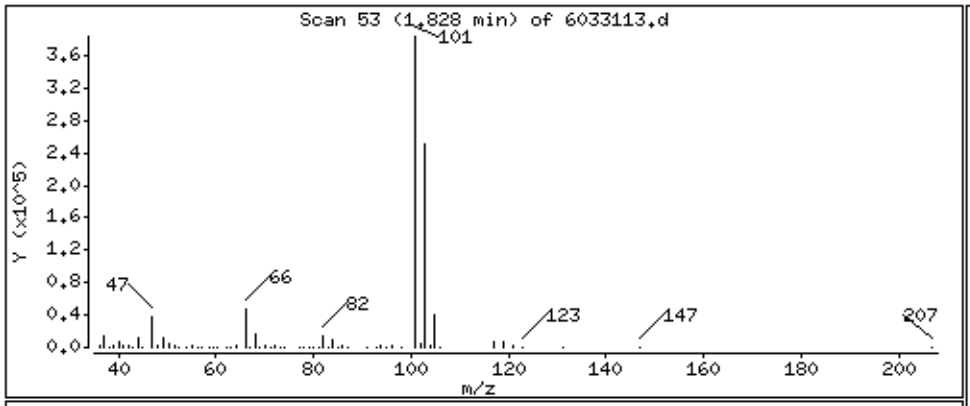
Operator: LA

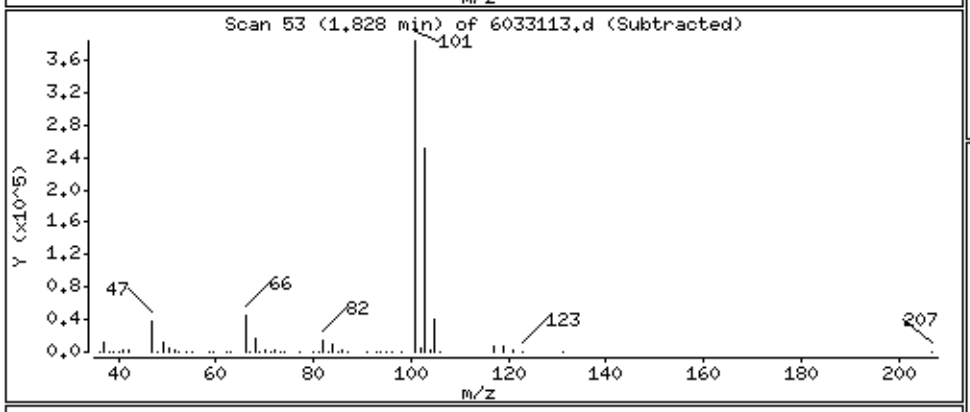
Column phase: RTx-624

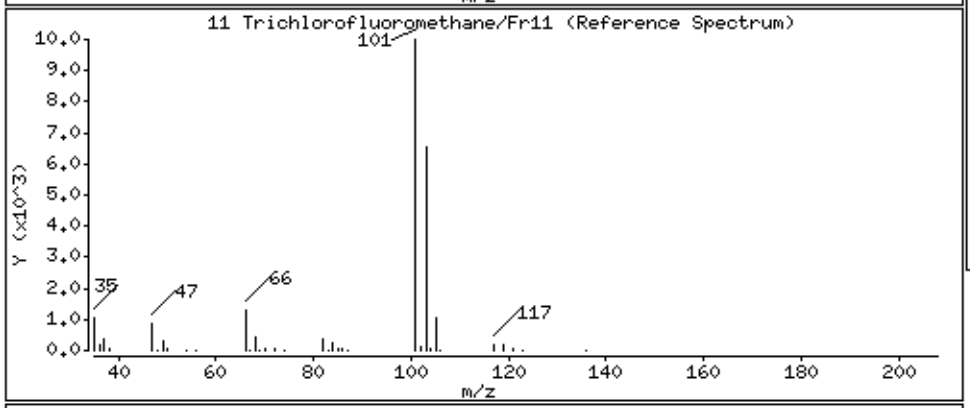
Column diameter: 0.53

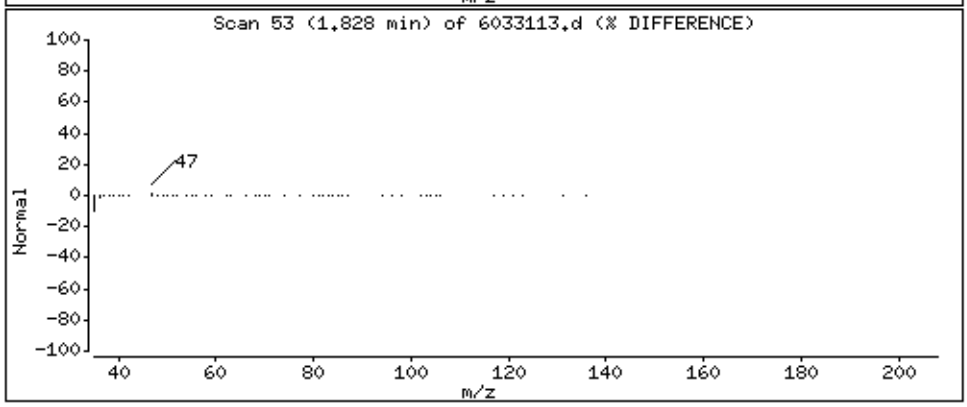
11 Trichlorofluoromethane/Fr11

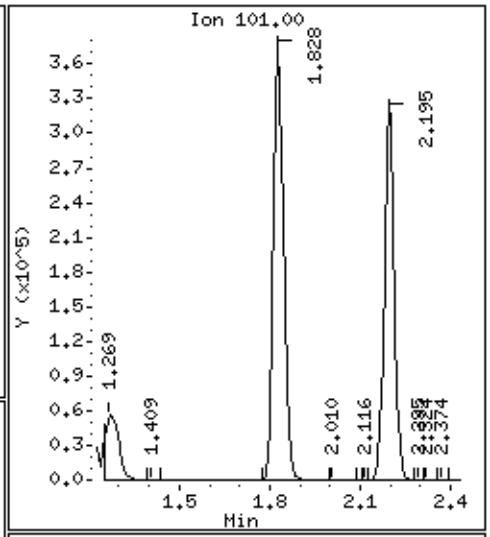
Concentration: 116.51 NG

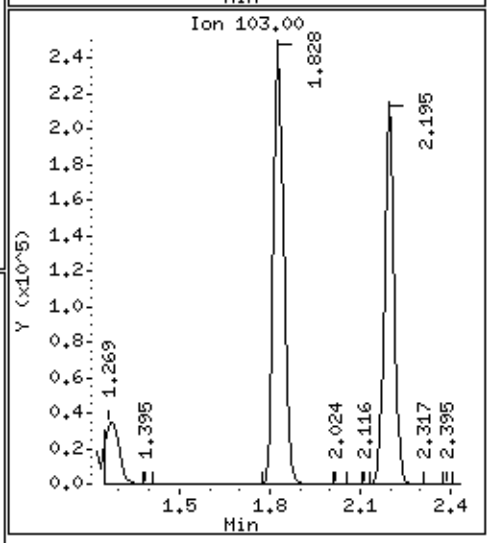












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

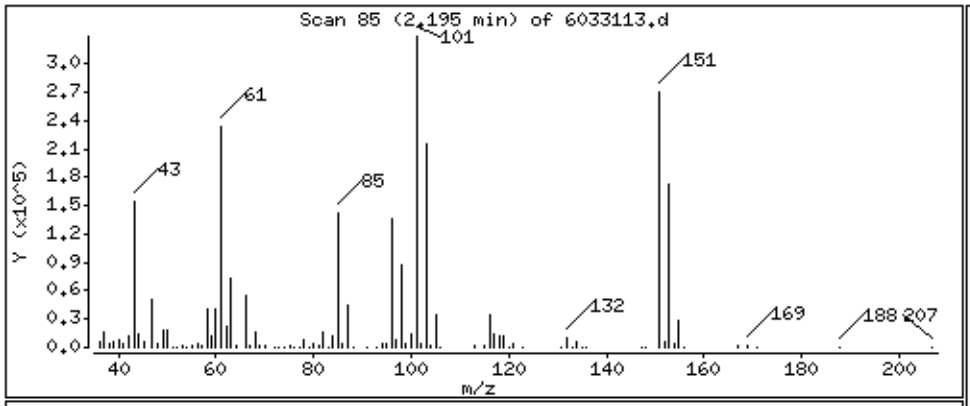
Operator: LA

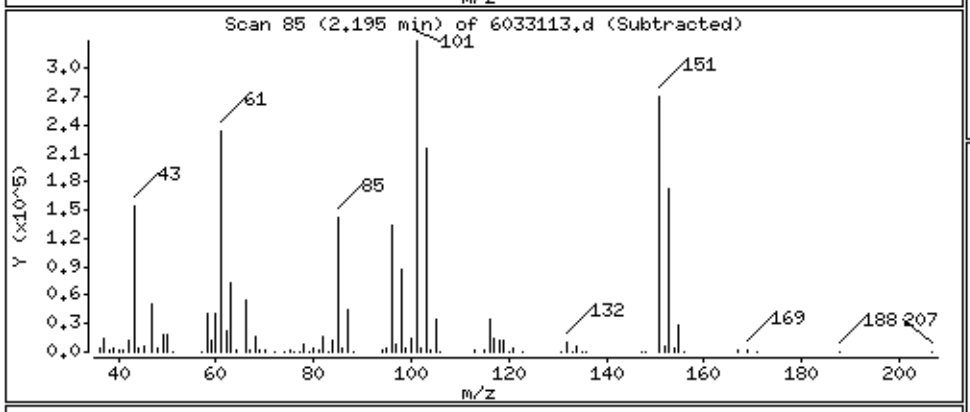
Column phase: RTx-624

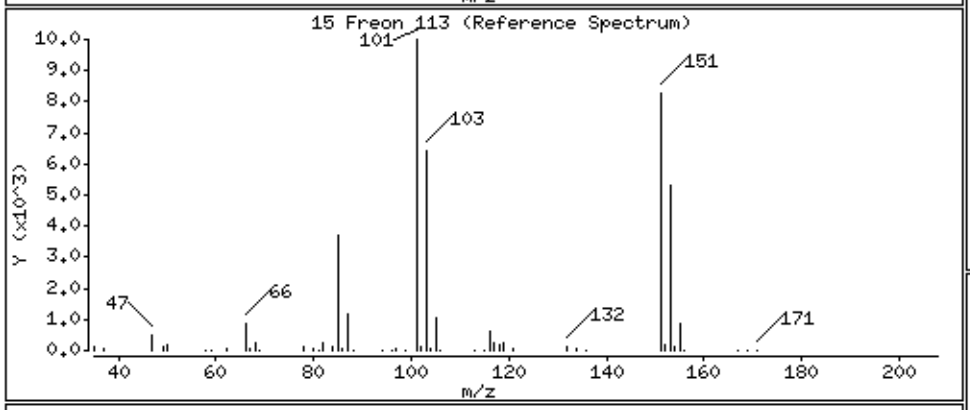
Column diameter: 0.53

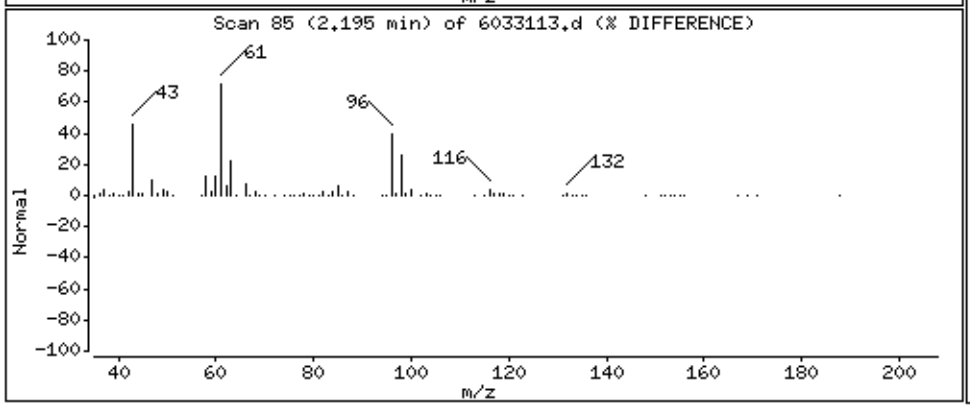
15 Freon 113

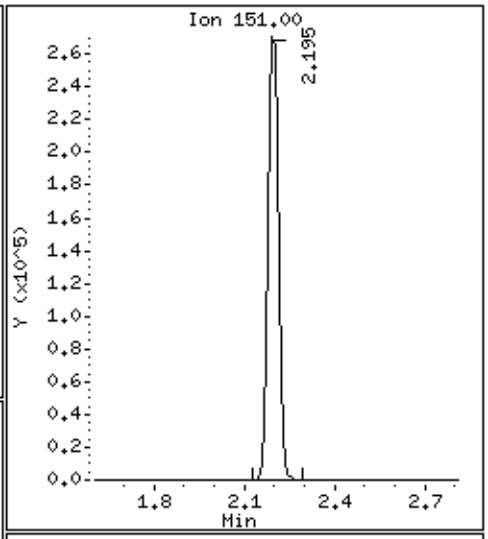
Concentration: 150.91 NG

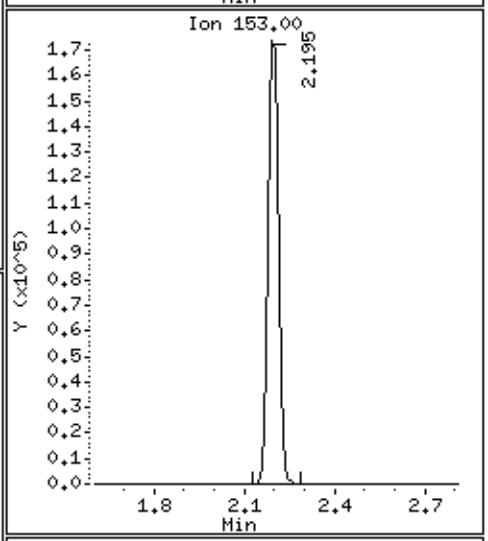


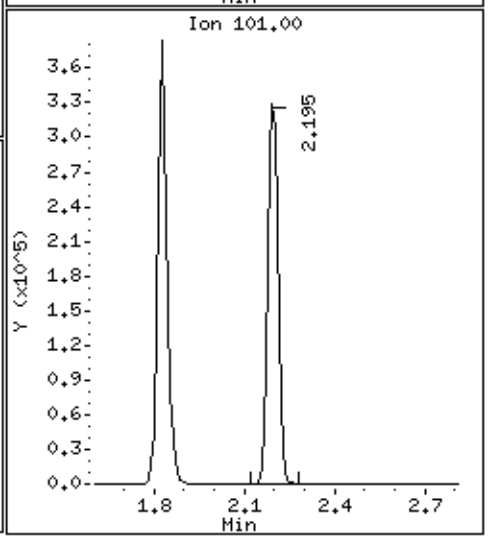












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

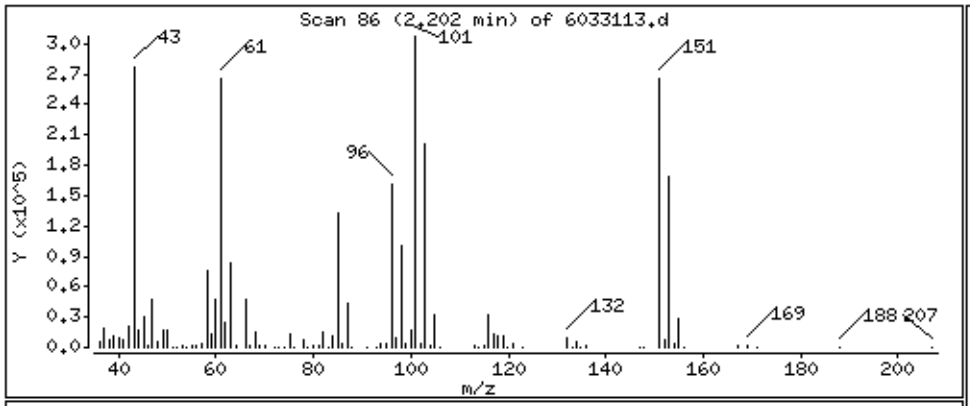
Operator: LA

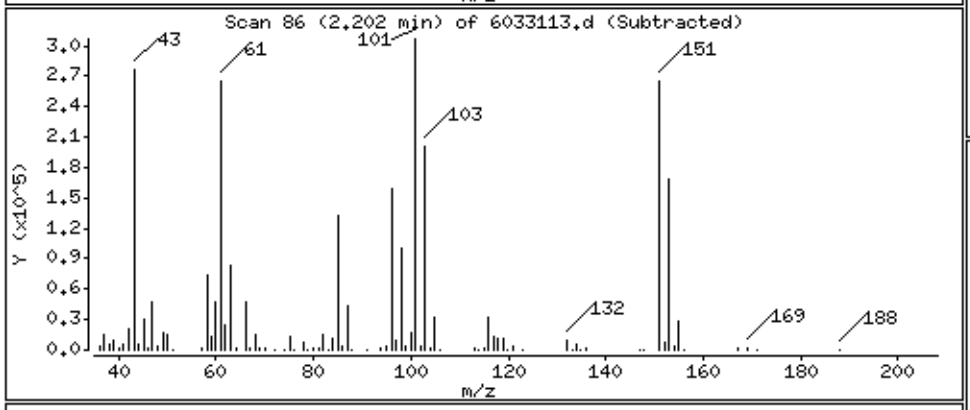
Column phase: RTx-624

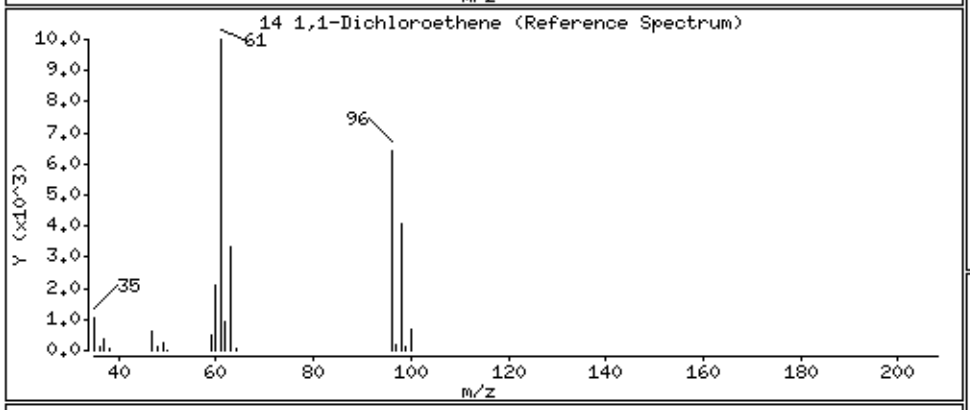
Column diameter: 0.53

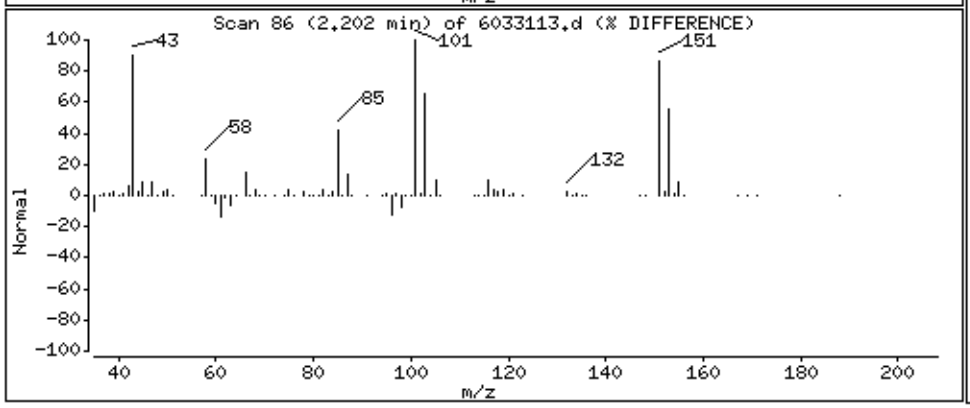
14 1,1-Dichloroethene

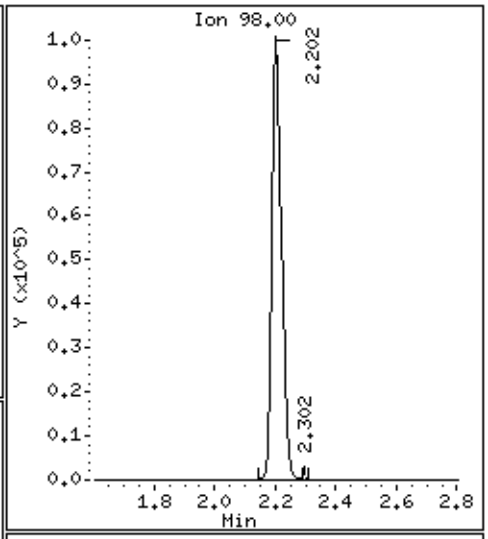
Concentration: 77.087 NG

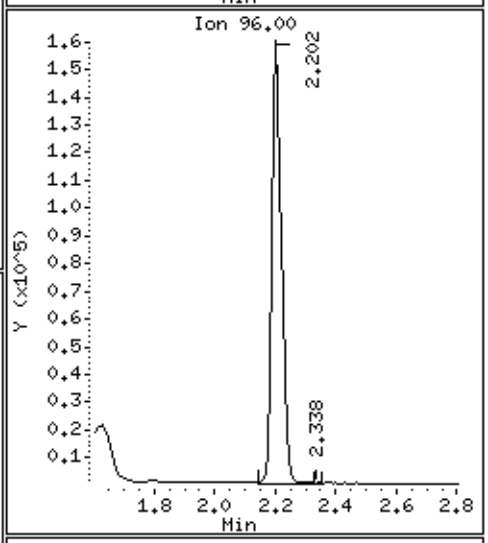


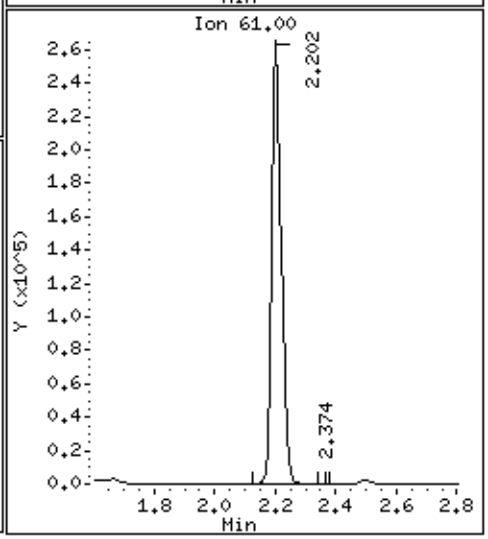












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

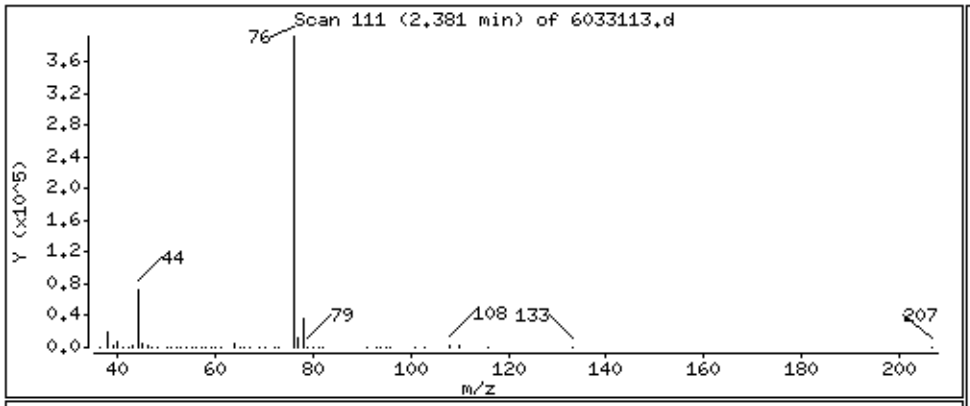
Operator: LA

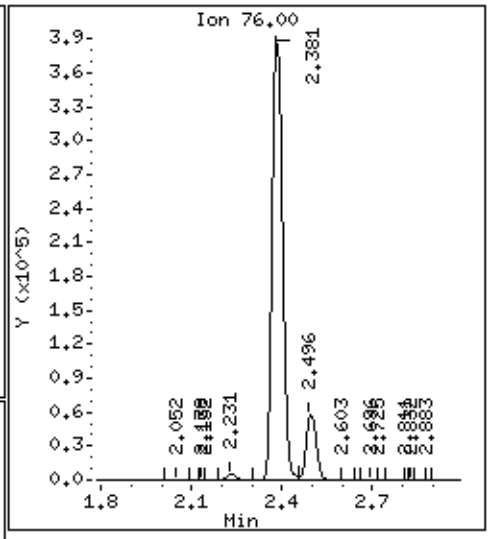
Column phase: RTx-624

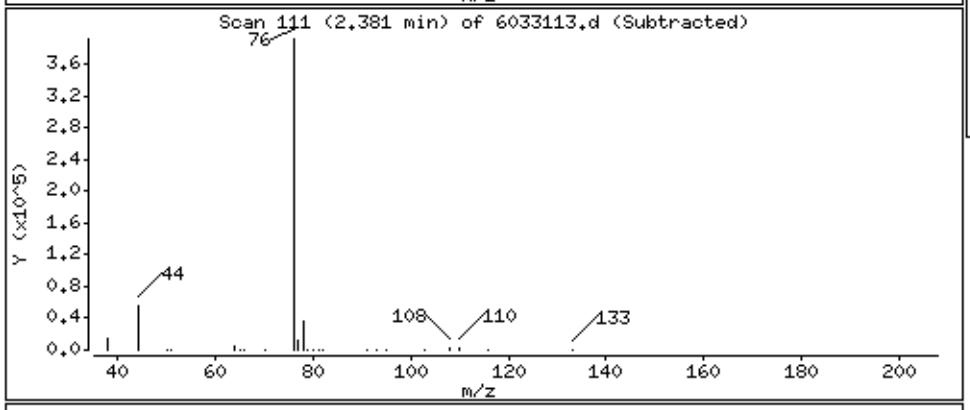
Column diameter: 0.53

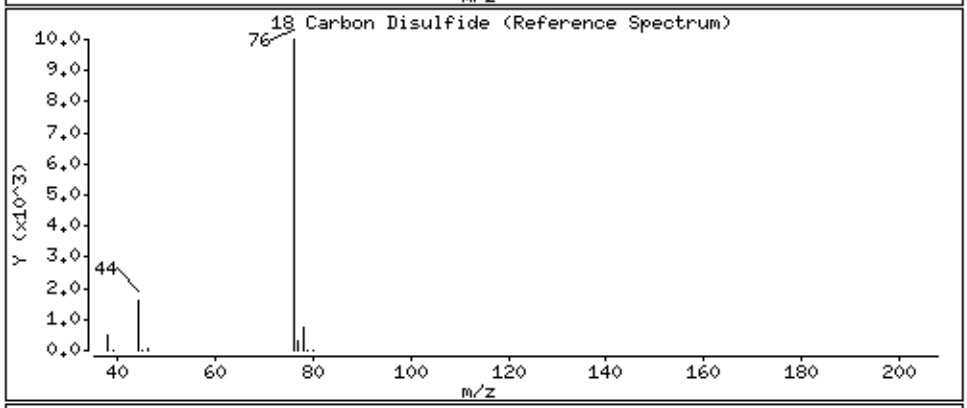
18 Carbon Disulfide

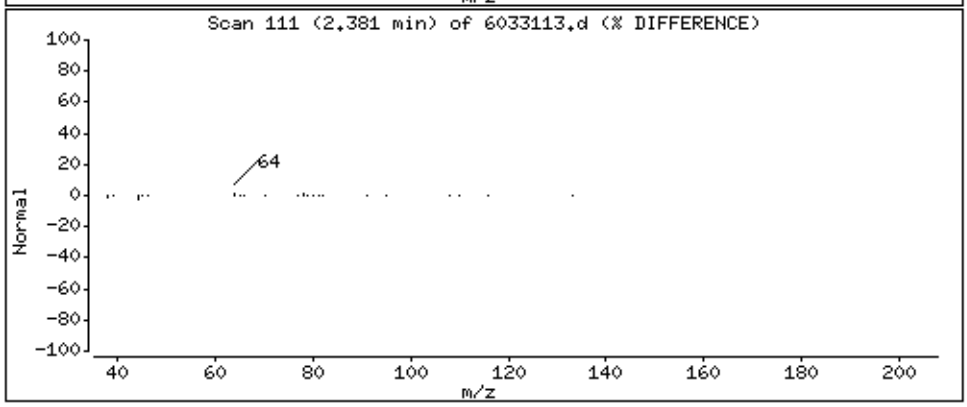
Concentration: 51.775 NG











Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

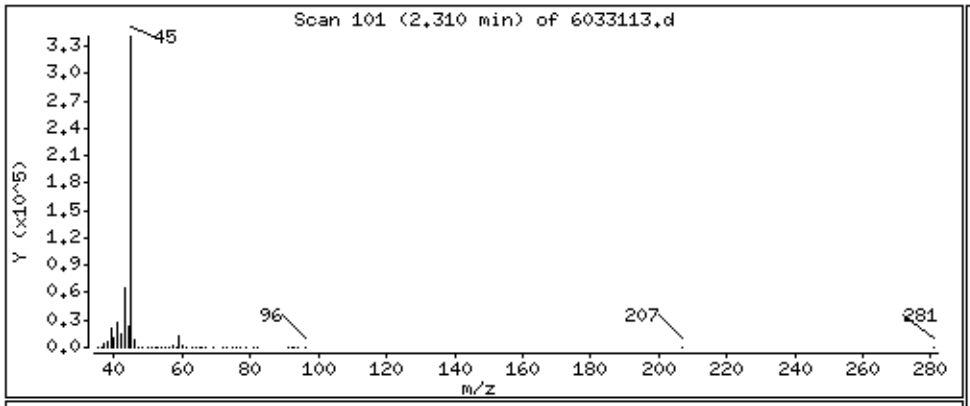
Operator: LA

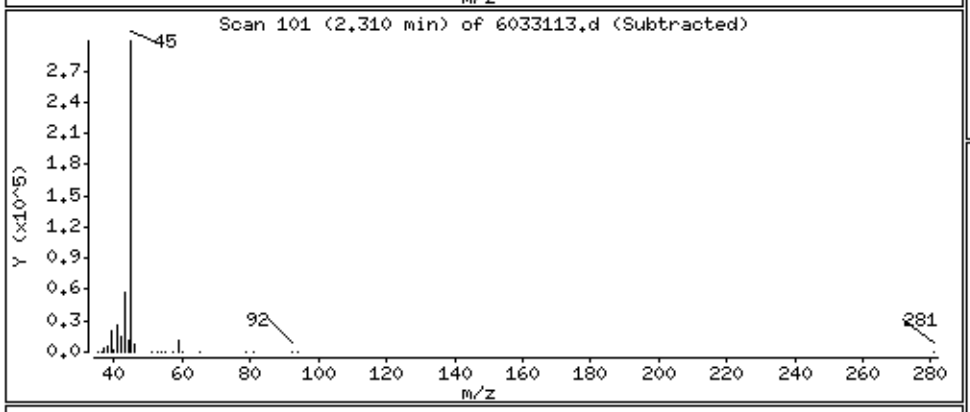
Column phase: RTx-624

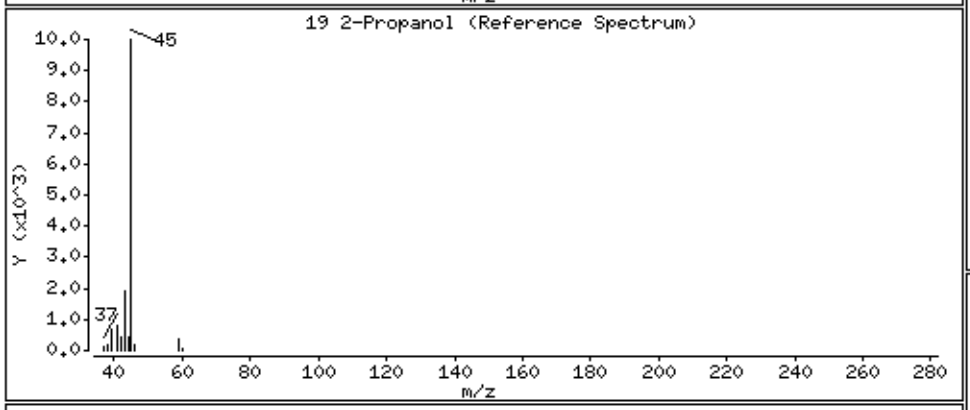
Column diameter: 0.53

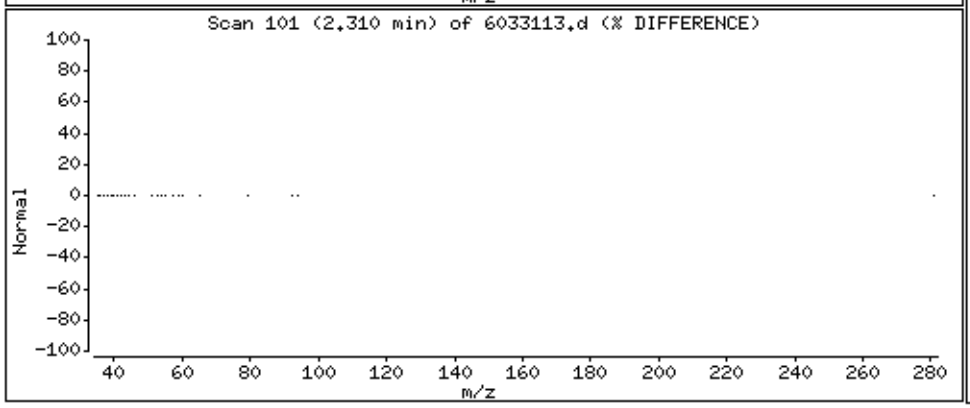
19 2-Propanol

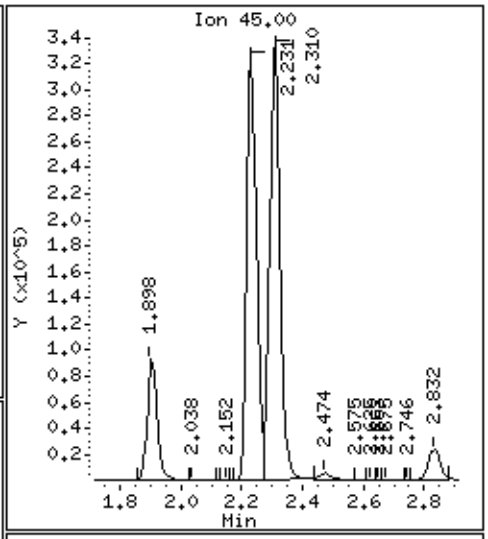
Concentration: 50.420 NG

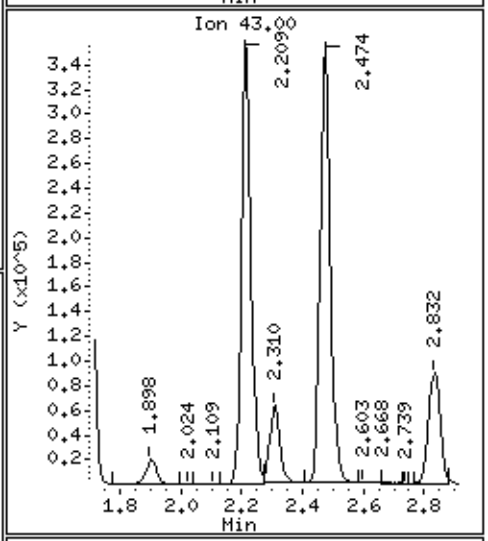


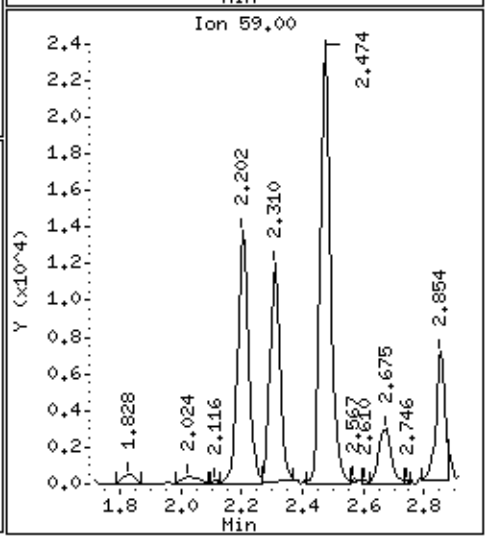












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

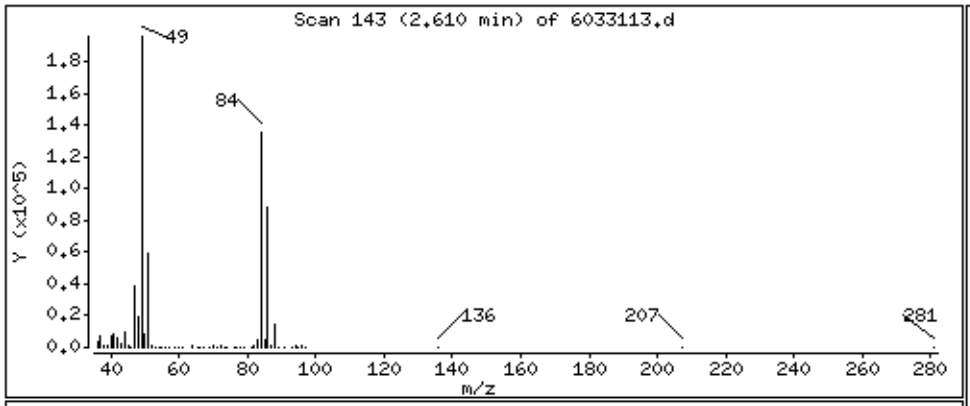
Operator: LA

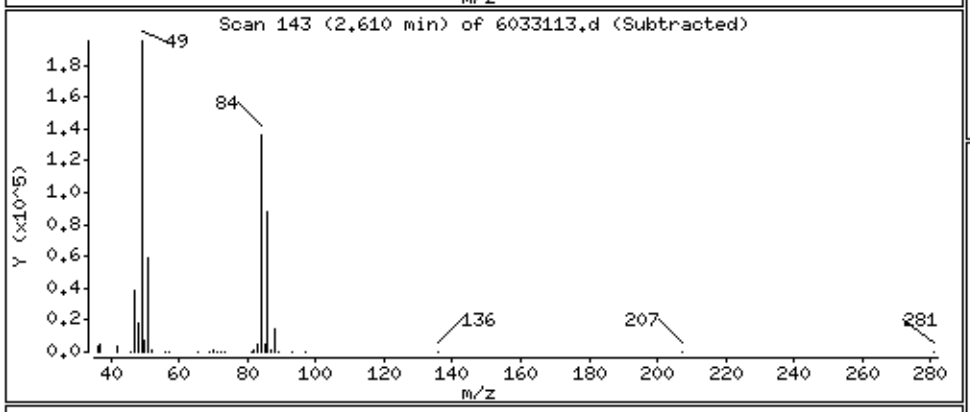
Column phase: RTx-624

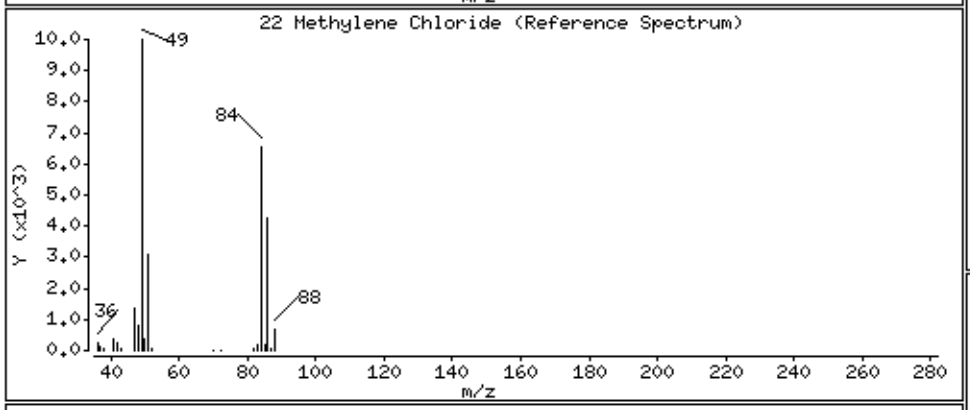
Column diameter: 0.53

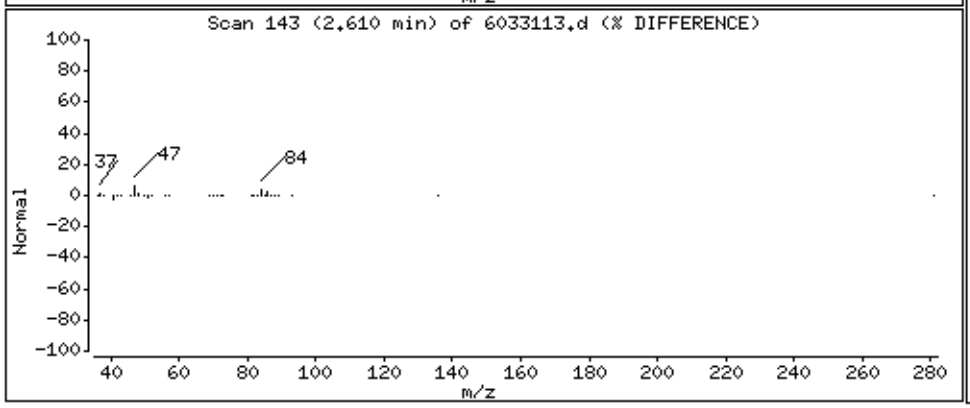
22 Methylene Chloride

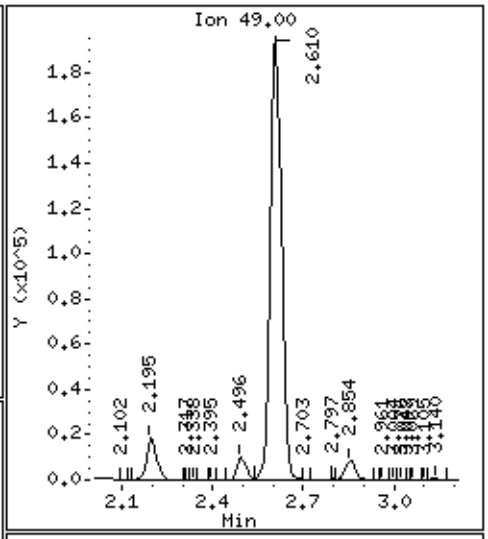
Concentration: 68.273 NG

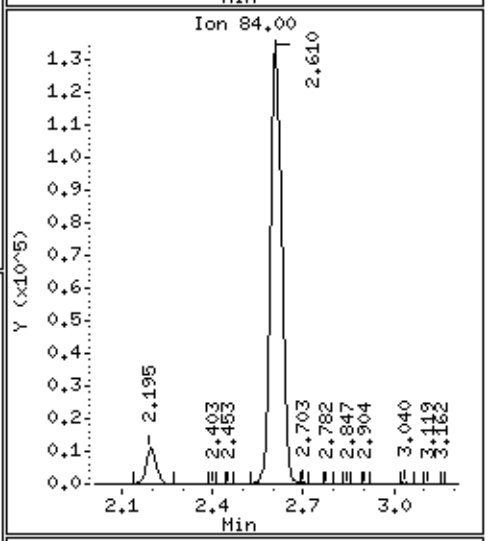


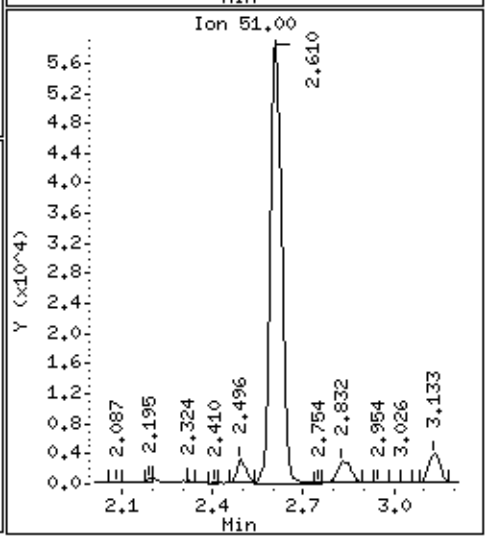












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

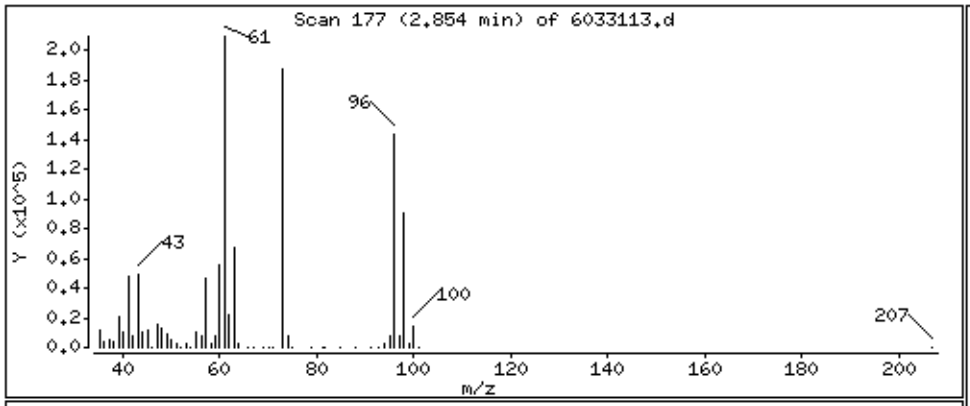
Operator: LA

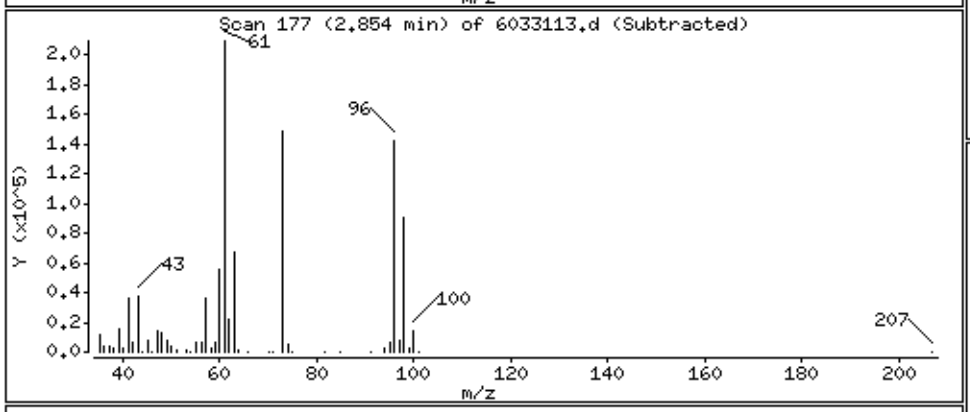
Column phase: RTx-624

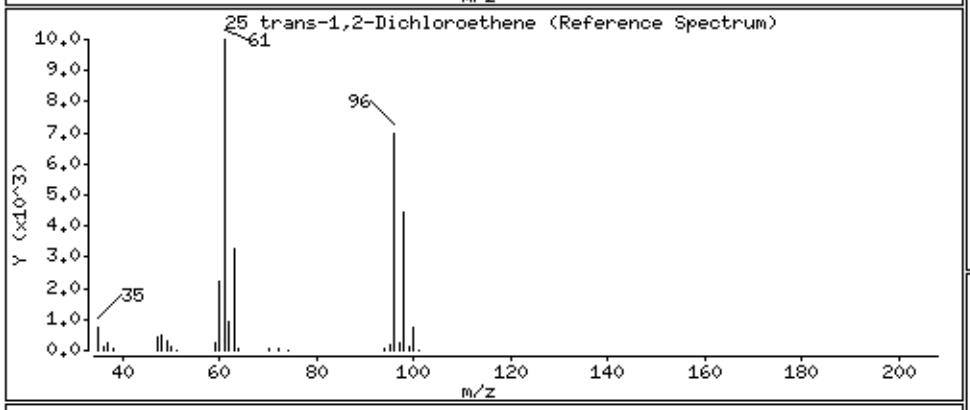
Column diameter: 0.53

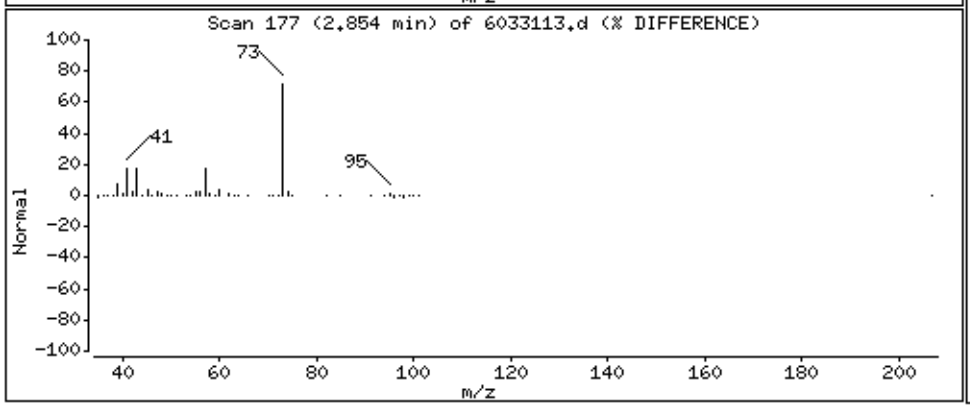
25 trans-1,2-Dichloroethene

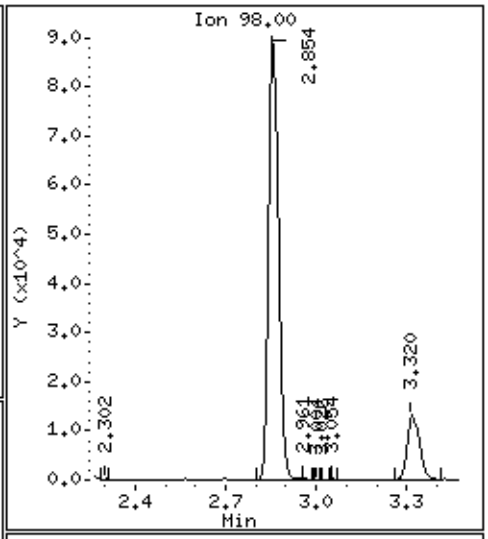
Concentration: 68.409 NG

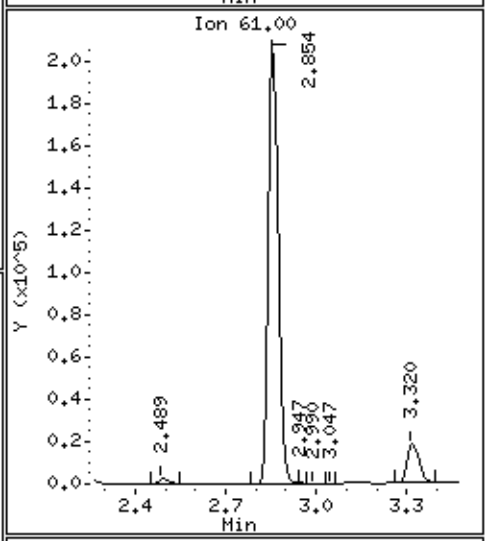


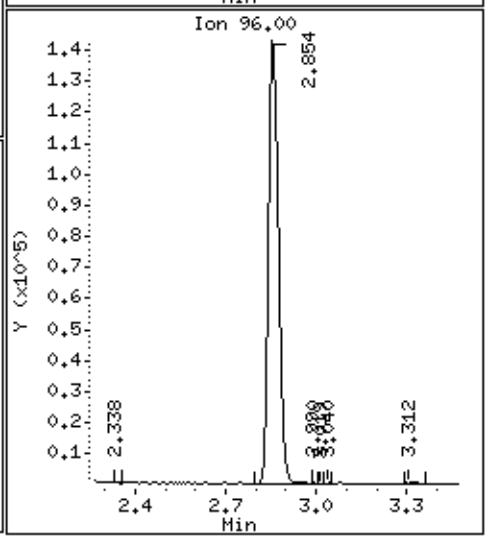












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

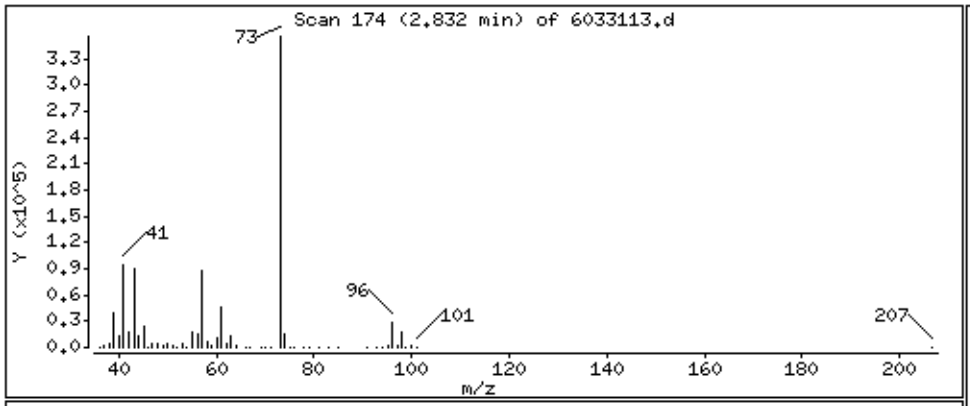
Operator: LA

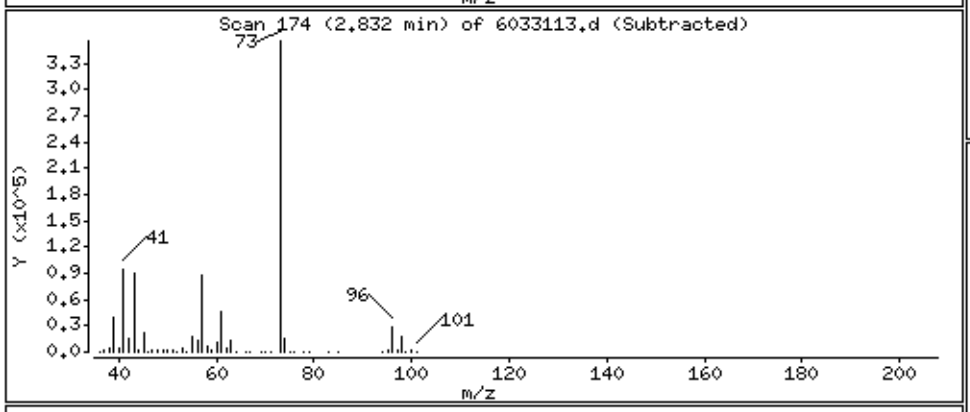
Column phase: RTx-624

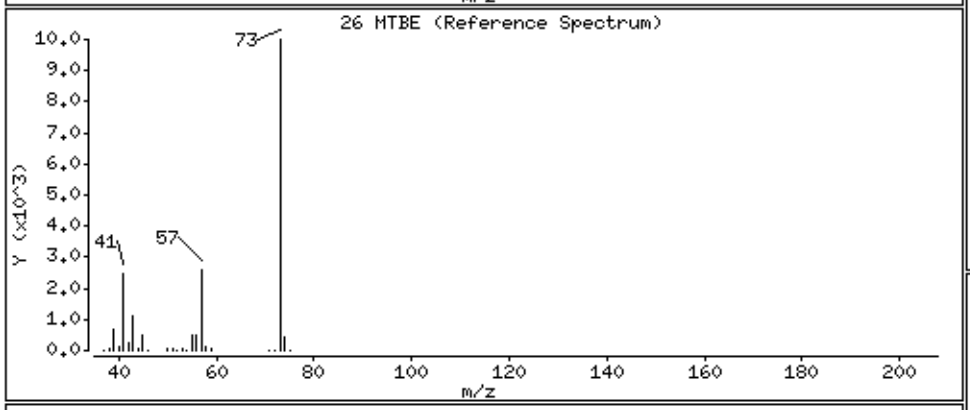
Column diameter: 0.53

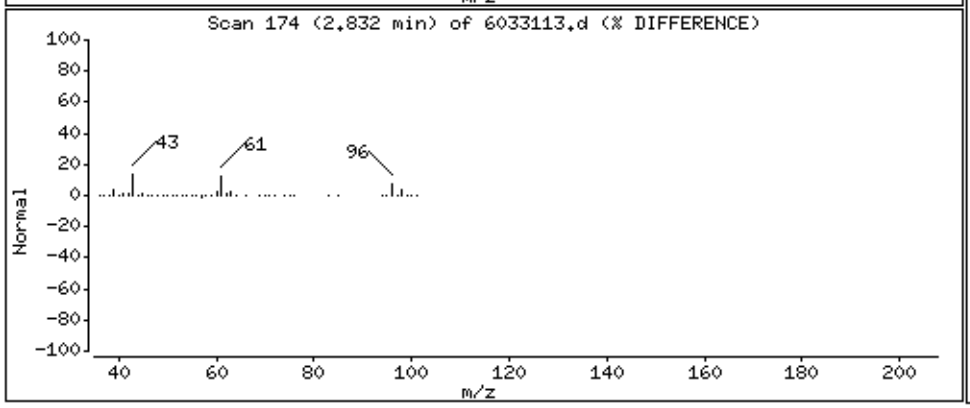
26 MTBE

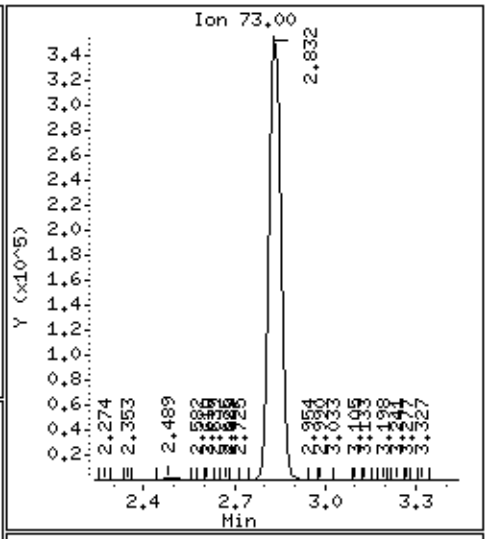
Concentration: 78.171 NG

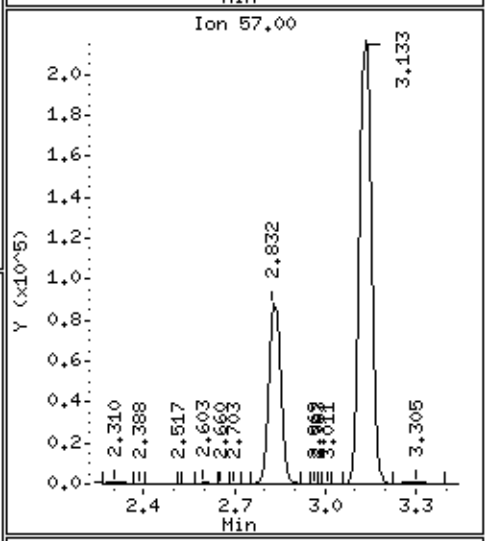


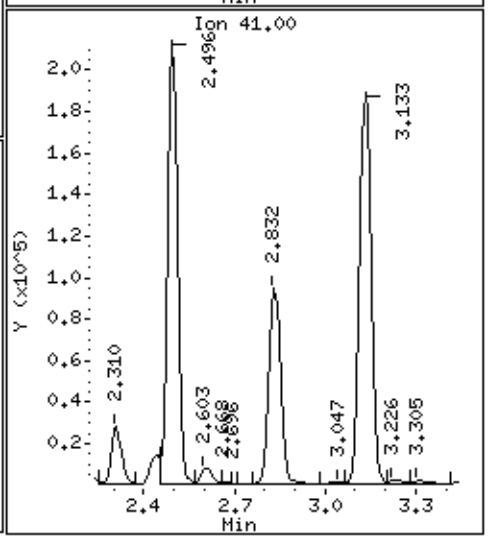












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

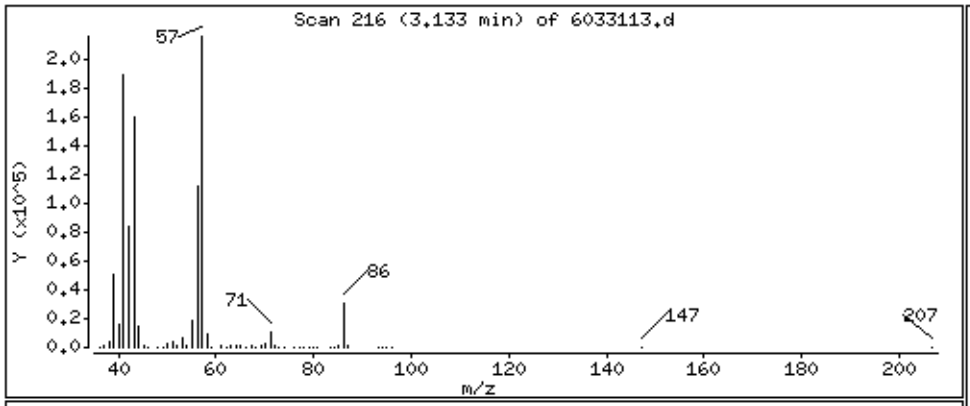
Operator: LA

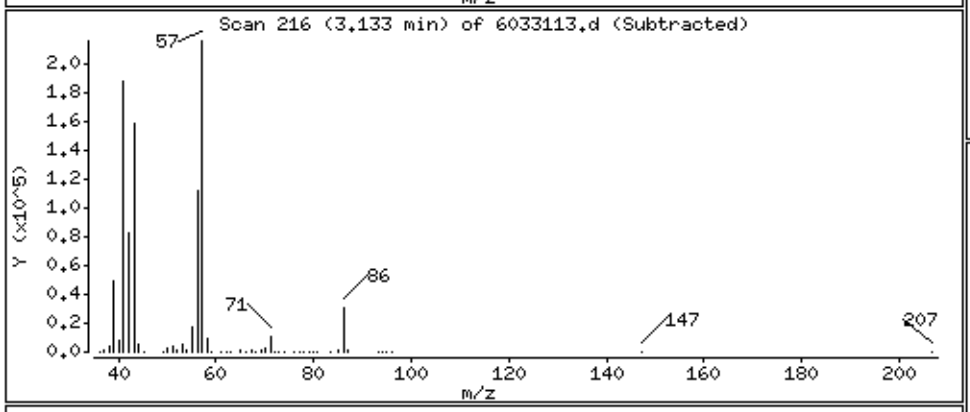
Column phase: RTx-624

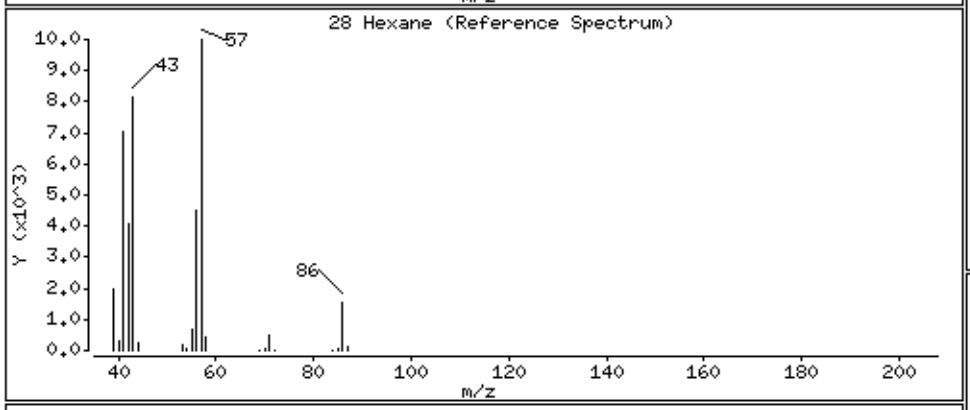
Column diameter: 0.53

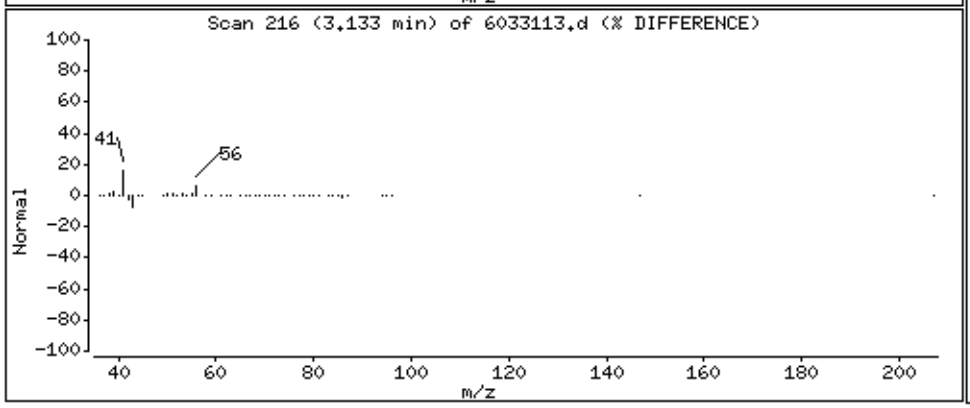
28 Hexane

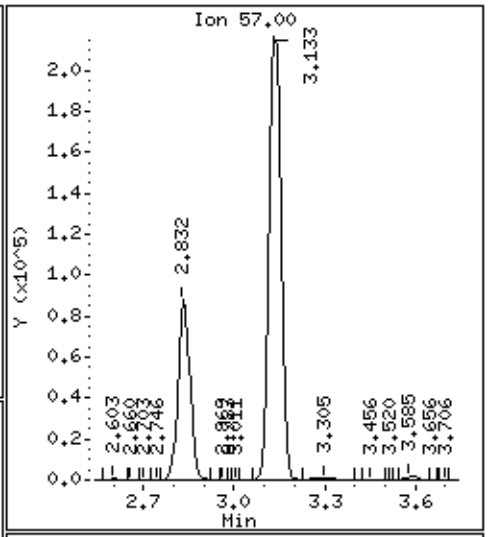
Concentration: 69.294 NG

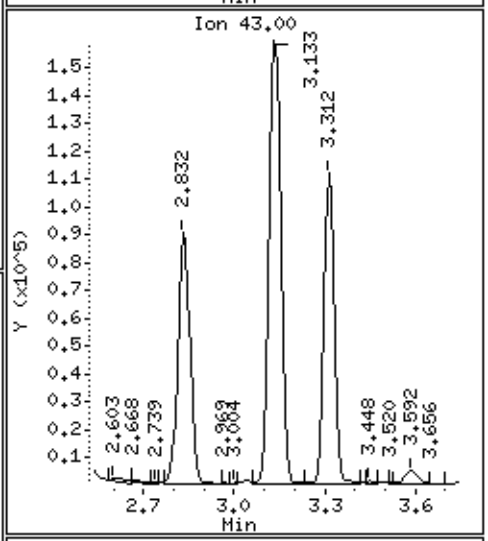


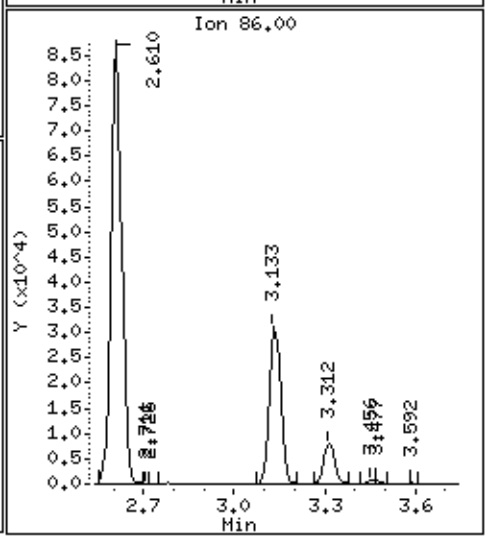












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

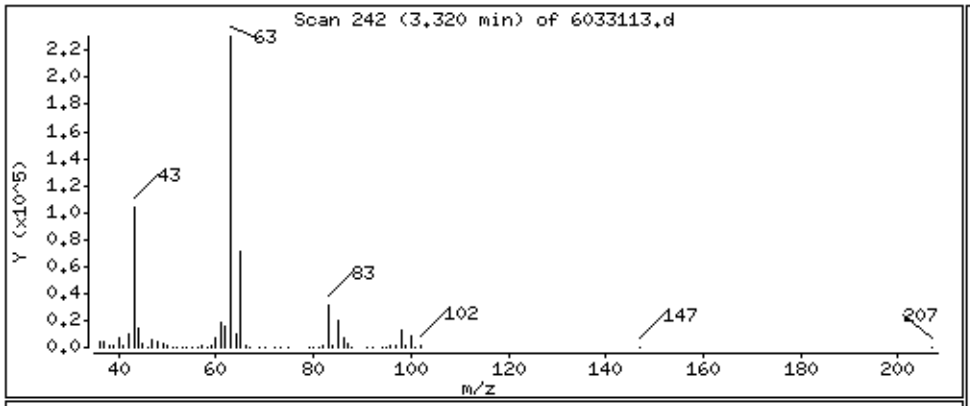
Operator: LA

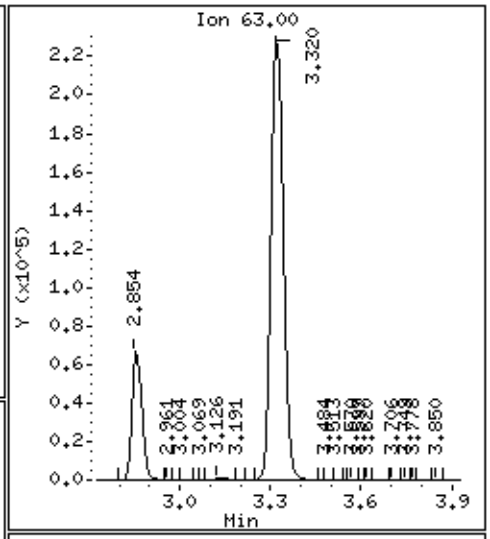
Column phase: RTx-624

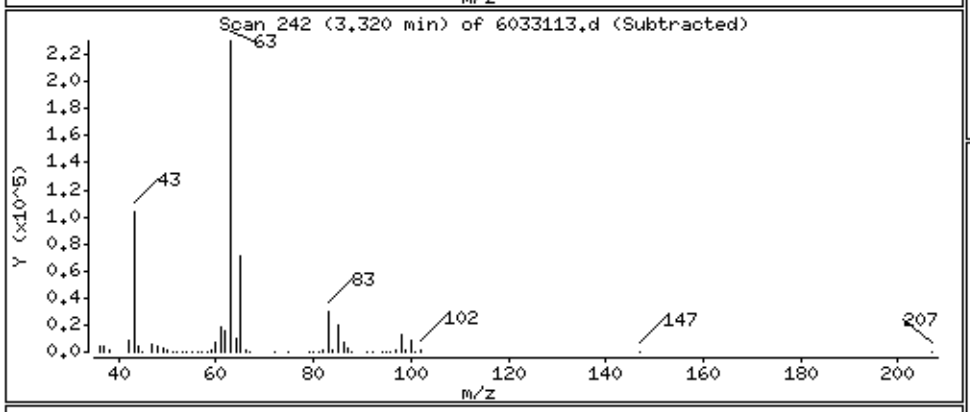
Column diameter: 0.53

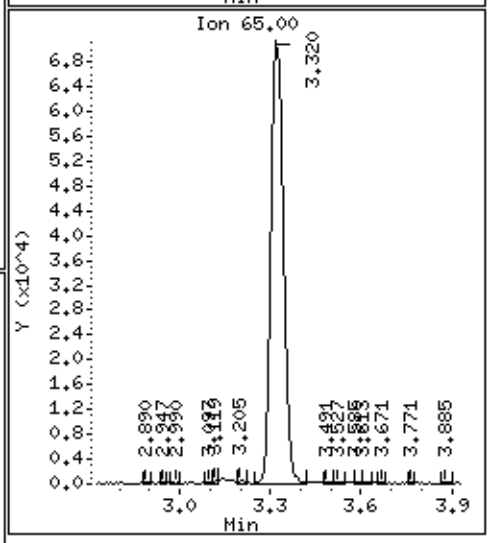
29 1,1-Dichloroethane

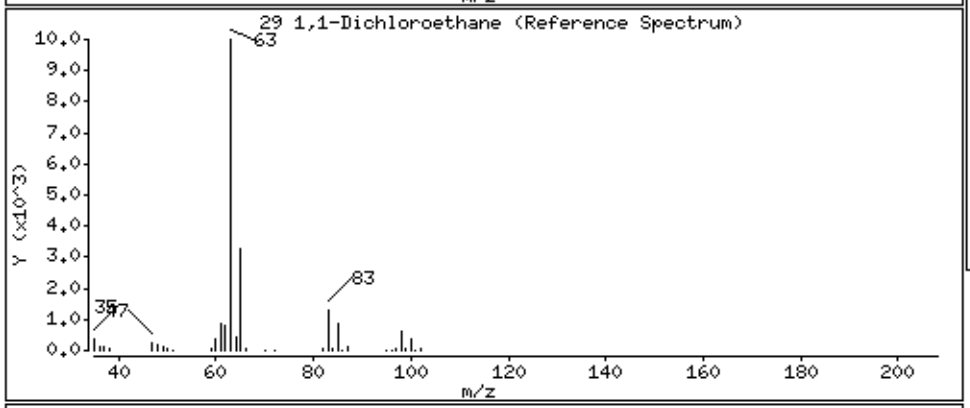
Concentration: 81.998 NG

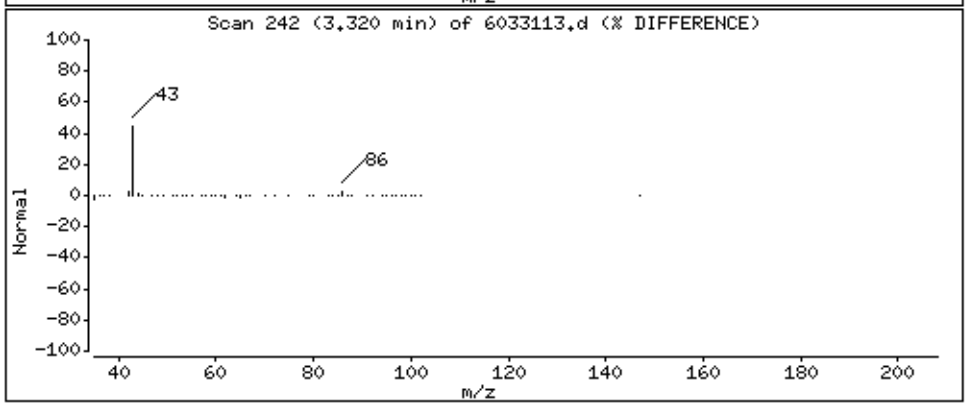












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

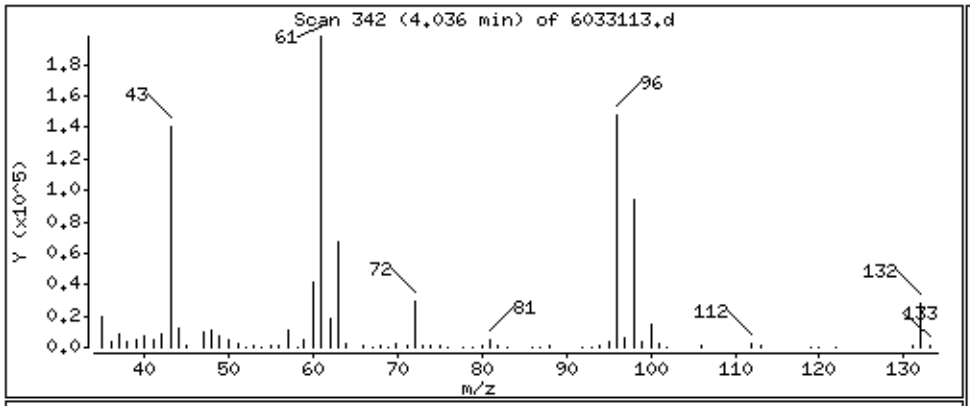
Operator: LA

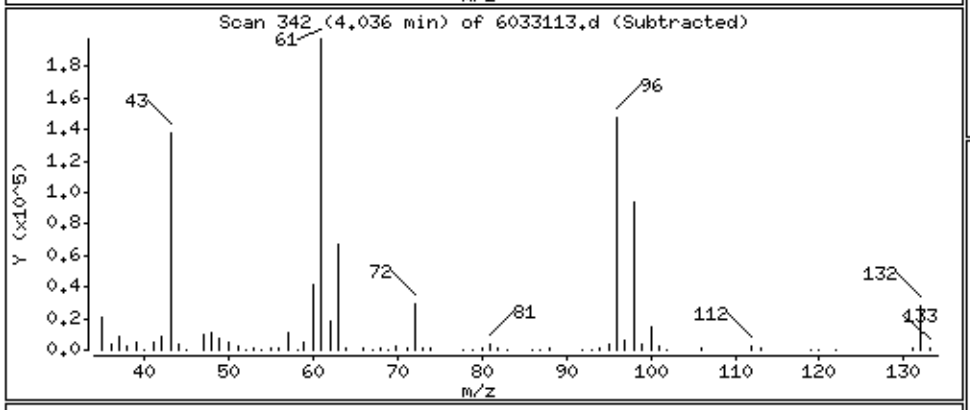
Column phase: RTx-624

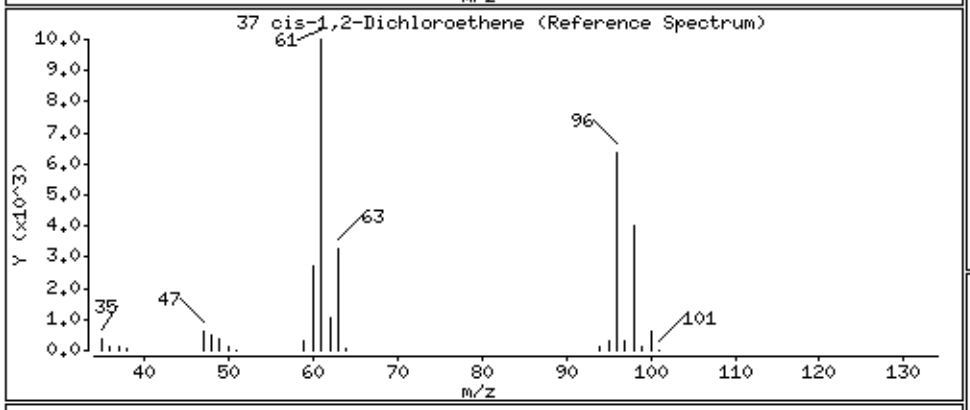
Column diameter: 0.53

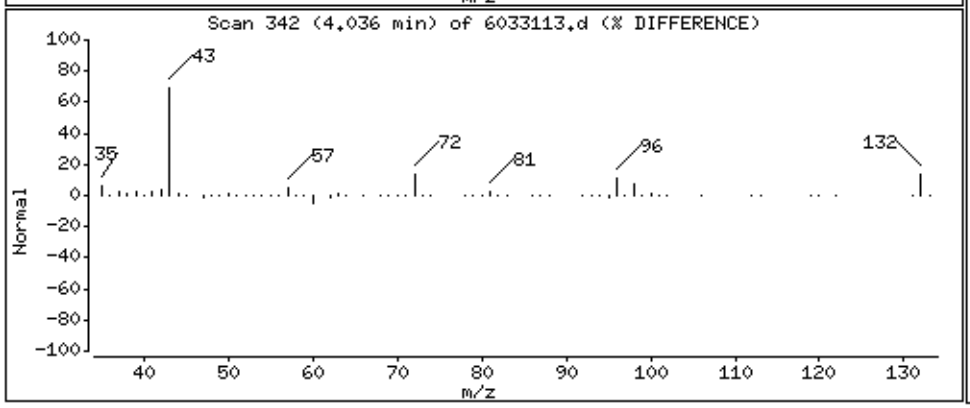
37 cis-1,2-Dichloroethene

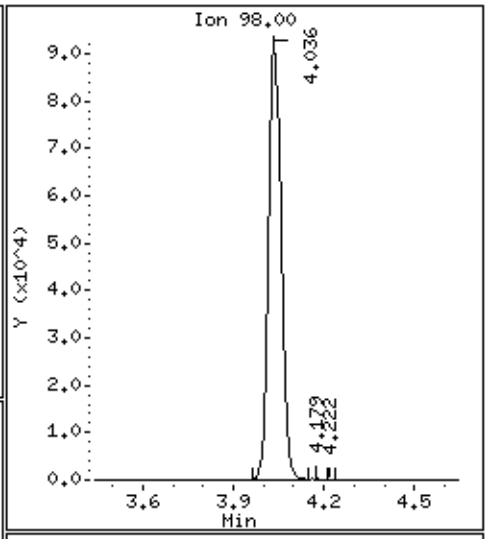
Concentration: 85.460 NG

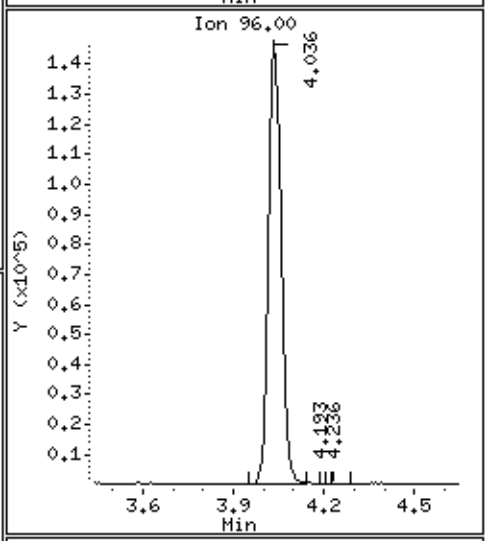


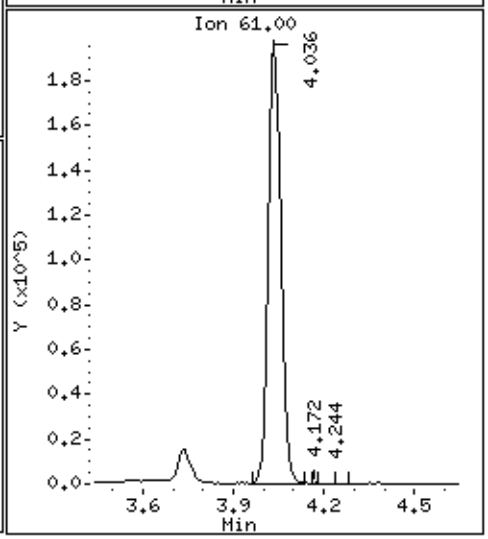












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

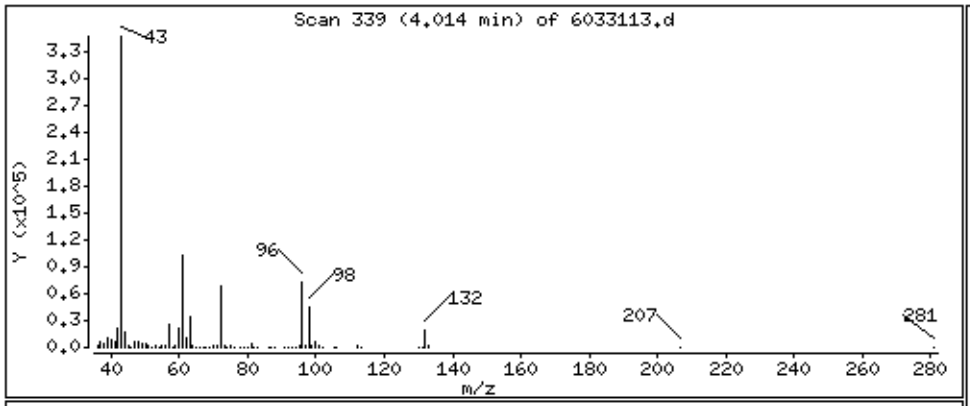
Operator: LA

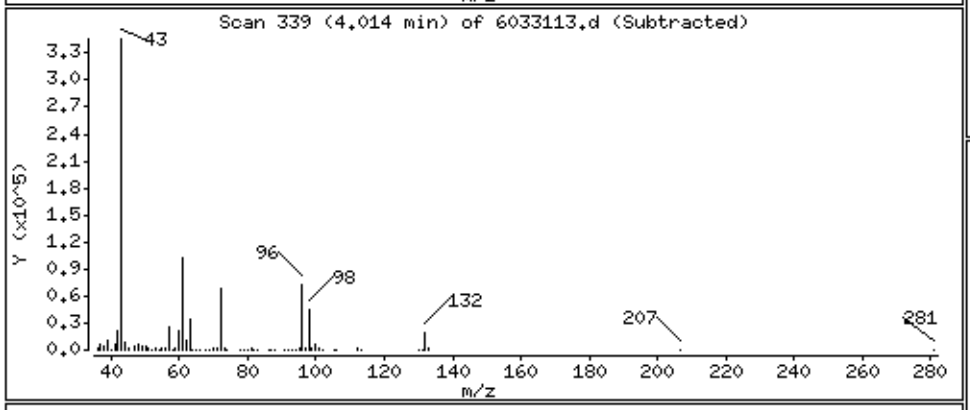
Column phase: RTx-624

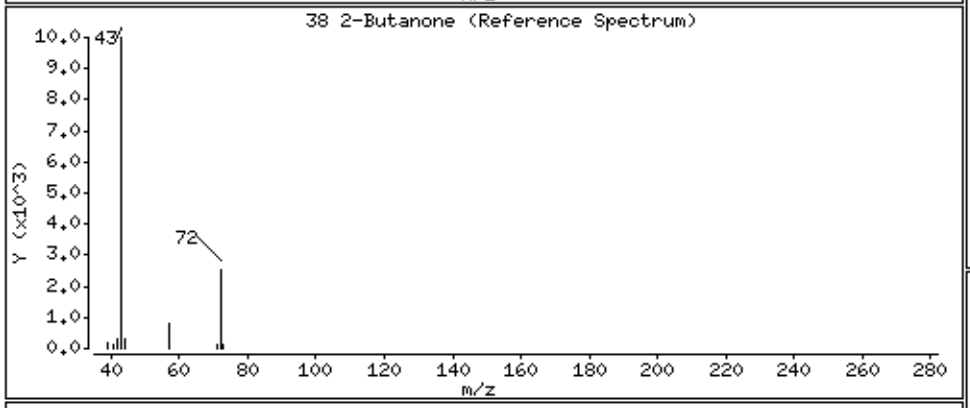
Column diameter: 0.53

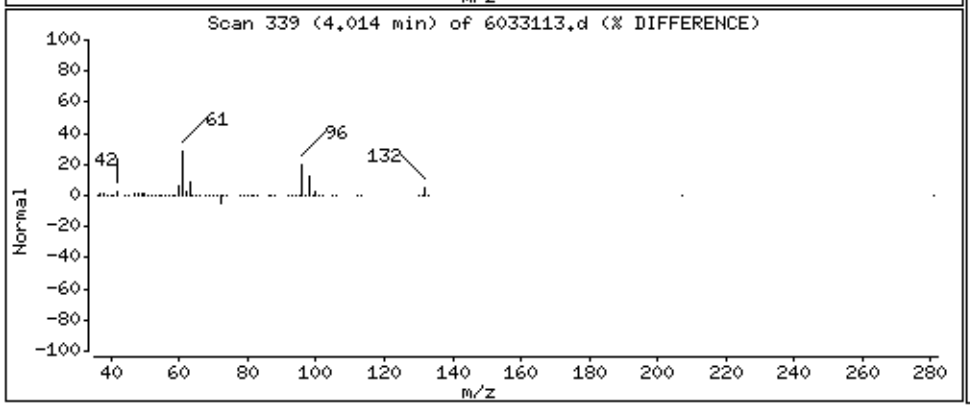
38 2-Butanone

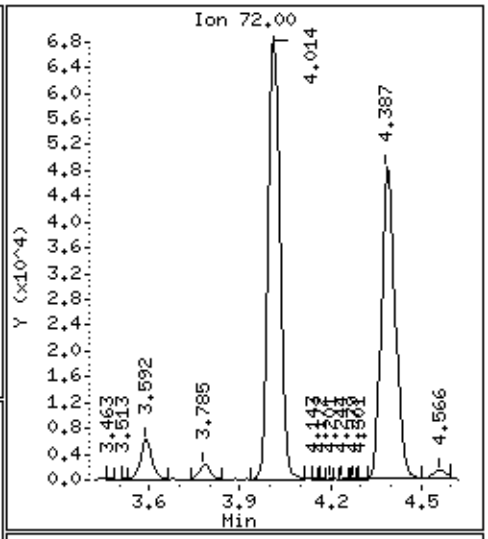
Concentration: 57.861 NG

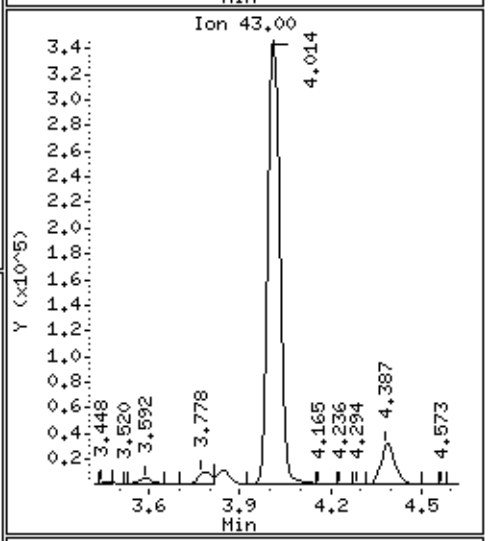


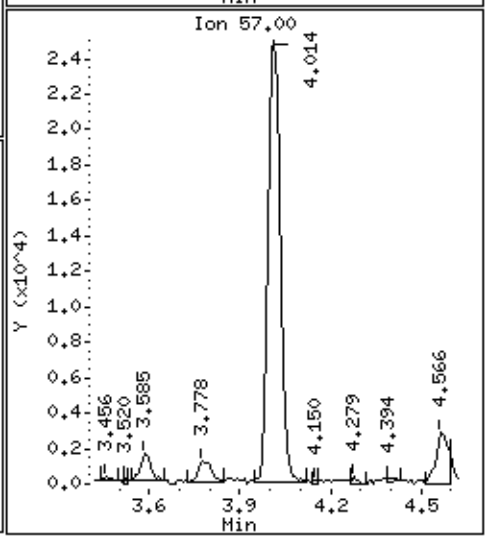












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

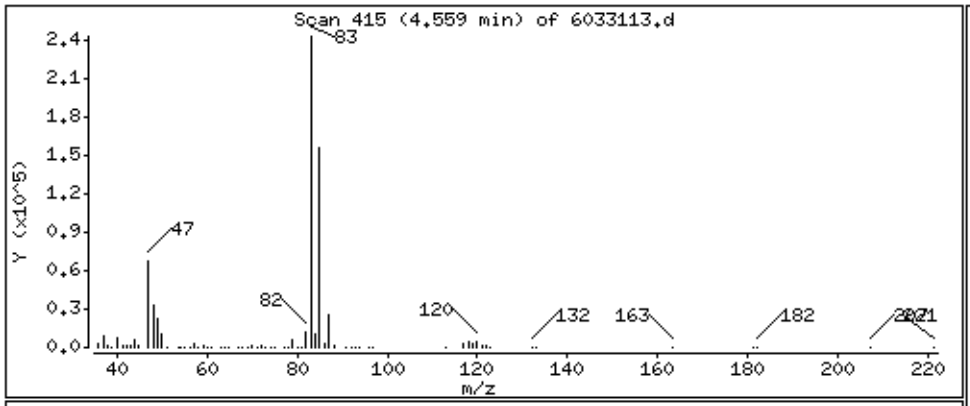
Operator: LA

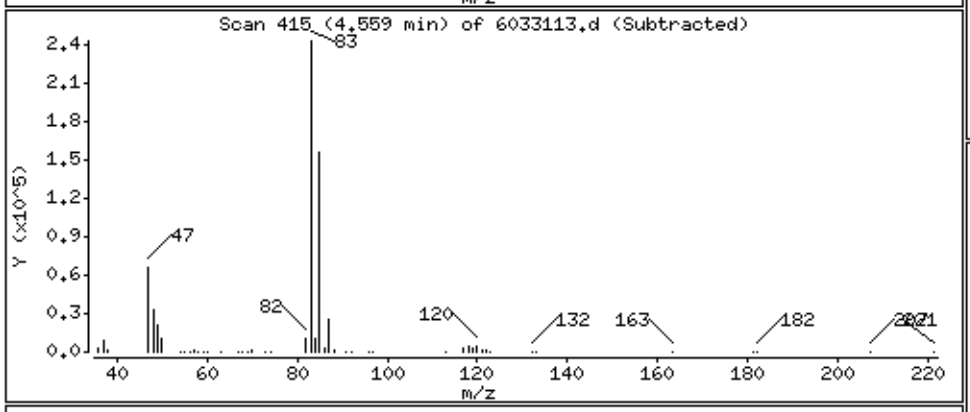
Column phase: RTx-624

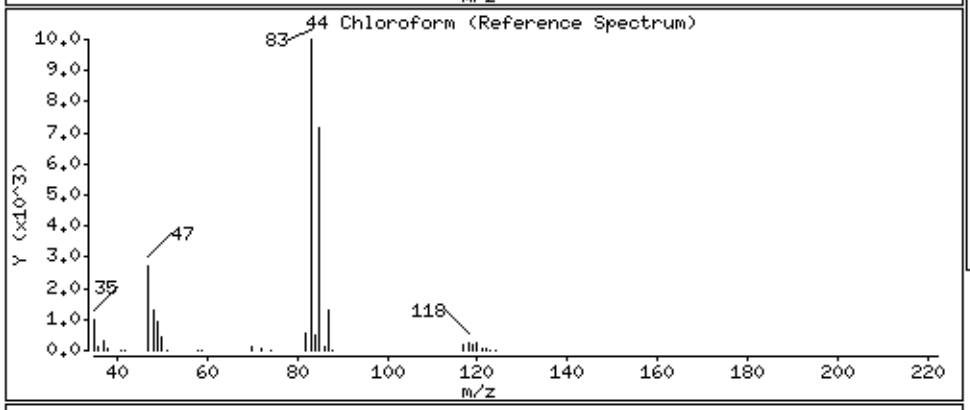
Column diameter: 0.53

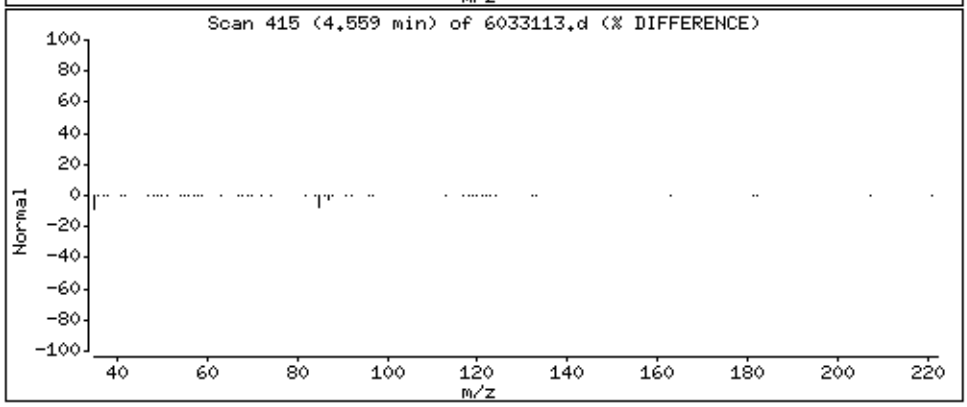
44 Chloroform

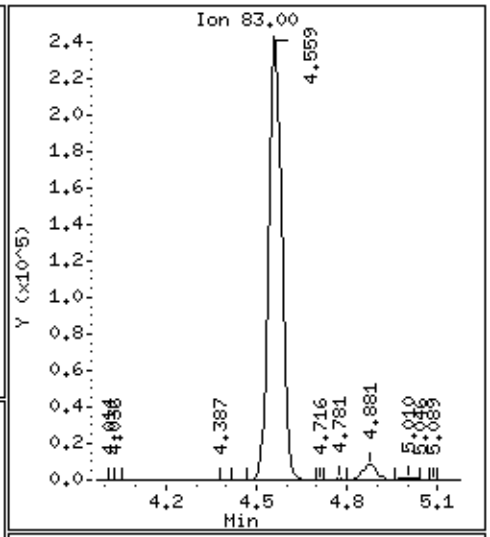
Concentration: 97.260 NG

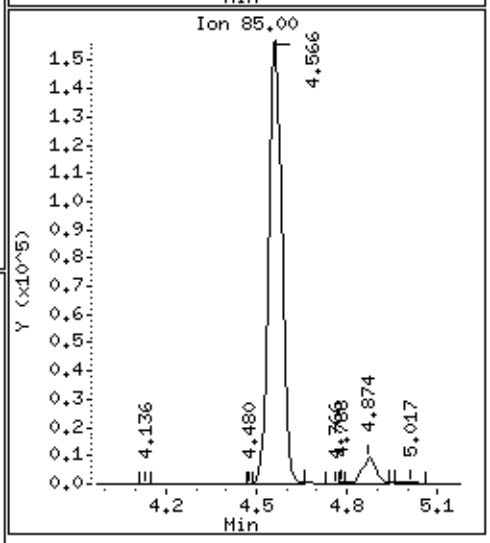












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

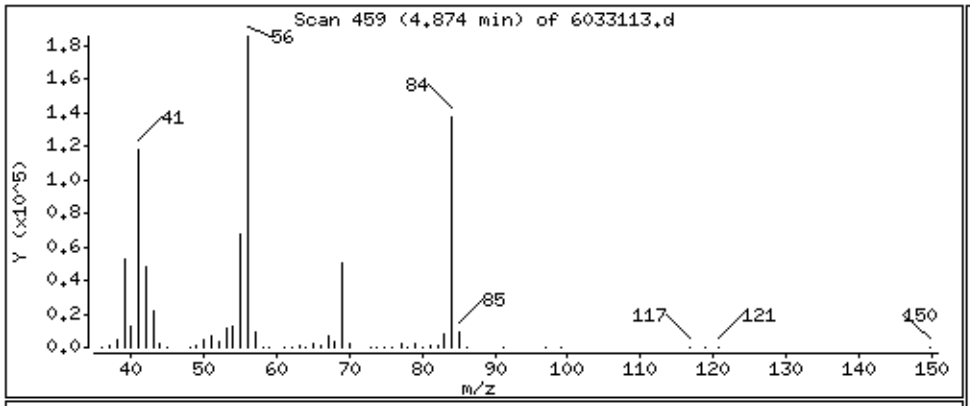
Operator: LA

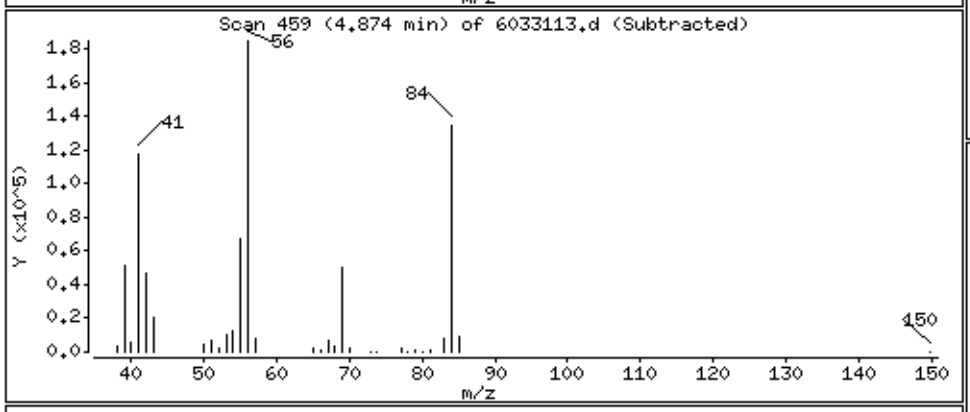
Column phase: RTx-624

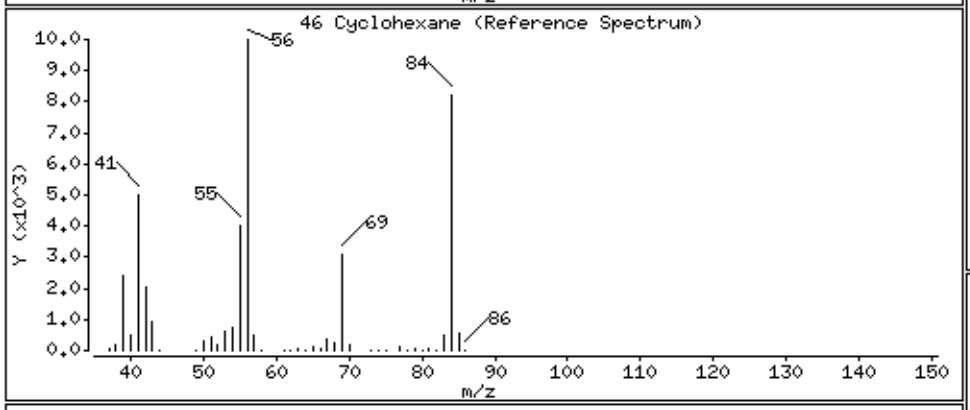
Column diameter: 0.53

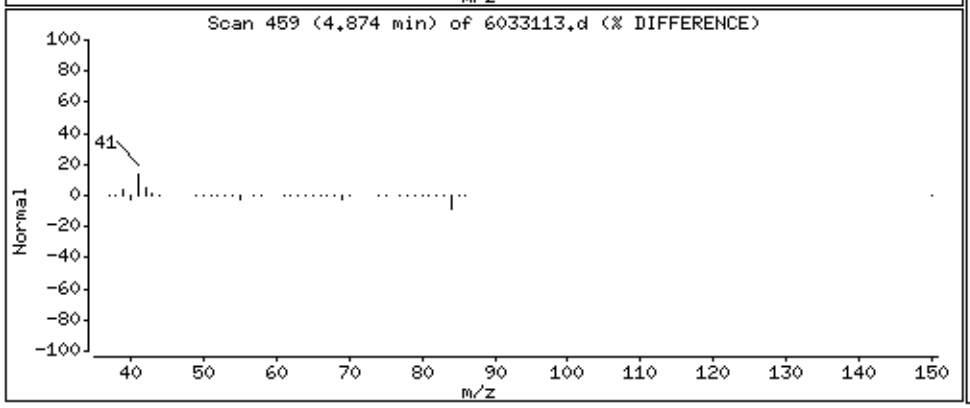
46 Cyclohexane

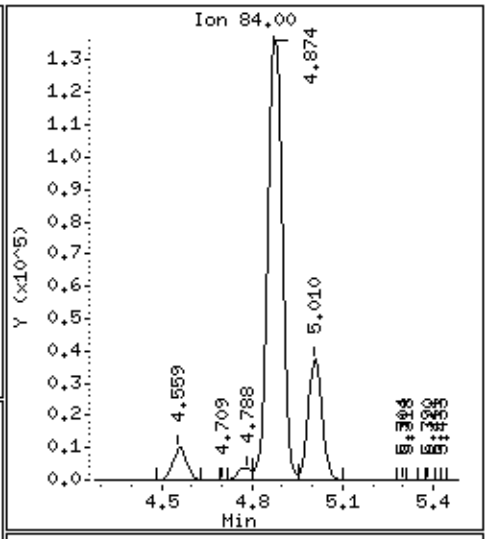
Concentration: 69.779 NG

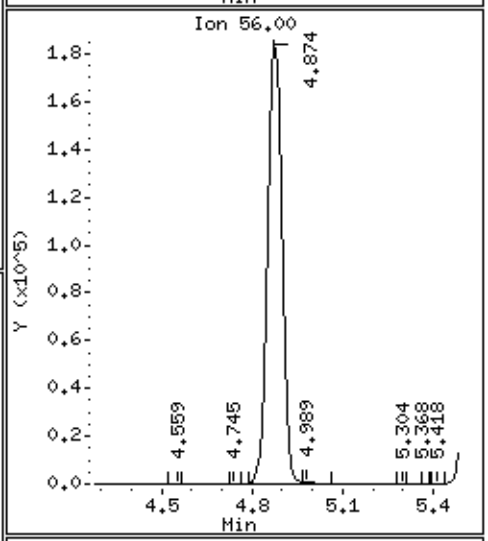


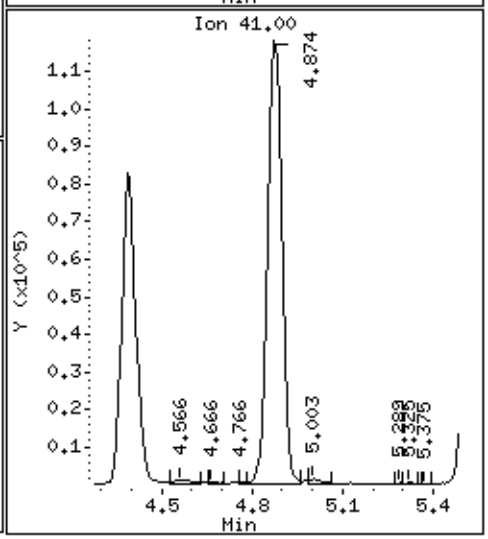












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

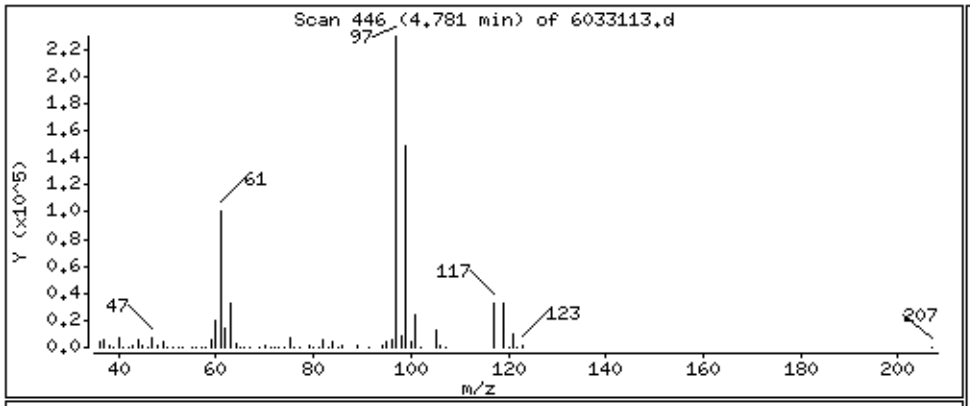
Operator: LA

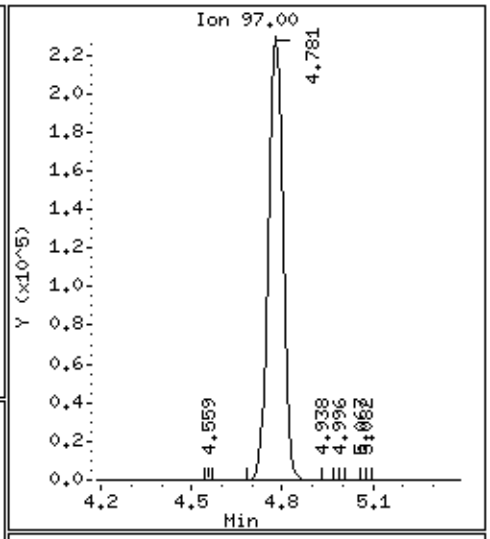
Column phase: RTx-624

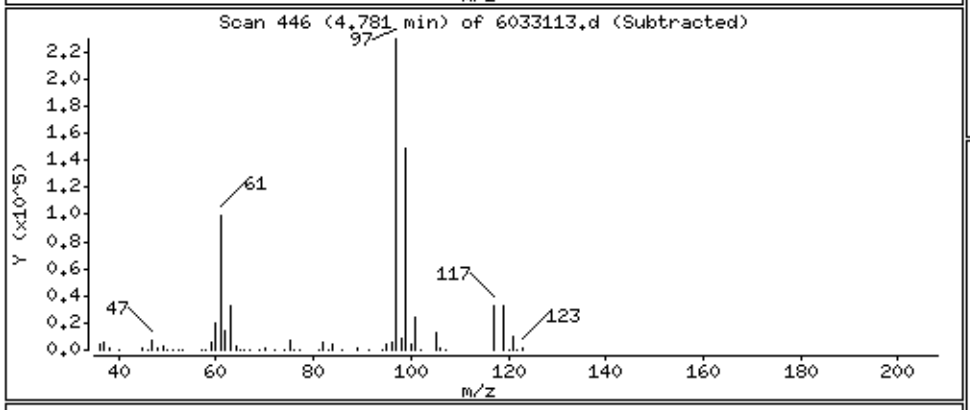
Column diameter: 0.53

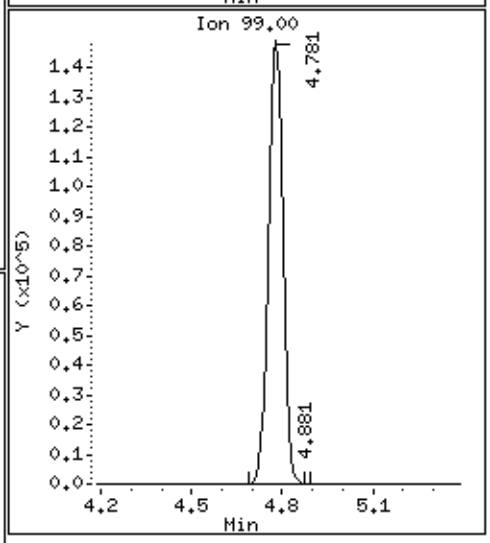
45 1,1,1-Trichloroethane

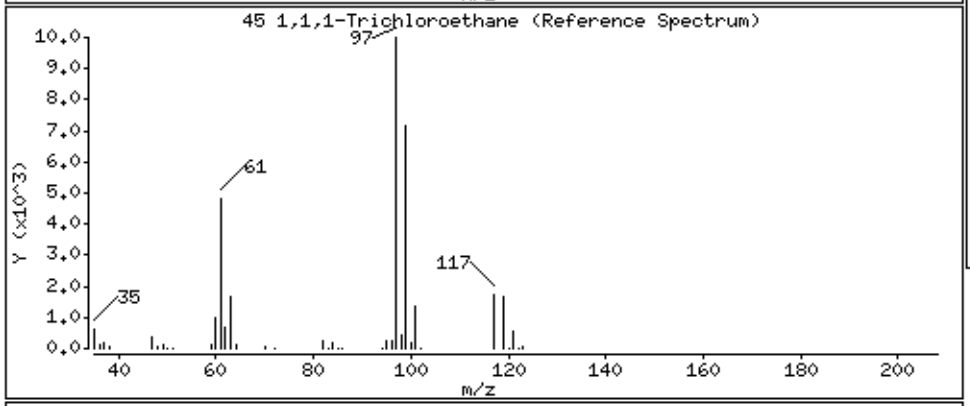
Concentration: 117.88 NG

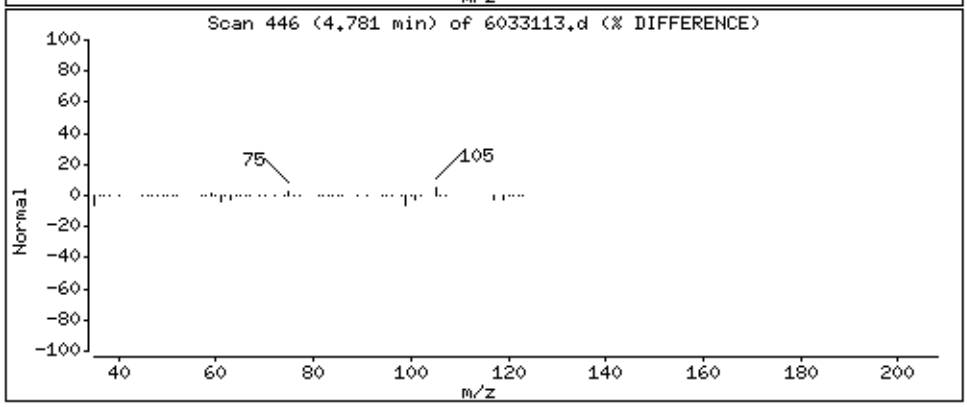












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

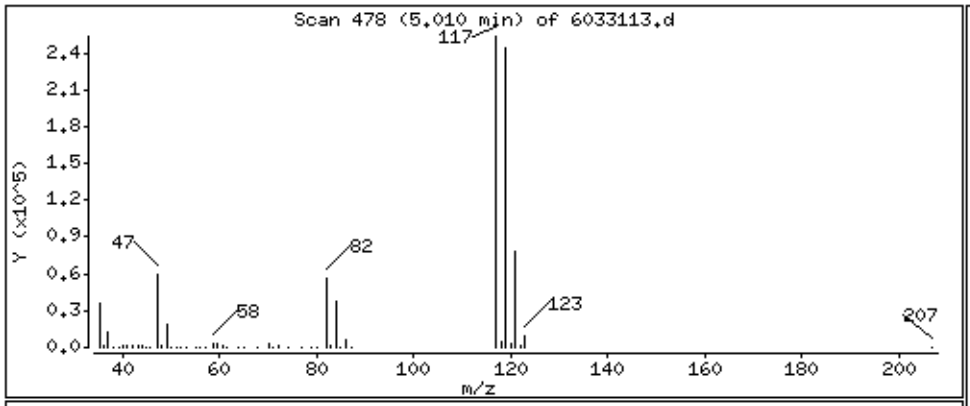
Operator: LA

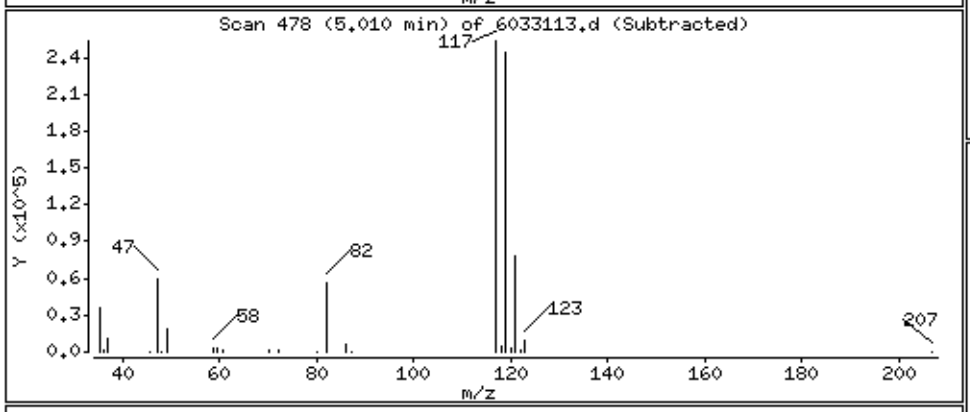
Column phase: RTx-624

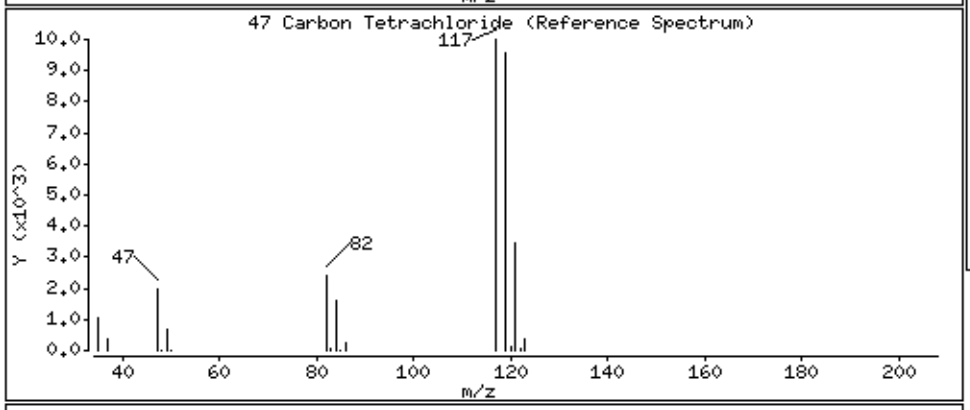
Column diameter: 0.53

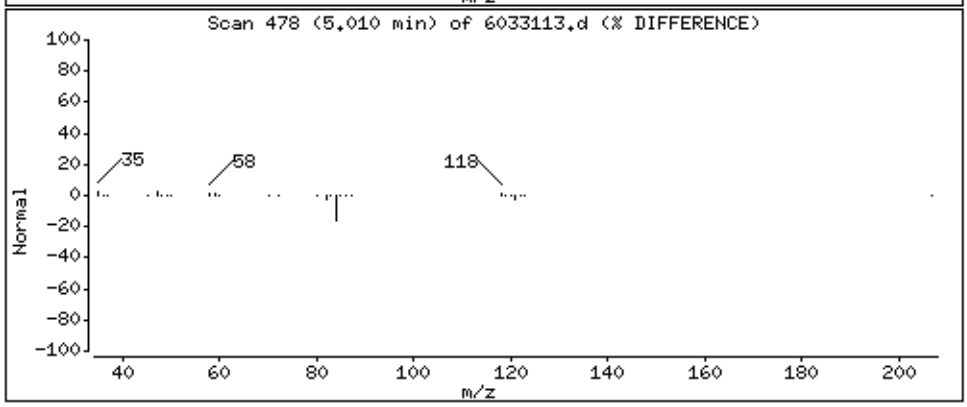
47 Carbon Tetrachloride

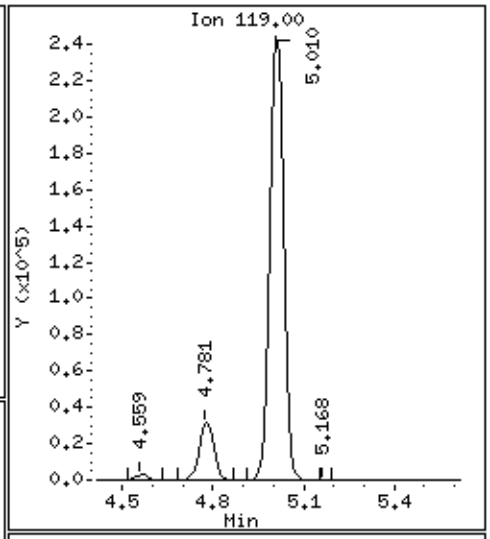
Concentration: 137.69 NG

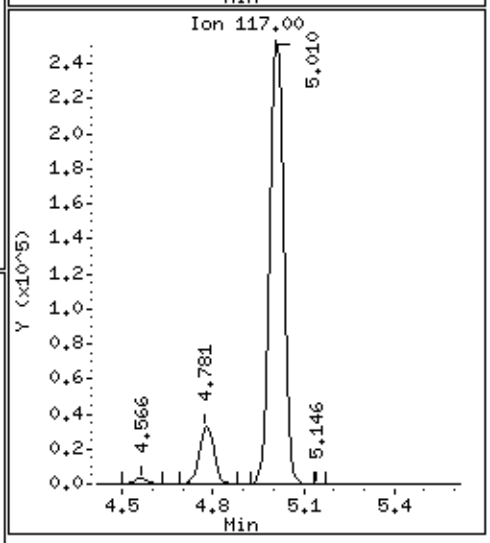












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

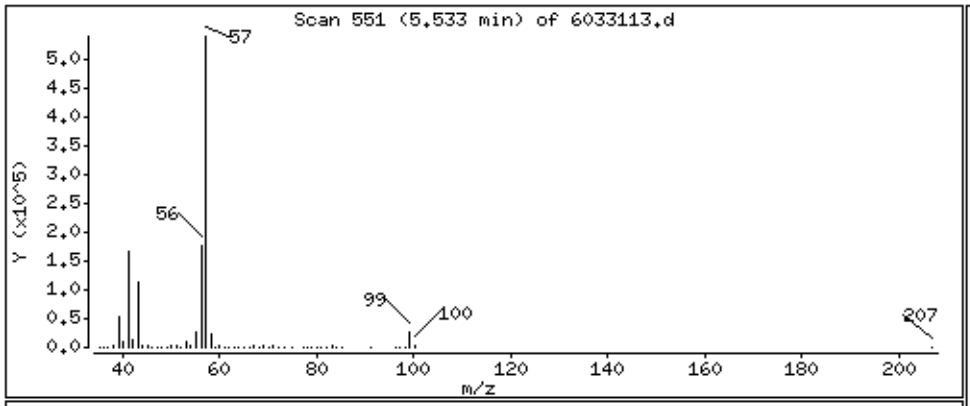
Operator: LA

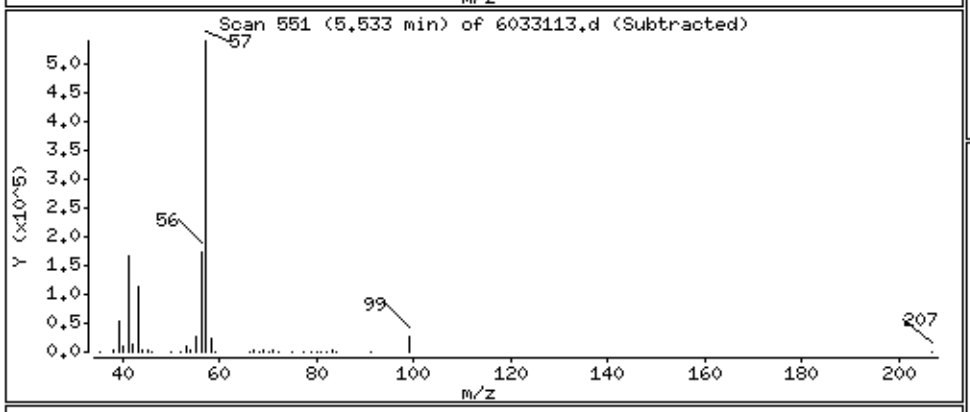
Column phase: RTx-624

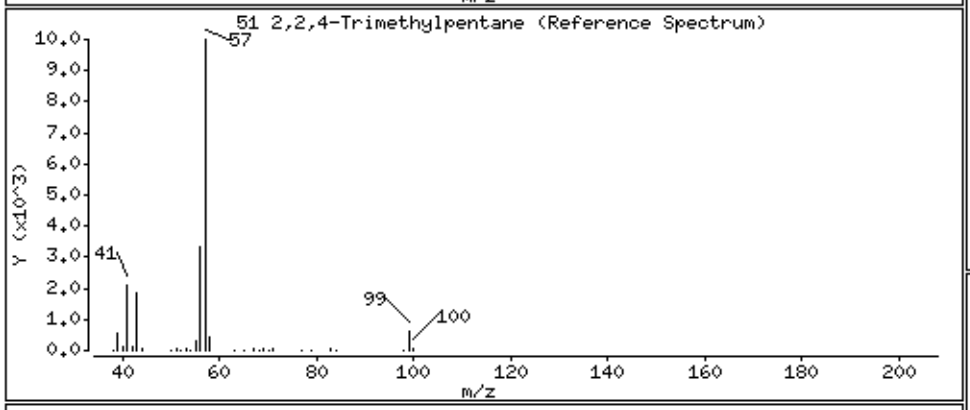
Column diameter: 0.53

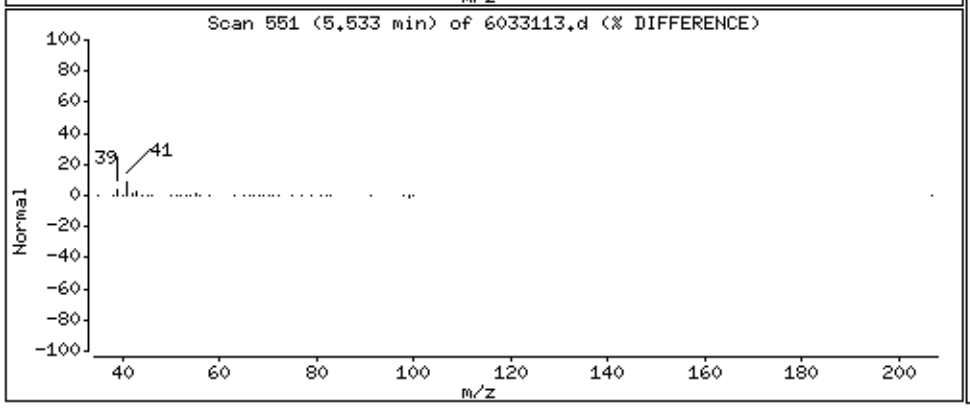
51 2,2,4-Trimethylpentane

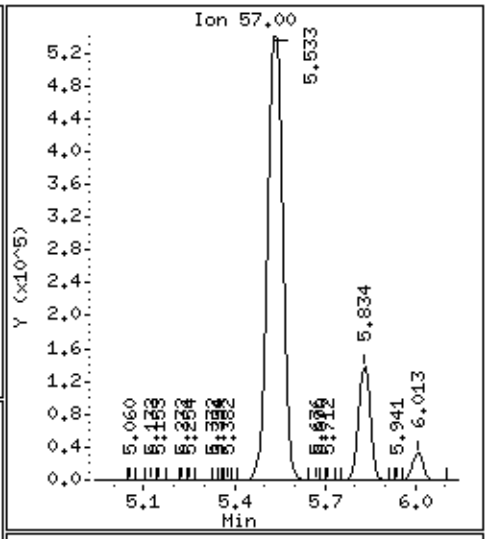
Concentration: 94.642 NG

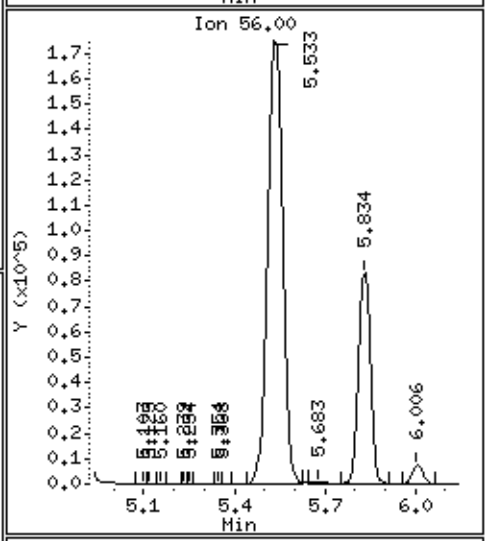


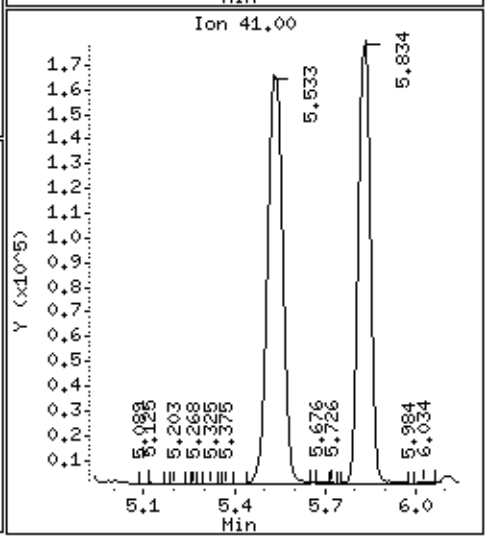












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

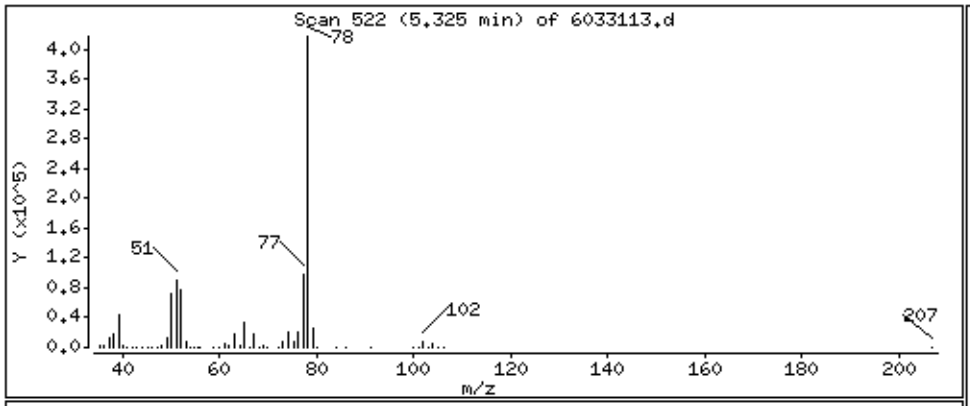
Operator: LA

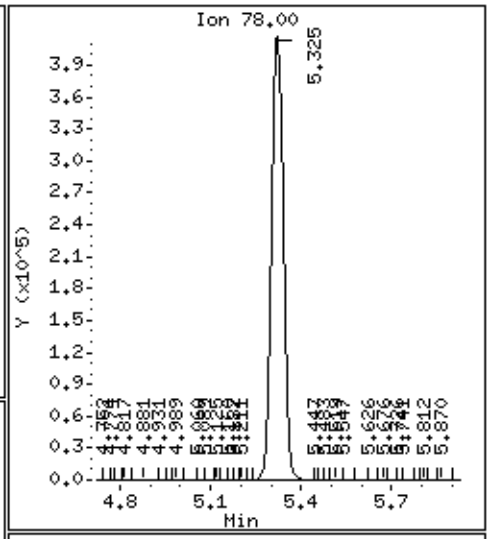
Column phase: RTx-624

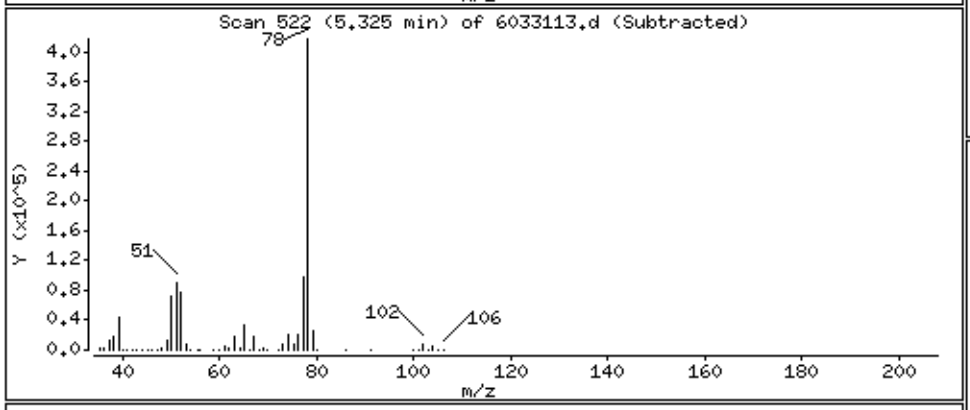
Column diameter: 0.53

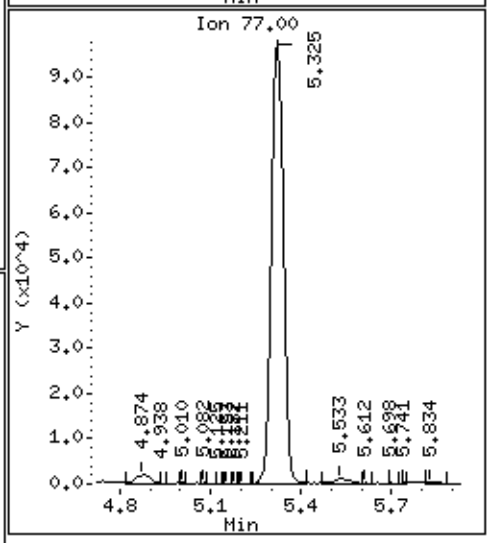
48 Benzene

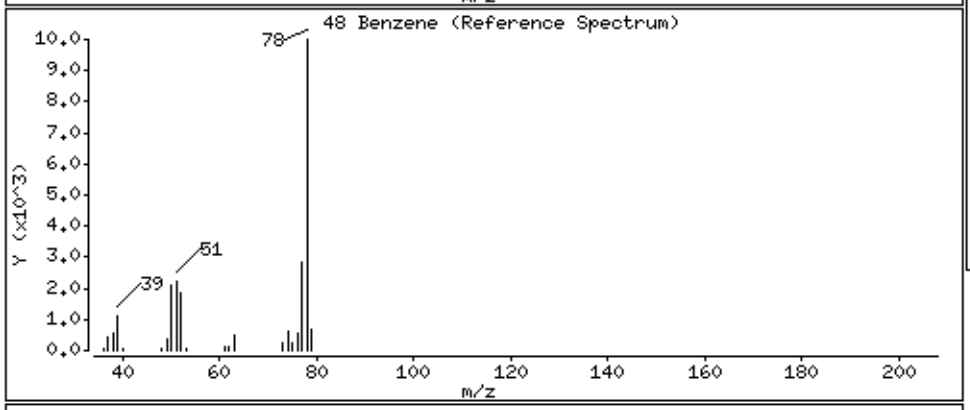
Concentration: 58.681 NG

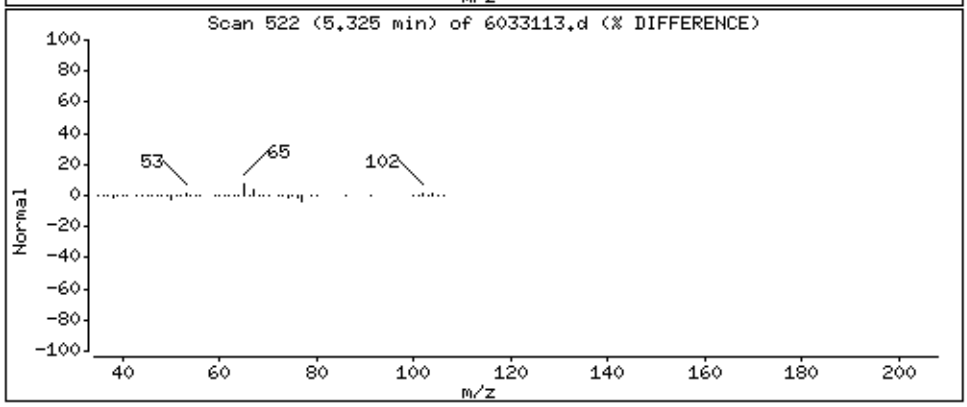












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

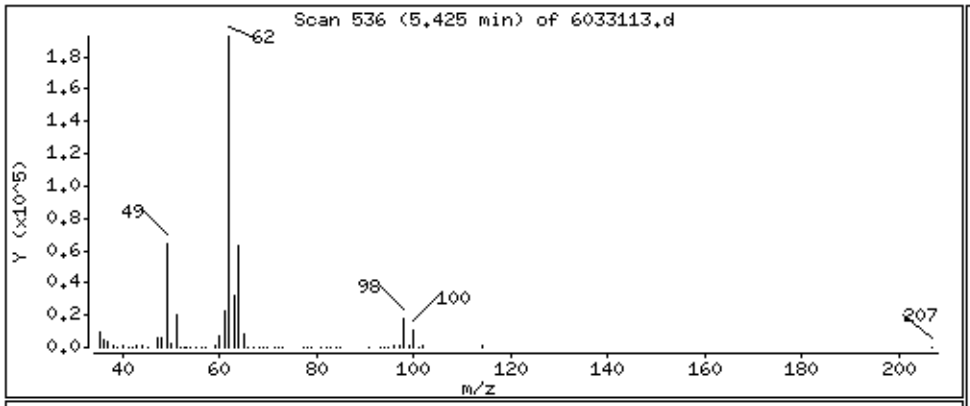
Operator: LA

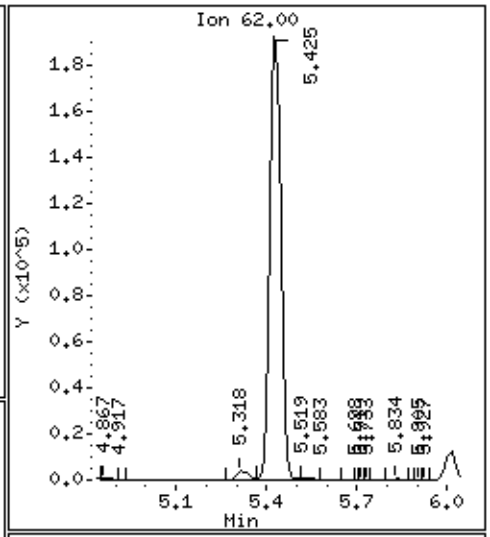
Column phase: RTx-624

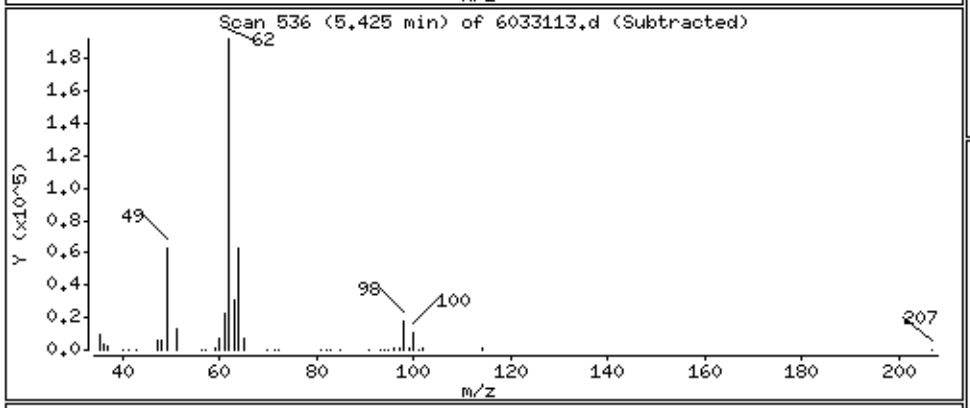
Column diameter: 0.53

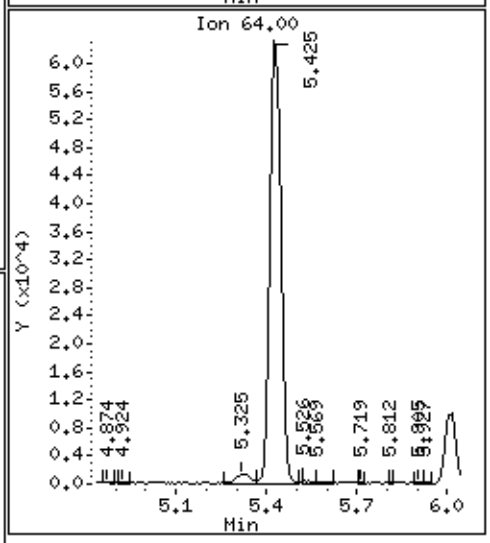
50 1,2-Dichloroethane

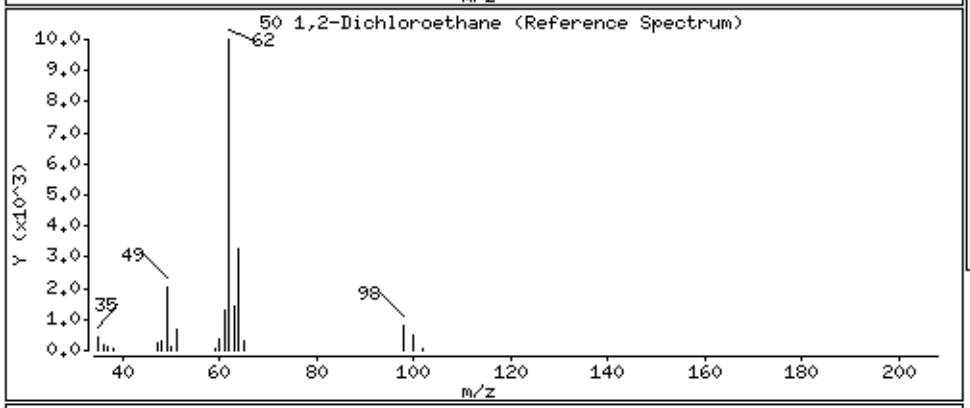
Concentration: 82.940 NG

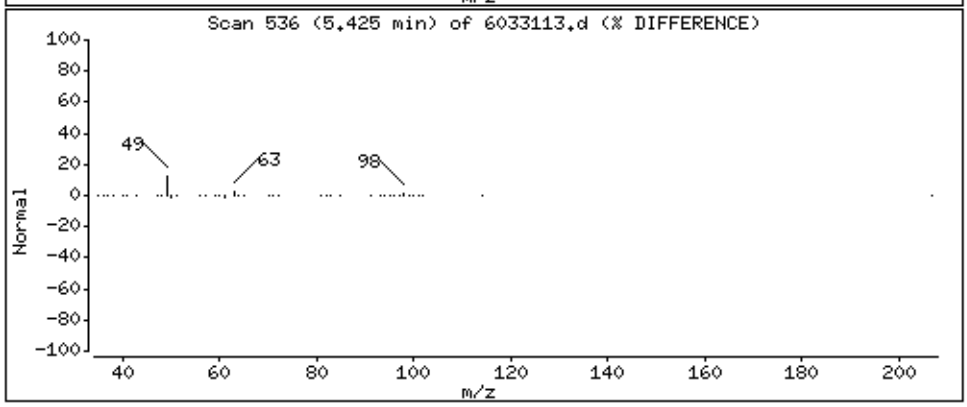












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

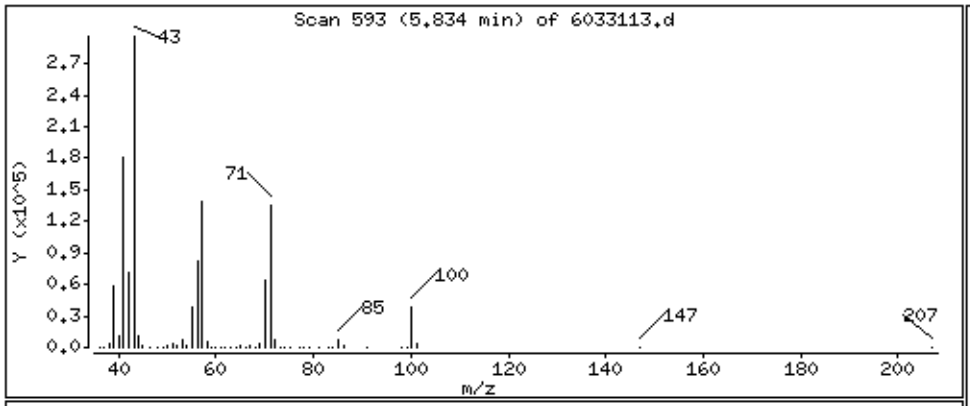
Operator: LA

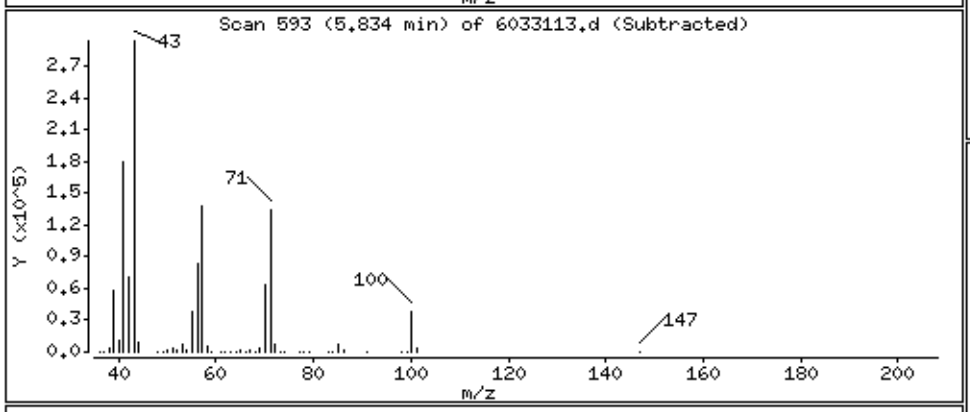
Column phase: RTx-624

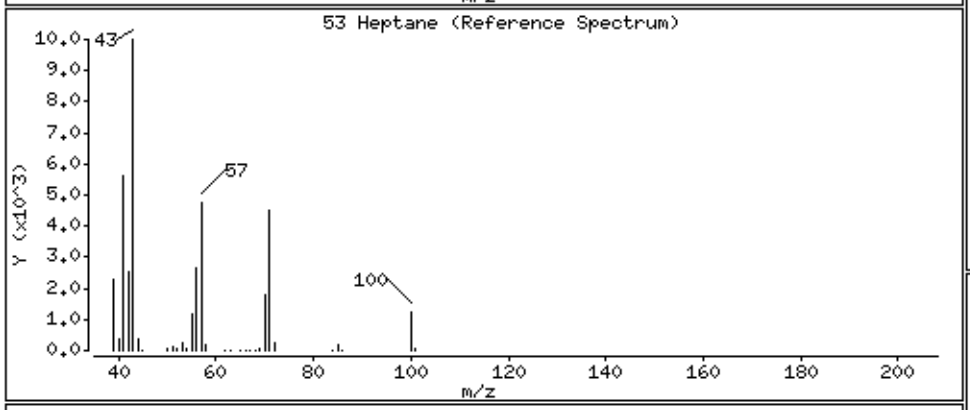
Column diameter: 0.53

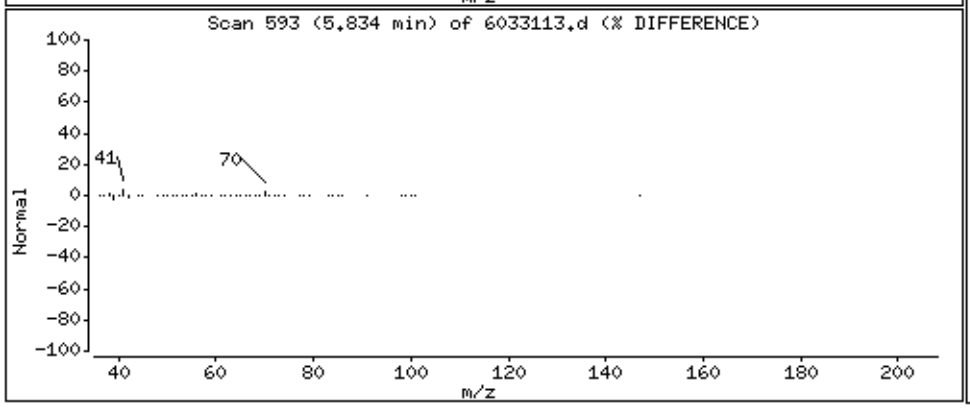
53 Heptane

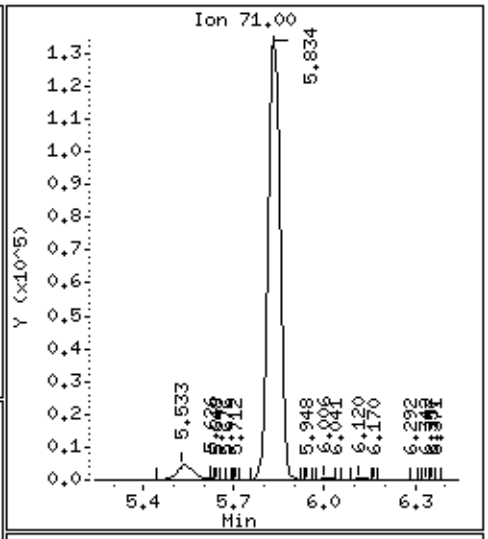
Concentration: 81.008 NG

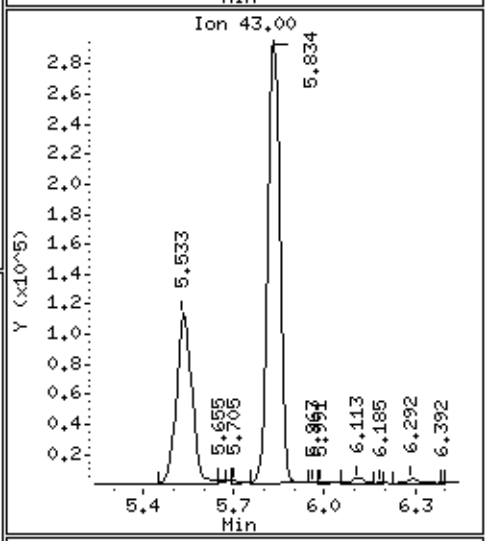


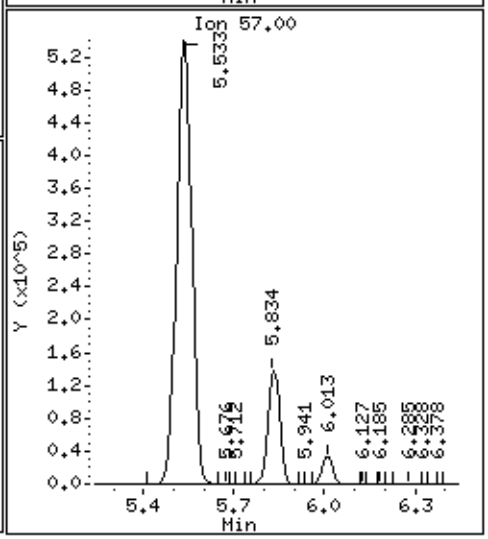












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

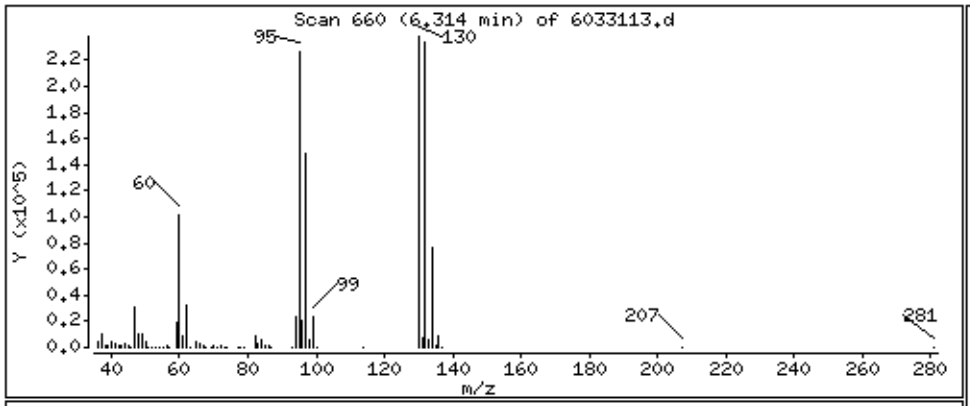
Operator: LA

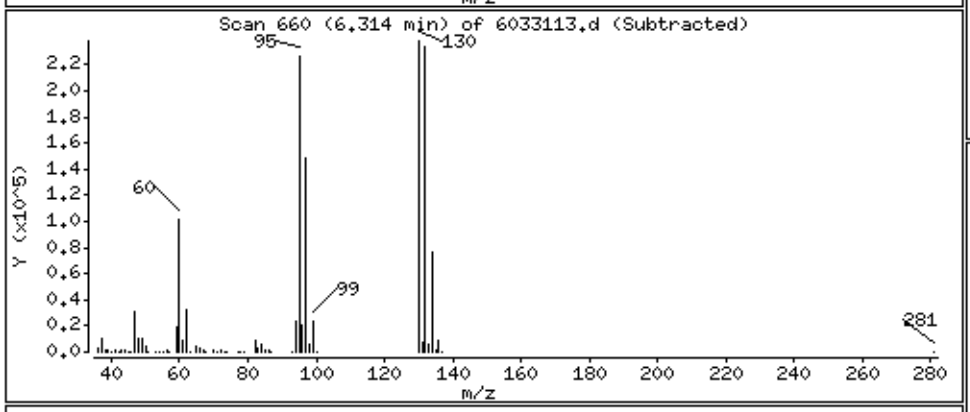
Column phase: RTx-624

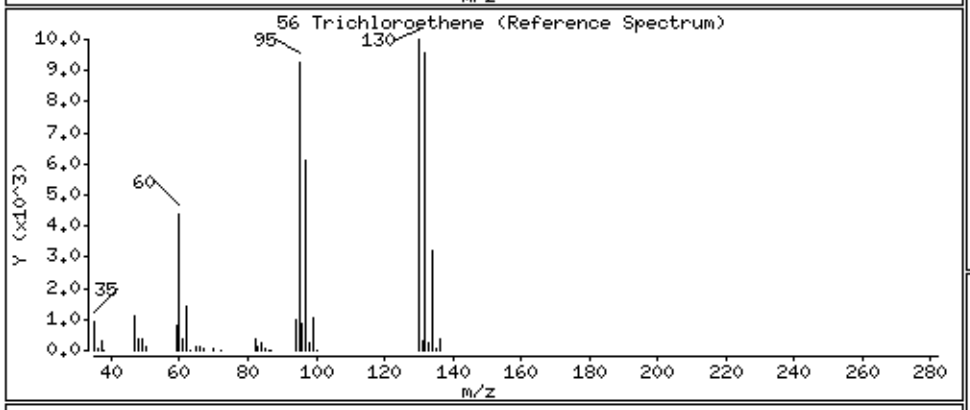
Column diameter: 0.53

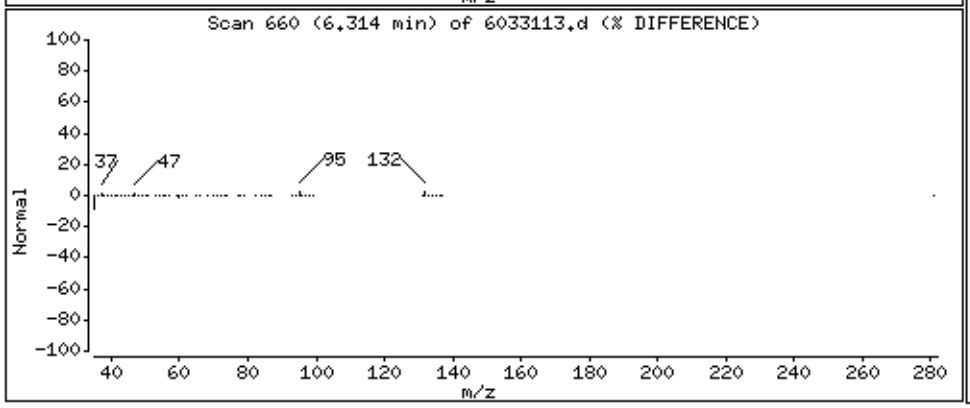
56 Trichloroethene

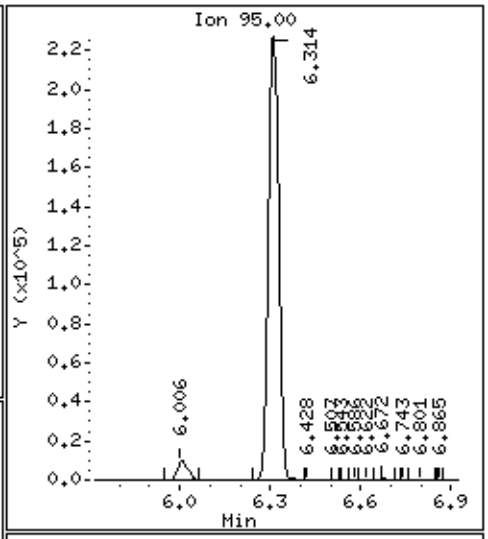
Concentration: 100.69 NG

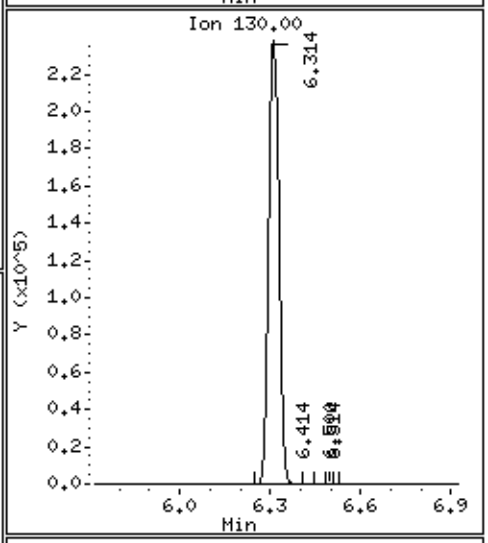


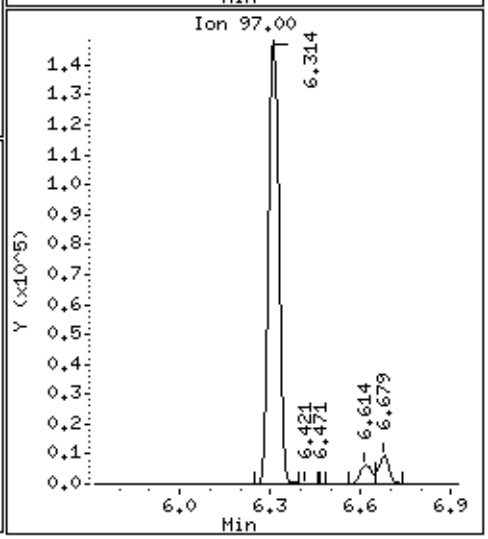












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

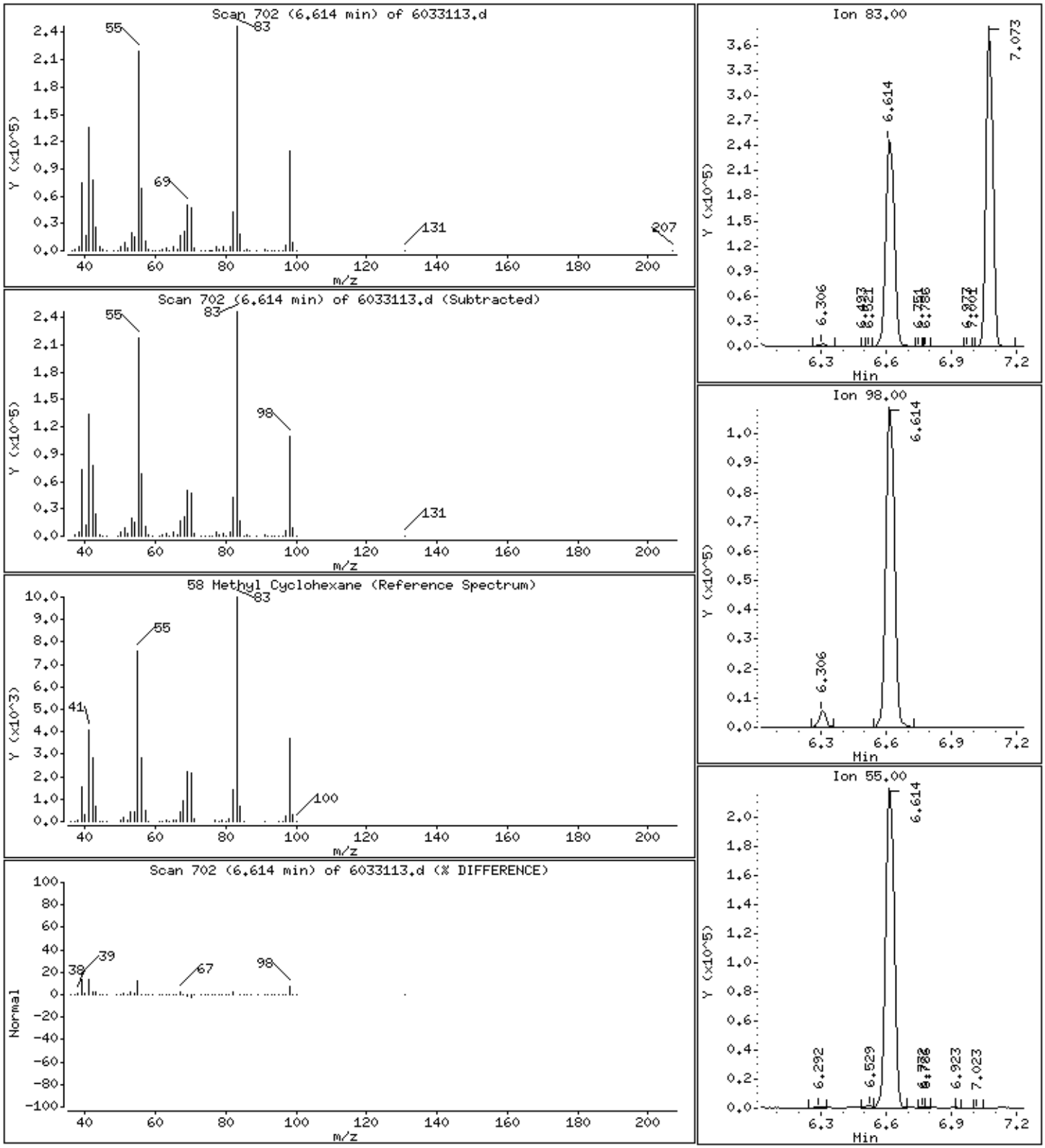
Operator: LA

Column phase: RTx-624

Column diameter: 0.53

58 Methyl Cyclohexane

Concentration: 81.471 NG



Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

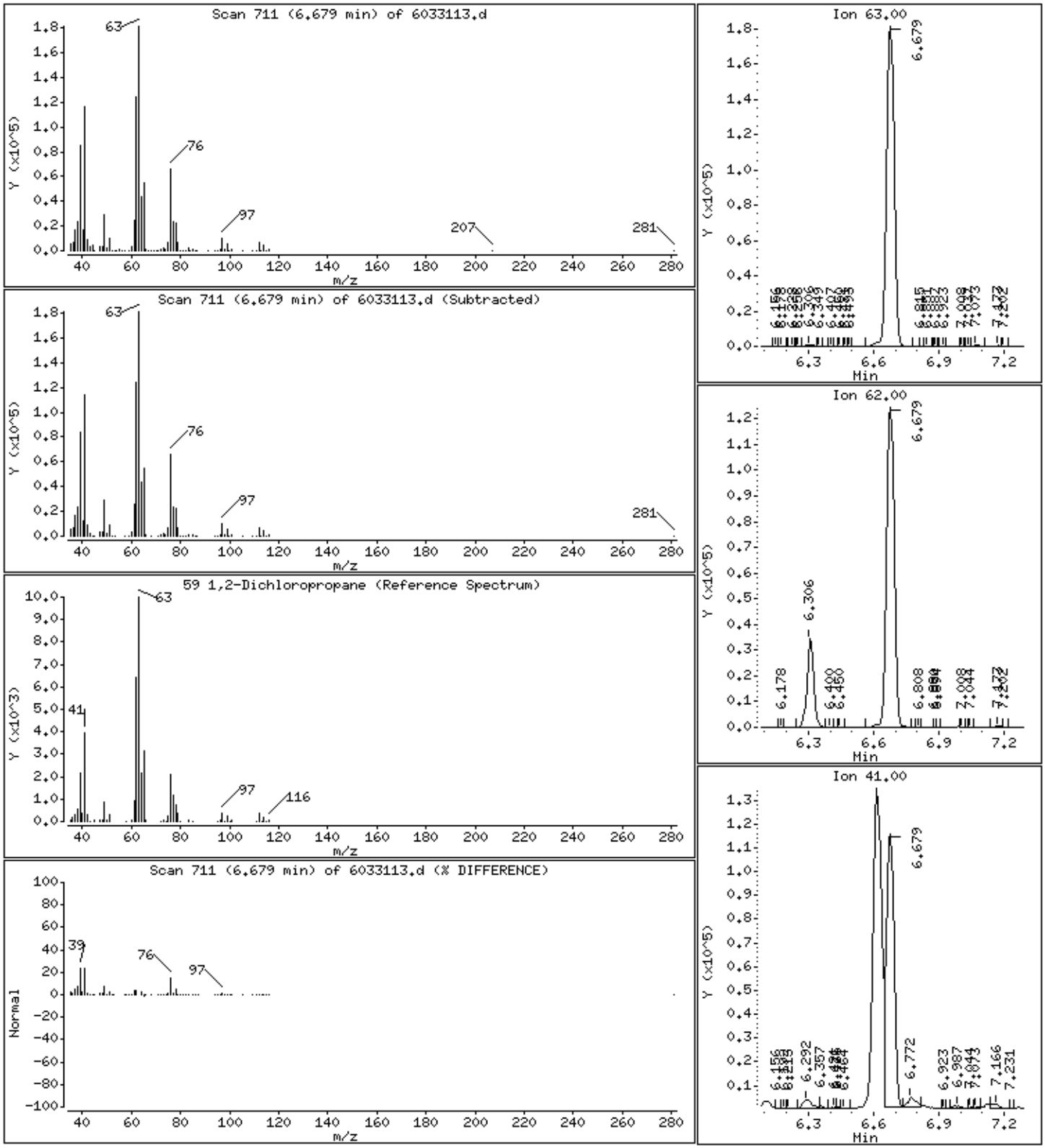
Operator: LA

Column phase: RTx-624

Column diameter: 0.53

59 1,2-Dichloropropane

Concentration: 98.334 NG



Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

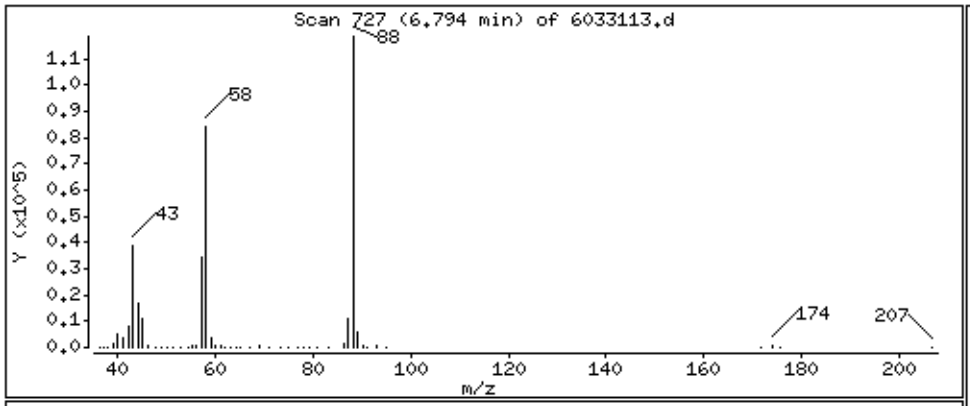
Operator: LA

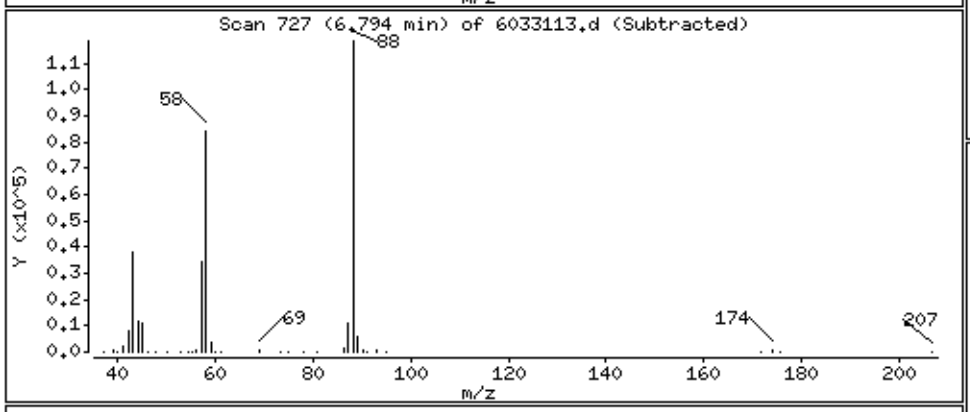
Column phase: RTx-624

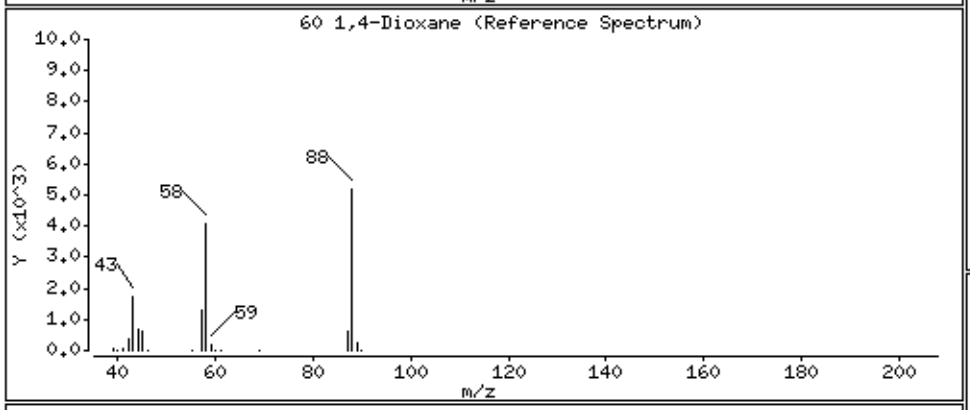
Column diameter: 0.53

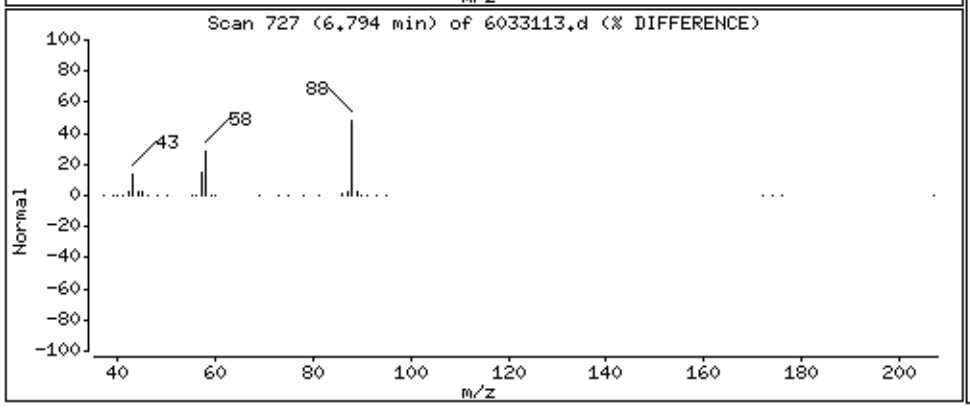
60 1,4-Dioxane

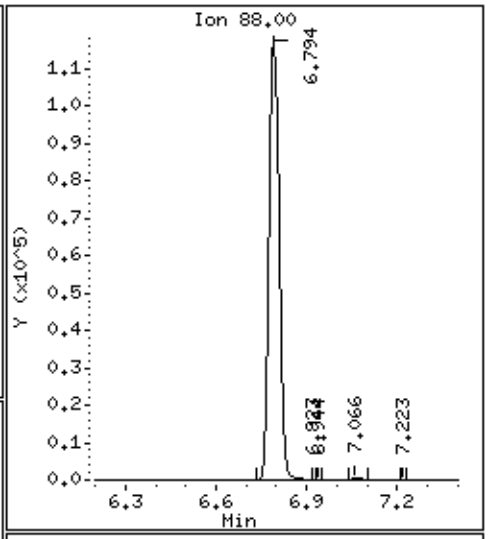
Concentration: 70.679 NG

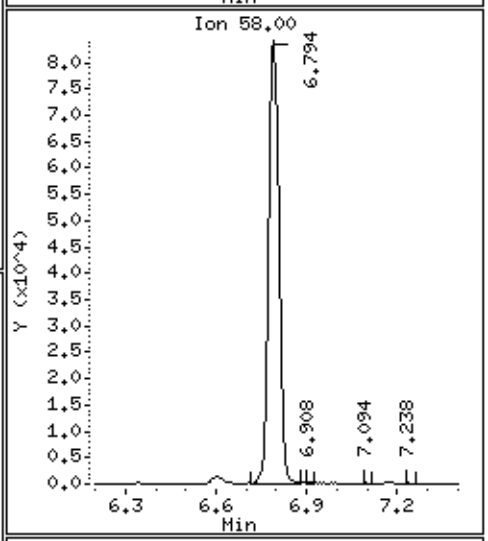


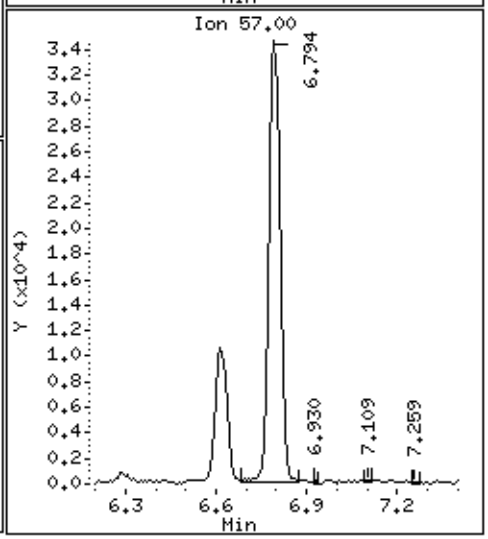












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

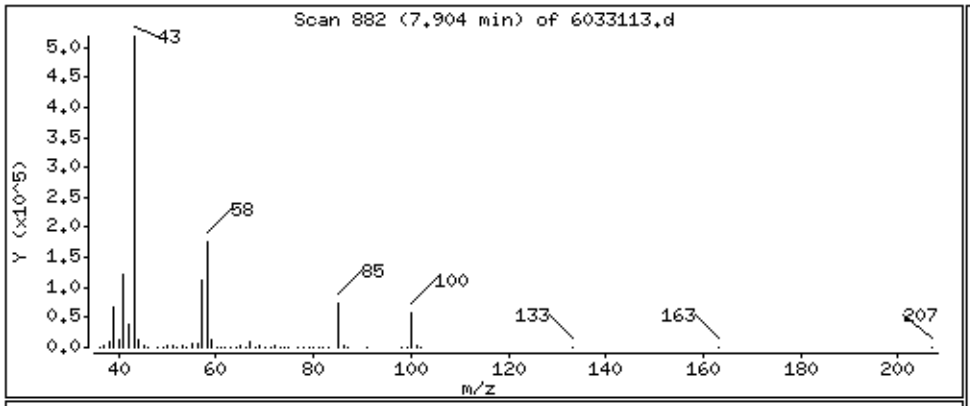
Operator: LA

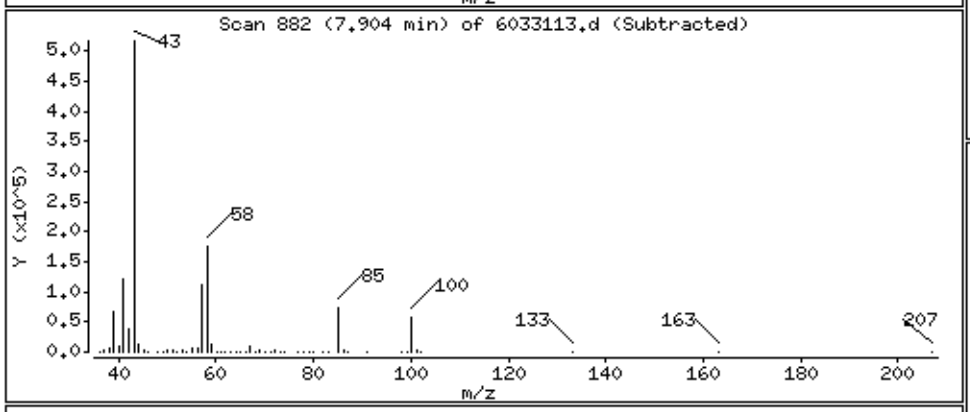
Column phase: RTx-624

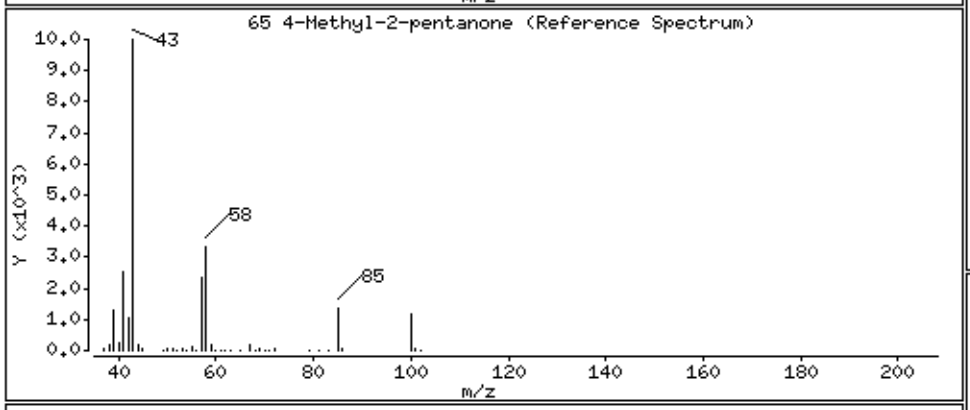
Column diameter: 0.53

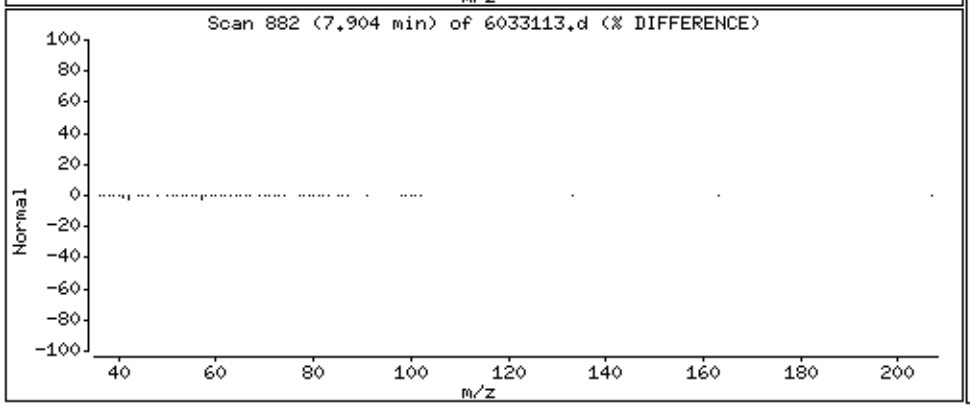
65 4-Methyl-2-pentanone

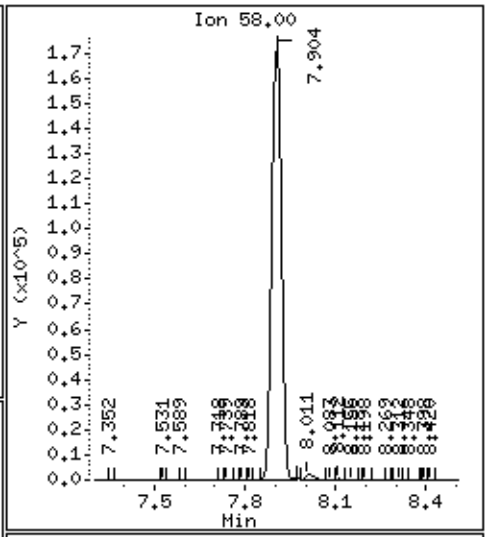
Concentration: 84.482 NG

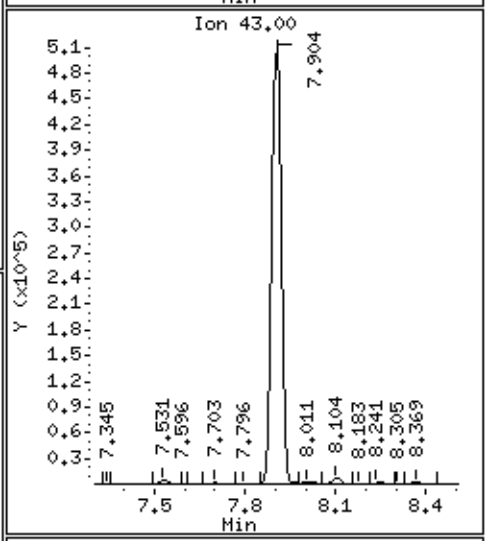


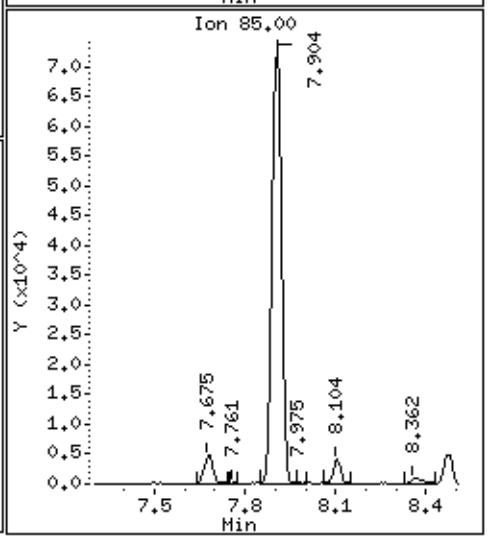












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

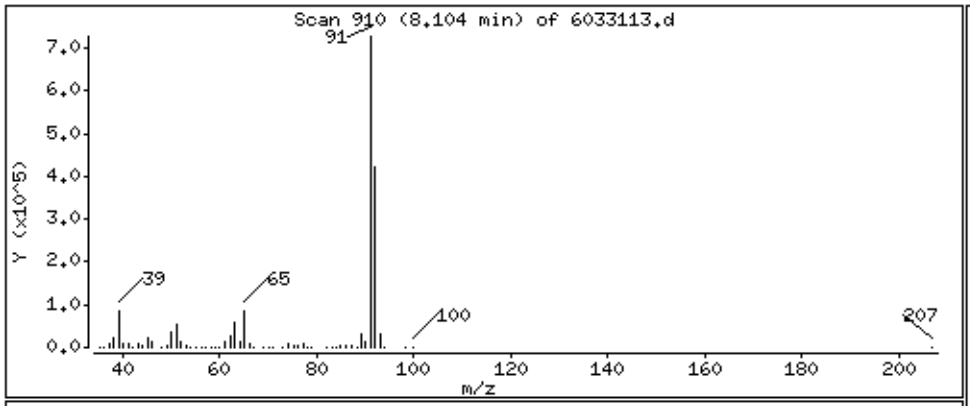
Operator: LA

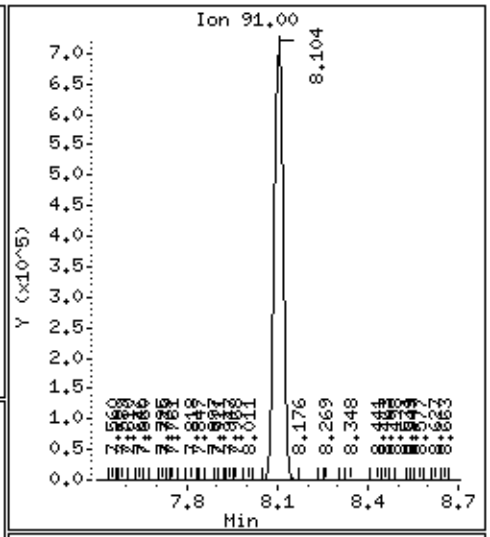
Column phase: RTx-624

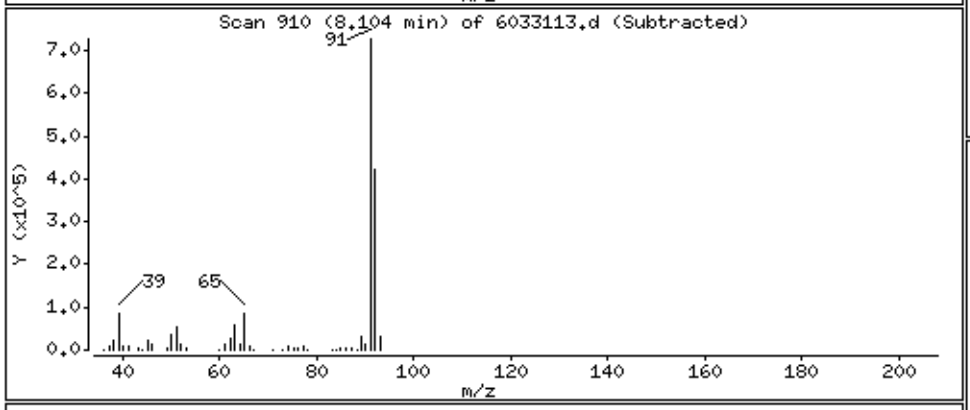
Column diameter: 0.53

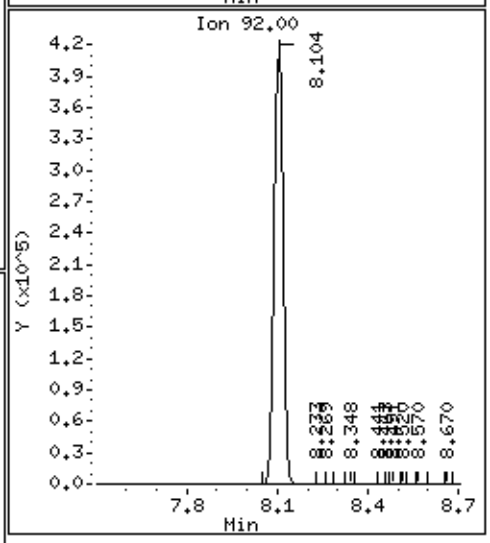
67 Toluene

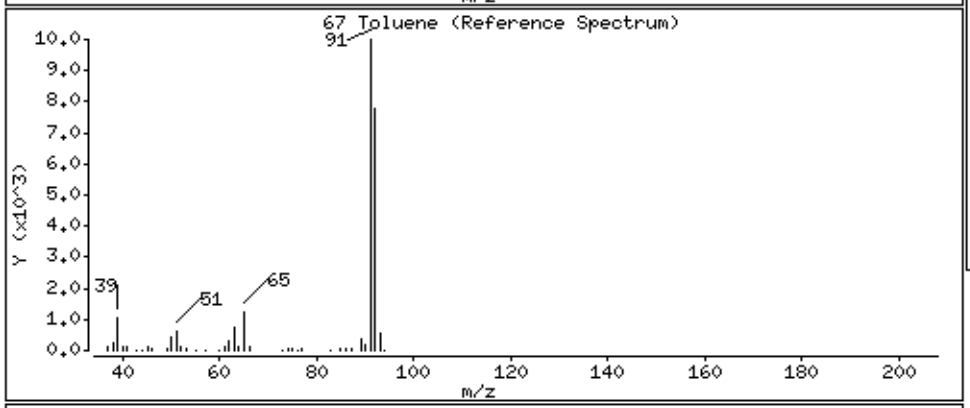
Concentration: 72.551 NG

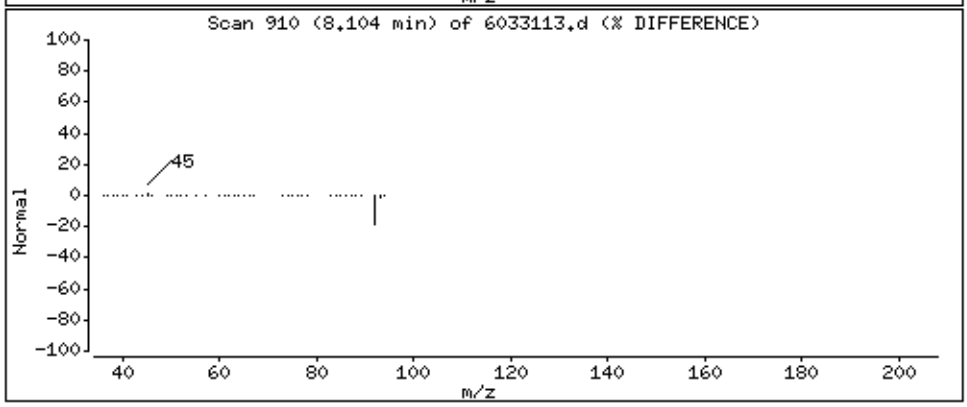












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

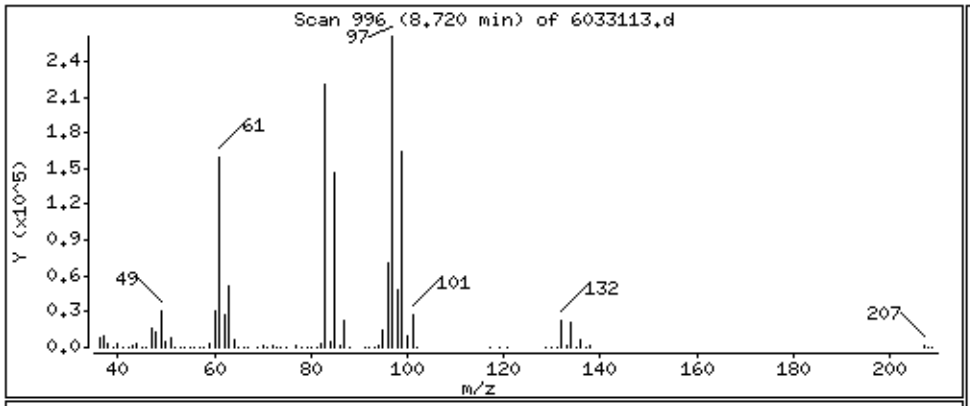
Operator: LA

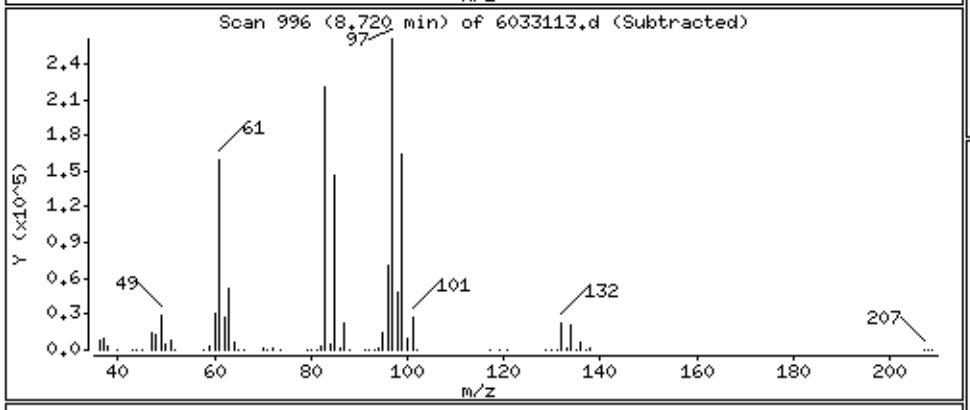
Column phase: RTx-624

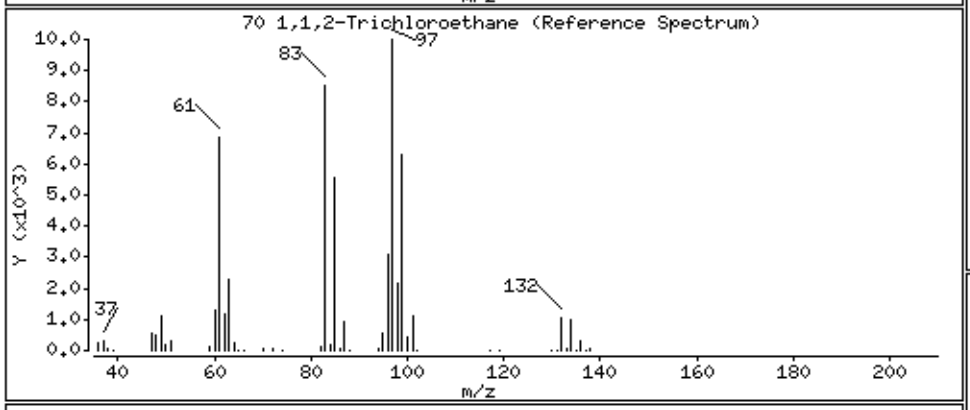
Column diameter: 0.53

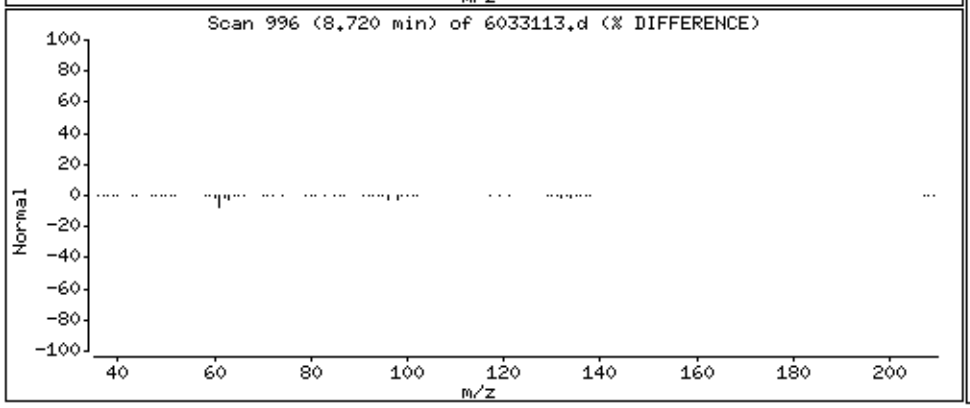
70 1,1,2-Trichloroethane

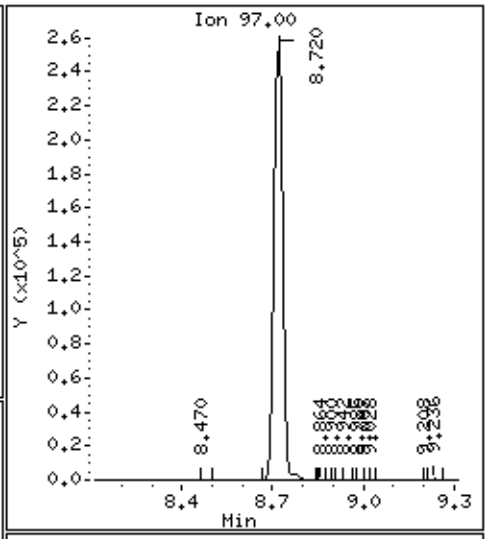
Concentration: 110.86 NG

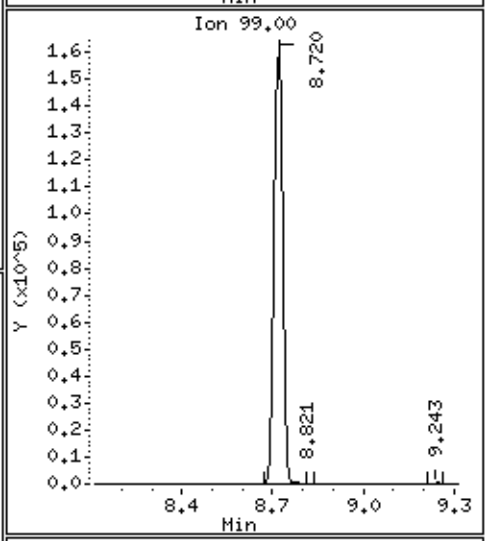


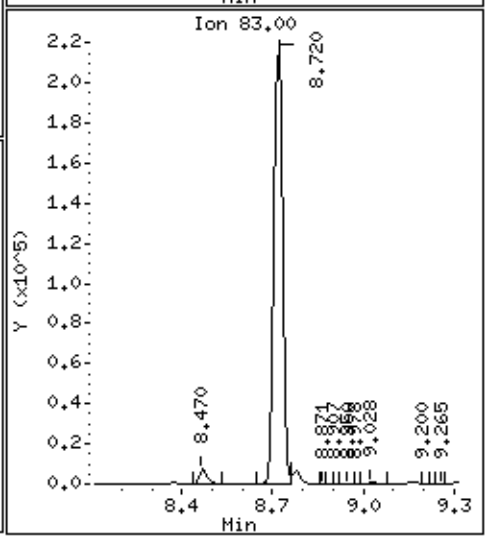












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

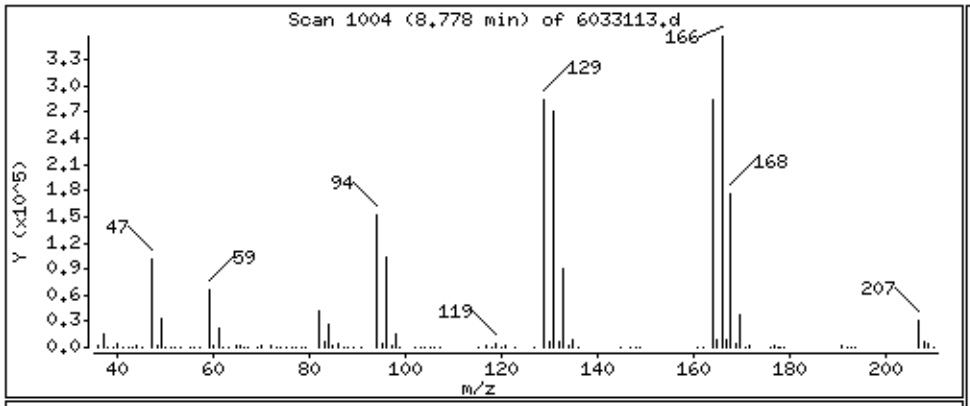
Operator: LA

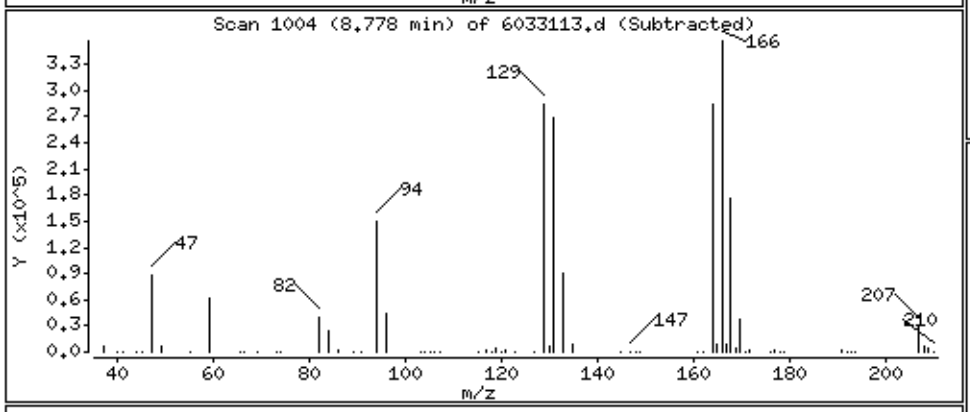
Column phase: RTx-624

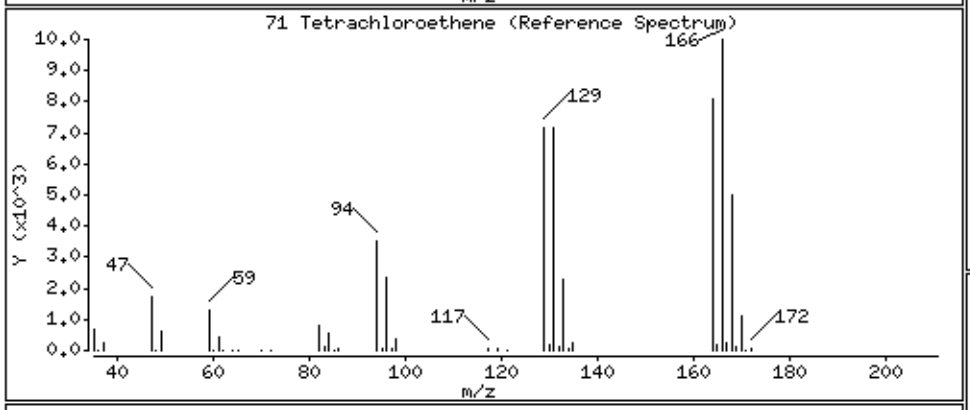
Column diameter: 0.53

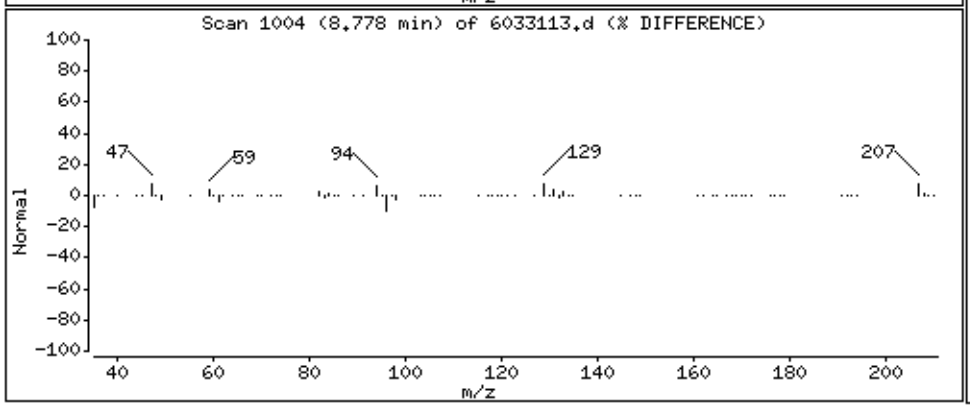
71 Tetrachloroethene

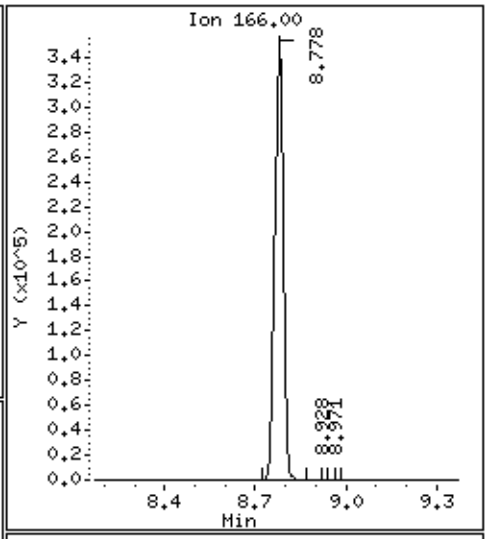
Concentration: 133.54 NG

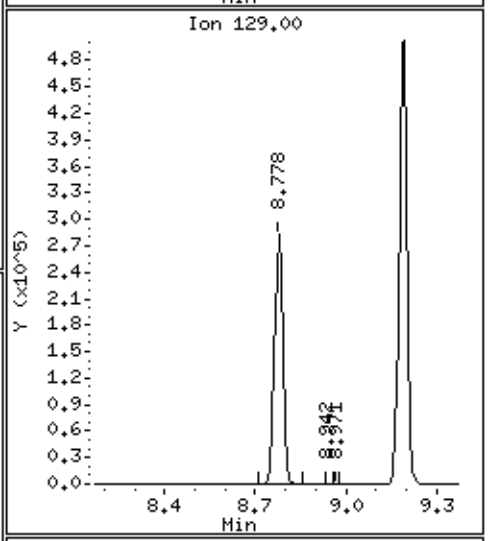


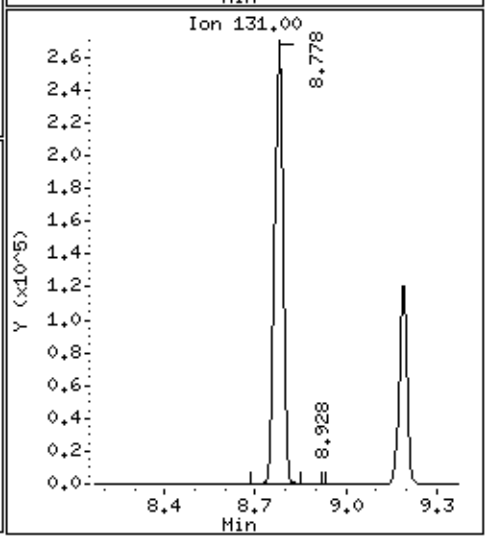












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

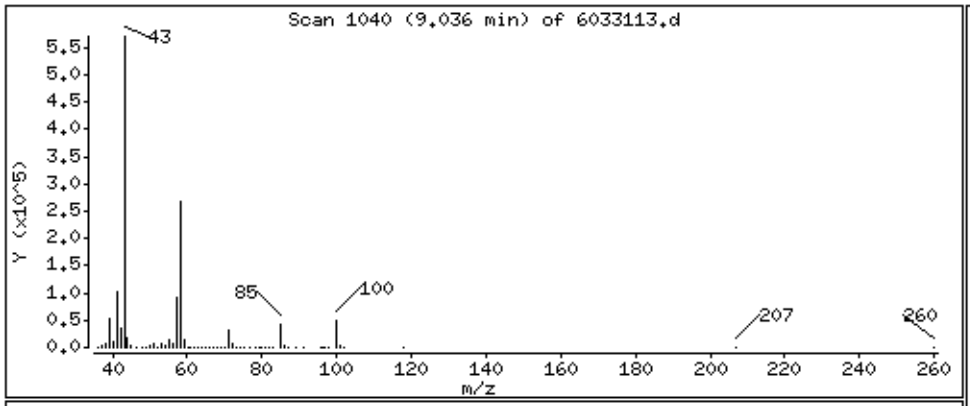
Operator: LA

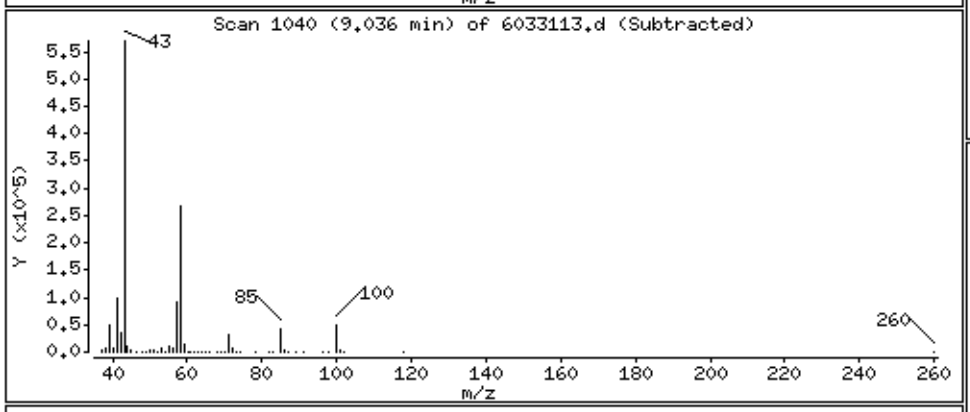
Column phase: RTx-624

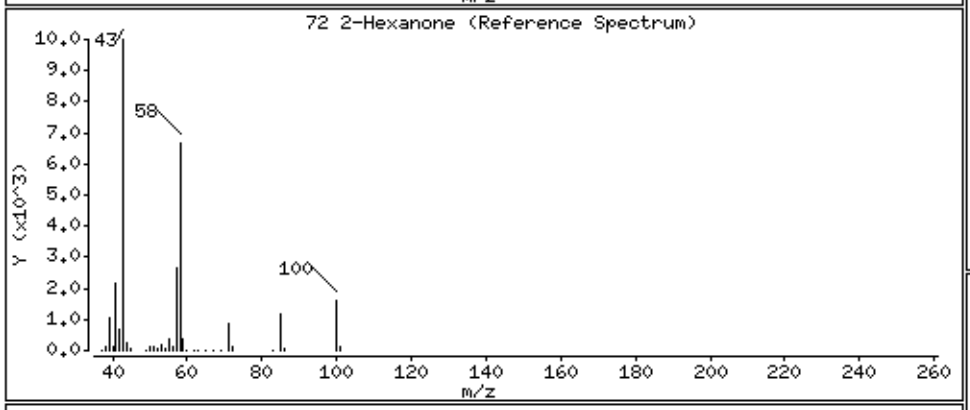
Column diameter: 0.53

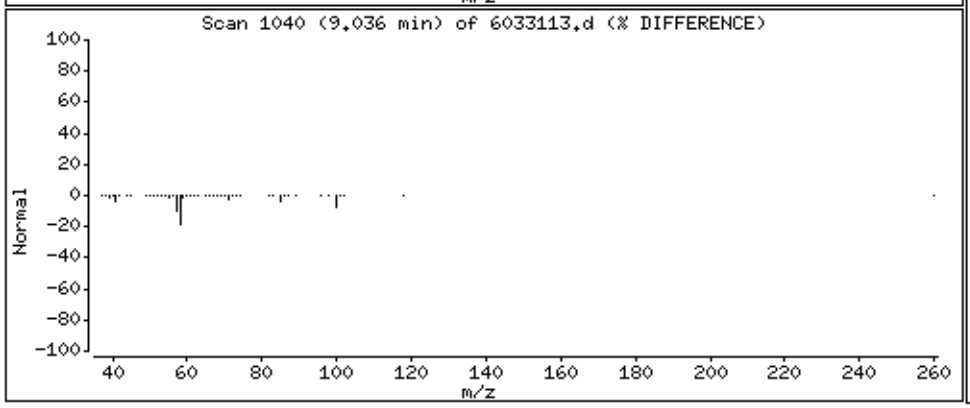
72 2-Hexanone

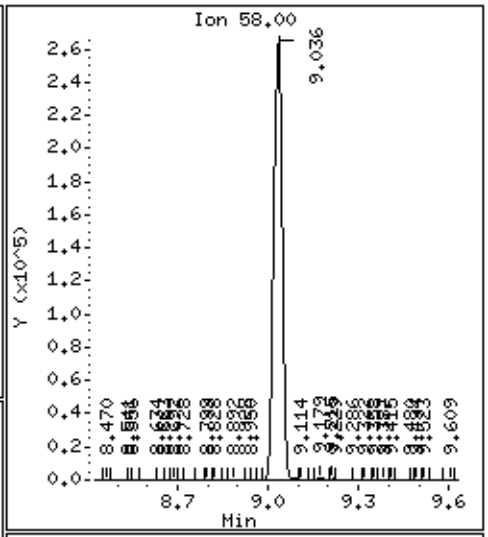
Concentration: 84.887 NG

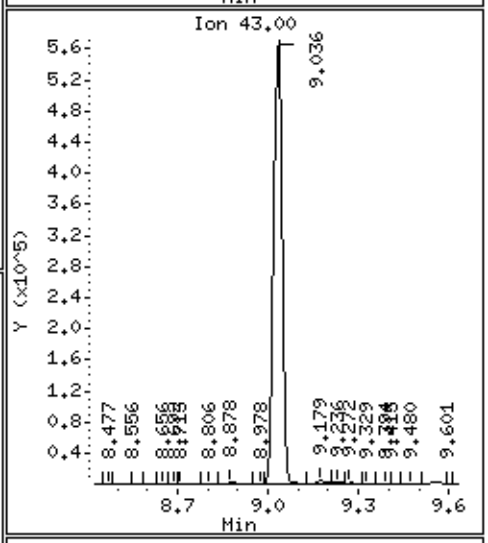


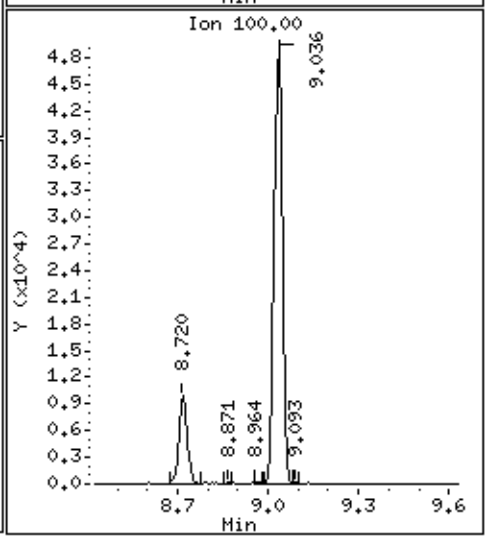












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

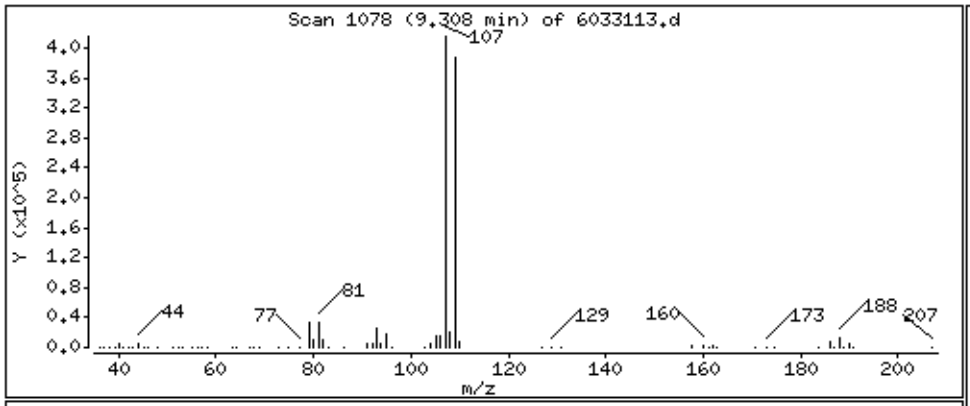
Operator: LA

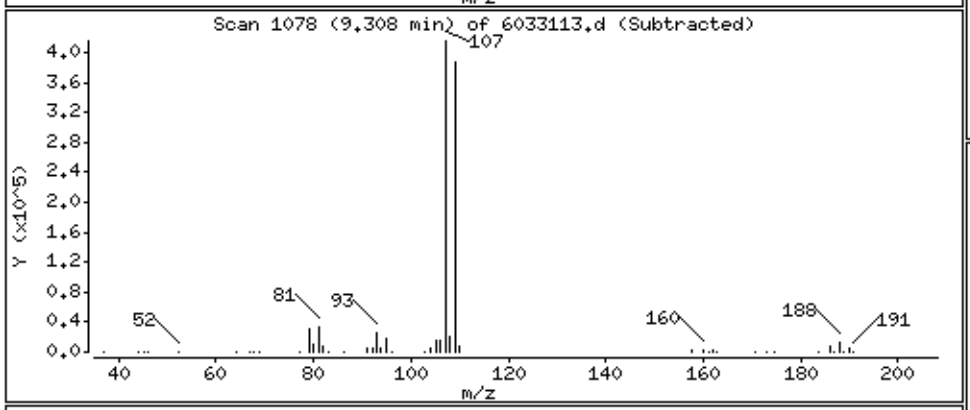
Column phase: RTx-624

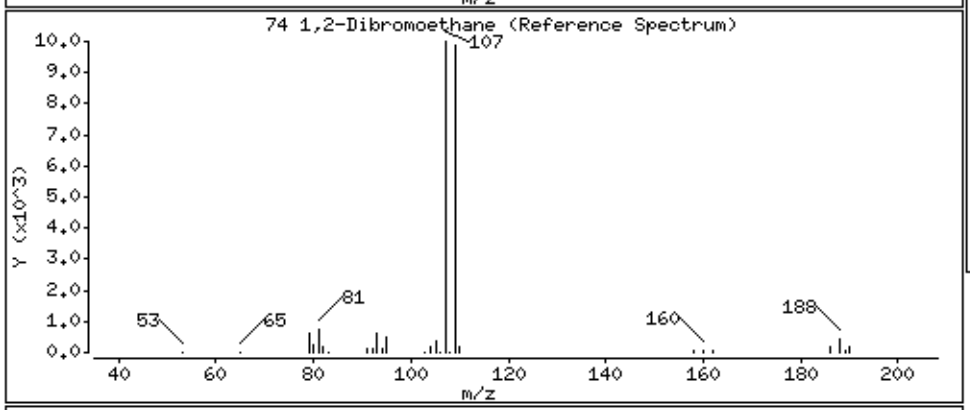
Column diameter: 0.53

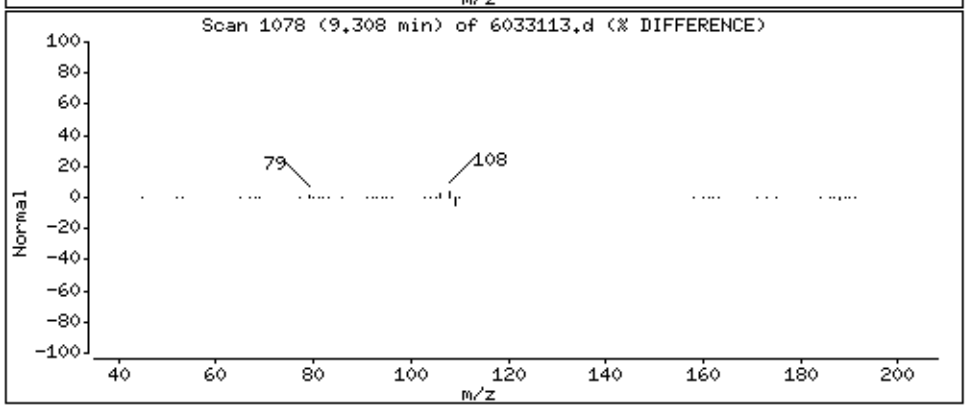
74 1,2-Dibromoethane

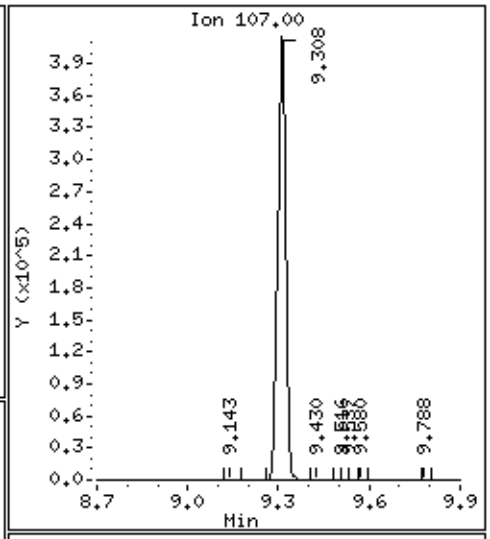
Concentration: 159.50 NG

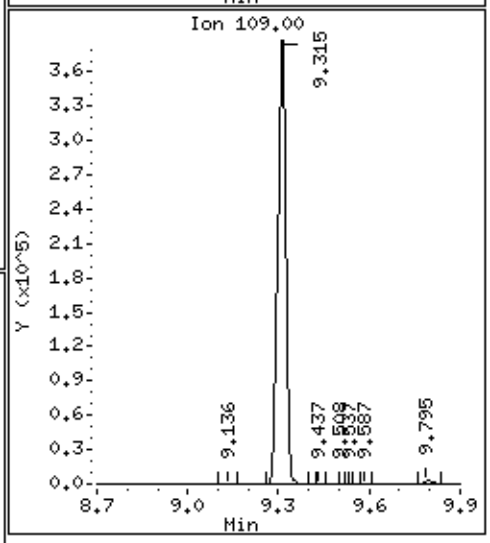












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

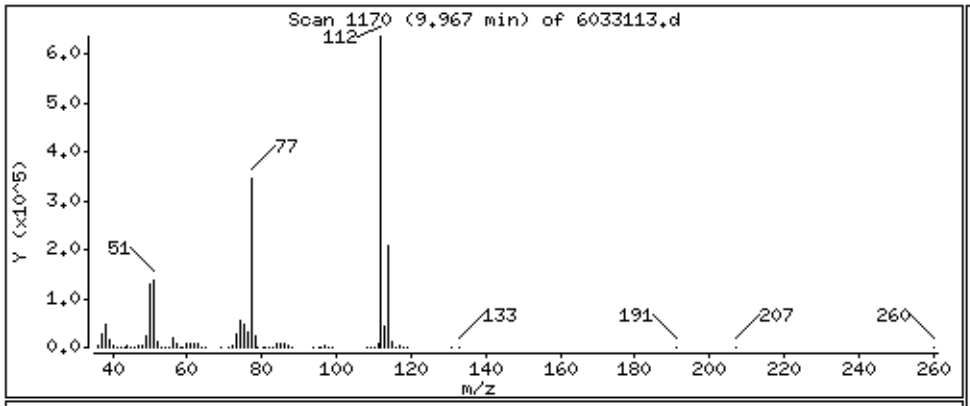
Operator: LA

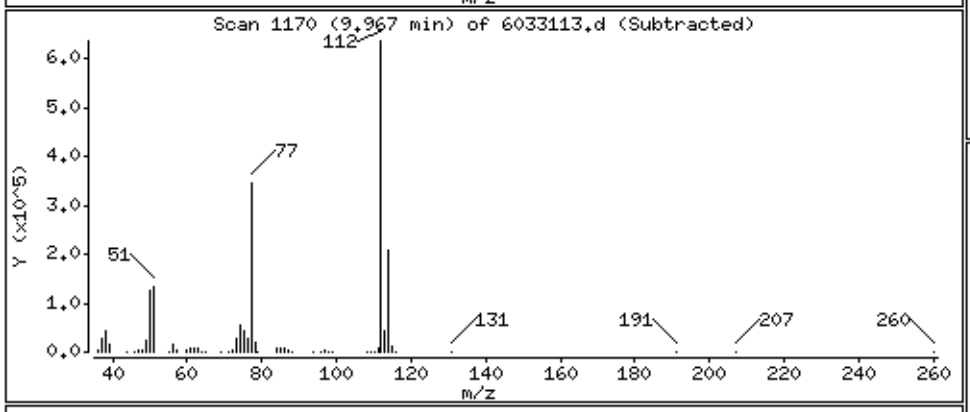
Column phase: RTx-624

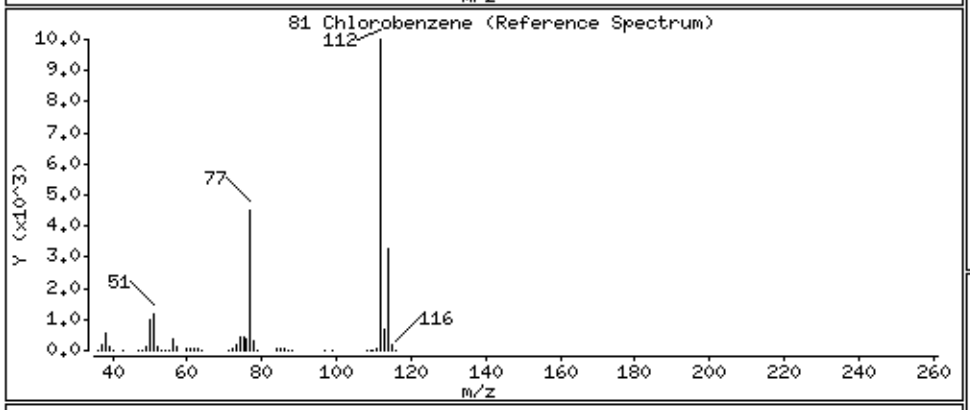
Column diameter: 0.53

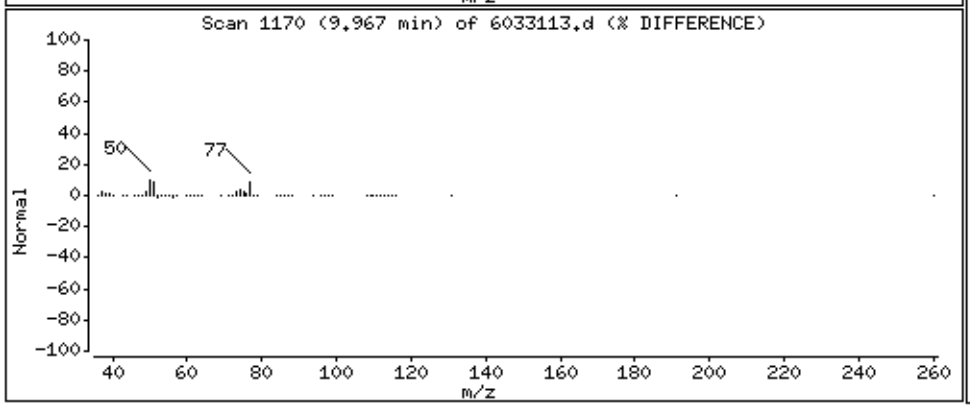
81 Chlorobenzene

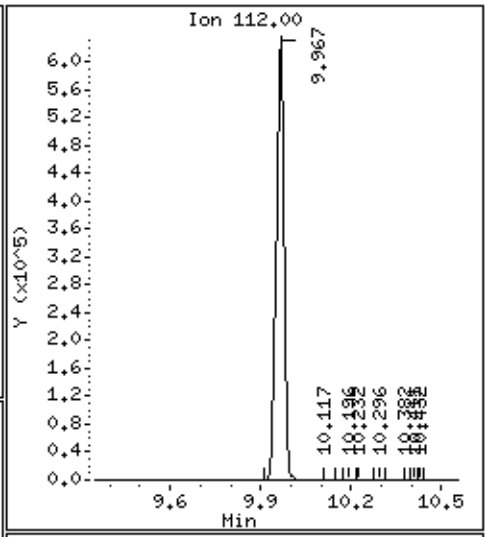
Concentration: 92.098 NG

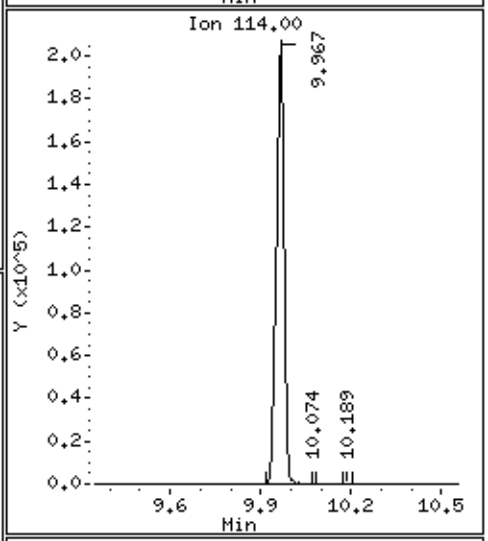


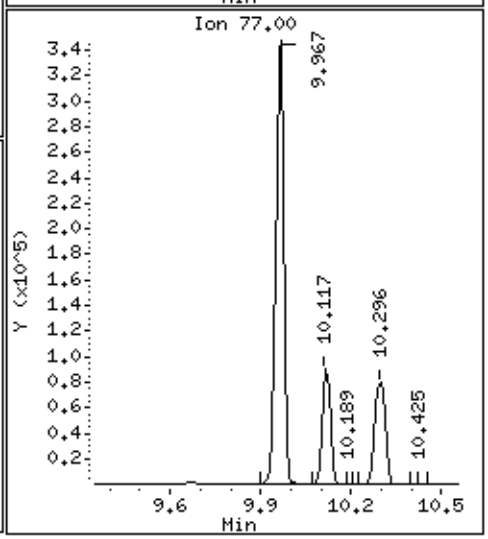












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

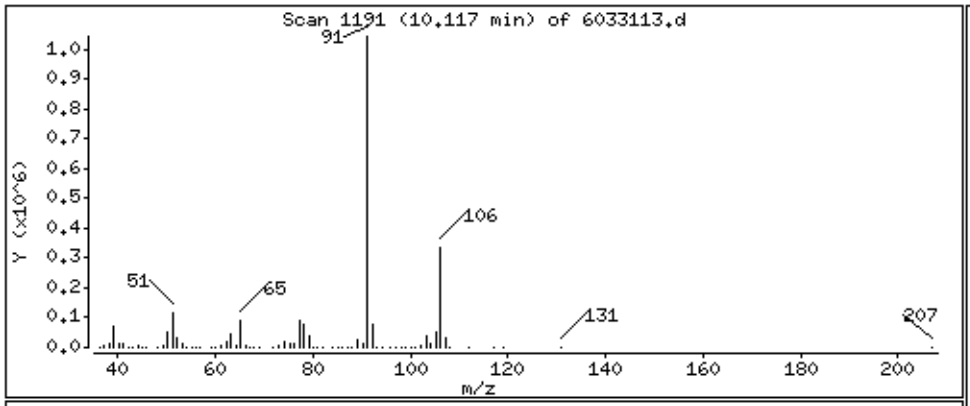
Operator: LA

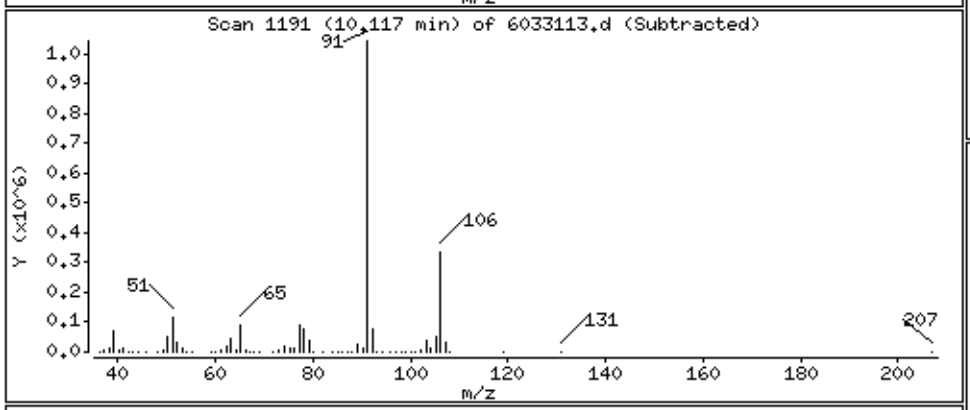
Column phase: RTx-624

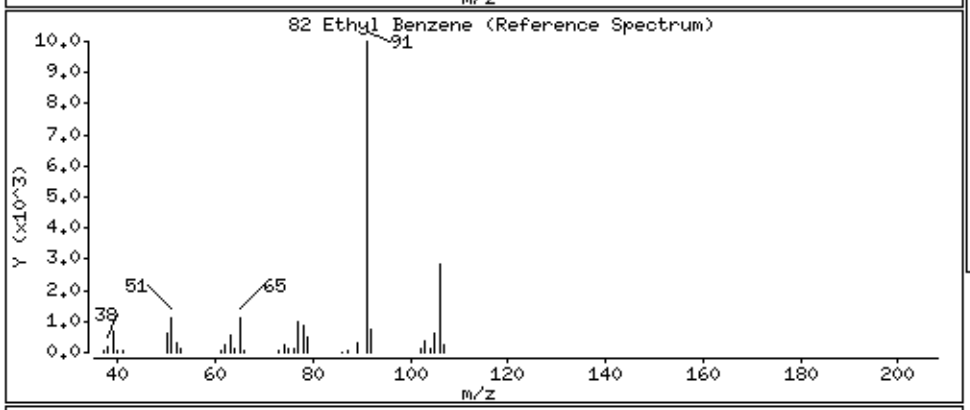
Column diameter: 0.53

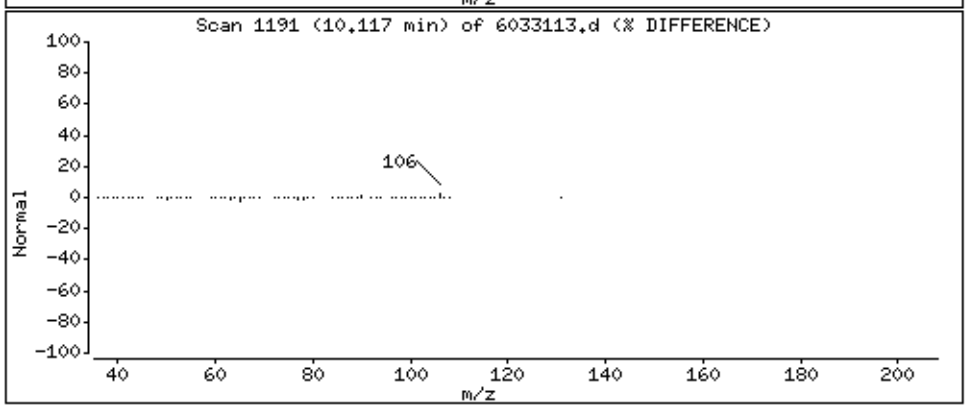
82 Ethyl Benzene

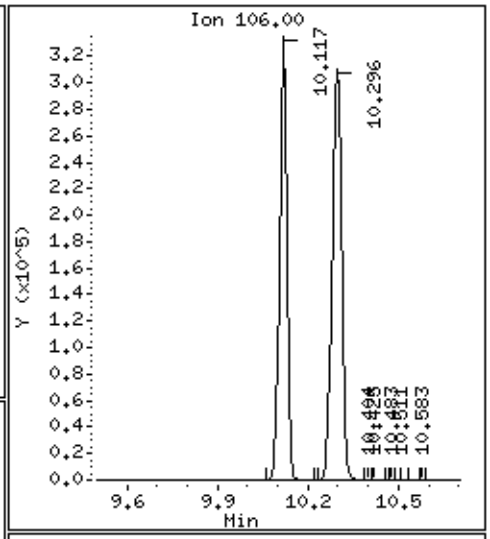
Concentration: 86.697 NG

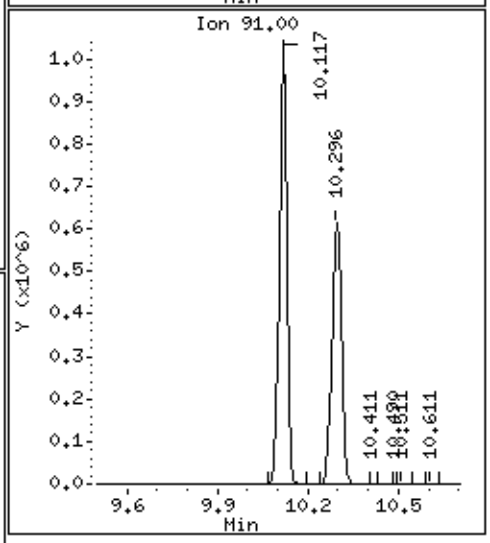












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

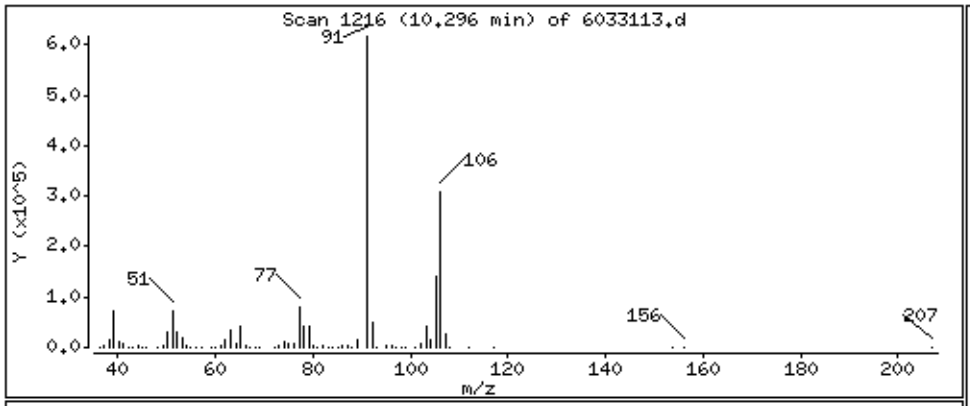
Operator: LA

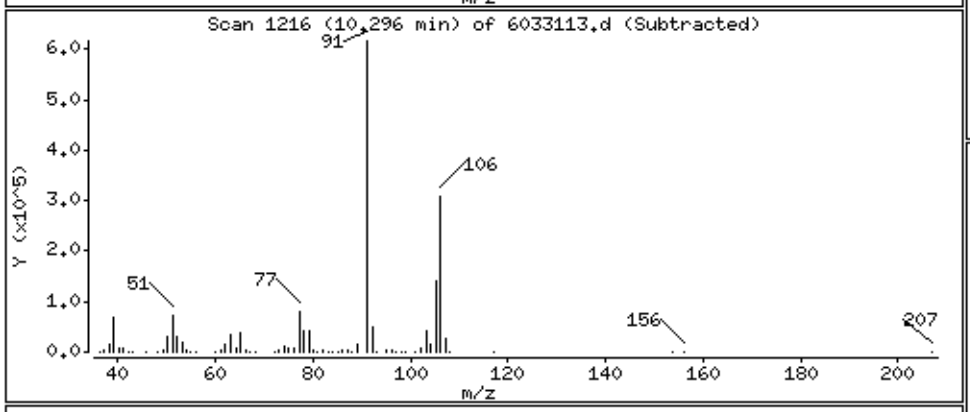
Column phase: RTx-624

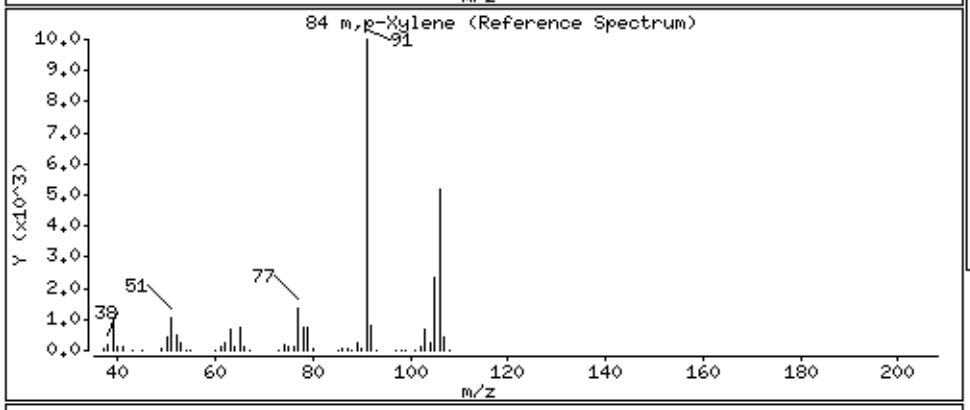
Column diameter: 0.53

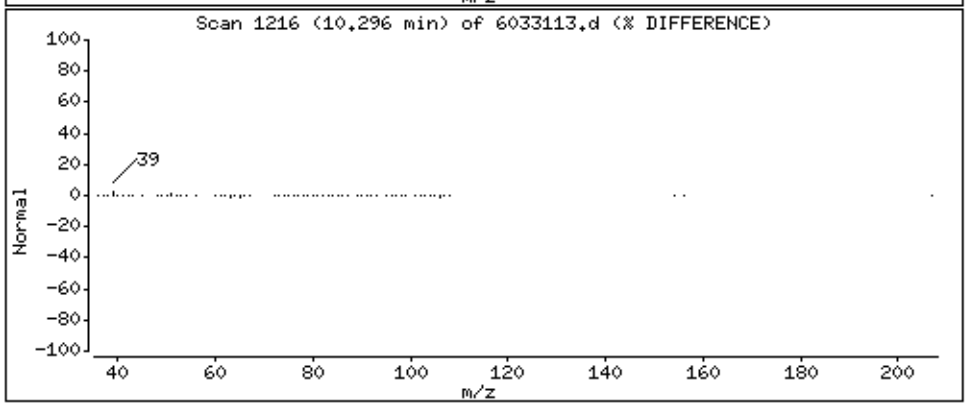
84 m,p-Xylene

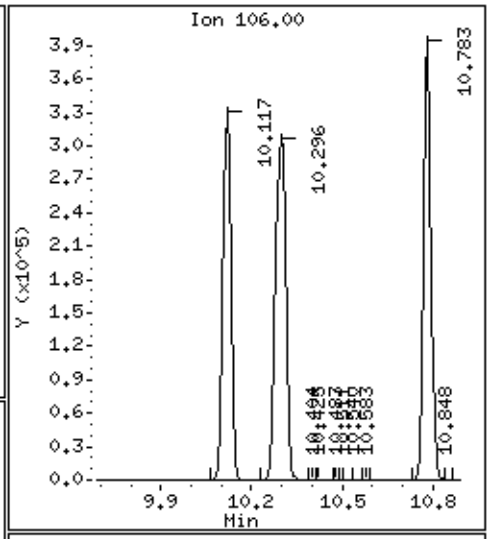
Concentration: 84.047 NG

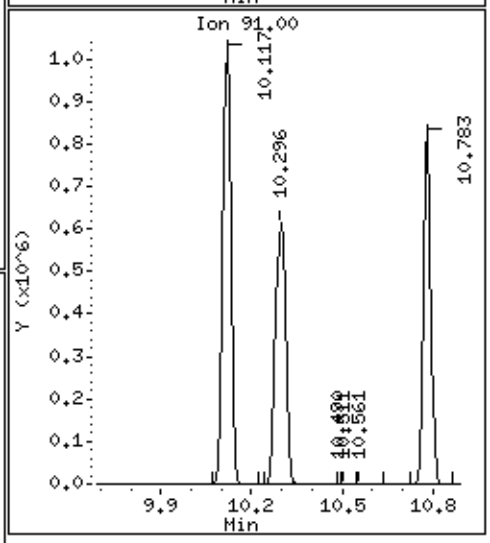












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

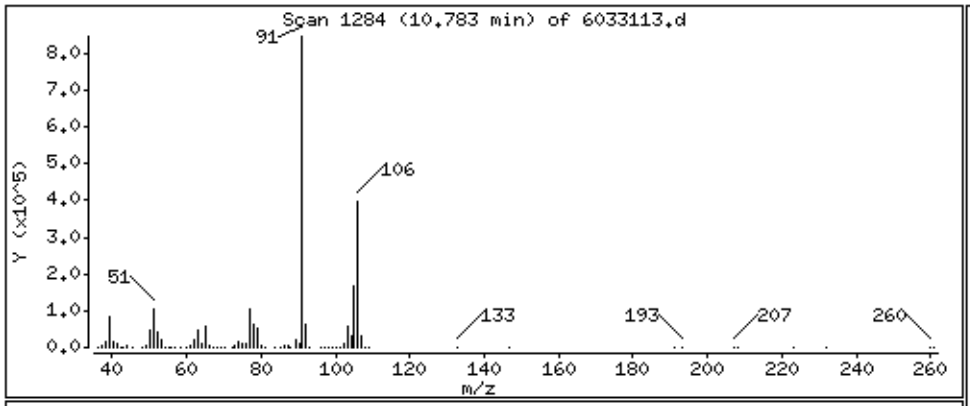
Operator: LA

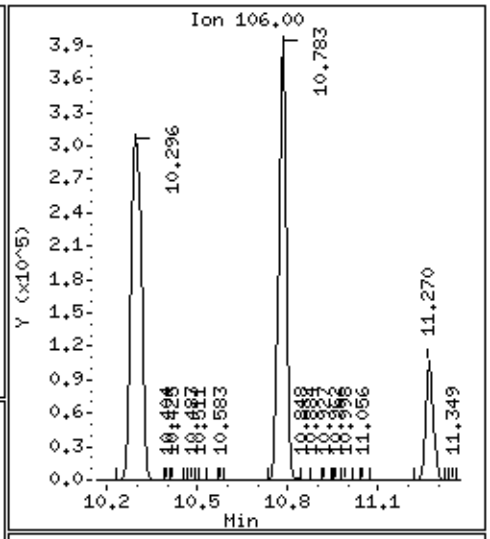
Column phase: RTx-624

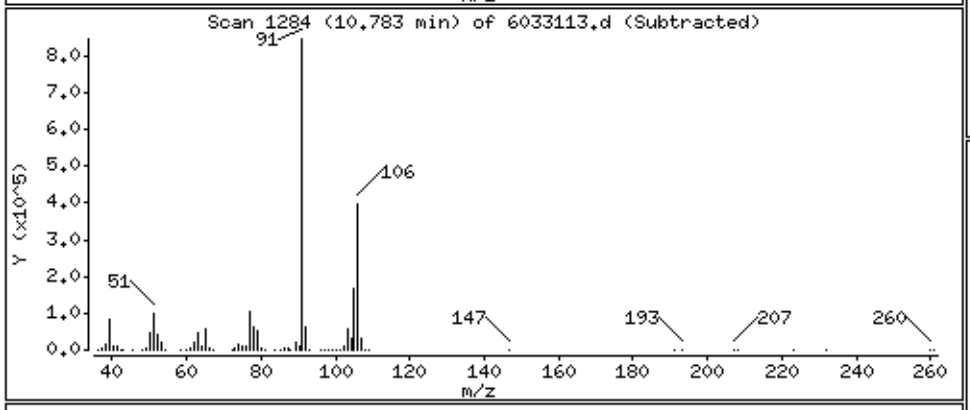
Column diameter: 0.53

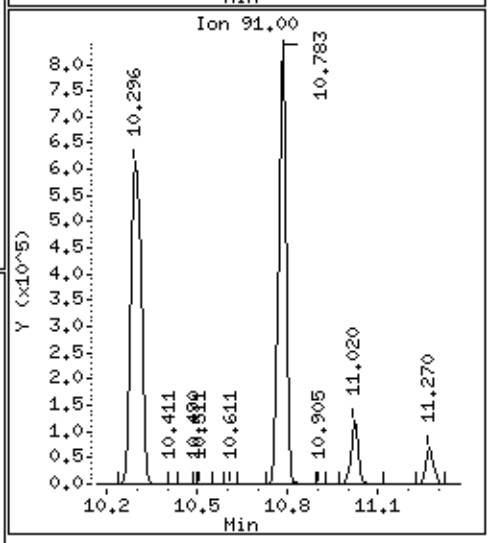
88 o-Xylene

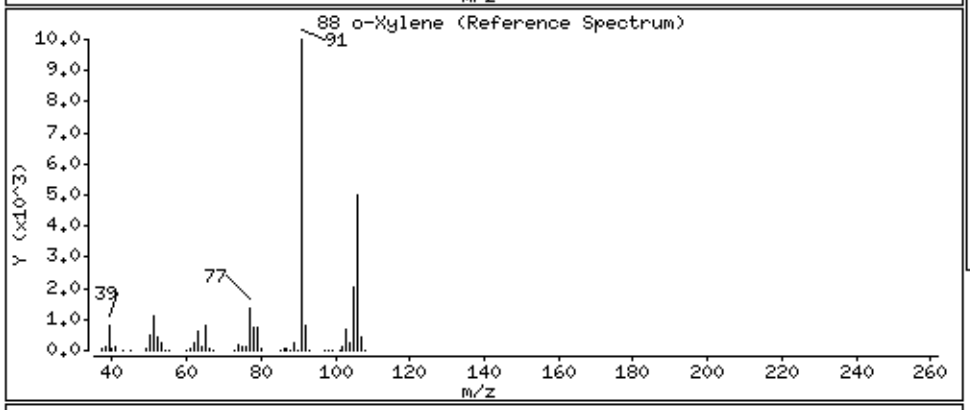
Concentration: 91.124 NG

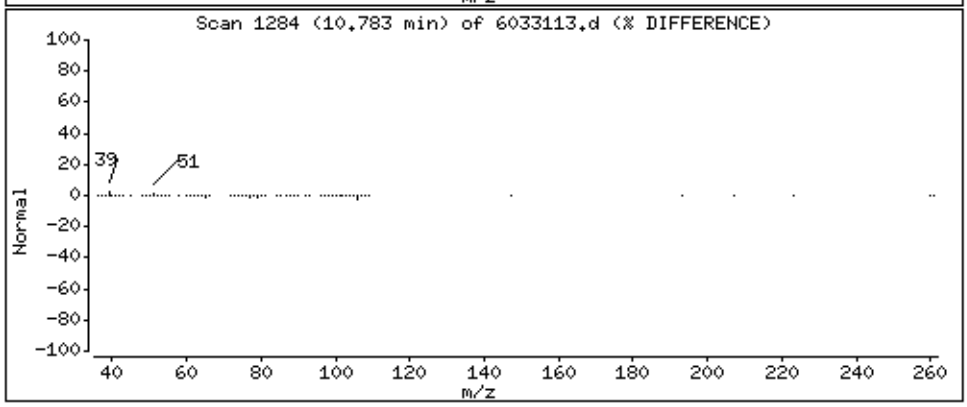












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

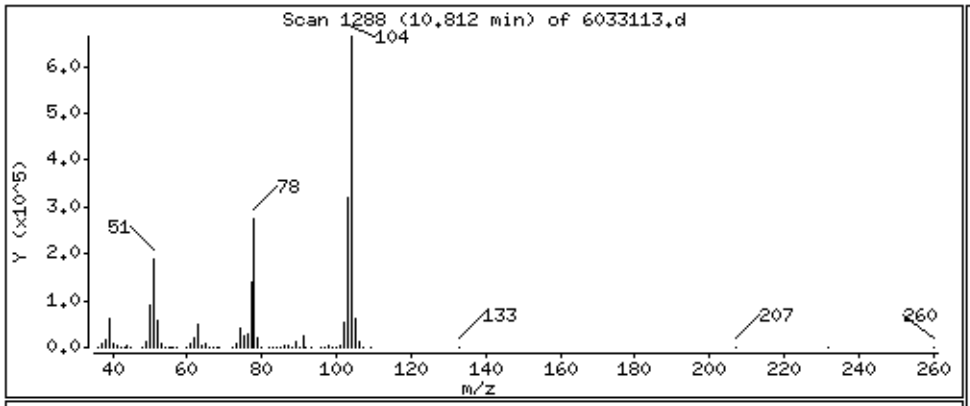
Operator: LA

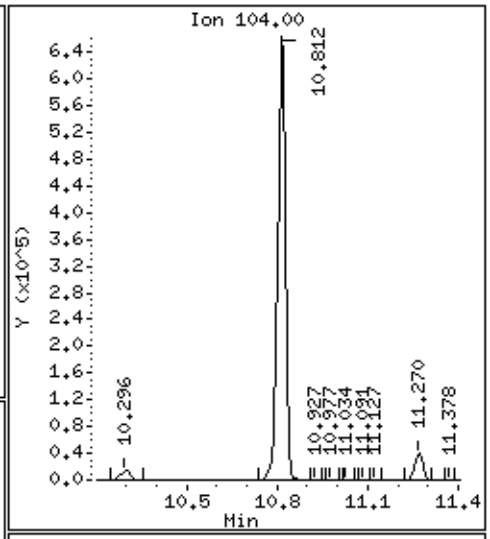
Column phase: RTx-624

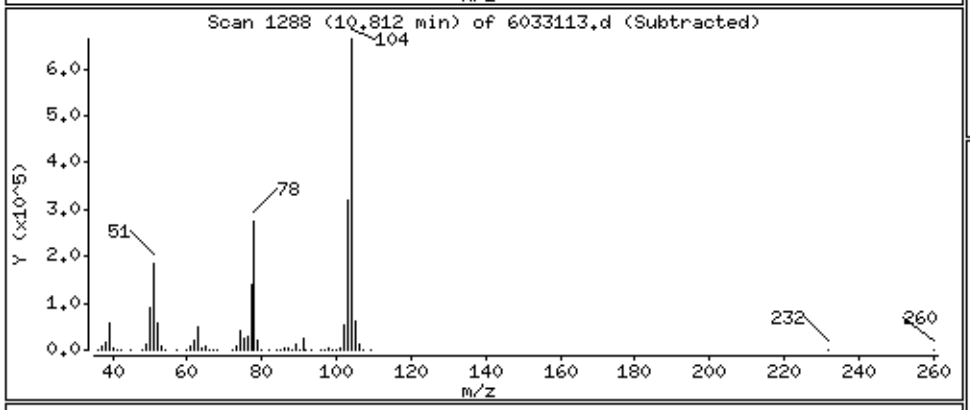
Column diameter: 0.53

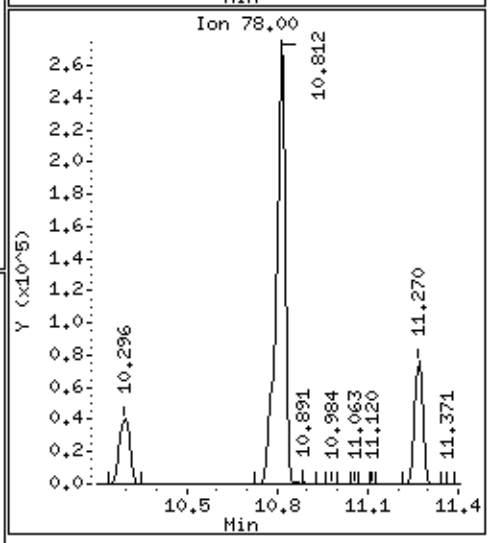
89 Styrene

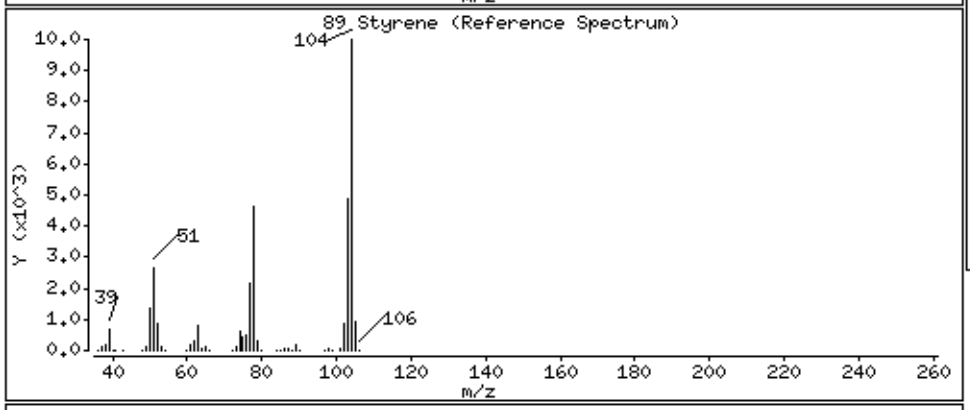
Concentration: 89.052 NG

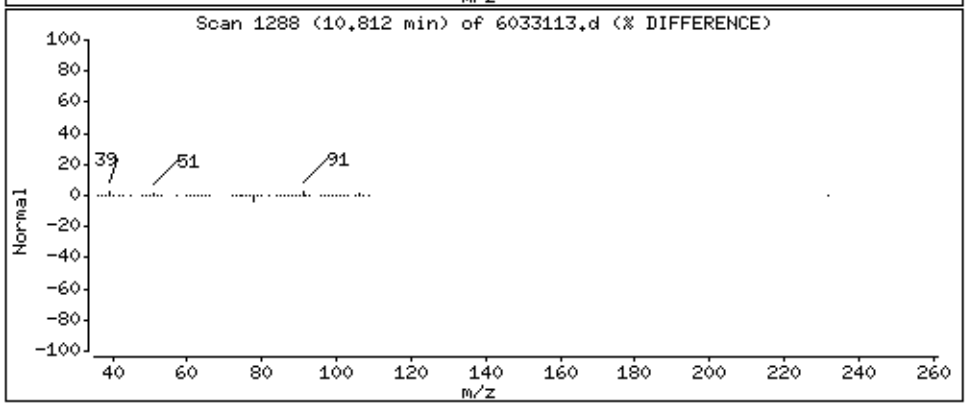












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

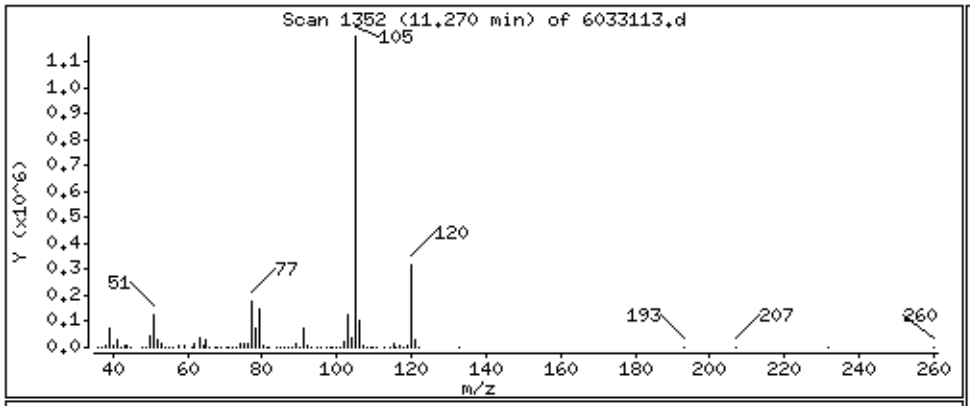
Operator: LA

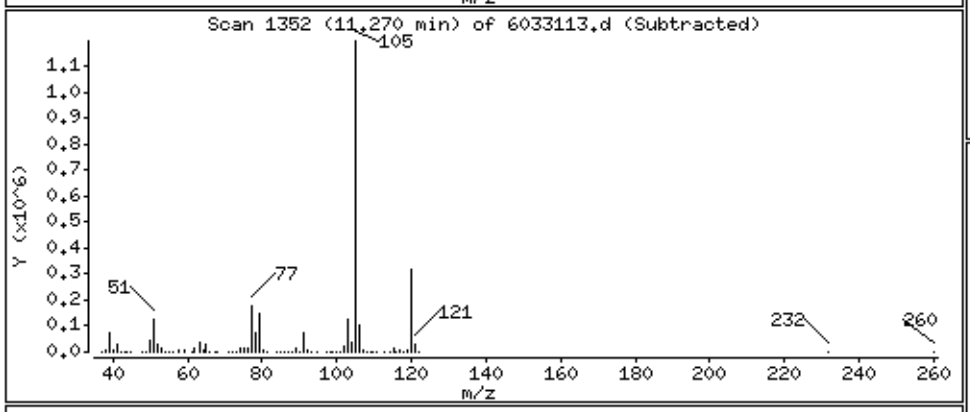
Column phase: RTx-624

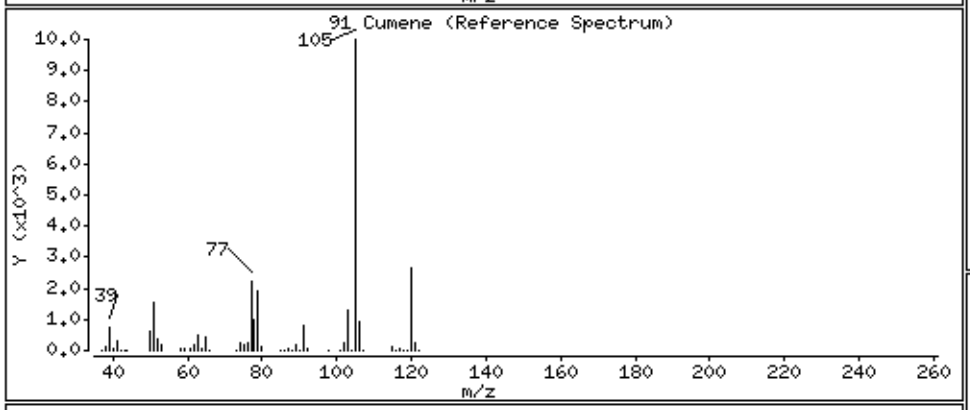
Column diameter: 0.53

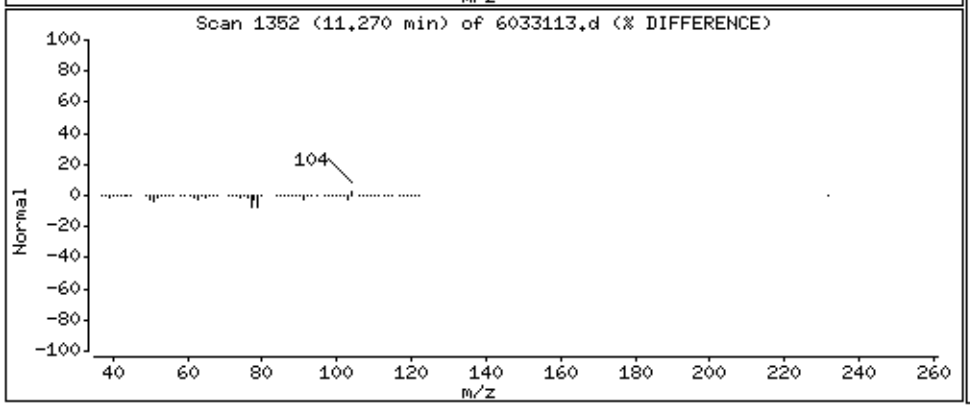
91 Cumene

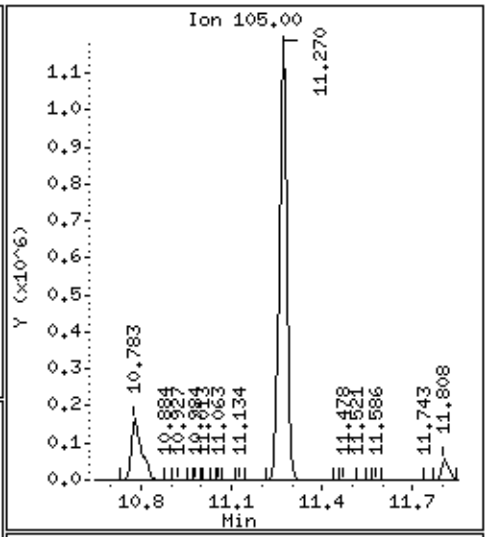
Concentration: 104.85 NG

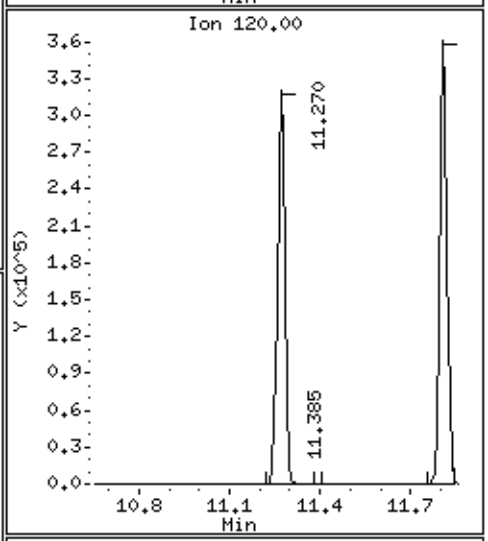


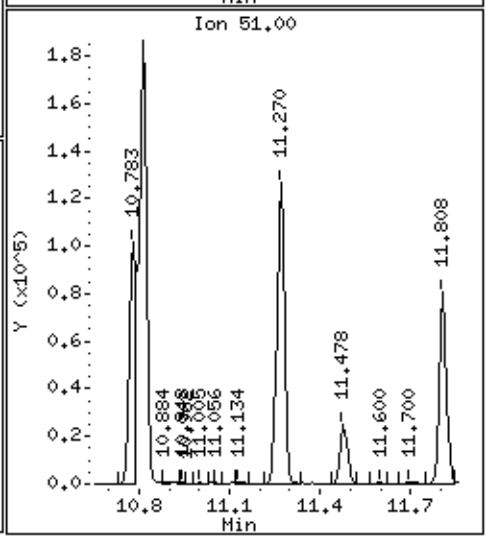












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

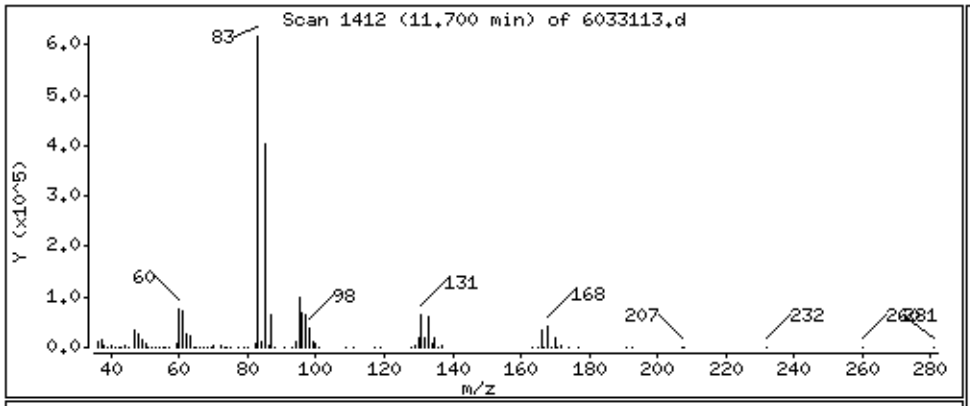
Operator: LA

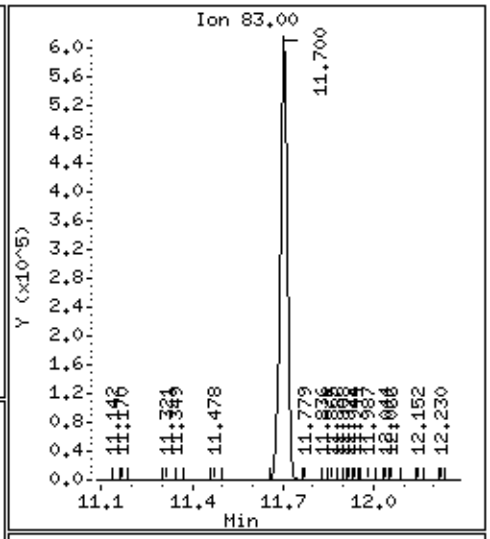
Column phase: RTx-624

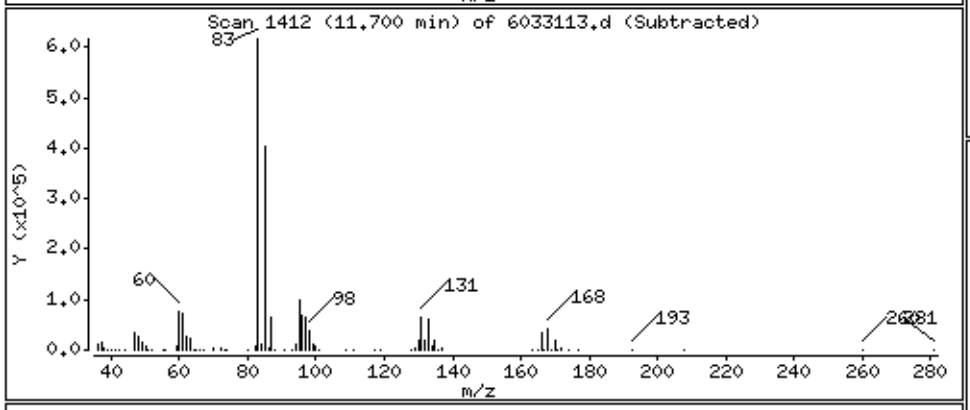
Column diameter: 0.53

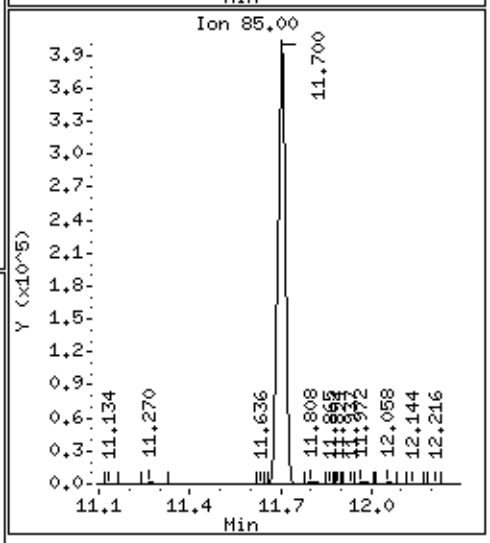
94 1,1,2,2-Tetrachloroethane

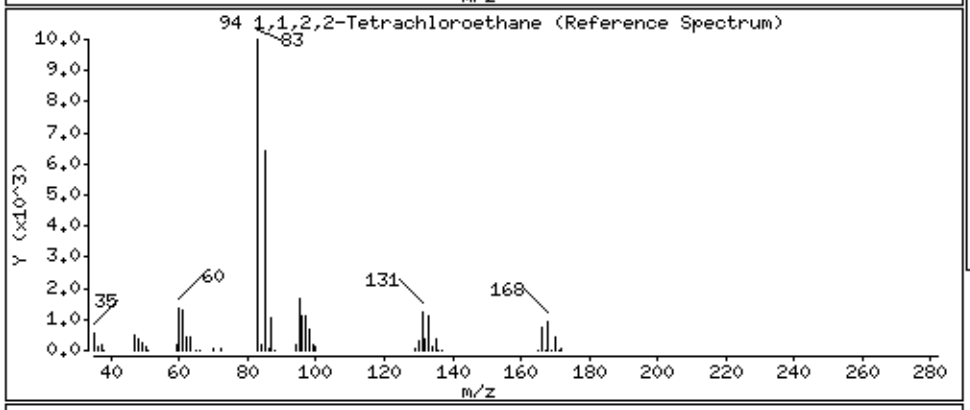
Concentration: 158.95 NG

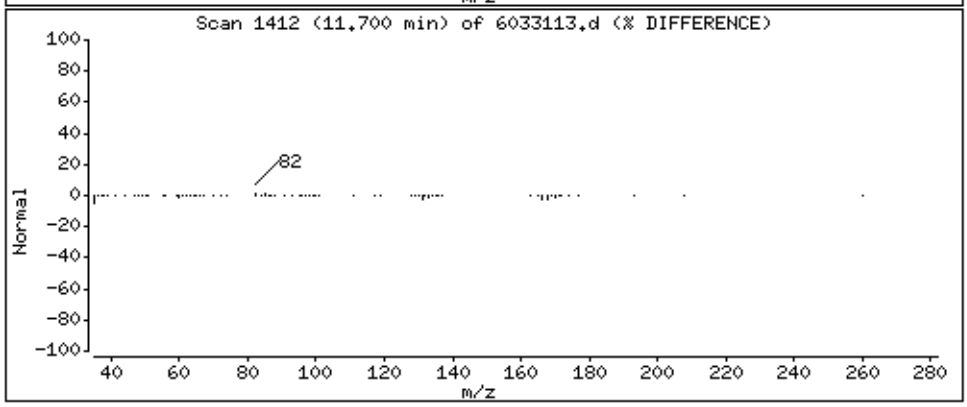












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

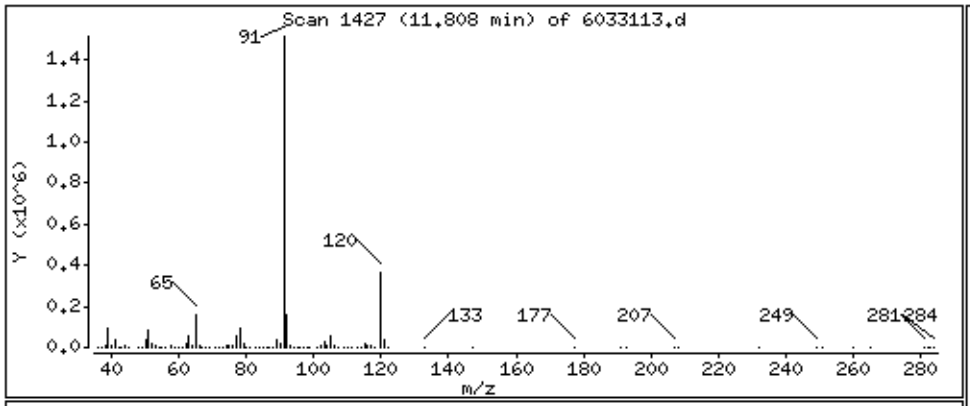
Operator: LA

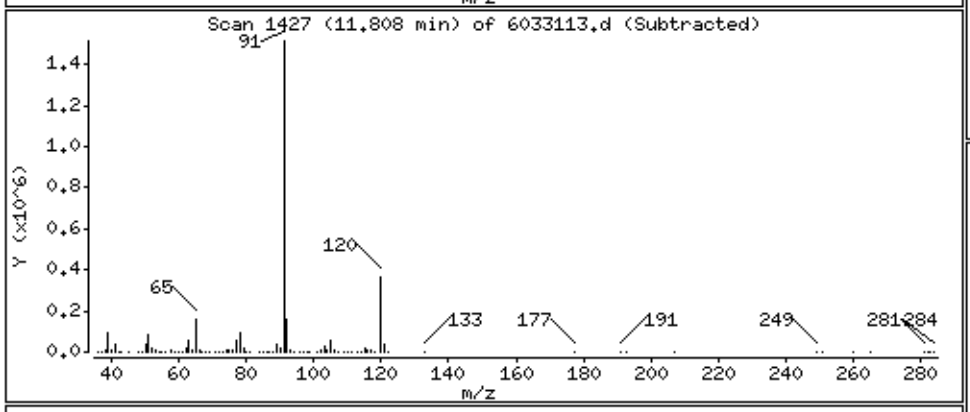
Column phase: RTx-624

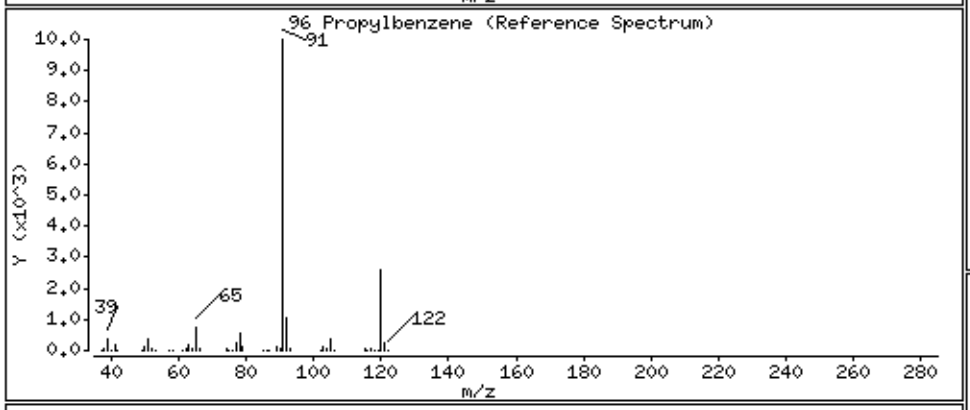
Column diameter: 0.53

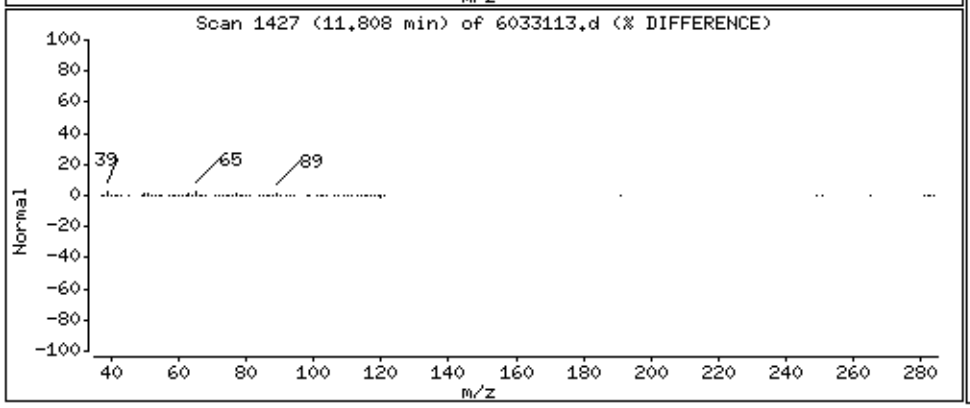
96 Propylbenzene

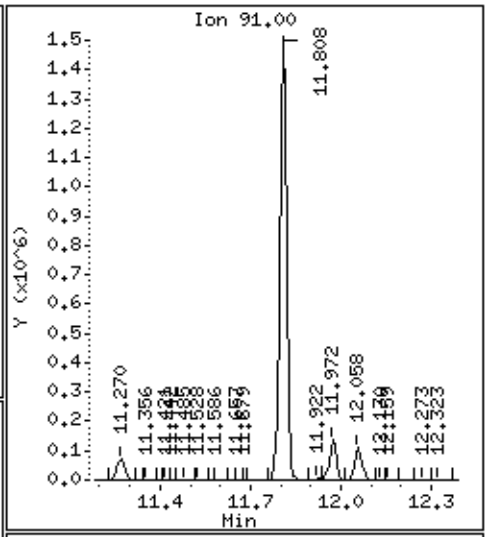
Concentration: 107.23 NG

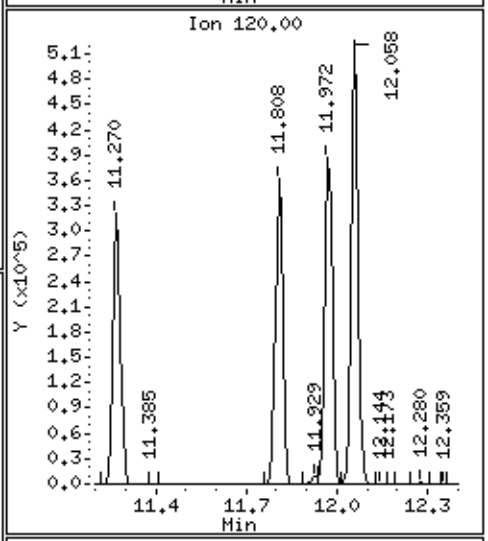


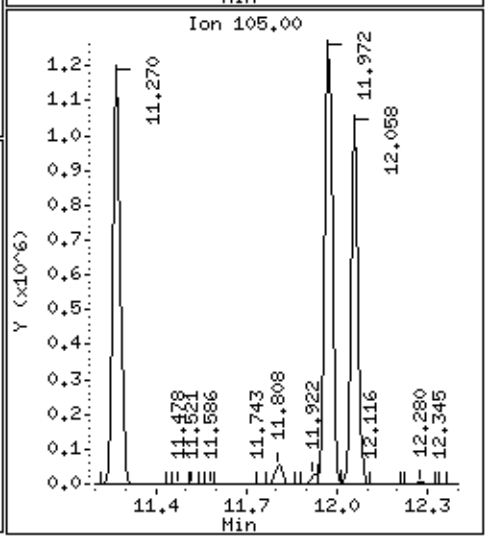












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

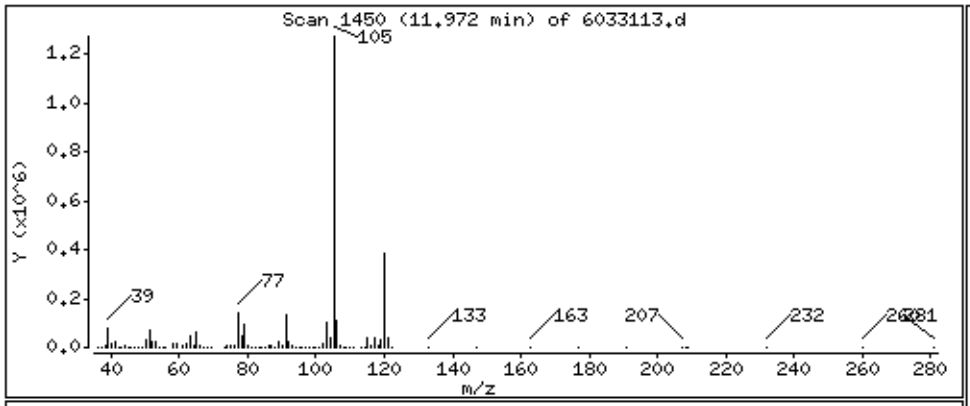
Operator: LA

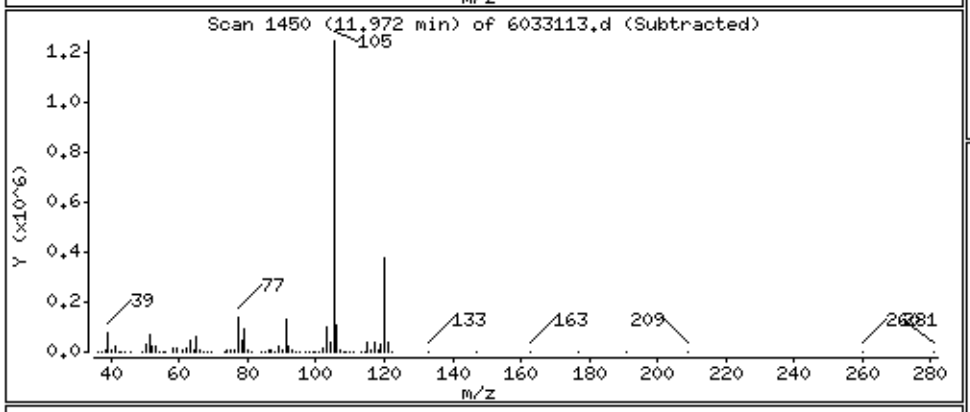
Column phase: RTx-624

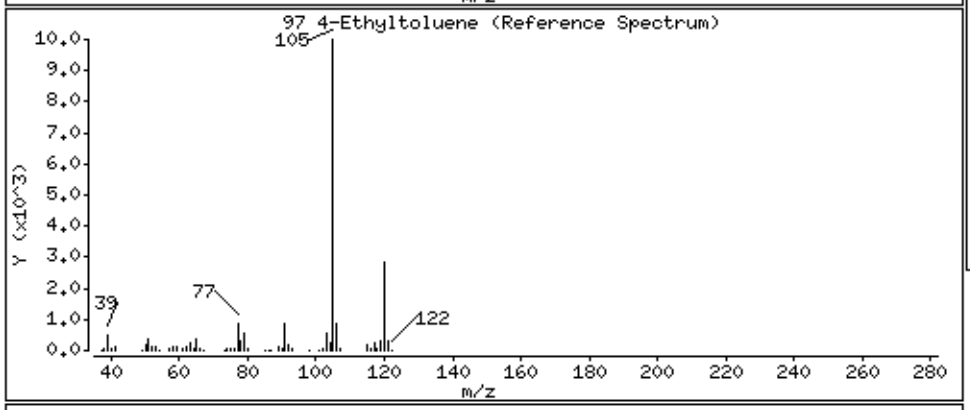
Column diameter: 0.53

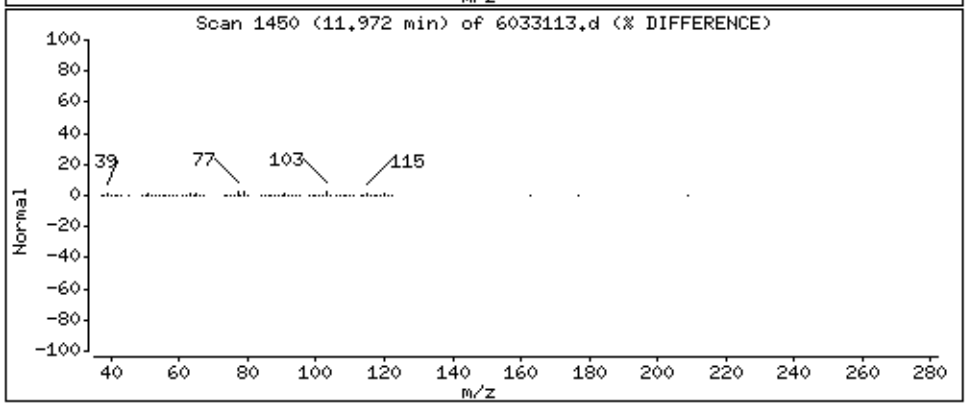
97 4-Ethyltoluene

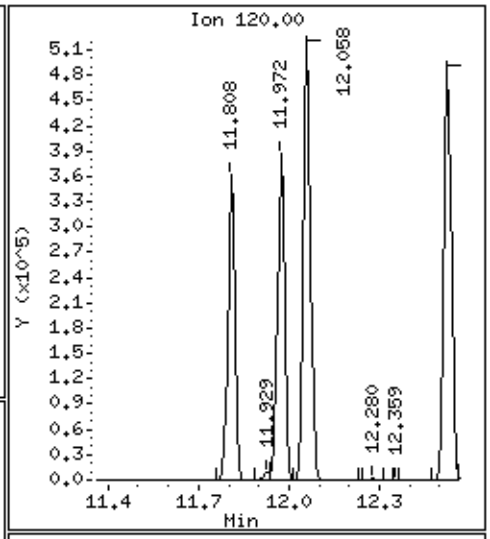
Concentration: 103.28 NG

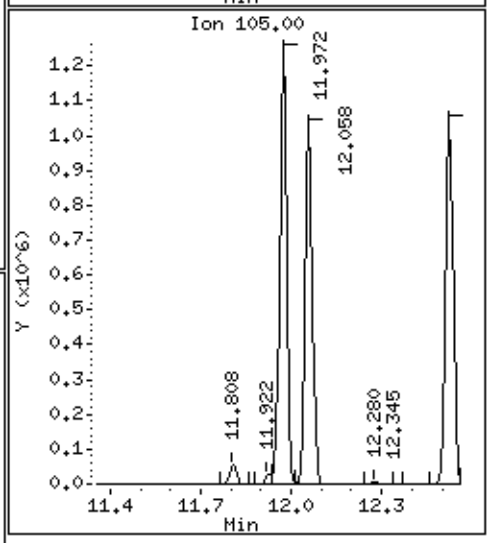












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

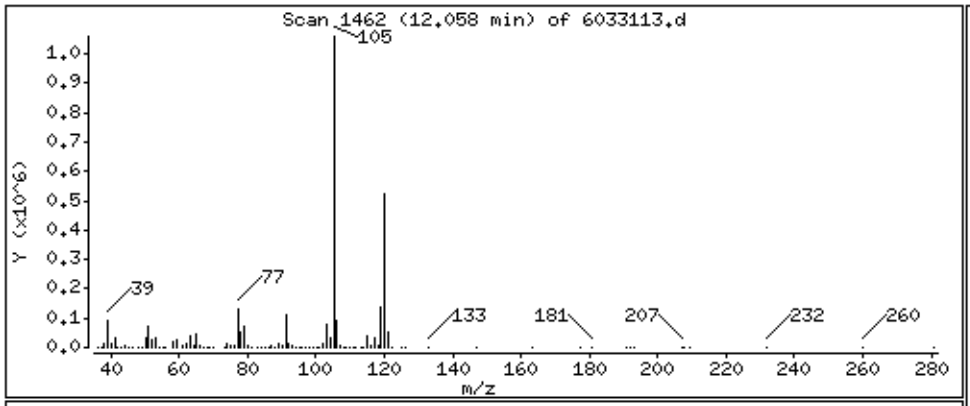
Operator: LA

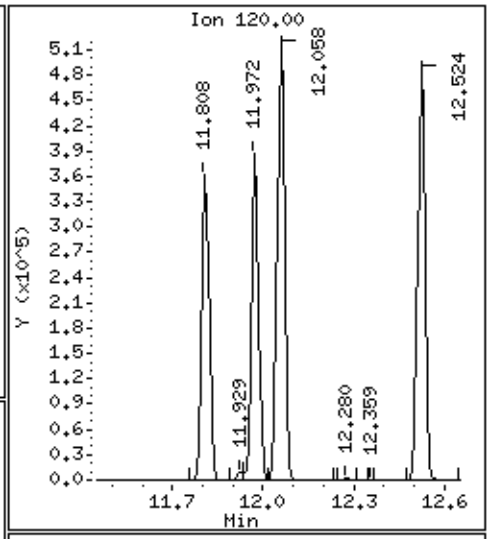
Column phase: RTx-624

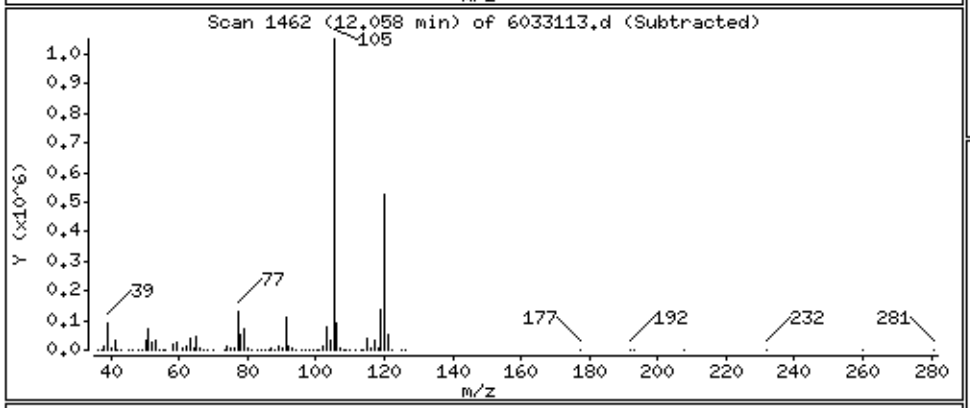
Column diameter: 0.53

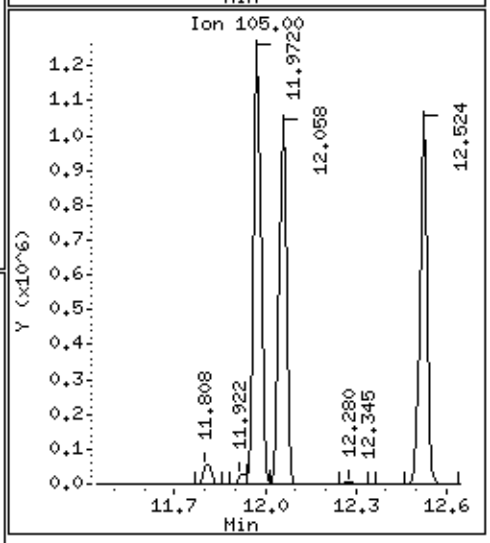
98 1,3,5-Trimethylbenzene

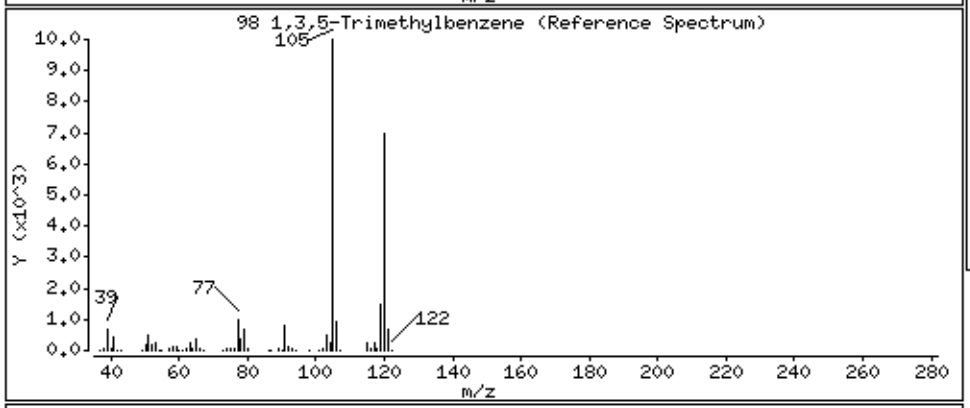
Concentration: 102.89 NG

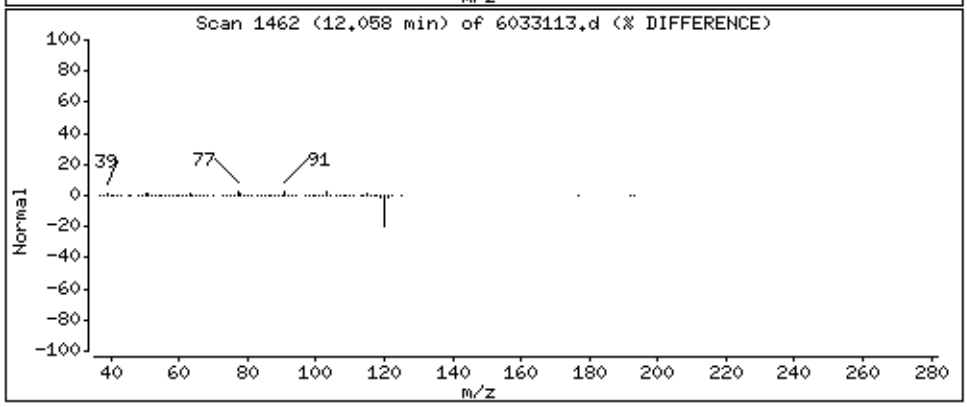












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

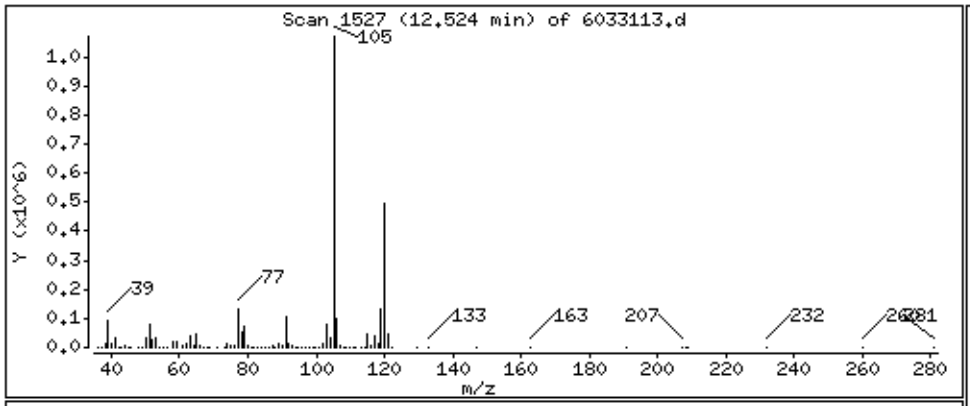
Operator: LA

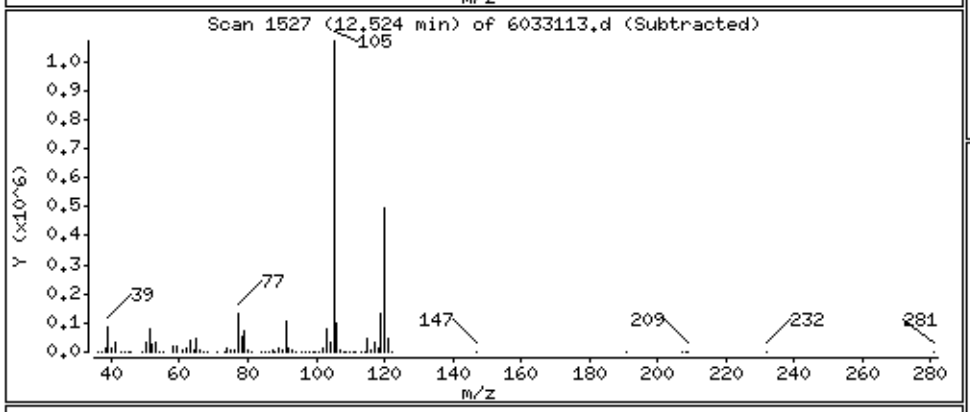
Column phase: RTx-624

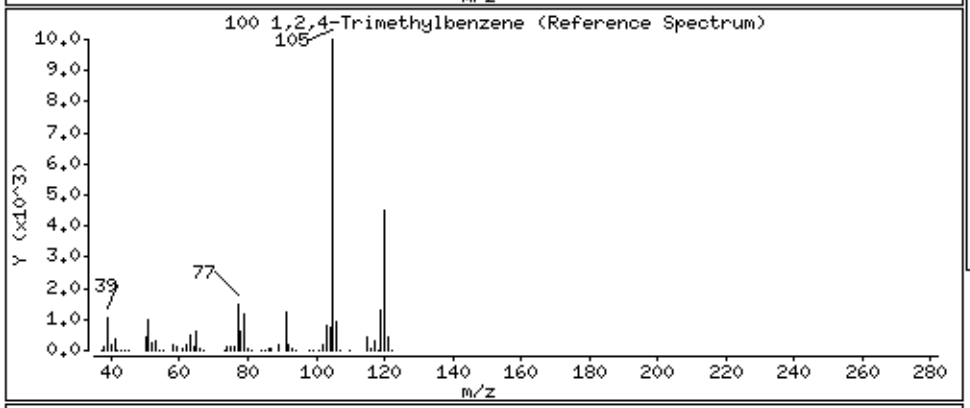
Column diameter: 0.53

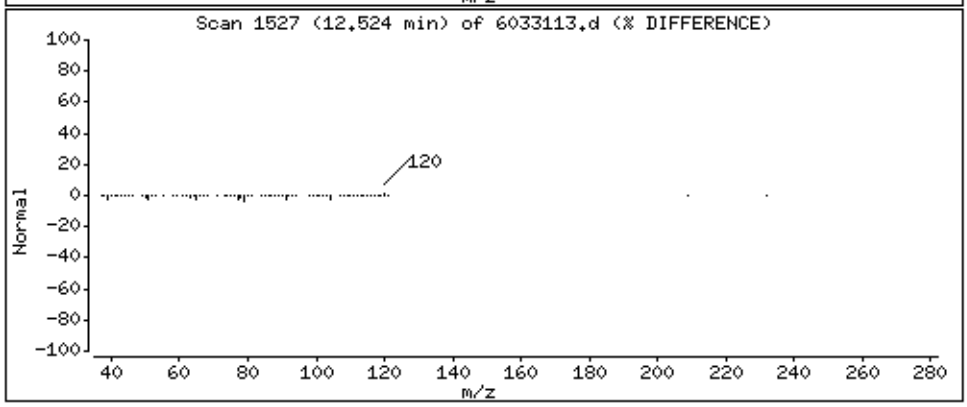
100 1,2,4-Trimethylbenzene

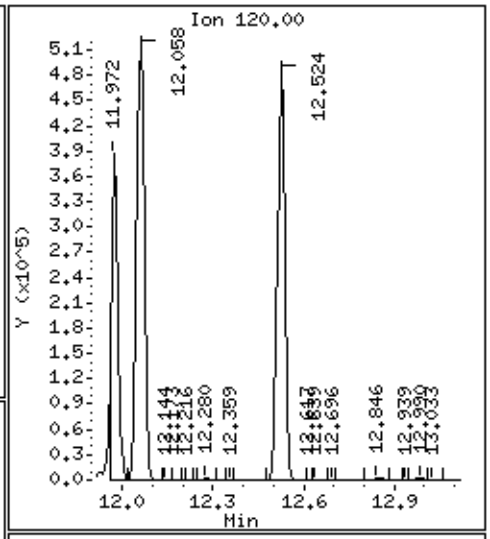
Concentration: 102.39 NG

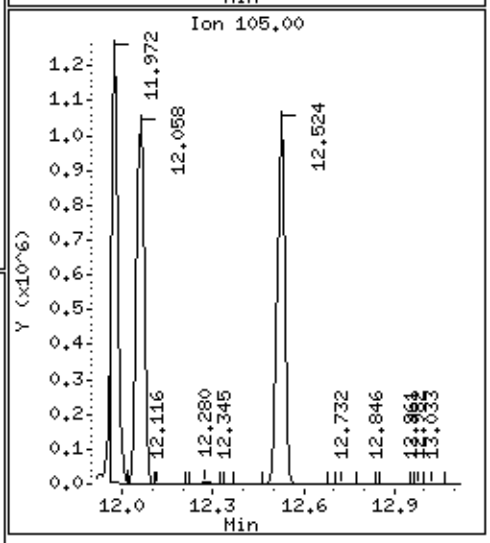












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

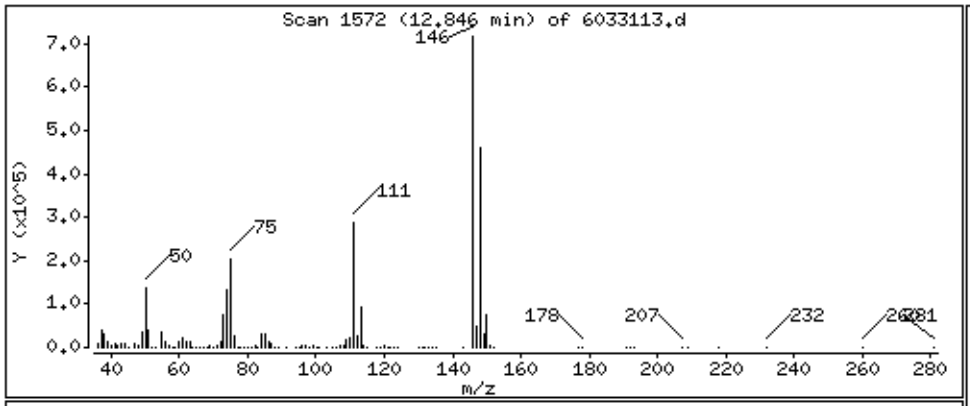
Operator: LA

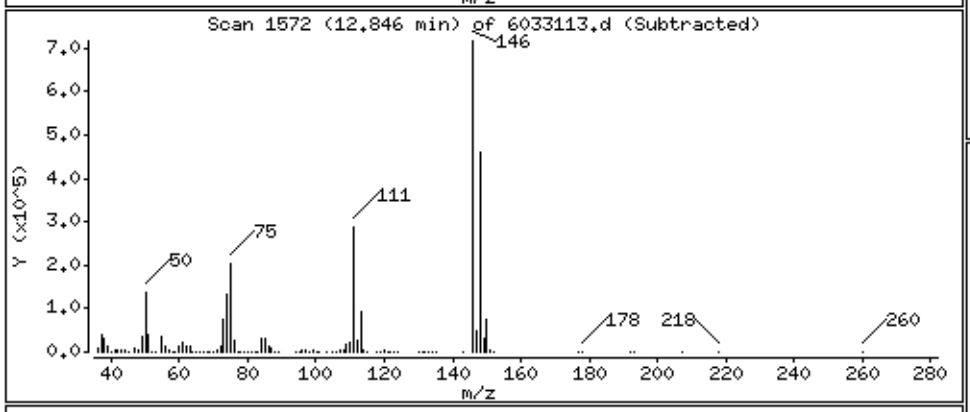
Column phase: RTx-624

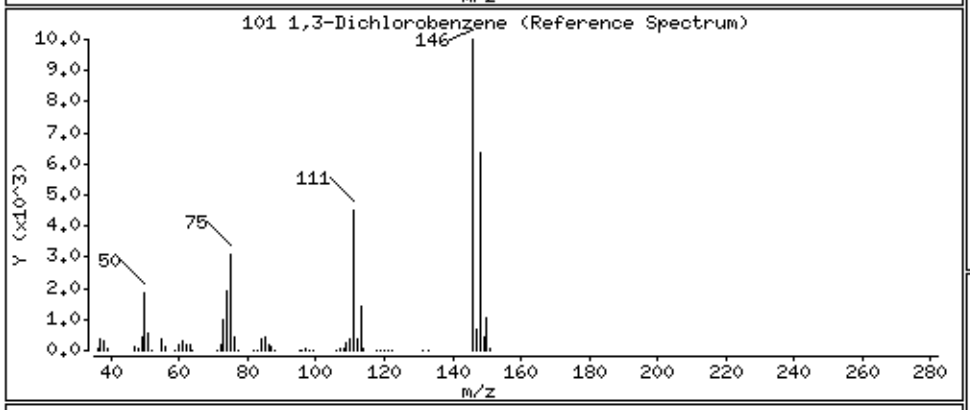
Column diameter: 0.53

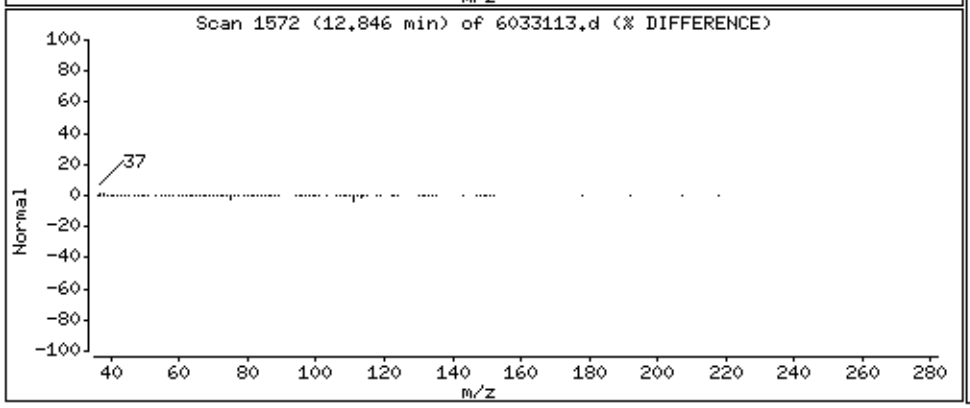
101 1,3-Dichlorobenzene

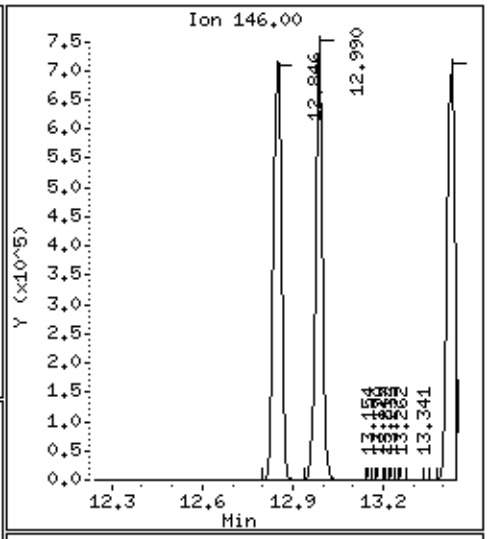
Concentration: 126.14 NG

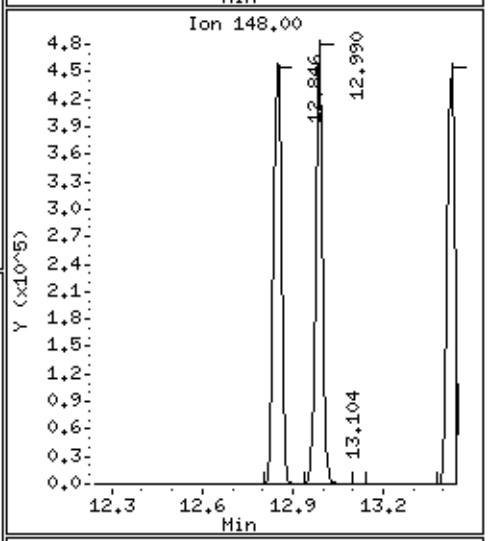


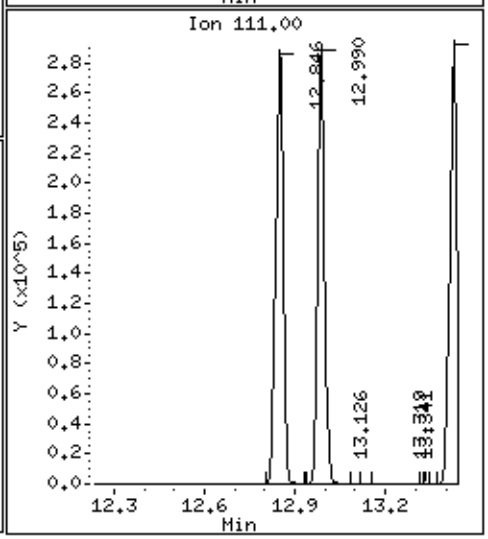












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

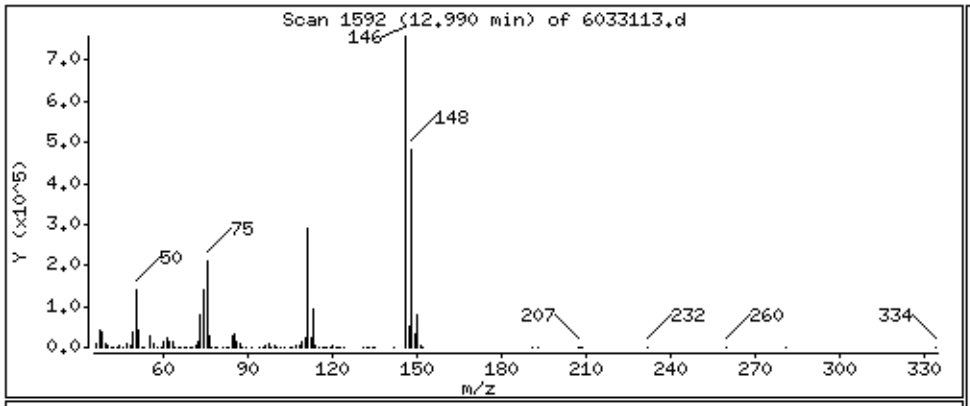
Operator: LA

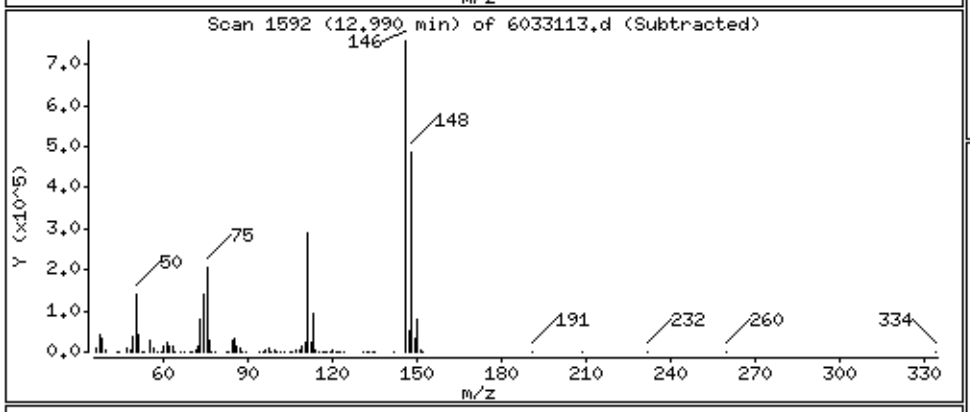
Column phase: RTx-624

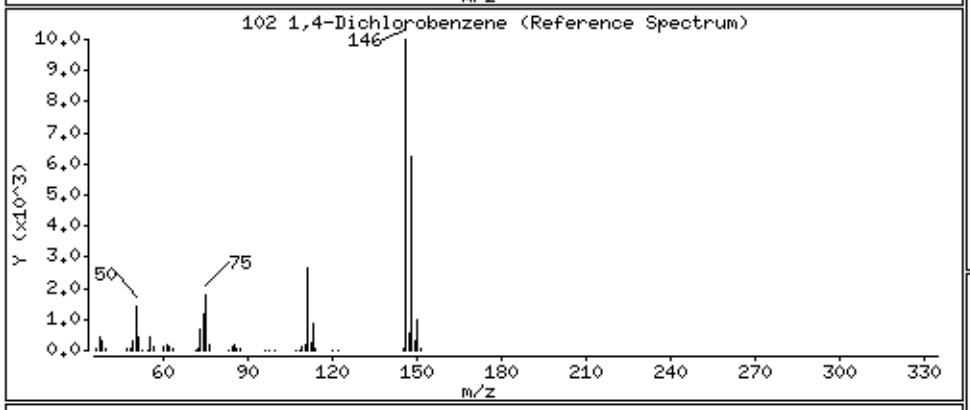
Column diameter: 0.53

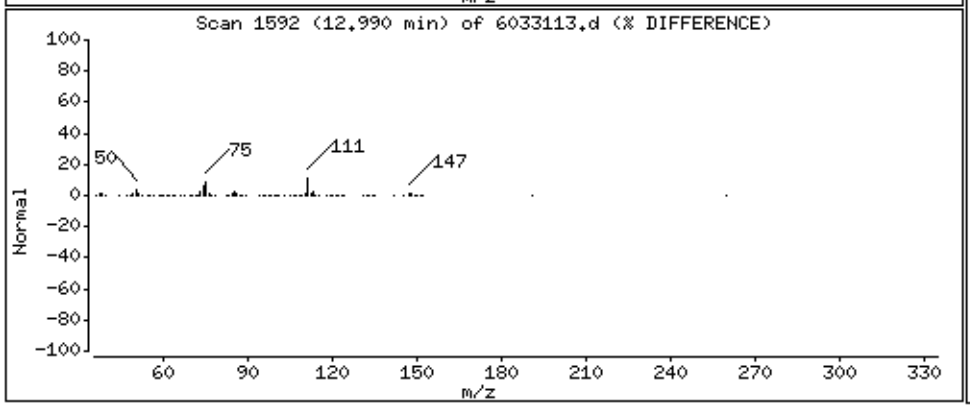
102 1,4-Dichlorobenzene

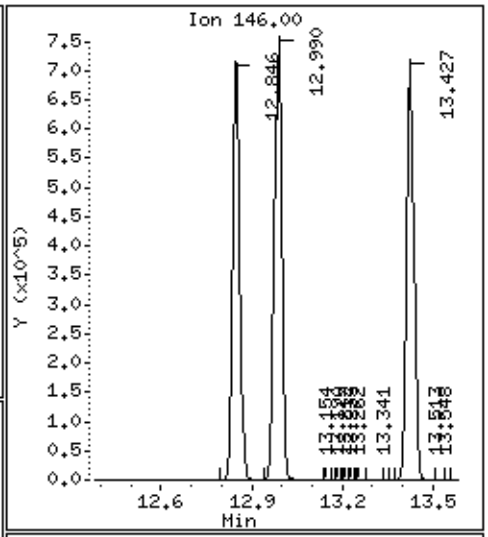
Concentration: 126.30 NG

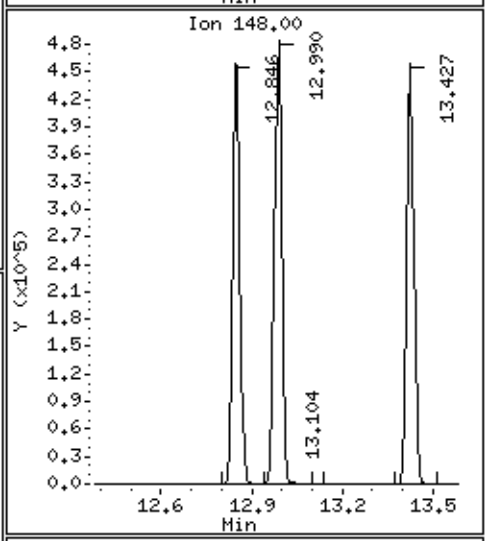


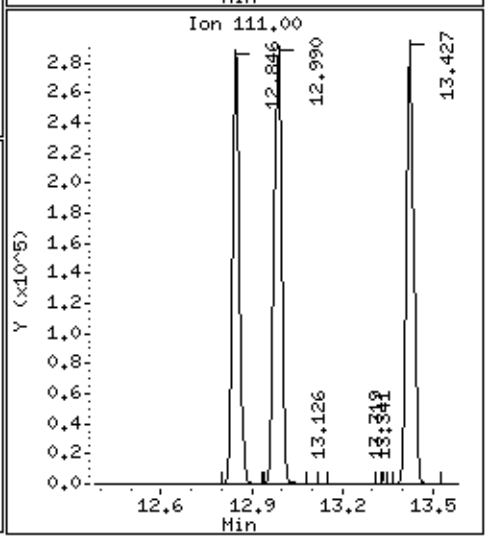












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

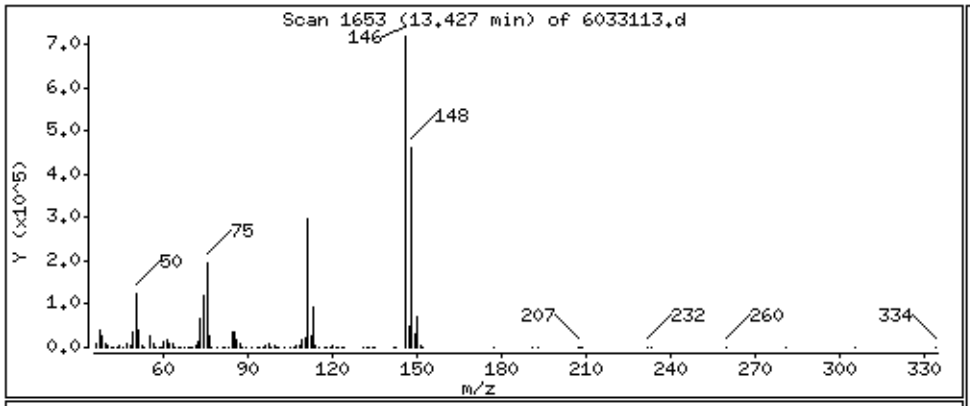
Operator: LA

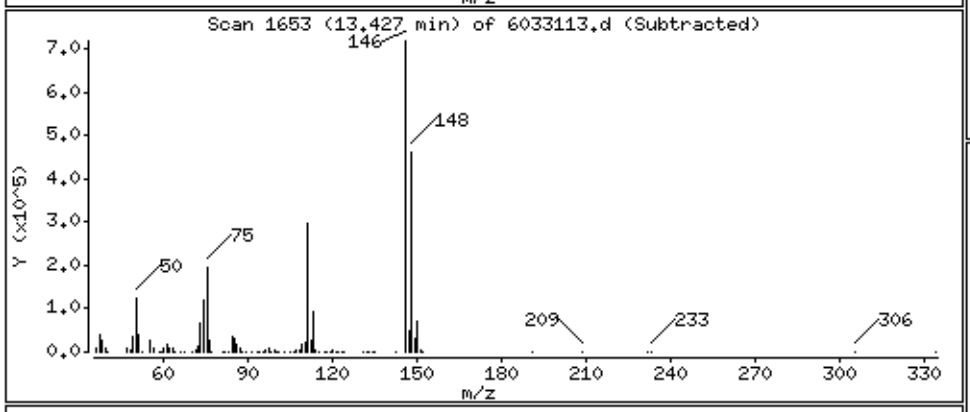
Column phase: RTx-624

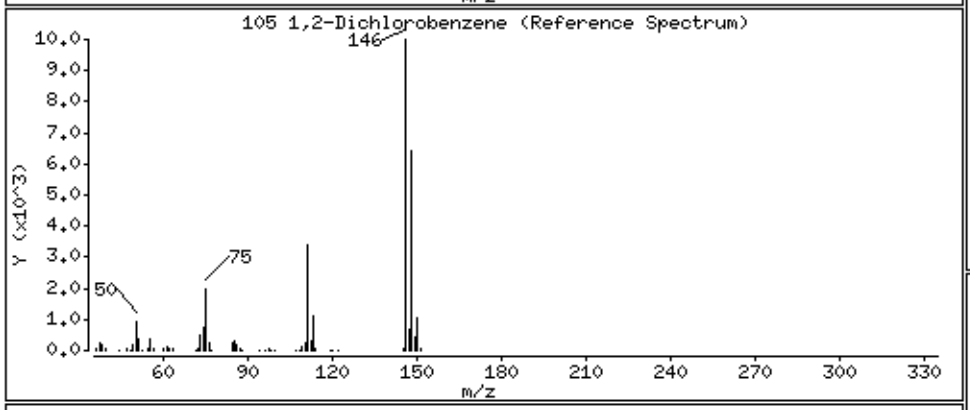
Column diameter: 0.53

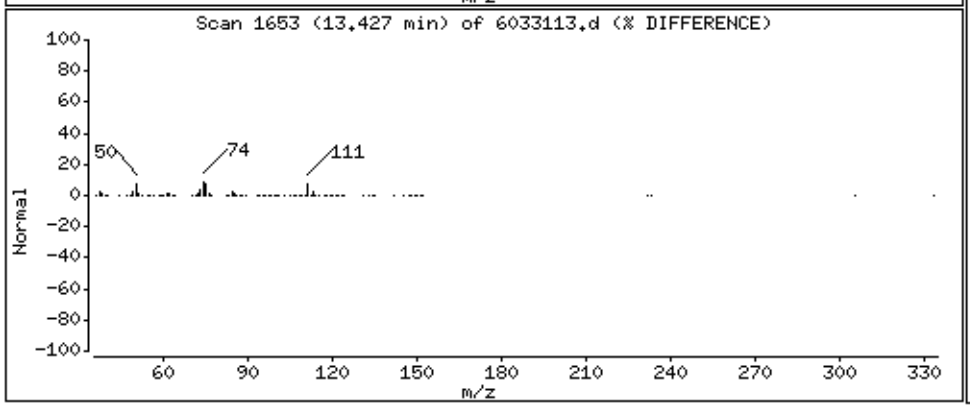
105 1,2-Dichlorobenzene

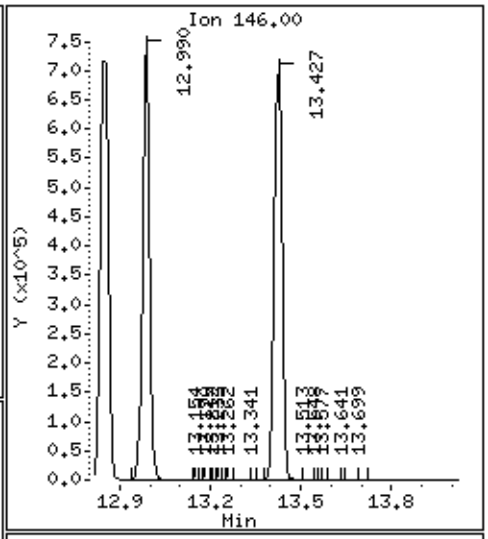
Concentration: 126.78 NG

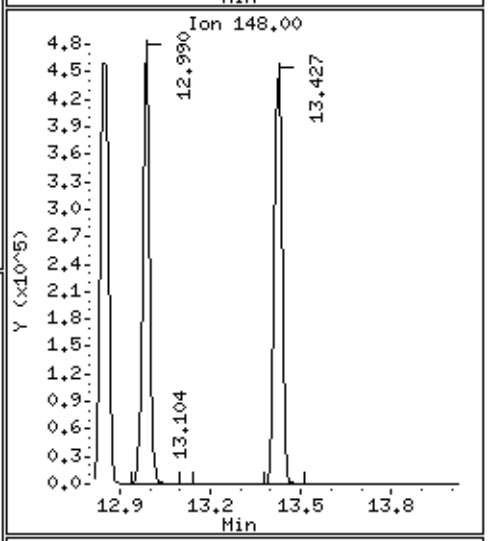


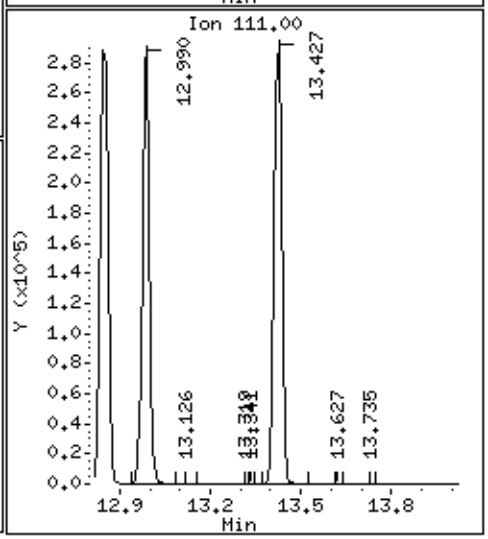












Data File: /chem/msd6.i/31mar16.b/6033113.d

Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

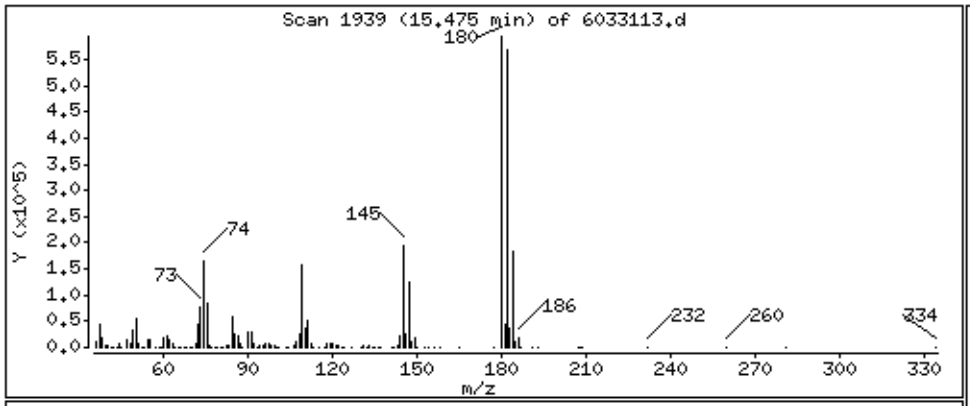
Operator: LA

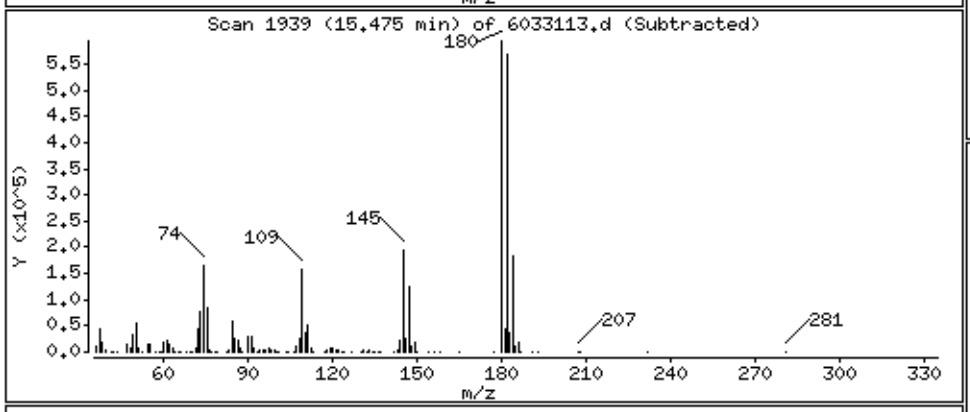
Column phase: RTx-624

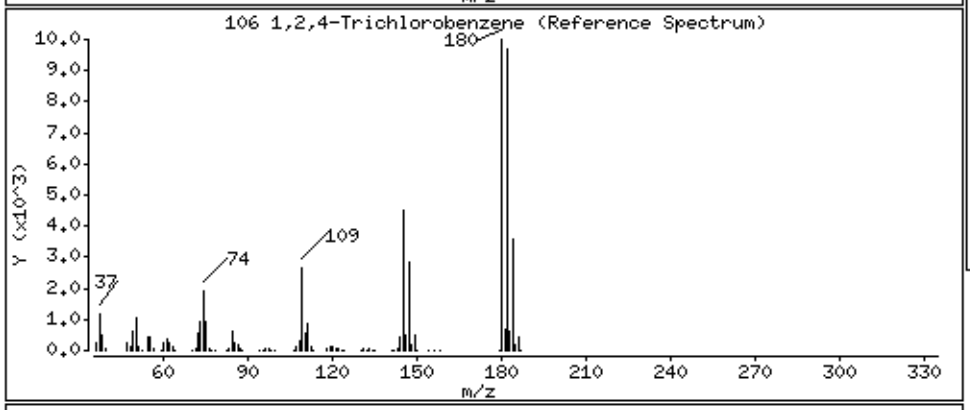
Column diameter: 0.53

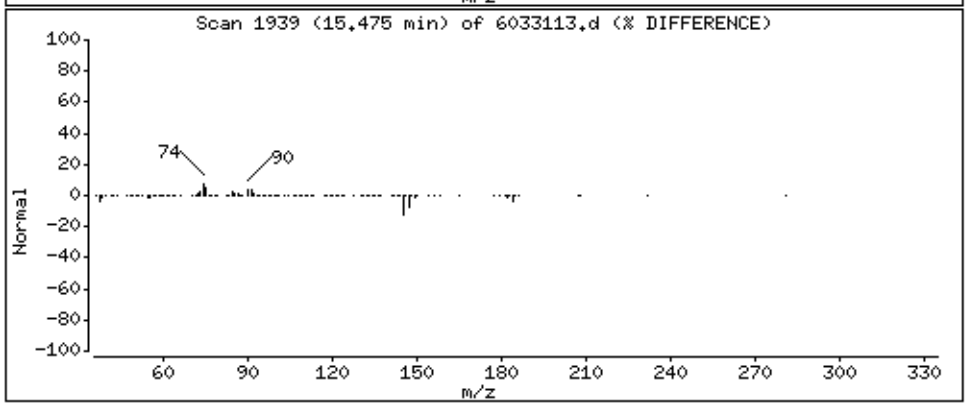
106 1,2,4-Trichlorobenzene

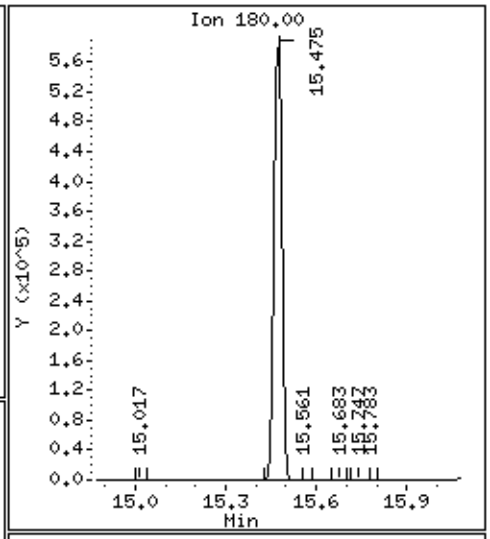
Concentration: 153.44 NG

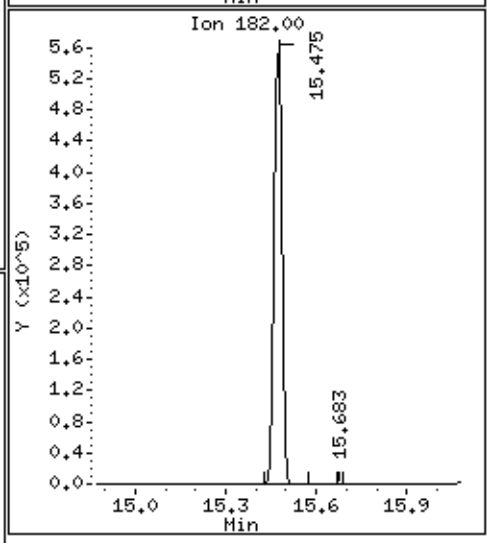












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Date : 31-MAR-2016 01:31

Client ID: LCS, 25ngSurr

Instrument: msd6.i

Sample Info: ;VI VOC+PAH ICV/LCS;LCS, 25ngSurr

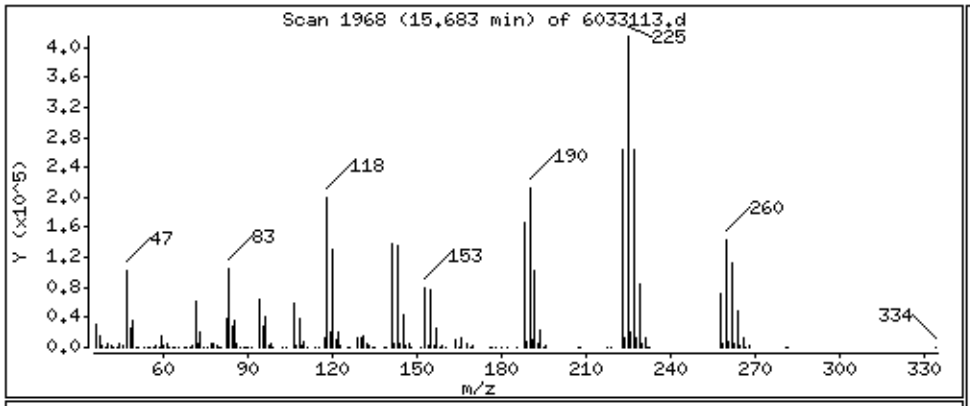
Operator: LA

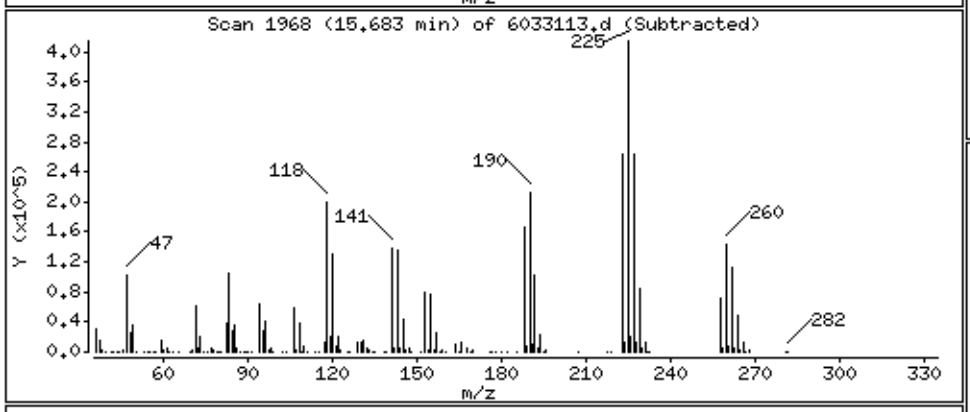
Column phase: RTx-624

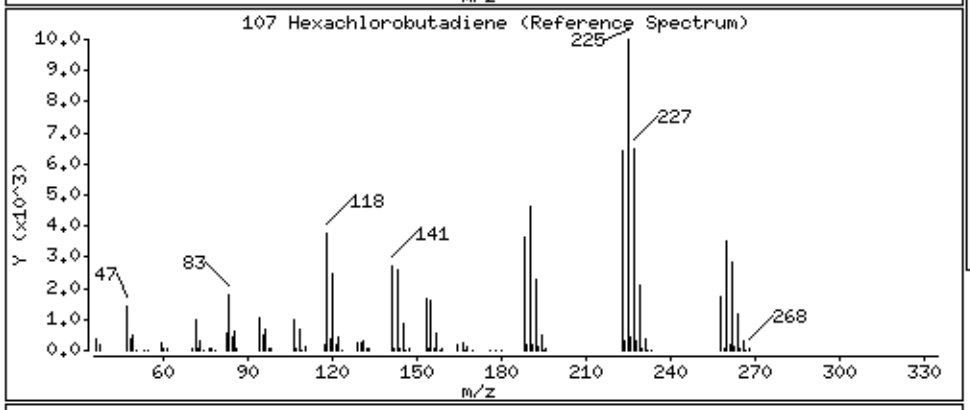
Column diameter: 0.53

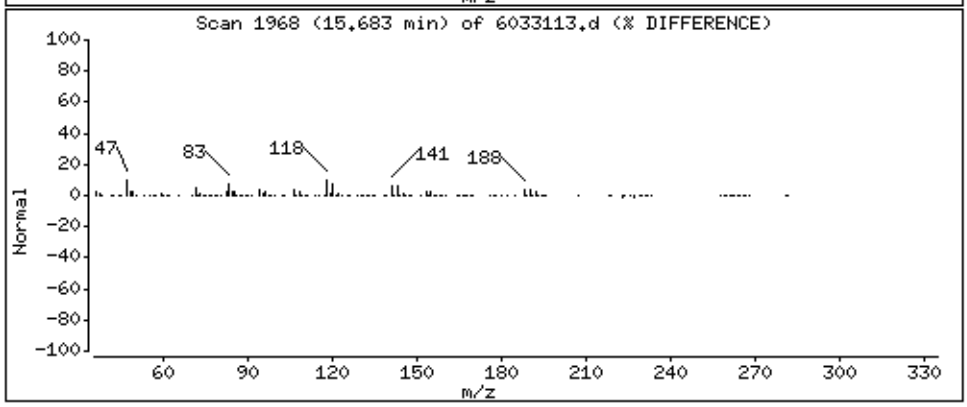
107 Hexachlorobutadiene

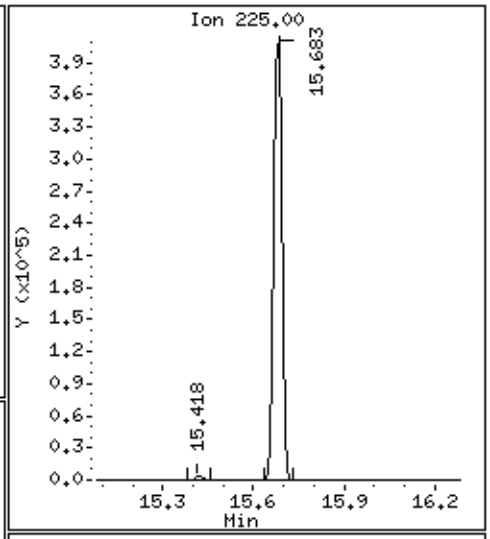
Concentration: 220.32 NG

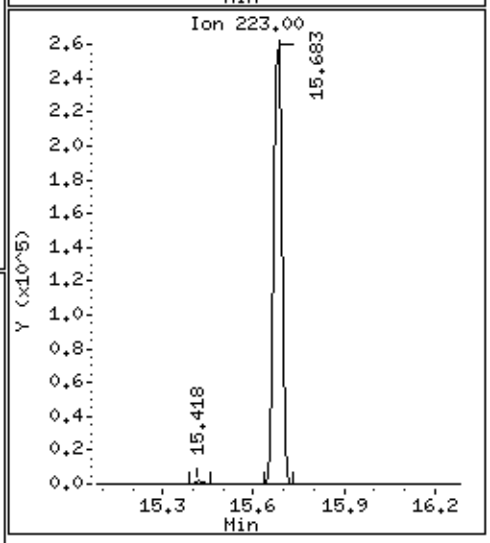












Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

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Inj Date : 30-MAR-2016 18:14
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL1,1.0ngSurr
Misc Info : 2516-232-1ml(6/11/16),2744-31-1(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 18:14 Cal File: 6033102.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+naphsnoSS.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane					CAS #: 74-97-5		
4.380	4.380 (1.000)	130	224414	26.0000		80.00- 120.00	100.00
4.380	4.380 (1.000)	128	172521			48.25- 108.25	76.88
4.380	4.380 (1.000)	49	305391			107.14- 167.14	136.08
* 54 1,4-Difluorobenzene					CAS #: 540-36-3		
6.013	6.013 (1.000)	114	873345	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	136571			0.00- 45.65	15.64
* 79 Chlorobenzene-d5					CAS #: 3114-55-4		
9.909	9.909 (1.000)	117	793716	24.0000		80.00- 120.00	100.00
9.909	9.909 (1.000)	82	423276			23.14- 83.14	53.33
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	511896	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	630581			92.70- 152.70	123.19
11.464	11.464 (1.000)	176	501101			68.24- 128.24	97.89
3 Freon 114					CAS #: 76-14-2		
1.269	1.269 (0.290)	135	26205	6.99000	6.501	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
3 Freon 114 (continued)							
1.269	1.269 (0.290)	137	8964			2.17- 62.17	34.21
6 Vinyl Chloride					CAS #: 75-01-4		
1.395	1.395 (0.318)	62	15514	2.56000	2.452	80.00- 120.00	100.00
1.311	1.311 (0.299)	64	155550			12.66- 72.66	1002.64
7 1,3-Butadiene					CAS #: 106-99-0		
1.409	1.409 (0.322)	54	13046	2.21000	2.158	80.00- 120.00	100.00
1.395	1.395 (0.318)	39	25838			133.58- 193.58	198.05
9 Chloroethane					CAS #: 75-00-3		
1.660	1.660 (0.379)	64	16058	2.64000	4.423	80.00- 120.00	100.00
1.660	1.660 (0.379)	66	2669			0.00- 58.31	16.62
1.660	1.660 (0.379)	49	3311			0.00- 59.65	20.62
10 Isopentane					CAS #: 78-78-4		
1.702	1.702 (0.389)	57	13242	2.95000	2.856	80.00- 120.00	100.00
1.702	1.702 (0.389)	43	22656			134.33- 194.33	171.09
11 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
1.828	1.828 (0.417)	101	38160	5.62000	5.333	80.00- 120.00	100.00
1.828	1.828 (0.417)	103	24717			35.98- 95.98	64.77
15 Freon 113					CAS #: 76-13-1		
2.195	2.195 (0.501)	151	29969	7.66000	7.256	80.00- 120.00	100.00
2.195	2.195 (0.501)	153	19342			34.66- 94.66	64.54
2.195	2.195 (0.501)	101	34921			88.64- 148.64	116.52
14 1,1-Dichloroethene					CAS #: 75-35-4		
2.202	2.202 (0.503)	98	11365	3.97000	3.944	80.00- 120.00	100.00
2.202	2.202 (0.503)	96	18698			127.15- 187.15	164.52
2.202	2.202 (0.503)	61	29656			230.60- 290.60	260.94
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.544)	76	61485	3.11000	3.648	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.309	2.309 (0.527)	45	101169	2.46000	6.451	80.00- 120.00	100.00
2.309	2.309 (0.527)	43	19936			0.00- 49.91	19.71
2.302	2.302 (0.526)	59	4008			0.00- 33.48	3.96
22 Methylene Chloride					CAS #: 75-09-2		
2.603	2.603 (0.594)	49	88429	3.47000	12.283	80.00- 120.00	100.00
2.610	2.610 (0.596)	84	61847			38.62- 98.62	69.94
2.610	2.610 (0.596)	51	26695			0.43- 60.43	30.19

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
26 MTBE					CAS #: 1634-04-4		
2.832	2.832 (0.647)	73	41887	3.61000	3.490	80.00- 120.00	100.00
2.832	2.832 (0.647)	57	9964			0.00- 54.76	23.79
2.832	2.832 (0.647)	41	9943			0.00- 56.57	23.74
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.854 (0.652)	98	10652	3.96000	3.699	80.00- 120.00	100.00
2.854	2.854 (0.652)	61	24883			200.79- 260.79	233.60
2.854	2.854 (0.652)	96	17364			126.39- 186.39	163.01
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.715)	57	29946	3.52000	3.566	80.00- 120.00	100.00
3.133	3.133 (0.715)	43	21783			41.77- 101.77	72.74
3.126	3.126 (0.714)	86	4474			0.00- 43.88	14.94
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.319	3.319 (0.758)	63	29111	4.05000	3.804	80.00- 120.00	100.00
3.312	3.312 (0.756)	65	10303			1.71- 61.71	35.39
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.036	4.036 (0.921)	98	12204	3.96000	3.952	80.00- 120.00	100.00
4.029	4.029 (0.920)	96	17479			126.11- 186.11	143.22
4.029	4.029 (0.920)	61	27795			179.91- 239.91	227.75
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.917)	72	46462	2.95000	14.742	80.00- 120.00	100.00
4.014	4.014 (0.917)	43	233281			469.10- 529.10	502.09
4.014	4.014 (0.917)	57	19431			6.15- 66.15	41.82
44 Chloroform					CAS #: 67-66-3		
4.551	4.551 (1.039)	83	36480	4.88000	4.964	80.00- 120.00	100.00
4.551	4.551 (1.039)	85	24164			35.99- 95.99	66.24
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	22023	3.44000	3.337	80.00- 120.00	100.00
4.867	4.867 (0.809)	56	28581			102.79- 162.79	129.78
4.874	4.874 (0.811)	41	18924			54.37- 114.37	85.93
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.774	4.774 (0.794)	97	31695	5.46000	4.898	80.00- 120.00	100.00
4.774	4.774 (0.794)	99	21255			34.68- 94.68	67.06
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.003	5.003 (0.832)	119	29304	6.29000	5.182	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	30884			73.19- 133.19	105.39

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.533 (0.920)	57	88616	4.67000	4.424	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	31045			1.74- 61.74	35.03
5.533	5.533 (0.920)	41	36316			0.34- 60.34	40.98
48 Benzene					CAS #: 71-43-2		
5.318	5.318 (0.884)	78	100842	3.19000	5.265	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	23115			0.00- 53.53	22.92
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	24503	4.05000	4.155	80.00- 120.00	100.00
5.425	5.425 (0.902)	64	8517			2.15- 62.15	34.76
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	19093	4.10000	4.244	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	73100			188.80- 248.80	382.86
5.834	5.834 (0.970)	57	19214			71.78- 131.78	100.63
56 Trichloroethene					CAS #: 79-01-6		
6.314	6.314 (1.050)	95	28443	5.37000	5.405	80.00- 120.00	100.00
6.314	6.314 (1.050)	130	29352			74.74- 134.74	103.20
6.314	6.314 (1.050)	97	18768			34.87- 94.87	65.98
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.614	6.614 (1.100)	83	31207	4.02000	3.808	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	14289			14.22- 74.22	45.79
6.622	6.622 (1.101)	55	27684			58.24- 118.24	88.71
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	19460	4.62000	4.404	80.00- 120.00	100.00
6.679	6.679 (1.111)	62	13643			39.32- 99.32	70.11
6.679	6.679 (1.111)	41	14440			37.26- 97.26	74.20
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.131)	88	13838	3.60000	3.672	80.00- 120.00	100.00
6.793	6.793 (1.130)	58	13898			41.28- 101.28	100.43
6.808	6.808 (1.132)	57	29308			0.62- 60.62	211.79
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.897	7.897 (1.313)	58	16603	4.10000	3.827	80.00- 120.00	100.00
7.904	7.904 (1.314)	43	48800			263.34- 323.34	293.92
7.897	7.897 (1.313)	85	7353			12.32- 72.32	44.29
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	82874	3.77000	4.346	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	48083			28.18- 88.18	58.02

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.713	8.713 (1.449)	97	24803	5.46000	5.621	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	14288			32.32- 92.32	57.61
8.706	8.706 (1.448)	83	19181			54.42- 114.42	77.33
71 Tetrachloroethene					CAS #: 127-18-4		
8.770	8.770 (0.885)	166	32236	6.78000	6.397	80.00- 120.00	100.00
8.763	8.763 (0.884)	129	25836			47.21- 107.21	80.15
8.763	8.763 (0.884)	131	25621			44.68- 104.68	79.48
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	22427	4.10000	3.901	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	48258			181.19- 241.19	215.18
9.021	9.021 (0.910)	100	4351			0.00- 48.53	19.40
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	33913	7.68000	7.165	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	32991			64.88- 124.88	97.28
81 Chlorobenzene					CAS #: 108-90-7		
9.945	9.945 (1.004)	112	55243	4.60000	4.525	80.00- 120.00	100.00
9.945	9.945 (1.004)	114	18289			2.37- 62.37	33.11
9.945	9.945 (1.004)	77	31854			25.58- 85.58	57.66
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	27986	4.34000	4.211	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	90292			283.92- 343.92	322.63
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	39188	4.34000	4.547	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	78325			168.48- 228.48	199.87
88 o-Xylene					CAS #: 95-47-6		
10.762	10.762 (0.939)	106	32404	4.34000	4.203	80.00- 120.00	100.00
10.762	10.762 (0.939)	91	66611			179.05- 239.05	205.56
89 Styrene					CAS #: 100-42-5		
10.798	10.798 (0.942)	104	57945	4.26000	4.359	80.00- 120.00	100.00
10.798	10.798 (0.942)	78	28788			17.71- 77.71	49.68
91 Cumene					CAS #: 98-82-8		
11.249	11.249 (0.981)	105	92604	4.92000	4.568	80.00- 120.00	100.00
11.249	11.249 (0.981)	120	24828			0.00- 56.88	26.81
11.249	11.249 (0.981)	51	10014			0.00- 40.57	10.81
94 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
11.686	11.686 (1.019)	83	39912	6.87000	5.955	80.00- 120.00	100.00

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

   94 1,1,2,2-Tetrachloroethane (continued)
 11.686  11.686 (1.019)    85     27449                    35.63-  95.63    68.77
-------------------------------------------------------------------------------
   96 Propylbenzene                                CAS #: 103-65-1
 11.786  11.786 (1.028)    91    109096 4.92000    4.549  80.00- 120.00   100.00
 11.786  11.786 (1.028)   120     25453                     0.00-  53.76    23.33
 11.793  11.793 (1.029)   105      4635                     0.00-  33.79     4.25
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                               CAS #: 622-96-8
 11.958  11.958 (1.043)   120     25878 4.92000    4.195  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105     85338                   299.98- 359.98   329.77
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 12.044  12.044 (1.051)   120     36885 4.92000    4.241  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105     72858                   169.84- 229.84   197.53
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 12.510  12.510 (1.091)   120     34245 4.92000    4.225  80.00- 120.00   100.00
 12.495  12.495 (1.090)   105    152116                   188.24- 248.24   444.20
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                          CAS #: 541-73-1
 12.839  12.839 (1.120)   146     49510 6.01000    4.936  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148     31894                    33.94-  93.94    64.42
 12.839  12.839 (1.120)   111     20642                     9.99-  69.99    41.69
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                          CAS #: 106-46-7
 12.975  12.975 (1.132)   146     48616 6.01000    4.854  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148     31529                    33.56-  93.56    64.85
 12.975  12.975 (1.132)   111     19339                     8.12-  68.12    39.78
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                          CAS #: 95-50-1
 13.412  13.412 (1.170)   146     45055 6.01000    4.753  80.00- 120.00   100.00
 13.412  13.412 (1.170)   148     28610                    33.25-  93.25    63.50
 13.412  13.412 (1.170)   111     18695                    11.16-  71.16    41.49
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 15.468  15.468 (1.349)   180     44420 7.42000    6.816  80.00- 120.00   100.00
 15.468  15.468 (1.349)   182     40998                    64.82- 124.82    92.30
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                          CAS #: 87-68-3
 15.676  15.676 (1.367)   225     40537 10.7000   12.104  80.00- 120.00   100.00
 15.676  15.676 (1.367)   223     25677                    32.09-  92.09    63.34
-------------------------------------------------------------------------------
  109 Naphthalene                                  CAS #: 91-20-3
 15.783  15.783 (1.377)   128     51545 1.00000    1.501  80.00- 120.00   100.00
 15.783  15.783 (1.377)   127      6922                     0.00-  43.01    13.43
-------------------------------------------------------------------------------
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RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
110 2-Methylnaphthalene						CAS #: 91-57-6		
17.237	17.237	(1.504)	142	21705	1.00000	1.093	80.00- 120.00	100.00
17.237	17.237	(1.504)	141	18871			57.55- 117.55	86.94
17.237	17.237	(1.504)	115	7872			2.88- 62.88	36.27
111 1-Methylnaphthalene						CAS #: 90-12-0		
17.459	17.459	(1.523)	142	18771	1.00000	1.052	80.00- 120.00	100.00
17.459	17.459	(1.523)	141	17592			60.83- 120.83	93.72
17.459	17.459	(1.523)	115	7394			4.35- 64.35	39.39

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033102.d
Lab Smp Id: VI VOC+PAH ICAL1,1.
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-1ml(6/11/16),2744-31-1(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	224414	-0.32
54 1,4-Difluorobenze	874568	524741	1224395	873345	-0.14
79 Chlorobenzene-d5	795881	477529	1114233	793716	-0.27
92 Bromofluorobenzen	515685	309411	721959	511896	-0.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.38	0.00
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd6.i/31mar16.b/6033102.d

Date : 30-MAR-2016 18:14

Client ID:

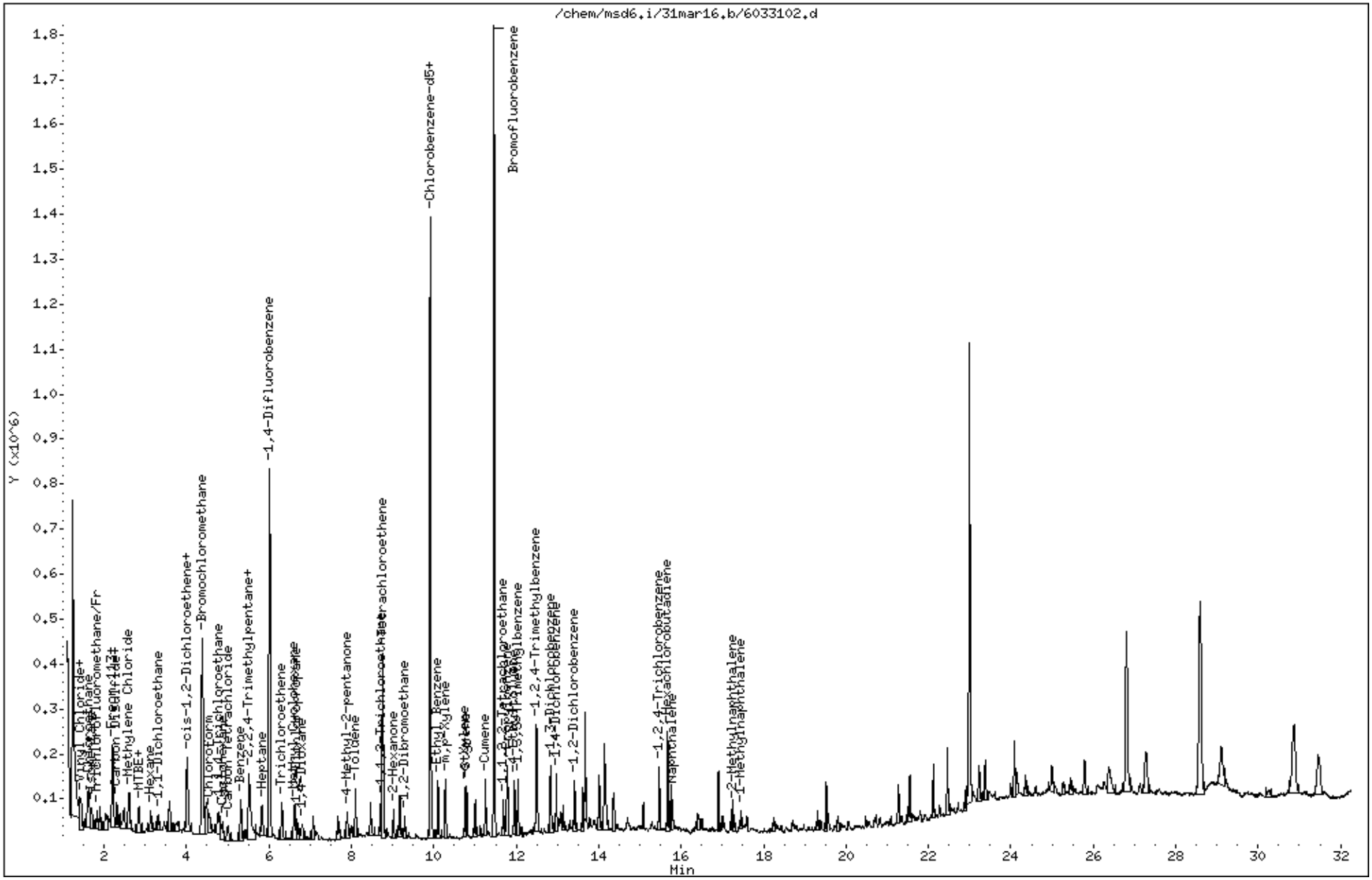
Sample Info: ;VI VOC+PAH ICAL1,1.0ngSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033103.d
Lab Smp Id: VI VOC+PAH ICAL2,2.
Inj Date : 30-MAR-2016 18:54
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL2,2.0ngSurr
Misc Info : 2516-232-2ml(6/11/16),2744-31-5(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 18:54 Cal File: 6033103.d
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane					CAS #: 74-97-5		
4.387	4.387 (1.000)	130	211375	26.0000		80.00- 120.00	100.00
4.380	4.380 (1.000)	128	163682			48.25- 108.25	77.44
4.387	4.387 (1.000)	49	289677			107.14- 167.14	137.04
* 54 1,4-Difluorobenzene					CAS #: 540-36-3		
6.013	6.013 (1.000)	114	876146	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	134731			0.00- 45.65	15.38
* 79 Chlorobenzene-d5					CAS #: 3114-55-4		
9.910	9.910 (1.000)	117	795755	24.0000		80.00- 120.00	100.00
9.910	9.910 (1.000)	82	421406			23.14- 83.14	52.96
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	512046	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	630450			92.70- 152.70	123.12
11.464	11.464 (1.000)	176	497981			68.24- 128.24	97.25
$ 49 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.311	5.311 (0.883)	65	9580	2.00000	2.064	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.311   5.311 (0.883)    67      5470                    22.28-  82.28    57.10
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  8.011   8.011 (0.808)    98     30052 2.00000    1.935  80.00- 120.00   100.00
  8.011   8.011 (0.808)    70      3772                     0.00-  40.54    12.55
  8.004   8.004 (0.808)   100     19720                    35.01-  95.01    65.62
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.747  15.747 (1.374)   136     75259 2.00000    2.610  80.00- 120.00   100.00
 15.747  15.747 (1.374)   108      7874                     0.00-  39.41    10.46
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.297   1.297 (0.296)   135     57407 14.0000   15.121  80.00- 120.00   100.00
  1.297   1.297 (0.296)   137     19148                     2.17-  62.17    33.35
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.409   1.409 (0.321)    62     32537 5.11000    5.460  80.00- 120.00   100.00
  1.409   1.409 (0.321)    64     19156                    12.66-  72.66    58.87
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.409   1.409 (0.321)    54     27029 4.42000    4.747  80.00- 120.00   100.00
  1.395   1.395 (0.318)    39     48956                   133.58- 193.58   181.12
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.675   1.675 (0.382)    64     24651 5.28000    7.208  80.00- 120.00   100.00(a)
  1.675   1.675 (0.382)    66      5290                     0.00-  58.31    21.46
  1.661   1.661 (0.379)    49      3859                     0.00-  59.65    15.65
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.703   1.703 (0.388)    57     27857 5.90000    6.378  80.00- 120.00   100.00
  1.703   1.703 (0.388)    43     47022                   134.33- 194.33   168.80
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.828   1.828 (0.417)   101     75041 11.2000   11.134  80.00- 120.00   100.00
  1.828   1.828 (0.417)   103     49311                    35.98-  95.98    65.71
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.195   2.195 (0.500)   151     62057 15.3000   15.951  80.00- 120.00   100.00
  2.195   2.195 (0.500)   153     40151                    34.66-  94.66    64.70
  2.195   2.195 (0.500)   101     73703                    88.64- 148.64   118.77
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.202   2.202 (0.502)    98     23623 7.93000    8.703  80.00- 120.00   100.00
  2.202   2.202 (0.502)    96     37451                   127.15- 187.15   158.54
  2.202   2.202 (0.502)    61     61312                   230.60- 290.60   259.54
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.543)	76	114535	6.23000	7.214	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.310	2.310 (0.526)	45	161290	4.92000	10.919	80.00- 120.00	100.00(a)
2.310	2.310 (0.526)	43	30056			0.00- 49.91	18.63
2.302	2.302 (0.525)	59	6195			0.00- 33.48	3.84
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.595)	49	107661	6.95000	15.877	80.00- 120.00	100.00(a)
2.610	2.610 (0.595)	84	74017			38.62- 98.62	68.75
2.610	2.610 (0.595)	51	31898			0.43- 60.43	29.63
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.854 (0.651)	98	23431	7.93000	8.638	80.00- 120.00	100.00
2.854	2.854 (0.651)	61	53719			200.79- 260.79	229.26
2.854	2.854 (0.651)	96	37142			126.39- 186.39	158.52
26 MTBE					CAS #: 1634-04-4		
2.832	2.832 (0.646)	73	87326	7.21000	7.725	80.00- 120.00	100.00(a)
2.832	2.832 (0.646)	57	23811			0.00- 54.76	27.27
2.832	2.832 (0.646)	41	24113			0.00- 56.57	27.61
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.714)	57	60970	7.05000	7.708	80.00- 120.00	100.00(a)
3.133	3.133 (0.714)	43	43483			41.77- 101.77	71.32
3.133	3.133 (0.714)	86	8938			0.00- 43.88	14.66
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.320	3.320 (0.757)	63	63623	8.10000	8.827	80.00- 120.00	100.00
3.320	3.320 (0.757)	65	20478			1.71- 61.71	32.19
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.029	4.029 (0.918)	98	25025	7.93000	8.605	80.00- 120.00	100.00
4.029	4.029 (0.918)	96	38318			126.11- 186.11	153.12
4.029	4.029 (0.918)	61	54234			179.91- 239.91	216.72
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.915)	72	56344	5.90000	18.980	80.00- 120.00	100.00(a)
4.014	4.014 (0.915)	43	284882			469.10- 529.10	505.61
4.014	4.014 (0.915)	57	23082			6.15- 66.15	40.97
44 Chloroform					CAS #: 67-66-3		
4.559	4.559 (1.039)	83	73290	9.77000	10.587	80.00- 120.00	100.00
4.559	4.559 (1.039)	85	48429			35.99- 95.99	66.08

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	46563	6.88000	7.032	80.00- 120.00	100.00
4.874	4.874 (0.811)	56	63795			102.79- 162.79	137.01
4.874	4.874 (0.811)	41	39971			54.37- 114.37	85.84
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.774	4.774 (0.794)	97	70557	10.9000	10.868	80.00- 120.00	100.00
4.774	4.774 (0.794)	99	45871			34.68- 94.68	65.01
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	73886	12.6000	13.024	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	75925			73.19- 133.19	102.76
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.540	5.540 (0.921)	57	194233	9.34000	9.665	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	61118			1.74- 61.74	31.47
5.533	5.533 (0.920)	41	63239			0.34- 60.34	32.56
48 Benzene					CAS #: 71-43-2		
5.318	5.318 (0.884)	78	161627	6.39000	8.412	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	38904			0.00- 53.53	24.07
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	48356	8.09000	8.174	80.00- 120.00	100.00
5.425	5.425 (0.902)	64	16696			2.15- 62.15	34.53
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	38367	8.20000	8.501	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	106083			188.80- 248.80	276.50
5.834	5.834 (0.970)	57	37849			71.78- 131.78	98.65
56 Trichloroethene					CAS #: 79-01-6		
6.321	6.321 (1.051)	95	61748	10.8000	11.696	80.00- 120.00	100.00
6.321	6.321 (1.051)	130	63773			74.74- 134.74	103.28
6.314	6.314 (1.050)	97	40783			34.87- 94.87	66.05
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	67954	8.03000	8.266	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	30533			14.22- 74.22	44.93
6.622	6.622 (1.101)	55	59038			58.24- 118.24	86.88
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	41422	9.24000	9.343	80.00- 120.00	100.00
6.679	6.679 (1.111)	62	28160			39.32- 99.32	67.98
6.679	6.679 (1.111)	41	29635			37.26- 97.26	71.54

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.131)	88	28198	7.21000	7.458	80.00- 120.00	100.00(a)
6.801	6.801 (1.131)	58	24993			41.28- 101.28	88.63
6.808	6.808 (1.132)	57	37392			0.62- 60.62	132.61
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.897	7.897 (1.313)	58	37096	8.19000	8.524	80.00- 120.00	100.00
7.897	7.897 (1.313)	43	106595			263.34- 323.34	287.35
7.897	7.897 (1.313)	85	15398			12.32- 72.32	41.51
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	152680	7.54000	7.986	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	90200			28.18- 88.18	59.08
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.706	8.706 (1.448)	97	48980	10.9000	11.064	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	30311			32.32- 92.32	61.88
8.706	8.706 (1.448)	83	41228			54.42- 114.42	84.17
71 Tetrachloroethene					CAS #: 127-18-4		
8.771	8.771 (0.885)	166	70073	13.6000	13.870	80.00- 120.00	100.00
8.771	8.771 (0.885)	129	54705			47.21- 107.21	78.07
8.771	8.771 (0.885)	131	52478			44.68- 104.68	74.89
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	49131	8.19000	8.524	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	104297			181.19- 241.19	212.28
9.021	9.021 (0.910)	100	9236			0.00- 48.53	18.80
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	74179	15.4000	15.633	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	68980			64.88- 124.88	92.99
81 Chlorobenzene					CAS #: 108-90-7		
9.945	9.945 (1.004)	112	118348	9.21000	9.670	80.00- 120.00	100.00
9.945	9.945 (1.004)	114	38882			2.37- 62.37	32.85
9.945	9.945 (1.004)	77	72601			25.58- 85.58	61.35
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	60109	8.68000	9.022	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	193366			283.92- 343.92	321.69
84 m,p-Xylene					CAS #: 108-38-3		
10.275	10.275 (1.037)	106	84748	8.68000	9.808	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	166925			168.48- 228.48	196.97

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

   88 o-Xylene                                        CAS #: 95-47-6
 10.762  10.762 (0.939)   106     71838 8.68000    9.316  80.00- 120.00   100.00
 10.762  10.762 (0.939)    91    151280                  179.05- 239.05   210.58
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.798  10.798 (0.942)   104    125979 8.52000    9.474  80.00- 120.00   100.00
 10.798  10.798 (0.942)    78     61352                   17.71-  77.71    48.70
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.249  11.249 (0.981)   105    219179 9.83000   10.808  80.00- 120.00   100.00
 11.256  11.256 (0.982)   120     57996                    0.00-  56.88    26.46
 11.249  11.249 (0.981)    51     24875                    0.00-  40.57    11.35
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.686  11.686 (1.019)    83     90364 13.7000   13.479  80.00- 120.00   100.00
 11.686  11.686 (1.019)    85     58972                   35.63-  95.63    65.26
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.793  11.793 (1.029)    91    268950 9.83000   11.212  80.00- 120.00   100.00
 11.793  11.793 (1.029)   120     63374                    0.00-  53.76    23.56
 11.793  11.793 (1.029)   105     10833                    0.00-  33.79     4.03
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.958  11.958 (1.043)   120     66396 9.83000   10.760  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105    219980                  299.98- 359.98   331.32
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.044  12.044 (1.051)   120     94526 9.83000   10.865  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105    190321                  169.84- 229.84   201.34
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.510  12.510 (1.091)   120     93054 9.83000   11.477  80.00- 120.00   100.00(a)
 12.510  12.510 (1.091)   105    249719                  188.24- 248.24   268.36
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.839  12.839 (1.120)   146    139480 12.0000   13.900  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148     88544                   33.94-  93.94    63.48
 12.839  12.839 (1.120)   111     55636                    9.99-  69.99    39.89
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.975  12.975 (1.132)   146    139783 12.0000   13.952  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148     90683                   33.56-  93.56    64.87
 12.975  12.975 (1.132)   111     55850                    8.12-  68.12    39.95
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.419  13.419 (1.171)   146    127211 12.0000   13.416  80.00- 120.00   100.00
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   ng)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  105 1,2-Dichlorobenzene (continued)
 13.419  13.419 (1.171)   148     82257                    33.25-  93.25    64.66
 13.419  13.419 (1.171)   111     53286                    11.16-  71.16    41.89
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.468  15.468 (1.349)   180    108471 14.8000   16.640  80.00- 120.00   100.00
 15.468  15.468 (1.349)   182    102992                    64.82- 124.82    94.95
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.676  15.676 (1.367)   225     61267 21.3000   18.289  80.00- 120.00   100.00(a)
 15.676  15.676 (1.367)   223     38570                    32.09-  92.09    62.95
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.790  15.790 (1.377)   128    226979 5.00000    6.607  80.00- 120.00   100.00
 15.790  15.790 (1.377)   127     29272                     0.00-  43.01    12.90
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.237  17.237 (1.504)   142    134121 5.00000    6.754  80.00- 120.00   100.00
 17.237  17.237 (1.504)   141    117927                    57.55- 117.55    87.93
 17.237  17.237 (1.504)   115     45724                     2.88-  62.88    34.09
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.459  17.459 (1.523)   142    118088 5.00000    6.614  80.00- 120.00   100.00
 17.459  17.459 (1.523)   141    108135                    60.83- 120.83    91.57
 17.459  17.459 (1.523)   115     41929                     4.35-  64.35    35.51
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.315  19.315 (1.685)   152    187774 5.00000    6.439  80.00- 120.00   100.00
 19.315  19.315 (1.685)   151     38927                     0.00-  50.47    20.73
 19.315  19.315 (1.685)   153     24715                     0.00-  42.99    13.16
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.572  19.572 (1.707)   154     94312 5.00000    5.982  80.00- 120.00   100.00
 19.572  19.572 (1.707)   152     52325                    23.49-  83.49    55.48
 19.572  19.572 (1.707)   153    105029                    81.41- 141.41   111.36
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.733  20.733 (1.809)   166     97939 5.00000    6.262  80.00- 120.00   100.00
 20.733  20.733 (1.809)   165     94346                    66.52- 126.52    96.33
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.918  22.918 (1.999)   178    167671 5.00000    6.351  80.00- 120.00   100.00
 22.918  22.918 (1.999)   176     34930                     0.00-  49.64    20.83
 22.910  22.910 (1.998)   179     25544                     0.00-  45.22    15.23
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 23.018  23.018 (2.008)   178    146727 5.00000    5.868  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)								
23.018	23.018	(2.008)	176	27581			0.00- 49.04	18.80
23.025	23.025	(2.008)	179	22007			0.00- 45.28	15.00
117 Fluoranthene						CAS #: 206-44-0		
26.263	26.263	(2.291)	202	134845	5.00000	7.343	80.00- 120.00	100.00
26.263	26.263	(2.291)	101	25619			0.00- 48.21	19.00
118 Pyrene						CAS #: 129-00-0		
27.137	27.137	(2.367)	202	143184	5.00000	7.506	80.00- 120.00	100.00
27.122	27.122	(2.366)	101	30362			0.00- 51.09	21.20
27.129	27.129	(2.366)	100	24934			0.00- 47.66	17.41

QC Flag Legend

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

Report Date: 04-Apr-2016 12:09

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033103.d
Lab Smp Id: VI VOC+PAH ICAL2,2.
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-2ml(6/11/16),2744-31-5(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	211375	-6.11
54 1,4-Difluorobenze	874568	524741	1224395	876146	0.18
79 Chlorobenzene-d5	795881	477529	1114233	795755	-0.02
92 Bromofluorobenzen	515685	309411	721959	512046	-0.71

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.39	0.16
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd6.i/31mar16.b/6033103.d

Date : 30-MAR-2016 18:54

Client ID:

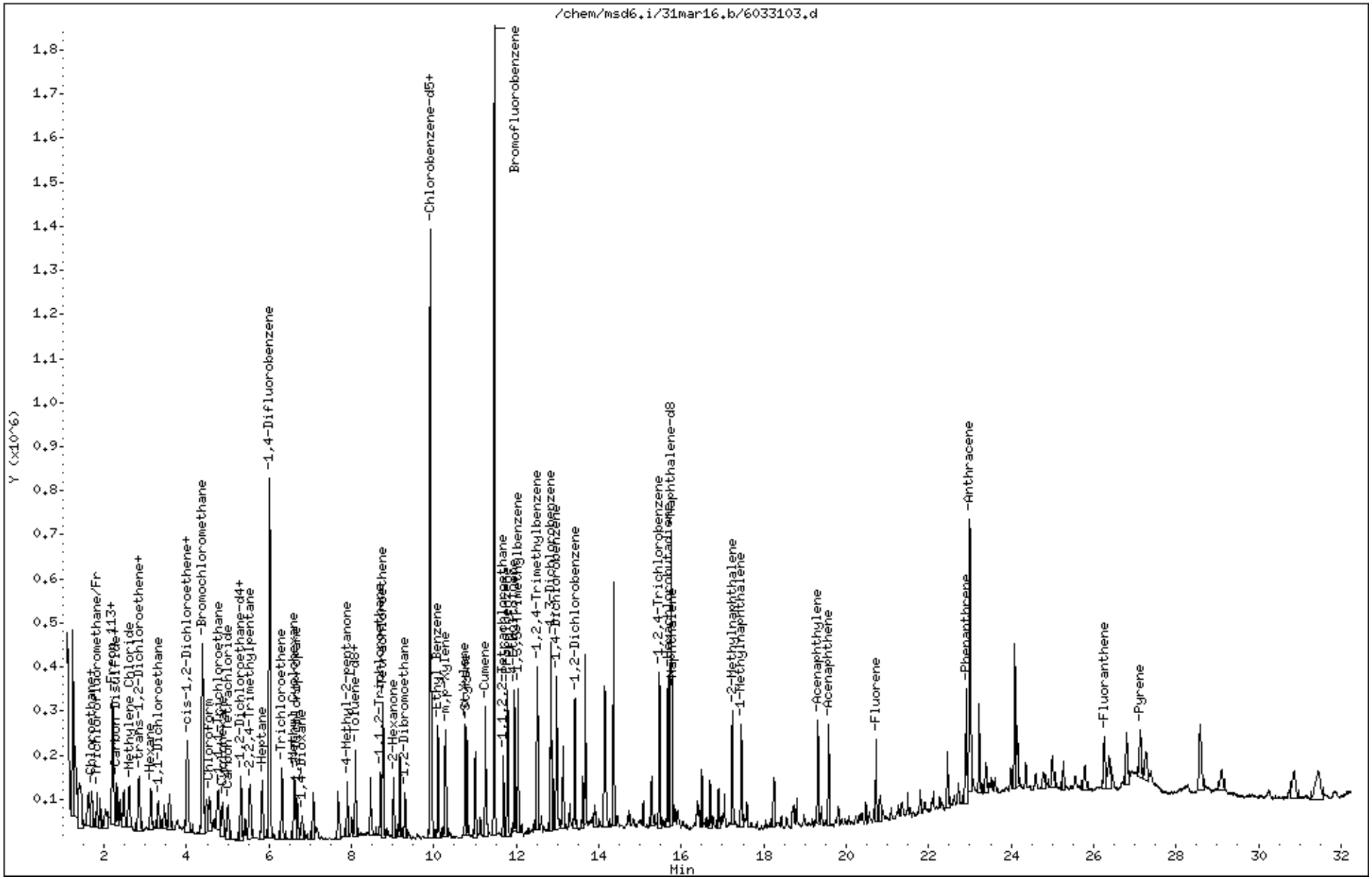
Sample Info: ;VI VOC+PAH ICAL2,2.0ngSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033124.d
Lab Smp Id: VI PAH ICAL 3
Inj Date : 31-MAR-2016 10:19
Operator : LA Inst ID: msd6.i
Smp Info : ;VI PAH ICAL 3
Misc Info : 2744-31-10(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAHical.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	506879	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	629957			92.70- 152.70	124.28
11.464	11.464 (1.000)	176	496497			68.24- 128.24	97.95
109 Naphthalene					CAS #: 91-20-3		
15.783	15.783 (1.377)	128	291515	10.0000	8.572	80.00- 120.00	100.00
15.790	15.790 (1.377)	127	37817			0.00- 43.01	12.97
110 2-Methylnaphthalene					CAS #: 91-57-6		
17.237	17.237 (1.504)	142	177050	10.0000	9.007	80.00- 120.00	100.00
17.237	17.237 (1.504)	141	156553			57.55- 117.55	88.42
17.237	17.237 (1.504)	115	59963			2.88- 62.88	33.87
111 1-Methylnaphthalene					CAS #: 90-12-0		
17.459	17.459 (1.523)	142	161229	10.0000	9.122	80.00- 120.00	100.00
17.459	17.459 (1.523)	141	145981			60.83- 120.83	90.54
17.452	17.452 (1.522)	115	56571			4.35- 64.35	35.09
112 Acenaphthylene					CAS #: 208-96-8		
19.315	19.315 (1.685)	152	263183	10.0000	9.116	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
112 Acenaphthylene (continued)							
19.307	19.307 (1.684)	151	54187			0.00- 50.47	20.59
19.307	19.307 (1.684)	153	34470			0.00- 42.99	13.10
113 Acenaphthene					CAS #: 83-32-9		
19.572	19.572 (1.707)	154	142243	10.0000	9.115	80.00- 120.00	100.00
19.572	19.572 (1.707)	152	78680			23.49- 83.49	55.31
19.572	19.572 (1.707)	153	159082			81.41- 141.41	111.84
114 Fluorene					CAS #: 86-73-7		
20.726	20.726 (1.808)	166	139921	10.0000	9.038	80.00- 120.00	100.00
20.726	20.726 (1.808)	165	137035			66.52- 126.52	97.94
115 Phenanthrene					CAS #: 85-01-8		
22.910	22.910 (1.998)	178	243971	10.0000	9.335	80.00- 120.00	100.00
22.910	22.910 (1.998)	176	47090			0.00- 49.64	19.30
22.910	22.910 (1.998)	179	38503			0.00- 45.22	15.78
116 Anthracene					CAS #: 120-12-7		
23.018	23.018 (2.008)	178	232047	10.0000	9.374	80.00- 120.00	100.00
23.018	23.018 (2.008)	176	44329			0.00- 49.04	19.10
23.018	23.018 (2.008)	179	35474			0.00- 45.28	15.29
117 Fluoranthene					CAS #: 206-44-0		
26.256	26.256 (2.290)	202	190294	10.0000	10.468	80.00- 120.00	100.00
26.256	26.256 (2.290)	101	35703			0.00- 48.21	18.76
118 Pyrene					CAS #: 129-00-0		
27.129	27.129 (2.366)	202	195934	10.0000	10.375	80.00- 120.00	100.00
27.122	27.122 (2.366)	101	43967			0.00- 51.09	22.44
27.129	27.129 (2.366)	100	37146			0.00- 47.66	18.96

Report Date: 04-Apr-2016 12:09

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033124.d
Lab Smp Id: VI PAH ICAL 3
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2744-31-10(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53

Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	515685	309411	721959	506879	-1.71

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd6.i/31mar16.b/6033124.d

Date : 31-MAR-2016 10:19

Client ID:

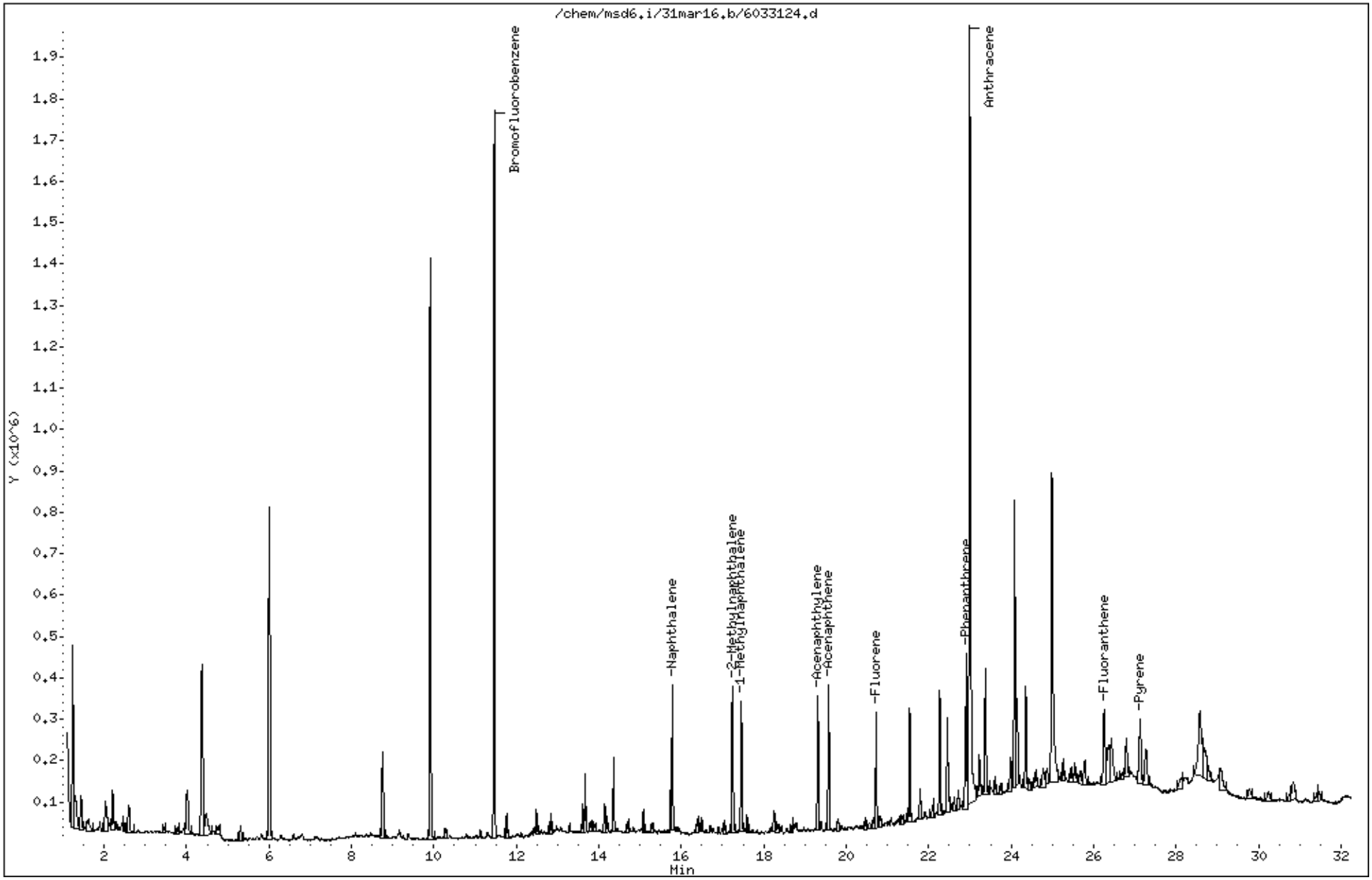
Sample Info: ;VI PAH ICAL 3

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033104.d
Lab Smp Id: VI VOC+PAH ICAL3,5.
Inj Date : 30-MAR-2016 19:34
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL3,5.0ngSurr
Misc Info : 2516-232-3ml(6/11/16),2744-31-10(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC_L1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane					CAS #: 74-97-5		
4.380	4.380 (1.000)	130	220397	26.0000		80.00- 120.00	100.00
4.387	4.387 (1.000)	128	172729			48.25- 108.25	78.37
4.380	4.380 (1.000)	49	302077			107.14- 167.14	137.06
* 54 1,4-Difluorobenzene					CAS #: 540-36-3		
6.013	6.013 (1.000)	114	871806	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	134742			0.00- 45.65	15.46
* 79 Chlorobenzene-d5					CAS #: 3114-55-4		
9.909	9.909 (1.000)	117	791020	24.0000		80.00- 120.00	100.00
9.909	9.909 (1.000)	82	418816			23.14- 83.14	52.95
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	509127	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	627113			92.70- 152.70	123.17
11.464	11.464 (1.000)	176	497291			68.24- 128.24	97.68
$ 49 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.311	5.311 (0.883)	65	23356	5.00000	5.057	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
$ 49 1,2-Dichloroethane-d4 (continued)							
5.311	5.311 (0.883)	67	11636			22.28- 82.28	49.82
$ 66 Toluene-d8					CAS #: 2037-26-5		
8.011	8.011 (0.808)	98	76792	5.00000	4.975	80.00- 120.00	100.00
8.011	8.011 (0.808)	70	9108			0.00- 40.54	11.86
8.011	8.011 (0.808)	100	50209			35.01- 95.01	65.38
$ 108 Naphthalene-d8					CAS #: 1146-65-2		
15.747	15.747 (1.374)	136	133649	5.00000	4.661	80.00- 120.00	100.00
15.747	15.747 (1.374)	108	13113			0.00- 39.41	9.81
3 Freon 114					CAS #: 76-14-2		
1.269	1.269 (0.290)	135	83144	21.0000	21.003	80.00- 120.00	100.00
1.269	1.269 (0.290)	137	26907			2.17- 62.17	32.36
6 Vinyl Chloride					CAS #: 75-01-4		
1.395	1.395 (0.318)	62	48346	7.67000	7.780	80.00- 120.00	100.00
1.395	1.395 (0.318)	64	52705			12.66- 72.66	109.02
7 1,3-Butadiene					CAS #: 106-99-0		
1.395	1.395 (0.318)	54	43278	6.64000	7.290	80.00- 120.00	100.00
1.395	1.395 (0.318)	39	75142			133.58- 193.58	173.63
9 Chloroethane					CAS #: 75-00-3		
1.661	1.661 (0.379)	64	34516	7.92000	9.680	80.00- 120.00	100.00(a)
1.661	1.661 (0.379)	66	6567			0.00- 58.31	19.03
1.661	1.661 (0.379)	49	6544			0.00- 59.65	18.96
10 Isopentane					CAS #: 78-78-4		
1.703	1.703 (0.389)	57	39974	8.85000	8.778	80.00- 120.00	100.00
1.703	1.703 (0.389)	43	65558			134.33- 194.33	164.00
11 Trichlorofluoromethane/Fr11					CAS #: 75-69-4		
1.828	1.828 (0.417)	101	116130	16.9000	16.526	80.00- 120.00	100.00
1.828	1.828 (0.417)	103	74285			35.98- 95.98	63.97
15 Freon 113					CAS #: 76-13-1		
2.195	2.195 (0.501)	151	92763	23.0000	22.867	80.00- 120.00	100.00
2.195	2.195 (0.501)	153	59674			34.66- 94.66	64.33
2.195	2.195 (0.501)	101	109937			88.64- 148.64	118.51
14 1,1-Dichloroethene					CAS #: 75-35-4		
2.202	2.202 (0.503)	98	35942	11.9000	12.700	80.00- 120.00	100.00
2.202	2.202 (0.503)	96	58299			127.15- 187.15	162.20
2.202	2.202 (0.503)	61	93076			230.60- 290.60	258.96

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.544)	76	155779	9.34000	9.410	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.310	2.310 (0.527)	45	152325	7.37000	9.890	80.00- 120.00	100.00(a)
2.310	2.310 (0.527)	43	29599			0.00- 49.91	19.43
2.302	2.302 (0.526)	59	5883			0.00- 33.48	3.86
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.596)	49	130115	10.4000	18.403	80.00- 120.00	100.00(a)
2.610	2.610 (0.596)	84	88534			38.62- 98.62	68.04
2.610	2.610 (0.596)	51	38119			0.43- 60.43	29.30
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.854 (0.652)	98	33652	11.9000	11.898	80.00- 120.00	100.00
2.854	2.854 (0.652)	61	77673			200.79- 260.79	230.81
2.854	2.854 (0.652)	96	52427			126.39- 186.39	155.79
26 MTBE					CAS #: 1634-04-4		
2.832	2.832 (0.647)	73	110370	10.8000	9.364	80.00- 120.00	100.00(a)
2.832	2.832 (0.647)	57	28440			0.00- 54.76	25.77
2.832	2.832 (0.647)	41	30935			0.00- 56.57	28.03
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.715)	57	86152	10.6000	10.446	80.00- 120.00	100.00(a)
3.133	3.133 (0.715)	43	61882			41.77- 101.77	71.83
3.140	3.140 (0.717)	86	12078			0.00- 43.88	14.02
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.320	3.320 (0.758)	63	87922	12.1000	11.699	80.00- 120.00	100.00
3.312	3.312 (0.756)	65	29033			1.71- 61.71	33.02
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.029	4.029 (0.920)	98	35570	11.9000	11.730	80.00- 120.00	100.00
4.029	4.029 (0.920)	96	55293			126.11- 186.11	155.45
4.029	4.029 (0.920)	61	76778			179.91- 239.91	215.85
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.917)	72	62738	8.85000	20.269	80.00- 120.00	100.00(a)
4.014	4.014 (0.917)	43	312598			469.10- 529.10	498.26
4.014	4.014 (0.917)	57	23110			6.15- 66.15	36.84
44 Chloroform					CAS #: 67-66-3		
4.559	4.559 (1.041)	83	104995	14.6000	14.546	80.00- 120.00	100.00
4.559	4.559 (1.041)	85	68937			35.99- 95.99	65.66

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	66356	10.3000	10.072	80.00- 120.00	100.00
4.874	4.874 (0.811)	56	90138			102.79- 162.79	135.84
4.874	4.874 (0.811)	41	56336			54.37- 114.37	84.90
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.774	4.774 (0.794)	97	93548	16.4000	14.481	80.00- 120.00	100.00
4.774	4.774 (0.794)	99	61505			34.68- 94.68	65.75
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	88986	18.9000	15.764	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	93108			73.19- 133.19	104.63
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.540	5.540 (0.921)	57	280525	14.0000	14.028	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	89915			1.74- 61.74	32.05
5.540	5.540 (0.921)	41	86440			0.34- 60.34	30.81
48 Benzene					CAS #: 71-43-2		
5.325	5.325 (0.886)	78	180322	9.58000	9.432	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	43287			0.00- 53.53	24.01
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	69529	12.1000	11.812	80.00- 120.00	100.00
5.425	5.425 (0.902)	64	22095			2.15- 62.15	31.78
53 Heptane					CAS #: 142-82-5		
5.841	5.841 (0.971)	71	53981	12.3000	12.020	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	134648			188.80- 248.80	249.44
5.834	5.834 (0.970)	57	53671			71.78- 131.78	99.43
56 Trichloroethene					CAS #: 79-01-6		
6.314	6.314 (1.050)	95	94949	16.1000	18.074	80.00- 120.00	100.00
6.321	6.321 (1.051)	130	98264			74.74- 134.74	103.49
6.314	6.314 (1.050)	97	61507			34.87- 94.87	64.78
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	96648	12.0000	11.815	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	42678			14.22- 74.22	44.16
6.622	6.622 (1.101)	55	85107			58.24- 118.24	88.06
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	55091	13.9000	12.488	80.00- 120.00	100.00
6.679	6.679 (1.111)	62	37959			39.32- 99.32	68.90
6.679	6.679 (1.111)	41	35195			37.26- 97.26	63.89

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.131)	88	39382	10.8000	10.468	80.00- 120.00	100.00(a)
6.801	6.801 (1.131)	58	31319			41.28- 101.28	79.53
6.808	6.808 (1.132)	57	35111			0.62- 60.62	89.15
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.904	7.904 (1.314)	58	52061	12.3000	12.022	80.00- 120.00	100.00
7.897	7.897 (1.313)	43	147470			263.34- 323.34	283.26
7.904	7.904 (1.314)	85	21107			12.32- 72.32	40.54
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	215519	11.3000	11.341	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	124006			28.18- 88.18	57.54
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.706	8.706 (1.448)	97	70644	16.4000	16.037	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	43484			32.32- 92.32	61.55
8.713	8.713 (1.449)	83	58948			54.42- 114.42	83.44
71 Tetrachloroethene					CAS #: 127-18-4		
8.771	8.771 (0.885)	166	99743	20.4000	19.862	80.00- 120.00	100.00
8.771	8.771 (0.885)	129	77530			47.21- 107.21	77.73
8.771	8.771 (0.885)	131	75549			44.68- 104.68	75.74
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	64285	12.3000	11.220	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	136329			181.19- 241.19	212.07
9.021	9.021 (0.910)	100	12077			0.00- 48.53	18.79
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	104129	23.0000	22.076	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	98567			64.88- 124.88	94.66
81 Chlorobenzene					CAS #: 108-90-7		
9.952	9.952 (1.004)	112	165895	13.8000	13.636	80.00- 120.00	100.00
9.945	9.945 (1.004)	114	54422			2.37- 62.37	32.81
9.945	9.945 (1.004)	77	99765			25.58- 85.58	60.14
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	85565	13.0000	12.920	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	266374			283.92- 343.92	311.31
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	109347	13.0000	12.730	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	220775			168.48- 228.48	201.90

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

   88 o-Xylene                                      CAS #: 95-47-6
 10.762  10.762 (0.939)   106    101123 13.0000   13.189  80.00- 120.00   100.00
 10.762  10.762 (0.939)    91    211811                  179.05- 239.05   209.46
-------------------------------------------------------------------------------
   89 Styrene                                       CAS #: 100-42-5
 10.798  10.798 (0.942)   104    162599 12.8000   12.298  80.00- 120.00   100.00
 10.798  10.798 (0.942)    78     80789                   17.71-  77.71    49.69
-------------------------------------------------------------------------------
   91 Cumene                                        CAS #: 98-82-8
 11.249  11.249 (0.981)   105    309489 14.8000   15.348  80.00- 120.00   100.00
 11.256  11.256 (0.982)   120     83213                    0.00-  56.88    26.89
 11.249  11.249 (0.981)    51     33683                    0.00-  40.57    10.88
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 11.686  11.686 (1.019)    83    116651 20.6000   17.500  80.00- 120.00   100.00
 11.686  11.686 (1.019)    85     74889                   35.63-  95.63    64.20
-------------------------------------------------------------------------------
   96 Propylbenzene                                 CAS #: 103-65-1
 11.793  11.793 (1.029)    91    372880 14.8000   15.633  80.00- 120.00   100.00
 11.793  11.793 (1.029)   120     88988                    0.00-  53.76    23.87
 11.793  11.793 (1.029)   105     14966                    0.00-  33.79     4.01
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                CAS #: 622-96-8
 11.958  11.958 (1.043)   120     93767 14.8000   15.282  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105    311370                  299.98- 359.98   332.07
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 12.044  12.044 (1.051)   120    133213 14.8000   15.399  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105    269557                  169.84- 229.84   202.35
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 12.510  12.510 (1.091)   120    123896 14.8000   15.369  80.00- 120.00   100.00(a)
 12.510  12.510 (1.091)   105    293348                  188.24- 248.24   236.77
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                           CAS #: 541-73-1
 12.839  12.839 (1.120)   146    189326 18.0000   18.976  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148    121253                   33.94-  93.94    64.04
 12.839  12.839 (1.120)   111     77352                    9.99-  69.99    40.86
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                           CAS #: 106-46-7
 12.975  12.975 (1.132)   146    189457 18.0000   19.018  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148    122039                   33.56-  93.56    64.42
 12.975  12.975 (1.132)   111     74613                    8.12-  68.12    39.38
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                           CAS #: 95-50-1
 13.419  13.419 (1.171)   146    179843 18.0000   19.076  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
105 1,2-Dichlorobenzene (continued)							
13.419	13.419 (1.171)	148	115565			33.25- 93.25	64.26
13.412	13.412 (1.170)	111	73828			11.16- 71.16	41.05
106 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
15.468	15.468 (1.349)	180	134670	22.3000	20.777	80.00- 120.00	100.00
15.468	15.468 (1.349)	182	126142			64.82- 124.82	93.67
107 Hexachlorobutadiene					CAS #: 87-68-3		
15.676	15.676 (1.367)	225	92247	32.0000	27.694	80.00- 120.00	100.00
15.676	15.676 (1.367)	223	57787			32.09- 92.09	62.64

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: msd6.i
Lab File ID: 6033104.d
Lab Smp Id: VI VOC+PAH ICAL3,5.
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-3ml(6/11/16),2744-31-10(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	220397	-2.11
54 1,4-Difluorobenze	874568	524741	1224395	871806	-0.32
79 Chlorobenzene-d5	795881	477529	1114233	791020	-0.61
92 Bromofluorobenzen	515685	309411	721959	509127	-1.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.38	0.00
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd6.i/31mar16.b/6033104.d

Date : 30-MAR-2016 19:34

Client ID:

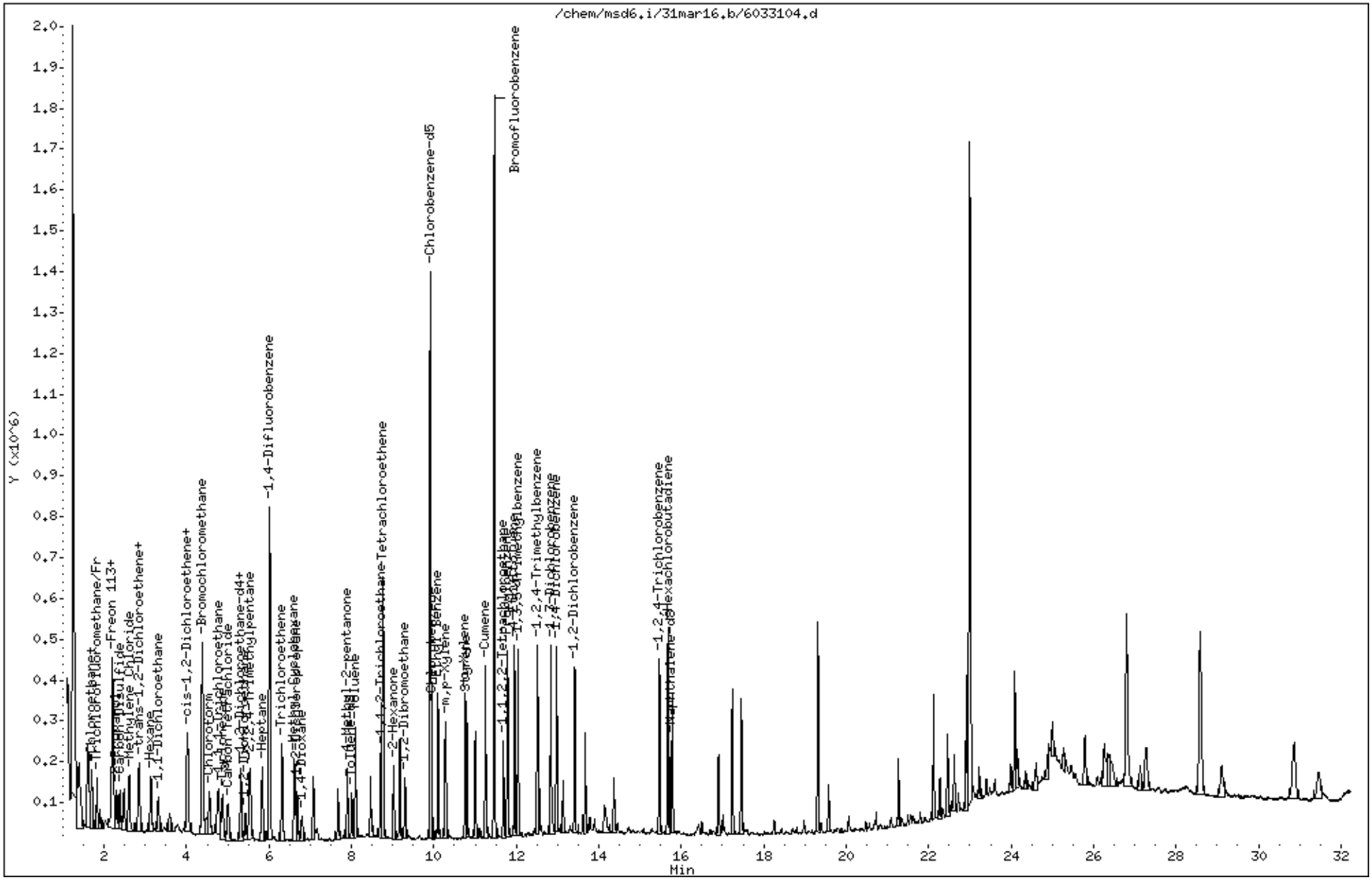
Sample Info: ;VI VOC+PAH ICAL3,5.0ngSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033105.d
Lab Smp Id: VI VOC+PAH ICAL4,10
Inj Date : 30-MAR-2016 20:13
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL4,10ngSurr
Misc Info : 2516-232-6ml(6/11/16),2744-31-25(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 20:13 Cal File: 6033105.d
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane					CAS #: 74-97-5		
4.380	4.380 (1.000)	130	220965	26.0000		80.00- 120.00	100.00
4.380	4.380 (1.000)	128	171865			48.25- 108.25	77.78
4.380	4.380 (1.000)	49	300841			107.14- 167.14	136.15
* 54 1,4-Difluorobenzene					CAS #: 540-36-3		
6.013	6.013 (1.000)	114	881221	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	136113			0.00- 45.65	15.45
* 79 Chlorobenzene-d5					CAS #: 3114-55-4		
9.909	9.909 (1.000)	117	804740	24.0000		80.00- 120.00	100.00
9.909	9.909 (1.000)	82	425977			23.14- 83.14	52.93
* 92 Bromofluorobenzene					CAS #: 460-00-4		
11.464	11.464 (1.000)	174	513427	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	623095			92.70- 152.70	121.36
11.464	11.464 (1.000)	176	499016			68.24- 128.24	97.19
$ 49 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
5.311	5.311 (0.883)	65	46532	10.0000	9.967	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.311   5.311 (0.883)    67     23077                    22.28-  82.28    49.59
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  8.011   8.011 (0.808)    98    153500 10.0000    9.774  80.00- 120.00   100.00
  8.011   8.011 (0.808)    70     17092                     0.00-  40.54    11.13
  8.011   8.011 (0.808)   100    102418                    35.01-  95.01    66.72
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.747  15.747 (1.374)   136    262174 10.0000    9.066  80.00- 120.00   100.00
 15.747  15.747 (1.374)   108     25763                     0.00-  39.41     9.83
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.269   1.269 (0.290)   135    173231 41.9000   43.648  80.00- 120.00   100.00
  1.269   1.269 (0.290)   137     55839                     2.17-  62.17    32.23
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.395   1.395 (0.318)    62     96896 15.3000   15.554  80.00- 120.00   100.00
  1.395   1.395 (0.318)    64     68550                    12.66-  72.66    70.75
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.409   1.409 (0.322)    54     78263 13.3000   13.150  80.00- 120.00   100.00
  1.395   1.395 (0.318)    39    135826                   133.58- 193.58   173.55
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.661   1.661 (0.379)    64     65836 15.8000   18.416  80.00- 120.00   100.00
  1.674   1.674 (0.382)    66     13559                     0.00-  58.31    20.60
  1.674   1.674 (0.382)    49     15192                     0.00-  59.65    23.08
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.702   1.702 (0.389)    57     83137 17.7000   18.210  80.00- 120.00   100.00
  1.702   1.702 (0.389)    43    136414                   134.33- 194.33   164.08
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.828   1.828 (0.417)   101    235259 33.7000   33.392  80.00- 120.00   100.00
  1.828   1.828 (0.417)   103    154985                    35.98-  95.98    65.88
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.195   2.195 (0.501)   151    192907 46.0000   47.432  80.00- 120.00   100.00
  2.195   2.195 (0.501)   153    124368                    34.66-  94.66    64.47
  2.195   2.195 (0.501)   101    227867                    88.64- 148.64   118.12
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.202   2.202 (0.503)    98     68827 23.8000   24.257  80.00- 120.00   100.00
  2.202   2.202 (0.503)    96    109666                   127.15- 187.15   159.34
  2.202   2.202 (0.503)    61    179052                   230.60- 290.60   260.15
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.544)	76	305859	18.7000	18.429	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.309	2.309 (0.527)	45	248261	14.7000	16.078	80.00- 120.00	100.00(a)
2.309	2.309 (0.527)	43	47430			0.00- 49.91	19.10
2.309	2.309 (0.527)	59	9936			0.00- 33.48	4.00
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.596)	49	199578	20.8000	28.155	80.00- 120.00	100.00
2.610	2.610 (0.596)	84	137416			38.62- 98.62	68.85
2.610	2.610 (0.596)	51	59467			0.43- 60.43	29.80
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.854 (0.652)	98	68097	23.8000	24.015	80.00- 120.00	100.00
2.854	2.854 (0.652)	61	162128			200.79- 260.79	238.08
2.854	2.854 (0.652)	96	107983			126.39- 186.39	158.57
26 MTBE					CAS #: 1634-04-4		
2.832	2.832 (0.647)	73	254989	21.6000	21.579	80.00- 120.00	100.00(a)
2.832	2.832 (0.647)	57	63596			0.00- 54.76	24.94
2.832	2.832 (0.647)	41	68553			0.00- 56.57	26.88
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.715)	57	177550	21.1000	21.472	80.00- 120.00	100.00(a)
3.133	3.133 (0.715)	43	125165			41.77- 101.77	70.50
3.133	3.133 (0.715)	86	24458			0.00- 43.88	13.78
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.319	3.319 (0.758)	63	187070	24.3000	24.828	80.00- 120.00	100.00
3.312	3.312 (0.756)	65	59669			1.71- 61.71	31.90
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.036	4.036 (0.921)	98	73205	23.8000	24.078	80.00- 120.00	100.00
4.036	4.036 (0.921)	96	113978			126.11- 186.11	155.70
4.029	4.029 (0.920)	61	157657			179.91- 239.91	215.36
38 2-Butanone					CAS #: 78-93-3		
4.007	4.007 (0.915)	72	75310	17.7000	24.268	80.00- 120.00	100.00(a)
4.007	4.007 (0.915)	43	376090			469.10- 529.10	499.39
4.014	4.014 (0.917)	57	29744			6.15- 66.15	39.50
44 Chloroform					CAS #: 67-66-3		
4.559	4.559 (1.041)	83	215483	29.3000	29.777	80.00- 120.00	100.00
4.559	4.559 (1.041)	85	142304			35.99- 95.99	66.04

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	137084	20.7000	20.584	80.00- 120.00	100.00
4.874	4.874 (0.811)	56	182931			102.79- 162.79	133.44
4.867	4.867 (0.809)	41	115670			54.37- 114.37	84.38
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.774	4.774 (0.794)	97	216919	32.7000	33.220	80.00- 120.00	100.00
4.774	4.774 (0.794)	99	140506			34.68- 94.68	64.77
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	217243	37.8000	38.074	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	223356			73.19- 133.19	102.81
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.533 (0.920)	57	572290	28.0000	28.312	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	182685			1.74- 61.74	31.92
5.533	5.533 (0.920)	41	178492			0.34- 60.34	31.19
48 Benzene					CAS #: 71-43-2		
5.325	5.325 (0.886)	78	392775	19.2000	20.324	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	92402			0.00- 53.53	23.53
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	144884	24.3000	24.350	80.00- 120.00	100.00
5.425	5.425 (0.902)	64	46613			2.15- 62.15	32.17
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	110224	24.6000	24.282	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	250925			188.80- 248.80	227.65
5.834	5.834 (0.970)	57	111924			71.78- 131.78	101.54
56 Trichloroethene					CAS #: 79-01-6		
6.314	6.314 (1.050)	95	185182	32.2000	34.874	80.00- 120.00	100.00
6.321	6.321 (1.051)	130	192807			74.74- 134.74	104.12
6.321	6.321 (1.051)	97	119648			34.87- 94.87	64.61
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	197007	24.1000	23.827	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	87240			14.22- 74.22	44.28
6.622	6.622 (1.101)	55	175153			58.24- 118.24	88.91
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	120840	27.7000	27.100	80.00- 120.00	100.00
6.679	6.679 (1.111)	62	84973			39.32- 99.32	70.32
6.679	6.679 (1.111)	41	78422			37.26- 97.26	64.90

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.131)	88	80880	21.6000	21.269	80.00- 120.00	100.00
6.801	6.801 (1.131)	58	61585			41.28- 101.28	76.14
6.801	6.801 (1.131)	57	41317			0.62- 60.62	51.08
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.897	7.897 (1.313)	58	103967	24.6000	23.752	80.00- 120.00	100.00
7.904	7.904 (1.314)	43	302993			263.34- 323.34	291.43
7.904	7.904 (1.314)	85	44362			12.32- 72.32	42.67
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	423889	22.6000	21.926	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	247097			28.18- 88.18	58.29
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.713	8.713 (1.449)	97	141843	32.7000	31.856	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	86722			32.32- 92.32	61.14
8.713	8.713 (1.449)	83	120639			54.42- 114.42	85.05
71 Tetrachloroethene					CAS #: 127-18-4		
8.771	8.771 (0.885)	166	203568	40.7000	39.845	80.00- 120.00	100.00
8.763	8.763 (0.884)	129	157237			47.21- 107.21	77.24
8.771	8.771 (0.885)	131	152567			44.68- 104.68	74.95
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	131994	24.6000	22.646	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	280644			181.19- 241.19	212.62
9.021	9.021 (0.910)	100	24844			0.00- 48.53	18.82
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	206734	46.1000	43.082	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	194816			64.88- 124.88	94.24
81 Chlorobenzene					CAS #: 108-90-7		
9.952	9.952 (1.004)	112	335573	27.6000	27.112	80.00- 120.00	100.00
9.952	9.952 (1.004)	114	109018			2.37- 62.37	32.49
9.945	9.945 (1.004)	77	192995			25.58- 85.58	57.51
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	169904	26.1000	25.217	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	532766			283.92- 343.92	313.57
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	213934	26.1000	24.482	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	422726			168.48- 228.48	197.60

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

   88 o-Xylene                                      CAS #: 95-47-6
 10.762  10.762 (0.939)   106    198486 26.1000   25.670  80.00- 120.00   100.00
 10.762  10.762 (0.939)    91    413355                  179.05- 239.05   208.25
-------------------------------------------------------------------------------
   89 Styrene                                       CAS #: 100-42-5
 10.798  10.798 (0.942)   104    322991 25.6000   24.223  80.00- 120.00   100.00
 10.798  10.798 (0.942)    78    141420                   17.71-  77.71    43.78
-------------------------------------------------------------------------------
   91 Cumene                                        CAS #: 98-82-8
 11.256  11.256 (0.982)   105    602904 29.5000   29.649  80.00- 120.00   100.00
 11.256  11.256 (0.982)   120    160327                    0.00-  56.88    26.59
 11.256  11.256 (0.982)    51     65227                    0.00-  40.57    10.82
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 11.686  11.686 (1.019)    83    252097 41.2000   37.503  80.00- 120.00   100.00
 11.686  11.686 (1.019)    85    163342                   35.63-  95.63    64.79
-------------------------------------------------------------------------------
   96 Propylbenzene                                 CAS #: 103-65-1
 11.793  11.793 (1.029)    91    714596 29.5000   29.709  80.00- 120.00   100.00
 11.793  11.793 (1.029)   120    168353                    0.00-  53.76    23.56
 11.793  11.793 (1.029)   105     27497                    0.00-  33.79     3.85
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                CAS #: 622-96-8
 11.958  11.958 (1.043)   120    176464 29.5000   28.519  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105    589185                  299.98- 359.98   333.88
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 12.044  12.044 (1.051)   120    250861 29.5000   28.756  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105    505437                  169.84- 229.84   201.48
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 12.510  12.510 (1.091)   120    229268 29.5000   28.202  80.00- 120.00   100.00(a)
 12.510  12.510 (1.091)   105    521757                  188.24- 248.24   227.58
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                           CAS #: 541-73-1
 12.839  12.839 (1.120)   146    357434 36.1000   35.526  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148    227255                   33.94-  93.94    63.58
 12.839  12.839 (1.120)   111    143520                    9.99-  69.99    40.15
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                           CAS #: 106-46-7
 12.975  12.975 (1.132)   146    352979 36.1000   35.136  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148    229328                   33.56-  93.56    64.97
 12.975  12.975 (1.132)   111    136341                    8.12-  68.12    38.63
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                           CAS #: 95-50-1
 13.419  13.419 (1.171)   146    340789 36.1000   35.845  80.00- 120.00   100.00
```

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

  105 1,2-Dichlorobenzene (continued)
 13.419  13.419 (1.171)   148    216982                    33.25-  93.25    63.67
 13.412  13.412 (1.170)   111    138803                    11.16-  71.16    40.73
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.468  15.468 (1.349)   180    250482 44.5000   38.322  80.00- 120.00   100.00
 15.468  15.468 (1.349)   182    237451                    64.82- 124.82    94.80
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.676  15.676 (1.367)   225    174133 64.0000   51.840  80.00- 120.00   100.00
 15.676  15.676 (1.367)   223    108124                    32.09-  92.09    62.09
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.790  15.790 (1.377)   128    692276 25.0000   20.098  80.00- 120.00   100.00
 15.790  15.790 (1.377)   127     90851                     0.00-  43.01    13.12
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.237  17.237 (1.504)   142    430742 25.0000   21.634  80.00- 120.00   100.00
 17.237  17.237 (1.504)   141    374367                    57.55- 117.55    86.91
 17.237  17.237 (1.504)   115    141815                     2.88-  62.88    32.92
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.459  17.459 (1.523)   142    392548 25.0000   21.926  80.00- 120.00   100.00
 17.459  17.459 (1.523)   141    357827                    60.83- 120.83    91.15
 17.452  17.452 (1.522)   115    138039                     4.35-  64.35    35.16
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.315  19.315 (1.685)   152    637136 25.0000   21.789  80.00- 120.00   100.00
 19.315  19.315 (1.685)   151    130268                     0.00-  50.47    20.45
 19.315  19.315 (1.685)   153     81939                     0.00-  42.99    12.86
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.572  19.572 (1.707)   154    351933 25.0000   22.264  80.00- 120.00   100.00
 19.572  19.572 (1.707)   152    189655                    23.49-  83.49    53.89
 19.572  19.572 (1.707)   153    393311                    81.41- 141.41   111.76
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.733  20.733 (1.809)   166    329142 25.0000   20.990  80.00- 120.00   100.00
 20.733  20.733 (1.809)   165    318461                    66.52- 126.52    96.75
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.910  22.910 (1.998)   178    548861 25.0000   20.733  80.00- 120.00   100.00
 22.910  22.910 (1.998)   176    109031                     0.00-  49.64    19.86
 22.910  22.910 (1.998)   179     83169                     0.00-  45.22    15.15
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 23.025  23.025 (2.008)   178    509431 25.0000   20.317  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)								
23.018	23.018	(2.008)	176	96017			0.00- 49.04	18.85
23.025	23.025	(2.008)	179	76597			0.00- 45.28	15.04
117 Fluoranthene							CAS #: 206-44-0	
26.263	26.263	(2.291)	202	364577	25.0000	19.799	80.00- 120.00	100.00
26.256	26.256	(2.290)	101	65773			0.00- 48.21	18.04
118 Pyrene							CAS #: 129-00-0	
27.137	27.137	(2.367)	202	378106	25.0000	19.767	80.00- 120.00	100.00
27.129	27.129	(2.367)	101	81907			0.00- 51.09	21.66
27.129	27.129	(2.367)	100	67318			0.00- 47.66	17.80

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: msd6.i
Lab File ID: 6033105.d
Lab Smp Id: VI VOC+PAH ICAL4,10
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-6ml(6/11/16),2744-31-25(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	220965	-1.85
54 1,4-Difluorobenze	874568	524741	1224395	881221	0.76
79 Chlorobenzene-d5	795881	477529	1114233	804740	1.11
92 Bromofluorobenzen	515685	309411	721959	513427	-0.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.38	0.00
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd6.i/31mar16.b/6033105.d

Date : 30-MAR-2016 20:13

Client ID:

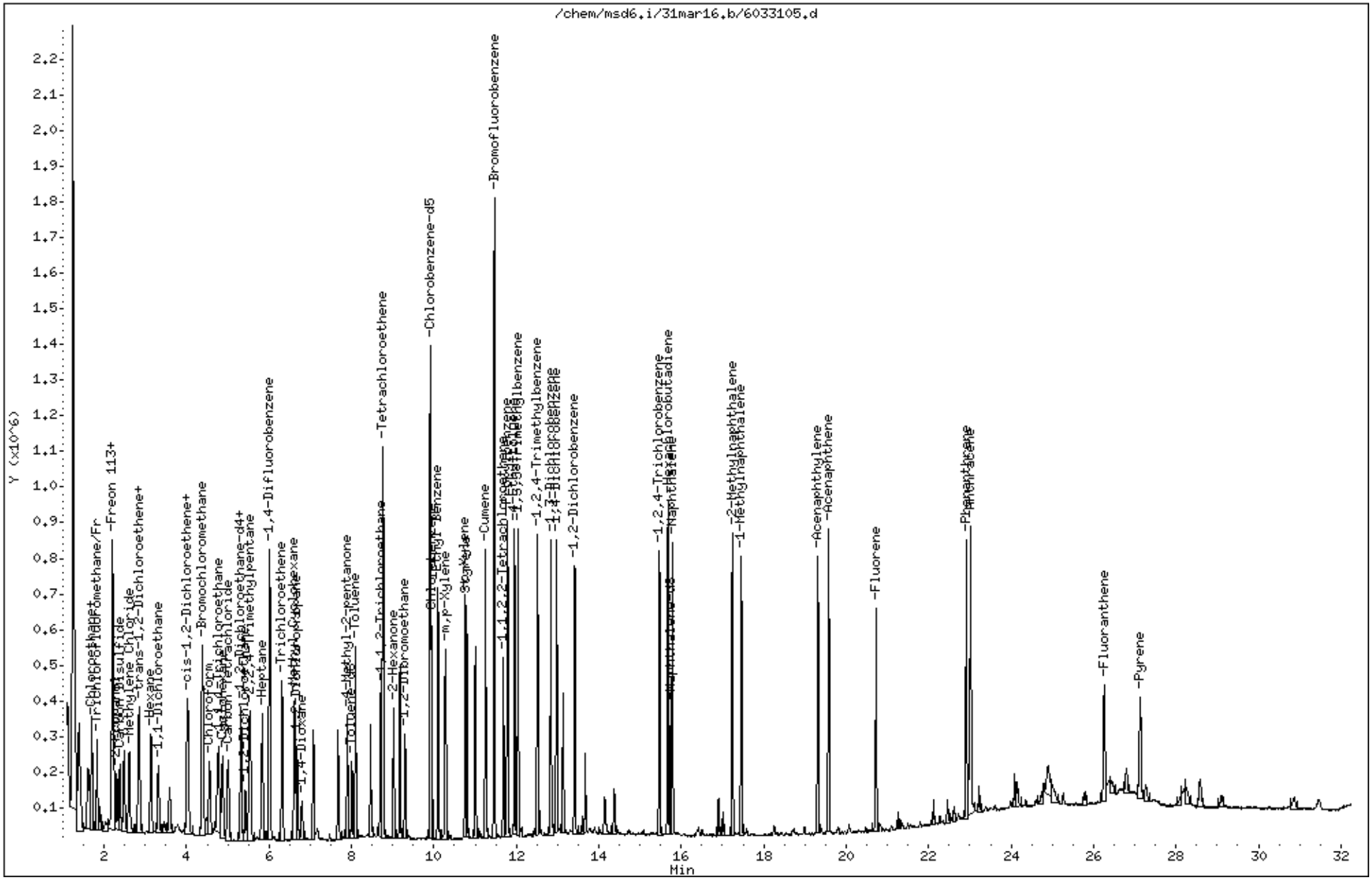
Sample Info: ;VI VOC+PAH ICAL4,10ngSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033106.d
Lab Smp Id: VI VOC+PAH ICAL5,25
Inj Date : 30-MAR-2016 20:53
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL5,25ngSurr
Misc Info : 2516-232-20ml(6/11/16),2744-31-50(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 20:53 Cal File: 6033106.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.380	4.380 (1.000)	130	225139	26.0000		80.00- 120.00	100.00
4.380	4.380 (1.000)	128	176165			48.25- 108.25	78.25
4.380	4.380 (1.000)	49	308749			107.14- 167.14	137.14
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
6.013	6.013 (1.000)	114	874568	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	136878			0.00- 45.65	15.65
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.909	9.909 (1.000)	117	795881	24.0000		80.00- 120.00	100.00
9.909	9.909 (1.000)	82	422898			23.14- 83.14	53.14
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.464	11.464 (1.000)	174	515685	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	632764			92.70- 152.70	122.70
11.464	11.464 (1.000)	176	506634			68.24- 128.24	98.24
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.311	5.311 (0.883)	65	116986	25.0000	25.248	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.311   5.311 (0.883)    67     61158                    22.28-  82.28    52.28
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  8.011   8.011 (0.808)    98    403393 25.0000   25.972  80.00- 120.00   100.00
  8.011   8.011 (0.808)    70     42525                     0.00-  40.54    10.54
  8.011   8.011 (0.808)   100    262231                    35.01-  95.01    65.01
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.747  15.747 (1.374)   136    672922 25.0000   23.168  80.00- 120.00   100.00
 15.747  15.747 (1.374)   108     63339                     0.00-  39.41     9.41
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.269   1.269 (0.290)   135    569243 140.000   140.77  80.00- 120.00   100.00
  1.269   1.269 (0.290)   137    183129                     2.17-  62.17    32.17
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.395   1.395 (0.318)    62    321747 51.1000   50.690  80.00- 120.00   100.00
  1.395   1.395 (0.318)    64    137246                    12.66-  72.66    42.66
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.409   1.409 (0.322)    54    265286 44.2000   43.747  80.00- 120.00   100.00
  1.395   1.395 (0.318)    39    433964                   133.58- 193.58   163.58
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.661   1.661 (0.379)    64    161101 52.8000   44.228  80.00- 120.00   100.00
  1.661   1.661 (0.379)    66     45612                     0.00-  58.31    28.31
  1.661   1.661 (0.379)    49     47767                     0.00-  59.65    29.65
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.702   1.702 (0.389)    57    272126 59.0000   58.499  80.00- 120.00   100.00
  1.702   1.702 (0.389)    43    447172                   134.33- 194.33   164.33
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.828   1.828 (0.417)   101    793819 112.000   110.58  80.00- 120.00   100.00
  1.828   1.828 (0.417)   103    523763                    35.98-  95.98    65.98
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.195   2.195 (0.501)   151    636867 153.000   153.69  80.00- 120.00   100.00
  2.195   2.195 (0.501)   153    411786                    34.66-  94.66    64.66
  2.195   2.195 (0.501)   101    755592                    88.64- 148.64   118.64
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.202   2.202 (0.503)    98    224411 79.3000   77.623  80.00- 120.00   100.00
  2.202   2.202 (0.503)    96    352658                   127.15- 187.15   157.15
  2.202   2.202 (0.503)    61    584807                   230.60- 290.60   260.60
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.544)	76	987902	62.3000	58.421	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.309	2.309 (0.527)	45	701075	49.2000	44.561	80.00- 120.00	100.00(a)
2.302	2.302 (0.526)	43	139570			0.00- 49.91	19.91
2.302	2.302 (0.526)	59	24400			0.00- 33.48	3.48
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.596)	49	497791	69.5000	68.923	80.00- 120.00	100.00
2.610	2.610 (0.596)	84	341572			38.62- 98.62	68.62
2.610	2.610 (0.596)	51	151491			0.43- 60.43	30.43
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.854	2.854 (0.652)	98	229826	79.3000	79.547	80.00- 120.00	100.00
2.854	2.854 (0.652)	61	530411			200.79- 260.79	230.79
2.854	2.854 (0.652)	96	359420			126.39- 186.39	156.39
26 MTBE					CAS #: 1634-04-4		
2.832	2.832 (0.647)	73	886467	72.1000	73.628	80.00- 120.00	100.00
2.832	2.832 (0.647)	57	219527			0.00- 54.76	24.76
2.832	2.832 (0.647)	41	235565			0.00- 56.57	26.57
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.715)	57	589484	70.5000	69.968	80.00- 120.00	100.00
3.133	3.133 (0.715)	43	423087			41.77- 101.77	71.77
3.140	3.140 (0.717)	86	81802			0.00- 43.88	13.88
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.319	3.319 (0.758)	63	623812	81.0000	81.256	80.00- 120.00	100.00
3.319	3.319 (0.758)	65	197782			1.71- 61.71	31.71
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.036	4.036 (0.921)	98	242276	79.3000	78.212	80.00- 120.00	100.00
4.036	4.036 (0.921)	96	378220			126.11- 186.11	156.11
4.036	4.036 (0.921)	61	508565			179.91- 239.91	209.91
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.917)	72	181776	59.0000	57.490	80.00- 120.00	100.00(a)
4.007	4.007 (0.915)	43	907241			469.10- 529.10	499.10
4.007	4.007 (0.915)	57	65706			6.15- 66.15	36.15
44 Chloroform					CAS #: 67-66-3		
4.559	4.559 (1.041)	83	714741	97.7000	96.936	80.00- 120.00	100.00
4.559	4.559 (1.041)	85	471653			35.99- 95.99	65.99

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	455105	68.8000	68.858	80.00- 120.00	100.00
4.874	4.874 (0.811)	56	604324			102.79- 162.79	132.79
4.874	4.874 (0.811)	41	383960			54.37- 114.37	84.37
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.774	4.774 (0.794)	97	739867	109.000	114.17	80.00- 120.00	100.00
4.774	4.774 (0.794)	99	478554			34.68- 94.68	64.68
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	760302	126.000	134.27	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	784587			73.19- 133.19	103.19
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.533 (0.920)	57	1919665	93.4000	95.691	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	609396			1.74- 61.74	31.74
5.533	5.533 (0.920)	41	582379			0.34- 60.34	30.34
48 Benzene					CAS #: 71-43-2		
5.318	5.318 (0.884)	78	1242632	63.9000	64.789	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	292361			0.00- 53.53	23.53
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	481355	80.9000	81.515	80.00- 120.00	100.00
5.425	5.425 (0.902)	64	154734			2.15- 62.15	32.15
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	366242	82.0000	81.296	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	801341			188.80- 248.80	218.80
5.834	5.834 (0.970)	57	372757			71.78- 131.78	101.78
56 Trichloroethene					CAS #: 79-01-6		
6.314	6.314 (1.050)	95	549897	108.000	104.35	80.00- 120.00	100.00
6.314	6.314 (1.050)	130	575976			74.74- 134.74	104.74
6.314	6.314 (1.050)	97	356725			34.87- 94.87	64.87
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	671131	80.3000	81.787	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	296741			14.22- 74.22	44.22
6.622	6.622 (1.101)	55	592177			58.24- 118.24	88.24
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	424497	92.4000	95.923	80.00- 120.00	100.00
6.679	6.679 (1.111)	62	294275			39.32- 99.32	69.32
6.679	6.679 (1.111)	41	285506			37.26- 97.26	67.26

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.794	6.794 (1.130)	88	269176	72.1000	71.325	80.00- 120.00	100.00
6.794	6.794 (1.130)	58	191864			41.28- 101.28	71.28
6.801	6.801 (1.131)	57	82432			0.62- 60.62	30.62
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.897	7.897 (1.313)	58	365587	81.9000	84.158	80.00- 120.00	100.00
7.897	7.897 (1.313)	43	1072420			263.34- 323.34	293.34
7.897	7.897 (1.313)	85	154731			12.32- 72.32	42.32
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	1407739	75.4000	73.625	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	819042			28.18- 88.18	58.18
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.713	8.713 (1.449)	97	487586	109.000	110.34	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	303841			32.32- 92.32	62.32
8.713	8.713 (1.449)	83	411628			54.42- 114.42	84.42
71 Tetrachloroethene					CAS #: 127-18-4		
8.771	8.771 (0.885)	166	693979	136.000	137.35	80.00- 120.00	100.00
8.771	8.771 (0.885)	129	535794			47.21- 107.21	77.21
8.771	8.771 (0.885)	131	518293			44.68- 104.68	74.68
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	491086	81.9000	85.193	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	1037135			181.19- 241.19	211.19
9.021	9.021 (0.910)	100	90985			0.00- 48.53	18.53
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	763537	154.000	160.89	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	724426			64.88- 124.88	94.88
81 Chlorobenzene					CAS #: 108-90-7		
9.952	9.952 (1.004)	112	1151638	92.1000	94.080	80.00- 120.00	100.00
9.952	9.952 (1.004)	114	372825			2.37- 62.37	32.37
9.945	9.945 (1.004)	77	640113			25.58- 85.58	55.58
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	583767	86.8000	87.608	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	1832569			283.92- 343.92	313.92
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	731942	86.8000	84.693	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	1452778			168.48- 228.48	198.48

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

   88 o-Xylene                                        CAS #: 95-47-6
 10.762  10.762 (0.939)   106    688434 86.8000   88.646  80.00- 120.00   100.00
 10.762  10.762 (0.939)    91   1439172                  179.05- 239.05   209.05
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.798  10.798 (0.942)   104   1161688 85.2000   86.742  80.00- 120.00   100.00
 10.798  10.798 (0.942)    78    554259                   17.71-  77.71    47.71
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.256  11.256 (0.982)   105   2107402 98.3000   103.18  80.00- 120.00   100.00
 11.256  11.256 (0.982)   120    566500                    0.00-  56.88    26.88
 11.249  11.249 (0.981)    51    222788                    0.00-  40.57    10.57
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.686  11.686 (1.019)    83   1003352 137.000   148.61  80.00- 120.00   100.00
 11.686  11.686 (1.019)    85    658478                   35.63-  95.63    65.63
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.793  11.793 (1.029)    91   2508294 98.3000   103.82  80.00- 120.00   100.00
 11.793  11.793 (1.029)   120    595965                    0.00-  53.76    23.76
 11.793  11.793 (1.029)   105     94954                    0.00-  33.79     3.79
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.958  11.958 (1.043)   120    639747 98.3000   102.94  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105   2111038                  299.98- 359.98   329.98
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.044  12.044 (1.051)   120    904931 98.3000   103.28  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105   1808373                  169.84- 229.84   199.84
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.510  12.510 (1.091)   120    835350 98.3000   102.31  80.00- 120.00   100.00
 12.510  12.510 (1.091)   105   1823087                  188.24- 248.24   218.24
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.839  12.839 (1.120)   146   1263653 120.000   125.05  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148    808040                   33.94-  93.94    63.94
 12.839  12.839 (1.120)   111    505381                    9.99-  69.99    39.99
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.975  12.975 (1.132)   146   1274792 120.000   126.34  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148    810217                   33.56-  93.56    63.56
 12.975  12.975 (1.132)   111    485989                    8.12-  68.12    38.12
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.419  13.419 (1.171)   146   1213165 120.000   127.05  80.00- 120.00   100.00
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   ng)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  105 1,2-Dichlorobenzene (continued)
 13.419  13.419 (1.171)   148    767336                    33.25-  93.25    63.25
 13.412  13.412 (1.170)   111    499336                    11.16-  71.16    41.16
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.468  15.468 (1.349)   180   1060885 148.000   161.60  80.00- 120.00   100.00
 15.468  15.468 (1.349)   182   1005928                    64.82- 124.82    94.82
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.676  15.676 (1.367)   225    797607 213.000   236.41  80.00- 120.00   100.00
 15.676  15.676 (1.367)   223    495219                    32.09-  92.09    62.09
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.790  15.790 (1.377)   128   1498358 50.0000   43.309  80.00- 120.00   100.00
 15.790  15.790 (1.377)   127    194961                     0.00-  43.01    13.01
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.237  17.237 (1.504)   142    939876 50.0000   47.000  80.00- 120.00   100.00
 17.237  17.237 (1.504)   141    822894                    57.55- 117.55    87.55
 17.237  17.237 (1.504)   115    308992                     2.88-  62.88    32.88
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.459  17.459 (1.523)   142    861839 50.0000   47.927  80.00- 120.00   100.00
 17.459  17.459 (1.523)   141    782785                    60.83- 120.83    90.83
 17.452  17.452 (1.522)   115    296032                     4.35-  64.35    34.35
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.315  19.315 (1.685)   152   1472727 50.0000   50.144  80.00- 120.00   100.00
 19.315  19.315 (1.685)   151    301428                     0.00-  50.47    20.47
 19.315  19.315 (1.685)   153    191366                     0.00-  42.99    12.99
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.572  19.572 (1.707)   154    776656 50.0000   48.918  80.00- 120.00   100.00
 19.572  19.572 (1.707)   152    415415                    23.49-  83.49    53.49
 19.572  19.572 (1.707)   153    865304                    81.41- 141.41   111.41
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.733  20.733 (1.809)   166    672072 50.0000   42.671  80.00- 120.00   100.00
 20.733  20.733 (1.809)   165    648665                    66.52- 126.52    96.52
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.910  22.910 (1.998)   178   1352471 50.0000   50.865  80.00- 120.00   100.00
 22.918  22.918 (1.999)   176    265669                     0.00-  49.64    19.64
 22.918  22.918 (1.999)   179    205897                     0.00-  45.22    15.22
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 23.025  23.025 (2.008)   178   1309928 50.0000   52.014  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)								
23.025	23.025	(2.008)	176	249422			0.00- 49.04	19.04
23.025	23.025	(2.008)	179	200142			0.00- 45.28	15.28
117 Fluoranthene						CAS #: 206-44-0		
26.263	26.263	(2.291)	202	917974	50.0000	49.634	80.00- 120.00	100.00
26.263	26.263	(2.291)	101	167132			0.00- 48.21	18.21
118 Pyrene						CAS #: 129-00-0		
27.129	27.129	(2.367)	202	946348	50.0000	49.256	80.00- 120.00	100.00
27.129	27.129	(2.367)	101	199560			0.00- 51.09	21.09
27.137	27.137	(2.367)	100	167143			0.00- 47.66	17.66

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: msd6.i
Lab File ID: 6033106.d
Lab Smp Id: VI VOC+PAH ICAL5,25
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-20ml(6/11/16),2744-31-50(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	225139	0.00
54 1,4-Difluorobenze	874568	524741	1224395	874568	0.00
79 Chlorobenzene-d5	795881	477529	1114233	795881	0.00
92 Bromofluorobenzen	515685	309411	721959	515685	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.38	0.00
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd6.i/31mar16.b/6033106.d

Date : 30-MAR-2016 20:53

Client ID:

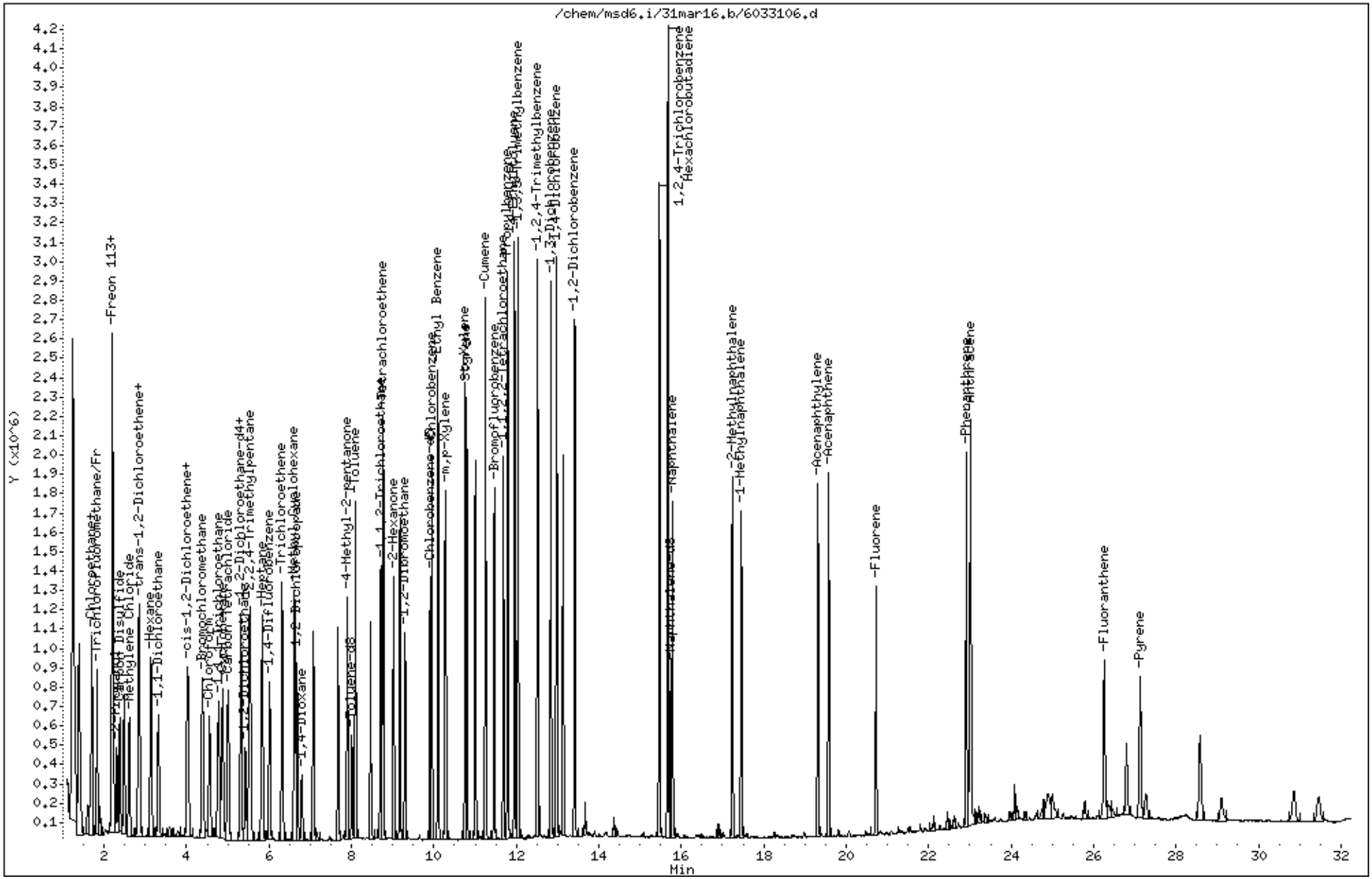
Sample Info: ;VI VOC+PAH ICAL5,25ngSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033107.d
Lab Smp Id: VI VOC+PAH ICAL6,50
Inj Date : 30-MAR-2016 21:33
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL6,50ngSurr
Misc Info : 2516-232-50ml(6/11/16),2744-31-100(7/5/1650
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 21:33 Cal File: 6033107.d
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.380	4.380 (1.000)	130	228360	26.0000		80.00- 120.00	100.00
4.380	4.380 (1.000)	128	175917			48.25- 108.25	77.03
4.380	4.380 (1.000)	49	305978			107.14- 167.14	133.99
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
6.013	6.013 (1.000)	114	884460	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	136857			0.00- 45.65	15.47
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.909	9.909 (1.000)	117	807203	24.0000		80.00- 120.00	100.00
9.909	9.909 (1.000)	82	423919			23.14- 83.14	52.52
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.464	11.464 (1.000)	174	529386	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	640436			92.70- 152.70	120.98
11.464	11.464 (1.000)	176	517413			68.24- 128.24	97.74
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.311	5.311 (0.883)	65	236976	50.0000	50.573	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
$ 49 1,2-Dichloroethane-d4 (continued)							
5.311	5.311 (0.883)	67	120998			22.28- 82.28	51.06
$ 66 Toluene-d8						CAS #: 2037-26-5	
8.011	8.011 (0.808)	98	808189	50.0000	51.305	80.00- 120.00	100.00
8.004	8.004 (0.808)	70	86521			0.00- 40.54	10.71
8.011	8.011 (0.808)	100	528189			35.01- 95.01	65.35
$ 108 Naphthalene-d8						CAS #: 1146-65-2	
15.747	15.747 (1.374)	136	1422855	50.0000	47.720	80.00- 120.00	100.00
15.747	15.747 (1.374)	108	133784			0.00- 39.41	9.40
3 Freon 114						CAS #: 76-14-2	
1.283	1.283 (0.293)	135	1475906	350.000	359.83	80.00- 120.00	100.00
1.283	1.283 (0.293)	137	478514			2.17- 62.17	32.42
6 Vinyl Chloride						CAS #: 75-01-4	
1.395	1.395 (0.318)	62	821016	128.000	127.52	80.00- 120.00	100.00
1.395	1.395 (0.318)	64	312137			12.66- 72.66	38.02
7 1,3-Butadiene						CAS #: 106-99-0	
1.409	1.409 (0.322)	54	666322	111.000	108.33	80.00- 120.00	100.00
1.409	1.409 (0.322)	39	1050420			133.58- 193.58	157.64
9 Chloroethane						CAS #: 75-00-3	
1.660	1.660 (0.379)	64	400121	132.000	108.30	80.00- 120.00	100.00
1.674	1.674 (0.382)	66	119104			0.00- 58.31	29.77
1.660	1.660 (0.379)	49	118759			0.00- 59.65	29.68
10 Isopentane						CAS #: 78-78-4	
1.702	1.702 (0.389)	57	702602	148.000	148.91	80.00- 120.00	100.00
1.702	1.702 (0.389)	43	1129354			134.33- 194.33	160.74
11 Trichlorofluoromethane/Fr11						CAS #: 75-69-4	
1.828	1.828 (0.417)	101	2030008	281.000	278.81	80.00- 120.00	100.00
1.828	1.828 (0.417)	103	1395909			35.98- 95.98	68.76
15 Freon 113						CAS #: 76-13-1	
2.202	2.202 (0.503)	151	1648861	383.000	392.29	80.00- 120.00	100.00
2.202	2.202 (0.503)	153	1061256			34.66- 94.66	64.36
2.202	2.202 (0.503)	101	1927258			88.64- 148.64	116.88
14 1,1-Dichloroethene						CAS #: 75-35-4	
2.202	2.202 (0.503)	98	568874	198.000	194.00	80.00- 120.00	100.00
2.202	2.202 (0.503)	96	901622			127.15- 187.15	158.49
2.202	2.202 (0.503)	61	1463712			230.60- 290.60	257.30

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.544)	76	2491565	156.000	145.26	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.309	2.309 (0.527)	45	1778866	123.000	111.47	80.00- 120.00	100.00
2.309	2.309 (0.527)	43	334440			0.00- 49.91	18.80
2.309	2.309 (0.527)	59	63261			0.00- 33.48	3.56
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.596)	49	1190125	174.000	162.46	80.00- 120.00	100.00
2.610	2.610 (0.596)	84	820078			38.62- 98.62	68.91
2.610	2.610 (0.596)	51	358345			0.43- 60.43	30.11
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.861	2.861 (0.653)	98	584977	198.000	199.62	80.00- 120.00	100.00
2.861	2.861 (0.653)	61	1348175			200.79- 260.79	230.47
2.861	2.861 (0.653)	96	919359			126.39- 186.39	157.16
26 MTBE					CAS #: 1634-04-4		
2.839	2.839 (0.648)	73	2320467	180.000	190.01	80.00- 120.00	100.00
2.832	2.832 (0.647)	57	568229			0.00- 54.76	24.49
2.839	2.839 (0.648)	41	602243			0.00- 56.57	25.95
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.715)	57	1490708	176.000	174.44	80.00- 120.00	100.00
3.133	3.133 (0.715)	43	1063775			41.77- 101.77	71.36
3.133	3.133 (0.715)	86	204597			0.00- 43.88	13.72
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.327	3.327 (0.760)	63	1593030	202.000	204.58	80.00- 120.00	100.00
3.327	3.327 (0.760)	65	502654			1.71- 61.71	31.55
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.043	4.043 (0.923)	98	617590	198.000	196.56	80.00- 120.00	100.00
4.043	4.043 (0.923)	96	968263			126.11- 186.11	156.78
4.043	4.043 (0.923)	61	1290047			179.91- 239.91	208.88
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.917)	72	438678	147.000	136.78	80.00- 120.00	100.00
4.014	4.014 (0.917)	43	2176754			469.10- 529.10	496.21
4.014	4.014 (0.917)	57	156574			6.15- 66.15	35.69
44 Chloroform					CAS #: 67-66-3		
4.566	4.566 (1.043)	83	1803526	244.000	241.15	80.00- 120.00	100.00
4.566	4.566 (1.043)	85	1189106			35.99- 95.99	65.93

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.874	4.874 (0.811)	84	1177020	172.000	176.09	80.00- 120.00	100.00
4.874	4.874 (0.811)	56	1547156		102.79- 162.79		131.45
4.874	4.874 (0.811)	41	971791			54.37- 114.37	82.56
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.781	4.781 (0.795)	97	1918873	273.000	292.79	80.00- 120.00	100.00
4.781	4.781 (0.795)	99	1245902			34.68- 94.68	64.93
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	1985716	315.000	346.75	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	2051890			73.19- 133.19	103.33
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.533 (0.920)	57	4862711	234.000	239.68	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	1551907			1.74- 61.74	31.91
5.533	5.533 (0.920)	41	1472322			0.34- 60.34	30.28
48 Benzene					CAS #: 71-43-2		
5.318	5.318 (0.884)	78	2780965	160.000	143.37	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	653087			0.00- 53.53	23.48
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.425	5.425 (0.902)	62	1233281	202.000	206.51	80.00- 120.00	100.00
5.432	5.432 (0.904)	64	398764			2.15- 62.15	32.33
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	933749	205.000	204.95	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	1999981			188.80- 248.80	214.19
5.834	5.834 (0.970)	57	946201			71.78- 131.78	101.33
56 Trichloroethene					CAS #: 79-01-6		
6.321	6.321 (1.051)	95	1335318	269.000	250.55	80.00- 120.00	100.00
6.321	6.321 (1.051)	130	1386382			74.74- 134.74	103.82
6.321	6.321 (1.051)	97	863960			34.87- 94.87	64.70
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	1704124	201.000	205.35	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	762704			14.22- 74.22	44.76
6.622	6.622 (1.101)	55	1501838			58.24- 118.24	88.13
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.679	6.679 (1.111)	63	1092199	231.000	244.04	80.00- 120.00	100.00
6.686	6.686 (1.112)	62	761192			39.32- 99.32	69.69
6.679	6.679 (1.111)	41	675002			37.26- 97.26	61.80

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.793	6.793 (1.130)	88	694697	180.000	182.02	80.00- 120.00	100.00
6.793	6.793 (1.130)	58	491088			41.28- 101.28	70.69
6.793	6.793 (1.130)	57	178058			0.62- 60.62	25.63
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.897	7.897 (1.313)	58	939629	205.000	213.88	80.00- 120.00	100.00
7.897	7.897 (1.313)	43	2724787			263.34- 323.34	289.99
7.897	7.897 (1.313)	85	396041			12.32- 72.32	42.15
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	3554553	188.000	183.30	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	2078794			28.18- 88.18	58.48
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.713	8.713 (1.449)	97	1248120	273.000	279.28	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	781927			32.32- 92.32	62.65
8.713	8.713 (1.449)	83	1055626			54.42- 114.42	84.58
71 Tetrachloroethene					CAS #: 127-18-4		
8.770	8.770 (0.885)	166	1786276	339.000	348.57	80.00- 120.00	100.00
8.770	8.770 (0.885)	129	1356257			47.21- 107.21	75.93
8.770	8.770 (0.885)	131	1306445			44.68- 104.68	73.14
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	1278382	205.000	218.66	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	2666737			181.19- 241.19	208.60
9.021	9.021 (0.910)	100	239066			0.00- 48.53	18.70
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.300	9.300 (0.939)	107	1995936	384.000	414.67	80.00- 120.00	100.00
9.300	9.300 (0.939)	109	1890705			64.88- 124.88	94.73
81 Chlorobenzene					CAS #: 108-90-7		
9.952	9.952 (1.004)	112	2916431	230.000	234.91	80.00- 120.00	100.00
9.952	9.952 (1.004)	114	945005			2.37- 62.37	32.40
9.945	9.945 (1.004)	77	1614820			25.58- 85.58	55.37
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	1511318	217.000	223.63	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	4675249			283.92- 343.92	309.35
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	1891978	217.000	215.85	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	3737749			168.48- 228.48	197.56

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

   88 o-Xylene                                        CAS #: 95-47-6
 10.762  10.762 (0.939)   106   1764207 217.000   221.29  80.00- 120.00   100.00
 10.762  10.762 (0.939)    91   3654542                  179.05- 239.05   207.15
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.798  10.798 (0.942)   104   2999984 213.000   218.21  80.00- 120.00   100.00
 10.798  10.798 (0.942)    78   1427330                   17.71-  77.71    47.58
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.256  11.256 (0.982)   105   5364256 246.000   255.84  80.00- 120.00   100.00
 11.256  11.256 (0.982)   120   1453424                    0.00-  56.88    27.09
 11.249  11.249 (0.981)    51    559593                    0.00-  40.57    10.43
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.686  11.686 (1.019)    83   2742543 343.000   395.69  80.00- 120.00   100.00
 11.686  11.686 (1.019)    85   1785697                   35.63-  95.63    65.11
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.793  11.793 (1.029)    91   6388806 246.000   257.61  80.00- 120.00   100.00
 11.793  11.793 (1.029)   120   1540527                    0.00-  53.76    24.11
 11.793  11.793 (1.029)   105    240904                    0.00-  33.79     3.77
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.958  11.958 (1.043)   120   1645363 246.000   257.90  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105   5309588                  299.98- 359.98   322.70
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.044  12.044 (1.051)   120   2306666 246.000   256.44  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105   4590069                  169.84- 229.84   198.99
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.517  12.517 (1.092)   120   2120318 246.000   252.96  80.00- 120.00   100.00
 12.510  12.510 (1.091)   105   4565185                  188.24- 248.24   215.31
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.839  12.839 (1.120)   146   3199862 301.000   308.45  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148   2046773                   33.94-  93.94    63.96
 12.839  12.839 (1.120)   111   1267753                    9.99-  69.99    39.62
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.975  12.975 (1.132)   146   3202256 301.000   309.15  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148   2055563                   33.56-  93.56    64.19
 12.975  12.975 (1.132)   111   1225552                    8.12-  68.12    38.27
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.419  13.419 (1.171)   146   3058444 301.000   312.00  80.00- 120.00   100.00
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
105 1,2-Dichlorobenzene (continued)							
13.419	13.419 (1.171)	148	1957057			33.25- 93.25	63.99
13.419	13.419 (1.171)	111	1250596			11.16- 71.16	40.89
106 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
15.468	15.468 (1.349)	180	2576917	371.000	382.36	80.00- 120.00	100.00
15.468	15.468 (1.349)	182	2454788			64.82- 124.82	95.26
107 Hexachlorobutadiene					CAS #: 87-68-3		
15.676	15.676 (1.367)	225	1976457	533.000	570.66	80.00- 120.00	100.00
15.676	15.676 (1.367)	223	1241933			32.09- 92.09	62.84
109 Naphthalene					CAS #: 91-20-3		
15.790	15.790 (1.377)	128	2984721	100.000	84.039	80.00- 120.00	100.00
15.790	15.790 (1.377)	127	391516			0.00- 43.01	13.12
110 2-Methylnaphthalene					CAS #: 91-57-6		
17.237	17.237 (1.504)	142	1916783	100.000	93.370	80.00- 120.00	100.00
17.237	17.237 (1.504)	141	1680246			57.55- 117.55	87.66
17.237	17.237 (1.504)	115	631100			2.88- 62.88	32.92
111 1-Methylnaphthalene					CAS #: 90-12-0		
17.459	17.459 (1.523)	142	1745880	100.000	94.576	80.00- 120.00	100.00
17.459	17.459 (1.523)	141	1584853			60.83- 120.83	90.78
17.459	17.459 (1.523)	115	599489			4.35- 64.35	34.34
112 Acenaphthylene					CAS #: 208-96-8		
19.314	19.314 (1.685)	152	2916922	100.000	96.745	80.00- 120.00	100.00
19.314	19.314 (1.685)	151	592478			0.00- 50.47	20.31
19.314	19.314 (1.685)	153	380479			0.00- 42.99	13.04
113 Acenaphthene					CAS #: 83-32-9		
19.572	19.572 (1.707)	154	1627182	100.000	99.837	80.00- 120.00	100.00
19.572	19.572 (1.707)	152	861774			23.49- 83.49	52.96
19.572	19.572 (1.707)	153	1802834			81.41- 141.41	110.79
114 Fluorene					CAS #: 86-73-7		
20.733	20.733 (1.809)	166	1691568	100.000	104.62	80.00- 120.00	100.00
20.733	20.733 (1.809)	165	1625151			66.52- 126.52	96.07
115 Phenanthrene					CAS #: 85-01-8		
22.917	22.917 (1.999)	178	2618454	100.000	95.929	80.00- 120.00	100.00
22.917	22.917 (1.999)	176	509961			0.00- 49.64	19.48
22.917	22.917 (1.999)	179	401077			0.00- 45.22	15.32
116 Anthracene					CAS #: 120-12-7		
23.025	23.025 (2.008)	178	2572594	100.000	99.508	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)								
23.018	23.018	(2.008)	176	486795			0.00- 49.04	18.92
23.018	23.018	(2.008)	179	397244			0.00- 45.28	15.44
117 Fluoranthene						CAS #: 206-44-0		
26.263	26.263	(2.291)	202	1500889	100.000	79.051	80.00- 120.00	100.00
26.255	26.255	(2.290)	101	270383			0.00- 48.21	18.01
118 Pyrene						CAS #: 129-00-0		
27.129	27.129	(2.367)	202	1533709	100.000	77.762	80.00- 120.00	100.00
27.129	27.129	(2.367)	101	319770			0.00- 51.09	20.85
27.129	27.129	(2.367)	100	263763			0.00- 47.66	17.20

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033107.d
Lab Smp Id: VI VOC+PAH ICAL6,50
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-50ml(6/11/16),2744-31-100(7/5/1650

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

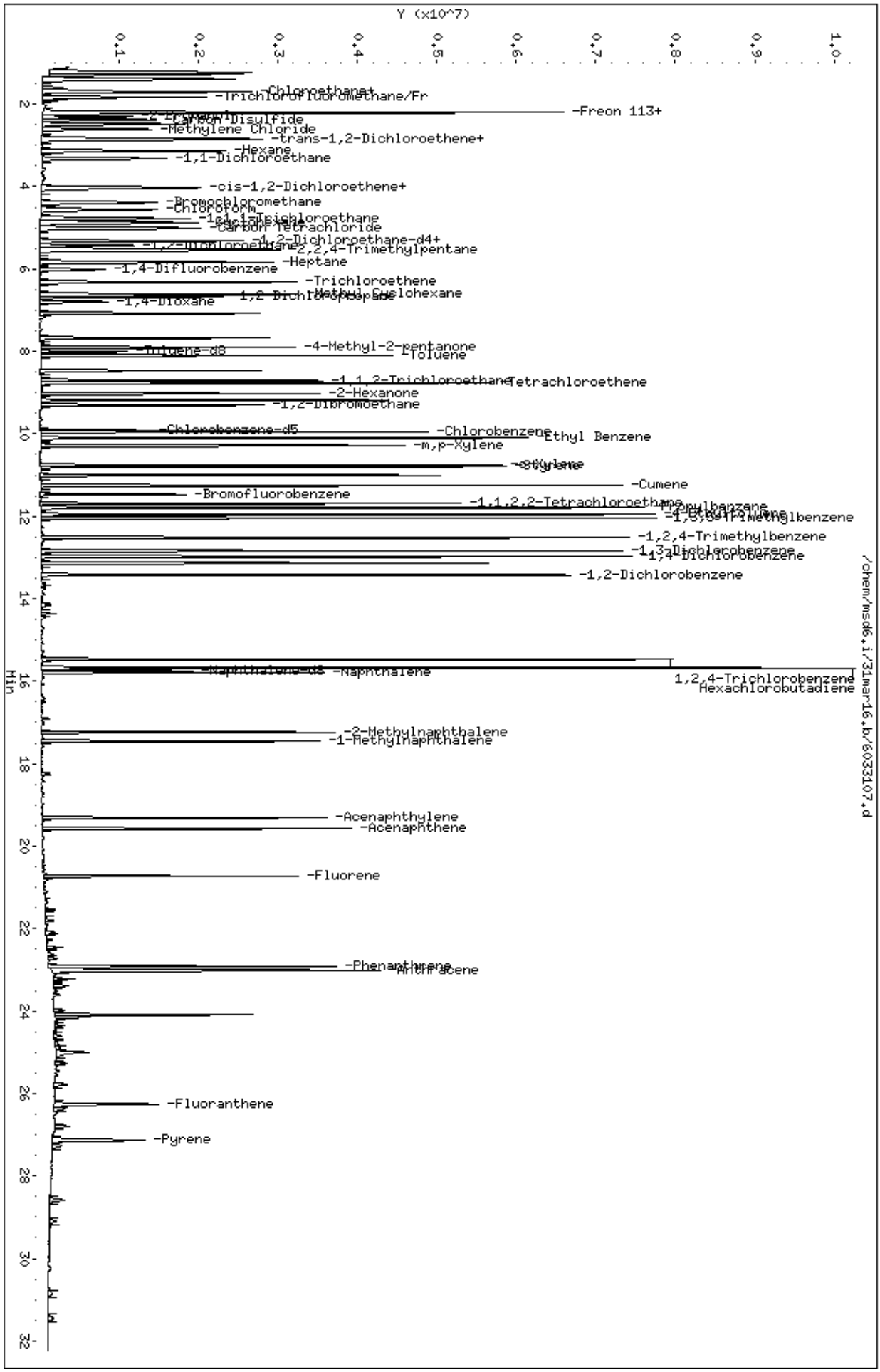
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	228360	1.43
54 1,4-Difluorobenze	874568	524741	1224395	884460	1.13
79 Chlorobenzene-d5	795881	477529	1114233	807203	1.42
92 Bromofluorobenzen	515685	309411	721959	529386	2.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.38	0.00
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd6.i/31mar16.b/6033107.d
Date : 30-MAR-2016 21:33
Client ID:
Sample Info: ;VI VOC+PAH ICAL6,50ngSurr
Column phase: RTx-624

Instrument: msd6.i
Operator: LA
Column diameter: 0.53



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Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033108.d
Lab Smp Id: VI VOC+PAH ICAL7,10
Inj Date : 30-MAR-2016 22:12
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL7,100ngSurr
Misc Info : 2516-232-100ml(6/11/16),2744-31-250(7/5/16)
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 22:12 Cal File: 6033108.d
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.387	4.387 (1.000)	130	232294	26.0000		80.00- 120.00	100.00
4.387	4.387 (1.000)	128	179778			48.25- 108.25	77.39
4.380	4.380 (1.000)	49	313274			107.14- 167.14	134.86
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
6.013	6.013 (1.000)	114	893234	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	138358			0.00- 45.65	15.49
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.910	9.910 (1.000)	117	812545	24.0000		80.00- 120.00	100.00
9.910	9.910 (1.000)	82	428150			23.14- 83.14	52.69
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.464	11.464 (1.000)	174	542882	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	648745			92.70- 152.70	119.50
11.464	11.464 (1.000)	176	529741			68.24- 128.24	97.58
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.318	5.318 (0.884)	65	444172	100.000	93.860	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
$ 49 1,2-Dichloroethane-d4 (continued)							
5.318	5.318 (0.884)	67	232581			22.28- 82.28	52.36
$ 66 Toluene-d8						CAS #: 2037-26-5	
8.011	8.011 (0.808)	98	1577790	100.000	99.503	80.00- 120.00	100.00
8.011	8.011 (0.808)	70	168500			0.00- 40.54	10.68
8.011	8.011 (0.808)	100	1028292			35.01- 95.01	65.17
$ 108 Naphthalene-d8						CAS #: 1146-65-2	
15.747	15.747 (1.374)	136	2982415	100.000	97.538	80.00- 120.00	100.00
15.747	15.747 (1.374)	108	281364			0.00- 39.41	9.43
3 Freon 114						CAS #: 76-14-2	
1.269	1.269 (0.289)	135	2877516	699.000	689.67	80.00- 120.00	100.00
1.283	1.283 (0.292)	137	933284			2.17- 62.17	32.43
6 Vinyl Chloride						CAS #: 75-01-4	
1.395	1.395 (0.318)	62	1632542	256.000	249.28	80.00- 120.00	100.00
1.395	1.395 (0.318)	64	553123			12.66- 72.66	33.88
7 1,3-Butadiene						CAS #: 106-99-0	
1.409	1.409 (0.321)	54	1335056	221.000	213.38	80.00- 120.00	100.00
1.395	1.395 (0.318)	39	2091217			133.58- 193.58	156.64
9 Chloroethane						CAS #: 75-00-3	
1.661	1.661 (0.379)	64	779926	264.000	207.52	80.00- 120.00	100.00
1.661	1.661 (0.379)	66	240321			0.00- 58.31	30.81
1.661	1.661 (0.379)	49	241720			0.00- 59.65	30.99
10 Isopentane						CAS #: 78-78-4	
1.703	1.703 (0.388)	57	1395941	295.000	290.84	80.00- 120.00	100.00
1.703	1.703 (0.388)	43	2219519			134.33- 194.33	159.00
11 Trichlorofluoromethane/Fr11						CAS #: 75-69-4	
1.828	1.828 (0.417)	101	4425144	562.000	597.47	80.00- 120.00	100.00
1.828	1.828 (0.417)	103	2846583			35.98- 95.98	64.33
15 Freon 113						CAS #: 76-13-1	
2.202	2.202 (0.502)	151	3288628	766.000	769.17	80.00- 120.00	100.00
2.202	2.202 (0.502)	153	2133080			34.66- 94.66	64.86
2.202	2.202 (0.502)	101	3803044			88.64- 148.64	115.64
14 1,1-Dichloroethene						CAS #: 75-35-4	
2.202	2.202 (0.502)	98	1134439	397.000	380.31	80.00- 120.00	100.00
2.202	2.202 (0.502)	96	1790252			127.15- 187.15	157.81
2.202	2.202 (0.502)	61	2889571			230.60- 290.60	254.71

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.381	2.381 (0.543)	76	4983311	311.000	285.62	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.310	2.310 (0.526)	45	3602853	246.000	221.95	80.00- 120.00	100.00
2.310	2.310 (0.526)	43	679806			0.00- 49.91	18.87
2.302	2.302 (0.525)	59	129263			0.00- 33.48	3.59
22 Methylene Chloride					CAS #: 75-09-2		
2.610	2.610 (0.595)	49	2279983	347.000	305.96	80.00- 120.00	100.00
2.610	2.610 (0.595)	84	1604864			38.62- 98.62	70.39
2.610	2.610 (0.595)	51	688968			0.43- 60.43	30.22
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.861	2.861 (0.652)	98	1169778	396.000	392.41	80.00- 120.00	100.00
2.861	2.861 (0.652)	61	2675868			200.79- 260.79	228.75
2.861	2.861 (0.652)	96	1840855			126.39- 186.39	157.37
26 MTBE					CAS #: 1634-04-4		
2.840	2.840 (0.647)	73	4568636	361.000	367.77	80.00- 120.00	100.00
2.840	2.840 (0.647)	57	1111431			0.00- 54.76	24.33
2.840	2.840 (0.647)	41	1164835			0.00- 56.57	25.50
28 Hexane					CAS #: 110-54-3		
3.133	3.133 (0.714)	57	2974733	352.000	342.20	80.00- 120.00	100.00
3.133	3.133 (0.714)	43	2098249			41.77- 101.77	70.54
3.133	3.133 (0.714)	86	413992			0.00- 43.88	13.92
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.327	3.327 (0.758)	63	3202683	405.000	404.32	80.00- 120.00	100.00
3.327	3.327 (0.758)	65	1016430			1.71- 61.71	31.74
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.043	4.043 (0.922)	98	1242528	396.000	388.76	80.00- 120.00	100.00
4.043	4.043 (0.922)	96	1942927			126.11- 186.11	156.37
4.043	4.043 (0.922)	61	2580008			179.91- 239.91	207.64
38 2-Butanone					CAS #: 78-93-3		
4.014	4.014 (0.915)	72	840448	295.000	257.62	80.00- 120.00	100.00
4.014	4.014 (0.915)	43	4121841			469.10- 529.10	490.43
4.014	4.014 (0.915)	57	295452			6.15- 66.15	35.15
44 Chloroform					CAS #: 67-66-3		
4.566	4.566 (1.041)	83	3573836	488.000	469.77	80.00- 120.00	100.00
4.566	4.566 (1.041)	85	2335052			35.99- 95.99	65.34

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.881	4.881 (0.812)	84	2361850	344.000	349.88	80.00- 120.00	100.00
4.881	4.881 (0.812)	56	3094677			102.79- 162.79	131.03
4.881	4.881 (0.812)	41	1921305			54.37- 114.37	81.35
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.781	4.781 (0.795)	97	3819343	546.000	577.05	80.00- 120.00	100.00
4.781	4.781 (0.795)	99	2478057			34.68- 94.68	64.88
47 Carbon Tetrachloride					CAS #: 56-23-5		
5.010	5.010 (0.833)	119	3931024	629.000	679.70	80.00- 120.00	100.00
5.010	5.010 (0.833)	117	4090691			73.19- 133.19	104.06
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.533	5.533 (0.920)	57	9644119	467.000	470.69	80.00- 120.00	100.00
5.533	5.533 (0.920)	56	3080222			1.74- 61.74	31.94
5.533	5.533 (0.920)	41	2876277			0.34- 60.34	29.82
48 Benzene					CAS #: 71-43-2		
5.325	5.325 (0.886)	78	5509497	319.000	281.26	80.00- 120.00	100.00
5.318	5.318 (0.884)	77	1296072			0.00- 53.53	23.52
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.433	5.433 (0.904)	62	2426716	405.000	402.36	80.00- 120.00	100.00
5.433	5.433 (0.904)	64	786450			2.15- 62.15	32.41
53 Heptane					CAS #: 142-82-5		
5.834	5.834 (0.970)	71	1881117	410.000	408.83	80.00- 120.00	100.00
5.834	5.834 (0.970)	43	3907316			188.80- 248.80	207.71
5.834	5.834 (0.970)	57	1879048			71.78- 131.78	99.89
56 Trichloroethene					CAS #: 79-01-6		
6.321	6.321 (1.051)	95	2680083	537.000	497.94	80.00- 120.00	100.00
6.321	6.321 (1.051)	130	2788660			74.74- 134.74	104.05
6.321	6.321 (1.051)	97	1734417			34.87- 94.87	64.72
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.622	6.622 (1.101)	83	3428664	402.000	409.10	80.00- 120.00	100.00
6.622	6.622 (1.101)	98	1522484			14.22- 74.22	44.40
6.622	6.622 (1.101)	55	2978194			58.24- 118.24	86.86
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.686	6.686 (1.112)	63	2185401	462.000	483.51	80.00- 120.00	100.00
6.686	6.686 (1.112)	62	1520843			39.32- 99.32	69.59
6.679	6.679 (1.111)	41	1334484			37.26- 97.26	61.06

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.131)	88	1397606	360.000	362.59	80.00- 120.00	100.00
6.794	6.794 (1.130)	58	982607			41.28- 101.28	70.31
6.794	6.794 (1.130)	57	341766			0.62- 60.62	24.45
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.904	7.904 (1.314)	58	1868348	410.000	421.11	80.00- 120.00	100.00
7.904	7.904 (1.314)	43	5296841			263.34- 323.34	283.50
7.904	7.904 (1.314)	85	795789			12.32- 72.32	42.59
67 Toluene					CAS #: 108-88-3		
8.097	8.097 (0.817)	91	7014231	377.000	359.32	80.00- 120.00	100.00
8.097	8.097 (0.817)	92	4125981			28.18- 88.18	58.82
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.713	8.713 (1.449)	97	2474168	546.000	548.19	80.00- 120.00	100.00
8.713	8.713 (1.449)	99	1554453			32.32- 92.32	62.83
8.713	8.713 (1.449)	83	2101754			54.42- 114.42	84.95
71 Tetrachloroethene					CAS #: 127-18-4		
8.771	8.771 (0.885)	166	3628925	678.000	703.48	80.00- 120.00	100.00
8.771	8.771 (0.885)	129	2686690			47.21- 107.21	74.04
8.771	8.771 (0.885)	131	2586894			44.68- 104.68	71.29
72 2-Hexanone					CAS #: 591-78-6		
9.021	9.021 (0.910)	58	2530246	410.000	429.94	80.00- 120.00	100.00
9.021	9.021 (0.910)	43	5199789			181.19- 241.19	205.51
9.021	9.021 (0.910)	100	483384			0.00- 48.53	19.10
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.301	9.301 (0.939)	107	3842383	768.000	793.03	80.00- 120.00	100.00
9.301	9.301 (0.939)	109	3645694			64.88- 124.88	94.88
81 Chlorobenzene					CAS #: 108-90-7		
9.953	9.953 (1.004)	112	5749047	460.000	460.02	80.00- 120.00	100.00
9.953	9.953 (1.004)	114	1878359			2.37- 62.37	32.67
9.953	9.953 (1.004)	77	3188533			25.58- 85.58	55.46
82 Ethyl Benzene					CAS #: 100-41-4		
10.103	10.103 (1.020)	106	2990371	434.000	439.57	80.00- 120.00	100.00
10.103	10.103 (1.020)	91	9118346			283.92- 343.92	304.92
84 m,p-Xylene					CAS #: 108-38-3		
10.282	10.282 (1.038)	106	3740692	434.000	423.96	80.00- 120.00	100.00
10.282	10.282 (1.038)	91	7362794			168.48- 228.48	196.83

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

   88 o-Xylene                                      CAS #: 95-47-6
 10.769  10.769 (0.939)   106   3498428 434.000   427.91  80.00- 120.00   100.00
 10.769  10.769 (0.939)    91   7194006                  179.05- 239.05   205.64
-------------------------------------------------------------------------------
   89 Styrene                                       CAS #: 100-42-5
 10.798  10.798 (0.942)   104   5934001 426.000   420.89  80.00- 120.00   100.00
 10.798  10.798 (0.942)    78   2826373                   17.71-  77.71    47.63
-------------------------------------------------------------------------------
   91 Cumene                                        CAS #: 98-82-8
 11.256  11.256 (0.982)   105  10449534 492.000   485.99  80.00- 120.00   100.00
 11.256  11.256 (0.982)   120   2879054                    0.00-  56.88    27.55
 11.256  11.256 (0.982)    51   1083708                    0.00-  40.57    10.37
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 11.686  11.686 (1.019)    83   5377257 687.000   756.54  80.00- 120.00   100.00
 11.686  11.686 (1.019)    85   3512637                   35.63-  95.63    65.32
-------------------------------------------------------------------------------
   96 Propylbenzene                                 CAS #: 103-65-1
 11.793  11.793 (1.029)    91  12371723 492.000   486.44  80.00- 120.00   100.00
 11.793  11.793 (1.029)   120   3055644                    0.00-  53.76    24.70
 11.793  11.793 (1.029)   105    482541                    0.00-  33.79     3.90
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                CAS #: 622-96-8
 11.958  11.958 (1.043)   120   3241634 492.000   495.47  80.00- 120.00   100.00
 11.958  11.958 (1.043)   105  10329042                  299.98- 359.98   318.64
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 12.044  12.044 (1.051)   120   4510575 492.000   489.00  80.00- 120.00   100.00
 12.044  12.044 (1.051)   105   8917193                  169.84- 229.84   197.70
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 12.517  12.517 (1.092)   120   4167667 492.000   484.85  80.00- 120.00   100.00
 12.517  12.517 (1.092)   105   8886072                  188.24- 248.24   213.21
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                           CAS #: 541-73-1
 12.839  12.839 (1.120)   146   6317726 601.000   593.86  80.00- 120.00   100.00
 12.839  12.839 (1.120)   148   4075133                   33.94-  93.94    64.50
 12.839  12.839 (1.120)   111   2510234                    9.99-  69.99    39.73
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                           CAS #: 106-46-7
 12.975  12.975 (1.132)   146   6309616 601.000   593.99  80.00- 120.00   100.00
 12.975  12.975 (1.132)   148   4086628                   33.56-  93.56    64.77
 12.975  12.975 (1.132)   111   2434577                    8.12-  68.12    38.59
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                           CAS #: 95-50-1
 13.419  13.419 (1.171)   146   6026214 601.000   599.47  80.00- 120.00   100.00
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   ng)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  105 1,2-Dichlorobenzene (continued)
 13.419  13.419 (1.171)   148   3867232                    33.25-  93.25    64.17
 13.419  13.419 (1.171)   111   2478390                    11.16-  71.16    41.13
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.475  15.475 (1.350)   180   5248238 742.000   759.38  80.00- 120.00   100.00
 15.475  15.475 (1.350)   182   5030495                    64.82- 124.82    95.85
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.683  15.683 (1.368)   225   4080623 1070.00   1148.9  80.00- 120.00   100.00
 15.683  15.683 (1.368)   223   2567028                    32.09-  92.09    62.91
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.790  15.790 (1.377)   128   7374385 250.000   202.47  80.00- 120.00   100.00
 15.790  15.790 (1.377)   127    976593                     0.00-  43.01    13.24
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.237  17.237 (1.504)   142   4820181 250.000   228.96  80.00- 120.00   100.00
 17.237  17.237 (1.504)   141   4216195                    57.55- 117.55    87.47
 17.237  17.237 (1.504)   115   1567130                     2.88-  62.88    32.51
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.459  17.459 (1.523)   142   4411874 250.000   233.05  80.00- 120.00   100.00
 17.459  17.459 (1.523)   141   3985845                    60.83- 120.83    90.34
 17.459  17.459 (1.523)   115   1497364                     4.35-  64.35    33.94
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.315  19.315 (1.685)   152   7410641 250.000   239.68  80.00- 120.00   100.00
 19.315  19.315 (1.685)   151   1511397                     0.00-  50.47    20.39
 19.315  19.315 (1.685)   153    978392                     0.00-  42.99    13.20
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.572  19.572 (1.707)   154   4281594 250.000   256.17  80.00- 120.00   100.00(A)
 19.572  19.572 (1.707)   152   2229153                    23.49-  83.49    52.06
 19.572  19.572 (1.707)   153   4691990                    81.41- 141.41   109.59
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.733  20.733 (1.809)   166   4577963 250.000   276.10  80.00- 120.00   100.00(A)
 20.733  20.733 (1.809)   165   4366226                    66.52- 126.52    95.37
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.918  22.918 (1.999)   178   6930804 250.000   247.60  80.00- 120.00   100.00
 22.918  22.918 (1.999)   176   1350596                     0.00-  49.64    19.49
 22.918  22.918 (1.999)   179   1079164                     0.00-  45.22    15.57
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 23.025  23.025 (2.008)   178   6899964 250.000   260.26  80.00- 120.00   100.00(A)
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RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)								
23.025	23.025	(2.008)	176	1299391			0.00- 49.04	18.83
23.025	23.025	(2.008)	179	1070162			0.00- 45.28	15.51
117 Fluoranthene						CAS #: 206-44-0		
26.263	26.263	(2.291)	202	4427311	250.000	227.39	80.00- 120.00	100.00
26.263	26.263	(2.291)	101	766786			0.00- 48.21	17.32
118 Pyrene						CAS #: 129-00-0		
27.137	27.137	(2.367)	202	4590920	250.000	226.98	80.00- 120.00	100.00
27.129	27.129	(2.366)	101	936251			0.00- 51.09	20.39
27.129	27.129	(2.366)	100	773271			0.00- 47.66	16.84

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033108.d
Lab Smp Id: VI VOC+PAH ICAL7,10
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-100ml(6/11/16),2744-31-250(7/5/16)

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

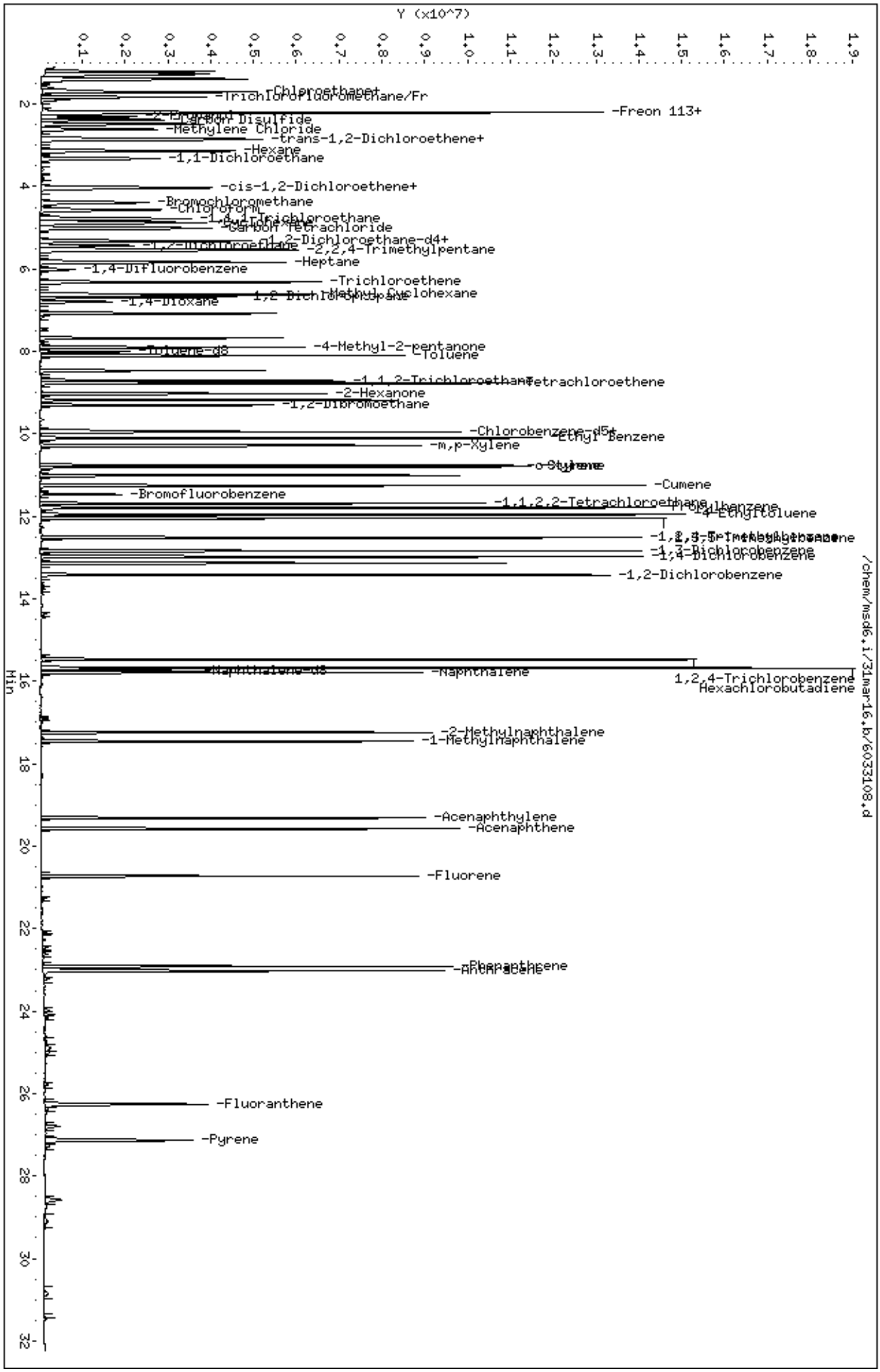
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	232294	3.18
54 1,4-Difluorobenze	874568	524741	1224395	893234	2.13
79 Chlorobenzene-d5	795881	477529	1114233	812545	2.09
92 Bromofluorobenzen	515685	309411	721959	542882	5.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.39	0.16
54 1,4-Difluorobenze	6.01	5.68	6.34	6.01	0.00
79 Chlorobenzene-d5	9.91	9.58	10.24	9.91	0.00
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd6.i/31mar16.b/6033108.d
Date : 30-MAR-2016 22:12
Client ID:
Sample Info: ;VI VOC+PAH ICAL7,100ngSurr
Column phase: RTx-624

Instrument: msd6.i
Operator: LA
Column diameter: 0.53



Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/31mar16.b/6033109.d
Lab Smp Id: VI VOC+PAH ICAL8,no
Inj Date : 30-MAR-2016 22:52
Operator : LA Inst ID: msd6.i
Smp Info : ;VI VOC+PAH ICAL8,noSurr
Misc Info : 2516-232-200ml(6/11/16),noPAH
Comment :
Method : /chem/msd6.i/31mar16.b/616z0331vi.m
Meth Date : 04-Apr-2016 12:09 lantonic Quant Type: ISTD
Cal Date : 30-MAR-2016 22:52 Cal File: 6033109.d
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC_ICALnoSS.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.387	4.387 (1.000)	130	232999	26.0000		80.00- 120.00	100.00
4.387	4.387 (1.000)	128	183426			48.25- 108.25	78.72
4.387	4.387 (1.000)	49	315857			107.14- 167.14	135.56
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
6.020	6.020 (1.000)	114	894276	23.0000		80.00- 120.00	100.00
6.013	6.013 (1.000)	88	137265			0.00- 45.65	15.35
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.917	9.917 (1.000)	117	806186	24.0000		80.00- 120.00	100.00
9.910	9.910 (1.000)	82	425576			23.14- 83.14	52.79
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.464	11.464 (1.000)	174	546262	36.0000		80.00- 120.00	100.00
11.464	11.464 (1.000)	95	646364			92.70- 152.70	118.32
11.464	11.464 (1.000)	176	532470			68.24- 128.24	97.48
3 Freon 114						CAS #: 76-14-2	
1.269	1.269 (0.289)	135	5435624	1400.00	1298.8	80.00- 120.00	100.00(A)

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

    3 Freon 114 (continued)
  1.269   1.269 (0.289)   137   1772977                     2.17-  62.17    32.62
-------------------------------------------------------------------------------
    6 Vinyl Chloride                                CAS #: 75-01-4
  1.395   1.395 (0.318)    62   3150461 511.000   479.60  80.00- 120.00   100.00(A)
  1.395   1.395 (0.318)    64   1055986                    12.66-  72.66    33.52
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                 CAS #: 106-99-0
  1.409   1.409 (0.321)    54   2583724 442.000   411.70  80.00- 120.00   100.00(A)
  1.409   1.409 (0.321)    39   3989413                   133.58- 193.58   154.41
-------------------------------------------------------------------------------
    9 Chloroethane                                  CAS #: 75-00-3
  1.661   1.661 (0.379)    64   1597990 528.000   423.91  80.00- 120.00   100.00
  1.661   1.661 (0.379)    66    502785                     0.00-  58.31    31.46
  1.661   1.661 (0.379)    49    496246                     0.00-  59.65    31.05
-------------------------------------------------------------------------------
   10 Isopentane                                    CAS #: 78-78-4
  1.717   1.717 (0.391)    57   2688602 590.000   558.48  80.00- 120.00   100.00(A)
  1.717   1.717 (0.391)    43   4264770                   134.33- 194.33   158.62
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                   CAS #: 75-69-4
  1.828   1.828 (0.417)   101   8698910 1120.00   1170.9  80.00- 120.00   100.00(A)
  1.828   1.828 (0.417)   103   5581527                    35.98-  95.98    64.16
-------------------------------------------------------------------------------
   15 Freon 113                                     CAS #: 76-13-1
  2.209   2.209 (0.504)   151   6246216 1530.00   1456.5  80.00- 120.00   100.00(A)
  2.209   2.209 (0.504)   153   4015563                    34.66-  94.66    64.29
  2.209   2.209 (0.504)   101   7132360                    88.64- 148.64   114.19
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                            CAS #: 75-35-4
  2.202   2.202 (0.502)    98   2149925 793.000   718.56  80.00- 120.00   100.00(A)
  2.202   2.202 (0.502)    96   3383540                   127.15- 187.15   157.38
  2.202   2.202 (0.502)    61   5401433                   230.60- 290.60   251.24
-------------------------------------------------------------------------------
   18 Carbon Disulfide                              CAS #: 75-15-0
  2.388   2.388 (0.544)    76   9690147 623.000   553.71  80.00- 120.00   100.00(A)
-------------------------------------------------------------------------------
   19 2-Propanol                                    CAS #: 67-63-0
  2.310   2.310 (0.526)    45   6809745 492.000   418.24  80.00- 120.00   100.00(A)
  2.310   2.310 (0.526)    43   1291096                     0.00-  49.91    18.96
  2.310   2.310 (0.526)    59    250035                     0.00-  33.48     3.67
-------------------------------------------------------------------------------
   22 Methylene Chloride                            CAS #: 75-09-2
  2.610   2.610 (0.595)    49   4360024 695.000   583.31  80.00- 120.00   100.00(A)
  2.610   2.610 (0.595)    84   3116346                    38.62-  98.62    71.48
  2.610   2.610 (0.595)    51   1323437                     0.43-  60.43    30.35
-------------------------------------------------------------------------------
```

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

   26 MTBE                                          CAS #: 1634-04-4
  2.840   2.840 (0.647)    73   8770721 721.000   703.90  80.00- 120.00   100.00(A)
  2.840   2.840 (0.647)    57   2114029                    0.00-  54.76    24.10
  2.840   2.840 (0.647)    41   2186185                    0.00-  56.57    24.93
-------------------------------------------------------------------------------
   25 trans-1,2-Dichloroethene                      CAS #: 156-60-5
  2.868   2.868 (0.654)    98   2289526 793.000   765.72  80.00- 120.00   100.00(A)
  2.868   2.868 (0.654)    61   5160377                  200.79- 260.79   225.39
  2.868   2.868 (0.654)    96   3599408                  126.39- 186.39   157.21
-------------------------------------------------------------------------------
   28 Hexane                                        CAS #: 110-54-3
  3.140   3.140 (0.716)    57   5746260 705.000   659.03  80.00- 120.00   100.00(A)
  3.140   3.140 (0.716)    43   4003925                   41.77- 101.77    69.68
  3.140   3.140 (0.716)    86    817790                    0.00-  43.88    14.23
-------------------------------------------------------------------------------
   29 1,1-Dichloroethane                            CAS #: 75-34-3
  3.327   3.327 (0.758)    63   6230495 810.000   784.19  80.00- 120.00   100.00(A)
  3.327   3.327 (0.758)    65   1986660                    1.71-  61.71    31.89
-------------------------------------------------------------------------------
   37 cis-1,2-Dichloroethene                        CAS #: 156-59-2
  4.043   4.043 (0.922)    98   2437226 793.000   760.25  80.00- 120.00   100.00(A)
  4.043   4.043 (0.922)    96   3814016                  126.11- 186.11   156.49
  4.043   4.043 (0.922)    61   4982761                  179.91- 239.91   204.44
-------------------------------------------------------------------------------
   38 2-Butanone                                    CAS #: 78-93-3
  4.021   4.021 (0.917)    72   1642419 590.000   501.92  80.00- 120.00   100.00(A)
  4.021   4.021 (0.917)    43   7883858                  469.10- 529.10   480.02
  4.021   4.021 (0.917)    57    565055                    6.15-  66.15    34.40
-------------------------------------------------------------------------------
   44 Chloroform                                    CAS #: 67-66-3
  4.573   4.573 (1.042)    83   7034200 977.000   921.82  80.00- 120.00   100.00(A)
  4.573   4.573 (1.042)    85   4609480                   35.99-  95.99    65.53
-------------------------------------------------------------------------------
   46 Cyclohexane                                   CAS #: 110-82-7
  4.881   4.881 (0.811)    84   4621253 688.000   683.79  80.00- 120.00   100.00(A)
  4.881   4.881 (0.811)    56   5986558                  102.79- 162.79   129.54
  4.881   4.881 (0.811)    41   3679451                   54.37- 114.37    79.62
-------------------------------------------------------------------------------
   45 1,1,1-Trichloroethane                         CAS #: 71-55-6
  4.788   4.788 (0.795)    97   7447647 1091.00   1123.9  80.00- 120.00   100.00(A)
  4.788   4.788 (0.795)    99   4845601                   34.68-  94.68    65.06
-------------------------------------------------------------------------------
   47 Carbon Tetrachloride                          CAS #: 56-23-5
  5.017   5.017 (0.833)   119   7690331 1260.00   1328.2  80.00- 120.00   100.00(A)
  5.017   5.017 (0.833)   117   7966019                   73.19- 133.19   103.58
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.540	5.540 (0.920)	57	18165880	934.000	885.57	80.00- 120.00	100.00(A)
5.540	5.540 (0.920)	56	5827637			1.74- 61.74	32.08
5.540	5.540 (0.920)	41	5408171			0.34- 60.34	29.77
48 Benzene					CAS #: 71-43-2		
5.325	5.325 (0.885)	78	10637597	639.000	542.41	80.00- 120.00	100.00(A)
5.325	5.325 (0.885)	77	2519213			0.00- 53.53	23.68
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.440	5.440 (0.904)	62	4698868	809.000	778.19	80.00- 120.00	100.00(A)
5.440	5.440 (0.904)	64	1527911			2.15- 62.15	32.52
53 Heptane					CAS #: 142-82-5		
5.841	5.841 (0.970)	71	3684918	820.000	799.92	80.00- 120.00	100.00(A)
5.841	5.841 (0.970)	43	7454600			188.80- 248.80	202.30
5.841	5.841 (0.970)	57	3638902			71.78- 131.78	98.75
56 Trichloroethene					CAS #: 79-01-6		
6.321	6.321 (1.050)	95	5121314	1080.00	950.39	80.00- 120.00	100.00(A)
6.321	6.321 (1.050)	130	5301308			74.74- 134.74	103.51
6.321	6.321 (1.050)	97	3324480			34.87- 94.87	64.91
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.629	6.629 (1.101)	83	6684596	803.000	796.66	80.00- 120.00	100.00(A)
6.629	6.629 (1.101)	98	2980322			14.22- 74.22	44.58
6.629	6.629 (1.101)	55	5690420			58.24- 118.24	85.13
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.686	6.686 (1.111)	63	4255374	924.000	940.39	80.00- 120.00	100.00(A)
6.686	6.686 (1.111)	62	2963736			39.32- 99.32	69.65
6.686	6.686 (1.111)	41	2610700			37.26- 97.26	61.35
60 1,4-Dioxane					CAS #: 123-91-1		
6.801	6.801 (1.130)	88	2737747	721.000	709.44	80.00- 120.00	100.00(A)
6.801	6.801 (1.130)	58	1902350			41.28- 101.28	69.49
6.801	6.801 (1.130)	57	646585			0.62- 60.62	23.62
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.904	7.904 (1.313)	58	3582347	819.000	806.48	80.00- 120.00	100.00(A)
7.904	7.904 (1.313)	43	9924975			263.34- 323.34	277.05
7.904	7.904 (1.313)	85	1568181			12.32- 72.32	43.78
67 Toluene					CAS #: 108-88-3		
8.104	8.104 (0.817)	91	13283352	754.000	685.84	80.00- 120.00	100.00(A)
8.104	8.104 (0.817)	92	7869407			28.18- 88.18	59.24

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

   70 1,1,2-Trichloroethane                        CAS #: 79-00-5
  8.713   8.713 (1.447)    97   4749032 1090.00   1051.0  80.00- 120.00   100.00(A)
  8.713   8.713 (1.447)    99   3006492                   32.32-  92.32    63.31
  8.713   8.713 (1.447)    83   4071559                   54.42- 114.42    85.73
-------------------------------------------------------------------------------
   71 Tetrachloroethene                            CAS #: 127-18-4
  8.771   8.771 (0.884)   166   7018254 1360.00   1371.2  80.00- 120.00   100.00(A)
  8.771   8.771 (0.884)   129   5067116                   47.21- 107.21    72.20
  8.771   8.771 (0.884)   131   4902941                   44.68- 104.68    69.86
-------------------------------------------------------------------------------
   72 2-Hexanone                                   CAS #: 591-78-6
  9.028   9.028 (0.910)    58   4874741 819.000   834.85  80.00- 120.00   100.00(A)
  9.028   9.028 (0.910)    43   9711459                  181.19- 241.19   199.22
  9.028   9.028 (0.910)   100    945303                    0.00-  48.53    19.39
-------------------------------------------------------------------------------
   74 1,2-Dibromoethane                            CAS #: 106-93-4
  9.301   9.301 (0.938)   107   7405707 1540.00   1540.5  80.00- 120.00   100.00(A)
  9.301   9.301 (0.938)   109   7041436                   64.88- 124.88    95.08
-------------------------------------------------------------------------------
   81 Chlorobenzene                                CAS #: 108-90-7
  9.953   9.953 (1.004)   112  10884146 921.000   877.78  80.00- 120.00   100.00(A)
  9.953   9.953 (1.004)   114   3594144                    2.37-  62.37    33.02
  9.953   9.953 (1.004)    77   6111638                   25.58-  85.58    56.15
-------------------------------------------------------------------------------
   82 Ethyl Benzene                                CAS #: 100-41-4
 10.103  10.103 (1.019)   106   5726757 868.000   848.45  80.00- 120.00   100.00(A)
 10.103  10.103 (1.019)    91  16645352                  283.92- 343.92   290.66
-------------------------------------------------------------------------------
   84 m,p-Xylene                                   CAS #: 108-38-3
 10.289  10.289 (1.038)   106   7278522 868.000   831.43  80.00- 120.00   100.00(A)
 10.289  10.289 (1.038)    91  14190154                  168.48- 228.48   194.96
-------------------------------------------------------------------------------
   88 o-Xylene                                     CAS #: 95-47-6
 10.769  10.769 (0.939)   106   6663121 868.000   809.95  80.00- 120.00   100.00(A)
 10.769  10.769 (0.939)    91  13569338                  179.05- 239.05   203.65
-------------------------------------------------------------------------------
   89 Styrene                                      CAS #: 100-42-5
 10.805  10.805 (0.942)   104  11209093 852.000   790.12  80.00- 120.00   100.00(A)
 10.805  10.805 (0.942)    78   5419420                   17.71-  77.71    48.35
-------------------------------------------------------------------------------
   91 Cumene                                       CAS #: 98-82-8
 11.249  11.249 (0.981)   105  18132642 983.000   838.11  80.00- 120.00   100.00(A)
 11.256  11.256 (0.982)   120   5460825                    0.00-  56.88    30.12
 11.256  11.256 (0.982)    51   2024162                    0.00-  40.57    11.16
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                    CAS #: 79-34-5
 11.686  11.686 (1.019)    83  10287029 1370.00   1438.4  80.00- 120.00   100.00(A)
```

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

   94 1,1,2,2-Tetrachloroethane (continued)
 11.693  11.693 (1.020)    85   6743767                    35.63-  95.63    65.56
-------------------------------------------------------------------------------
   96 Propylbenzene                                CAS #: 103-65-1
 11.786  11.786 (1.028)    91  19604259 983.000   766.05  80.00- 120.00   100.00(A)
 11.801  11.801 (1.029)   120   5859963                     0.00-  53.76    29.89
 11.801  11.801 (1.029)   105    938490                     0.00-  33.79     4.79
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                               CAS #: 622-96-8
 11.965  11.965 (1.044)   120   6153265 983.000   934.69  80.00- 120.00   100.00(A)
 11.958  11.958 (1.043)   105  17479395                   299.98- 359.98   284.07
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                       CAS #: 108-67-8
 12.051  12.051 (1.051)   120   8489855 983.000   914.70  80.00- 120.00   100.00(A)
 12.044  12.044 (1.051)   105  16296098                   169.84- 229.84   191.95
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                       CAS #: 95-63-6
 12.517  12.517 (1.092)   120   7861977 983.000   908.97  80.00- 120.00   100.00(A)
 12.517  12.517 (1.092)   105  16205224                   188.24- 248.24   206.12
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                          CAS #: 541-73-1
 12.846  12.846 (1.121)   146  11909864 1200.00   1112.6  80.00- 120.00   100.00(A)
 12.846  12.846 (1.121)   148   7770189                    33.94-  93.94    65.24
 12.839  12.839 (1.120)   111   4856296                     9.99-  69.99    40.78
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                          CAS #: 106-46-7
 12.982  12.982 (1.132)   146  11949166 1200.00   1117.9  80.00- 120.00   100.00(A)
 12.982  12.982 (1.132)   148   7815359                    33.56-  93.56    65.41
 12.982  12.982 (1.132)   111   4702350                     8.12-  68.12    39.35
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                          CAS #: 95-50-1
 13.419  13.419 (1.171)   146  11478084 1200.00   1134.7  80.00- 120.00   100.00(A)
 13.419  13.419 (1.171)   148   7480109                    33.25-  93.25    65.17
 13.419  13.419 (1.171)   111   4776017                    11.16-  71.16    41.61
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                       CAS #: 120-82-1
 15.475  15.475 (1.350)   180  10480063 1480.00   1507.0  80.00- 120.00   100.00(A)
 15.475  15.475 (1.350)   182  10043844                    64.82- 124.82    95.84
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                          CAS #: 87-68-3
 15.683  15.683 (1.368)   225   8223932 2130.00   2301.1  80.00- 120.00   100.00(A)
 15.683  15.683 (1.368)   223   5219788                    32.09-  92.09    63.47
-------------------------------------------------------------------------------
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QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6033109.d
Lab Smp Id: VI VOC+PAH ICAL8,no
Analysis Type: VOA
Quant Type: ISTD
Operator: LA
Method File: /chem/msd6.i/31mar16.b/616z0331vi.m
Misc Info: 2516-232-200ml(6/11/16),noPAH

Calibration Date: 30-MAR-2016
Calibration Time: 20:53
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	225139	135083	315195	232999	3.49
54 1,4-Difluorobenze	874568	524741	1224395	894276	2.25
79 Chlorobenzene-d5	795881	477529	1114233	806186	1.29
92 Bromofluorobenzen	515685	309411	721959	546262	5.93

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.38	4.05	4.71	4.39	0.16
54 1,4-Difluorobenze	6.01	5.68	6.34	6.02	0.12
79 Chlorobenzene-d5	9.91	9.58	10.24	9.92	0.07
92 Bromofluorobenzen	11.46	11.13	11.79	11.46	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msd6.i/31mar16.b/6033109.d

Date : 30-MAR-2016 22:52

Client ID:

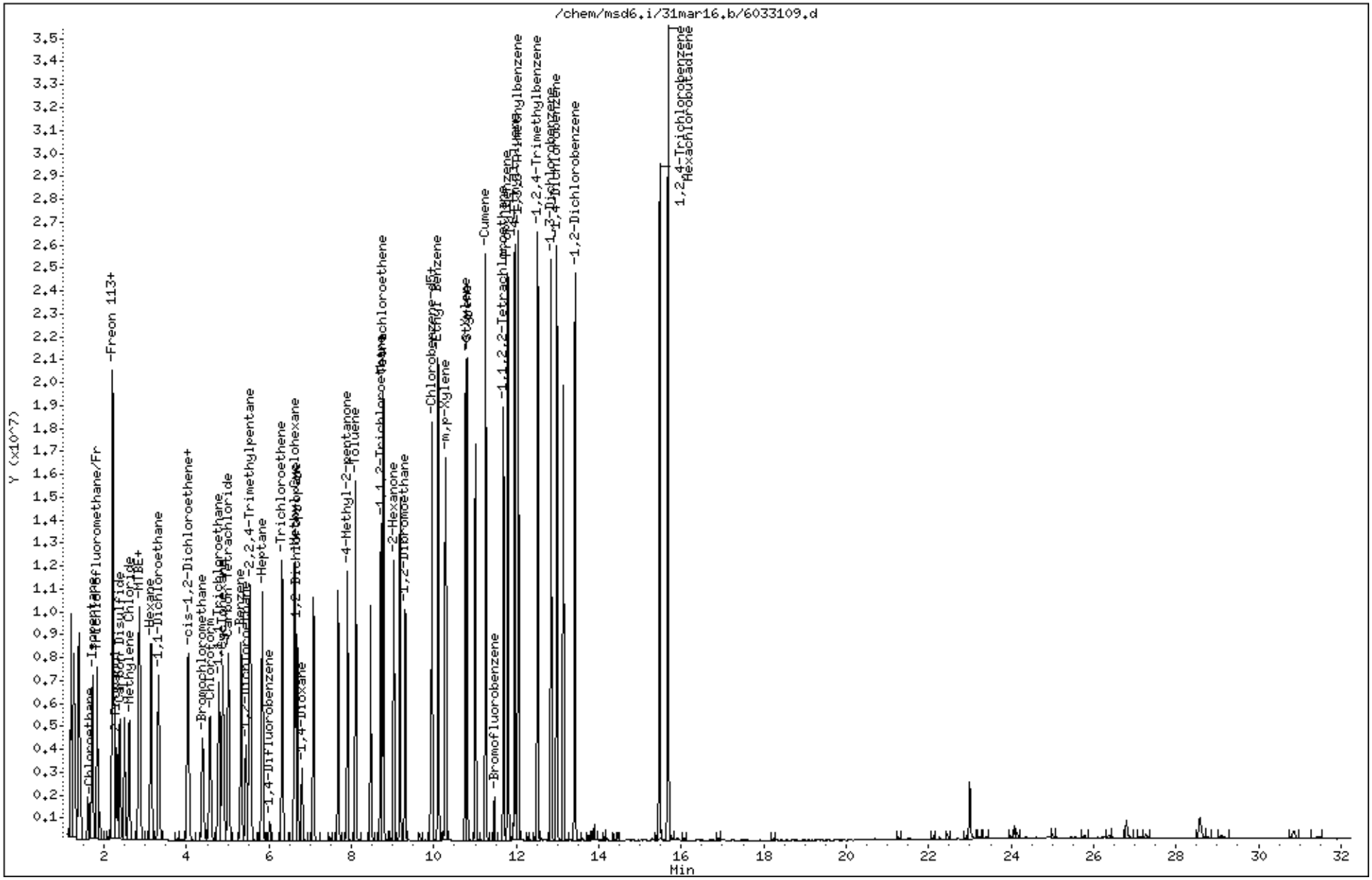
Sample Info: ;VI VOC+PAH ICAL8,noSurr

Column phase: RTx-624

Instrument: msd6.i

Operator: LA

Column diameter: 0.53



MSD-6 VI VOC + Naphs MDL L1

Report Date : 04-Apr-2016 11:55

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

VOC std id: 2516-231-1000ppbv
VOC amt spiked: 1.0mL
(naphthalene, 2-mn, 1-mn
spiked using 1st source std
PAH std id: 2744-32-1.0n
PAH amt spiked: 1.0uL

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	6040105	6040106	6040107	6040109	6040110	6040111	6040112	6040113
INJ.DATE:	01-APR-2016	01-APR-2016	01-APR-2016	01-APR-2016	01-APR-2016	01-APR-2016	01-APR-2016	01-APR-2016
INJ.TIME:	10:48	11:28	12:07	13:48	14:28	15:07	15:48	16:27

Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
1 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
2 Dichlorodifluoromethan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
3 Freon 114	7.90	7.90	7.72	8.21	8.00	7.87	7.72	7.75	7.88	0.17	0.50	14	7.0
4 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
5 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
~~6 Vinyl Chloride~~	~~2.94~~	~~2.75~~	~~2.76~~	~~2.77~~	~~2.69~~	~~2.64~~	~~2.67~~	~~2.79~~	~~2.73~~	~~0.05~~	~~0.16~~	LA 4/12/16	
7 1,3-Butadiene	2.84	2.69	2.41	2.82	2.85	2.53	2.97	2.48	2.70	0.20	0.61	2.2	2.2
8 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
9 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
10 Isopentane	4.58	3.20	3.60	3.90	3.28	3.20	3.52	3.42	3.59	0.46	1.39	5.9	3.0
11 Trichlorofluoromethane	5.10	5.18	4.80	4.83	5.09	4.93	5.28	5.39	5.08	0.21	0.63	11	5.6
12 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
13 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
14 1,1-Dichloroethene	4.25	4.02	3.57	3.89	4.25	3.71	4.02	3.82	3.94	0.24	0.73	4.0	4.0
15 Freon 113	7.48	7.24	6.73	7.22	7.13	6.86	7.21	7.50	7.17	0.27	0.80	7.7	7.7
16 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
17 Freon123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

Reviewer 1 Lynette Antonucci Date: 4/4/16
Reviewer 2 Date:

* Vinyl chloride was not included at the RL level due to poor performance of the secondary ion.

** 1,4-Dioxane did not meet the 1 and 20 mean recovered conc / MDL value.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
18 Carbon Disulfide	4.76	3.52	3.48	4.60	3.86	3.36	3.90	4.43	3.99	0.54	1.63	6.2	3.1
19 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
20 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
21 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
22 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
23 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
24 tert-Butyl-Alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
25 trans-1,2-Dichloroethe	3.52	3.31	3.02	3.25	3.26	2.92	3.06	3.50	3.23	0.22	0.66	4.0	4.0
26 MTBE	4.24	3.27	3.55	3.95	3.43	3.42	3.48	3.88	3.65	0.33	0.99	22	3.6
27 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
28 Hexane	4.14	3.85	3.35	3.69	3.87	3.31	3.63	3.77	3.70	0.27	0.82	35	3.5
29 1,1-Dichloroethane	3.98	3.78	3.59	3.77	3.96	3.58	3.96	4.24	3.86	0.22	0.66	4.0	4.0
30 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
31 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
32 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
33 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
34 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
35 t-Butylethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
36 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
37 cis-1,2-Dichloroethene	4.25	4.16	3.84	3.99	4.25	3.58	3.90	4.36	4.04	0.26	0.78	4.0	4.0
38 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
39 2-Chloroethyl vinyl et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
* 40 Bromochloromethane	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	0.00	0.00		
41 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
42 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
43 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
44 Chloroform	4.82	4.55	4.14	4.36	4.68	4.15	4.41	4.80	4.49	0.27	0.80	4.9	4.9
45 1,1,1-Trichloroethane	5.36	4.52	4.28	4.84	4.69	4.31	4.71	5.39	4.76	0.43	1.27	5.4	5.5
46 Cyclohexane	3.55	3.11	2.69	3.27	3.05	2.78	3.05	3.42	3.11	0.29	0.88	6.9	3.4
47 Carbon Tetrachloride	5.88	4.86	4.40	5.30	5.09	4.40	3.82	5.88	4.95	0.73	2.20	6.3	6.3
48 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
$ 49 1,2-Dichloroethane-d4	2.14	1.93	2.10	2.02	2.27	2.12	1.99	2.18	2.09	0.11	0.33	2.0	2.0
50 1,2-Dichloroethane	3.90	3.54	3.18	3.38	3.63	3.16	3.60	3.99	3.55	0.30	0.91	4.0	4.0
51 2,2,4-Trimethylpentane	5.00	4.64	3.69	4.14	4.36	3.73	4.03	4.32	4.24	0.44	1.33	9.4	4.7
52 tert-amyl-Methyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
53 Heptane	4.45	4.30	3.41	3.64	4.06	3.23	3.91	4.41	3.93	0.46	1.39	8.2	4.1
* 54 1,4-Difluorobenzene	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	0.00	0.00		
55 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
56 Trichloroethene	5.33	4.72	3.94	4.75	4.72	3.81	4.59	5.54	4.67	0.59	1.78	5.4	5.4
57 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
58 Methyl Cyclohexane	3.83	3.45	3.00	3.17	3.36	2.87	3.12	3.67	3.31	0.33	0.98	8.0	4.0
59 1,2-Dichloropropane	4.59	3.87	3.65	3.95	4.00	3.56	3.81	4.66	4.01	0.41	1.22	4.6	4.6
60 1,4-Dioxane	4.25	4.58	2.70	3.49	3.94	2.61	4.10	7.05	4.09	1.39	4.17	11	3.6
61 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
62 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
63 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

	Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
	64 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	65 4-Methyl-2-pentanone	3.89	3.56	3.13	3.22	3.52	2.87	3.26	3.27	3.34	0.31	0.93	8.2	4.1
$	66 Toluene-d8	1.89	1.90	1.90	1.86	2.20	1.85	1.91	1.92	1.93	0.11	0.34	2.0	2.0
	67 Toluene	4.06	3.51	2.78	3.25	3.26	2.57	2.99	4.45	3.36	0.63	1.90	7.5	3.8
	68 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	69 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	70 1,1,2-Trichloroethane	4.77	4.45	3.91	4.25	4.42	3.73	4.06	5.11	4.34	0.45	1.36	5.4	5.4
	71 Tetrachloroethene	5.73	5.22	4.62	4.94	5.10	3.98	4.61	5.59	4.97	0.57	1.71	6.8	6.8
	72 2-Hexanone	3.65	3.57	2.91	3.01	3.29	2.62	2.98	3.48	3.19	0.36	1.09	8.2	4.1
	73 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	74 1,2-Dibromoethane	6.10	5.84	5.08	5.08	5.82	4.57	4.95	6.73	5.52	0.72	2.15	7.7	7.7
	75 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	76 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	77 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	78 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
*	79 Chlorobenzene-d5	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	0.00	0.00		
	80 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	81 Chlorobenzene	4.09	3.81	3.09	3.37	3.66	2.81	3.33	4.19	3.54	0.48	1.44	4.6	4.6
	82 Ethyl Benzene	3.66	3.41	2.84	3.10	3.22	2.59	2.90	3.86	3.20	0.43	1.28	4.3	4.3
	83 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	84 m,p-Xylene	3.86	3.54	2.83	3.21	3.22	2.50	2.83	4.92	3.36	0.76	2.28	8.7	4.3
	85 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
	86 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
87 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
88 o-Xylene	3.80	3.69	2.89	3.27	3.44	2.79	3.02	4.42	3.42	0.54	1.63	8.7	4.3
89 Styrene	3.64	3.17	2.65	3.15	3.04	2.42	2.76	3.63	3.06	0.44	1.31	8.5	4.3
90 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
91 Cumene	4.00	3.84	3.25	3.66	3.72	3.06	3.21	4.26	3.63	0.42	1.26	9.8	4.9
* 92 Bromofluorobenzene	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	0.00	0.00		
93 1,2-Dibromo-3-Chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
94 1,1,2,2-Tetrachloroeth	4.88	5.03	4.46	4.49	5.03	4.03	4.18	5.26	4.67	0.44	1.33	6.9	6.9
95 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
96 Propylbenzene	3.97	3.89	3.31	3.72	3.79	3.02	3.28	4.31	3.66	0.43	1.28	9.8	4.9
97 4-Ethyltoluene	3.52	3.52	3.10	3.38	3.32	2.79	2.90	4.00	3.31	0.39	1.16	9.8	
98 1,3,5-Trimethylbenzene	3.59	3.60	3.05	3.42	3.50	2.78	2.99	4.00	3.37	0.40	1.20	9.8	
99 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
100 1,2,4-Trimethylbenzene	3.57	3.59	2.94	3.43	3.37	2.71	2.84	3.92	3.30	0.42	1.27	29	
101 1,3-Dichlorobenzene	4.05	4.08	3.52	4.11	3.96	3.30	3.40	4.64	3.88	0.45	1.34	6.0	6.0
102 1,4-Dichlorobenzene	3.89	3.91	3.46	4.16	4.02	3.16	3.37	4.44	3.80	0.44	1.30	6.0	6.0
103 Phenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
217 2-Methylphenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
218 3-Methylphenol/4-Methy	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
104 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
105 1,2-Dichlorobenzene	3.90	3.94	3.37	4.18	3.94	3.20	3.33	4.52	3.80	0.46	1.38	6.0	6.0
106 1,2,4-Trichlorobenzene	4.05	4.05	3.21	4.99	4.64	3.23	3.24	5.28	4.09	0.83	2.47	15	7.4
107 Hexachlorobutadiene	7.15	6.68	5.25	7.98	7.61	5.38	5.01	8.92	6.75	1.43	4.28	21	11
$ 108 Naphthalene-d8	1.85	1.78	1.90	1.85	2.10	1.80	1.89	1.89	1.88	0.10	0.29	2.0	2.0

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd6.i/01apr16.b/616z0331vi.m
Batch File: /chem/msd6.i/01apr16.b
Inst ID: msd6.i

Compound units in ng	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL	amt spk
109 Naphthalene	1.22	0.96	0.98	1.35	0.91	0.97	1.07	1.09	1.07	0.15	0.45	1.00	1.00
110 2-Methylnaphthalene	1.28	0.99	0.96	0.90	0.89	0.92	0.90	0.91	0.97	0.13	0.40		
111 1-Methylnaphthalene	1.10	0.93	0.96	0.91	0.87	0.92	0.91	0.91	0.94	0.07	0.21		
112 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
113 Acenaphthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
114 Fluorene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
115 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
116 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
117 Fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		
118 Pyrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++		

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Client Sample ID: CCV
Lab ID#: 1605307-11A
EPA METHOD TO-17

File Name:	**6051705**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 12:53 PM**

Compound	**%Recovery**
Naphthalene	91

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	79	50-150

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd6.i Injection Date: 17-MAY-2016 12:53
Lab File ID: 6051705.d Init. Cal. Date(s): 30-MAR-2016 31-MAR-2016
Analysis Type: AIR Init. Cal. Times: 18:14 10:19
Lab Sample ID: VI VOC+PAH CCV Quant Type: ISTD
Method: /chem/msd6.i/17may16.b/616z0331vi.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 49 1,2-Dichloroethane-d4	0.12185	0.08798	0.010	27.79352	30.00000	Averaged
$ 66 Toluene-d8	0.46836	0.38002	0.010	18.86052	30.00000	Averaged
$ 108 Naphthalene-d8	2.02765	1.59472	0.010	21.35139	30.00000	Averaged
3 Freon 114	0.46699	0.45688	0.010	2.16496	30.00000	Averaged
6 Vinyl Chloride	0.73302	0.72406	0.010	1.22211	30.00000	Averaged
7 1,3-Butadiene	0.70031	0.68243	0.010	2.55278	30.00000	Averaged
9 Chloroethane	0.42065	0.31324	0.010	25.53354	30.00000	Averaged
10 Isopentane	0.53721	0.53312	0.010	0.75997	30.00000	Averaged
11 Trichlorofluoromethane/Fr11	0.82899	0.77002	0.010	7.11282	30.00000	Averaged
15 Freon 113	0.47855	0.50664	0.010	-5.86954	30.00000	Averaged
14 1,1-Dichloroethene	0.33387	0.33165	0.010	0.66430	30.00000	Averaged
18 Carbon Disulfide	1.95285	1.95315	0.010	-0.01536	30.00000	Averaged
19 2-Propanol	1.81689	1.64626	0.010	9.39152	30.00000	Averaged
22 Methylene Chloride	0.83408	0.79802	0.010	4.32246	30.00000	Averaged
25 trans-1,2-Dichloroethene	0.33365	0.33672	0.010	-0.91737	30.00000	Averaged
26 MTBE	1.39041	1.43586	0.010	-3.26862	30.00000	Averaged
28 Hexane	0.97296	0.96048	0.010	1.28284	30.00000	Averaged
29 1,1-Dichloroethane	0.88659	0.87498	0.010	1.30947	30.00000	Averaged
37 cis-1,2-Dichloroethene	0.35773	0.35872	0.010	-0.27686	30.00000	Averaged
38 2-Butanone	0.36515	0.36933	0.010	-1.14628	30.00000	Averaged
44 Chloroform	0.85150	0.82689	0.010	2.89038	30.00000	Averaged
46 Cyclohexane	0.17382	0.16947	0.010	2.49925	30.00000	Averaged
45 1,1,1-Trichloroethane	0.17043	0.17088	0.010	-0.26651	30.00000	Averaged
47 Carbon Tetrachloride	0.14892	0.14748	0.010	0.96992	30.00000	Averaged
51 2,2,4-Trimethylpentane	0.52758	0.50727	0.010	3.84916	30.00000	Averaged
48 Benzene	0.50440	0.45415	0.010	9.96177	30.00000	Averaged
50 1,2-Dichloroethane	0.15530	0.14512	0.010	6.55174	30.00000	Averaged
53 Heptane	0.11848	0.11374	0.010	3.99569	30.00000	Averaged
56 Trichloroethene	0.13859	0.13013	0.010	6.10495	30.00000	Averaged
58 Methyl Cyclohexane	0.21580	0.21309	0.010	1.25708	30.00000	Averaged
59 1,2-Dichloropropane	0.11638	0.11804	0.010	-1.42738	30.00000	Averaged
60 1,4-Dioxane	0.09925	0.09613	0.010	3.14165	30.00000	Averaged
65 4-Methyl-2-pentanone	0.11424	0.11052	0.010	3.26258	30.00000	Averaged
67 Toluene	0.57658	0.54238	0.010	5.93047	30.00000	Averaged
70 1,1,2-Trichloroethane	0.11622	0.11613	0.010	0.07717	30.00000	Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd6.i Injection Date: 17-MAY-2016 12:53
Lab File ID: 6051705.d Init. Cal. Date(s): 30-MAR-2016 31-MAR-2016
Analysis Type: AIR Init. Cal. Times: 18:14 10:19
Lab Sample ID: VI VOC+PAH CCV Quant Type: ISTD
Method: /chem/msd6.i/17may16.b/616z0331vi.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
71 Tetrachloroethene	0.15237	0.15779	0.010	-3.56186	30.00000	Averaged
72 2-Hexanone	0.17383	0.16975	0.010	2.34619	30.00000	Averaged
74 1,2-Dibromoethane	0.14311	0.13796	0.010	3.60109	30.00000	Averaged
81 Chlorobenzene	0.36913	0.37287	0.010	-1.01179	30.00000	Averaged
82 Ethyl Benzene	0.20094	0.19895	0.010	0.98638	30.00000	Averaged
84 m,p-Xylene	0.26061	0.24831	0.010	4.72003	30.00000	Averaged
88 o-Xylene	0.54215	0.51209	0.010	5.54465	30.00000	Averaged
89 Styrene	0.93493	0.86987	0.010	6.95817	30.00000	Averaged
91 Cumene	1.42581	1.37700	0.010	3.42321	30.00000	Averaged
94 1,1,2,2-Tetrachloroethane	0.47133	0.47403	0.010	-0.57288	30.00000	Averaged
96 Propylbenzene	1.68653	1.60535	0.010	4.81299	30.00000	Averaged
97 4-Ethyltoluene	0.43385	0.41764	0.010	3.73593	30.00000	Averaged
98 1,3,5-Trimethylbenzene	0.61168	0.58328	0.010	4.64275	30.00000	Averaged
100 1,2,4-Trimethylbenzene	0.57001	0.53751	0.010	5.70259	30.00000	Averaged
101 1,3-Dichlorobenzene	0.70547	0.68838	0.010	2.42221	30.00000	Averaged
102 1,4-Dichlorobenzene	0.70440	0.68629	0.010	2.57099	30.00000	Averaged
105 1,2-Dichlorobenzene	0.66662	0.65738	0.010	1.38550	30.00000	Averaged
106 1,2,4-Trichlorobenzene	0.45830	0.49769	0.010	-8.59432	30.00000	Averaged
107 Hexachlorobutadiene	0.23552	0.26467	0.010	-12.37633	30.00000	Averaged
109 Naphthalene	2.41520	2.19423	0.010	9.14907	30.00000	Averaged
110 2-Methylnaphthalene	1.39603	1.47078	0.010	-5.35464	30.00000	Averaged
111 1-Methylnaphthalene	1.25535	1.33698	0.010	-6.50230	30.00000	Averaged
112 Acenaphthylene	2.05033	2.34905	0.010	-14.56898	30.00000	Averaged
113 Acenaphthene	1.10834	1.28836	0.010	-16.24225	30.00000	Averaged
114 Fluorene	1.09950	1.22554	0.010	-11.46271	30.00000	Averaged
115 Phenanthrene	1.85619	2.28516	0.010	-23.10993	30.00000	Averaged
116 Anthracene	1.75810	2.14241	0.010	-21.85938	30.00000	Averaged
117 Fluoranthene	1.29114	1.30229	0.010	-0.86407	30.00000	Averaged
118 Pyrene	1.34123	1.34685	0.010	-0.41902	30.00000	Averaged

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051705.d
Lab Smp Id: VI VOC+PAH CCV Client Smp ID: CCV
Inj Date : 17-MAY-2016 12:53
Operator : CT Inst ID: msd6.i
Smp Info : ;VI VOC+PAH CCV;CCV
Misc Info : 2516-241(7/20/16),2744-31-50(7/5/16)
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 17-May-2016 13:37 U5BT Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.336	4.336 (1.000)	130	157036	26.0000		80.00- 120.00	100.00
4.336	4.336 (1.000)	128	121227			48.25- 108.25	77.20
4.329	4.329 (1.000)	49	208570			107.14- 167.14	132.82
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
5.970	5.970 (1.000)	114	635738	23.0000		80.00- 120.00	100.00
5.970	5.970 (1.000)	88	97422			0.00- 45.65	15.32
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.888	9.888 (1.000)	117	583554	24.0000		80.00- 120.00	100.00
9.888	9.888 (1.000)	82	302377			23.14- 83.14	51.82
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.449	11.449 (1.000)	174	400960	36.0000		80.00- 120.00	100.00
11.442	11.442 (1.000)	95	453790			92.70- 152.70	113.18
11.449	11.449 (1.000)	176	389960			68.24- 128.24	97.26
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.261	5.261 (0.881)	65	60799	25.0000	18.052	80.00- 120.00	100.00

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

$  49 1,2-Dichloroethane-d4 (continued)
  5.261   5.261 (0.881)    67     32706                    22.28-  82.28    53.79
-------------------------------------------------------------------------------
$  66 Toluene-d8                                   CAS #: 2037-26-5
  7.975   7.975 (0.807)    98    231004 25.0000   20.285  80.00- 120.00   100.00
  7.968   7.968 (0.806)    70     24453                     0.00-  40.54    10.59
  7.975   7.975 (0.807)   100    149825                    35.01-  95.01    64.86
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                               CAS #: 1146-65-2
 15.704  15.704 (1.372)   136    444040 25.0000   19.662  80.00- 120.00   100.00
 15.704  15.704 (1.372)   108     39726                     0.00-  39.41     8.95
-------------------------------------------------------------------------------
    3 Freon 114                                    CAS #: 76-14-2
  1.283   1.283 (0.296)   135    386331 140.000   136.97  80.00- 120.00   100.00
  1.283   1.283 (0.296)   137    124266                     2.17-  62.17    32.17
-------------------------------------------------------------------------------
    6 Vinyl Chloride                               CAS #: 75-01-4
  1.395   1.395 (0.322)    62    223472 51.1000   50.475  80.00- 120.00   100.00
  1.395   1.395 (0.322)    64     82181                    12.66-  72.66    36.77
-------------------------------------------------------------------------------
    7 1,3-Butadiene                                CAS #: 106-99-0
  1.395   1.395 (0.322)    54    182181 44.2000   43.072  80.00- 120.00   100.00
  1.395   1.395 (0.322)    39    283272                   133.58- 193.58   155.49
-------------------------------------------------------------------------------
    9 Chloroethane                                 CAS #: 75-00-3
  1.660   1.660 (0.383)    64     99894 52.8000   39.318  80.00- 120.00   100.00
  1.660   1.660 (0.383)    66     31258                     0.00-  58.31    31.29
  1.660   1.660 (0.383)    49     29734                     0.00-  59.65    29.77
-------------------------------------------------------------------------------
   10 Isopentane                                   CAS #: 78-78-4
  1.702   1.702 (0.393)    57    189979 59.0000   58.552  80.00- 120.00   100.00
  1.702   1.702 (0.393)    43    301688                   134.33- 194.33   158.80
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                  CAS #: 75-69-4
  1.814   1.814 (0.418)   101    520892 112.000   104.03  80.00- 120.00   100.00
  1.814   1.814 (0.418)   103    340983                    35.98-  95.98    65.46
-------------------------------------------------------------------------------
   15 Freon 113                                    CAS #: 76-13-1
  2.188   2.188 (0.504)   151    468180 153.000   161.98  80.00- 120.00   100.00
  2.188   2.188 (0.504)   153    302154                    34.66-  94.66    64.54
  2.188   2.188 (0.504)   101    539862                    88.64- 148.64   115.31
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                           CAS #: 75-35-4
  2.188   2.188 (0.504)    98    158848 79.3000   78.773  80.00- 120.00   100.00
  2.188   2.188 (0.504)    96    248128                   127.15- 187.15   156.20
  2.188   2.188 (0.504)    61    404831                   230.60- 290.60   254.85
-------------------------------------------------------------------------------
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.374	2.374 (0.547)	76	734936	62.3000	62.310	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.288	2.288 (0.528)	45	489203	49.2000	44.579	80.00- 120.00	100.00(a)
2.288	2.288 (0.528)	43	101370			0.00- 49.91	20.72
2.281	2.281 (0.526)	59	18268			0.00- 33.48	3.73
22 Methylene Chloride					CAS #: 75-09-2		
2.589	2.589 (0.597)	49	334985	69.5000	66.496	80.00- 120.00	100.00
2.589	2.589 (0.597)	84	240125			38.62- 98.62	71.68
2.589	2.589 (0.597)	51	102191			0.43- 60.43	30.51
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.839	2.839 (0.655)	98	161273	79.3000	80.027	80.00- 120.00	100.00
2.832	2.832 (0.653)	61	367443			200.79- 260.79	227.84
2.839	2.839 (0.655)	96	253054			126.39- 186.39	156.91
26 MTBE					CAS #: 1634-04-4		
2.811	2.811 (0.648)	73	625276	72.1000	74.457	80.00- 120.00	100.00
2.811	2.811 (0.648)	57	150372			0.00- 54.76	24.05
2.811	2.811 (0.648)	41	155775			0.00- 56.57	24.91
28 Hexane					CAS #: 110-54-3		
3.112	3.112 (0.718)	57	408982	70.5000	69.596	80.00- 120.00	100.00
3.112	3.112 (0.718)	43	282780			41.77- 101.77	69.14
3.112	3.112 (0.718)	86	57170			0.00- 43.88	13.98
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.291	3.291 (0.759)	63	428062	81.0000	79.939	80.00- 120.00	100.00
3.291	3.291 (0.759)	65	135548			1.71- 61.71	31.67
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.000	4.000 (0.922)	98	171814	79.3000	79.520	80.00- 120.00	100.00
3.993	3.993 (0.921)	96	268734			126.11- 186.11	156.41
4.000	4.000 (0.922)	61	355448			179.91- 239.91	206.88
38 2-Butanone					CAS #: 78-93-3		
3.957	3.957 (0.912)	72	131611	59.0000	59.676	80.00- 120.00	100.00
3.957	3.957 (0.912)	43	627637			469.10- 529.10	476.89
3.957	3.957 (0.912)	57	50209			6.15- 66.15	38.15
44 Chloroform					CAS #: 67-66-3		
4.508	4.508 (1.040)	83	487943	97.7000	94.876	80.00- 120.00	100.00
4.508	4.508 (1.040)	85	321682			35.99- 95.99	65.93

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.845	4.845 (0.812)	84	322283	68.8000	67.080	80.00- 120.00	100.00
4.845	4.845 (0.812)	56	416899			102.79- 162.79	129.36
4.845	4.845 (0.812)	41	253589			54.37- 114.37	78.69
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.738	4.738 (0.794)	97	514836	109.000	109.29	80.00- 120.00	100.00
4.738	4.738 (0.794)	99	333352			34.68- 94.68	64.75
47 Carbon Tetrachloride					CAS #: 56-23-5		
4.974	4.974 (0.833)	119	513619	126.000	124.78	80.00- 120.00	100.00
4.974	4.974 (0.833)	117	533135			73.19- 133.19	103.80
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.504	5.504 (0.922)	57	1309598	93.4000	89.805	80.00- 120.00	100.00
5.497	5.497 (0.921)	56	420922			1.74- 61.74	32.14
5.497	5.497 (0.921)	41	385726			0.34- 60.34	29.45
48 Benzene					CAS #: 71-43-2		
5.275	5.275 (0.884)	78	802141	63.9000	57.534	80.00- 120.00	100.00
5.275	5.275 (0.884)	77	188728			0.00- 53.53	23.53
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.375	5.375 (0.900)	62	324512	80.9000	75.600	80.00- 120.00	100.00
5.375	5.375 (0.900)	64	106159			2.15- 62.15	32.71
53 Heptane					CAS #: 142-82-5		
5.805	5.805 (0.972)	71	257804	82.0000	78.724	80.00- 120.00	100.00
5.805	5.805 (0.972)	43	547489			188.80- 248.80	212.37
5.805	5.805 (0.972)	57	258889			71.78- 131.78	100.42
56 Trichloroethene					CAS #: 79-01-6		
6.278	6.278 (1.052)	95	388464	108.000	101.41	80.00- 120.00	100.00
6.278	6.278 (1.052)	130	413631			74.74- 134.74	106.48
6.278	6.278 (1.052)	97	250457			34.87- 94.87	64.47
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.593	6.593 (1.104)	83	472963	80.3000	79.290	80.00- 120.00	100.00
6.593	6.593 (1.104)	98	211515			14.22- 74.22	44.72
6.593	6.593 (1.104)	55	404790			58.24- 118.24	85.59
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.636	6.636 (1.112)	63	301482	92.4000	93.719	80.00- 120.00	100.00
6.636	6.636 (1.112)	62	208700			39.32- 99.32	69.22
6.629	6.629 (1.110)	41	196756			37.26- 97.26	65.26

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.750	6.750 (1.131)	88	191581	72.1000	69.835	80.00- 120.00	100.00
6.750	6.750 (1.131)	58	134734			41.28- 101.28	70.33
6.750	6.750 (1.131)	57	60318			0.62- 60.62	31.48
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.854	7.854 (1.316)	58	250182	81.9000	79.228	80.00- 120.00	100.00
7.854	7.854 (1.316)	43	709520			263.34- 323.34	283.60
7.854	7.854 (1.316)	85	107312			12.32- 72.32	42.89
67 Toluene					CAS #: 108-88-3		
8.061	8.061 (0.815)	91	994371	75.4000	70.928	80.00- 120.00	100.00
8.061	8.061 (0.815)	92	582839			28.18- 88.18	58.61
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.670	8.670 (1.452)	97	349867	109.000	108.92	80.00- 120.00	100.00
8.677	8.677 (1.454)	99	218975			32.32- 92.32	62.59
8.670	8.670 (1.452)	83	293187			54.42- 114.42	83.80
71 Tetrachloroethene					CAS #: 127-18-4		
8.749	8.749 (0.885)	166	521796	136.000	140.84	80.00- 120.00	100.00
8.749	8.749 (0.885)	129	389270			47.21- 107.21	74.60
8.749	8.749 (0.885)	131	375593			44.68- 104.68	71.98
72 2-Hexanone					CAS #: 591-78-6		
8.985	8.985 (0.909)	58	338035	81.9000	79.978	80.00- 120.00	100.00
8.985	8.985 (0.909)	43	686191			181.19- 241.19	202.99
8.985	8.985 (0.909)	100	64553			0.00- 48.53	19.10
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.272	9.272 (0.938)	107	516578	154.000	148.45	80.00- 120.00	100.00
9.272	9.272 (0.938)	109	489852			64.88- 124.88	94.83
81 Chlorobenzene					CAS #: 108-90-7		
9.924	9.924 (1.004)	112	834997	92.1000	93.032	80.00- 120.00	100.00
9.924	9.924 (1.004)	114	269248			2.37- 62.37	32.25
9.924	9.924 (1.004)	77	449414			25.58- 85.58	53.82
82 Ethyl Benzene					CAS #: 100-41-4		
10.081	10.081 (1.020)	106	419897	86.8000	85.944	80.00- 120.00	100.00
10.081	10.081 (1.020)	91	1293576			283.92- 343.92	308.07
84 m,p-Xylene					CAS #: 108-38-3		
10.260	10.260 (1.038)	106	524063	86.8000	82.703	80.00- 120.00	100.00
10.260	10.260 (1.038)	91	1027955			168.48- 228.48	196.15

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

   88 o-Xylene                                        CAS #: 95-47-6
 10.747  10.747 (0.939)   106    495067 86.8000   81.987  80.00- 120.00   100.00
 10.747  10.747 (0.939)    91   1016253                  179.05- 239.05   205.28
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.776  10.776 (0.941)   104    825457 85.2000   79.272  80.00- 120.00   100.00
 10.776  10.776 (0.941)    78    385449                   17.71-  77.71    46.70
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.234  11.234 (0.981)   105   1507606 98.3000   94.935  80.00- 120.00   100.00
 11.234  11.234 (0.981)   120    406622                    0.00-  56.88    26.97
 11.234  11.234 (0.981)    51    149639                    0.00-  40.57     9.93
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.664  11.664 (1.019)    83    723312 137.000   137.78  80.00- 120.00   100.00
 11.664  11.664 (1.019)    85    469311                   35.63-  95.63    64.88
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.772  11.772 (1.028)    91   1757614 98.3000   93.569  80.00- 120.00   100.00
 11.772  11.772 (1.028)   120    425304                    0.00-  53.76    24.20
 11.772  11.772 (1.028)   105     67213                    0.00-  33.79     3.82
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.936  11.936 (1.043)   120    457253 98.3000   94.628  80.00- 120.00   100.00
 11.936  11.936 (1.043)   105   1484245                  299.98- 359.98   324.60
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.022  12.022 (1.050)   120    638602 98.3000   93.736  80.00- 120.00   100.00
 12.022  12.022 (1.050)   105   1268897                  169.84- 229.84   198.70
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.488  12.488 (1.091)   120    588486 98.3000   92.694  80.00- 120.00   100.00
 12.488  12.488 (1.091)   105   1271721                  188.24- 248.24   216.10
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.810  12.810 (1.119)   146    920041 120.000   117.09  80.00- 120.00   100.00
 12.810  12.810 (1.119)   148    590653                   33.94-  93.94    64.20
 12.810  12.810 (1.119)   111    360157                    9.99-  69.99    39.15
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.954  12.954 (1.131)   146    917248 120.000   116.91  80.00- 120.00   100.00
 12.954  12.954 (1.131)   148    590738                   33.56-  93.56    64.40
 12.946  12.946 (1.131)   111    345688                    8.12-  68.12    37.69
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.391  13.391 (1.170)   146    878612 120.000   118.34  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
105 1,2-Dichlorobenzene (continued)							
13.391	13.391 (1.170)	148	558225			33.25- 93.25	63.53
13.383	13.383 (1.169)	111	354073			11.16- 71.16	40.30
106 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
15.432	15.432 (1.348)	180	820393	148.000	160.72	80.00- 120.00	100.00
15.432	15.432 (1.348)	182	779453			64.82- 124.82	95.01
107 Hexachlorobutadiene					CAS #: 87-68-3		
15.647	15.647 (1.367)	225	627899	213.000	239.36	80.00- 120.00	100.00
15.647	15.647 (1.367)	223	395143			32.09- 92.09	62.93
109 Naphthalene					CAS #: 91-20-3		
15.747	15.747 (1.375)	128	1221946	50.0000	45.425	80.00- 120.00	100.00
15.747	15.747 (1.375)	127	158920			0.00- 43.01	13.01
110 2-Methylnaphthalene					CAS #: 91-57-6		
17.194	17.194 (1.502)	142	819062	50.0000	52.677	80.00- 120.00	100.00
17.194	17.194 (1.502)	141	709093			57.55- 117.55	86.57
17.194	17.194 (1.502)	115	252936			2.88- 62.88	30.88
111 1-Methylnaphthalene					CAS #: 90-12-0		
17.409	17.409 (1.521)	142	744548	50.0000	53.251	80.00- 120.00	100.00
17.409	17.409 (1.521)	141	671579			60.83- 120.83	90.20
17.409	17.409 (1.521)	115	242946			4.35- 64.35	32.63
112 Acenaphthylene					CAS #: 208-96-8		
19.264	19.264 (1.683)	152	1308160	50.0000	57.284	80.00- 120.00	100.00
19.264	19.264 (1.683)	151	262358			0.00- 50.47	20.06
19.264	19.264 (1.683)	153	170990			0.00- 42.99	13.07
113 Acenaphthene					CAS #: 83-32-9		
19.522	19.522 (1.705)	154	717476	50.0000	58.121	80.00- 120.00	100.00
19.522	19.522 (1.705)	152	375986			23.49- 83.49	52.40
19.522	19.522 (1.705)	153	789683			81.41- 141.41	110.06
114 Fluorene					CAS #: 86-73-7		
20.675	20.675 (1.806)	166	682488	50.0000	55.731	80.00- 120.00	100.00
20.675	20.675 (1.806)	165	647584			66.52- 126.52	94.89
115 Phenanthrene					CAS #: 85-01-8		
22.853	22.853 (1.996)	178	1272581	50.0000	61.555	80.00- 120.00	100.00
22.853	22.853 (1.996)	176	241470			0.00- 49.64	18.97
22.853	22.853 (1.996)	179	194393			0.00- 45.22	15.28
116 Anthracene					CAS #: 120-12-7		
22.960	22.960 (2.005)	178	1193088	50.0000	60.930	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
116 Anthracene (continued)							
22.960	22.960 (2.005)	176	220829			0.00- 49.04	18.51
22.960	22.960 (2.005)	179	181543			0.00- 45.28	15.22
117 Fluoranthene					CAS #: 206-44-0		
26.155	26.155 (2.284)	202	725233	50.0000	50.432	80.00- 120.00	100.00
26.155	26.155 (2.284)	101	118531			0.00- 48.21	16.34
118 Pyrene					CAS #: 129-00-0		
27.015	27.015 (2.359)	202	750049	50.0000	50.210	80.00- 120.00	100.00
27.008	27.008 (2.359)	101	140757			0.00- 51.09	18.77
27.015	27.015 (2.359)	100	116559			0.00- 47.66	15.54

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: msd6.i
Lab File ID: 6051705.d
Lab Smp Id: VI VOC+PAH CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: 2516-241(7/20/16),2744-31-50(7/5/16)

Calibration Date: 17-MAY-2016
Calibration Time: 11:30
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

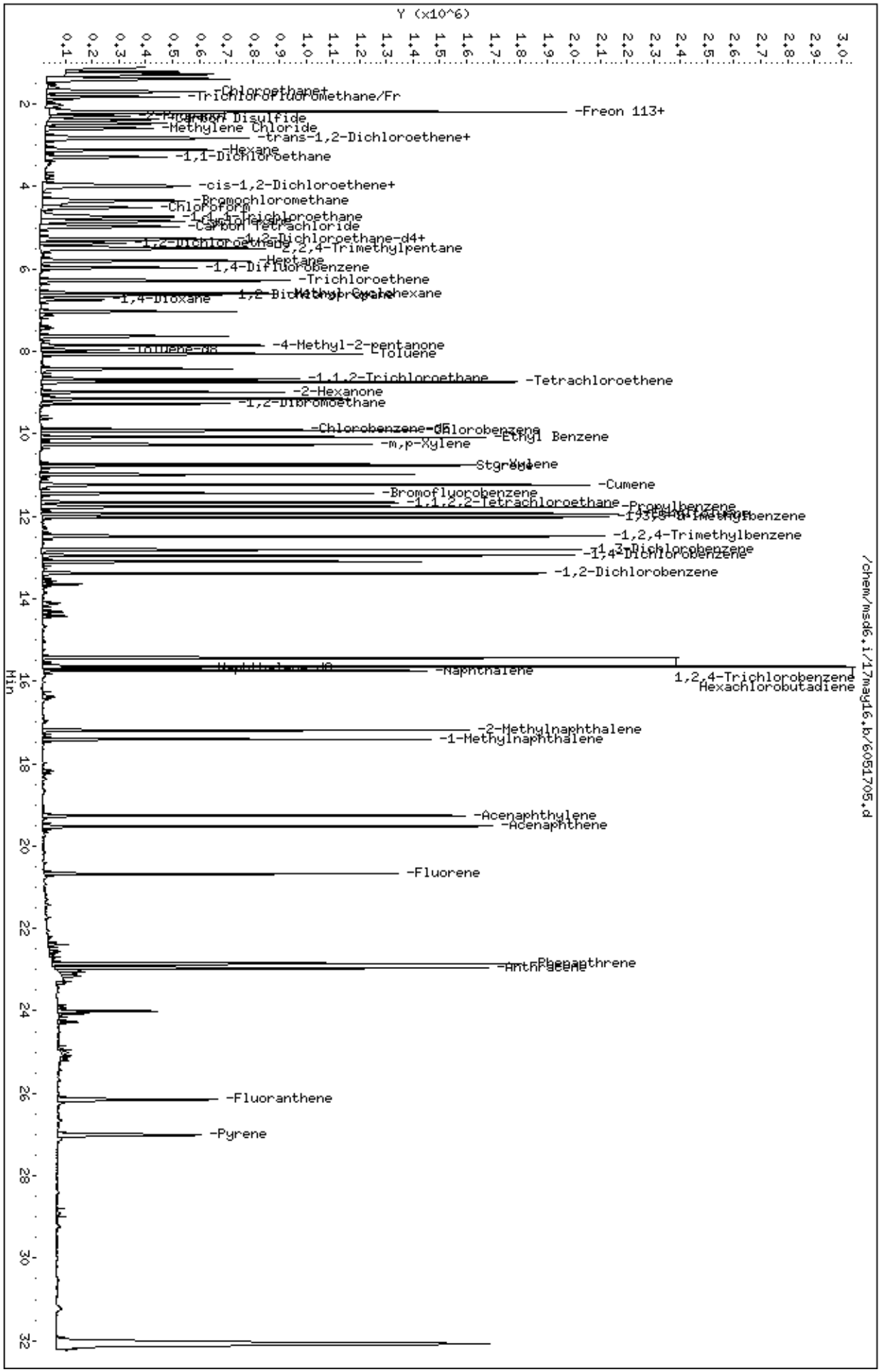
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	157036	94222	219850	157036	0.00
54 1,4-Difluorobenze	635738	381443	890033	635738	0.00
79 Chlorobenzene-d5	583554	350132	816976	583554	0.00
92 Bromofluorobenzen	400960	240576	561344	400960	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.34	4.01	4.67	4.34	0.00
54 1,4-Difluorobenze	5.97	5.64	6.30	5.97	0.00
79 Chlorobenzene-d5	9.89	9.56	10.22	9.89	0.00
92 Bromofluorobenzen	11.45	11.12	11.78	11.45	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/msd6.i/17may16.b/6051705.d
Date : 17-MAY-2016 12:53
Client ID: CCV
Sample Info: ;VI VOC+PAH CCV;CCV
Column phase: RTx-624

Instrument: msd6.i
Operator: CT
Column diameter: 0.53



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Client Sample ID: LCS
Lab ID#: 1605307-12A
EPA METHOD TO-17

File Name:	**6051704**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 12:09 PM**

Compound	**%Recovery**	**Method Limits**
Naphthalene	96	70-130

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	85	50-150

Report Date: 17-May-2016 13:39

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 17may16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI VOC+PAH LCS
Client Smp ID: LCS
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: LCS
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: VOC+PAH_ICAL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: 2516-240(7/20/16),2744-32-50(7/20/16)

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
3 Freon 114	139.80	142.78	102.13	70-130
6 Vinyl Chloride	51.100	52.039	101.84	70-130
7 1,3-Butadiene	44.200	40.534	91.71	70-130
9 Chloroethane	52.800	40.446	76.60	70-130
10 Isopentane	59.000	58.559	99.25	70-130
11 Trichlorofluoromet	112.40	108.40	96.45	70-130
14 1,1-Dichloroethene	79.300	81.501	102.78	70-130
15 Freon 113	153.30	161.40	105.29	70-130
18 Carbon Disulfide	62.300	52.772	84.71	70-130
19 2-Propanol	49.200	43.622	88.66	70-130
22 Methylene Chloride	69.500	63.918	91.97	70-130
25 trans-1,2-Dichloro	79.300	69.860	88.10	70-130
26 MTBE	72.100	72.424	100.45	70-130
28 Hexane	70.500	67.908	96.32	70-130
29 1,1-Dichloroethane	81.000	79.241	97.83	70-130
37 cis-1,2-Dichloroet	79.300	87.747	110.65	70-130
38 2-Butanone	59.000	62.347	105.67	70-130
44 Chloroform	97.700	94.940	97.17	70-130
45 1,1,1-Trichloroeth	109.10	101.49	93.03	70-130
46 Cyclohexane	68.800	67.114	97.55	70-130
47 Carbon Tetrachlori	125.80	125.39	99.68	70-130
48 Benzene	63.900	58.087	90.90	70-130
50 1,2-Dichloroethane	80.900	76.694	94.80	70-130
51 2,2,4-Trimethylpen	93.400	89.676	96.01	70-130
53 Heptane	82.000	78.699	95.97	70-130
56 Trichloroethene	107.50	101.40	94.33	70-130
58 Methyl Cyclohexane	80.300	78.658	97.96	70-130
59 1,2-Dichloropropan	92.400	91.314	98.83	70-130
60 1,4-Dioxane	72.100	68.662	95.23	70-130
65 4-Methyl-2-pentano	81.900	78.194	95.47	70-130
67 Toluene	75.400	71.456	94.77	70-130
70 1,1,2-Trichloroeth	109.10	107.61	98.64	70-130
71 Tetrachloroethene	135.70	139.63	102.90	70-130

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
72 2-Hexanone	81.900	75.542	92.24	70-130
74 1,2-Dibromoethane	153.70	149.94	97.56	70-130
81 Chlorobenzene	92.100	92.445	100.37	70-130
82 Ethyl Benzene	86.800	85.452	98.45	70-130
84 m,p-Xylene	86.800	82.576	95.13	70-130
88 o-Xylene	86.800	83.662	96.39	70-130
89 Styrene	85.200	79.576	93.40	70-130
91 Cumene	98.300	94.719	96.36	70-130
94 1,1,2,2-Tetrachlor	137.30	137.56	100.19	70-130
96 Propylbenzene	98.300	96.278	97.94	70-130
97 4-Ethyltoluene	98.300	94.718	96.36	70-130
98 1,3,5-Trimethylben	98.300	95.811	97.47	70-130
100 1,2,4-Trimethylben	98.300	94.619	96.26	70-130
101 1,3-Dichlorobenzen	120.30	120.12	99.85	70-130
102 1,4-Dichlorobenzen	120.30	119.06	98.97	70-130
105 1,2-Dichlorobenzen	120.30	121.42	100.94	70-130
106 1,2,4-Trichloroben	148.40	165.40	111.45	70-130
107 Hexachlorobutadien	213.30	238.64	111.88	70-130
109 Naphthalene	50.000	47.943	95.89	70-130
110 2-Methylnaphthalen	50.000	55.831	111.66	70-130
111 1-Methylnaphthalen	50.000	56.816	113.63	70-130
112 Acenaphthylene	50.000	55.483	110.97	70-130
113 Acenaphthene	50.000	59.197	118.39	70-130
114 Fluorene	50.000	68.501	137.00	60-140
115 Phenanthrene	50.000	60.091	120.18	60-140
116 Anthracene	50.000	59.743	119.49	60-140
117 Fluoranthene	50.000	79.404	158.81*	60-140
118 Pyrene	50.000	78.288	156.58*	60-140

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 49 1,2-Dichloroethane	25.000	18.707	74.83	50-150
$ 66 Toluene-d8	25.000	20.800	83.20	50-150
$ 108 Naphthalene-d8	25.000	21.260	85.04	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051704.d
Lab Smp Id: VI VOC+PAH LCS Client Smp ID: LCS
Inj Date : 17-MAY-2016 12:09
Operator : CT Inst ID: msd6.i
Smp Info : ;VI VOC+PAH LCS;LCS
Misc Info : 2516-240(7/20/16),2744-32-50(7/20/16)
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 17-May-2016 13:37 U5BT Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.344	4.336 (1.000)	130	164734	26.0000		80.00- 120.00	100.00
4.337	4.336 (1.000)	128	128090			48.25- 108.25	77.76
4.337	4.329 (1.000)	49	213612			107.14- 167.14	129.67
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
5.970	5.970 (1.000)	114	658383	23.0000		80.00- 120.00	100.00
5.970	5.970 (1.000)	88	98741			0.00- 45.65	15.00
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.888	9.888 (1.000)	117	603373	24.0000		80.00- 120.00	100.00
9.888	9.888 (1.000)	82	308914			23.14- 83.14	51.20
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.442	11.449 (1.000)	174	411914	36.0000		80.00- 120.00	100.00
11.442	11.442 (1.000)	95	469093			92.70- 152.70	113.88
11.442	11.449 (1.000)	176	400811			68.24- 128.24	97.30
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.261	5.261 (0.881)	65	65251	18.7071	18.707	80.00- 120.00	100.00

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   NG)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

$  49 1,2-Dichloroethane-d4 (continued)
  5.268   5.261 (0.882)    67     35549                    22.28-  82.28    54.48
-------------------------------------------------------------------------------
$  66 Toluene-d8                                  CAS #: 2037-26-5
  7.983   7.975 (0.807)    98    244913 20.7998   20.800  80.00- 120.00   100.00
  7.976   7.968 (0.807)    70     25977                     0.00-  40.54    10.61
  7.983   7.975 (0.807)   100    159511                    35.01-  95.01    65.13
-------------------------------------------------------------------------------
$ 108 Naphthalene-d8                              CAS #: 1146-65-2
 15.704  15.704 (1.372)   136    493247 21.2603   21.260  80.00- 120.00   100.00
 15.704  15.704 (1.372)   108     44827                     0.00-  39.41     9.09
-------------------------------------------------------------------------------
    3 Freon 114                                   CAS #: 76-14-2
  1.283   1.283 (0.295)   135    422475 142.784   142.78  80.00- 120.00   100.00
  1.283   1.283 (0.295)   137    135094                     2.17-  62.17    31.98
-------------------------------------------------------------------------------
    6 Vinyl Chloride                              CAS #: 75-01-4
  1.395   1.395 (0.321)    62    241687 52.0388   52.039  80.00- 120.00   100.00
  1.395   1.395 (0.321)    64     88764                    12.66-  72.66    36.73
-------------------------------------------------------------------------------
    7 1,3-Butadiene                               CAS #: 106-99-0
  1.395   1.395 (0.321)    54    179851 40.5337   40.534  80.00- 120.00   100.00
  1.395   1.395 (0.321)    39    287531                   133.58- 193.58   159.87
-------------------------------------------------------------------------------
    9 Chloroethane                                CAS #: 75-00-3
  1.661   1.660 (0.382)    64    107798 40.4463   40.446  80.00- 120.00   100.00
  1.661   1.660 (0.382)    66     33800                     0.00-  58.31    31.36
  1.661   1.660 (0.382)    49     32160                     0.00-  59.65    29.83
-------------------------------------------------------------------------------
   10 Isopentane                                  CAS #: 78-78-4
  1.703   1.702 (0.392)    57    199316 58.5587   58.559  80.00- 120.00   100.00
  1.703   1.702 (0.392)    43    317388                   134.33- 194.33   159.24
-------------------------------------------------------------------------------
   11 Trichlorofluoromethane/Fr11                 CAS #: 75-69-4
  1.828   1.814 (0.421)   101    569384 108.404   108.40  80.00- 120.00   100.00
  1.828   1.814 (0.421)   103    372429                    35.98-  95.98    65.41
-------------------------------------------------------------------------------
   15 Freon 113                                   CAS #: 76-13-1
  2.188   2.188 (0.504)   151    489383 161.404   161.40  80.00- 120.00   100.00
  2.188   2.188 (0.504)   153    313889                    34.66-  94.66    64.14
  2.188   2.188 (0.504)   101    562048                    88.64- 148.64   114.85
-------------------------------------------------------------------------------
   14 1,1-Dichloroethene                          CAS #: 75-35-4
  2.195   2.188 (0.505)    98    172404 81.5006   81.501  80.00- 120.00   100.00
  2.195   2.188 (0.505)    96    271280                   127.15- 187.15   157.35
  2.195   2.188 (0.505)    61    434475                   230.60- 290.60   252.01
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.374	2.374 (0.547)	76	652951	52.7718	52.772	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.288	2.288 (0.527)	45	502168	43.6224	43.622	80.00- 120.00	100.00(a)
2.288	2.288 (0.527)	43	95731			0.00- 49.91	19.06
2.288	2.281 (0.527)	59	17752			0.00- 33.48	3.54
22 Methylene Chloride					CAS #: 75-09-2		
2.589	2.589 (0.596)	49	337781	63.9175	63.918	80.00- 120.00	100.00
2.589	2.589 (0.596)	84	242730			38.62- 98.62	71.86
2.589	2.589 (0.596)	51	102959			0.43- 60.43	30.48
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.840	2.839 (0.654)	98	147684	69.8596	69.860	80.00- 120.00	100.00
2.840	2.832 (0.654)	61	333835			200.79- 260.79	226.05
2.840	2.839 (0.654)	96	232526			126.39- 186.39	157.45
26 MTBE					CAS #: 1634-04-4		
2.811	2.811 (0.647)	73	638018	72.4236	72.424	80.00- 120.00	100.00
2.811	2.811 (0.647)	57	155855			0.00- 54.76	24.43
2.811	2.811 (0.647)	41	162216			0.00- 56.57	25.43
28 Hexane					CAS #: 110-54-3		
3.119	3.112 (0.718)	57	418625	67.9076	67.908	80.00- 120.00	100.00
3.119	3.112 (0.718)	43	293300			41.77- 101.77	70.06
3.119	3.112 (0.718)	86	59687			0.00- 43.88	14.26
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.291	3.291 (0.758)	63	445126	79.2414	79.241	80.00- 120.00	100.00
3.291	3.291 (0.758)	65	140470			1.71- 61.71	31.56
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.000	4.000 (0.921)	98	198885	87.7471	87.747	80.00- 120.00	100.00
4.000	3.993 (0.921)	96	310998			126.11- 186.11	156.37
4.000	4.000 (0.921)	61	410835			179.91- 239.91	206.57
38 2-Butanone					CAS #: 78-93-3		
3.964	3.957 (0.913)	72	144242	62.3472	62.347	80.00- 120.00	100.00
3.964	3.957 (0.913)	43	687067			469.10- 529.10	476.33
3.964	3.957 (0.913)	57	55569			6.15- 66.15	38.53
44 Chloroform					CAS #: 67-66-3		
4.516	4.508 (1.040)	83	512205	94.9396	94.940	80.00- 120.00	100.00
4.516	4.508 (1.040)	85	334609			35.99- 95.99	65.33

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.845	4.845 (0.812)	84	333932	67.1144	67.114	80.00- 120.00	100.00
4.845	4.845 (0.812)	56	435407			102.79- 162.79	130.39
4.845	4.845 (0.812)	41	264353			54.37- 114.37	79.16
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.738	4.738 (0.794)	97	495135	101.493	101.49	80.00- 120.00	100.00
4.738	4.738 (0.794)	99	320769			34.68- 94.68	64.78
47 Carbon Tetrachloride					CAS #: 56-23-5		
4.981	4.974 (0.834)	119	534541	125.394	125.39	80.00- 120.00	100.00
4.981	4.974 (0.834)	117	555514			73.19- 133.19	103.92
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.504	5.504 (0.922)	57	1354295	89.6757	89.676	80.00- 120.00	100.00
5.504	5.497 (0.922)	56	430364			1.74- 61.74	31.78
5.504	5.497 (0.922)	41	392127			0.34- 60.34	28.95
48 Benzene					CAS #: 71-43-2		
5.282	5.275 (0.885)	78	838699	58.0875	58.087	80.00- 120.00	100.00
5.282	5.275 (0.885)	77	197208			0.00- 53.53	23.51
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.383	5.375 (0.902)	62	340936	76.6941	76.694	80.00- 120.00	100.00
5.383	5.375 (0.902)	64	111436			2.15- 62.15	32.69
53 Heptane					CAS #: 142-82-5		
5.805	5.805 (0.972)	71	266904	78.6991	78.699	80.00- 120.00	100.00
5.805	5.805 (0.972)	43	568248			188.80- 248.80	212.90
5.805	5.805 (0.972)	57	265190			71.78- 131.78	99.36
56 Trichloroethene					CAS #: 79-01-6		
6.285	6.278 (1.053)	95	402278	101.401	101.40	80.00- 120.00	100.00
6.285	6.278 (1.053)	130	430941			74.74- 134.74	107.13
6.285	6.278 (1.053)	97	259888			34.87- 94.87	64.60
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.593	6.593 (1.104)	83	485902	78.6579	78.658	80.00- 120.00	100.00
6.593	6.593 (1.104)	98	217828			14.22- 74.22	44.83
6.593	6.593 (1.104)	55	415127			58.24- 118.24	85.43
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.636	6.636 (1.112)	63	304211	91.3145	91.314	80.00- 120.00	100.00
6.636	6.636 (1.112)	62	211698			39.32- 99.32	69.59
6.636	6.629 (1.112)	41	175285			37.26- 97.26	57.62

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.751	6.750 (1.131)	88	195073	68.6620	68.662	80.00- 120.00	100.00
6.751	6.750 (1.131)	58	136827			41.28- 101.28	70.14
6.758	6.750 (1.132)	57	64408			0.62- 60.62	33.02
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.861	7.854 (1.317)	58	255712	78.1937	78.194	80.00- 120.00	100.00
7.861	7.854 (1.317)	43	724335			263.34- 323.34	283.26
7.861	7.854 (1.317)	85	110787			12.32- 72.32	43.32
67 Toluene					CAS #: 108-88-3		
8.069	8.061 (0.816)	91	1035796	71.4564	71.456	80.00- 120.00	100.00
8.069	8.061 (0.816)	92	603986			28.18- 88.18	58.31
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.678	8.670 (1.454)	97	357992	107.612	107.61	80.00- 120.00	100.00
8.678	8.677 (1.454)	99	224055			32.32- 92.32	62.59
8.678	8.670 (1.454)	83	299544			54.42- 114.42	83.67
71 Tetrachloroethene					CAS #: 127-18-4		
8.749	8.749 (0.885)	166	534861	139.629	139.63	80.00- 120.00	100.00
8.749	8.749 (0.885)	129	401536			47.21- 107.21	75.07
8.749	8.749 (0.885)	131	389961			44.68- 104.68	72.91
72 2-Hexanone					CAS #: 591-78-6		
8.986	8.985 (0.909)	58	330127	75.5420	75.542	80.00- 120.00	100.00
8.986	8.985 (0.909)	43	678972			181.19- 241.19	205.67
8.986	8.985 (0.909)	100	64168			0.00- 48.53	19.44
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.272	9.272 (0.938)	107	539481	149.944	149.94	80.00- 120.00	100.00
9.272	9.272 (0.938)	109	512585			64.88- 124.88	95.01
81 Chlorobenzene					CAS #: 108-90-7		
9.924	9.924 (1.004)	112	857909	92.4449	92.445	80.00- 120.00	100.00
9.924	9.924 (1.004)	114	278275			2.37- 62.37	32.44
9.924	9.924 (1.004)	77	461817			25.58- 85.58	53.83
82 Ethyl Benzene					CAS #: 100-41-4		
10.081	10.081 (1.020)	106	431671	85.4516	85.452	80.00- 120.00	100.00
10.081	10.081 (1.020)	91	1326654			283.92- 343.92	307.33
84 m,p-Xylene					CAS #: 108-38-3		
10.261	10.260 (1.038)	106	541030	82.5761	82.576	80.00- 120.00	100.00
10.261	10.260 (1.038)	91	1049561			168.48- 228.48	193.99

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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   NG)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   88 o-Xylene                                        CAS #: 95-47-6
 10.740  10.747 (0.939)   106    518983 83.6625   83.662  80.00- 120.00   100.00
 10.740  10.747 (0.939)    91   1065689                  179.05- 239.05   205.34
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.776  10.776 (0.942)   104    851264 79.5761   79.576  80.00- 120.00   100.00
 10.776  10.776 (0.942)    78    394314                   17.71-  77.71    46.32
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.228  11.234 (0.981)   105   1545274 94.7194   94.719  80.00- 120.00   100.00
 11.235  11.234 (0.982)   120    414888                    0.00-  56.88    26.85
 11.228  11.234 (0.981)    51    155016                    0.00-  40.57    10.03
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.657  11.664 (1.019)    83    741861 137.560   137.56  80.00- 120.00   100.00
 11.657  11.664 (1.019)    85    484362                   35.63-  95.63    65.29
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.765  11.772 (1.028)    91   1857907 96.2780   96.278  80.00- 120.00   100.00
 11.772  11.772 (1.029)   120    452448                    0.00-  53.76    24.35
 11.765  11.772 (1.028)   105     70653                    0.00-  33.79     3.80
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.930  11.936 (1.043)   120    470194 94.7180   94.718  80.00- 120.00   100.00
 11.930  11.936 (1.043)   105   1527815                  299.98- 359.98   324.93
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.015  12.022 (1.050)   120    670567 95.8107   95.811  80.00- 120.00   100.00
 12.015  12.022 (1.050)   105   1327353                  169.84- 229.84   197.94
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.481  12.488 (1.091)   120    617118 94.6195   94.619  80.00- 120.00   100.00
 12.481  12.488 (1.091)   105   1351469                  188.24- 248.24   219.00
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.811  12.810 (1.120)   146    969649 120.125   120.12  80.00- 120.00   100.00
 12.811  12.810 (1.120)   148    621801                   33.94-  93.94    64.13
 12.811  12.810 (1.120)   111    375618                    9.99-  69.99    38.74
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.947  12.954 (1.131)   146    959602 119.061   119.06  80.00- 120.00   100.00
 12.947  12.954 (1.131)   148    618412                   33.56-  93.56    64.44
 12.947  12.946 (1.131)   111    362058                    8.12-  68.12    37.73
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.384  13.391 (1.170)   146    926167 121.425   121.42  80.00- 120.00   100.00
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                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   NG)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  105 1,2-Dichlorobenzene (continued)
 13.384  13.391 (1.170)   148    589956                    33.25-  93.25    63.70
 13.384  13.383 (1.170)   111    373671                    11.16-  71.16    40.35
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.432  15.432 (1.349)   180    867336 165.398   165.40  80.00- 120.00   100.00
 15.432  15.432 (1.349)   182    826777                    64.82- 124.82    95.32
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.640  15.647 (1.367)   225    643106 238.639   238.64  80.00- 120.00   100.00
 15.640  15.647 (1.367)   223    402050                    32.09-  92.09    62.52
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.740  15.747 (1.376)   128   1324891 47.9427   47.943  80.00- 120.00   100.00
 15.740  15.747 (1.376)   127    171218                     0.00-  43.01    12.92
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.194  17.194 (1.503)   142    891818 55.8313   55.831  80.00- 120.00   100.00
 17.194  17.194 (1.503)   141    777726                    57.55- 117.55    87.21
 17.187  17.194 (1.502)   115    275842                     2.88-  62.88    30.93
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.409  17.409 (1.521)   142    816088 56.8157   56.816  80.00- 120.00   100.00
 17.409  17.409 (1.521)   141    737539                    60.83- 120.83    90.37
 17.409  17.409 (1.521)   115    262097                     4.35-  64.35    32.12
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.250  19.264 (1.682)   152   1301632 55.4829   55.483  80.00- 120.00   100.00
 19.250  19.264 (1.682)   151    260610                     0.00-  50.47    20.02
 19.250  19.264 (1.682)   153    169639                     0.00-  42.99    13.03
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.515  19.522 (1.706)   154    750724 59.1973   59.197  80.00- 120.00   100.00
 19.515  19.522 (1.706)   152    394179                    23.49-  83.49    52.51
 19.515  19.522 (1.706)   153    819055                    81.41- 141.41   109.10
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.661  20.675 (1.806)   166    861788 68.5015   68.501  80.00- 120.00   100.00
 20.661  20.675 (1.806)   165    825922                    66.52- 126.52    95.84
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.839  22.853 (1.996)   178   1276262 60.0915   60.091  80.00- 120.00   100.00
 22.839  22.853 (1.996)   176    241789                     0.00-  49.64    18.95
 22.839  22.853 (1.996)   179    195712                     0.00-  45.22    15.33
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 22.946  22.960 (2.005)   178   1201810 59.7431   59.743  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
116 Anthracene (continued)							
22.946	22.960 (2.005)	176	222416			0.00- 49.04	18.51
22.946	22.960 (2.005)	179	183830			0.00- 45.28	15.30
117 Fluoranthene					CAS #: 206-44-0		
26.141	26.155 (2.285)	202	1173056	79.4041	79.404	80.00- 120.00	100.00(R)
26.141	26.155 (2.285)	101	191508			0.00- 48.21	16.33
118 Pyrene					CAS #: 129-00-0		
27.001	27.015 (2.360)	202	1201452	78.2885	78.288	80.00- 120.00	100.00(R)
27.001	27.008 (2.360)	101	231178			0.00- 51.09	19.24
27.001	27.015 (2.360)	100	188841			0.00- 47.66	15.72

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Report Date: 17-May-2016 13:39

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd6.i
Lab File ID: 6051704.d
Lab Smp Id: VI VOC+PAH LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: 2516-240(7/20/16),2744-32-50(7/20/16)

Calibration Date: 17-MAY-2016
Calibration Time: 12:53
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	157036	94222	219850	164734	4.90
54 1,4-Difluorobenze	635738	381443	890033	658383	3.56
79 Chlorobenzene-d5	583554	350132	816976	603373	3.40
92 Bromofluorobenzen	400960	240576	561344	411914	2.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.34	4.01	4.67	4.34	0.17
54 1,4-Difluorobenze	5.97	5.64	6.30	5.97	0.00
79 Chlorobenzene-d5	9.89	9.56	10.22	9.89	0.00
92 Bromofluorobenzen	11.45	11.12	11.78	11.44	-0.06

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/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

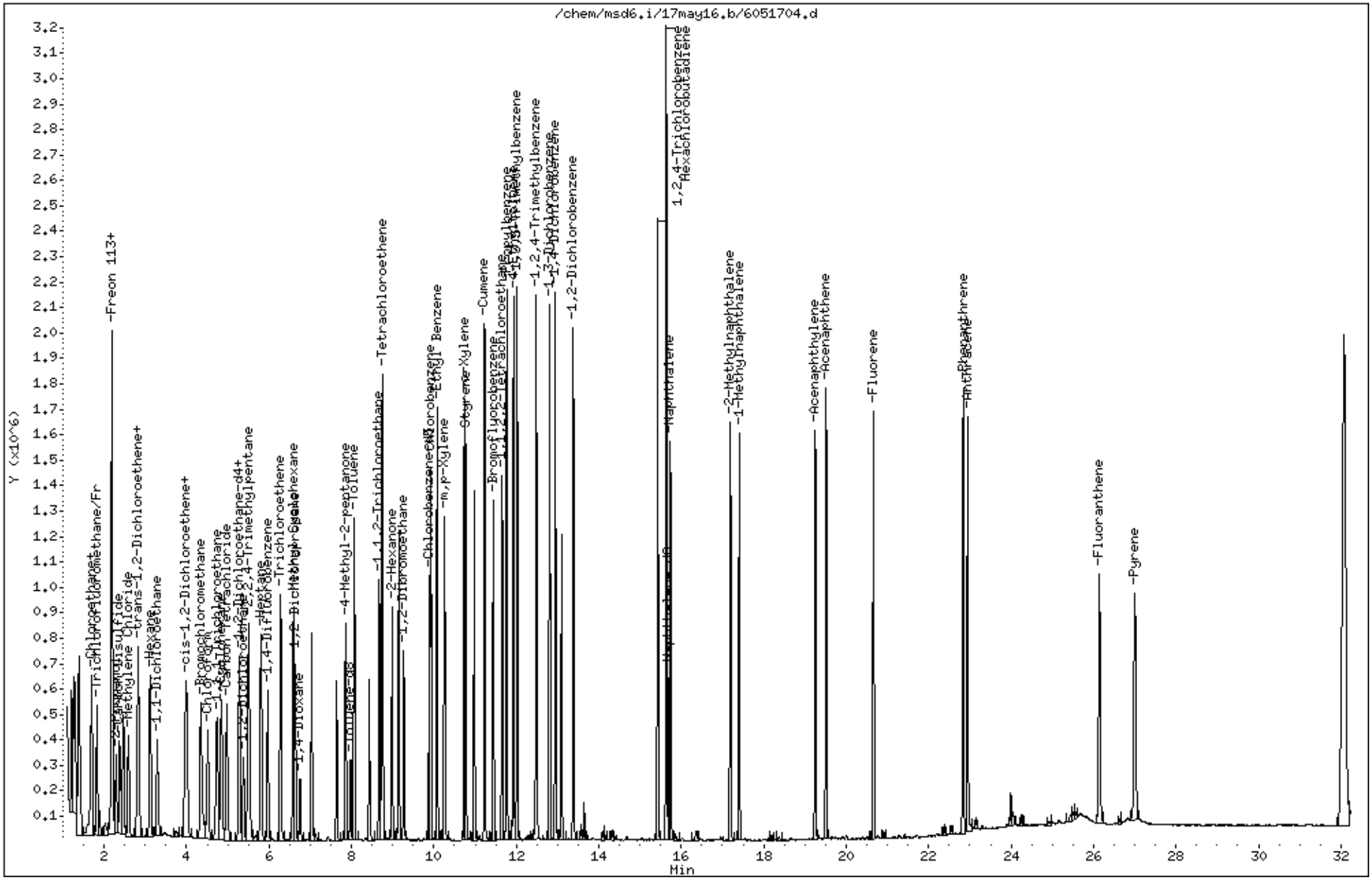
Sample Info: ;VI VOC+PAH LCS;LCS

Column phase: RTx-624

Instrument: msd6.i

Operator: CT

Column diameter: 0.53



Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

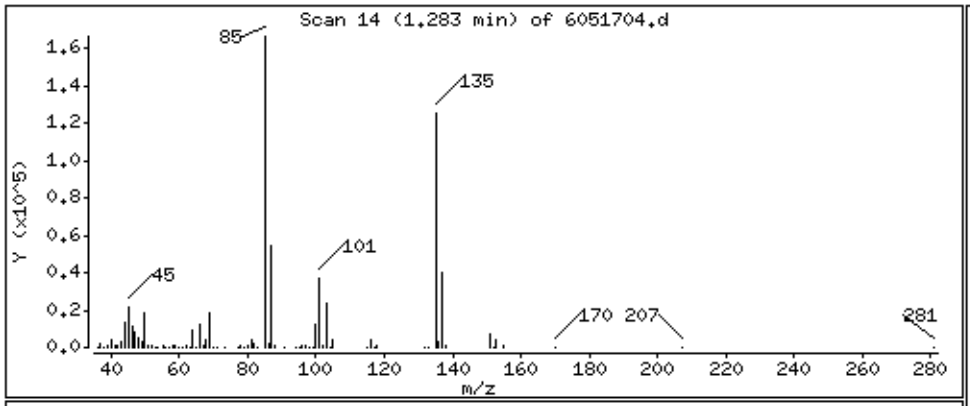
Operator: CT

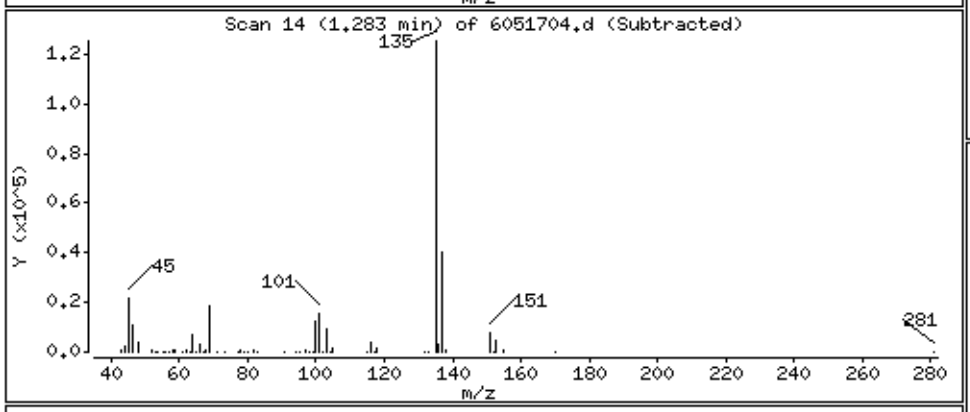
Column phase: RTx-624

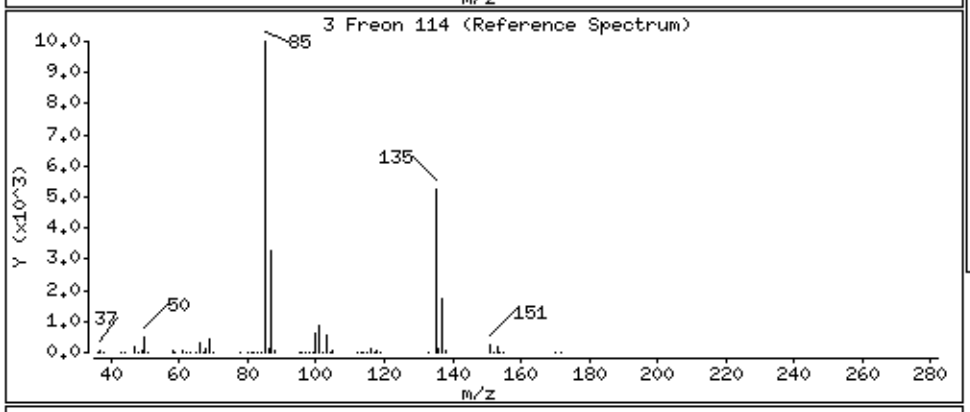
Column diameter: 0.53

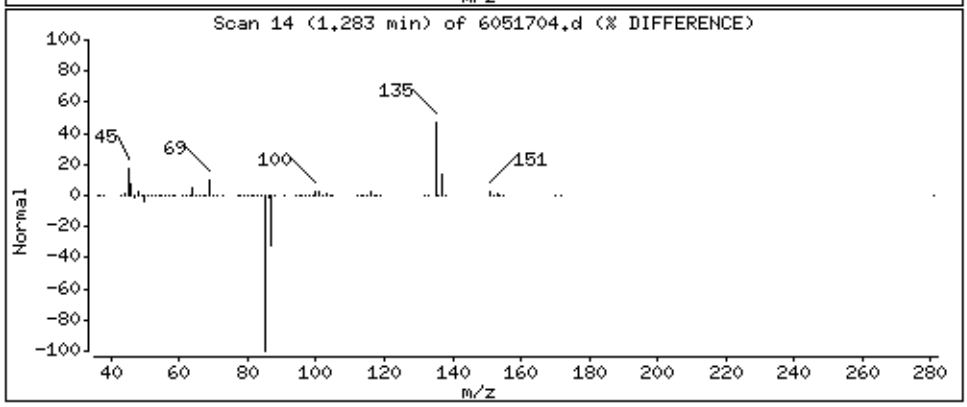
3 Freon 114

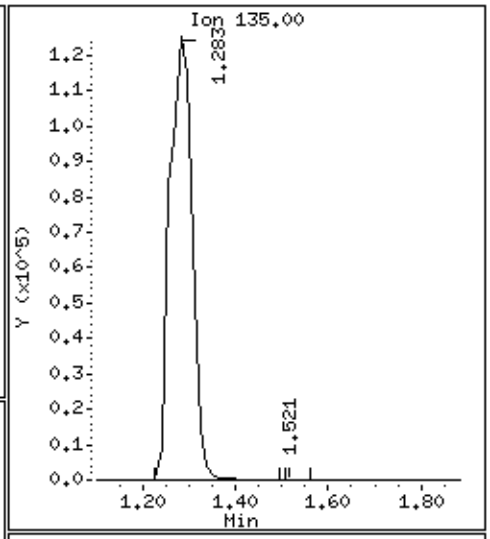
Concentration: 142.78 NG

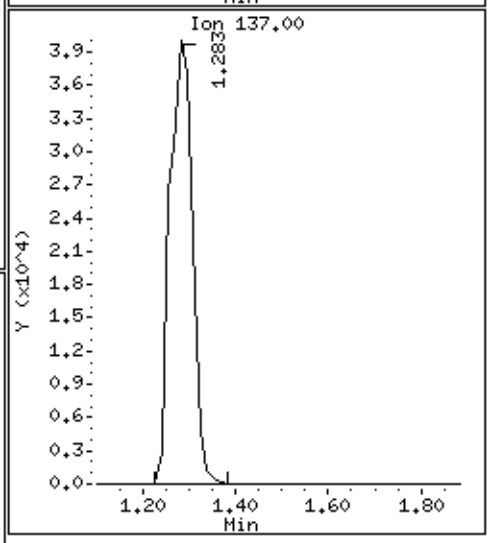












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

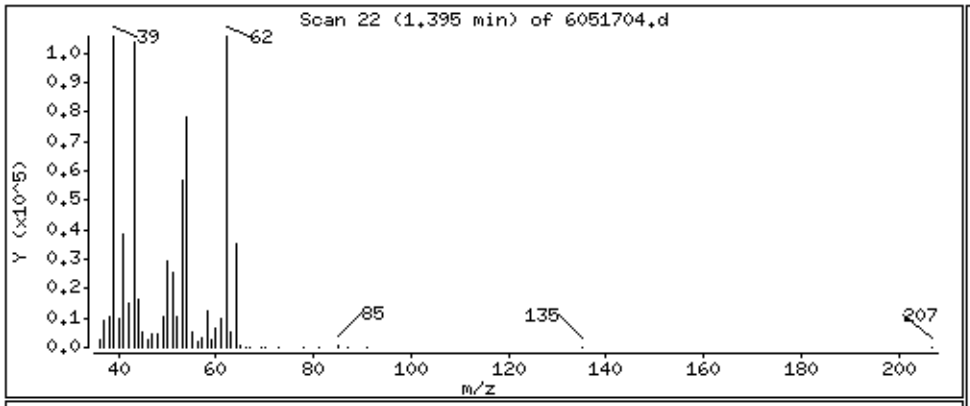
Operator: CT

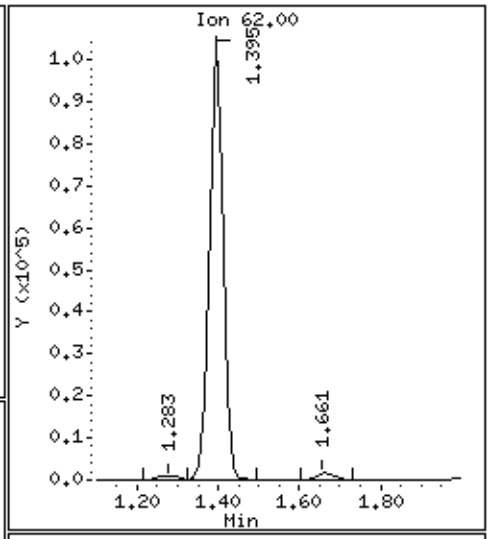
Column phase: RTx-624

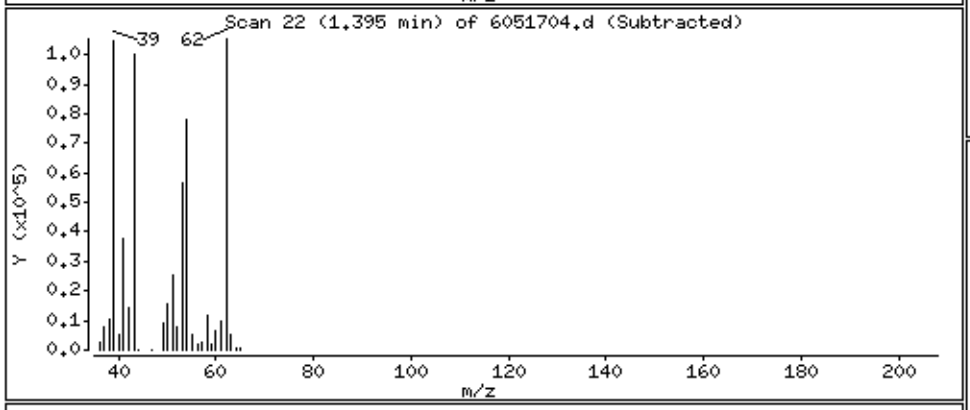
Column diameter: 0.53

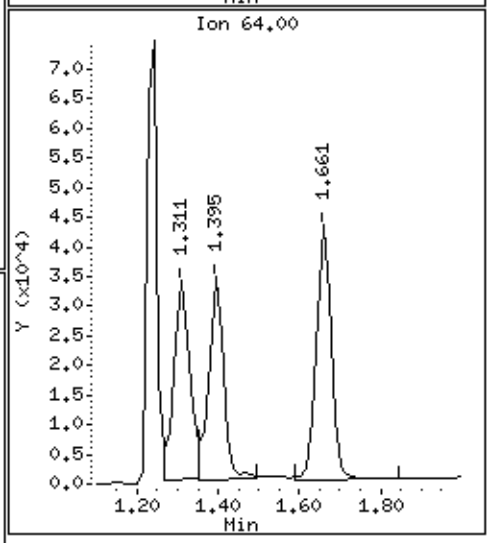
6 Vinyl Chloride

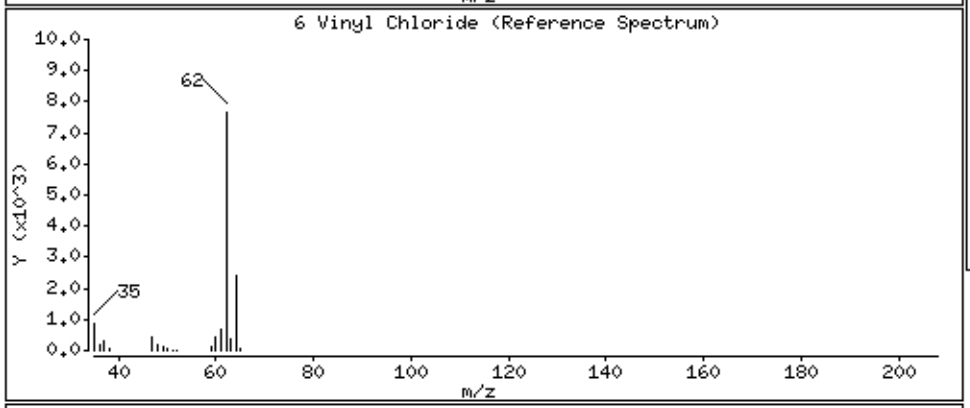
Concentration: 52.039 NG

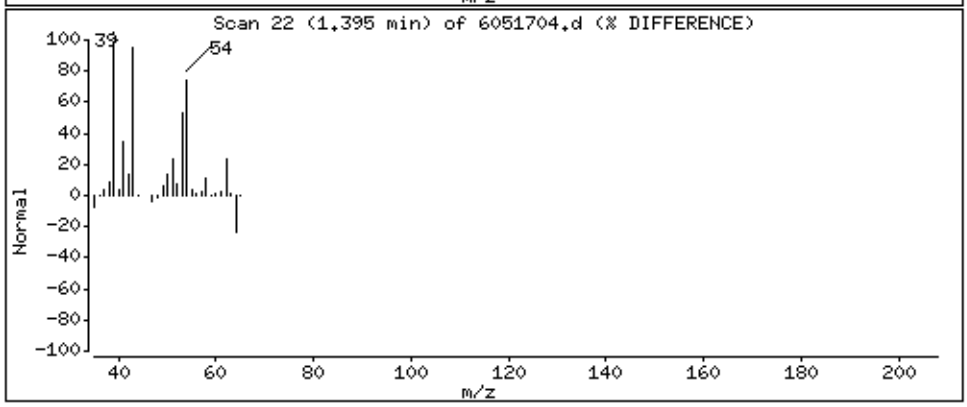












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

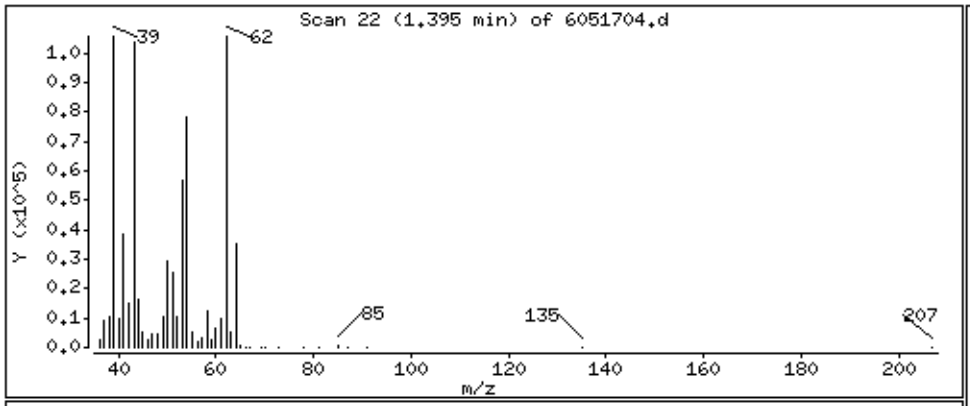
Operator: CT

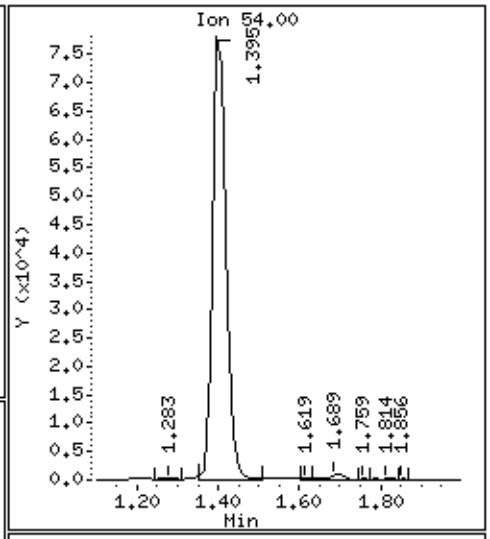
Column phase: RTx-624

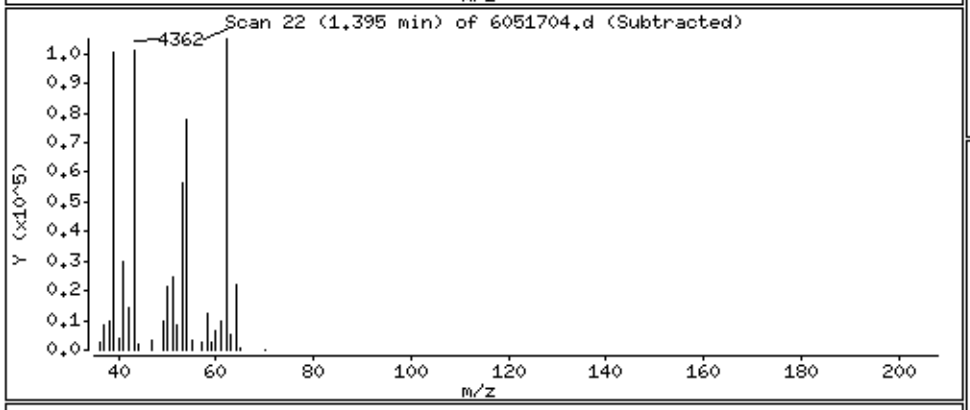
Column diameter: 0.53

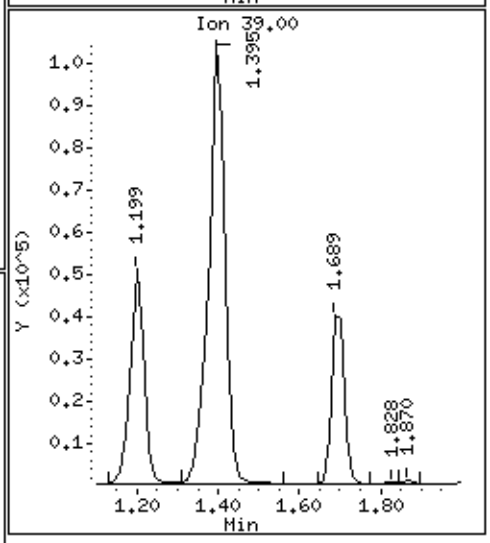
7 1,3-Butadiene

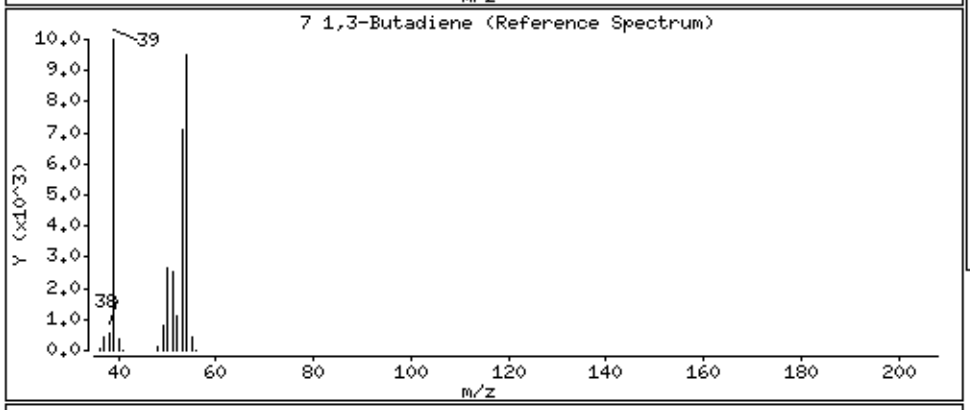
Concentration: 40.534 NG

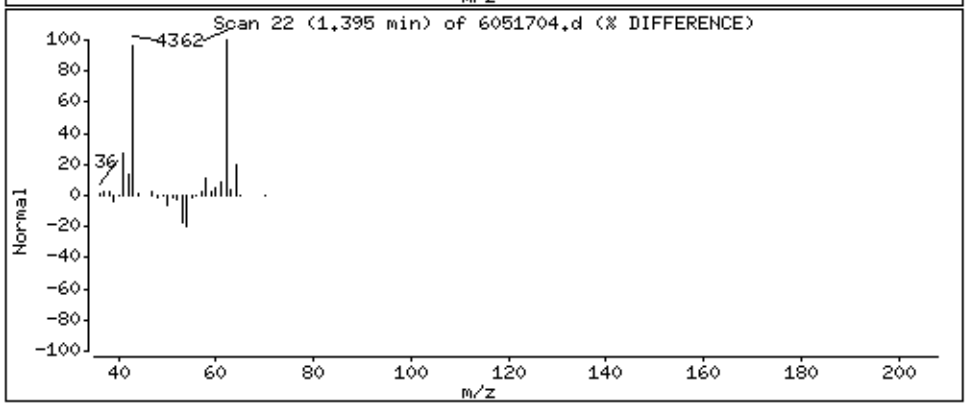












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

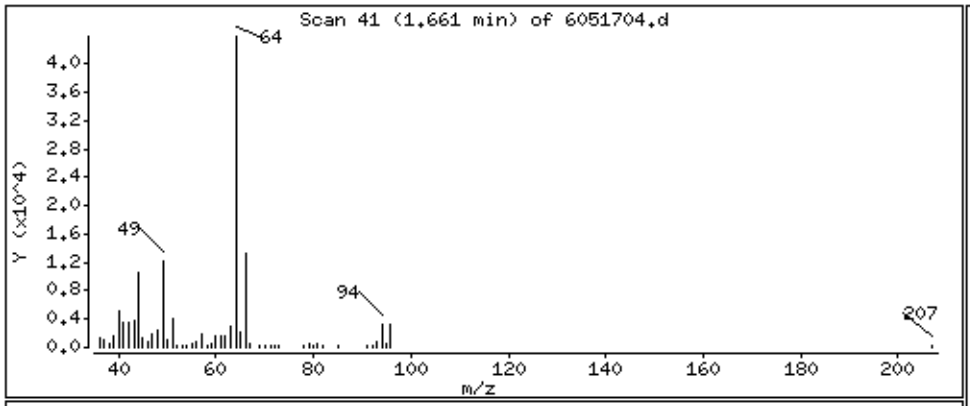
Operator: CT

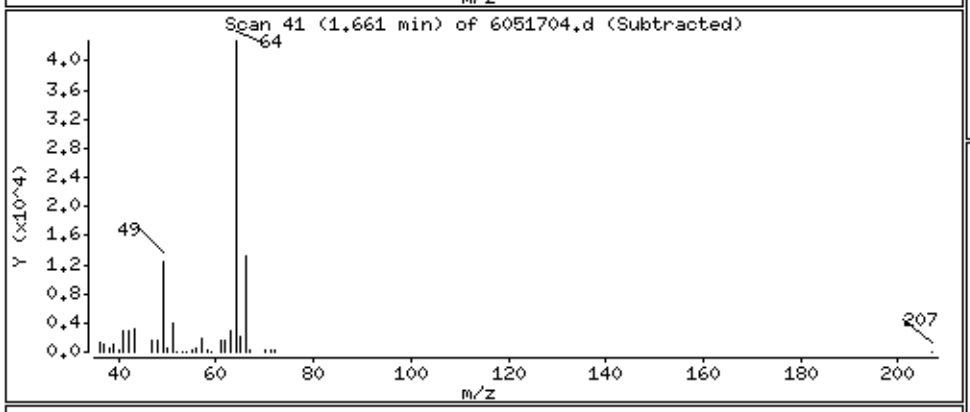
Column phase: RTx-624

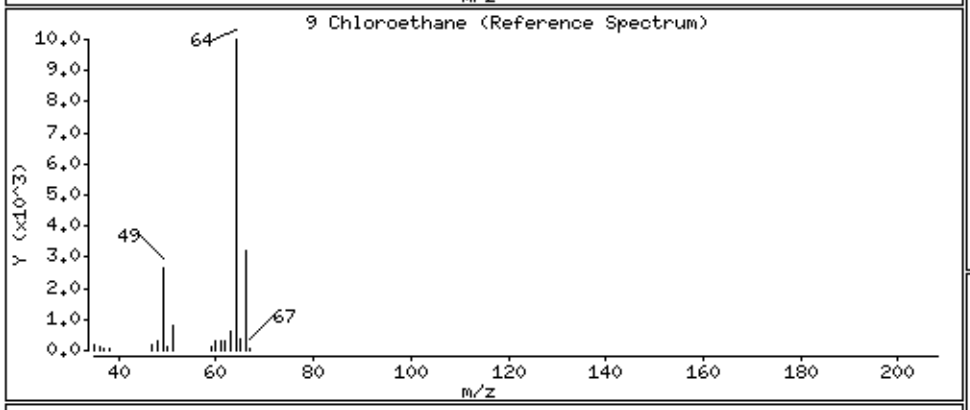
Column diameter: 0.53

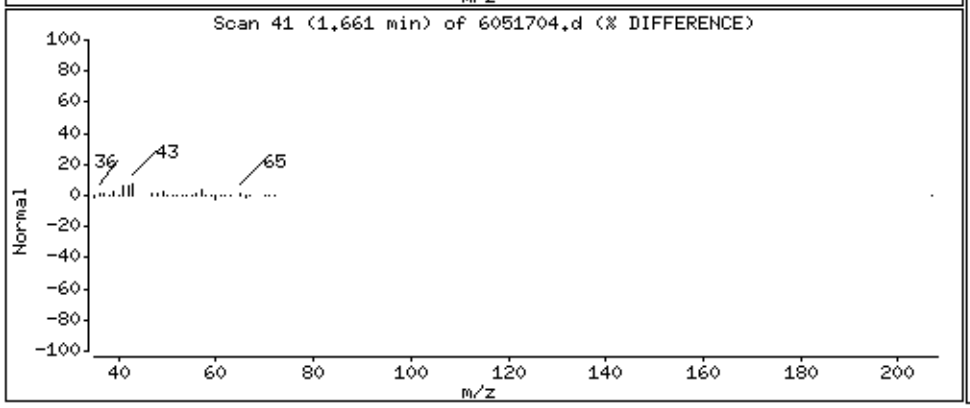
9 Chloroethane

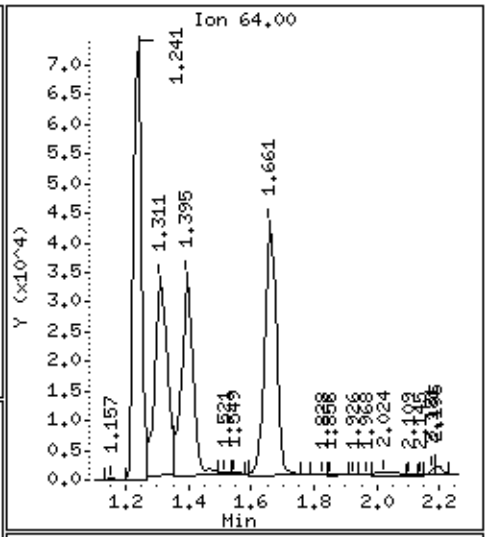
Concentration: 40.446 NG

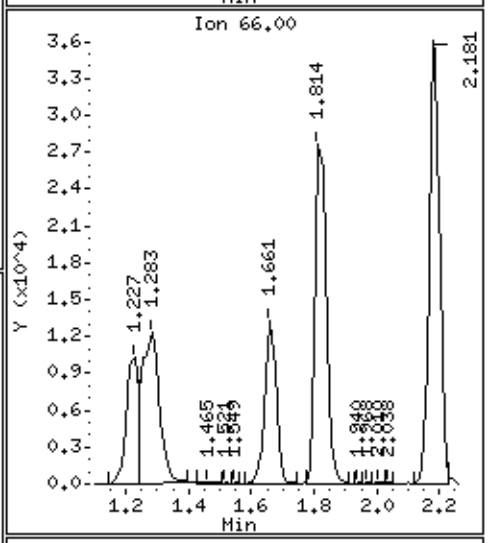


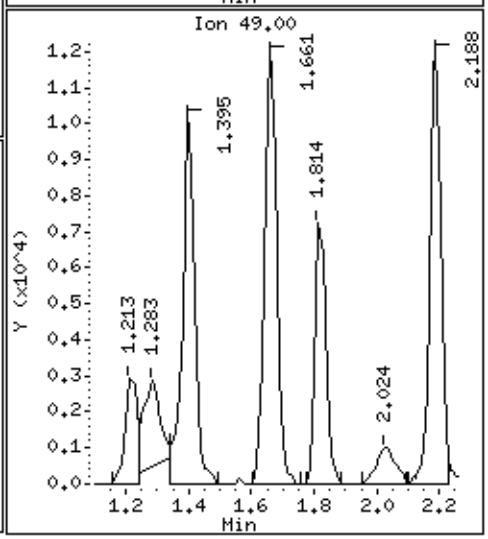












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

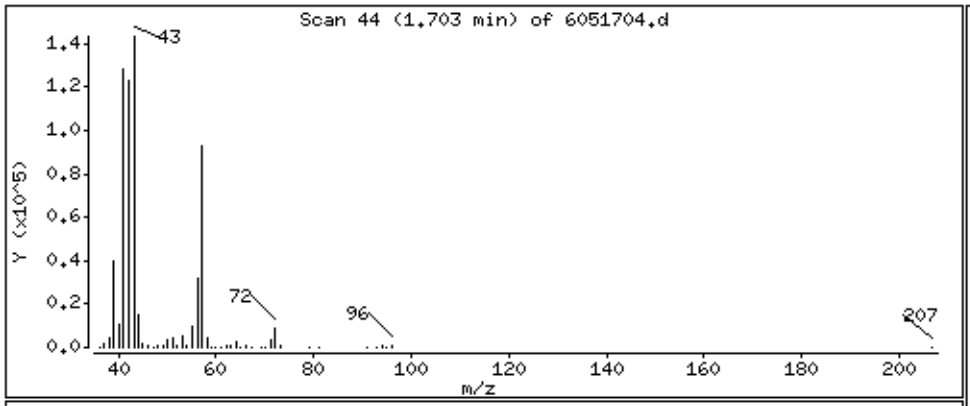
Operator: CT

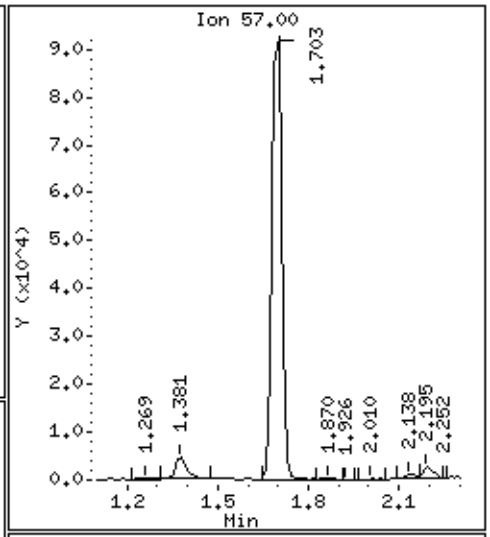
Column phase: RTx-624

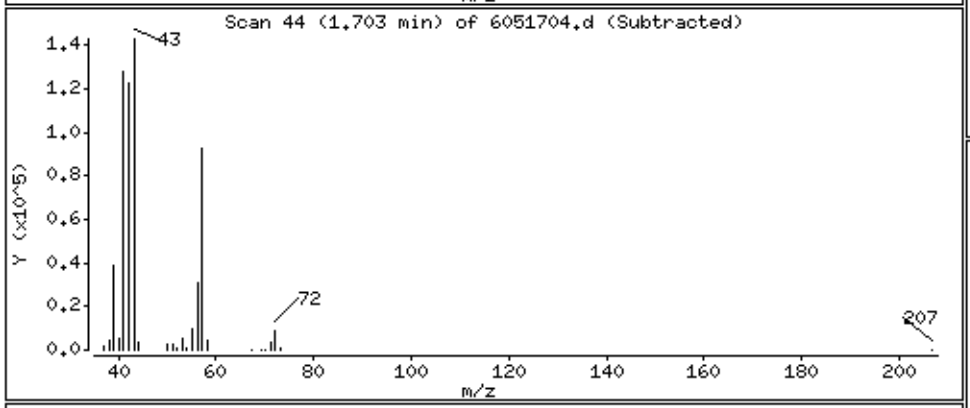
Column diameter: 0.53

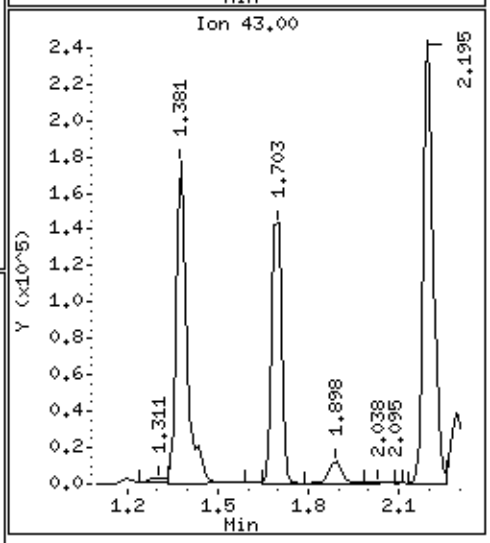
10 Isopentane

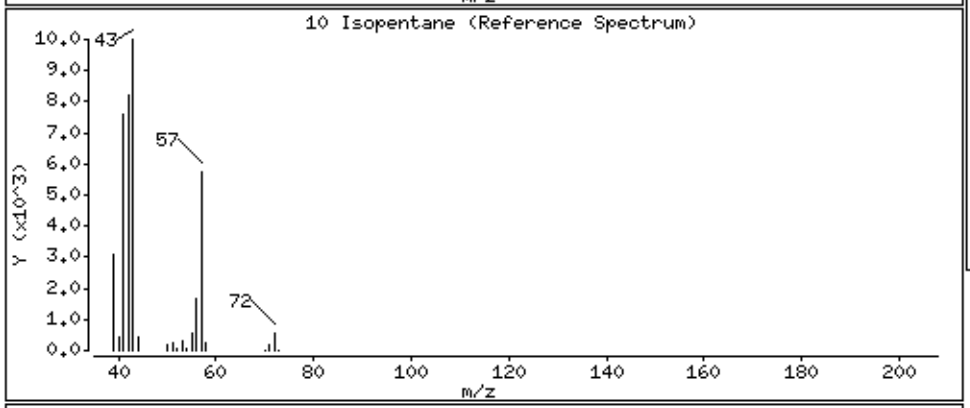
Concentration: 58.559 NG

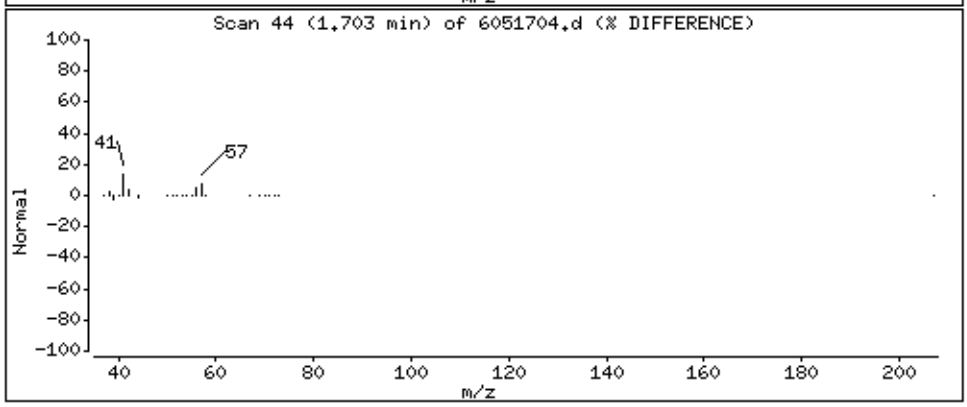












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

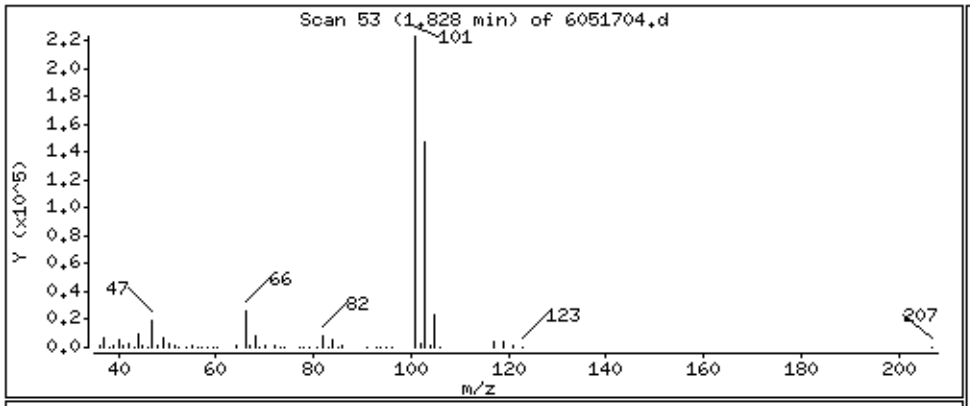
Operator: CT

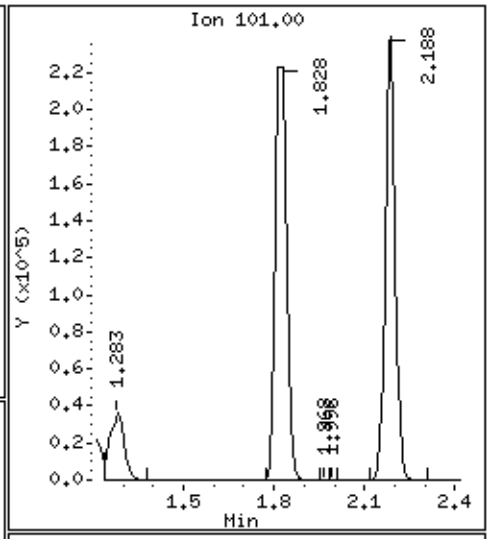
Column phase: RTx-624

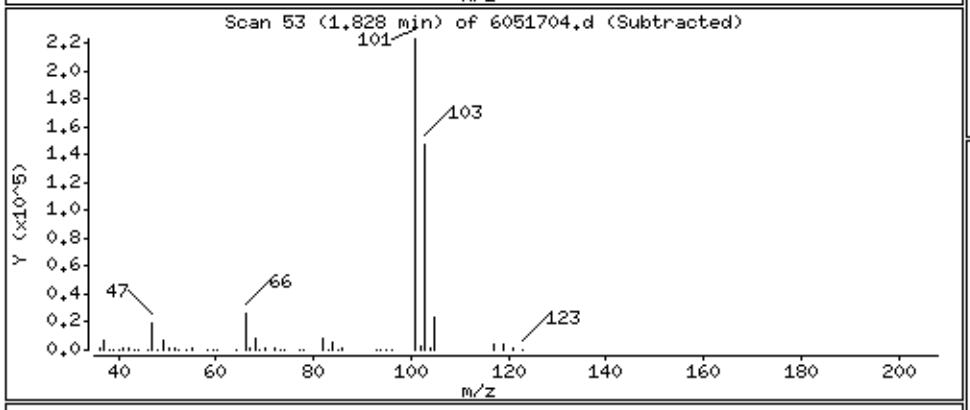
Column diameter: 0.53

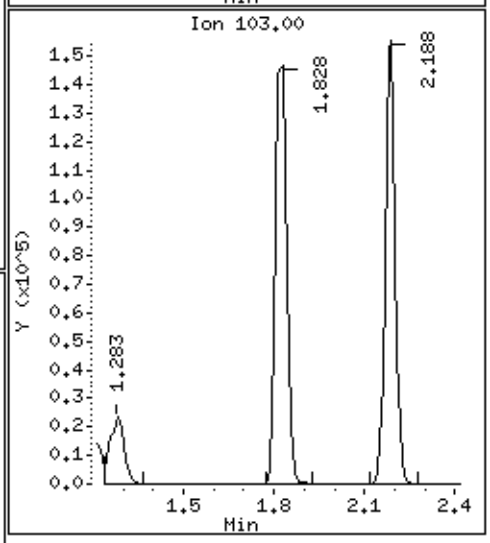
11 Trichlorofluoromethane/Fr11

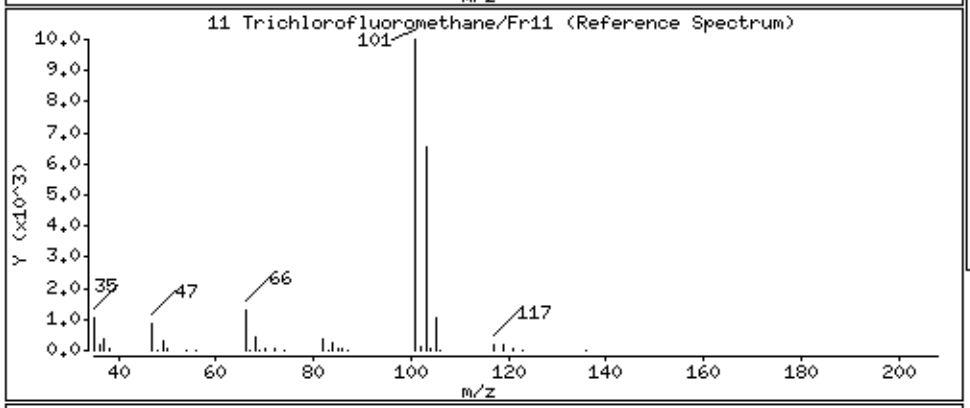
Concentration: 108.40 NG

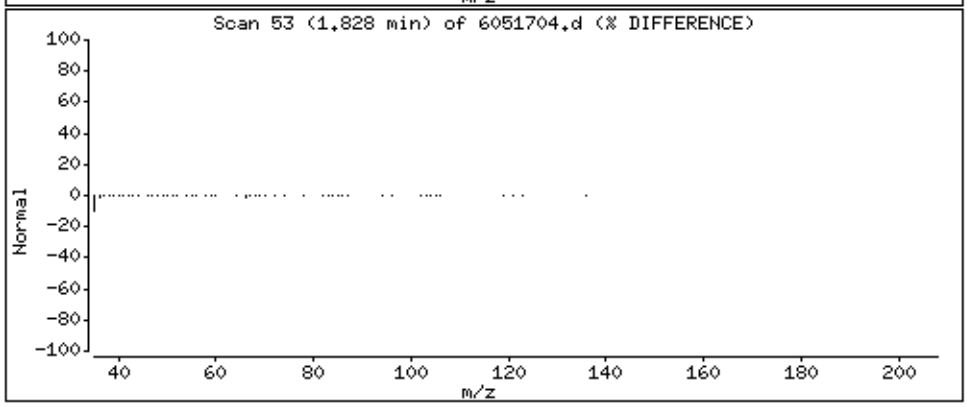












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

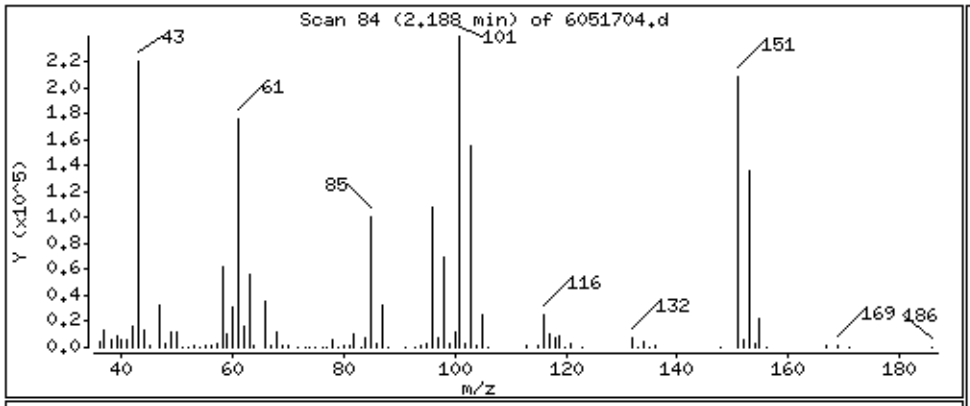
Operator: CT

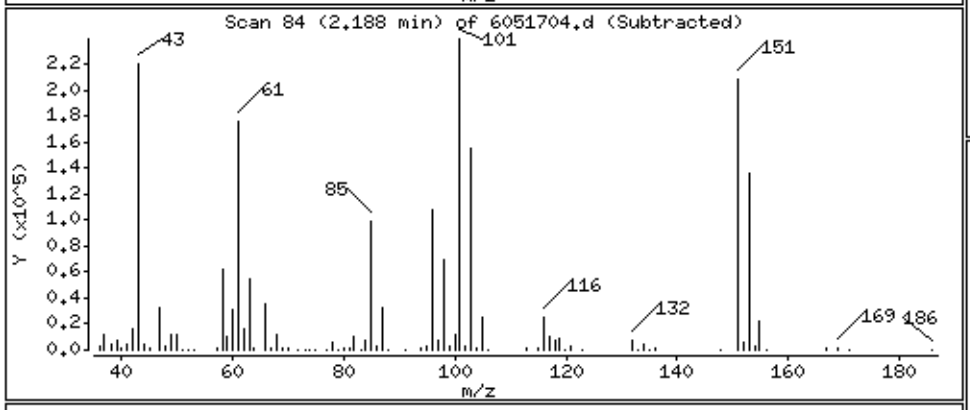
Column phase: RTx-624

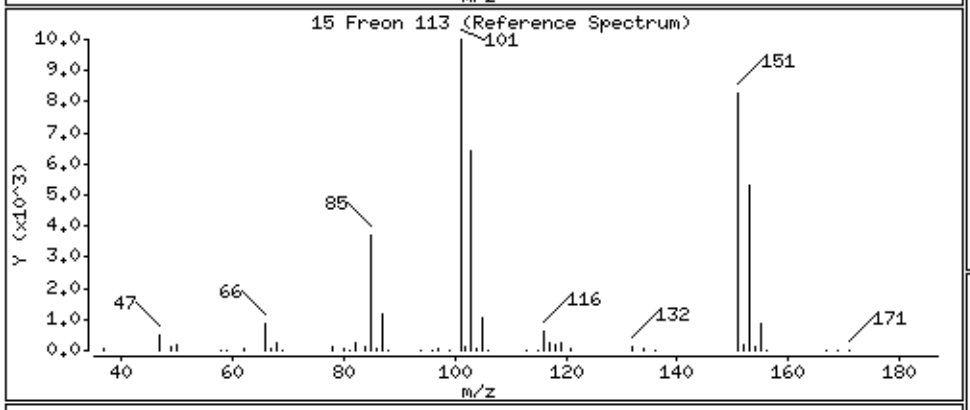
Column diameter: 0.53

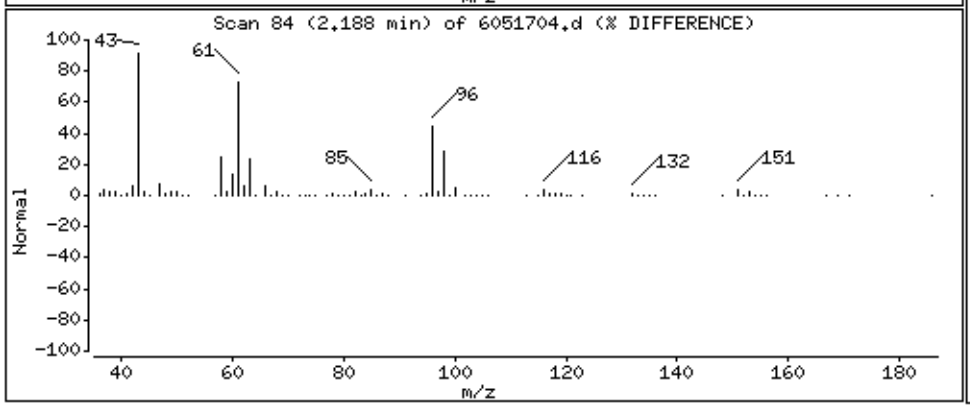
15 Freon 113

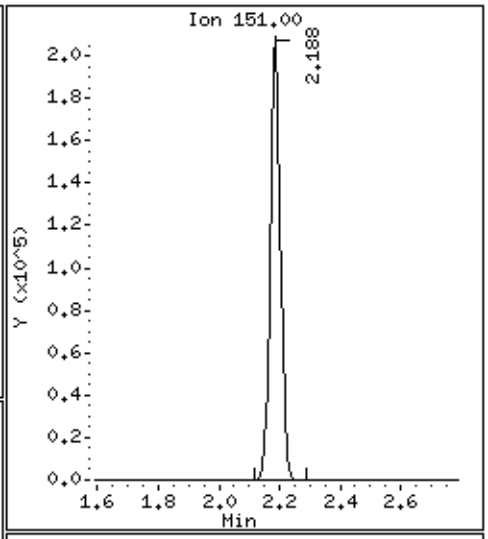
Concentration: 161.40 NG

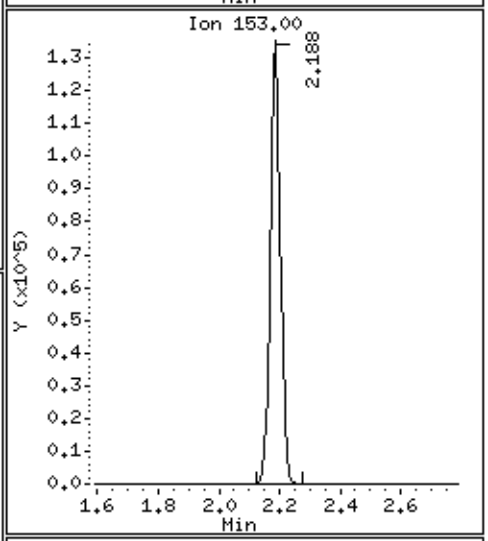


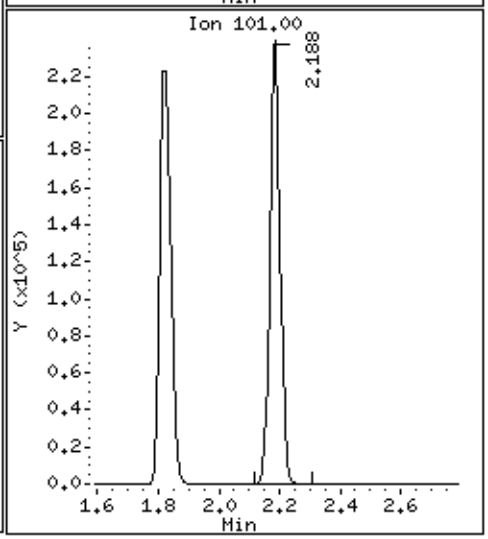












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

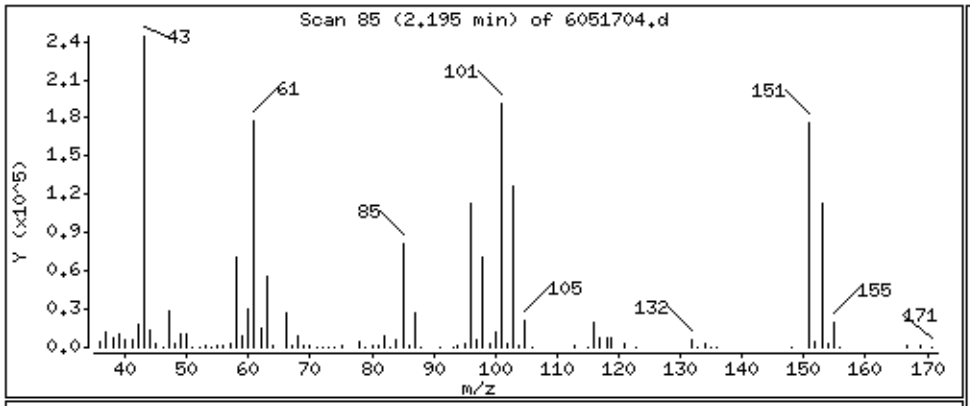
Operator: CT

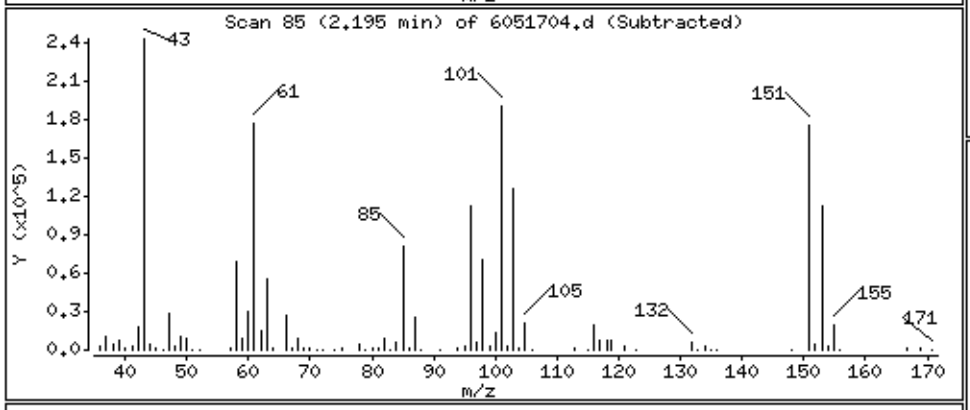
Column phase: RTx-624

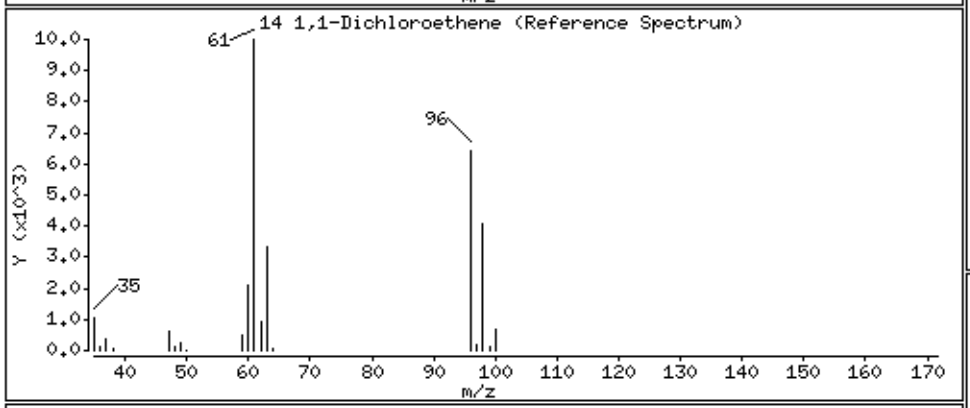
Column diameter: 0.53

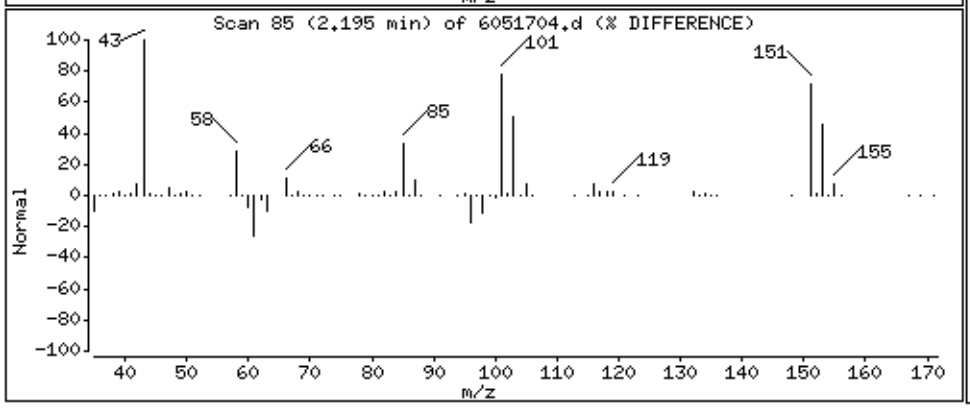
14 1,1-Dichloroethene

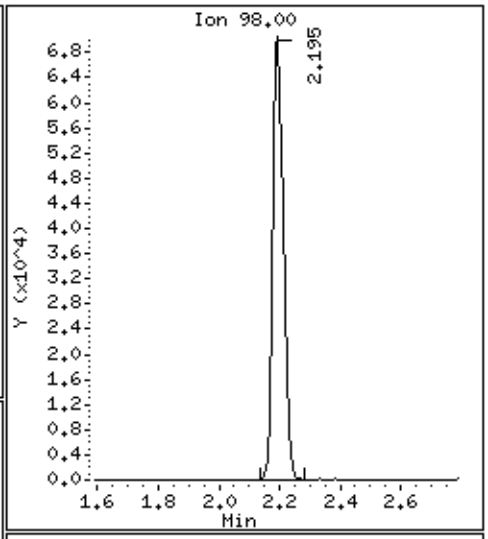
Concentration: 81.501 NG

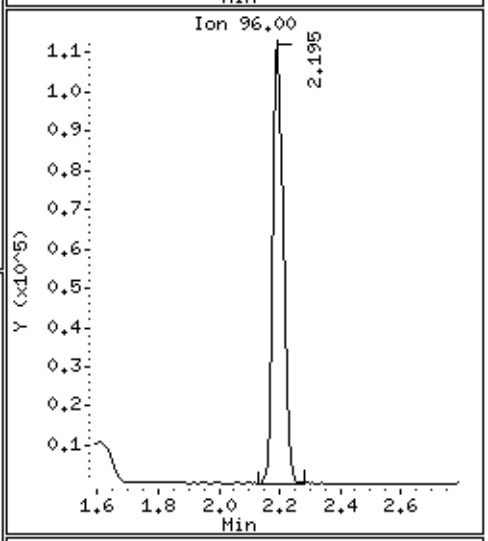


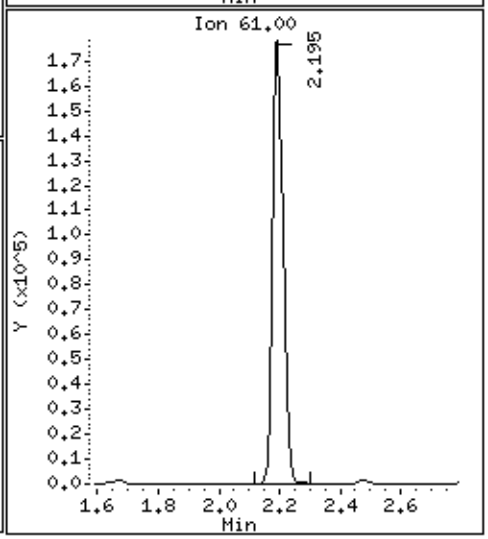












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

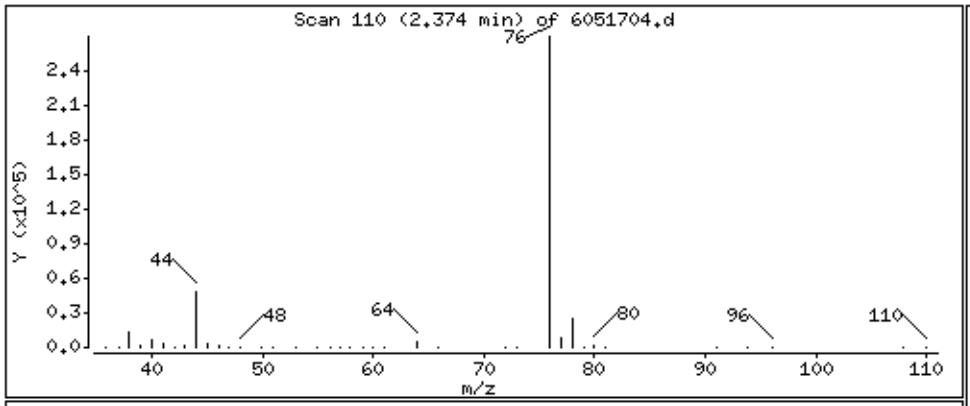
Operator: CT

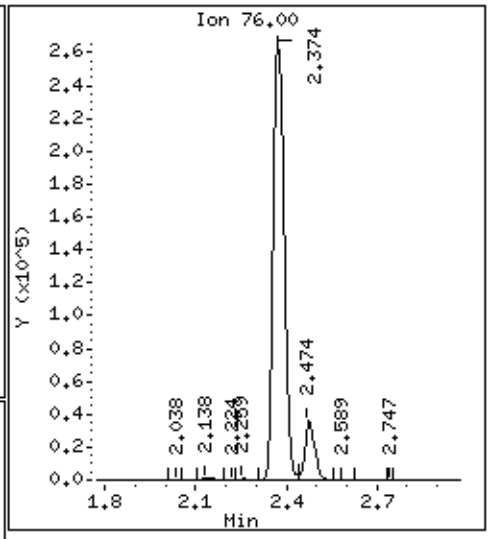
Column phase: RTx-624

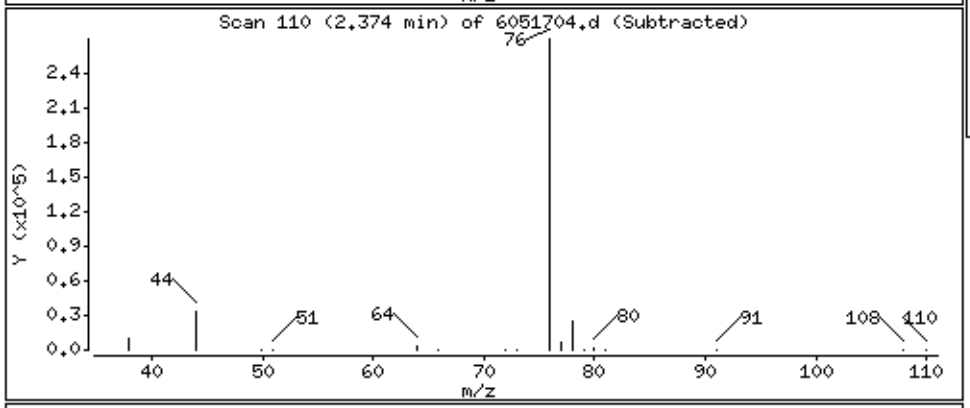
Column diameter: 0.53

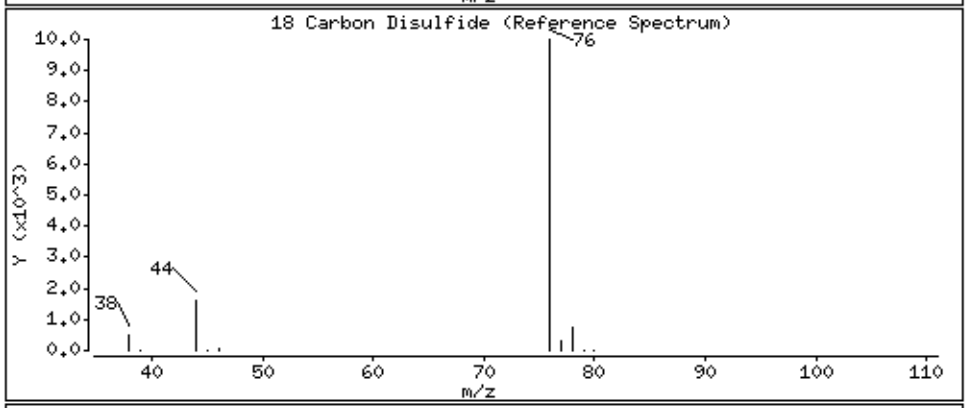
18 Carbon Disulfide

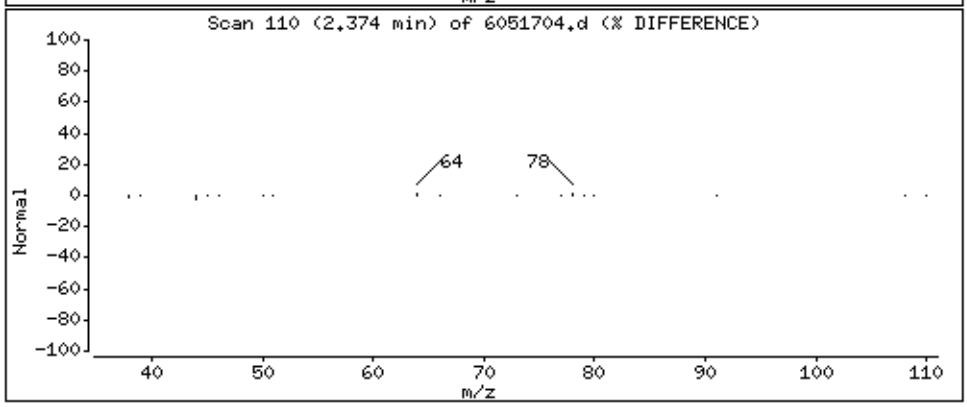
Concentration: 52.772 NG











Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

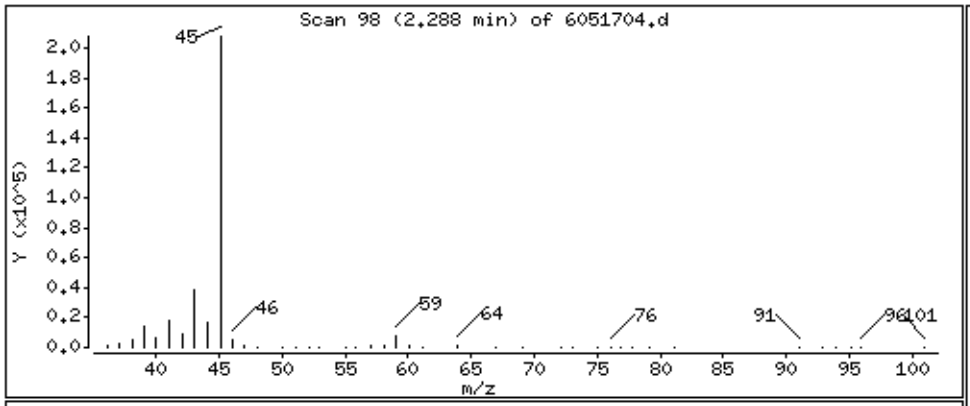
Operator: CT

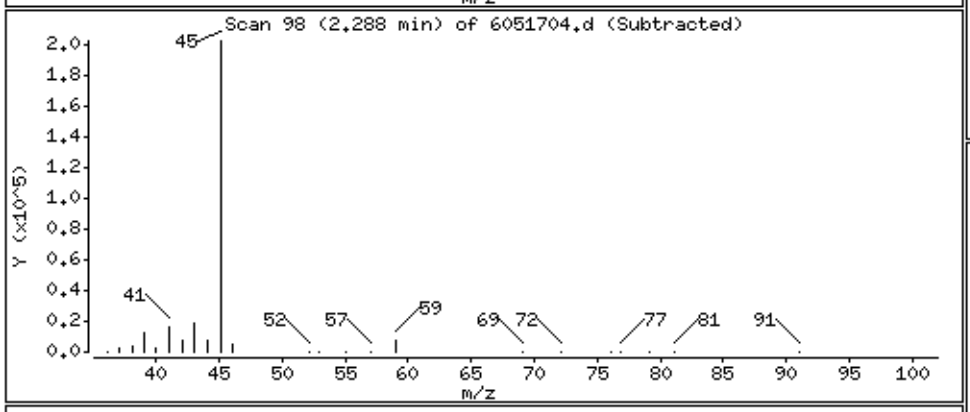
Column phase: RTx-624

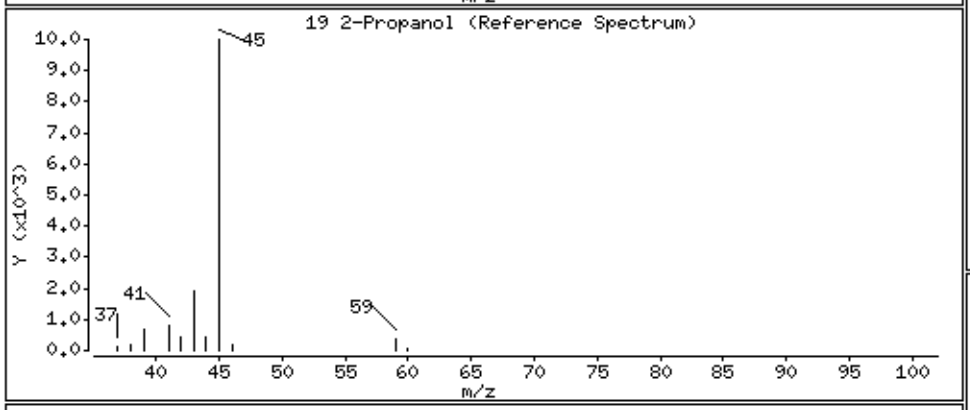
Column diameter: 0.53

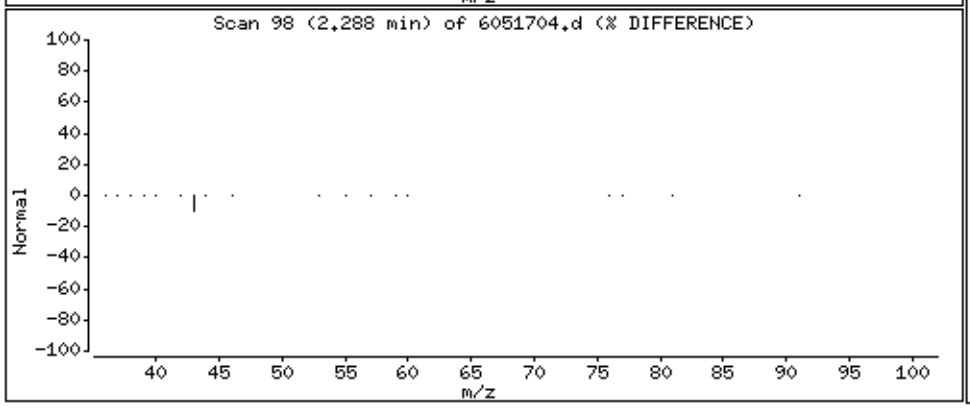
19 2-Propanol

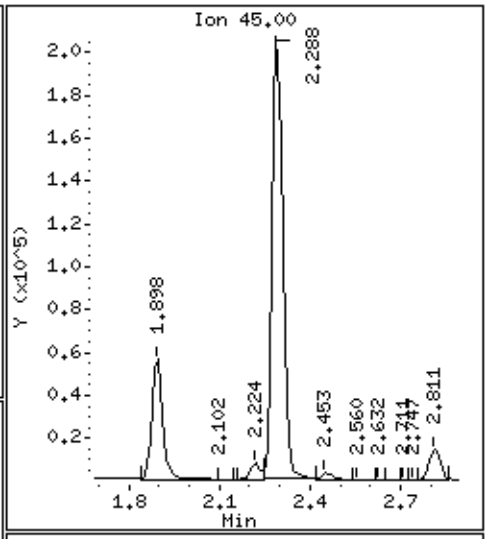
Concentration: 43.622 NG

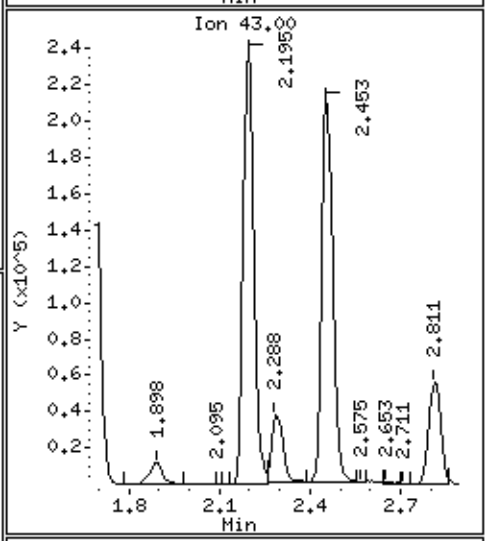


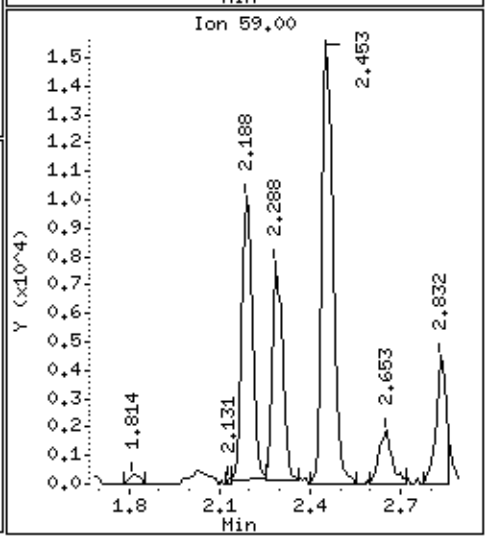












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

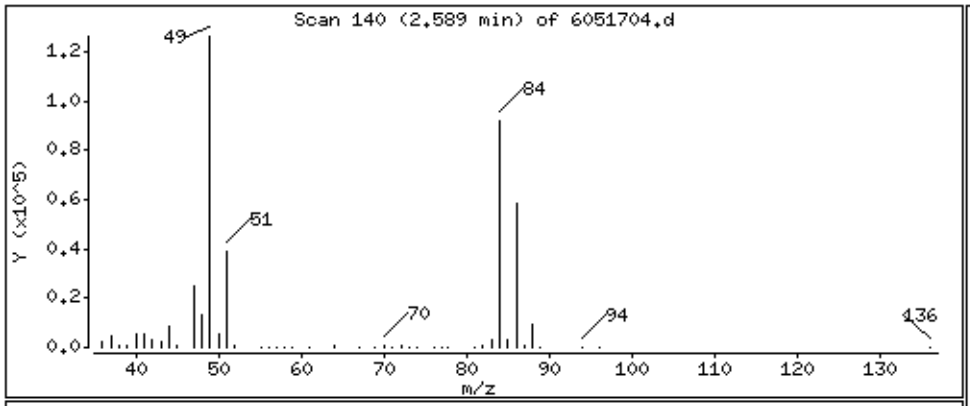
Operator: CT

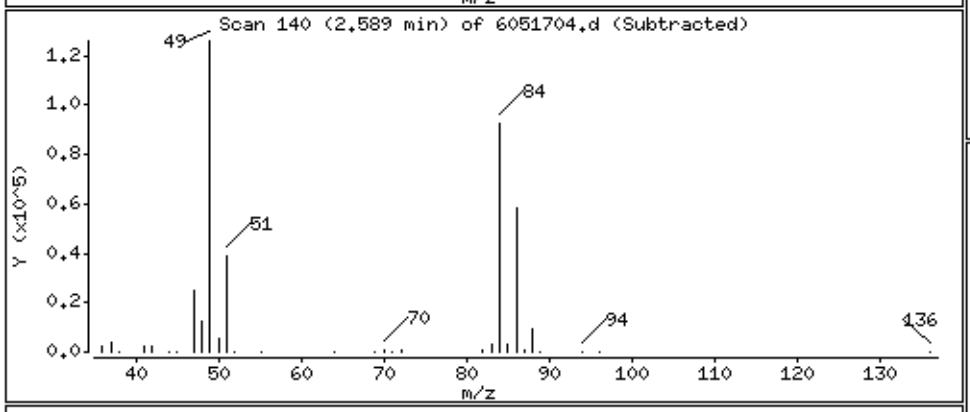
Column phase: RTx-624

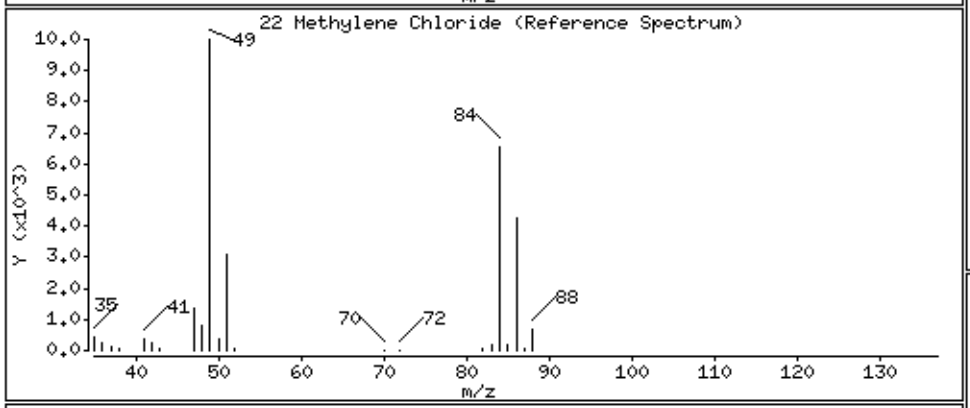
Column diameter: 0.53

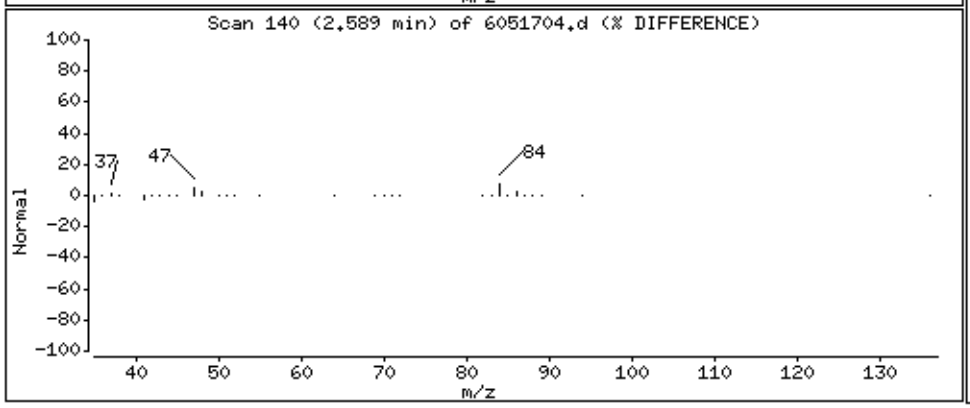
22 Methylene Chloride

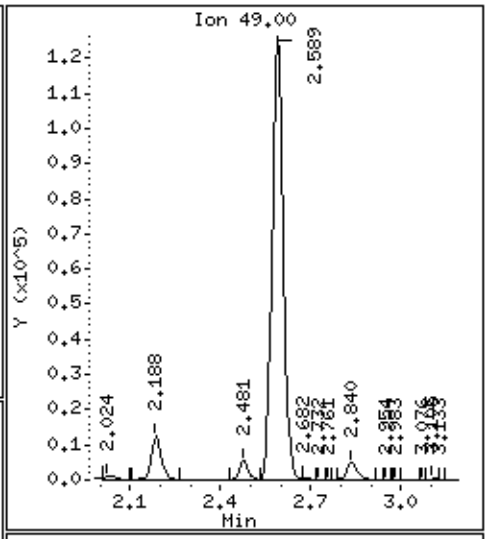
Concentration: 63.918 NG

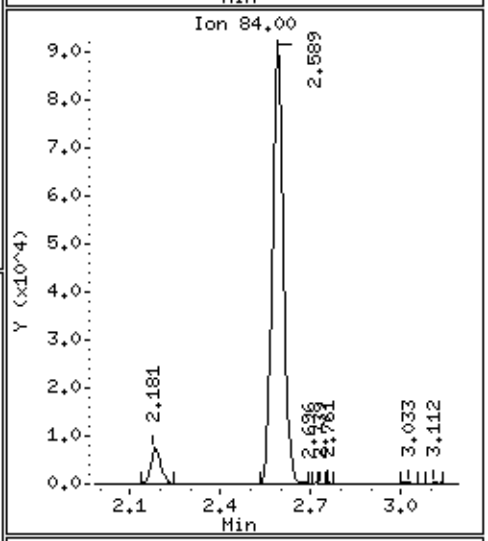


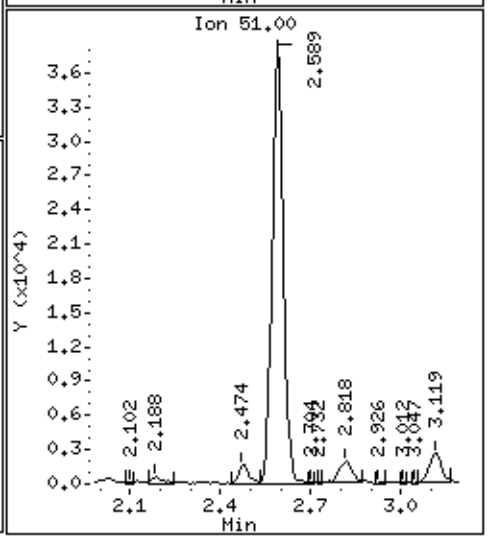












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

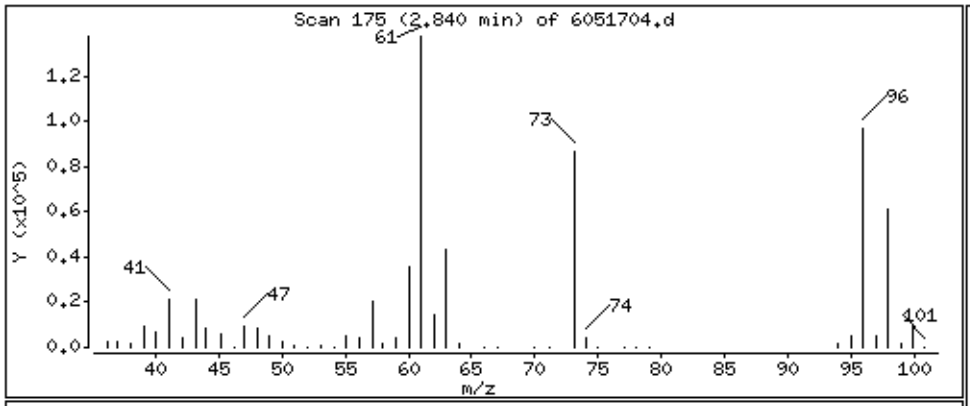
Operator: CT

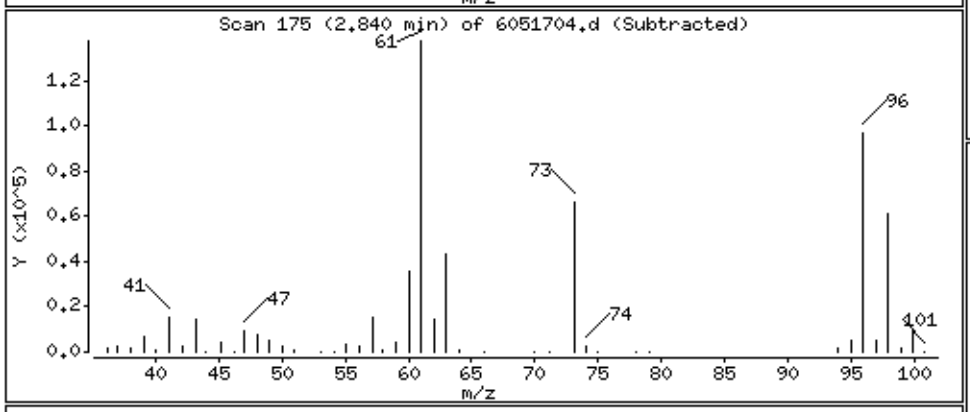
Column phase: RTx-624

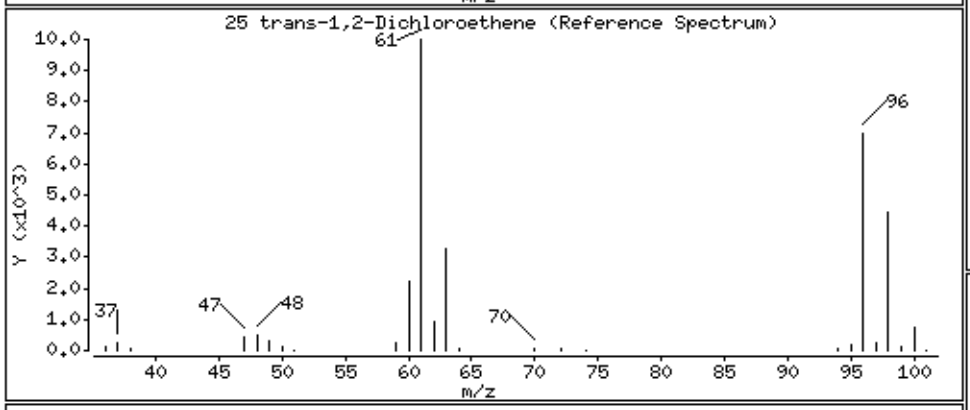
Column diameter: 0.53

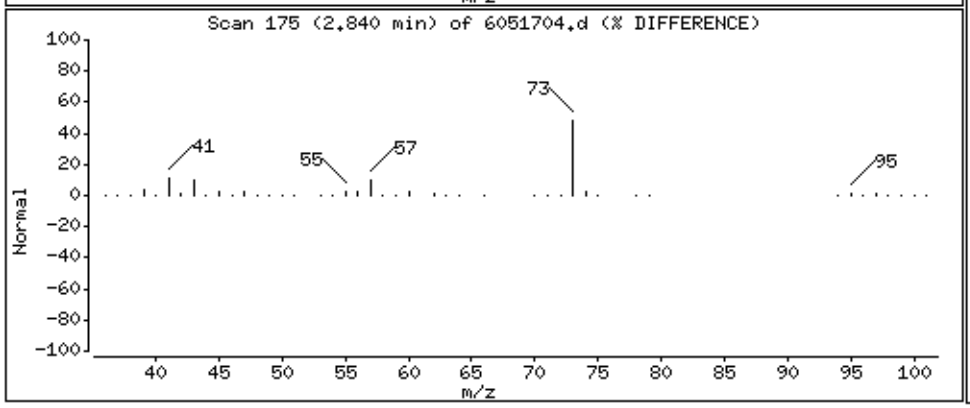
25 trans-1,2-Dichloroethene

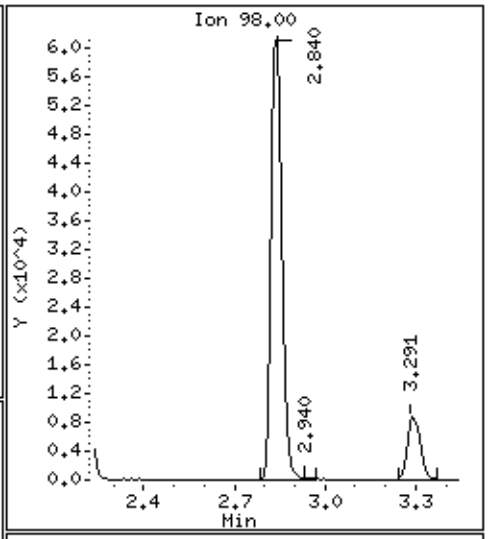
Concentration: 69.860 NG

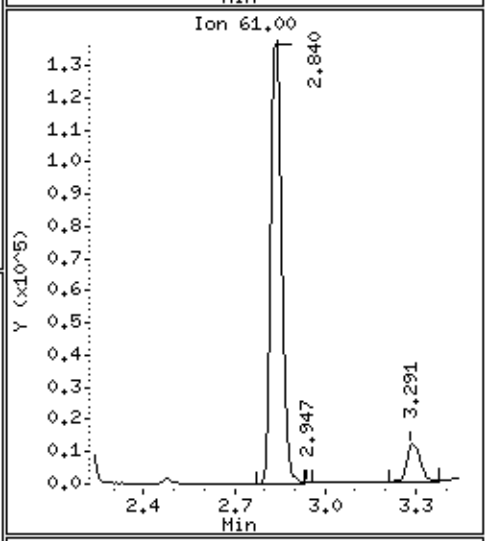


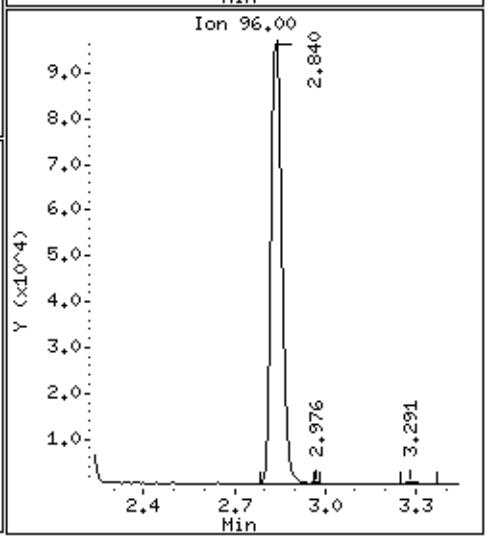












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

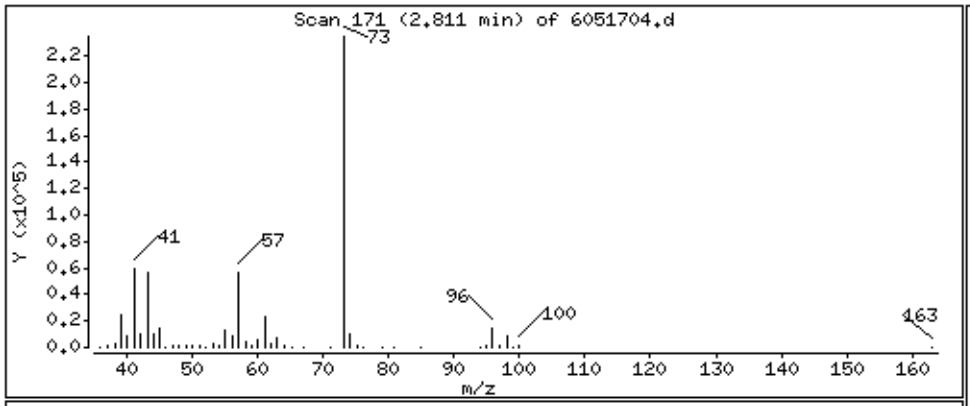
Operator: CT

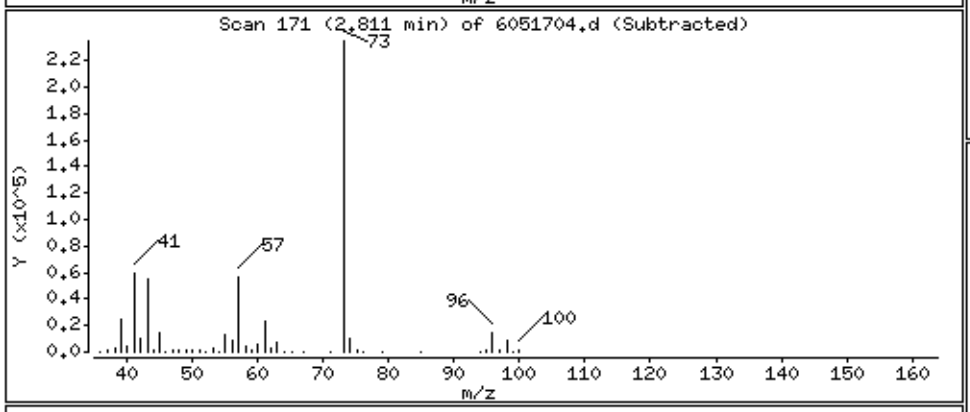
Column phase: RTx-624

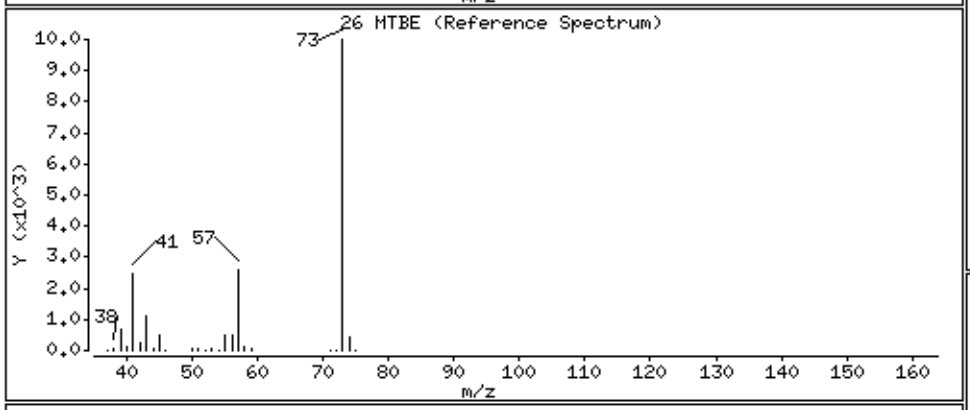
Column diameter: 0.53

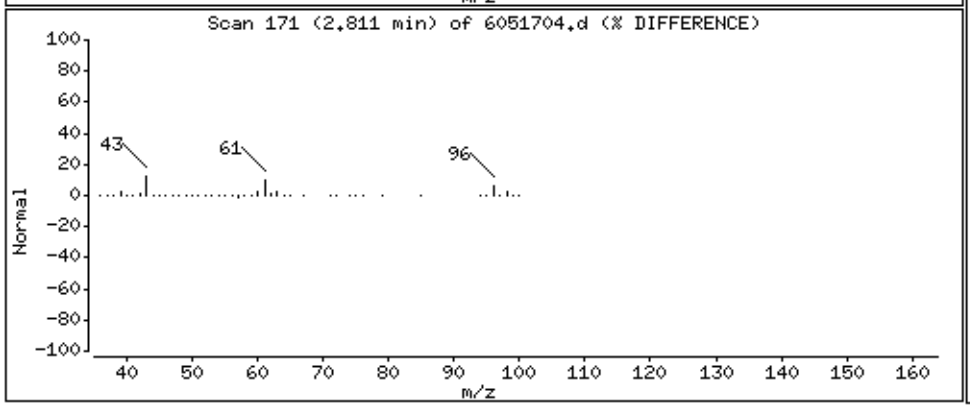
26 MTBE

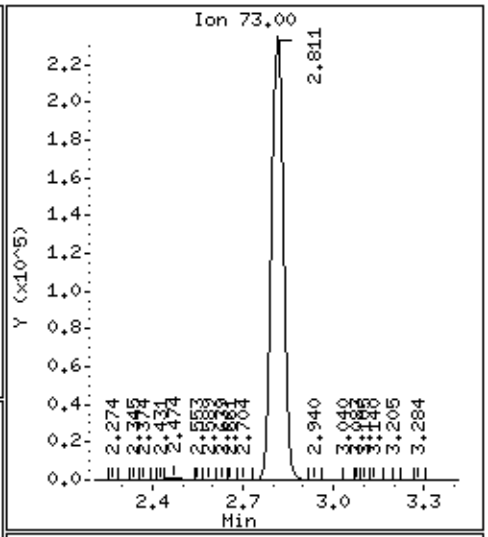
Concentration: 72.424 NG

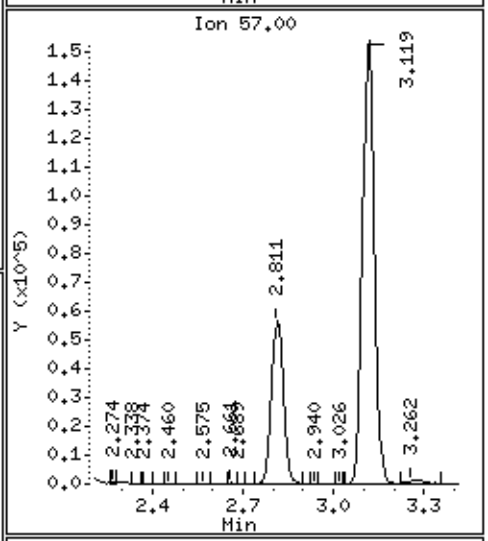


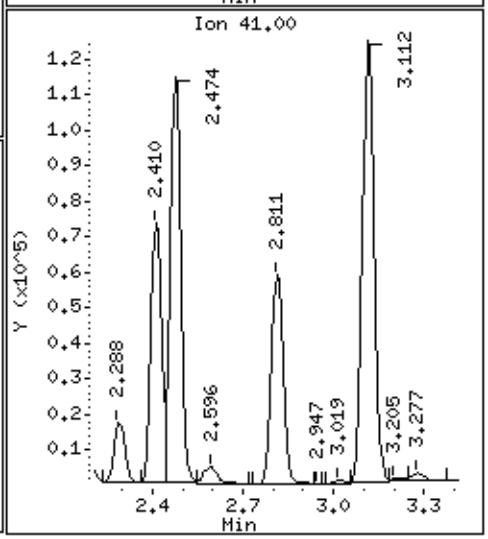












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

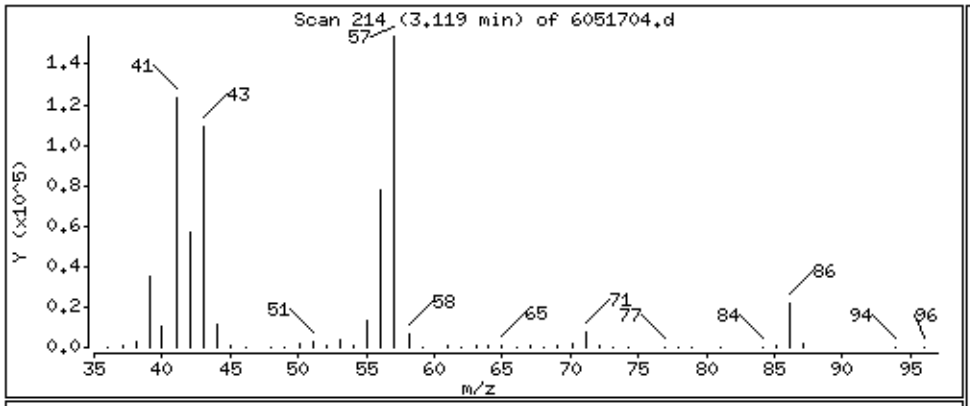
Operator: CT

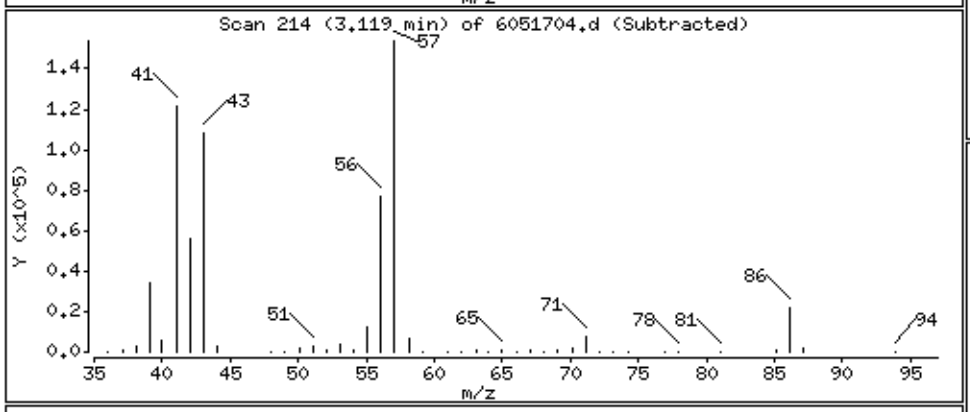
Column phase: RTx-624

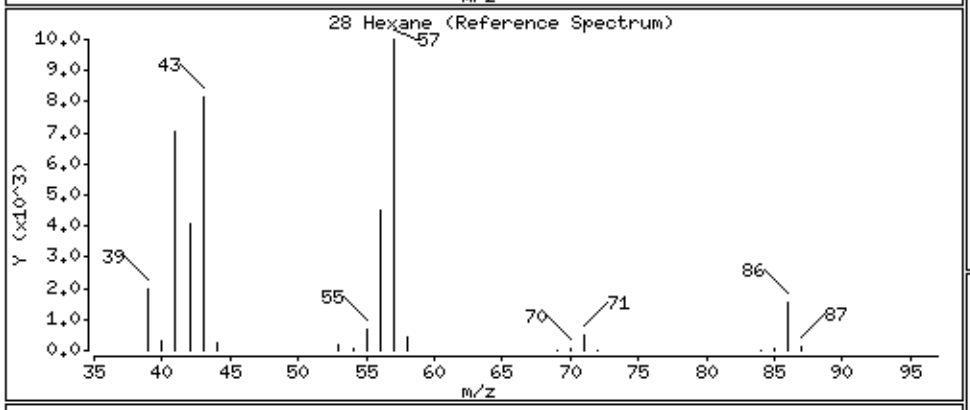
Column diameter: 0.53

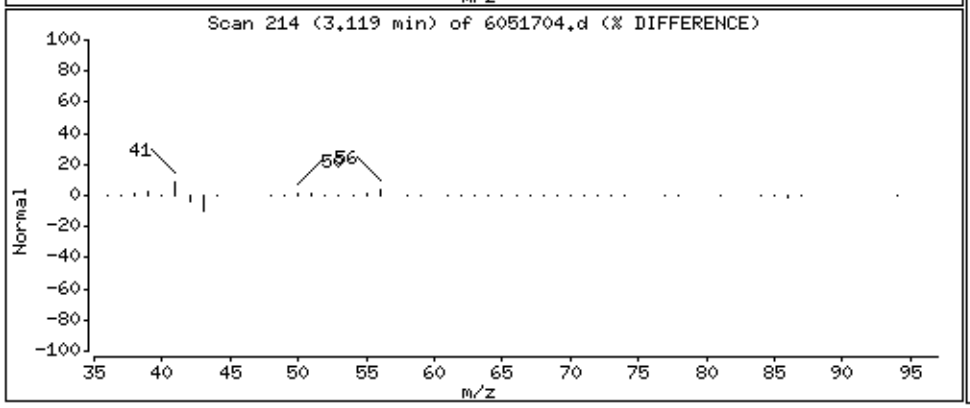
28 Hexane

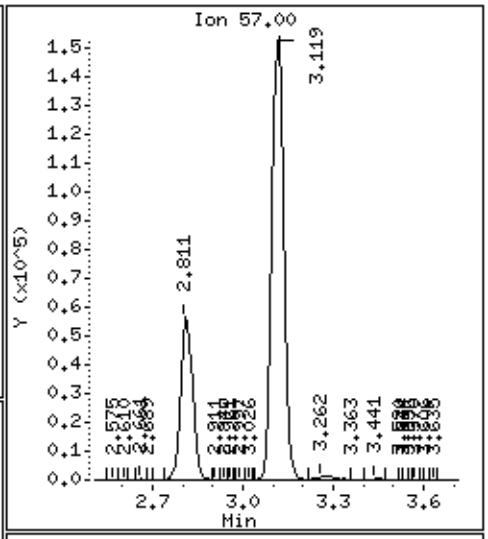
Concentration: 67.908 NG

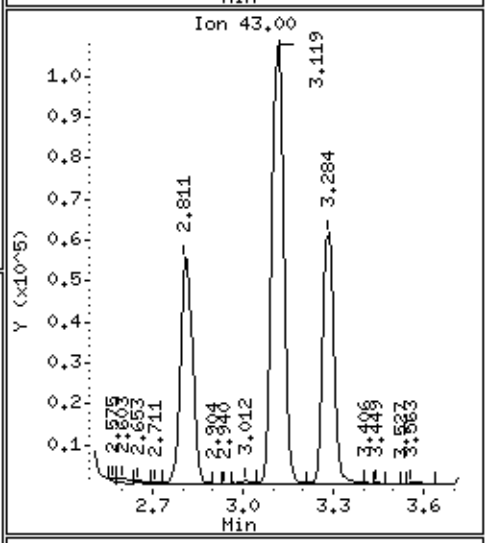


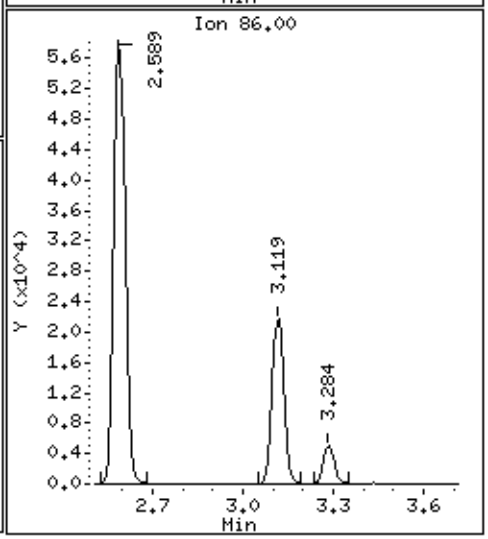












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

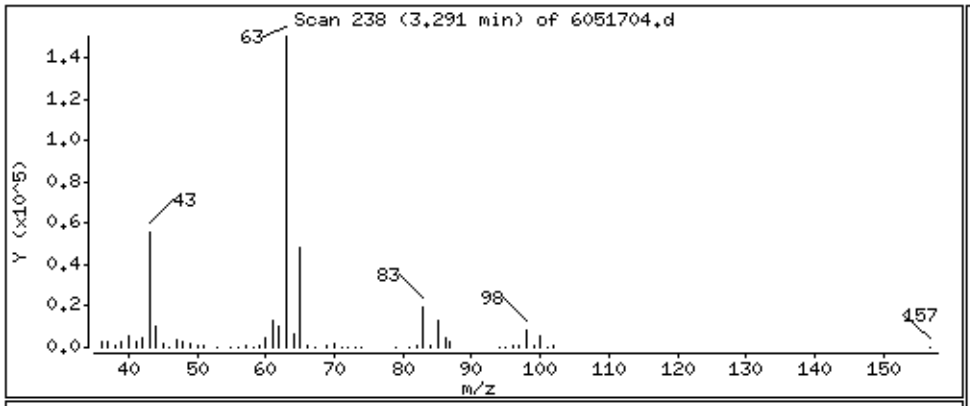
Operator: CT

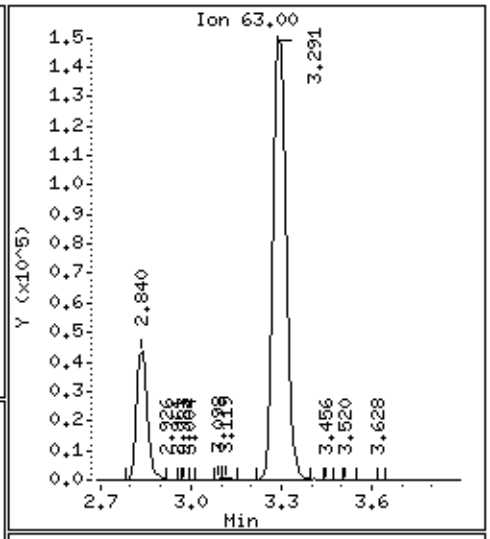
Column phase: RTx-624

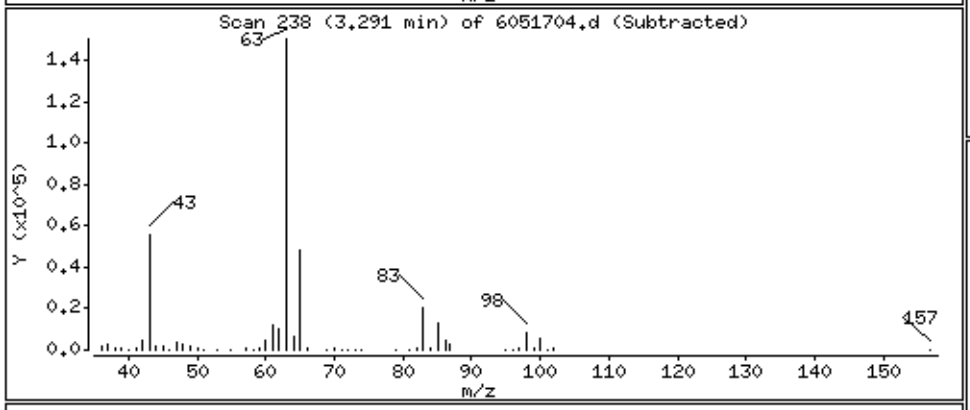
Column diameter: 0.53

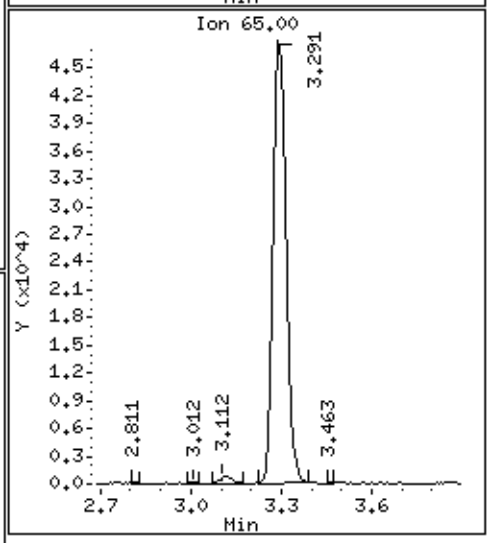
29 1,1-Dichloroethane

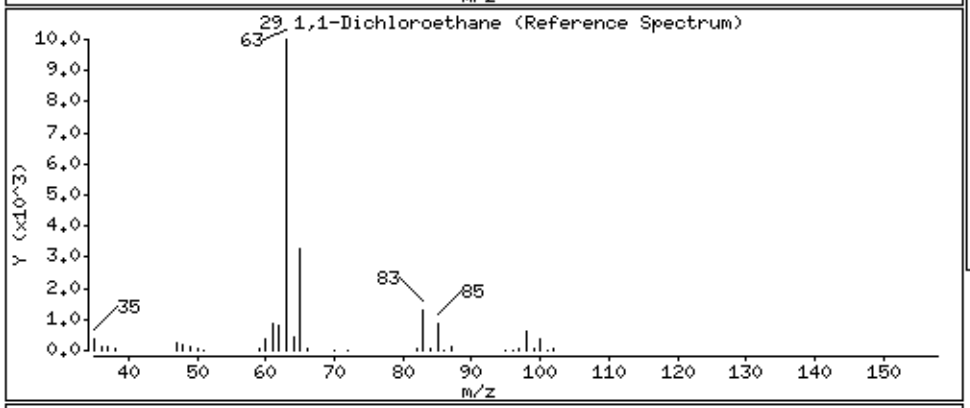
Concentration: 79.241 NG

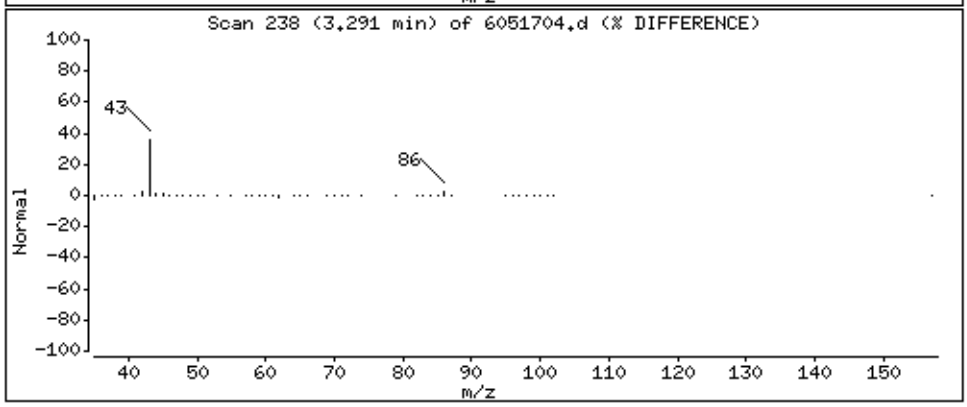












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

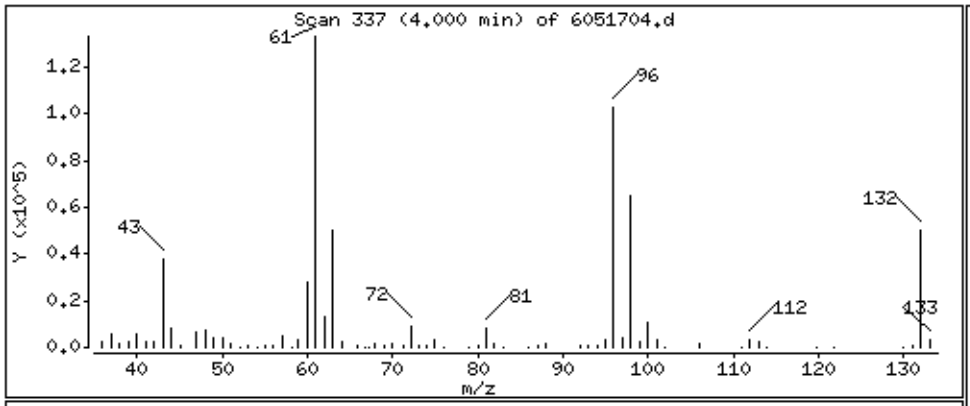
Operator: CT

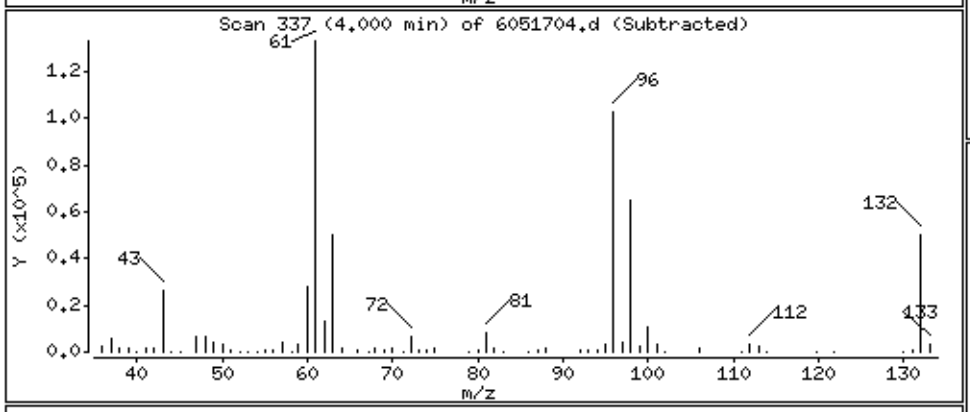
Column phase: RTx-624

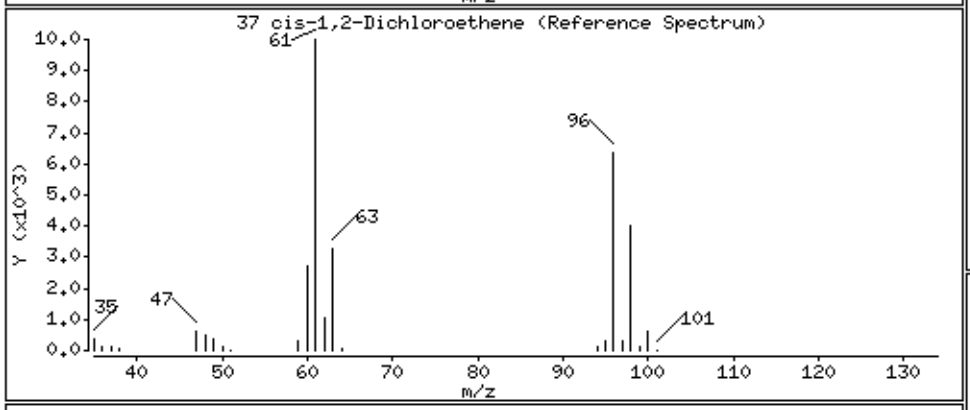
Column diameter: 0.53

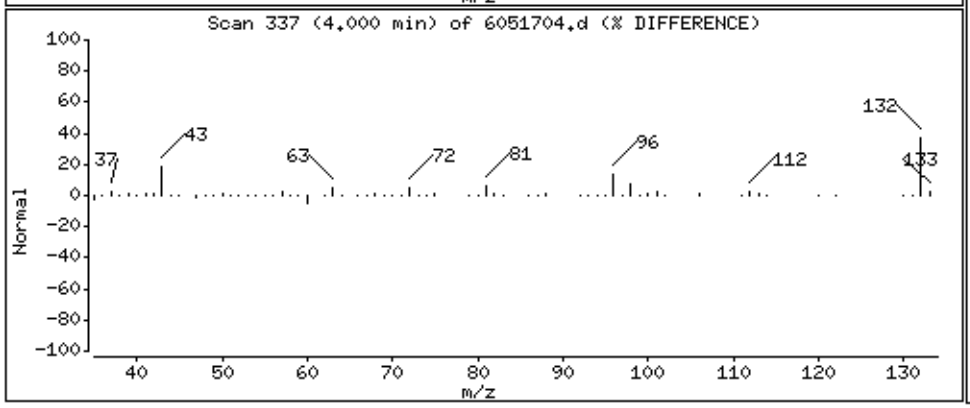
37 cis-1,2-Dichloroethene

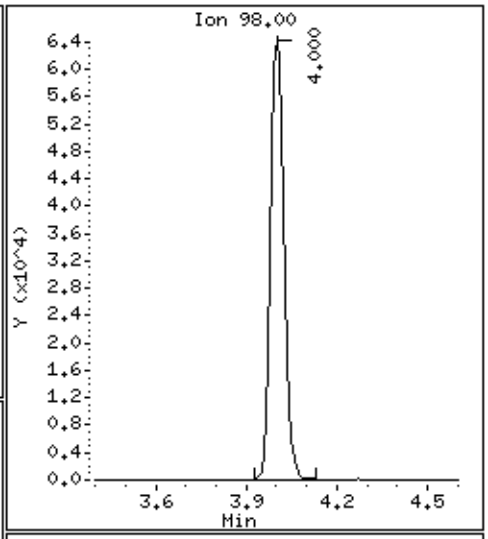
Concentration: 87.747 NG

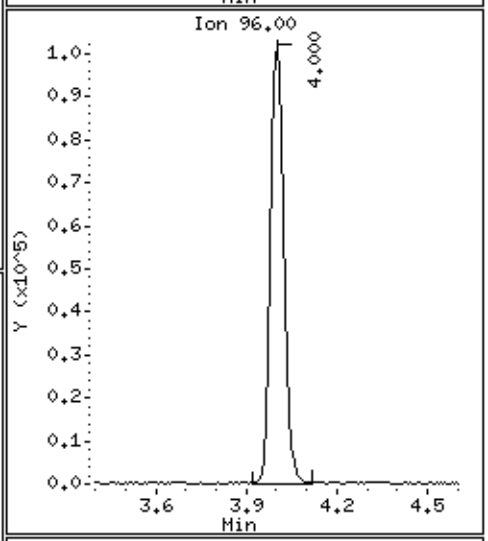


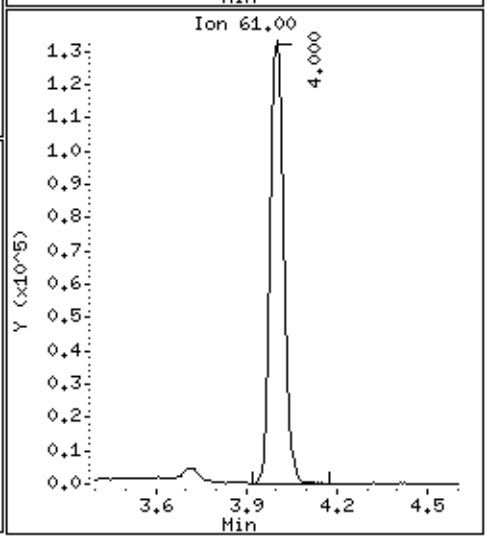












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

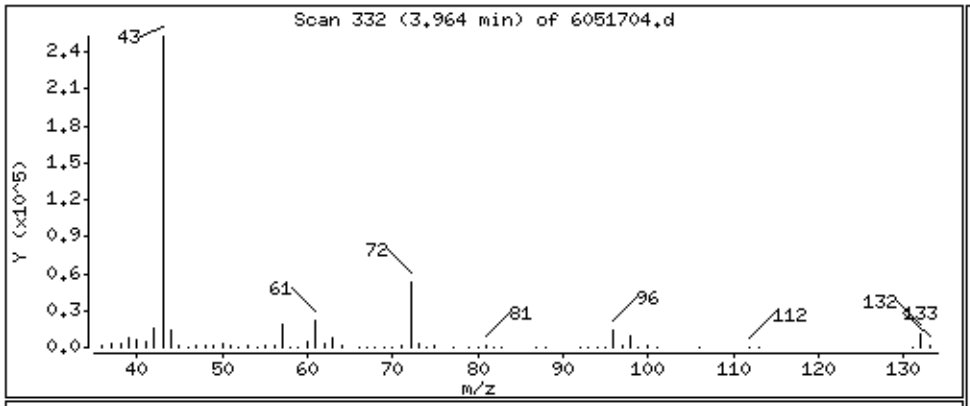
Operator: CT

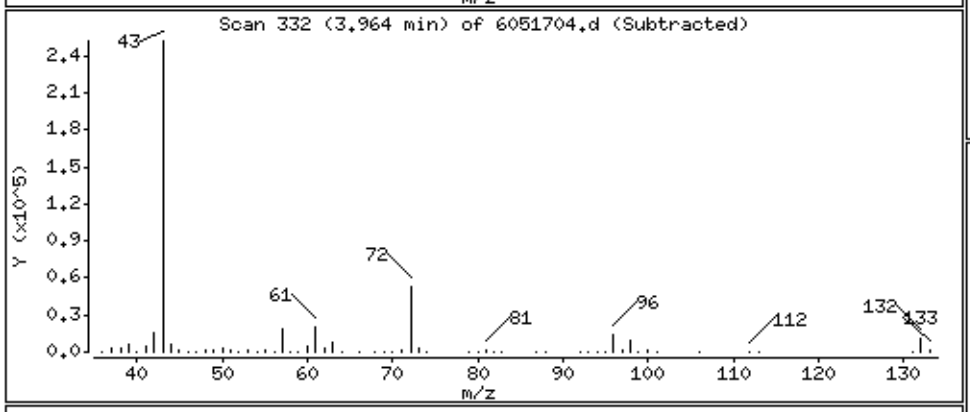
Column phase: RTx-624

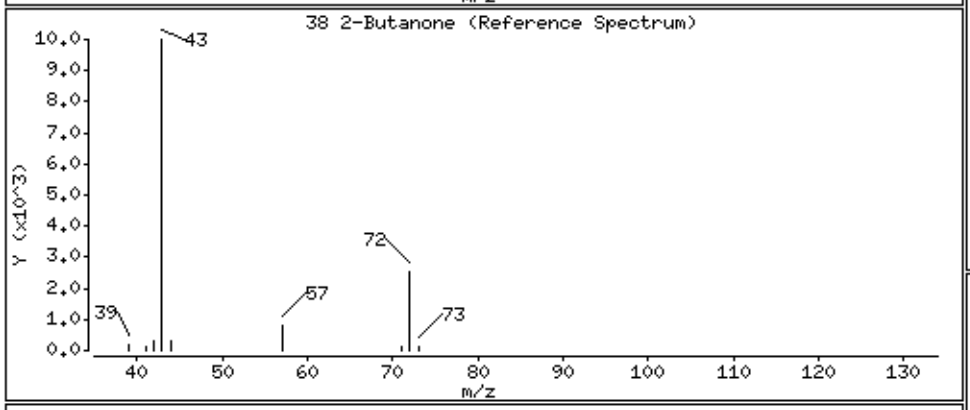
Column diameter: 0.53

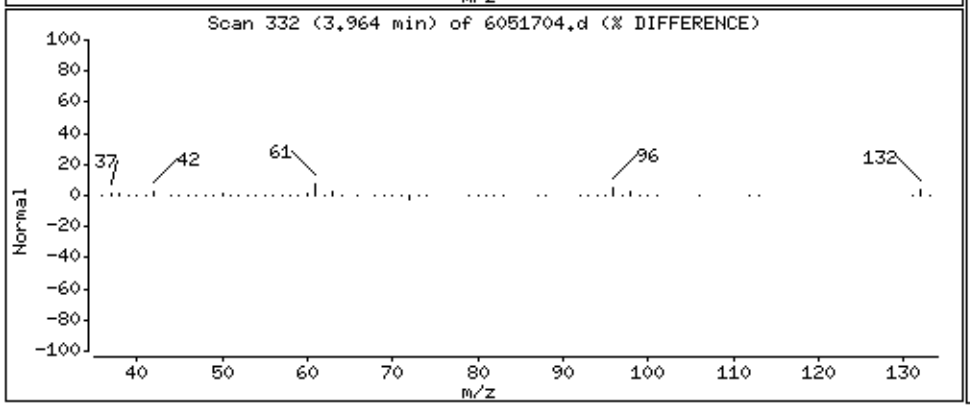
38 2-Butanone

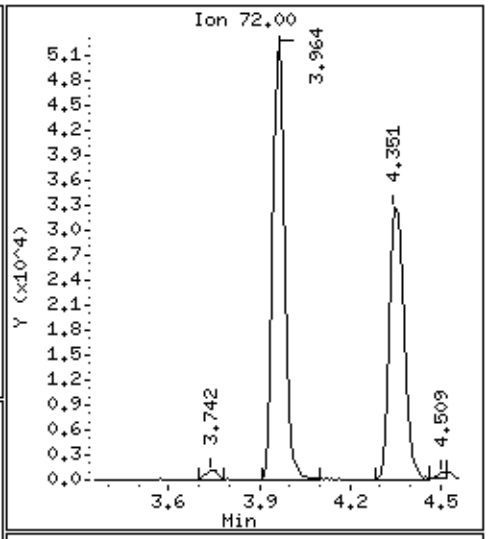
Concentration: 62.347 NG

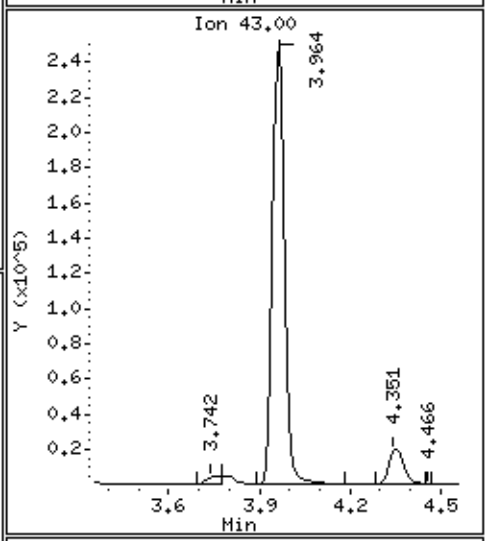


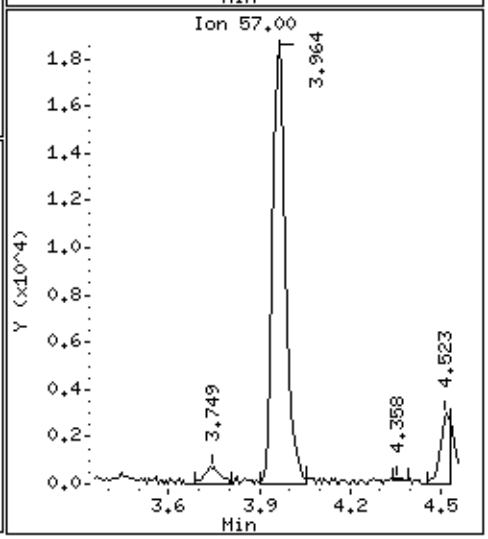












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

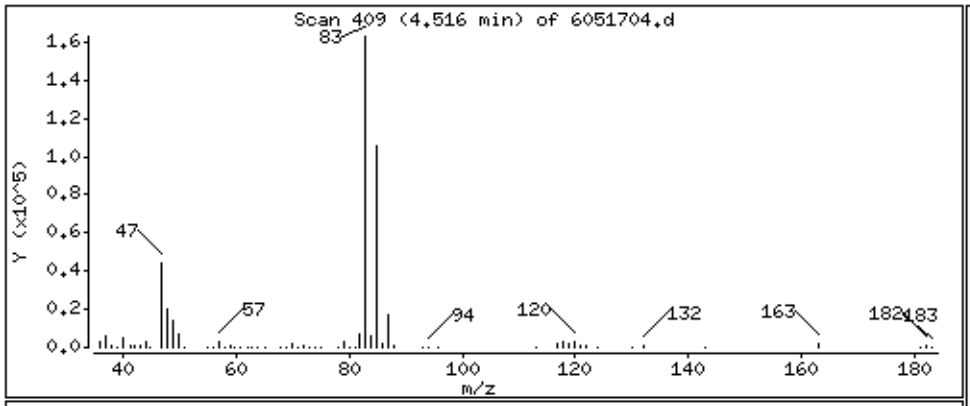
Operator: CT

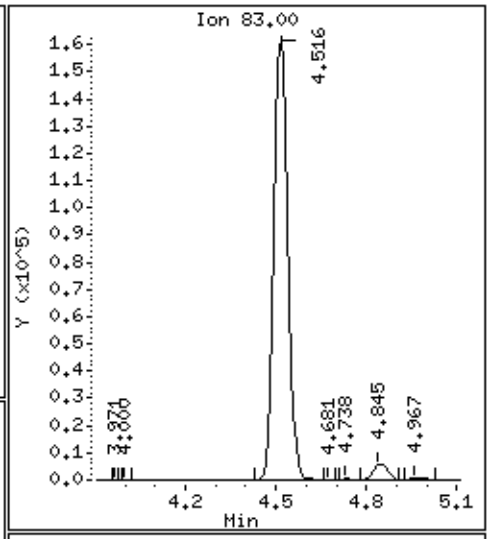
Column phase: RTx-624

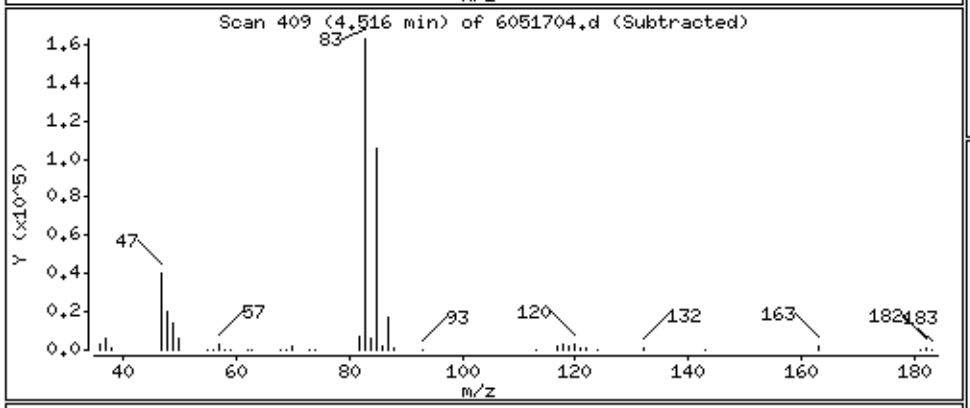
Column diameter: 0.53

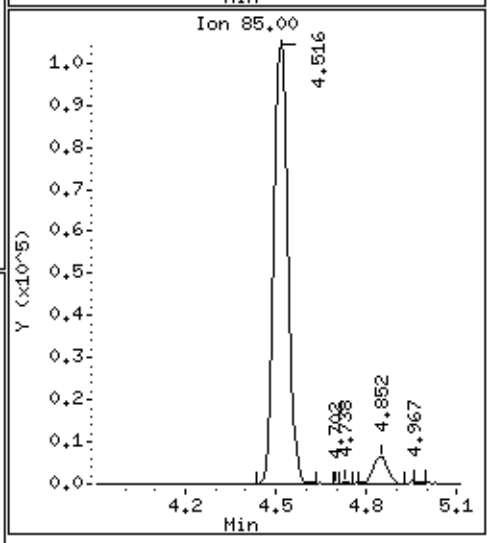
44 Chloroform

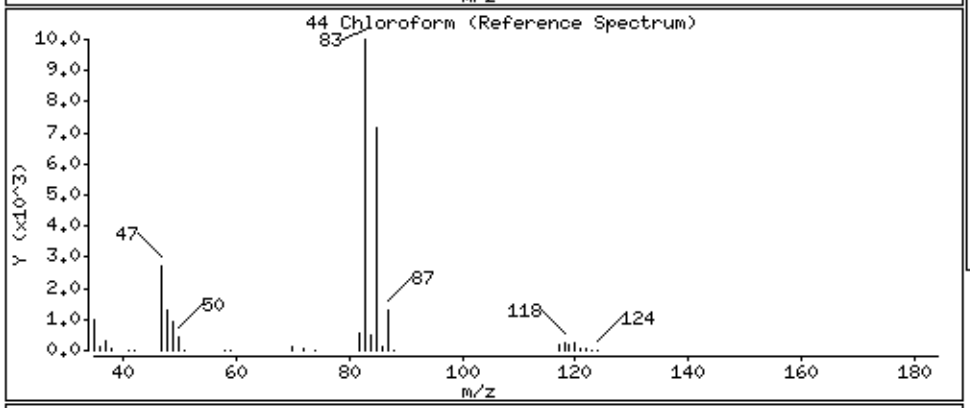
Concentration: 94.940 NG

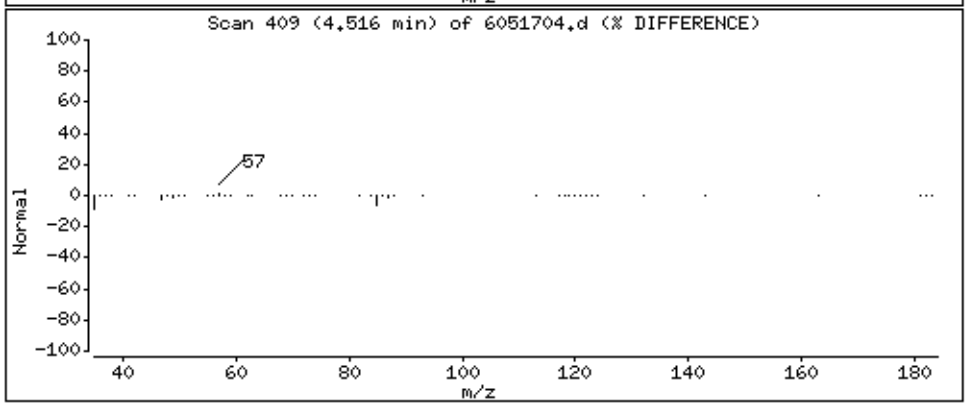












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

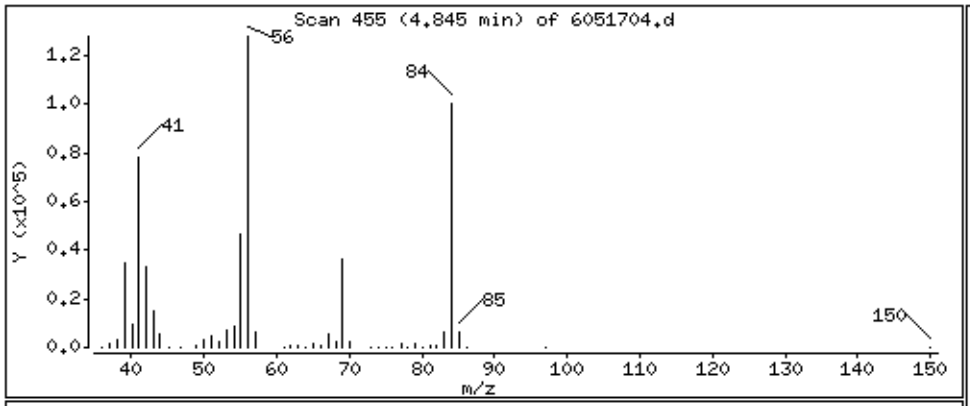
Operator: CT

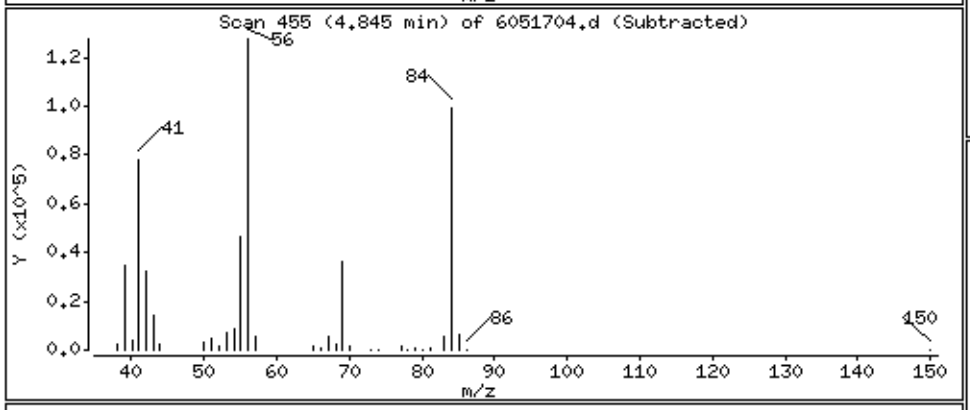
Column phase: RTx-624

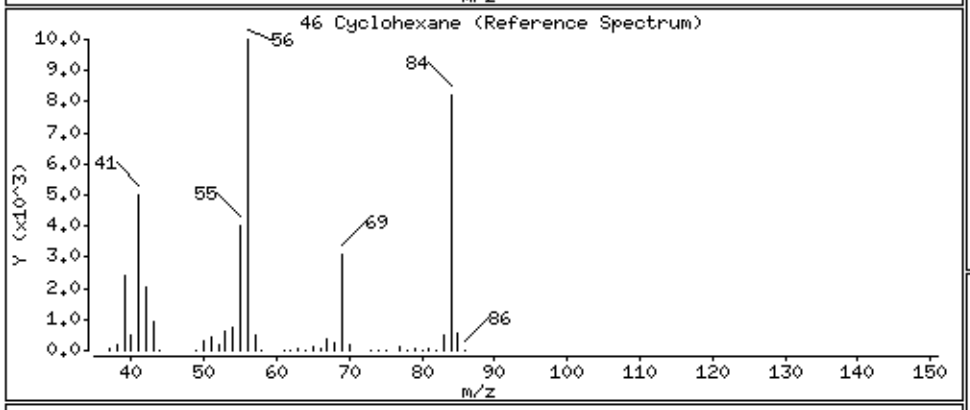
Column diameter: 0.53

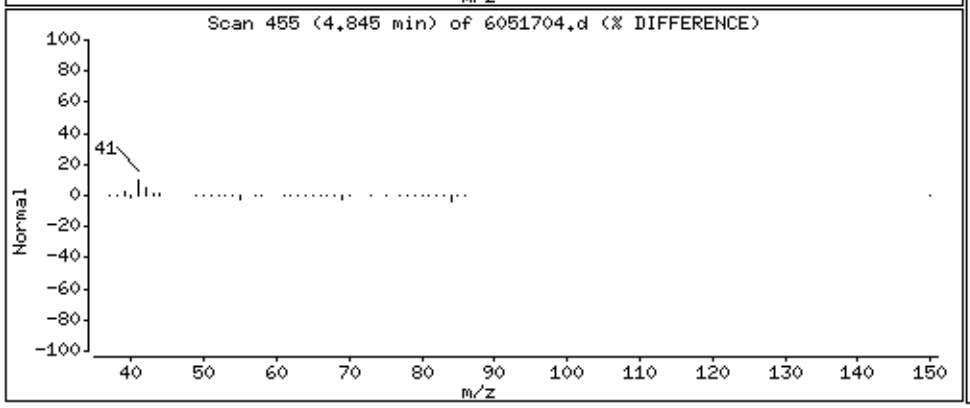
46 Cyclohexane

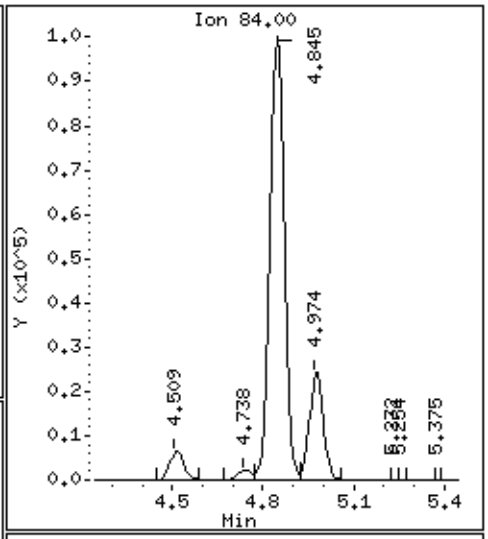
Concentration: 67.114 NG

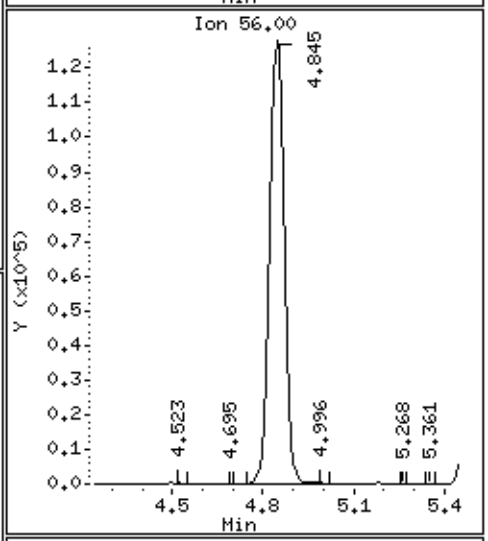


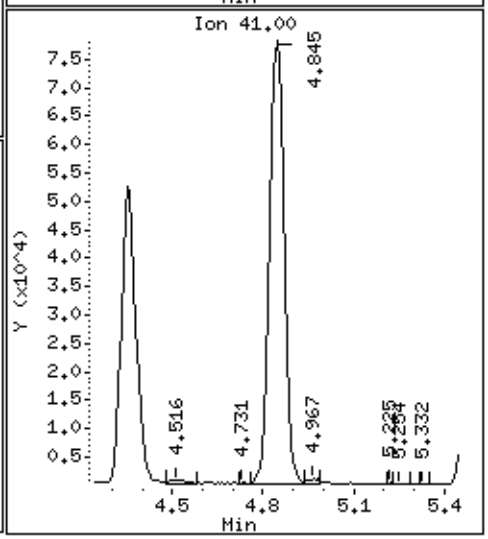












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

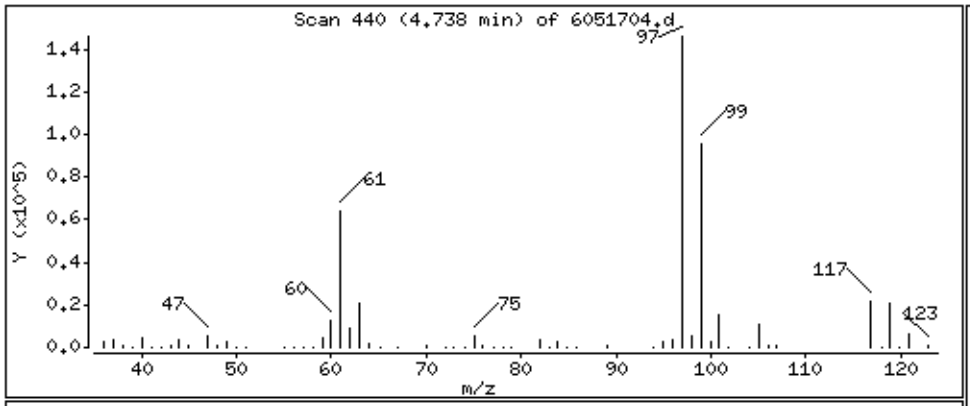
Operator: CT

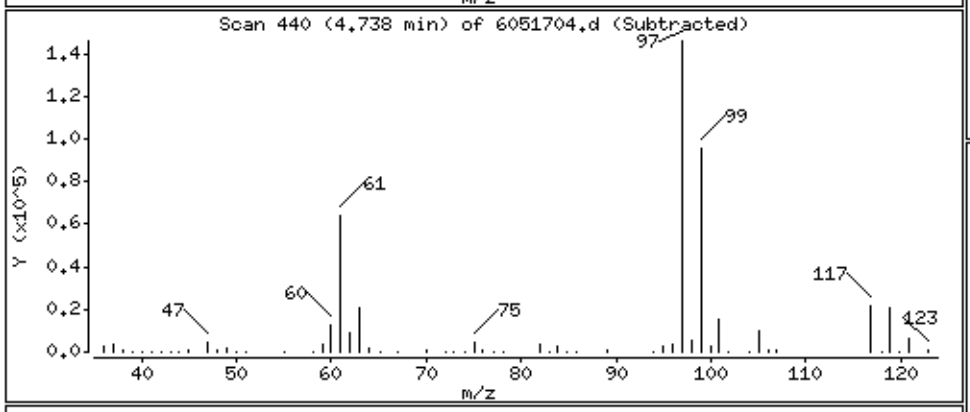
Column phase: RTx-624

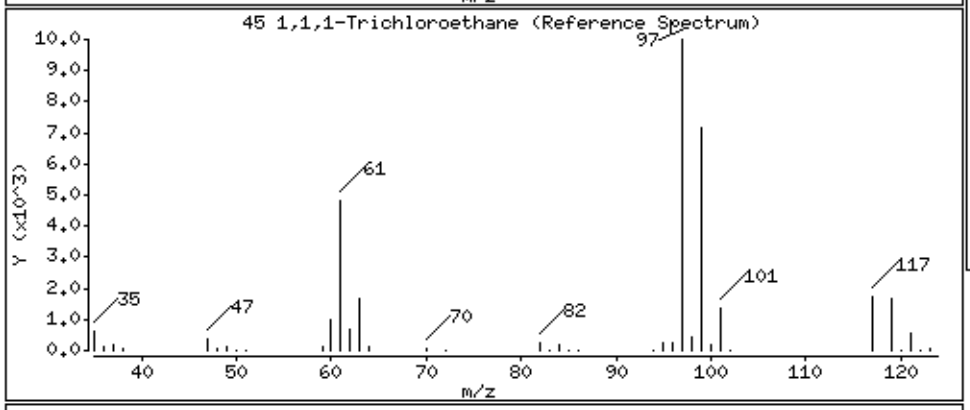
Column diameter: 0.53

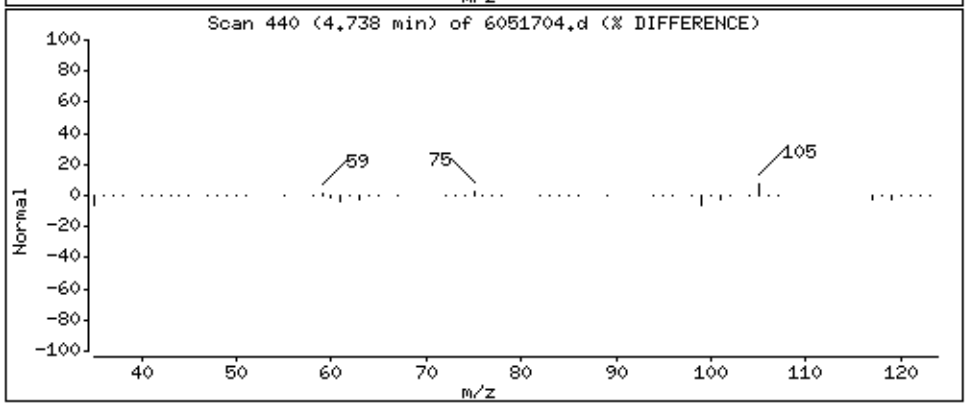
45 1,1,1-Trichloroethane

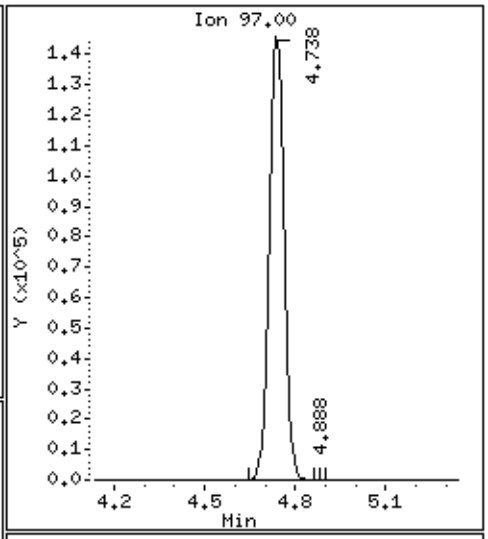
Concentration: 101.49 NG

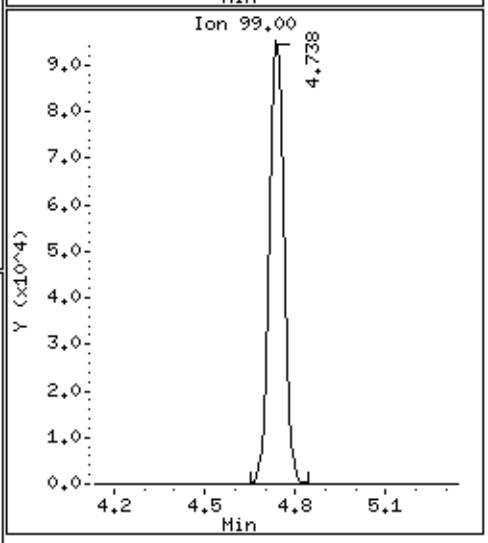












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

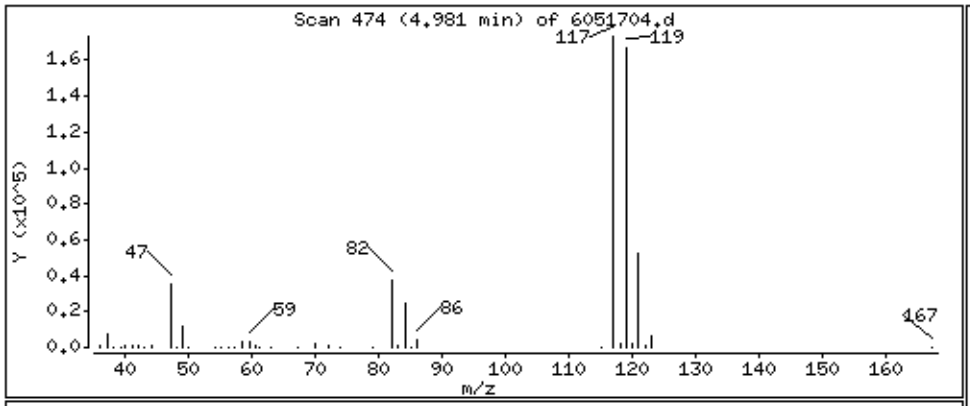
Operator: CT

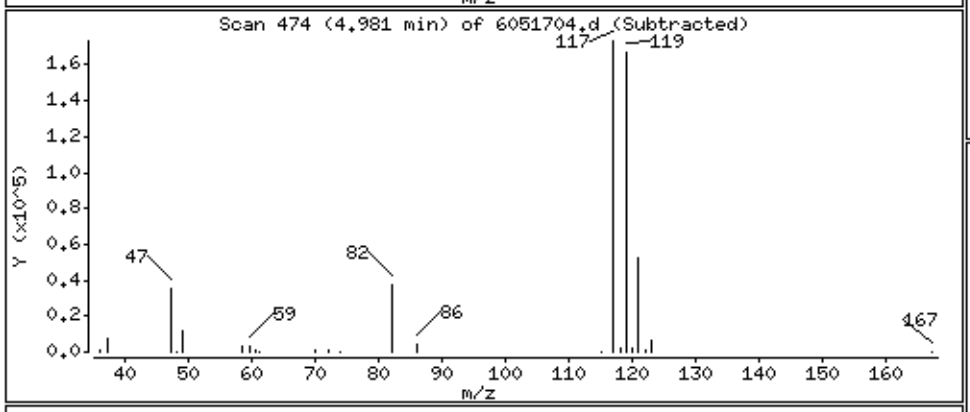
Column phase: RTx-624

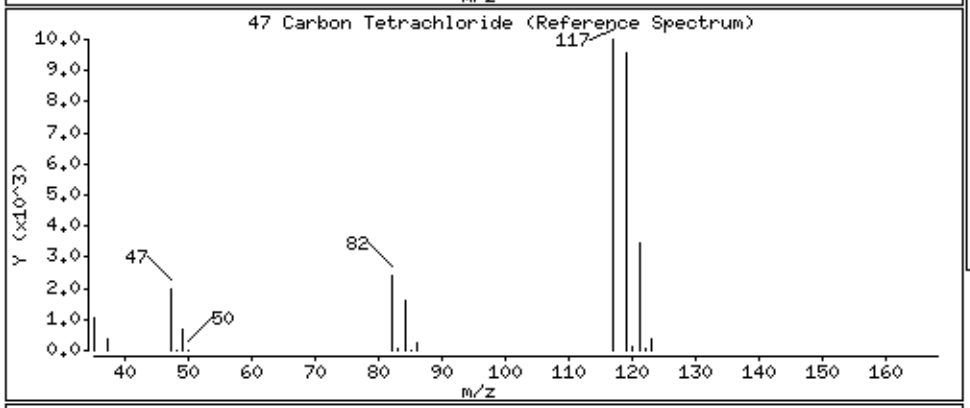
Column diameter: 0.53

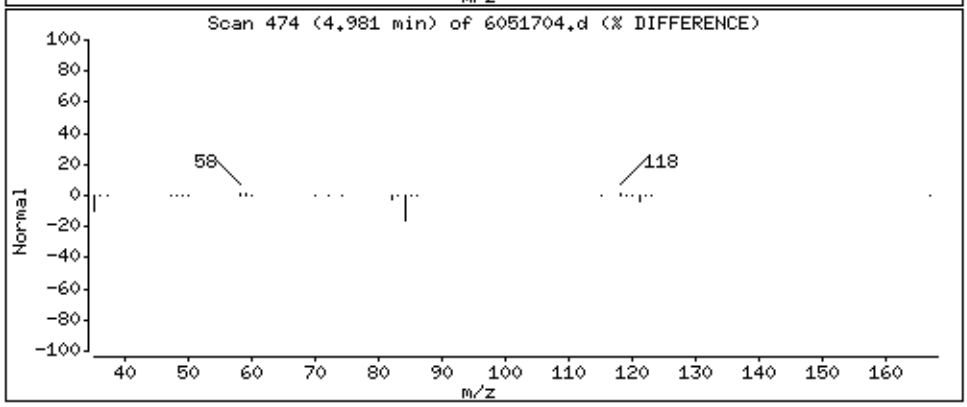
47 Carbon Tetrachloride

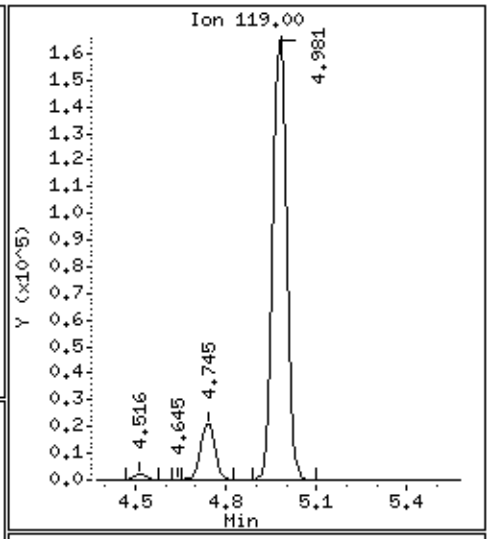
Concentration: 125.39 NG

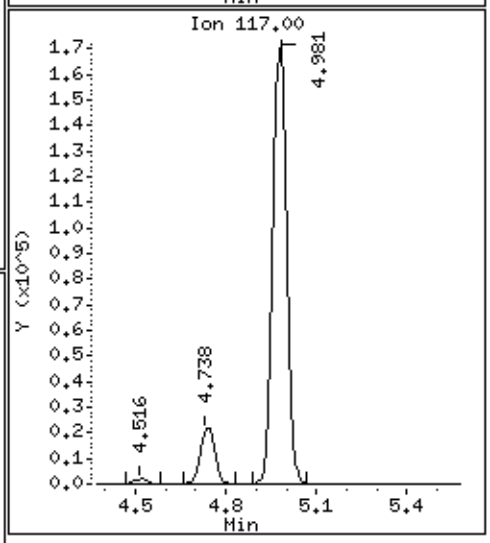












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

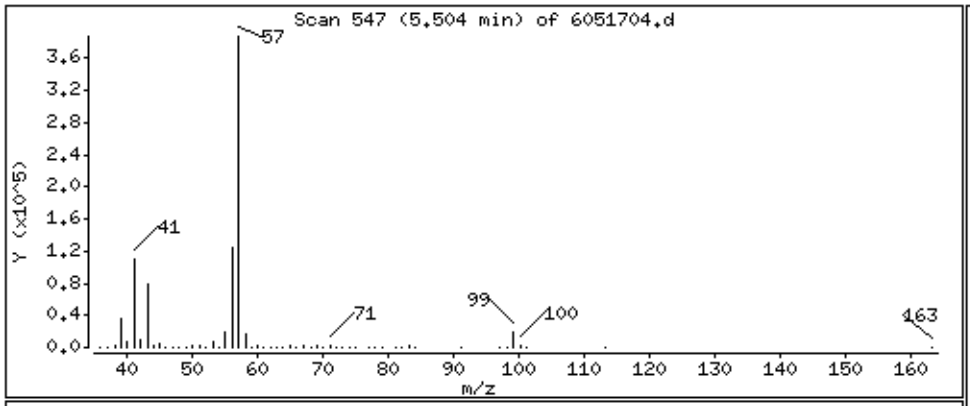
Operator: CT

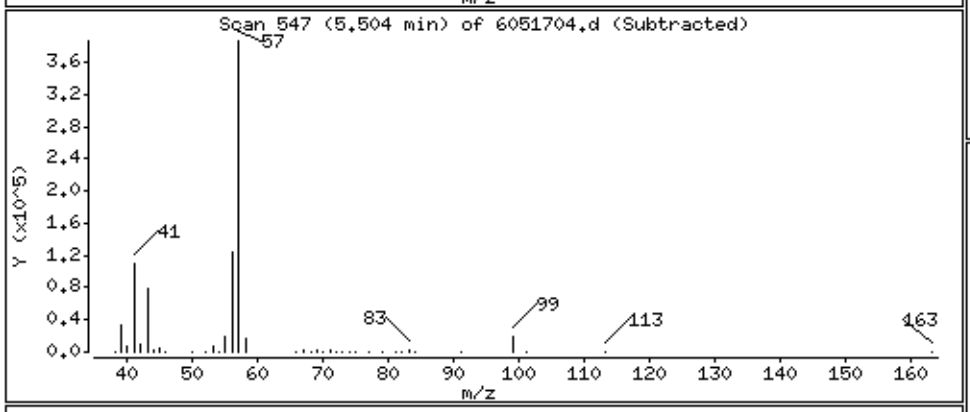
Column phase: RTx-624

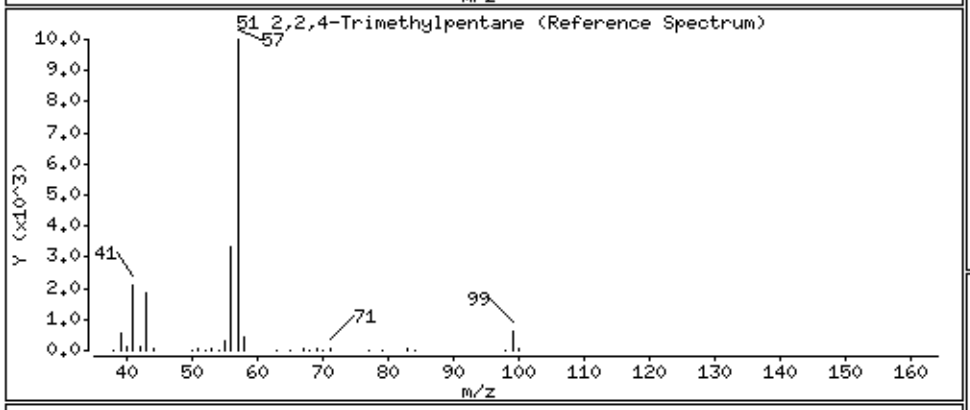
Column diameter: 0.53

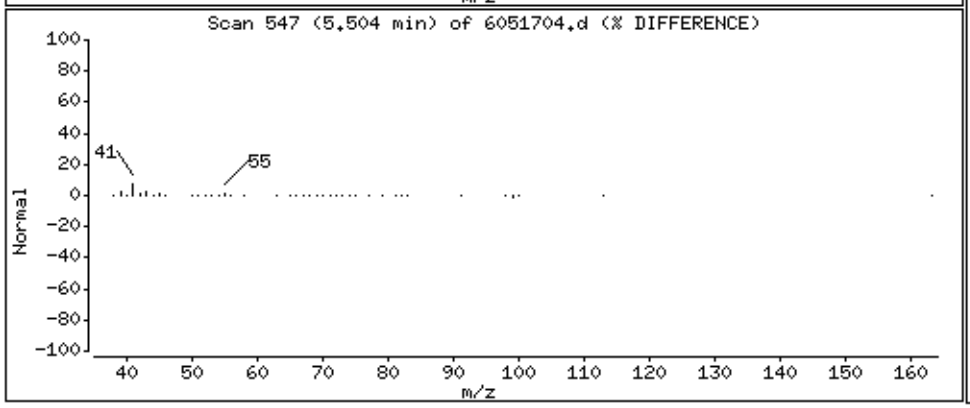
51 2,2,4-Trimethylpentane

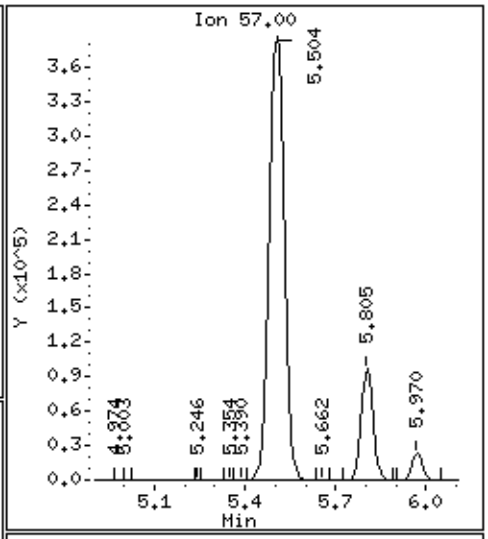
Concentration: 89.676 NG

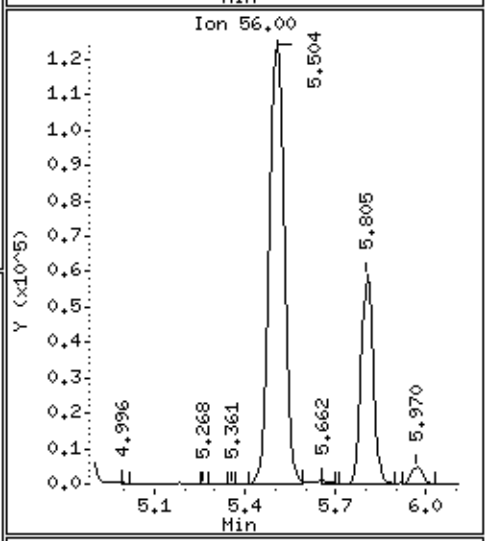


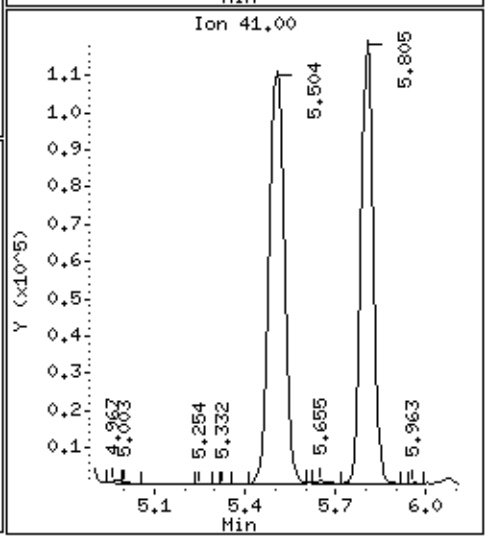












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

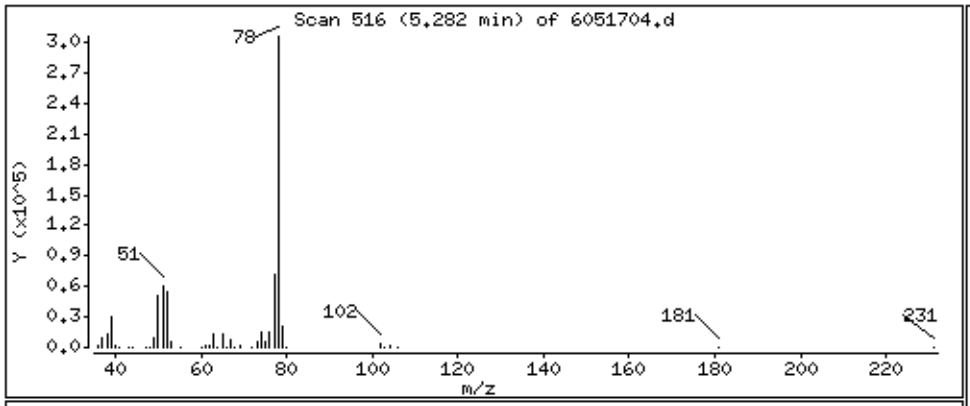
Operator: CT

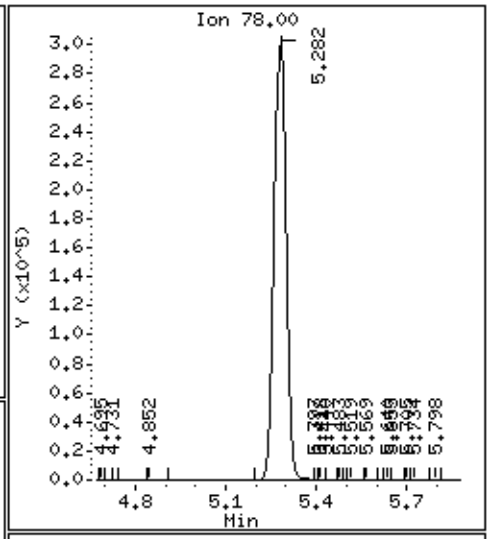
Column phase: RTx-624

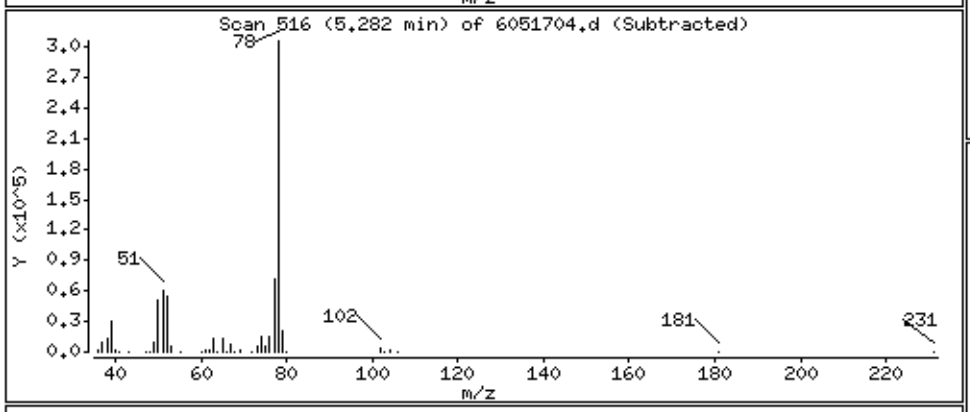
Column diameter: 0.53

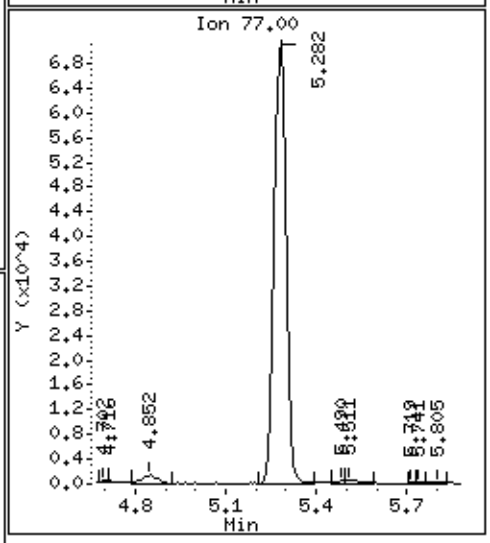
48 Benzene

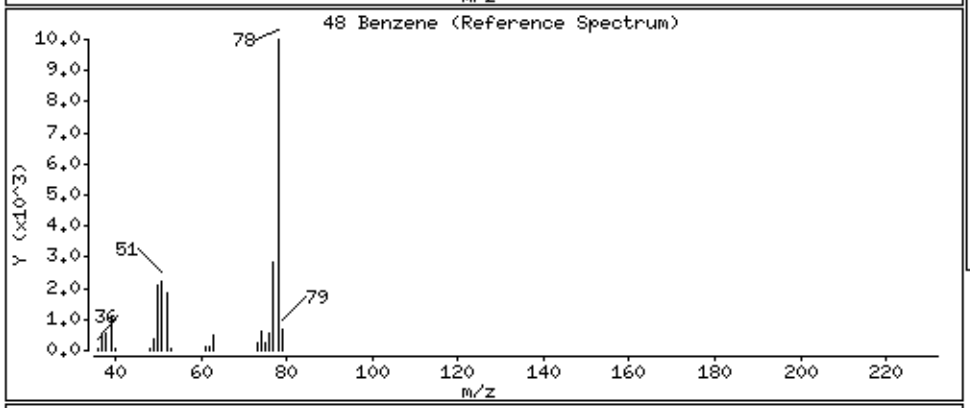
Concentration: 58.087 NG

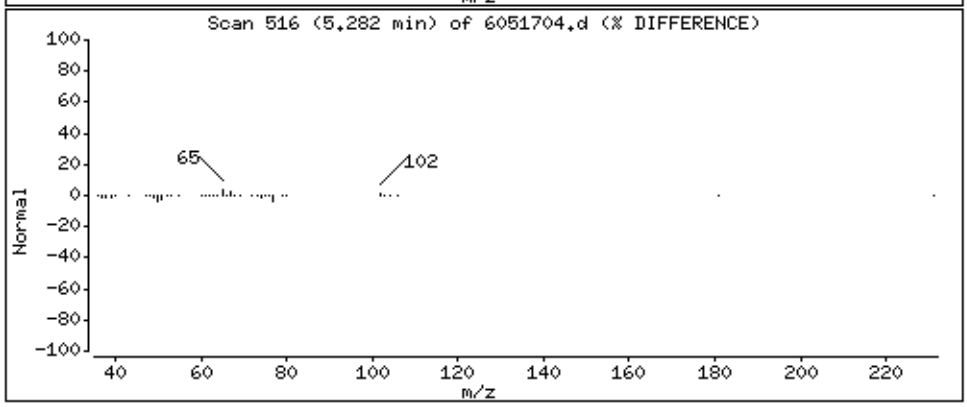












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

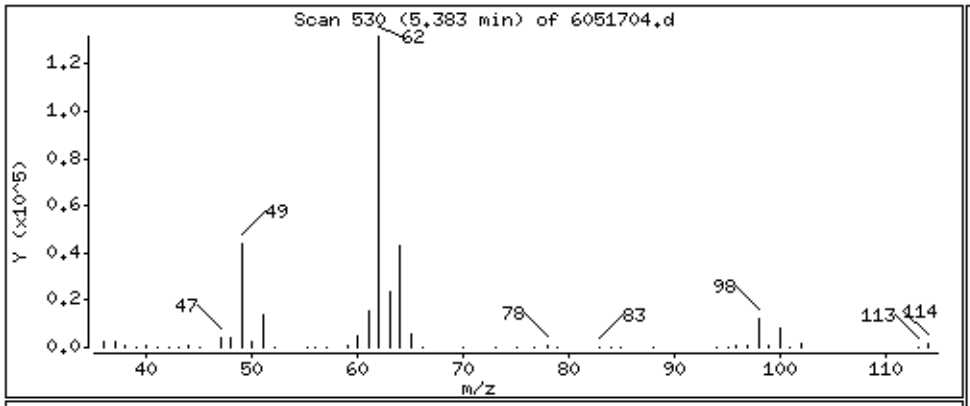
Operator: CT

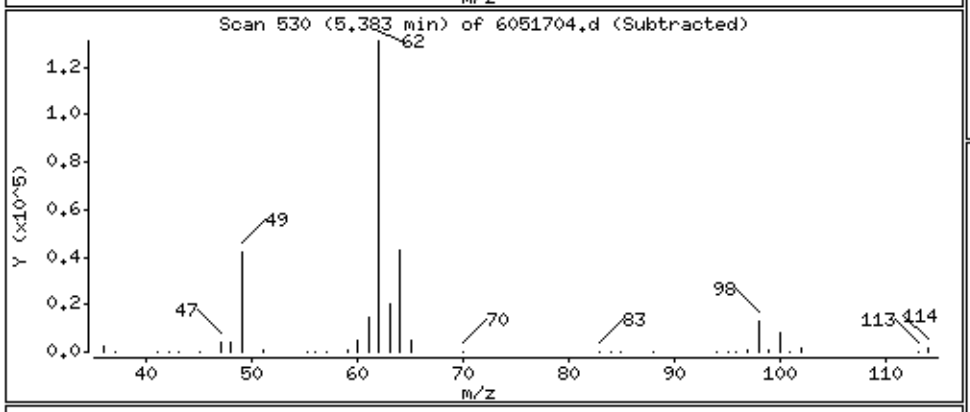
Column phase: RTx-624

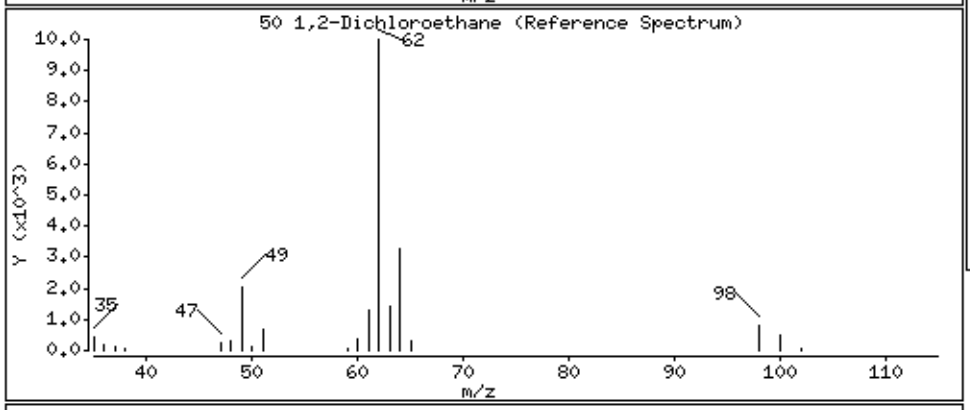
Column diameter: 0.53

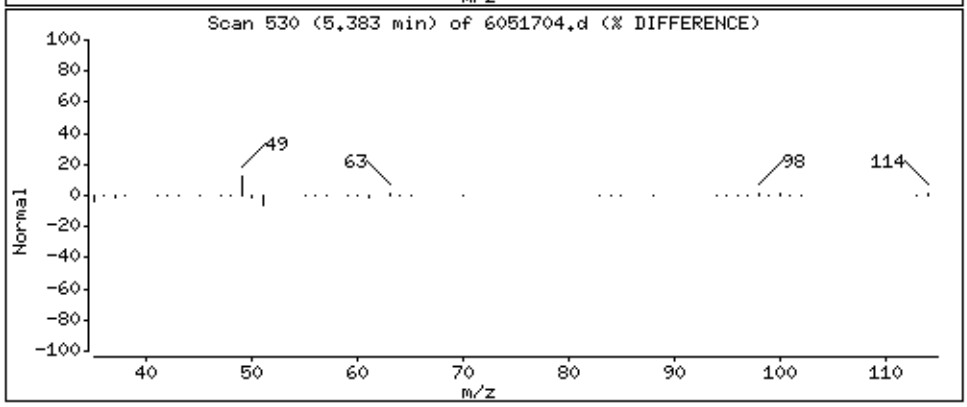
50 1,2-Dichloroethane

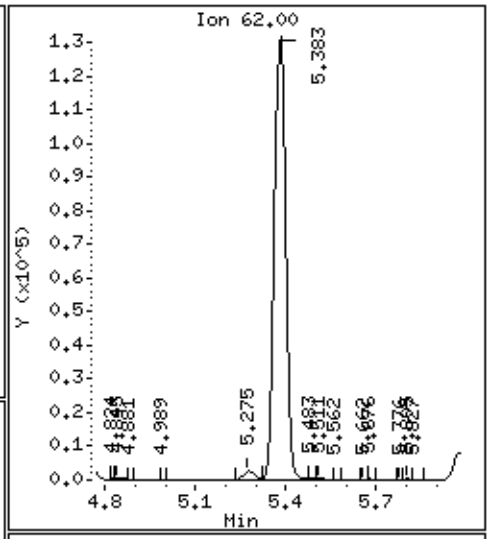
Concentration: 76.694 NG

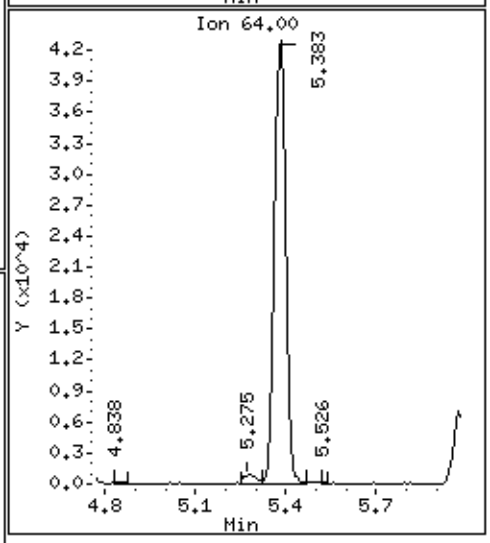












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

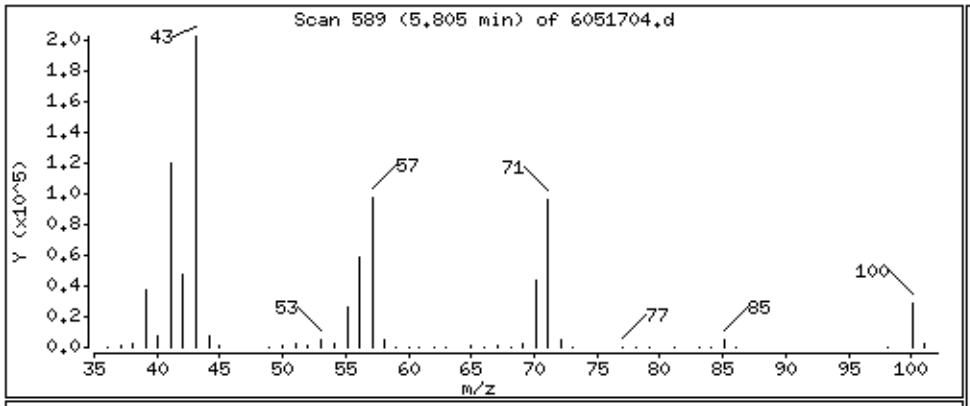
Operator: CT

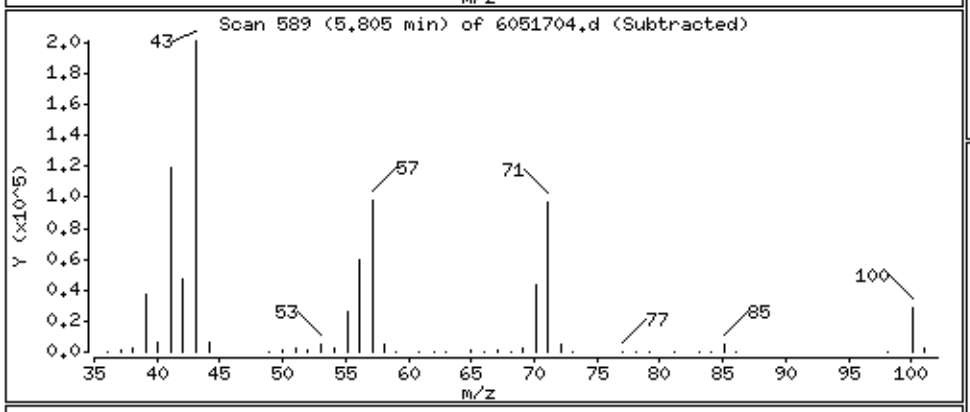
Column phase: RTx-624

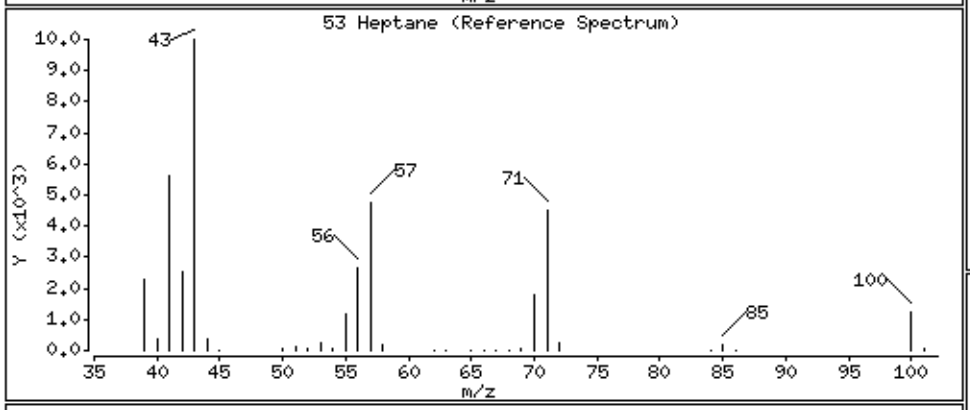
Column diameter: 0.53

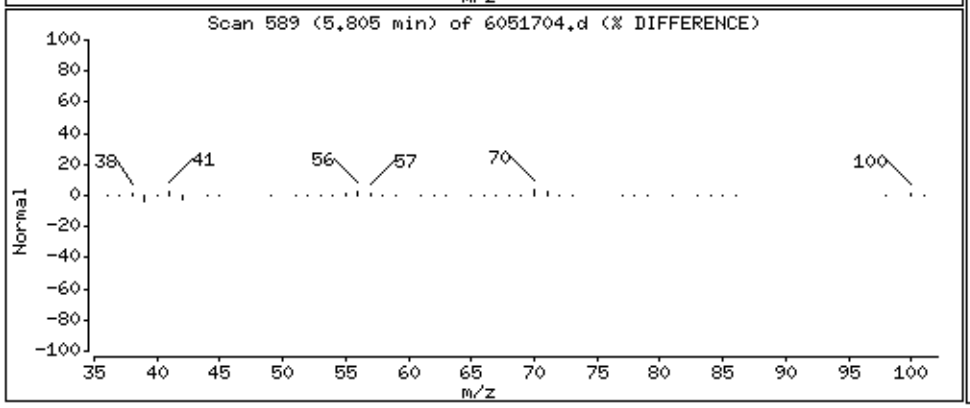
53 Heptane

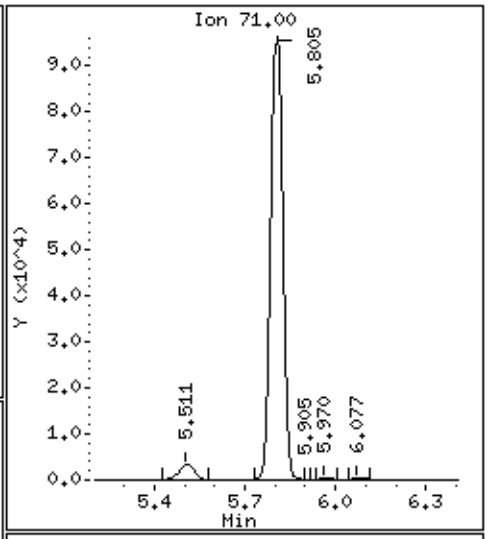
Concentration: 78.699 NG

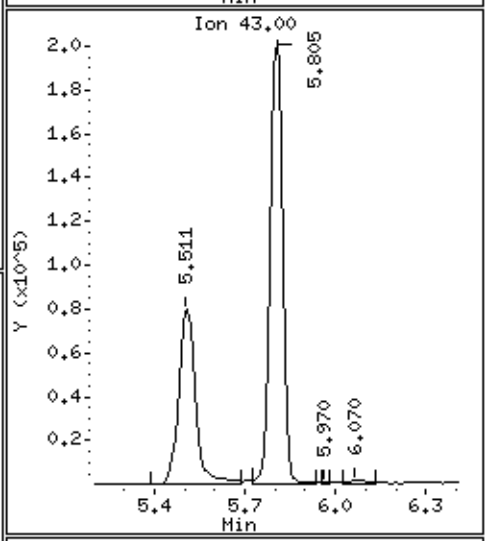


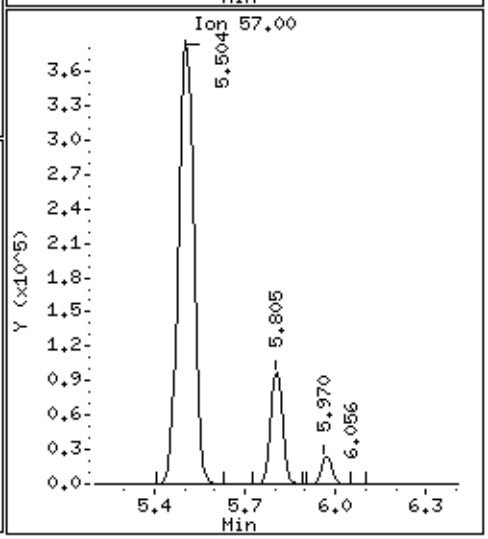












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

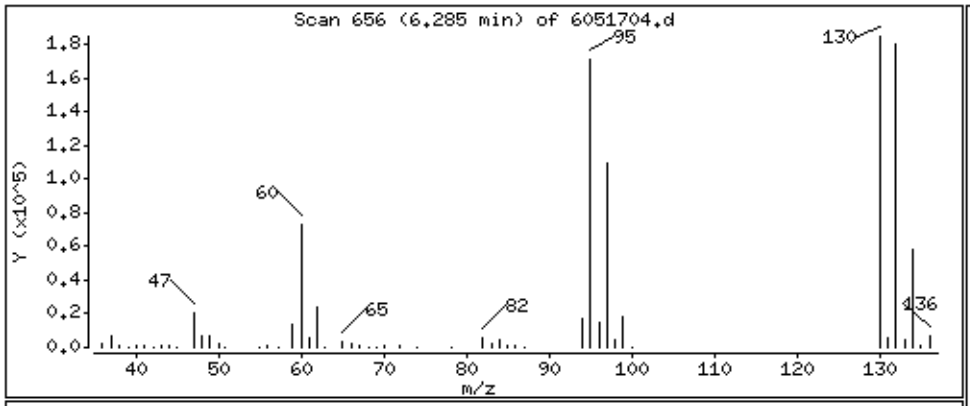
Operator: CT

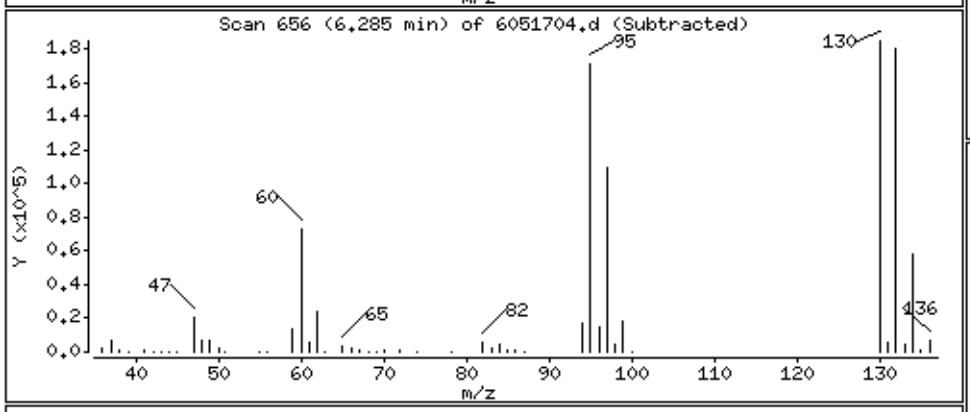
Column phase: RTx-624

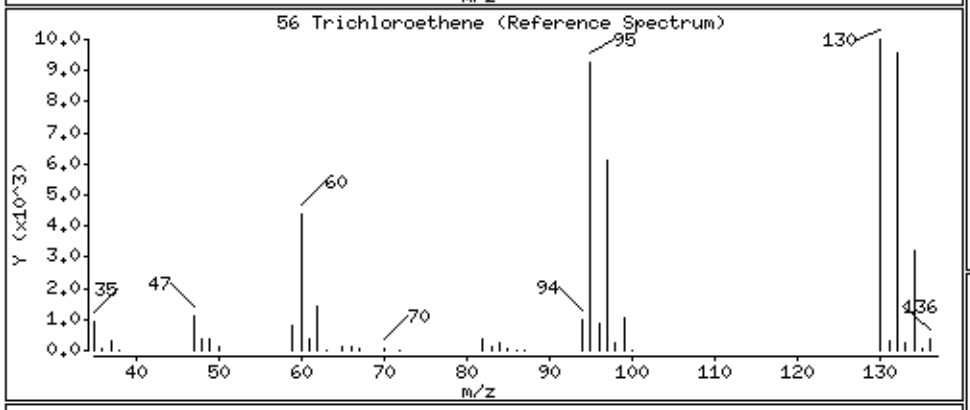
Column diameter: 0.53

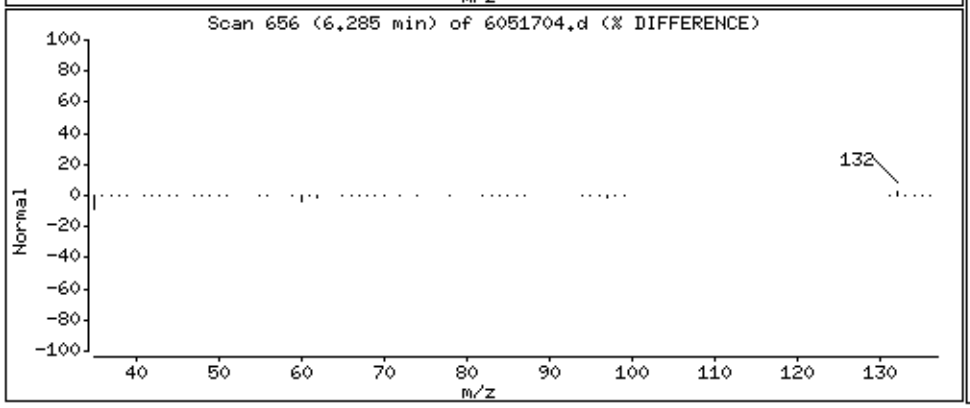
56 Trichloroethene

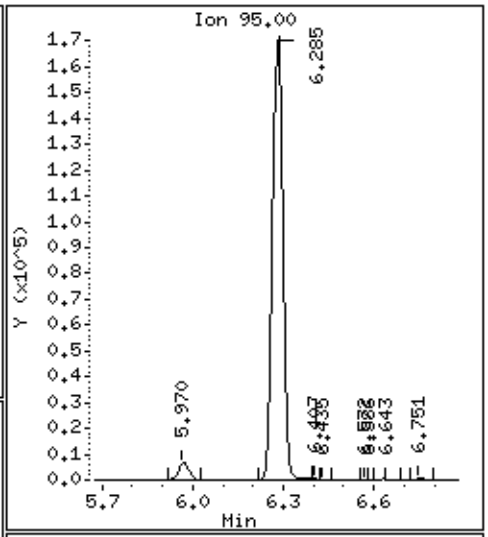
Concentration: 101.40 NG

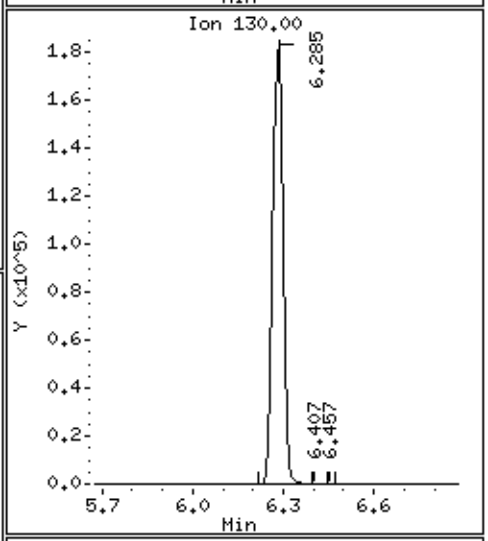


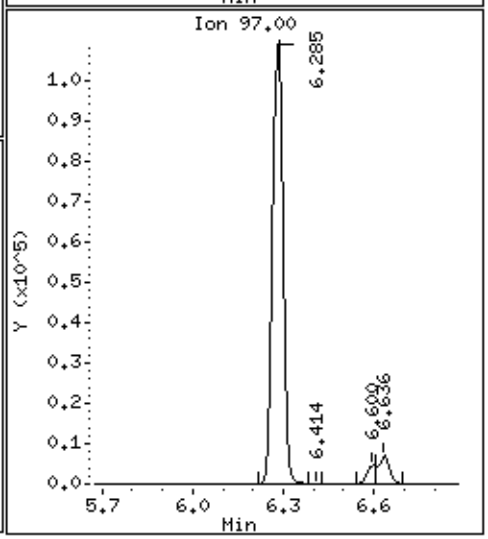












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

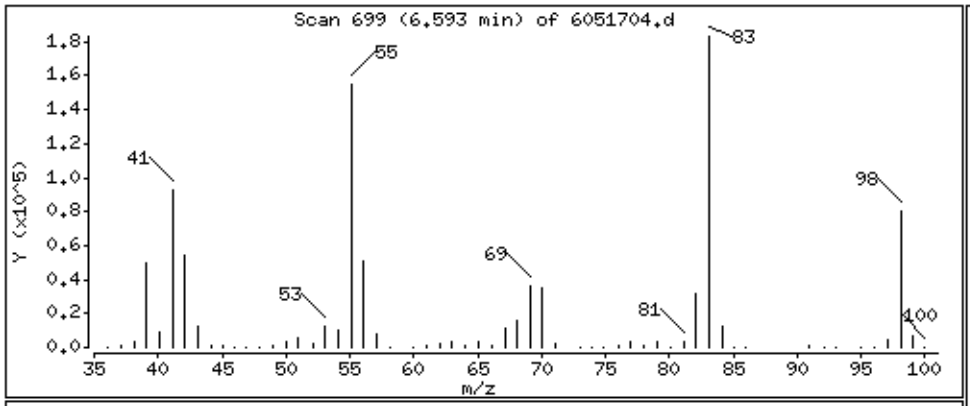
Operator: CT

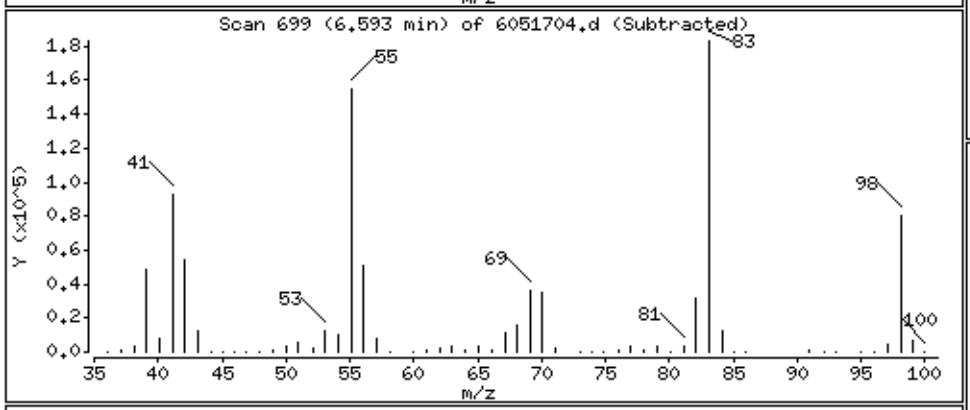
Column phase: RTx-624

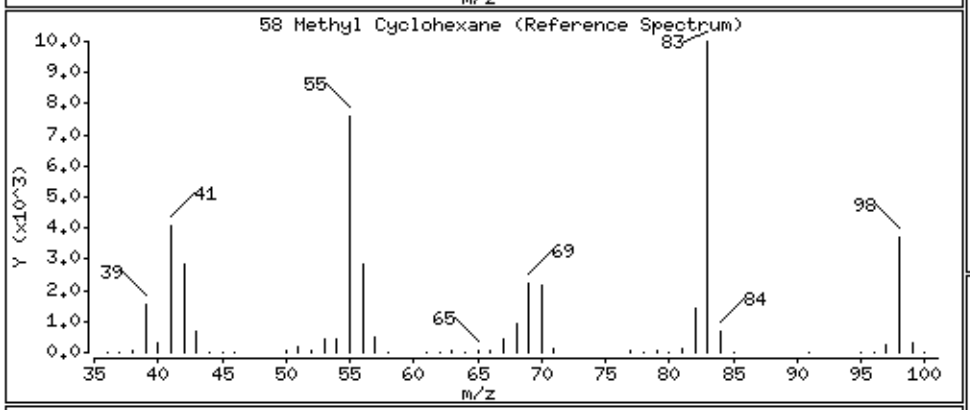
Column diameter: 0.53

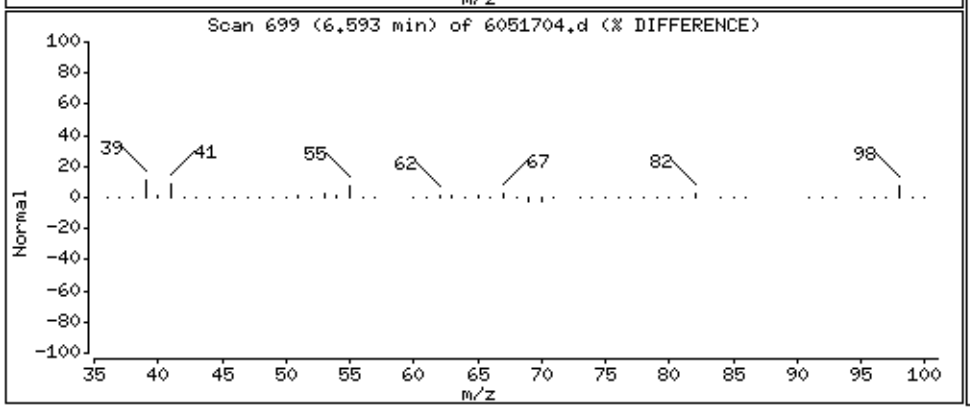
58 Methyl Cyclohexane

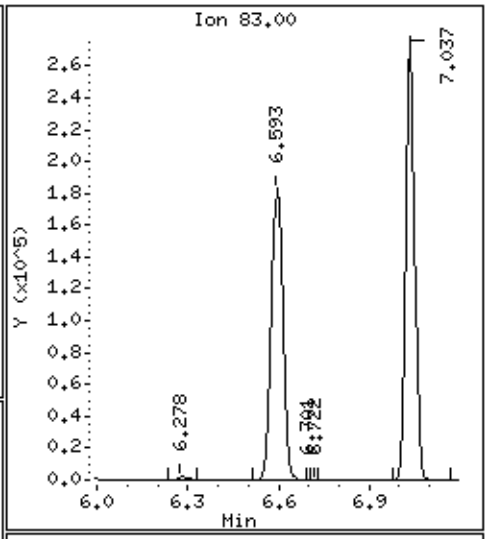
Concentration: 78.658 NG

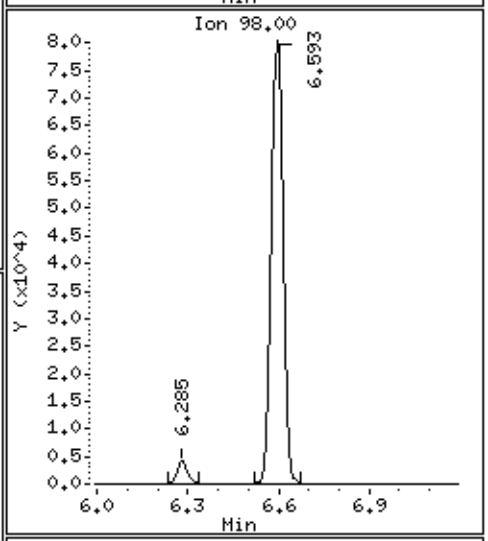


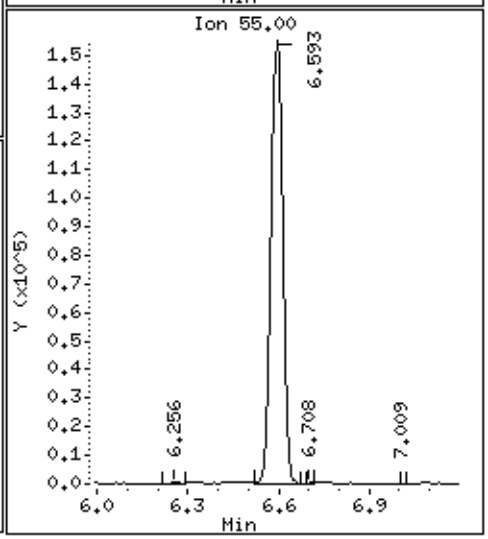












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

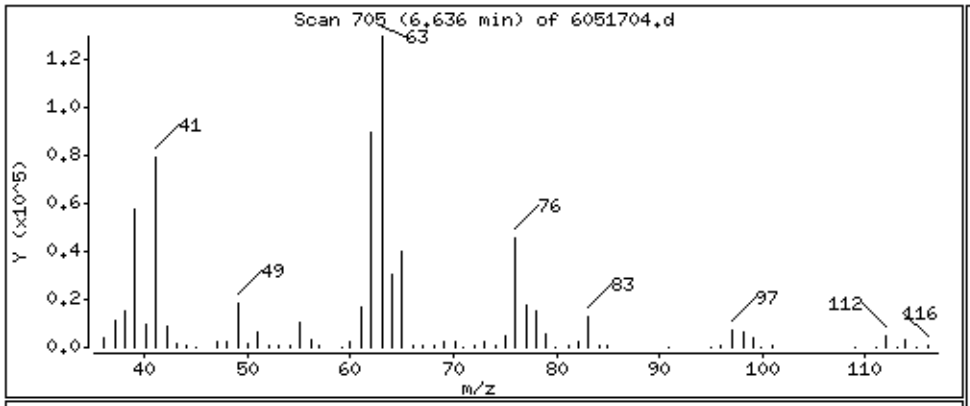
Operator: CT

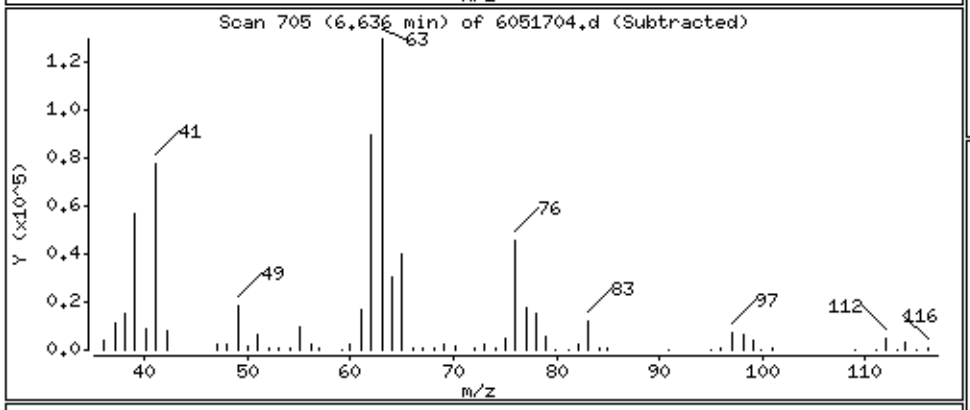
Column phase: RTx-624

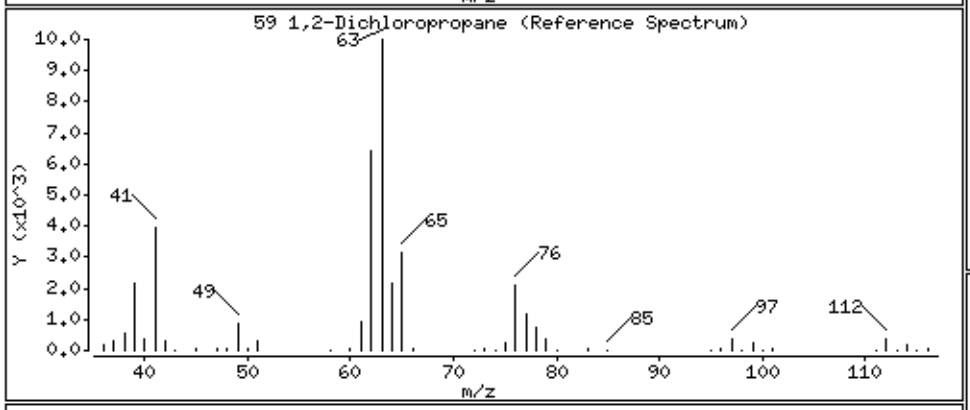
Column diameter: 0.53

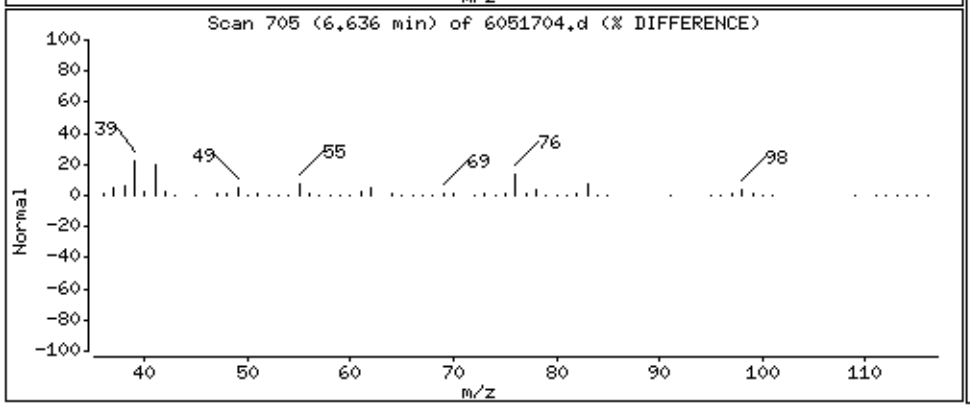
59 1,2-Dichloropropane

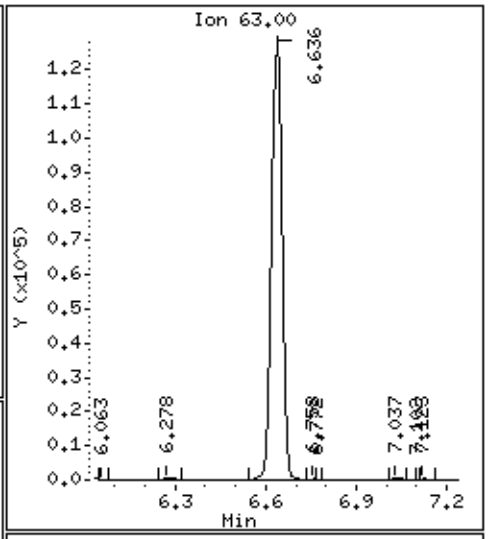
Concentration: 91.314 NG

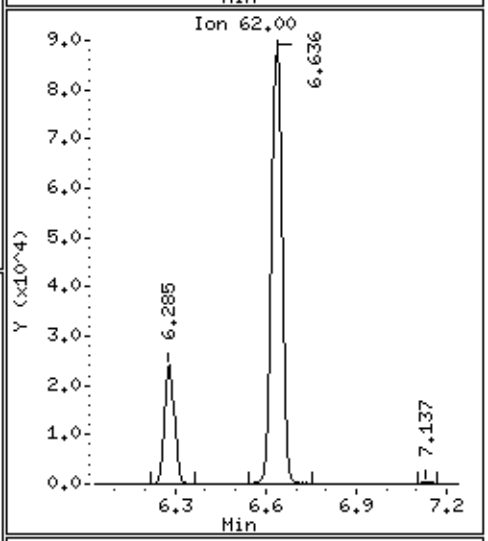


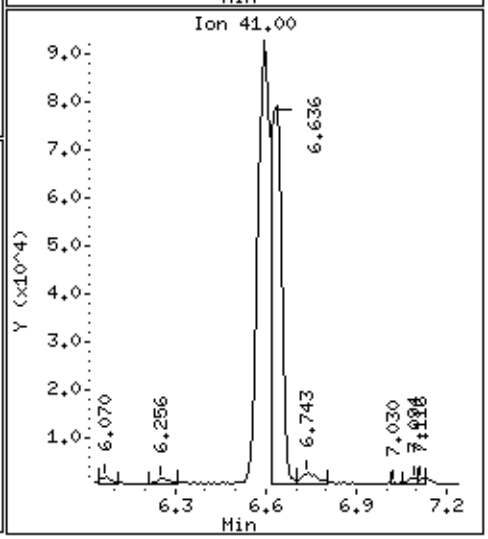












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

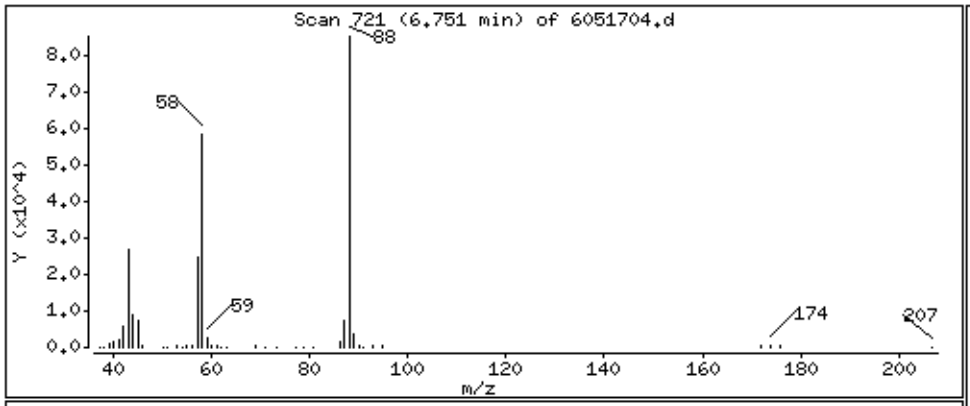
Operator: CT

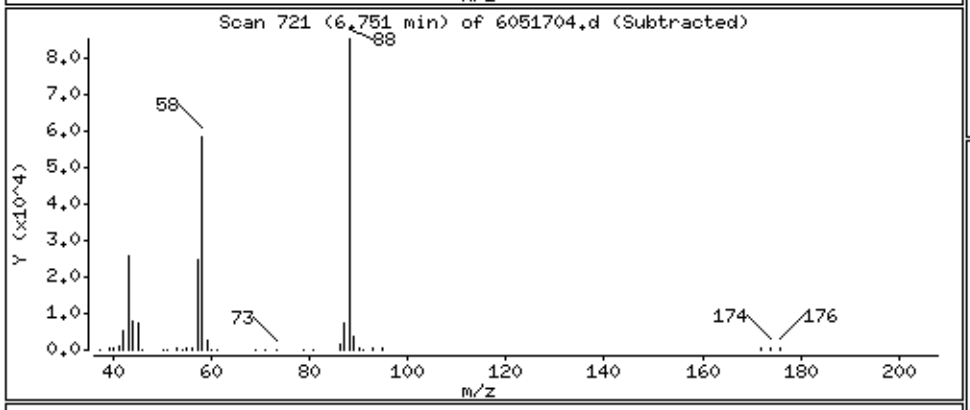
Column phase: RTx-624

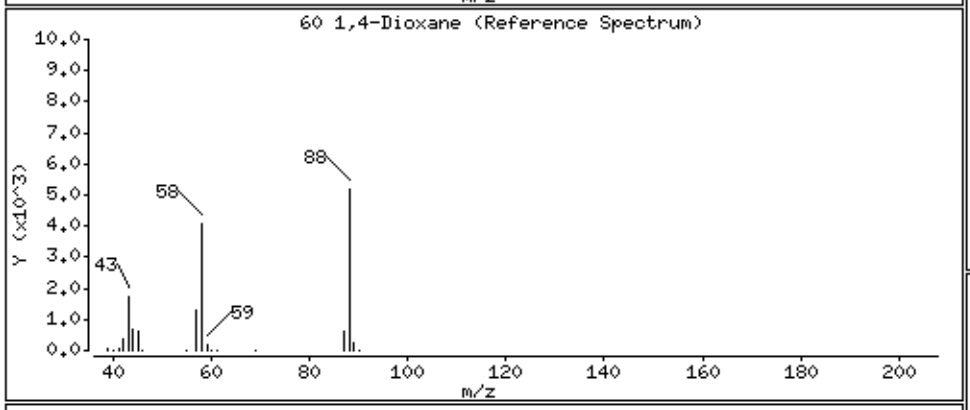
Column diameter: 0.53

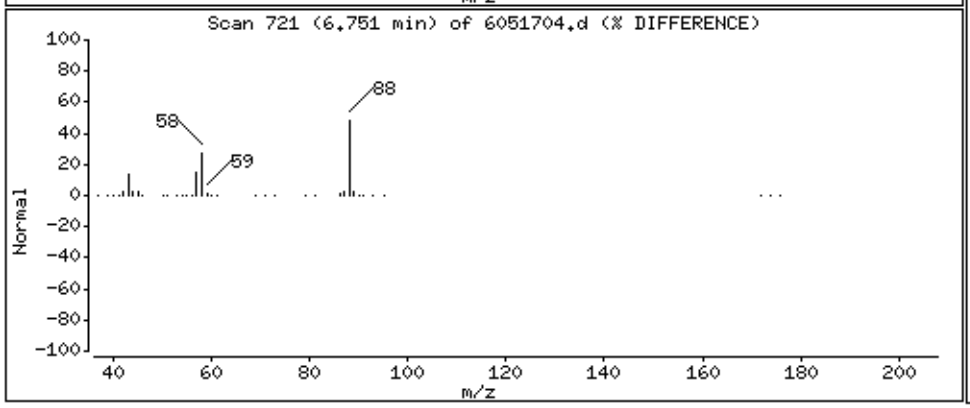
60 1,4-Dioxane

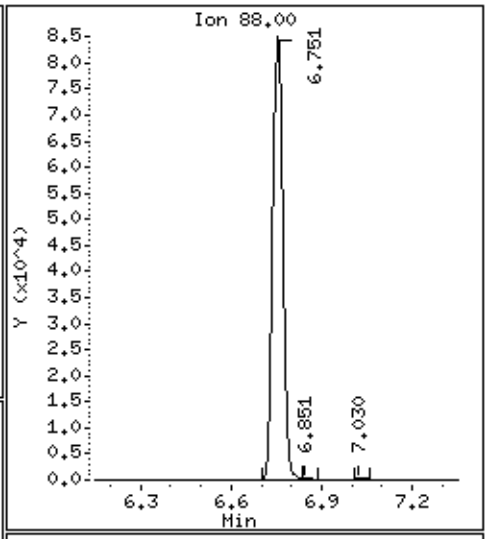
Concentration: 68.662 NG

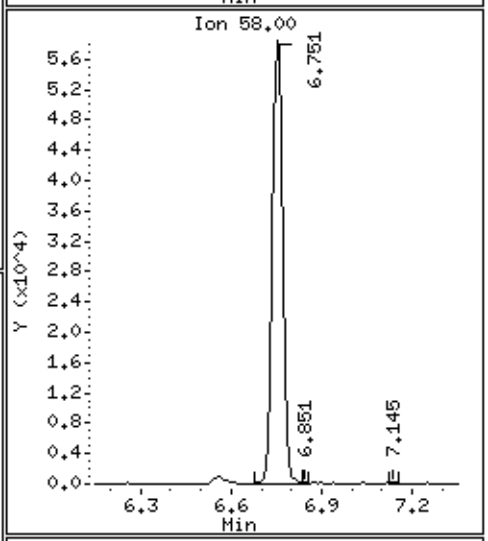


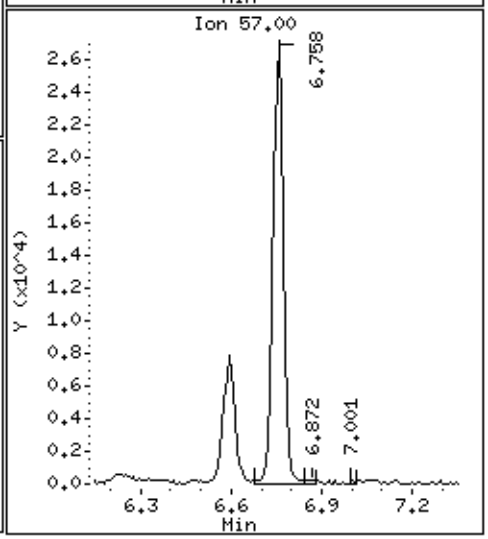












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

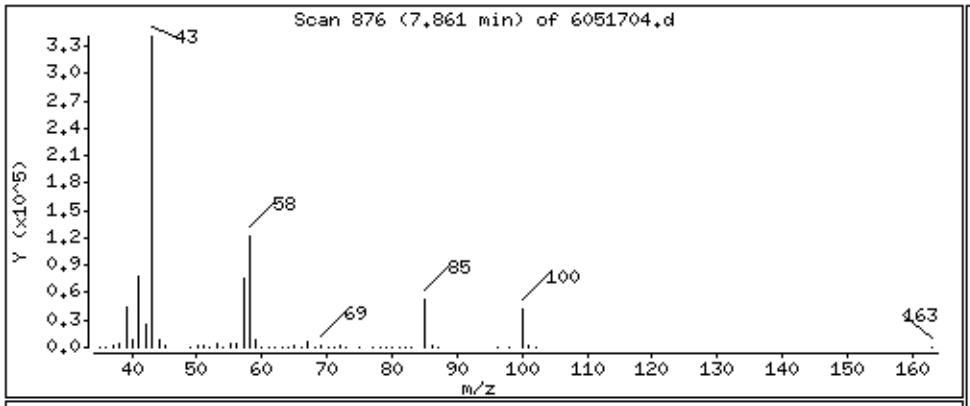
Operator: CT

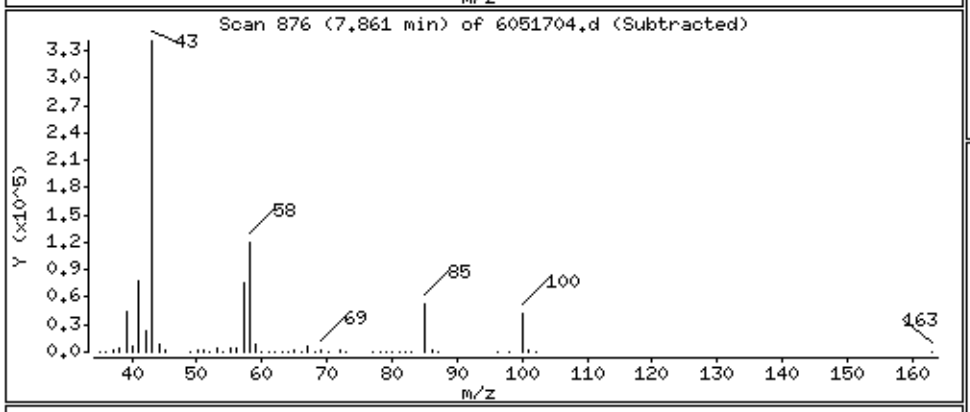
Column phase: RTx-624

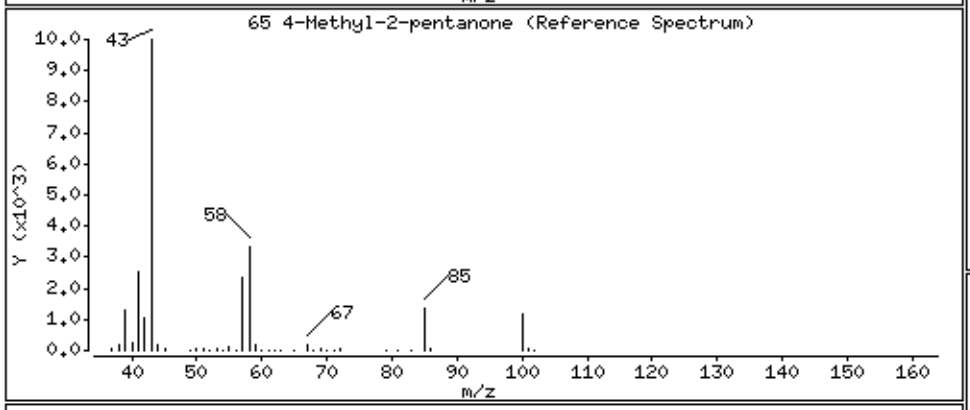
Column diameter: 0.53

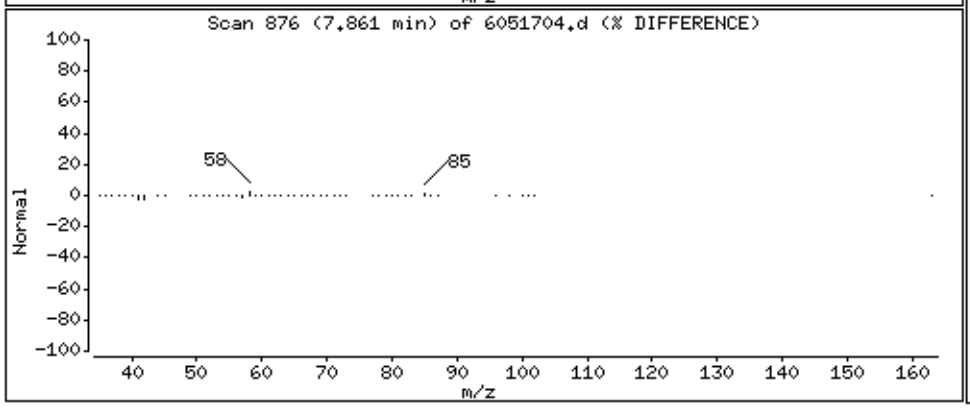
65 4-Methyl-2-pentanone

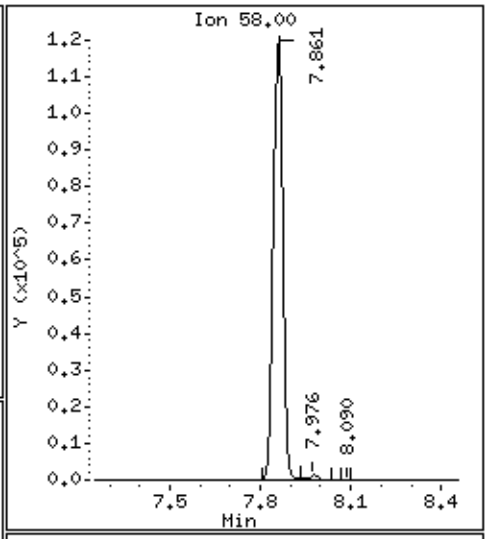
Concentration: 78.194 NG

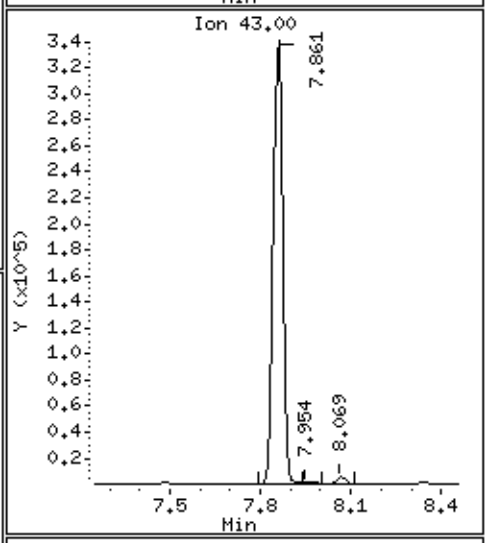


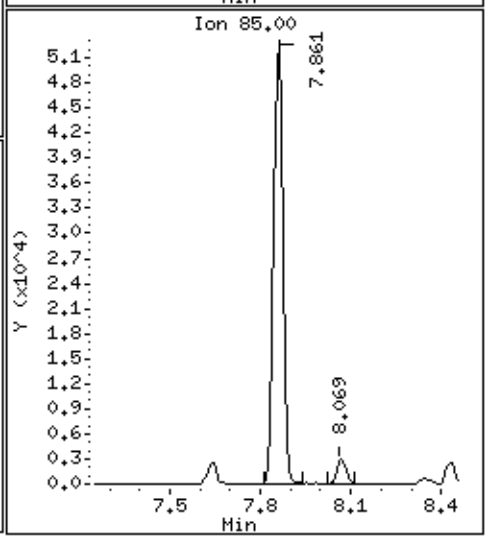












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

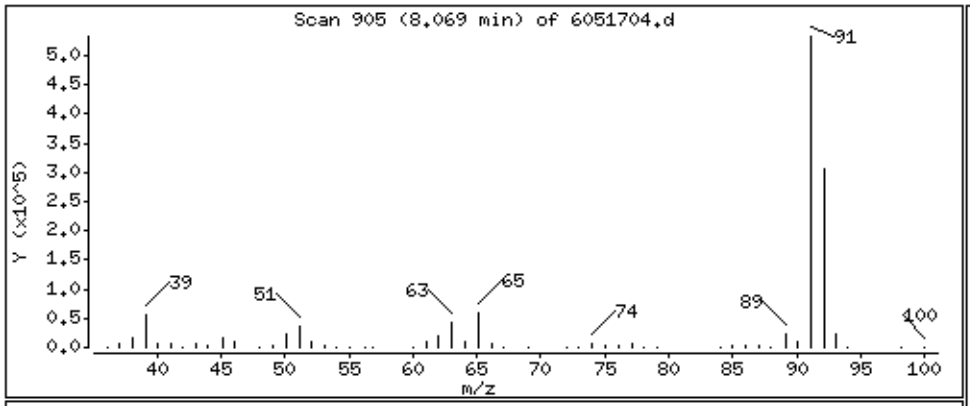
Operator: CT

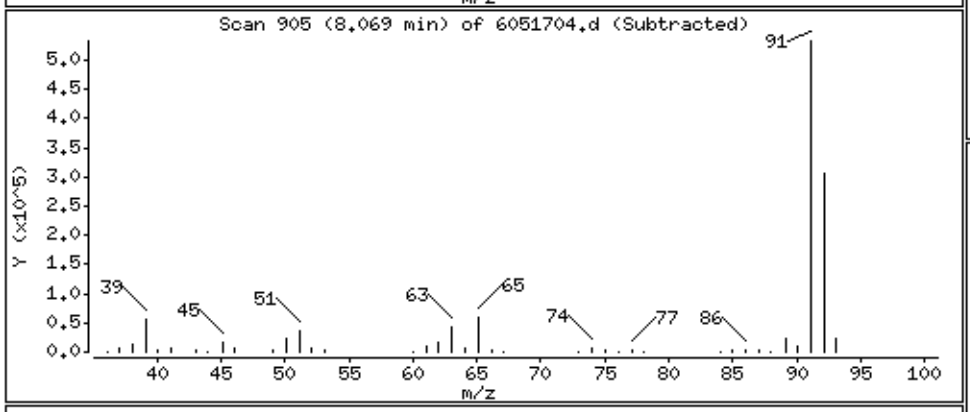
Column phase: RTx-624

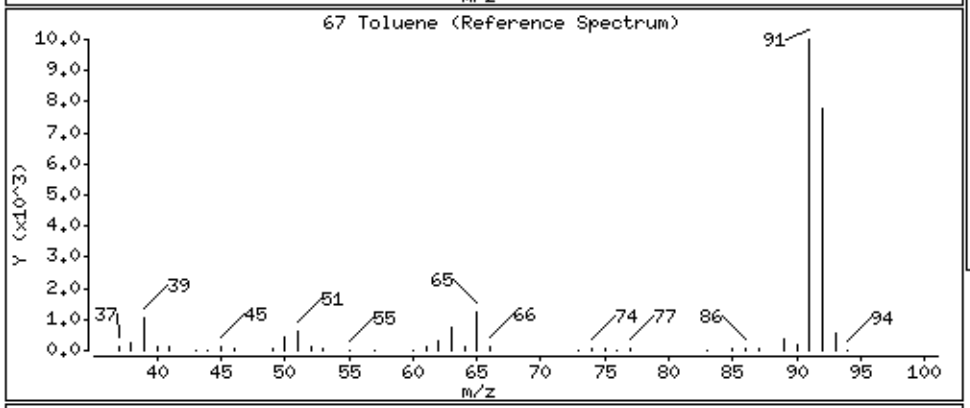
Column diameter: 0.53

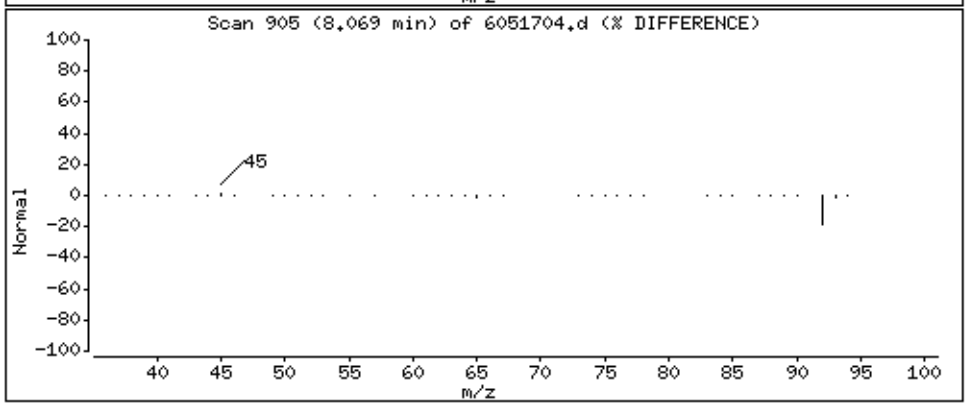
67 Toluene

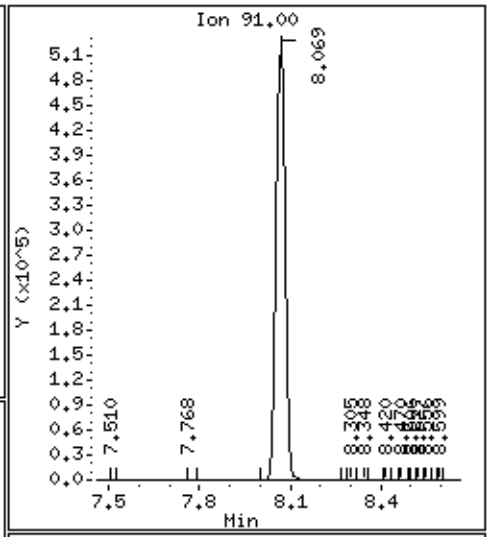
Concentration: 71.456 NG

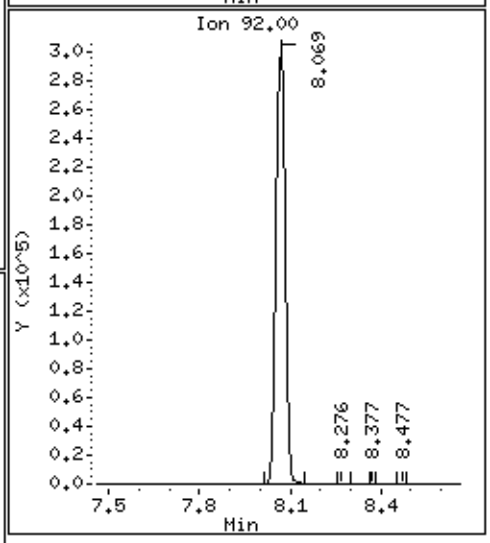












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

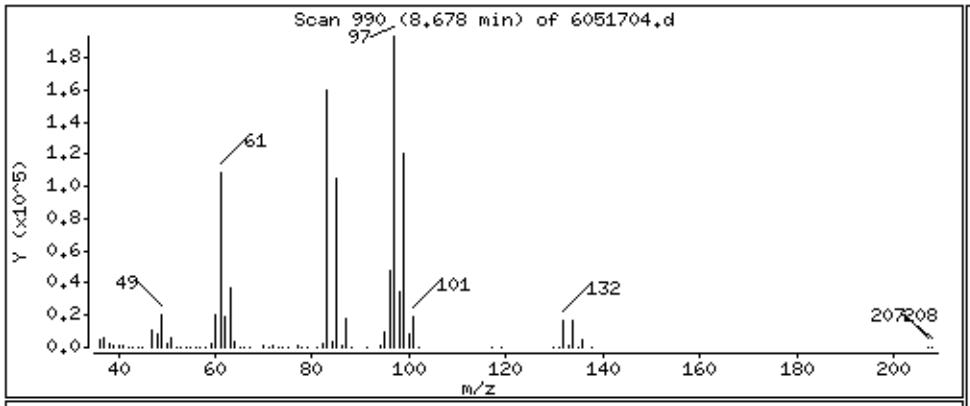
Operator: CT

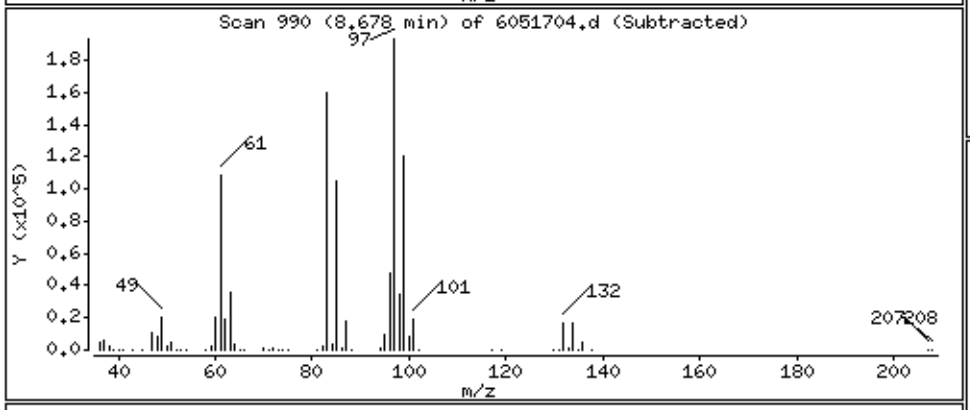
Column phase: RTx-624

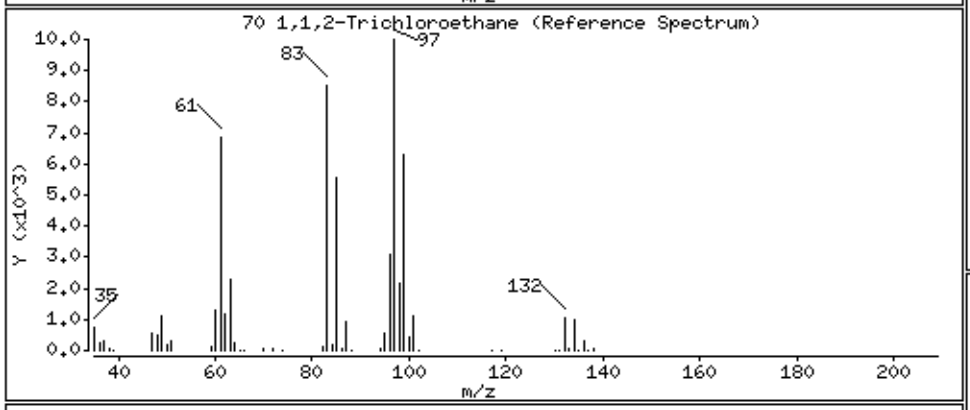
Column diameter: 0.53

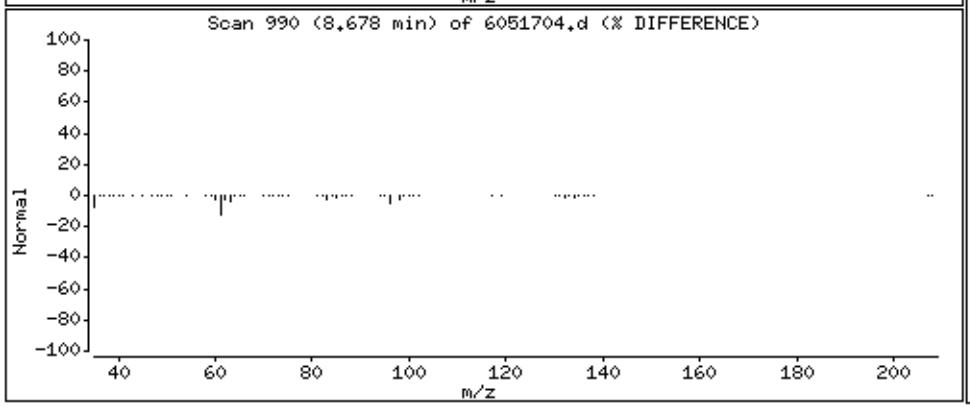
70 1,1,2-Trichloroethane

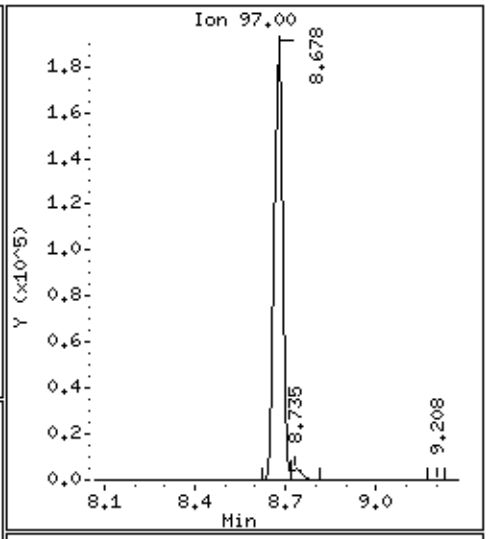
Concentration: 107.61 NG

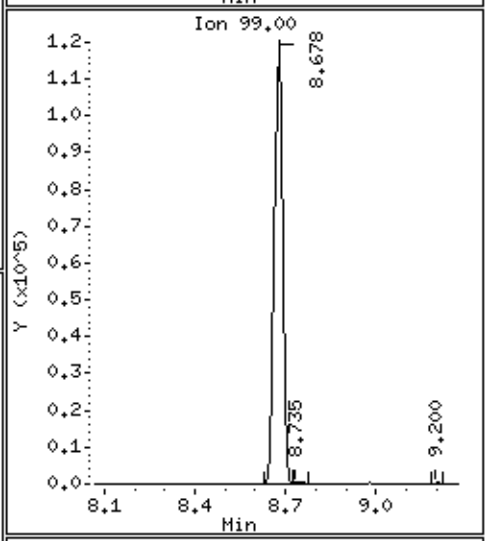


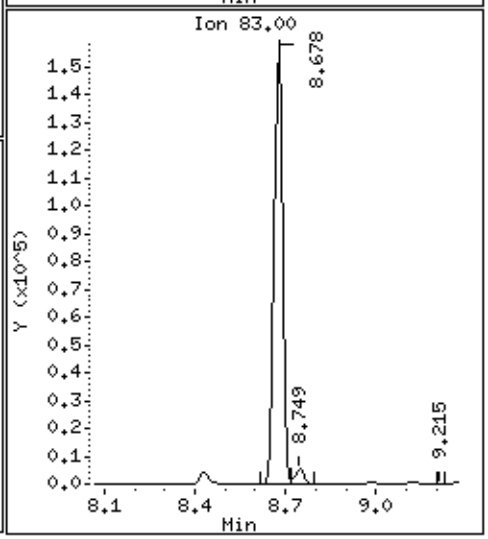












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

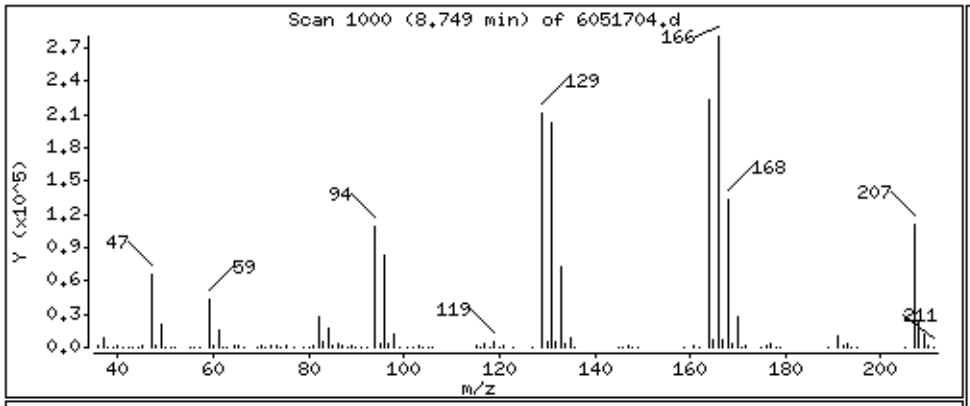
Operator: CT

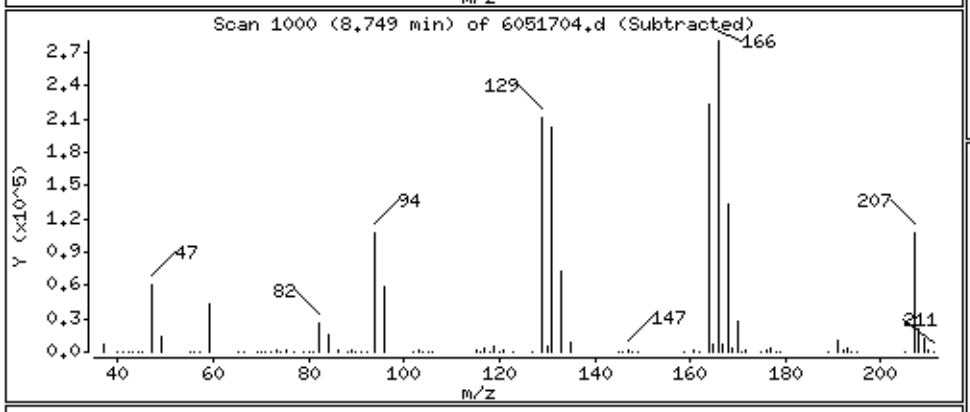
Column phase: RTx-624

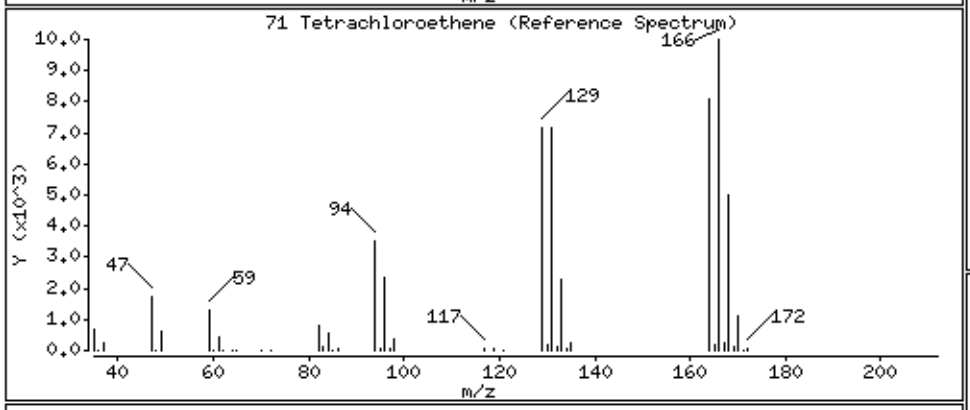
Column diameter: 0.53

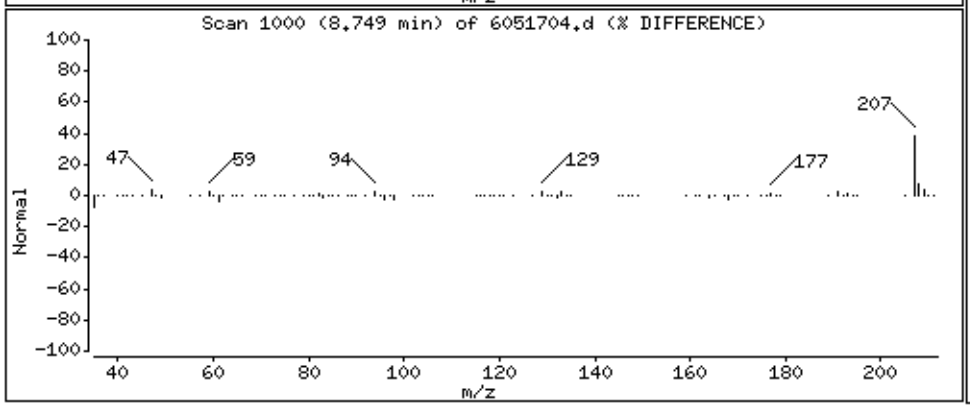
71 Tetrachloroethene

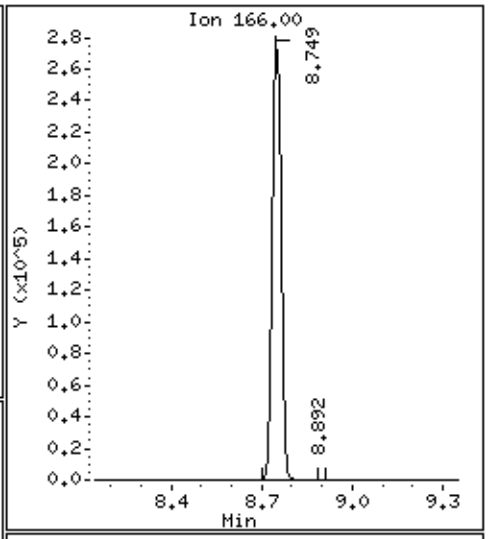
Concentration: 139.63 NG

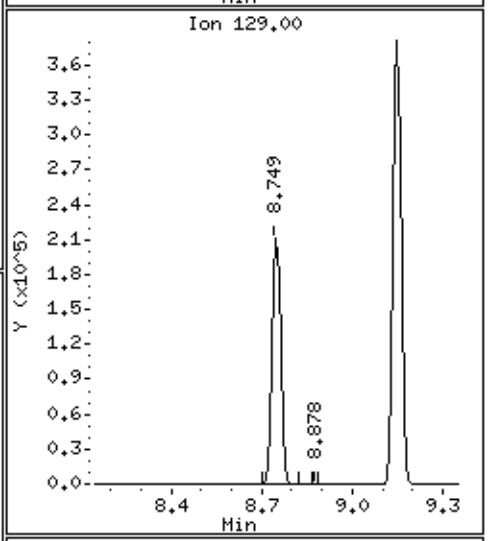


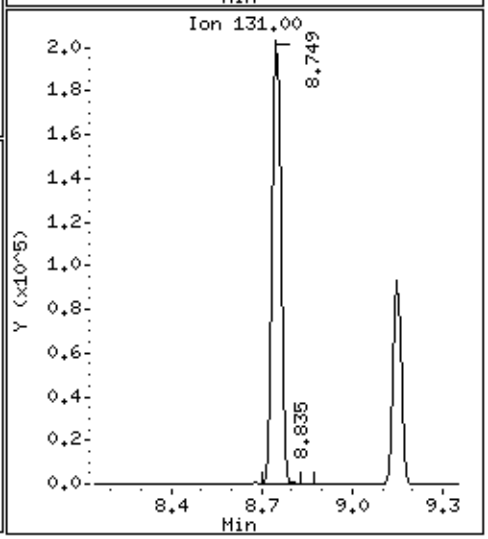












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

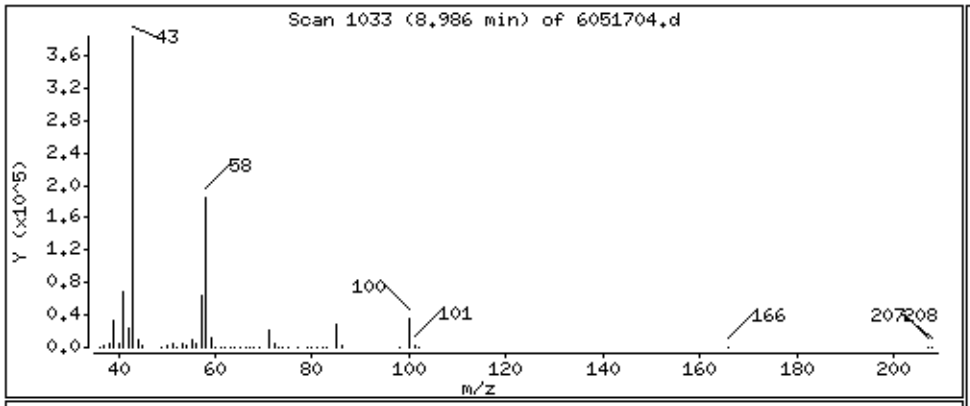
Operator: CT

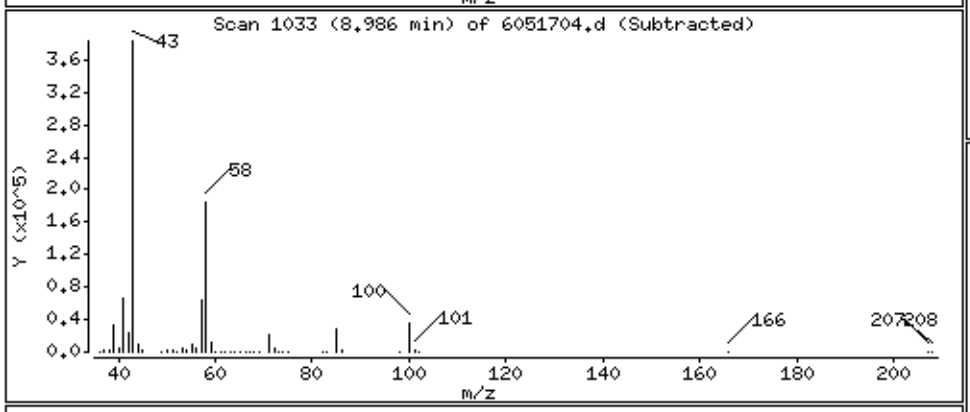
Column phase: RTx-624

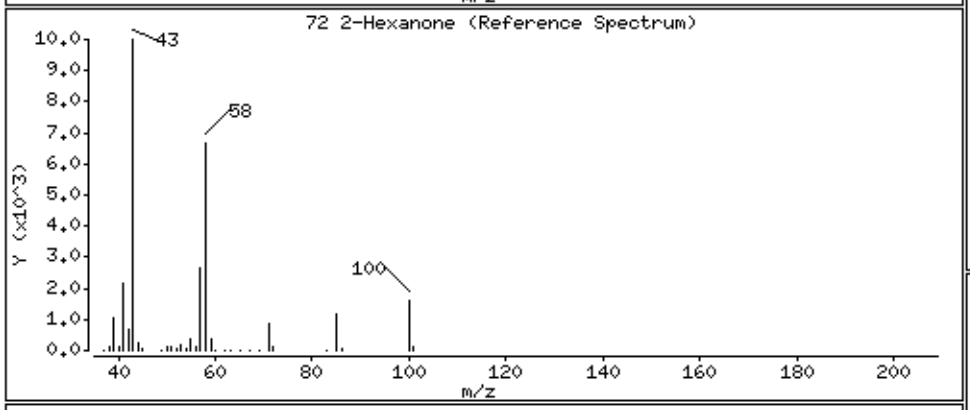
Column diameter: 0.53

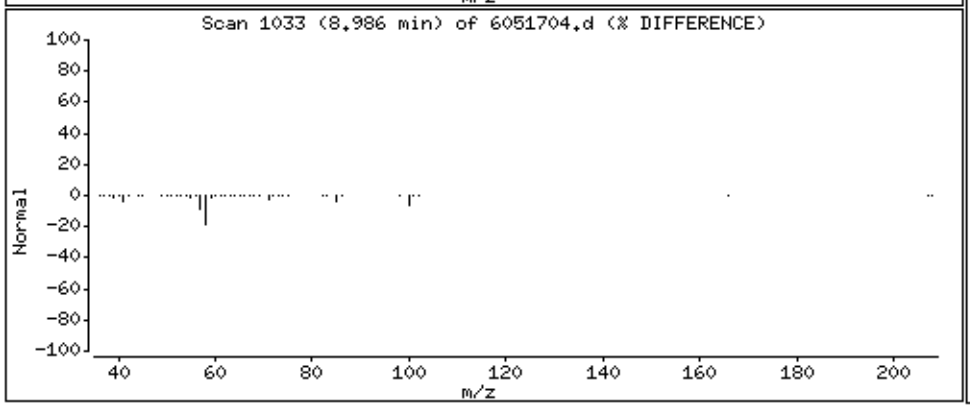
72 2-Hexanone

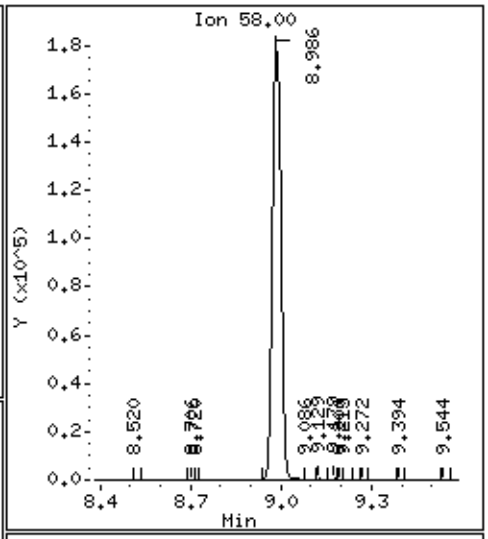
Concentration: 75.542 NG

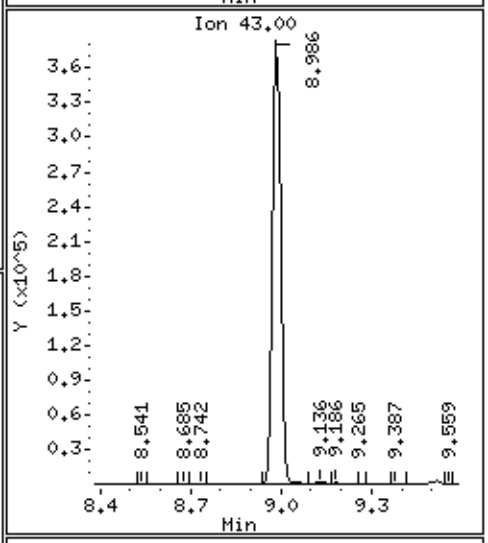


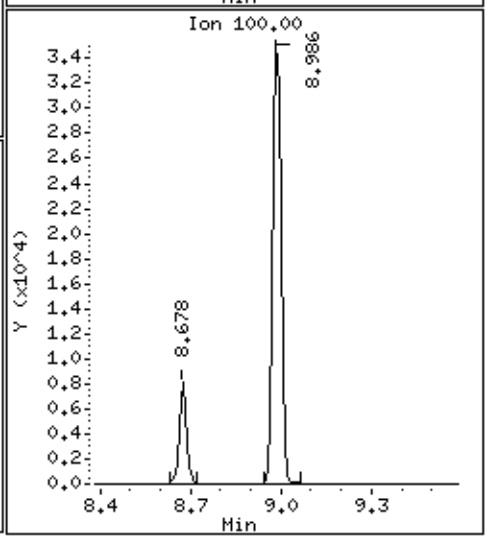












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

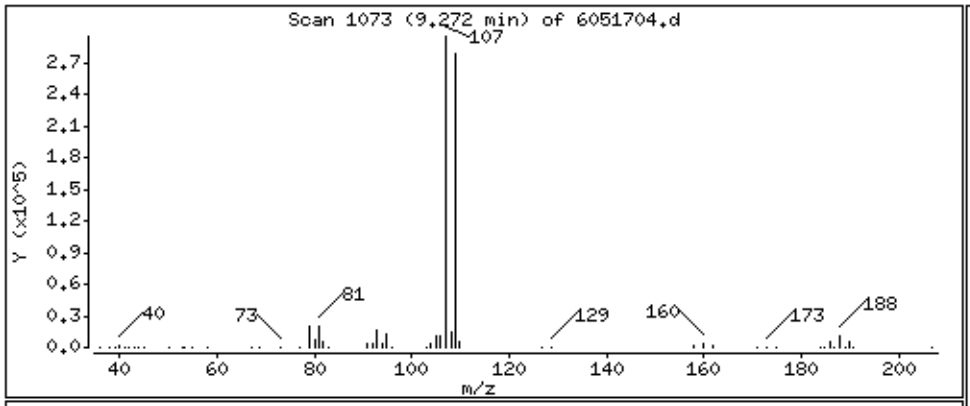
Operator: CT

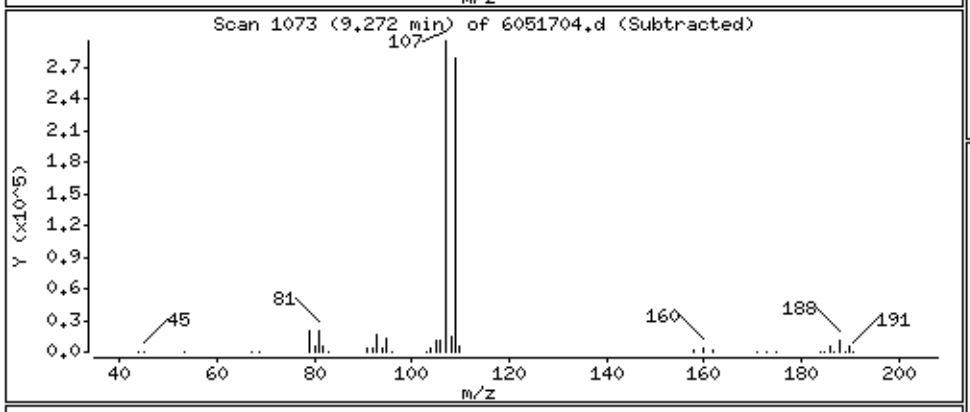
Column phase: RTx-624

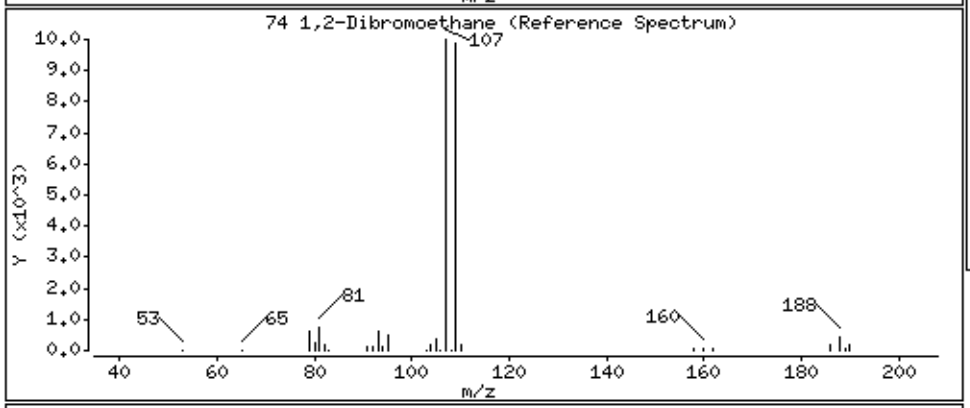
Column diameter: 0.53

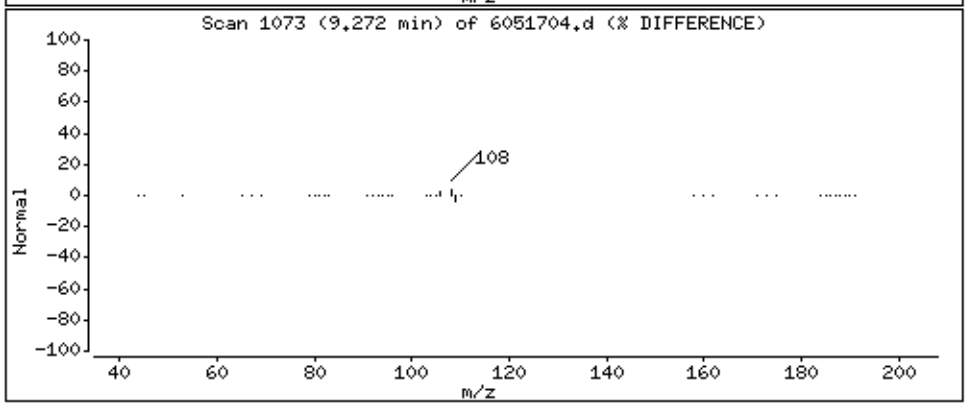
74 1,2-Dibromoethane

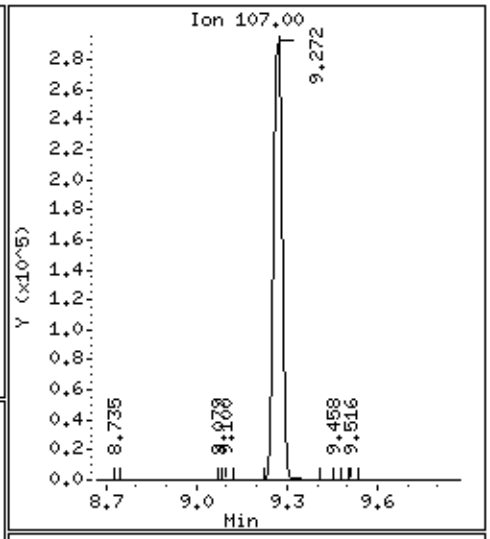
Concentration: 149.94 NG

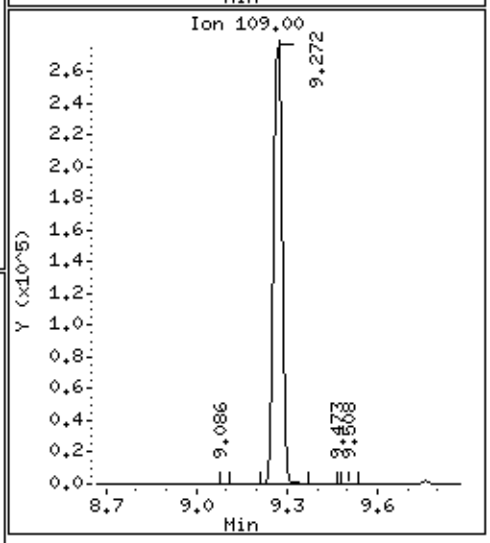












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

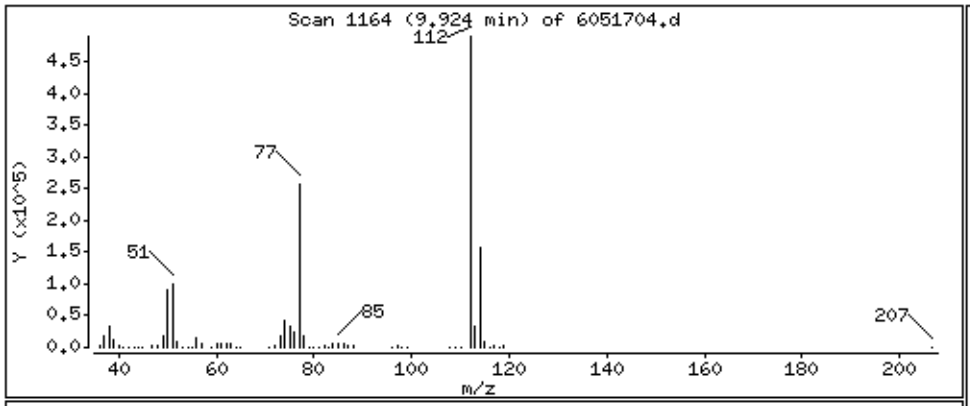
Operator: CT

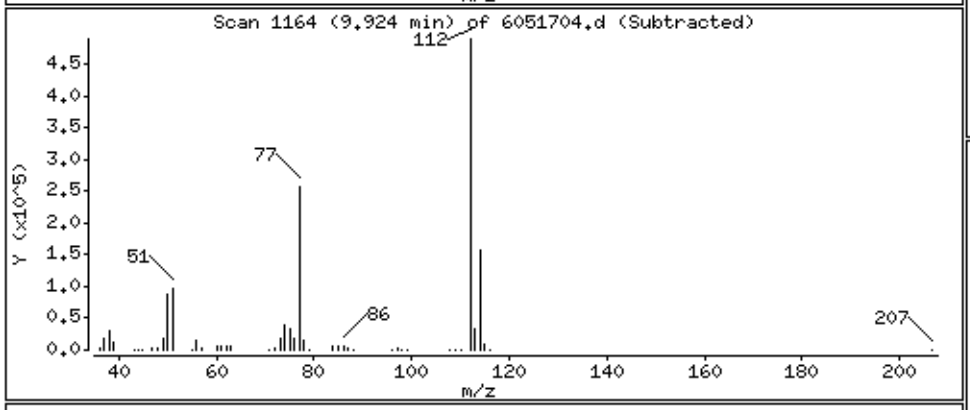
Column phase: RTx-624

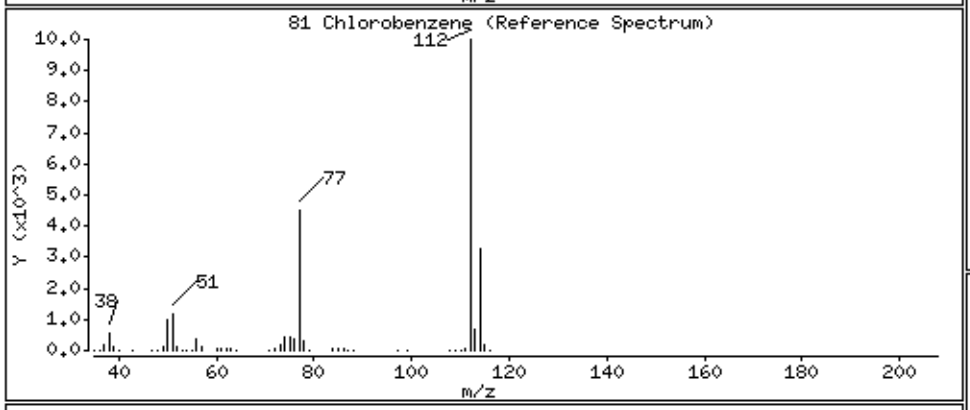
Column diameter: 0.53

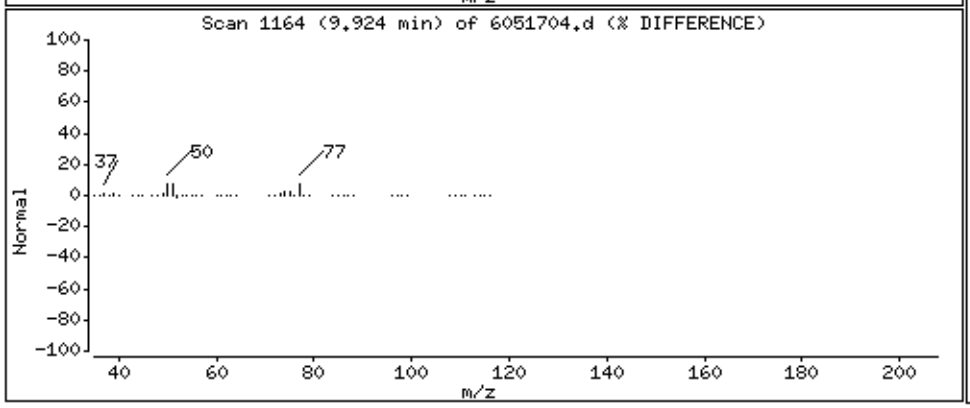
81 Chlorobenzene

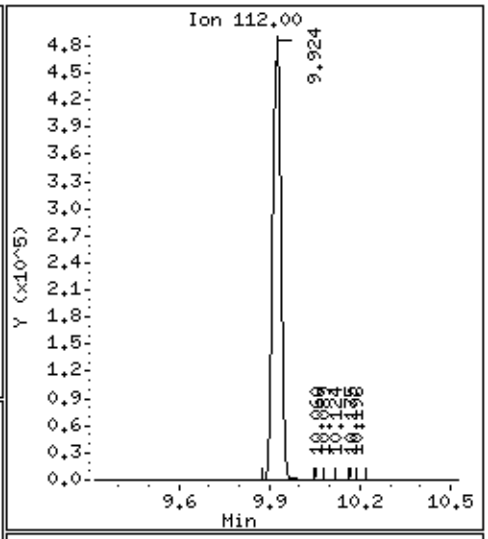
Concentration: 92.445 NG

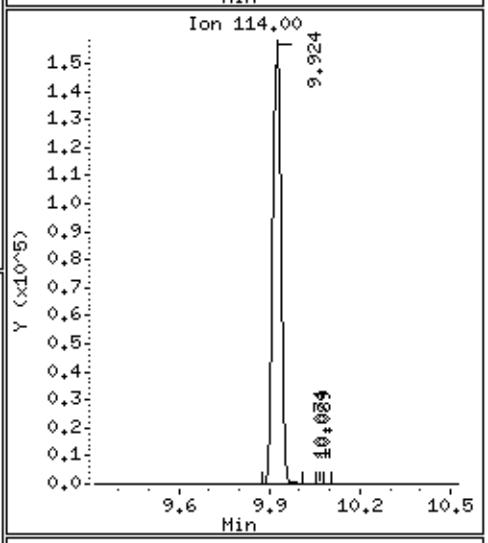


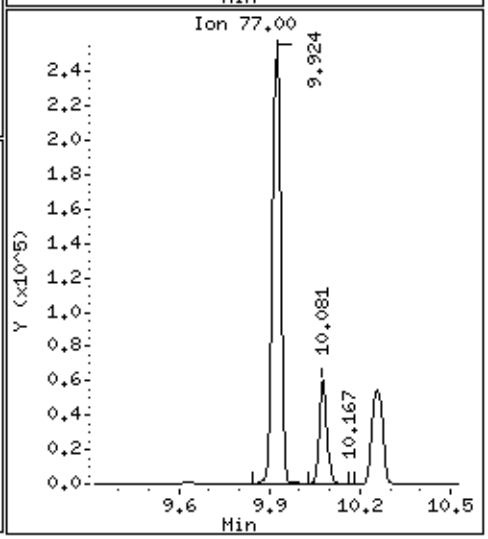












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

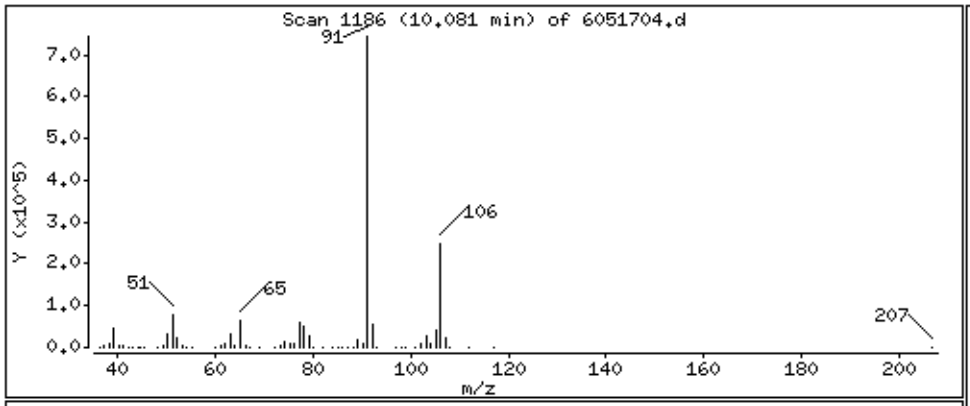
Operator: CT

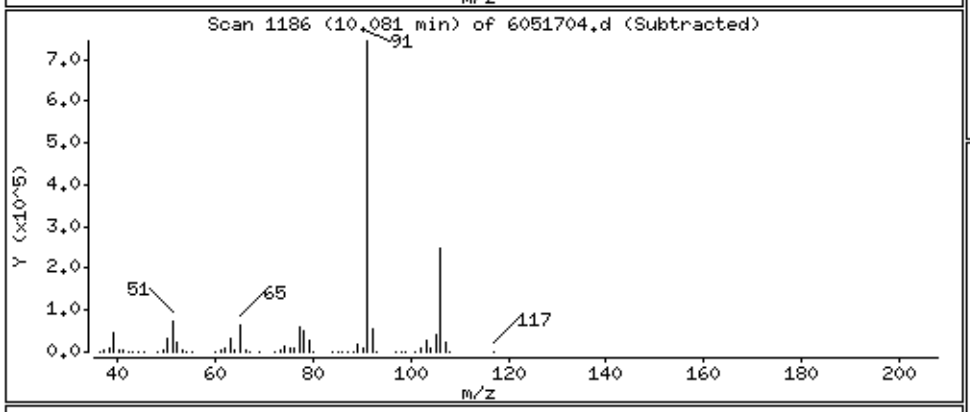
Column phase: RTx-624

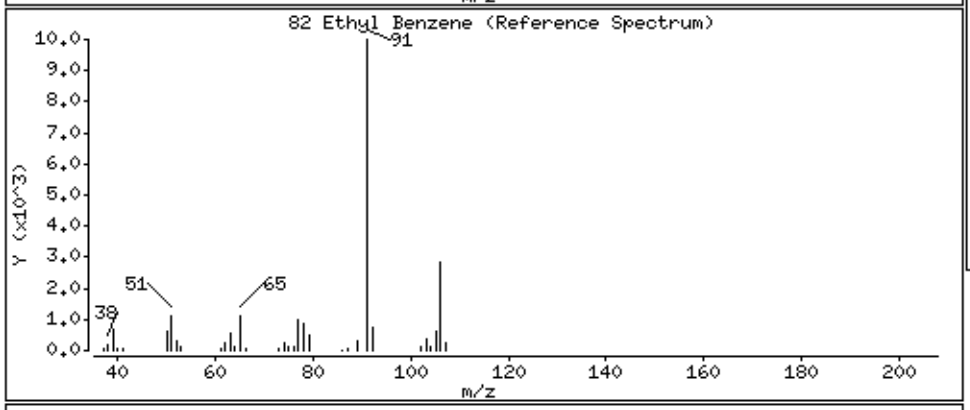
Column diameter: 0.53

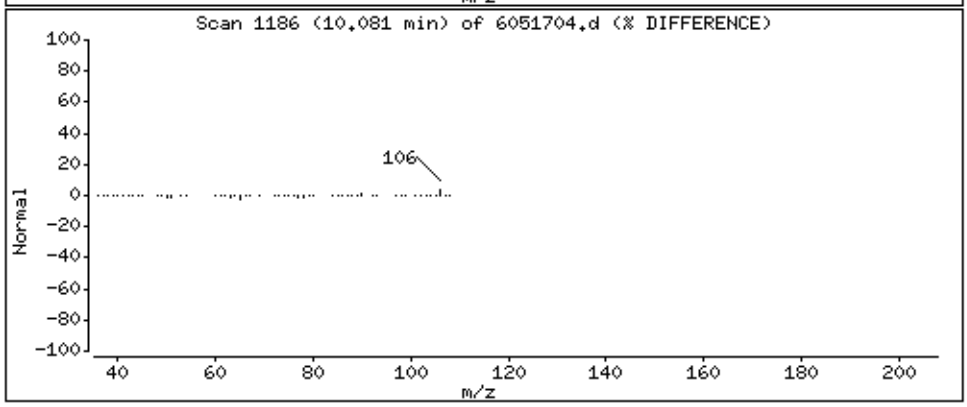
82 Ethyl Benzene

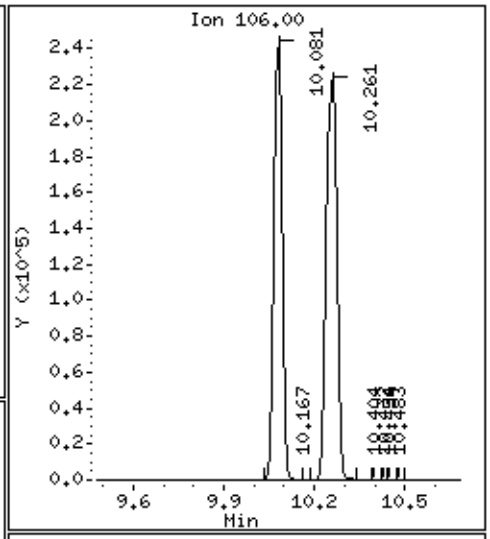
Concentration: 85.452 NG

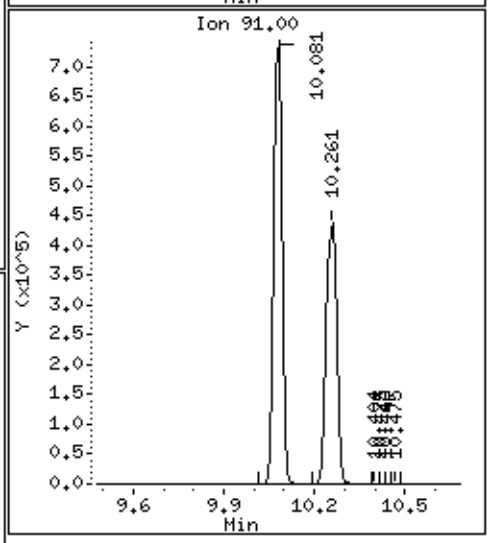












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

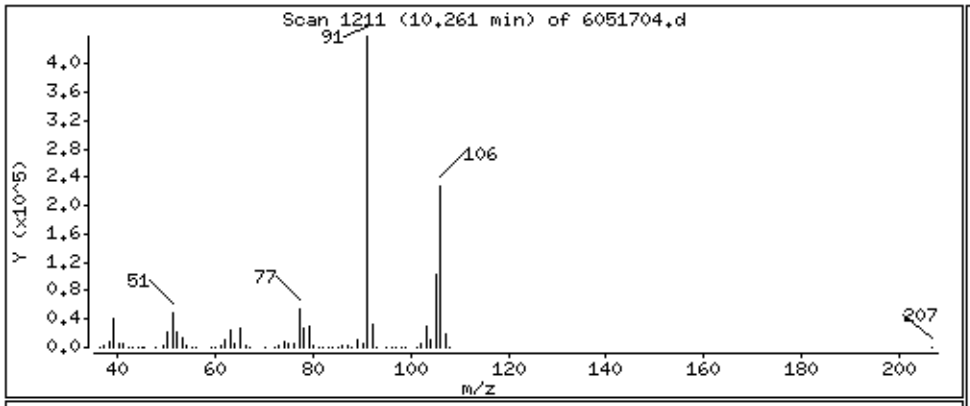
Operator: CT

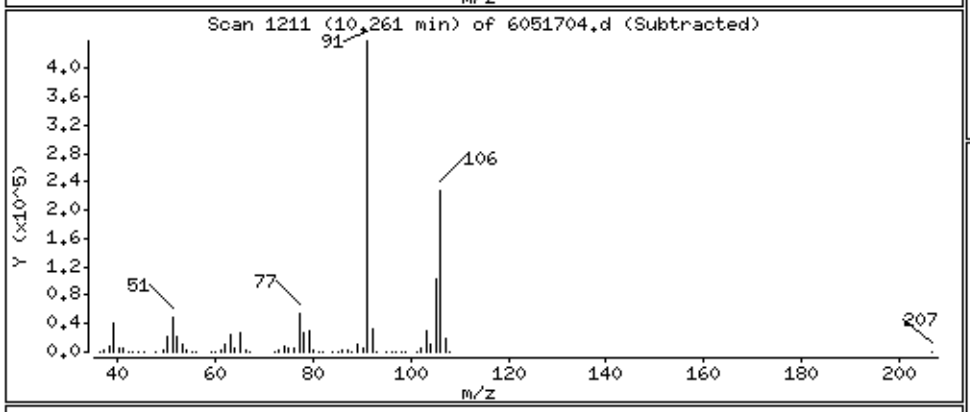
Column phase: RTx-624

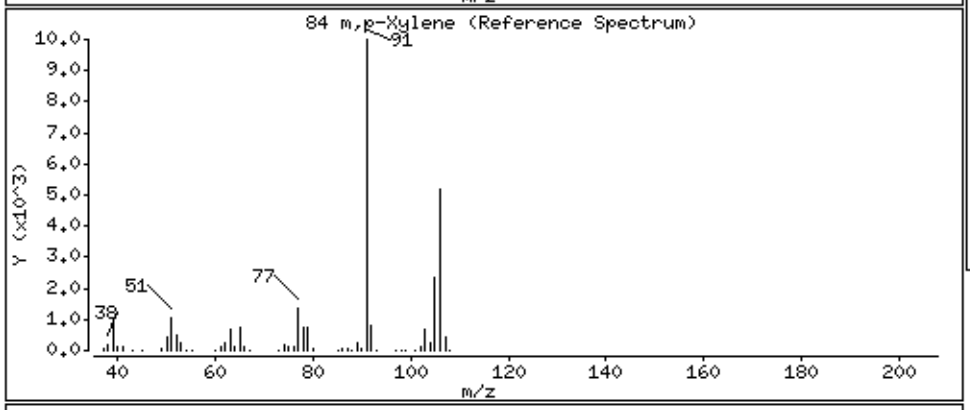
Column diameter: 0.53

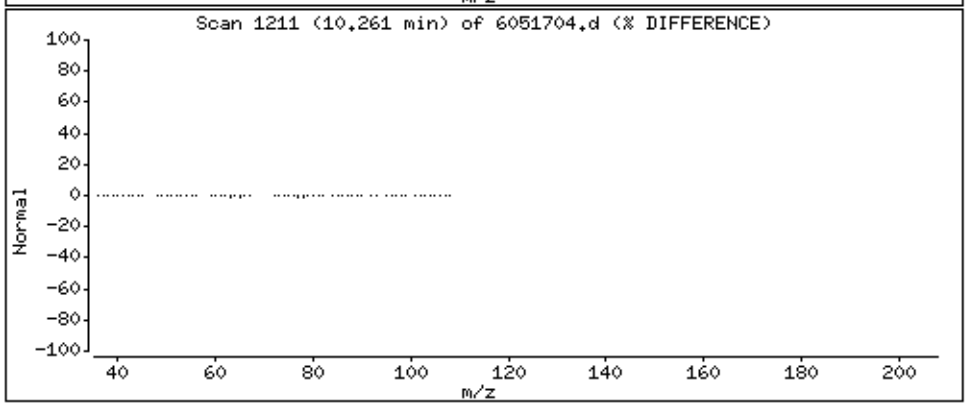
84 m,p-Xylene

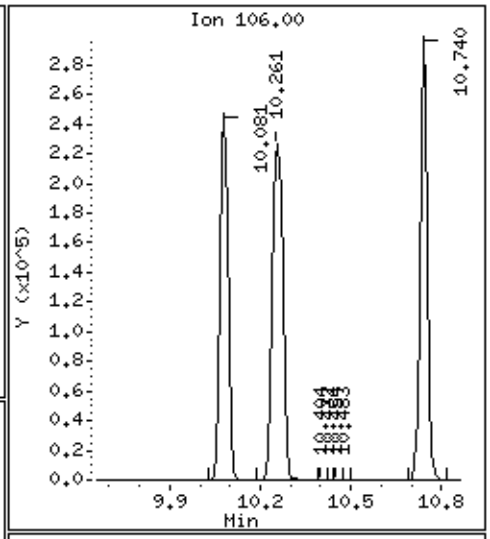
Concentration: 82.576 NG

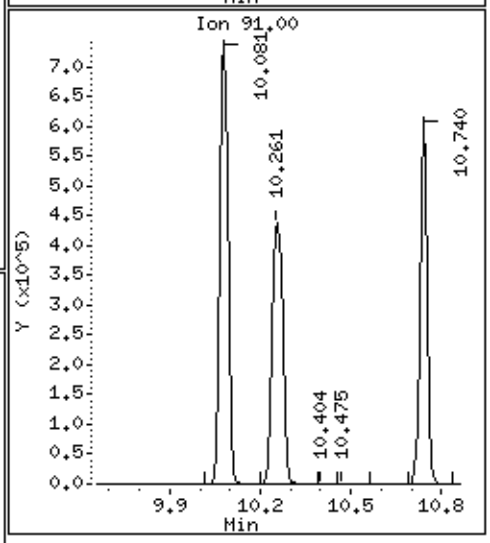












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

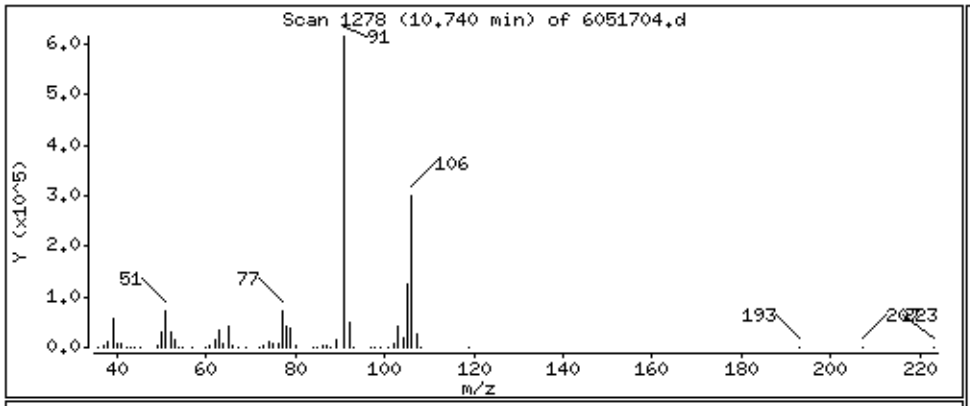
Operator: CT

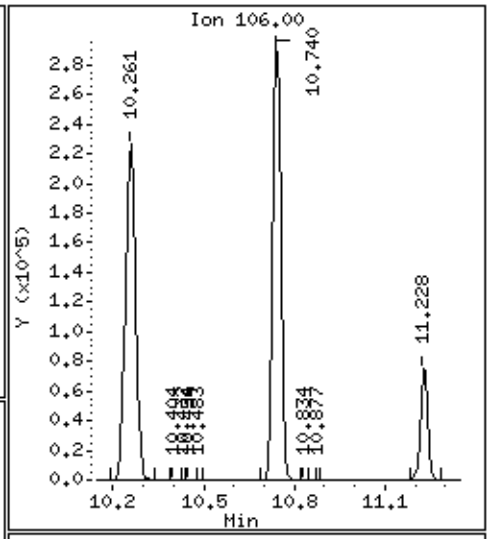
Column phase: RTx-624

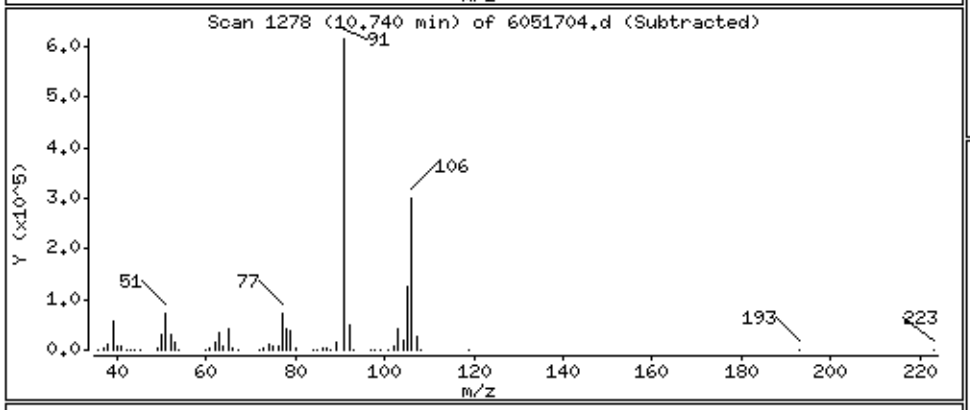
Column diameter: 0.53

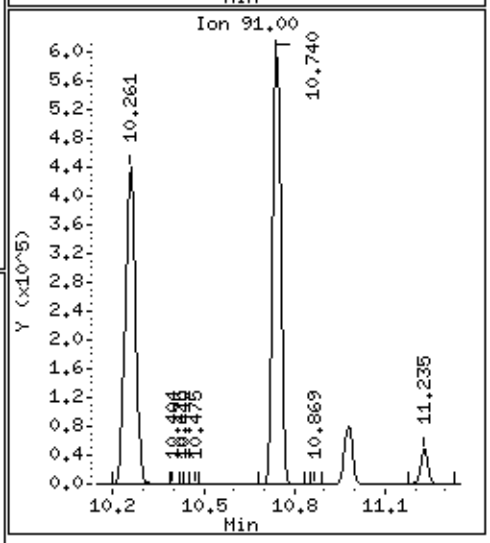
88 o-Xylene

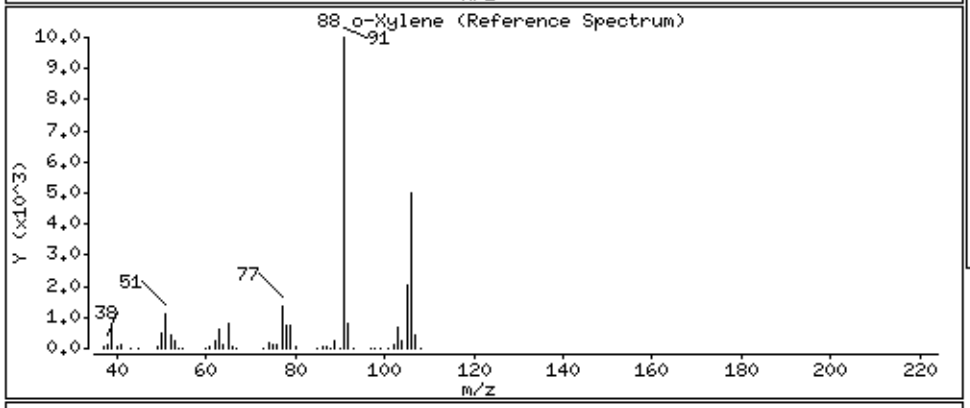
Concentration: 83.662 NG

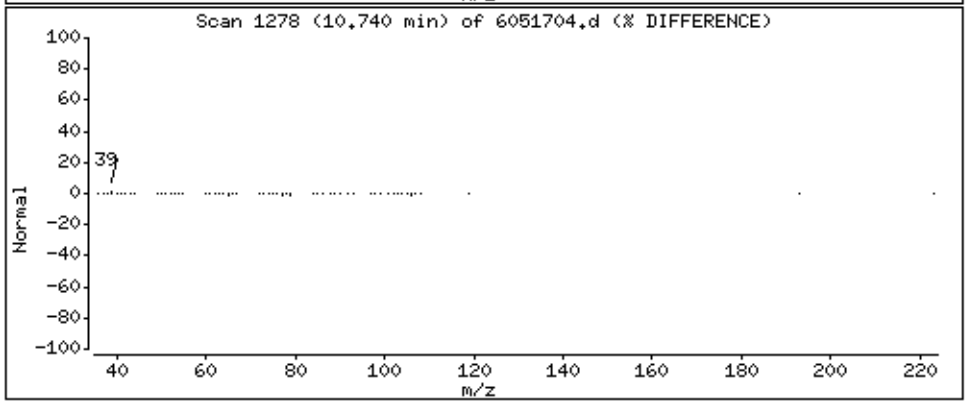












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

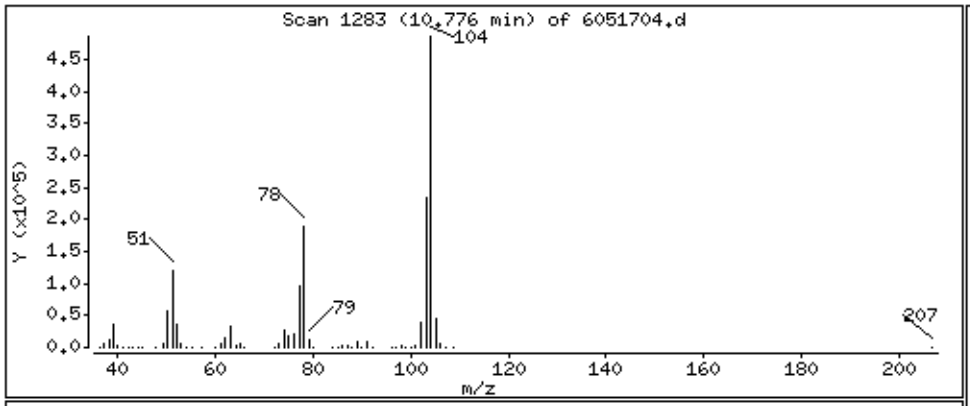
Operator: CT

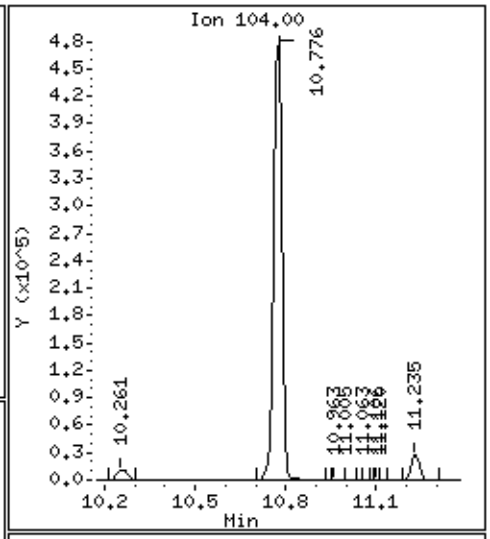
Column phase: RTx-624

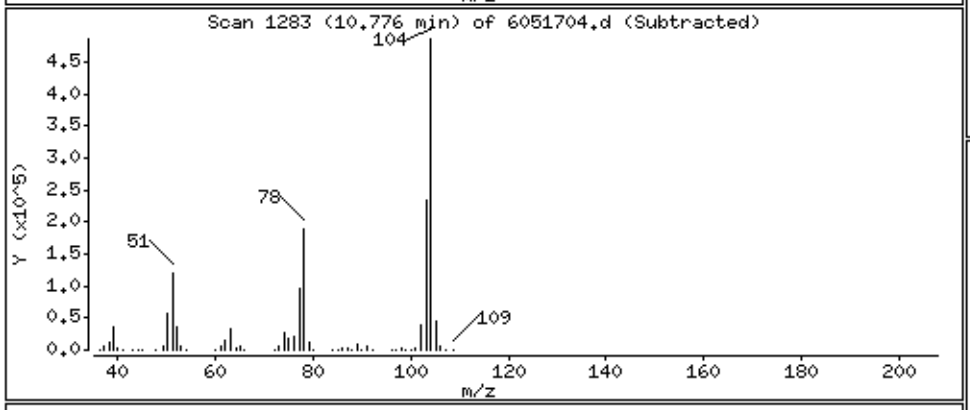
Column diameter: 0.53

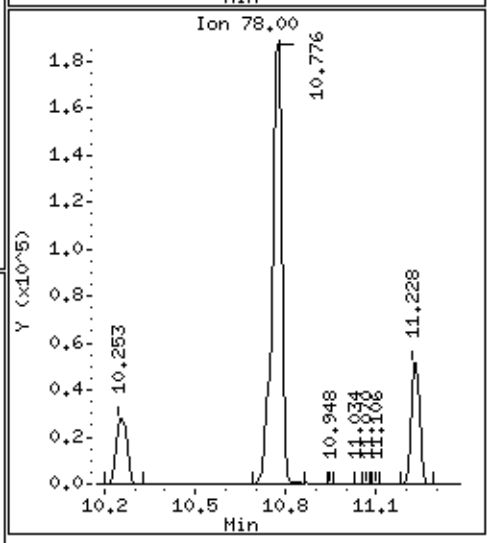
89 Styrene

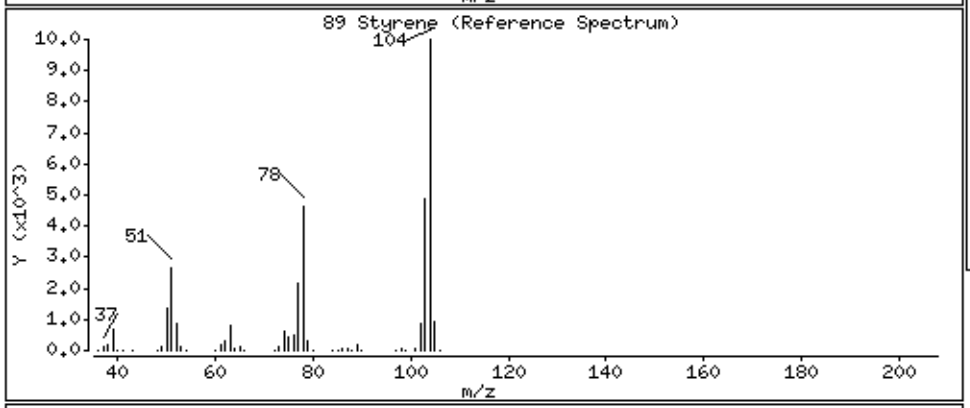
Concentration: 79.576 NG

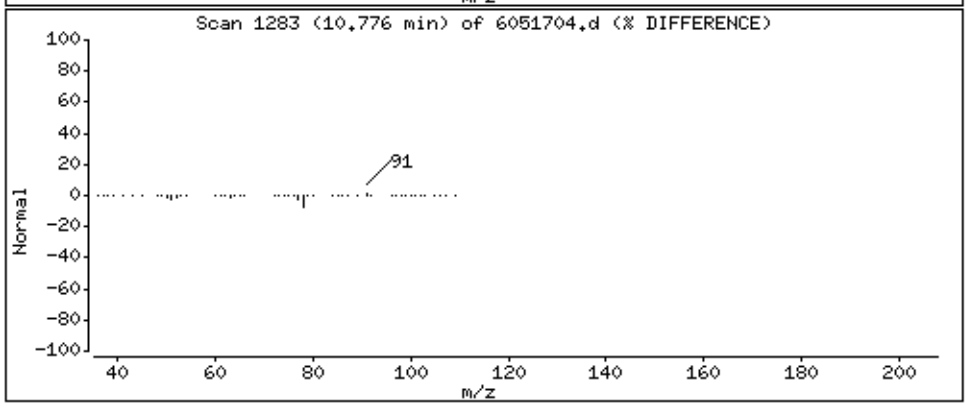












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

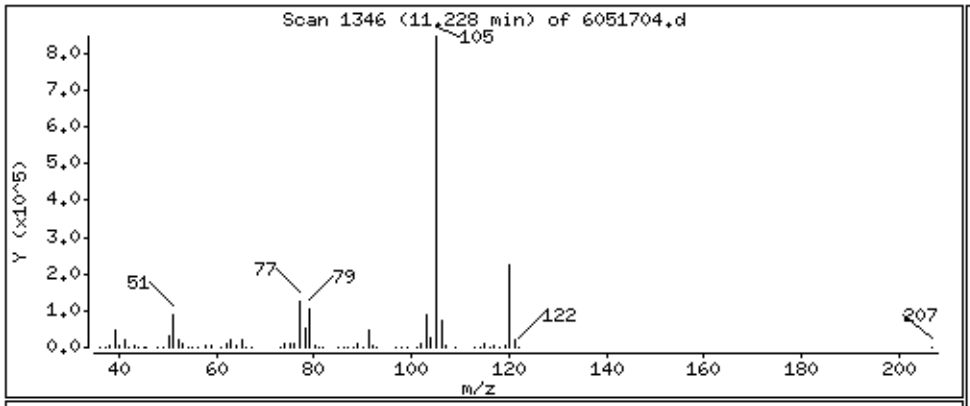
Operator: CT

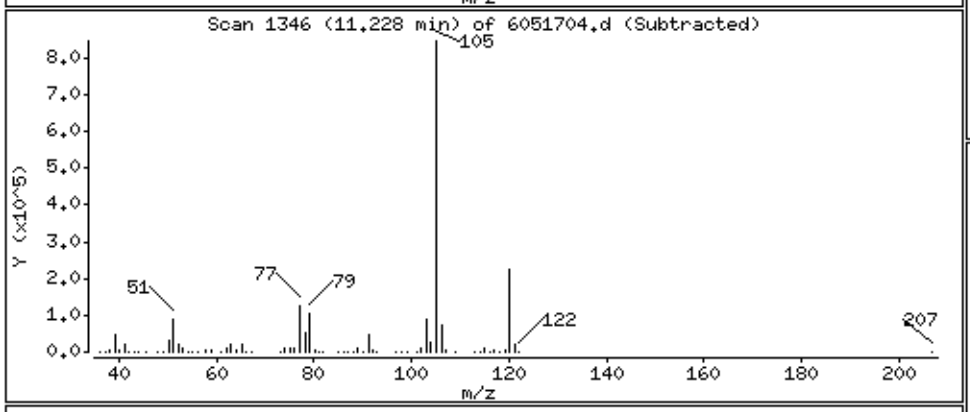
Column phase: RTx-624

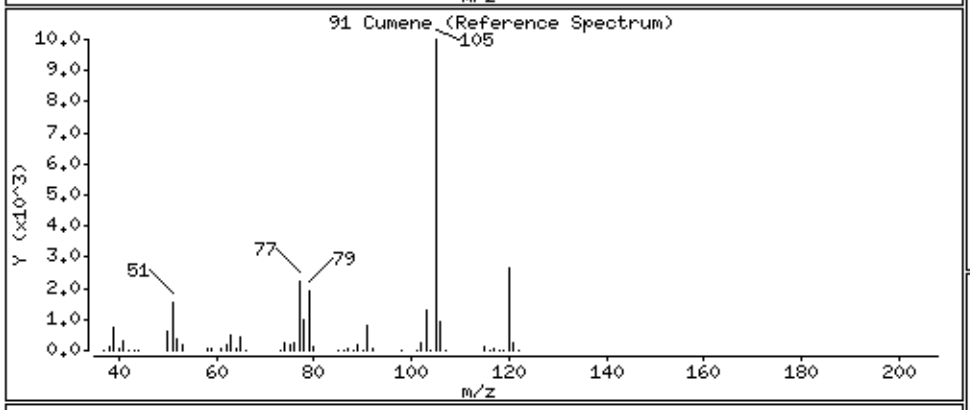
Column diameter: 0.53

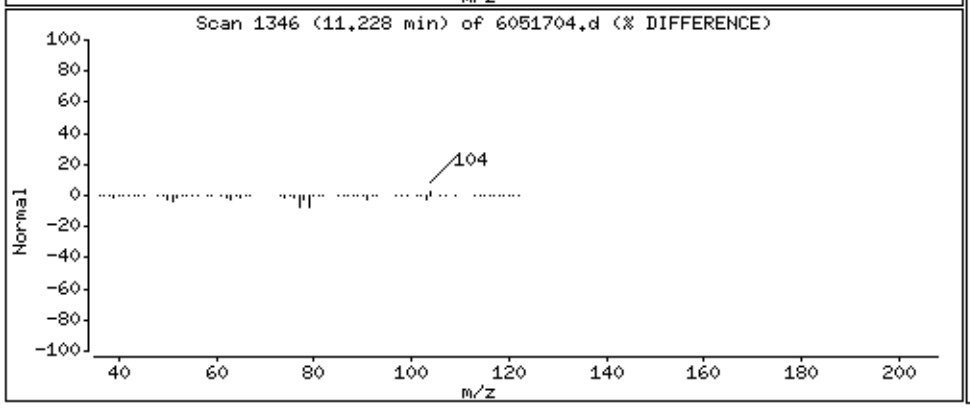
91 Cumene

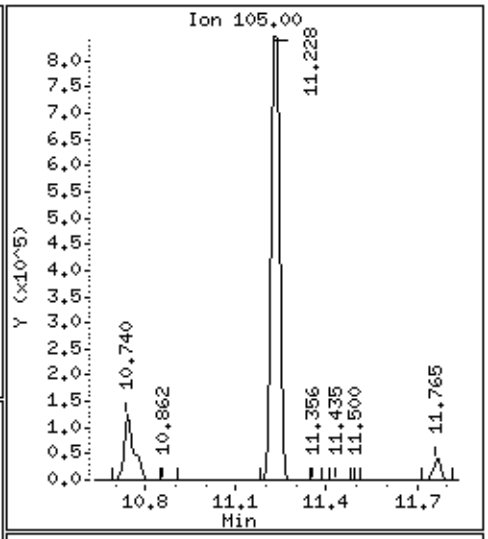
Concentration: 94.719 NG

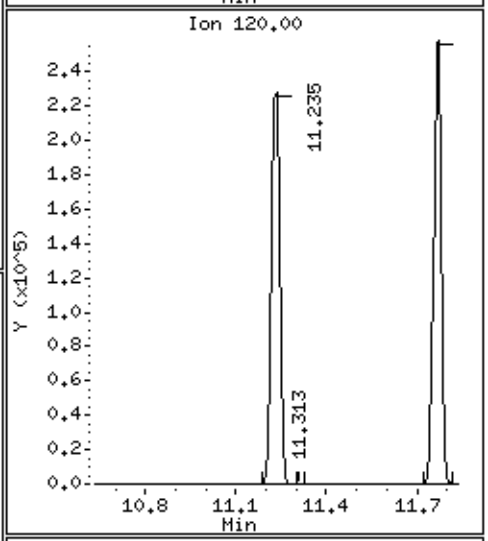


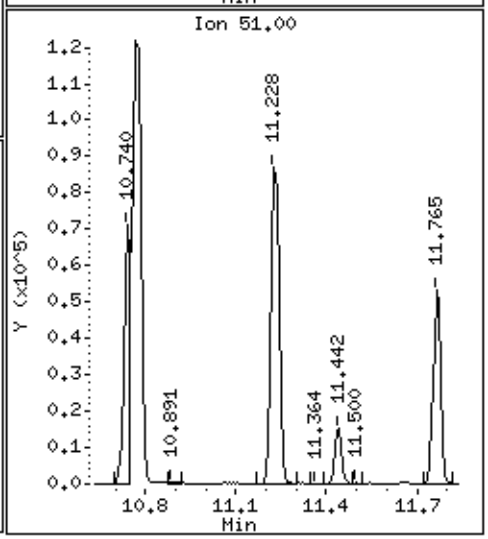












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

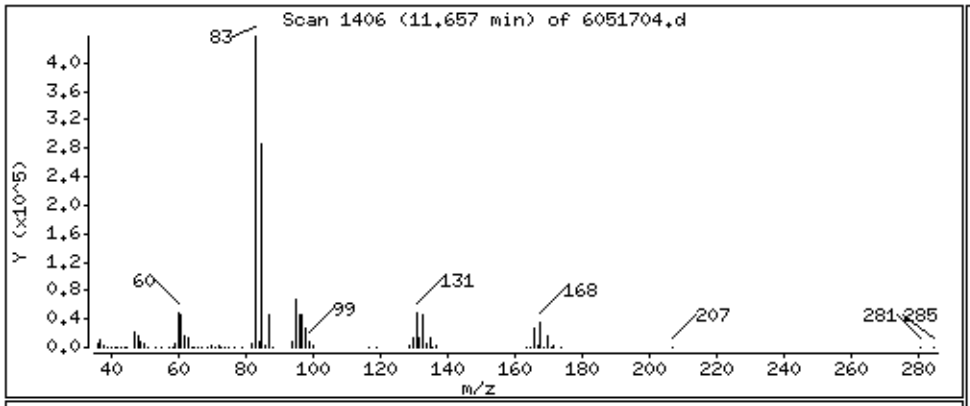
Operator: CT

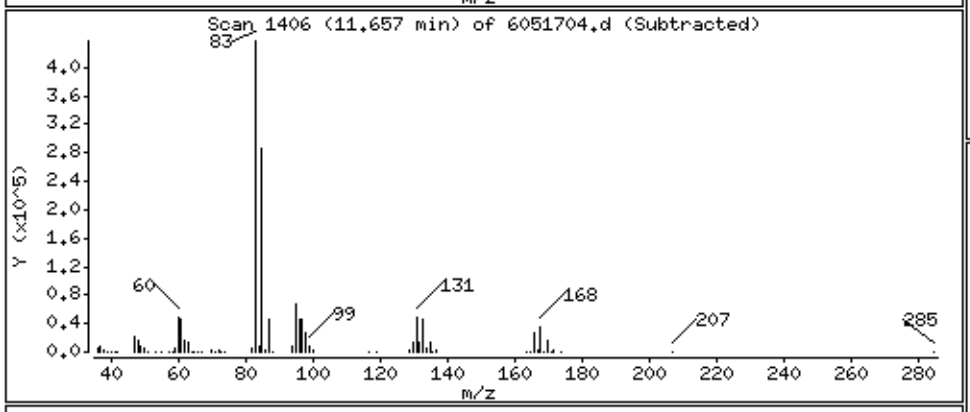
Column phase: RTx-624

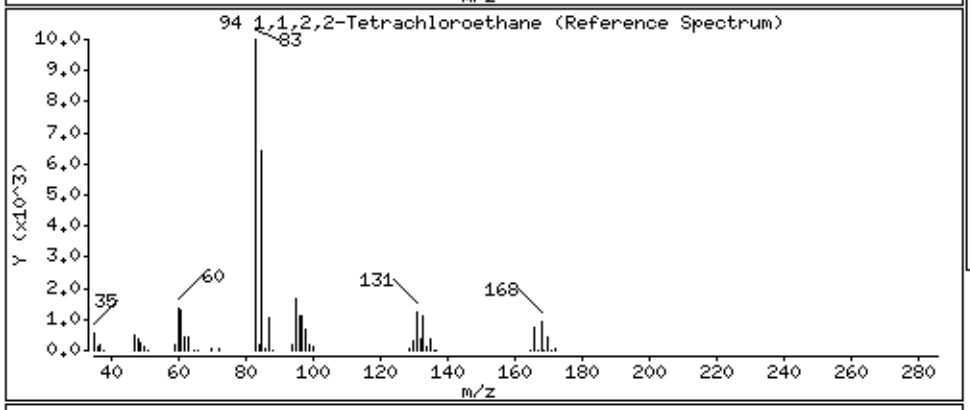
Column diameter: 0.53

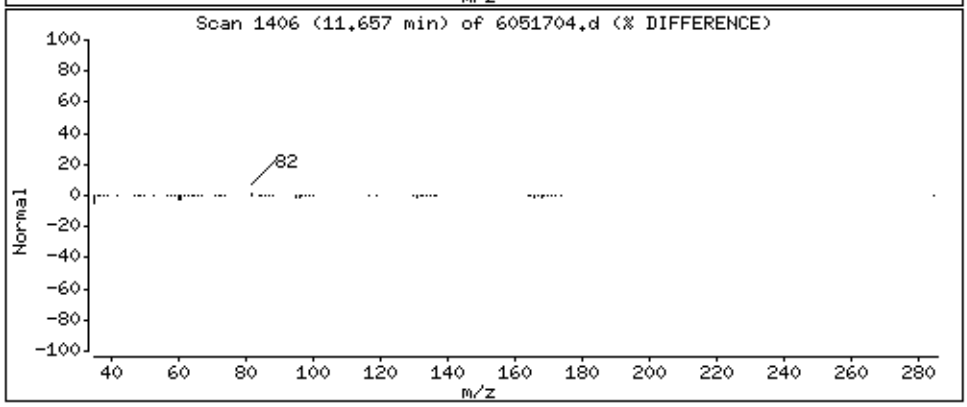
94 1,1,2,2-Tetrachloroethane

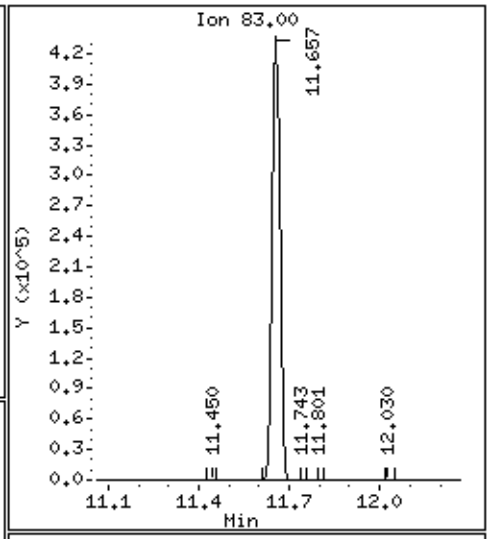
Concentration: 137.56 NG

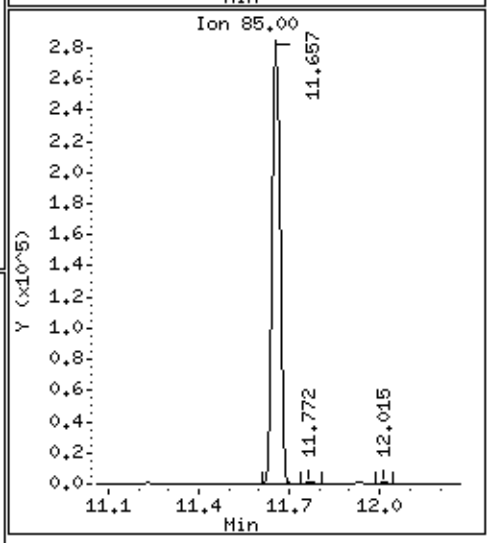












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

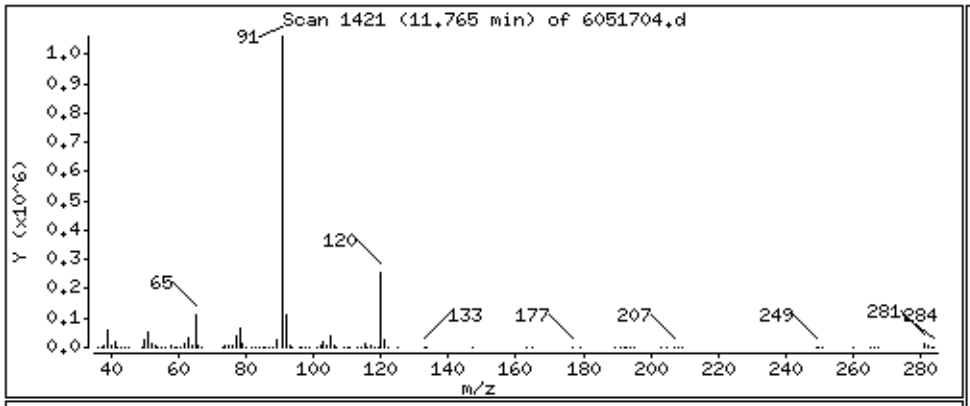
Operator: CT

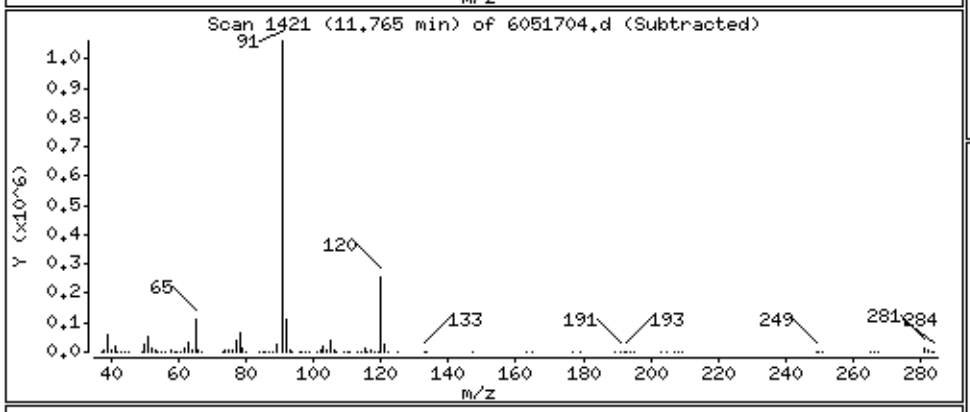
Column phase: RTx-624

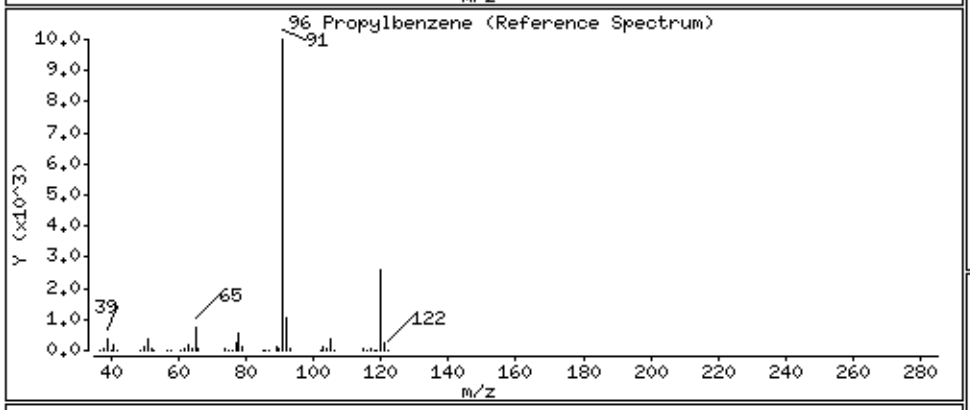
Column diameter: 0.53

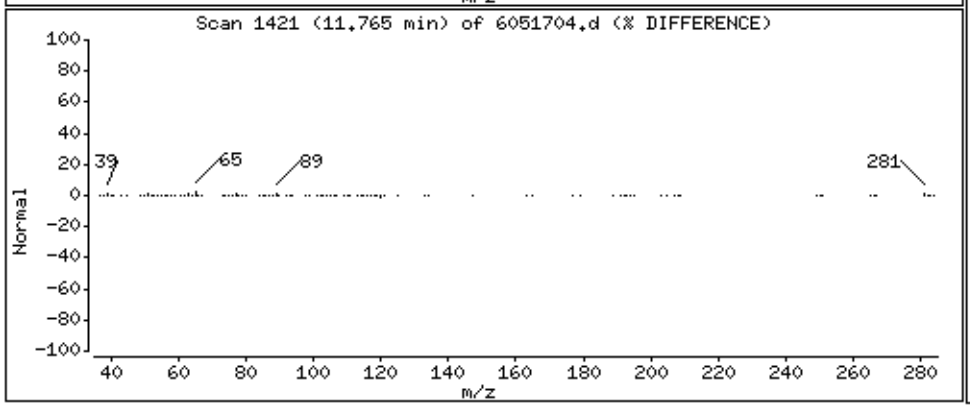
96 Propylbenzene

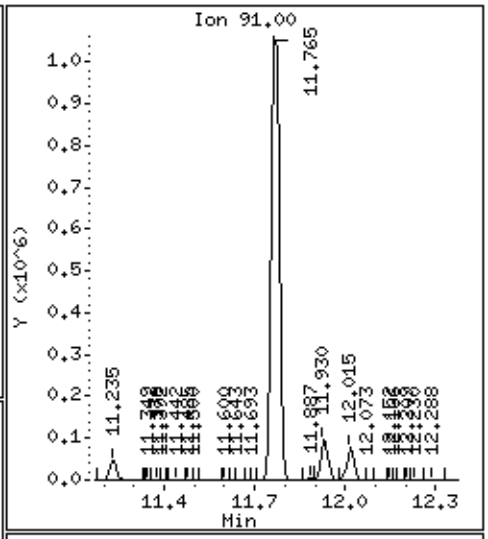
Concentration: 96.278 NG

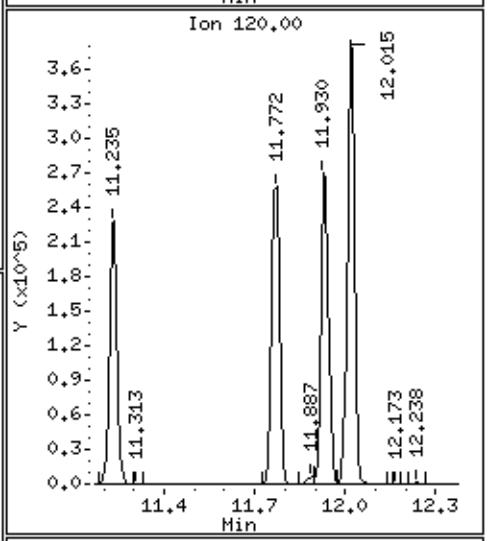


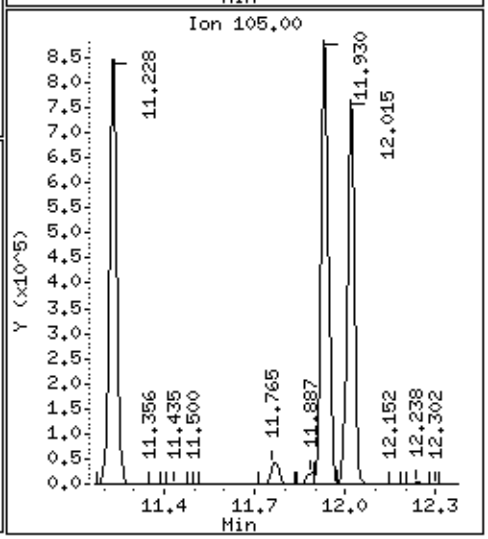












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

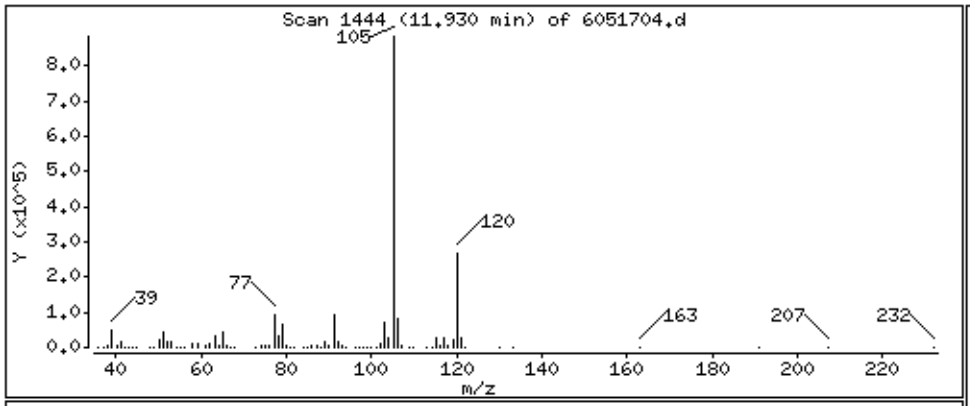
Operator: CT

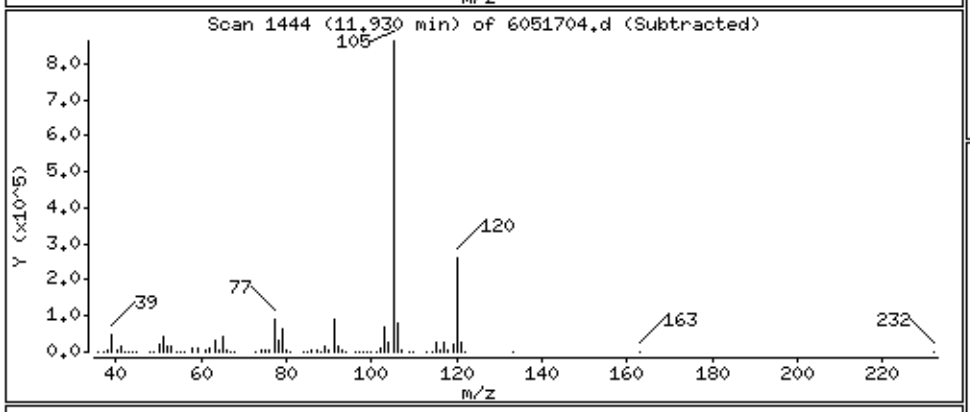
Column phase: RTx-624

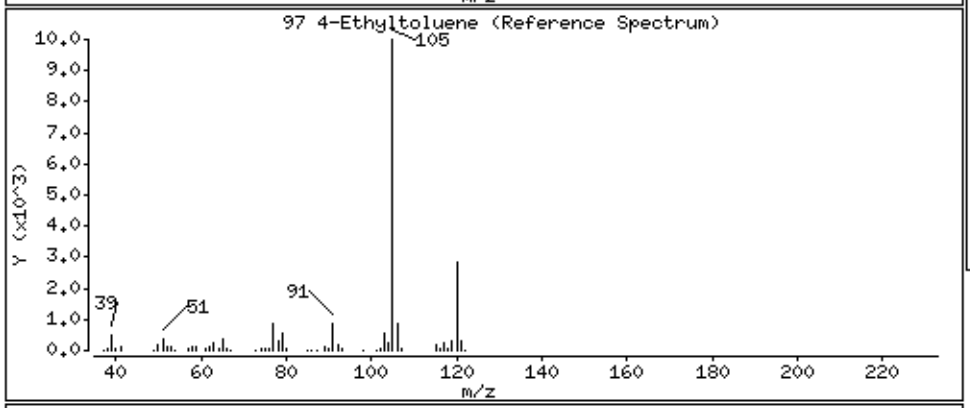
Column diameter: 0.53

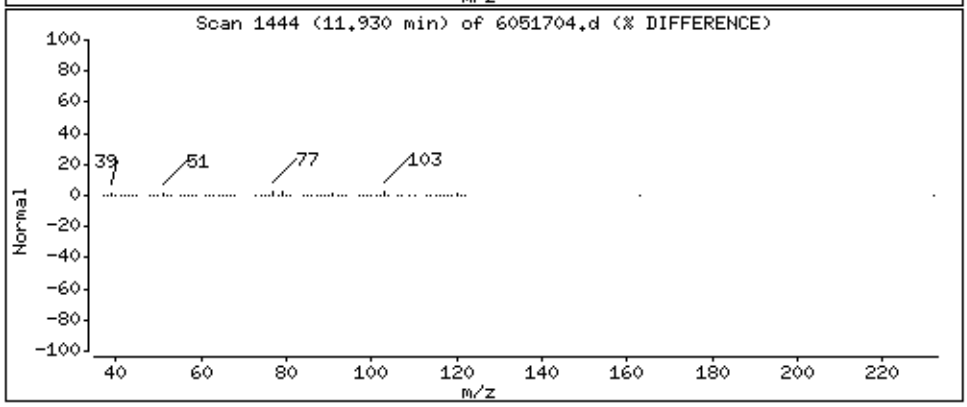
97 4-Ethyltoluene

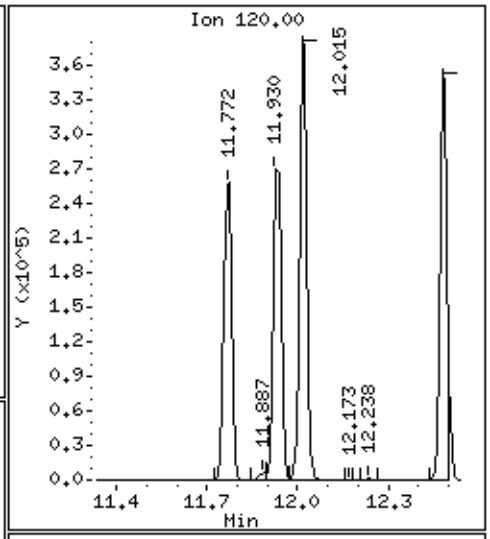
Concentration: 94.718 NG

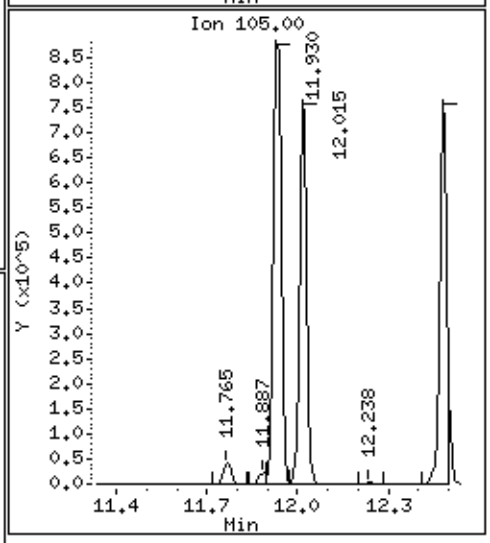












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

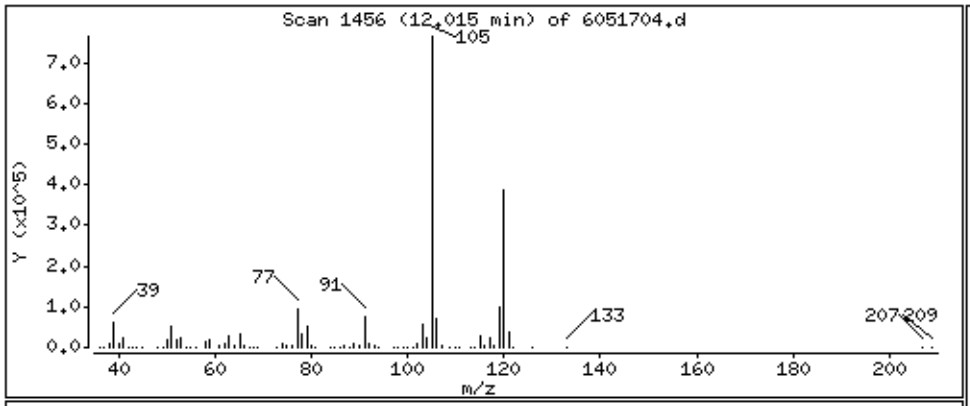
Operator: CT

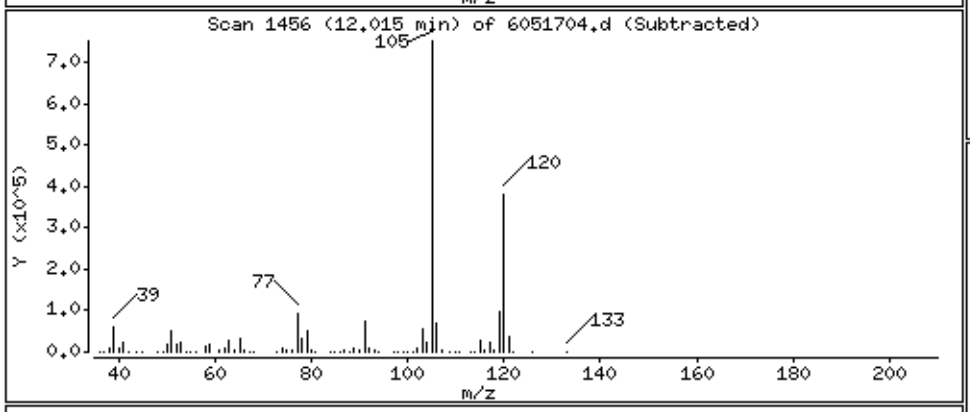
Column phase: RTx-624

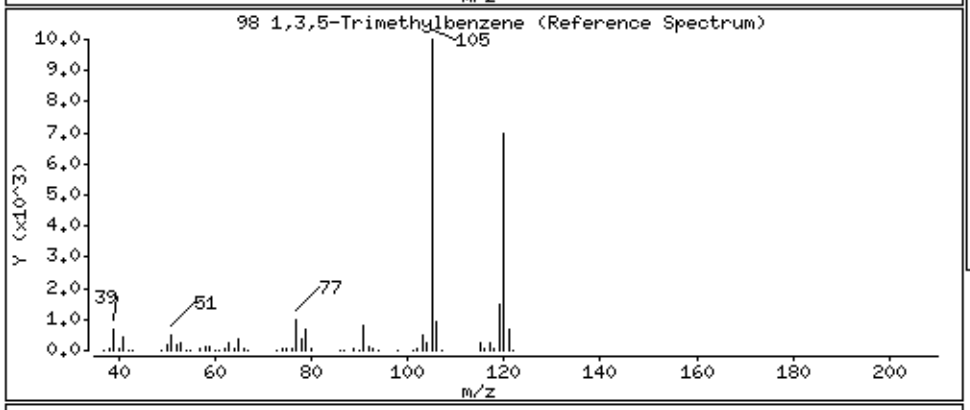
Column diameter: 0.53

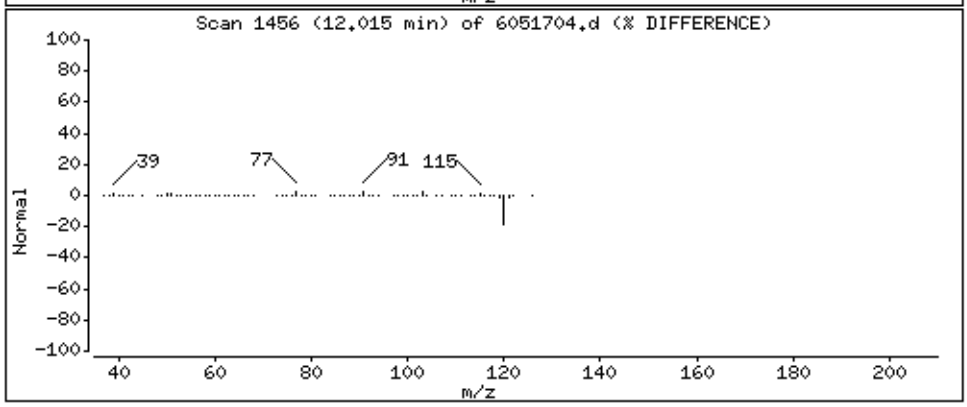
98 1,3,5-Trimethylbenzene

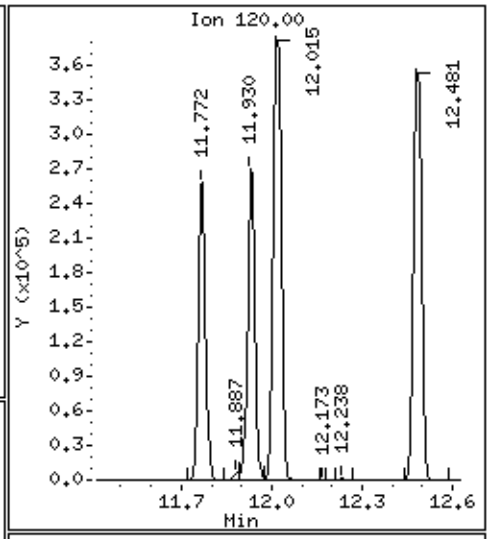
Concentration: 95.811 NG

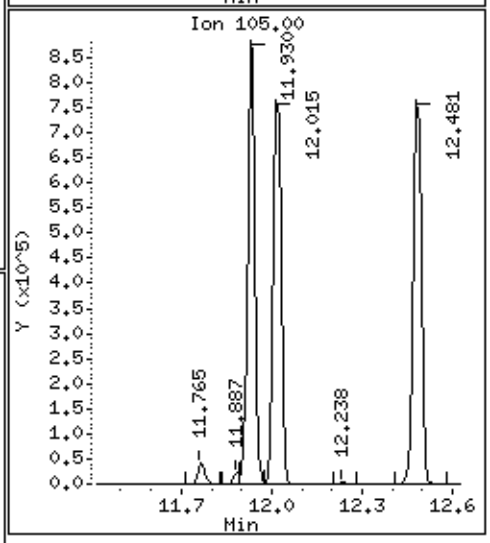












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

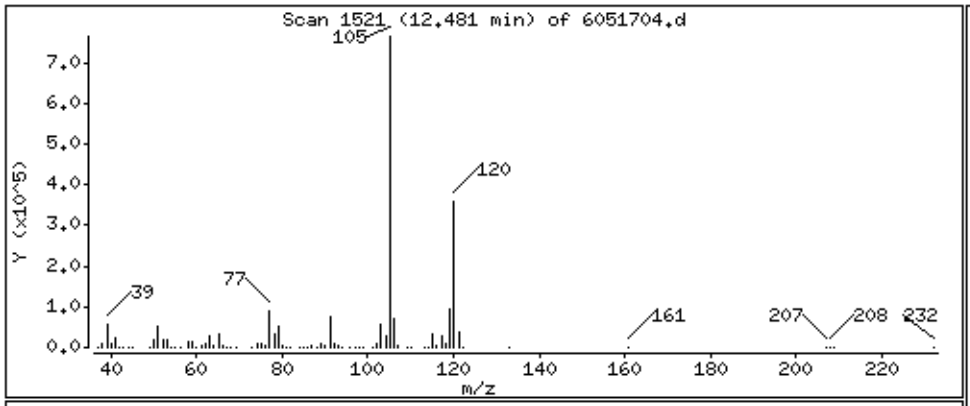
Operator: CT

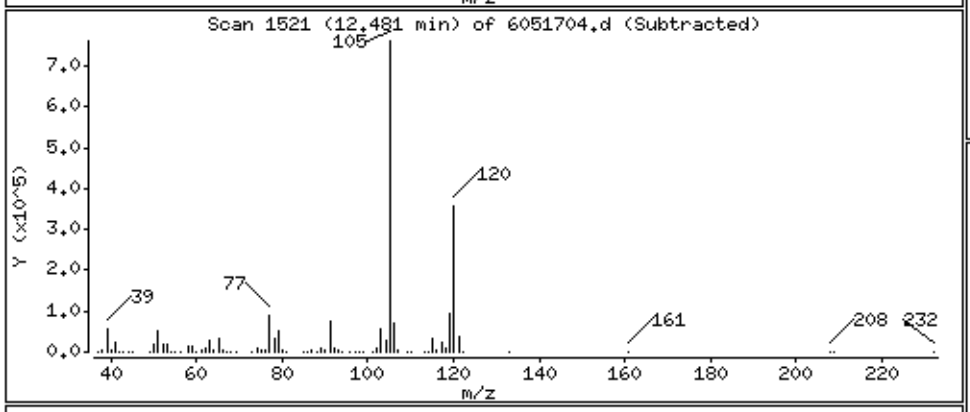
Column phase: RTx-624

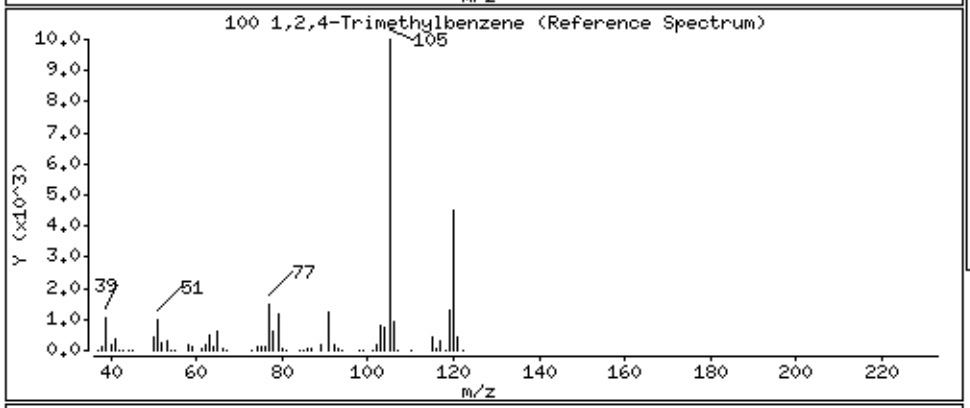
Column diameter: 0.53

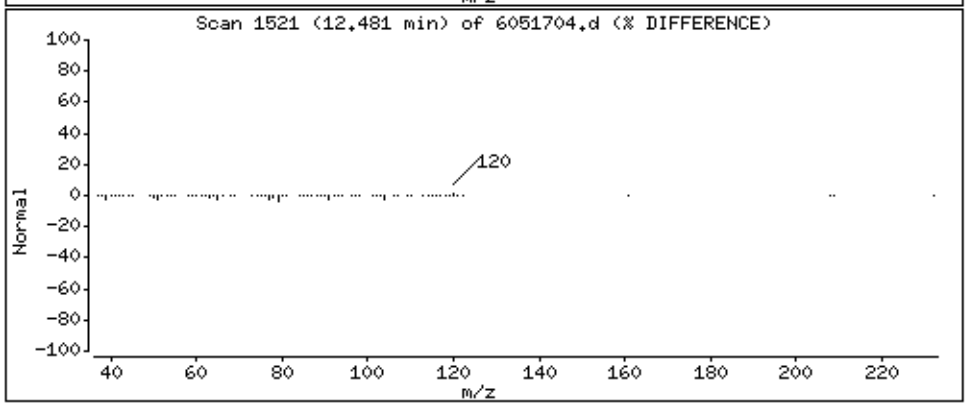
100 1,2,4-Trimethylbenzene

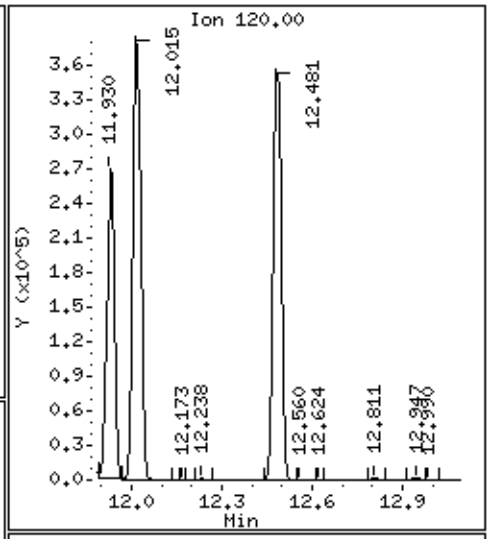
Concentration: 94.619 NG

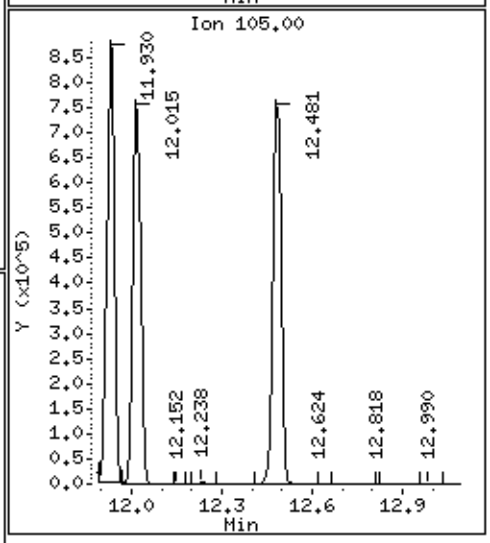












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

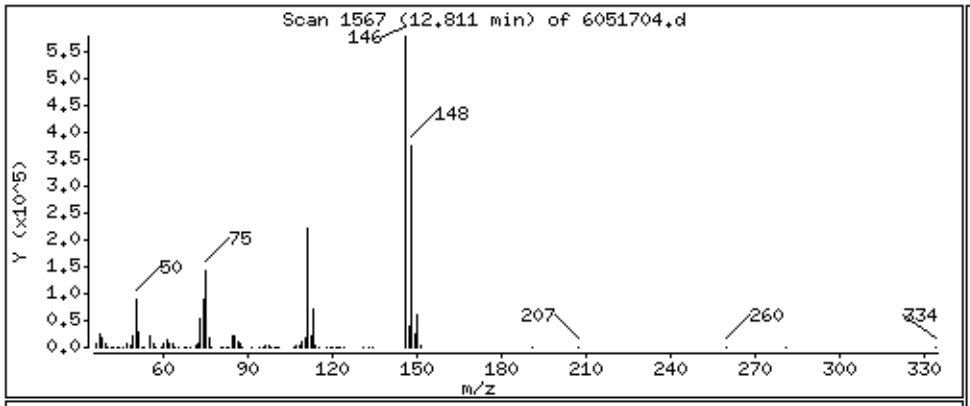
Operator: CT

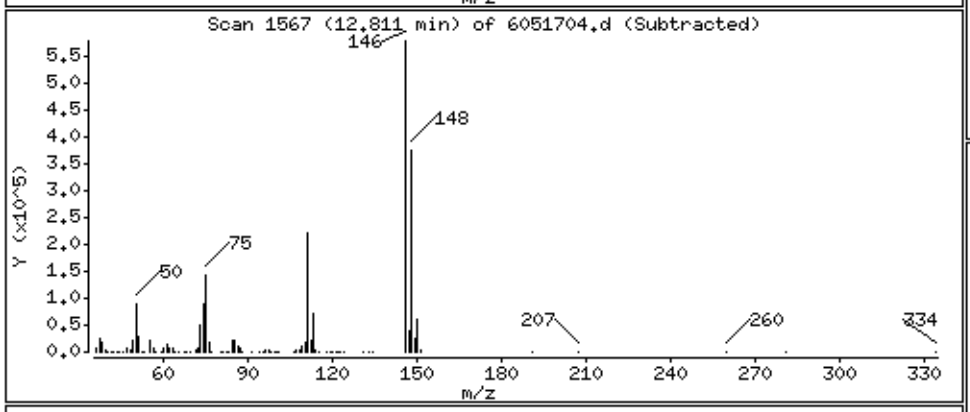
Column phase: RTx-624

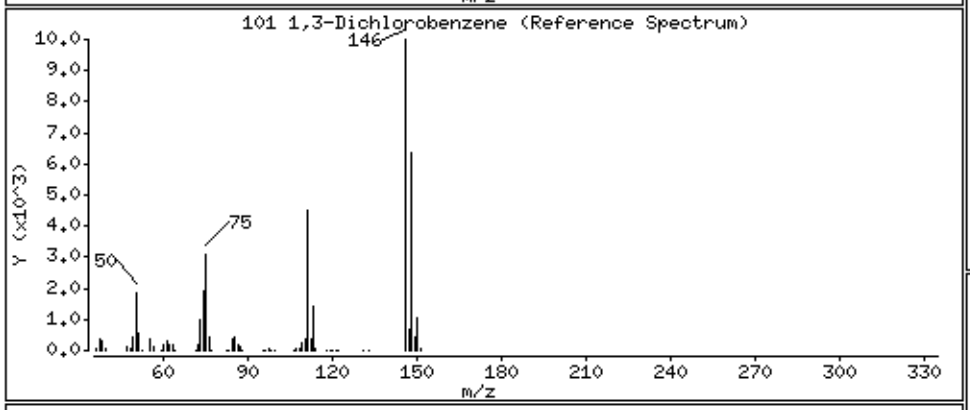
Column diameter: 0.53

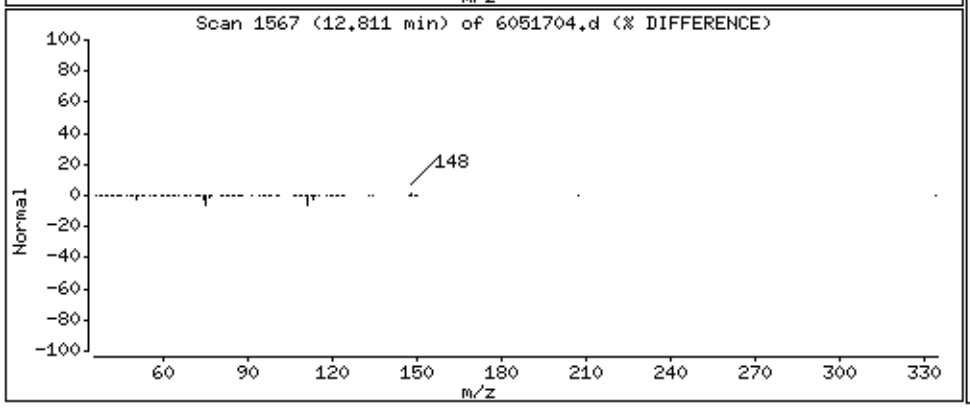
101 1,3-Dichlorobenzene

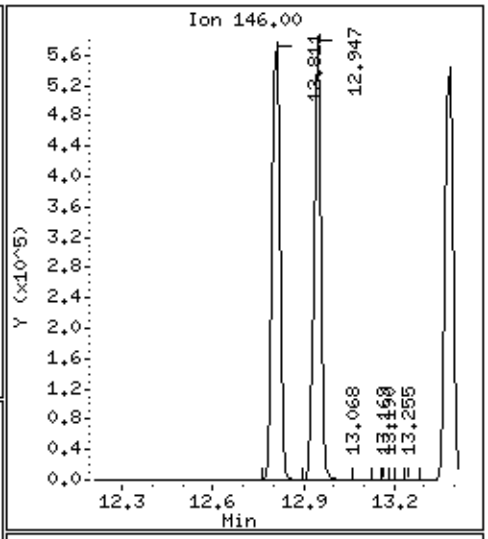
Concentration: 120.12 NG

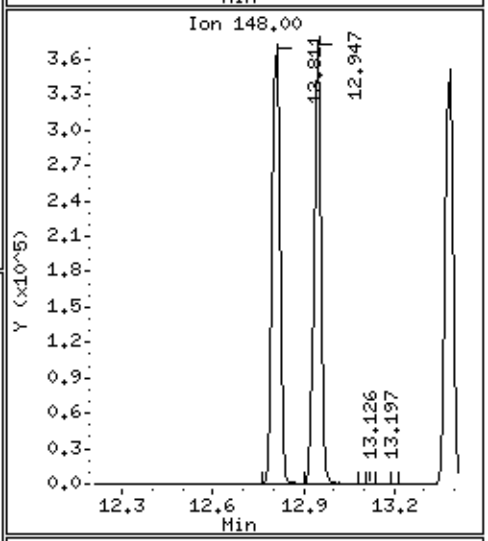


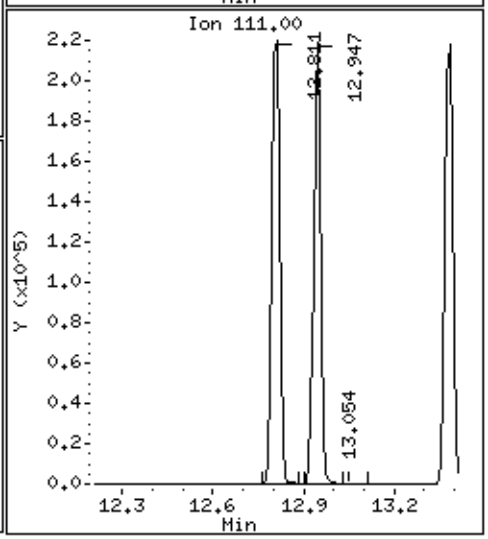












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

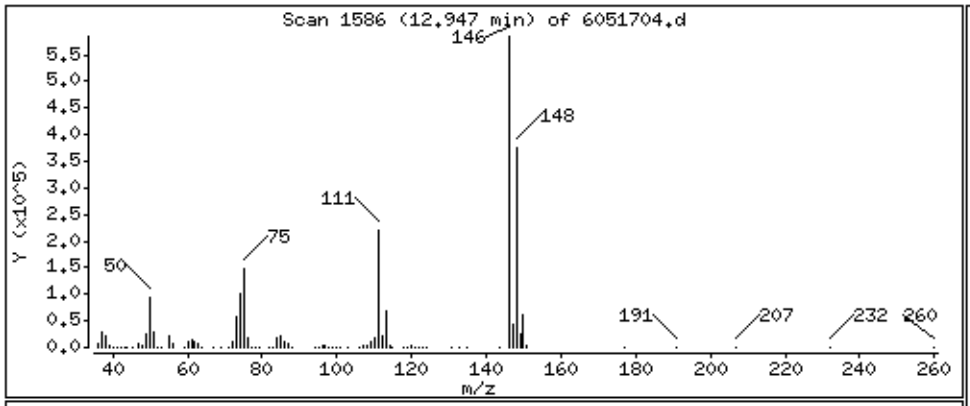
Operator: CT

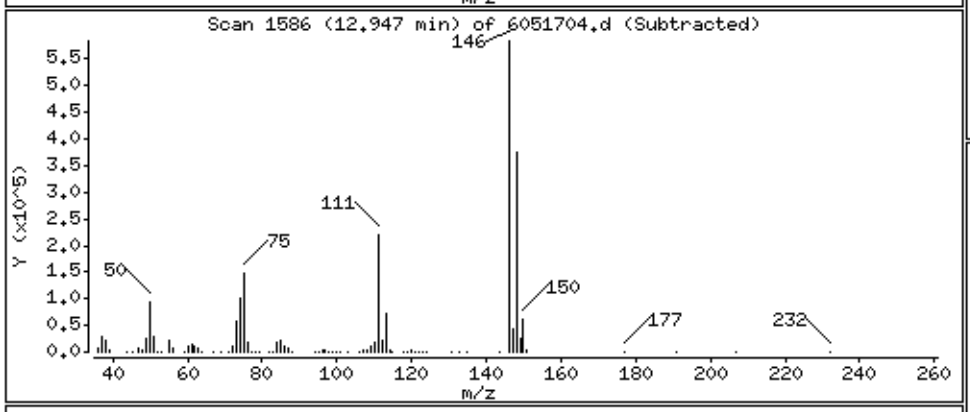
Column phase: RTx-624

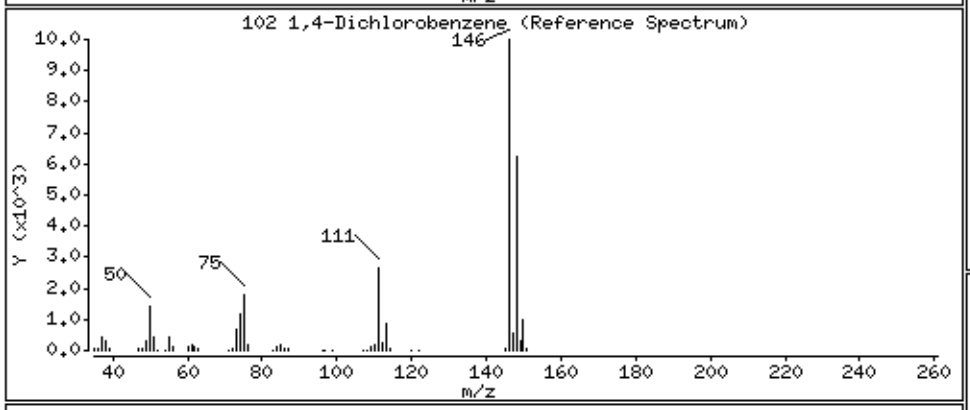
Column diameter: 0.53

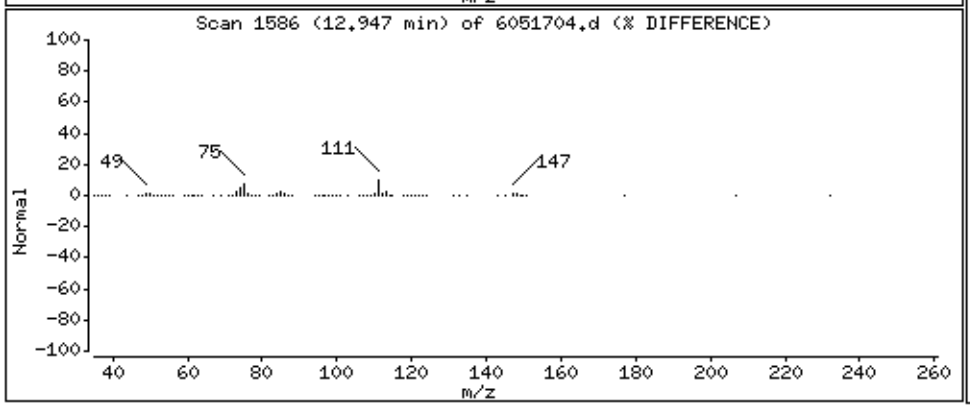
102 1,4-Dichlorobenzene

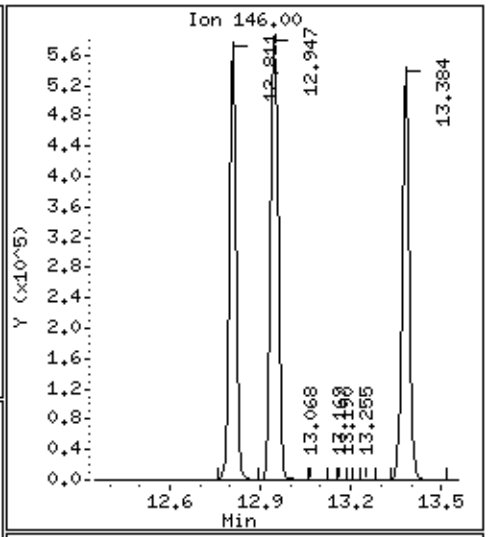
Concentration: 119.06 NG

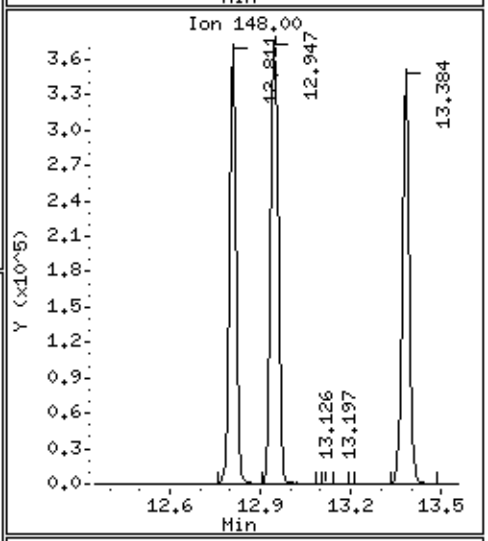


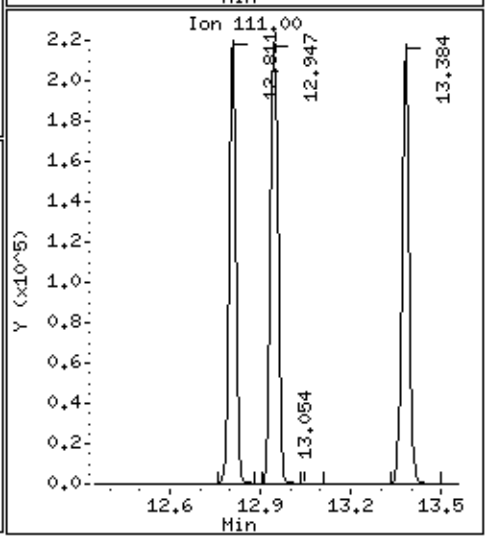












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

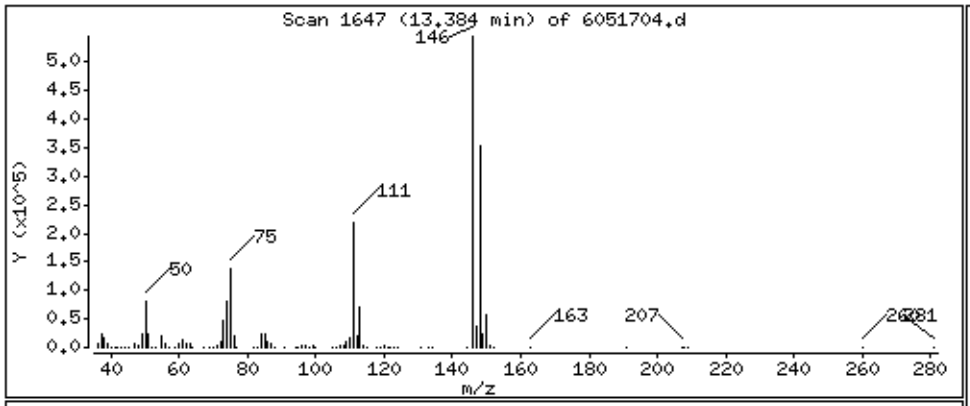
Operator: CT

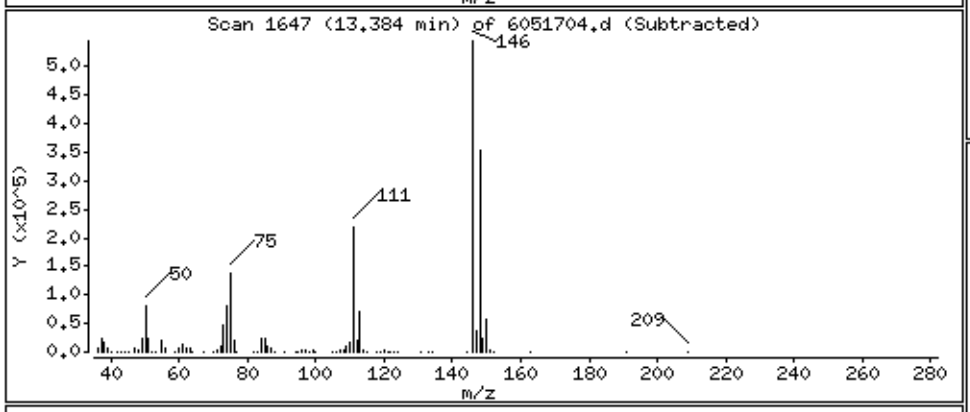
Column phase: RTx-624

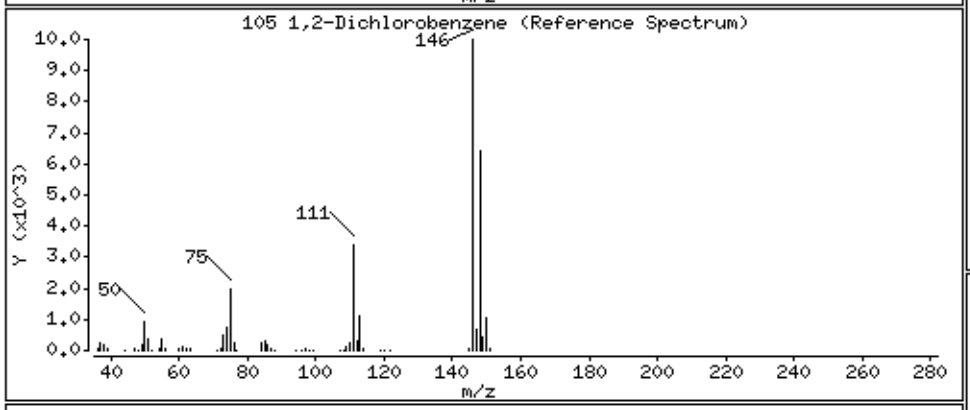
Column diameter: 0.53

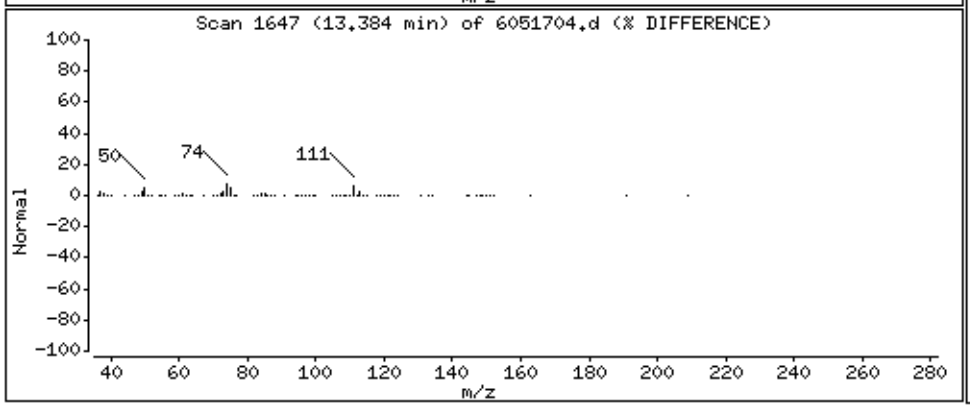
105 1,2-Dichlorobenzene

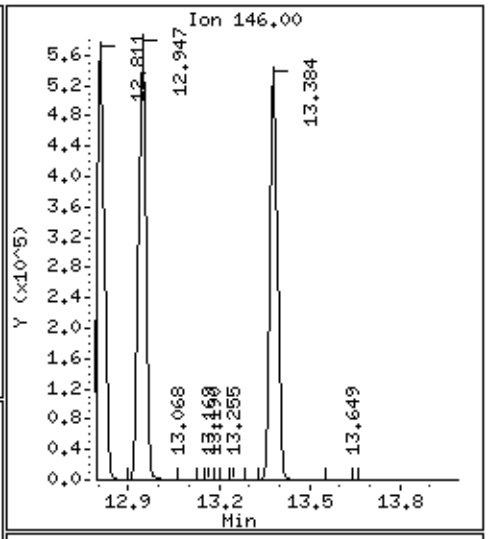
Concentration: 121.42 NG

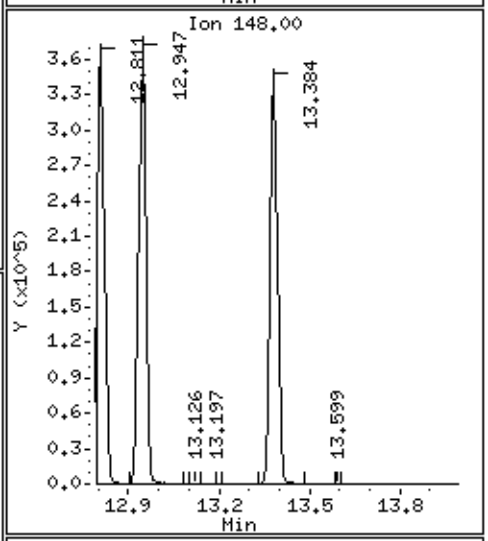


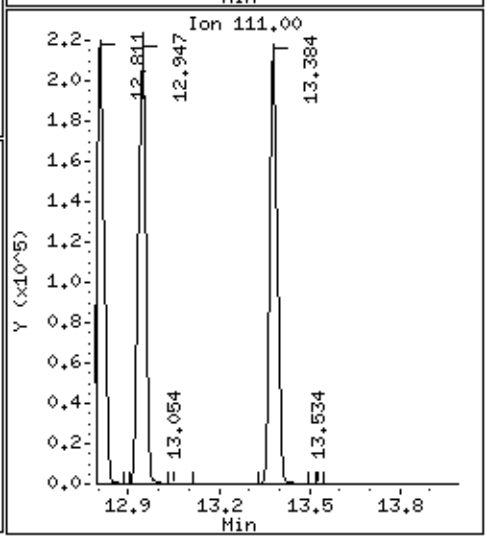












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

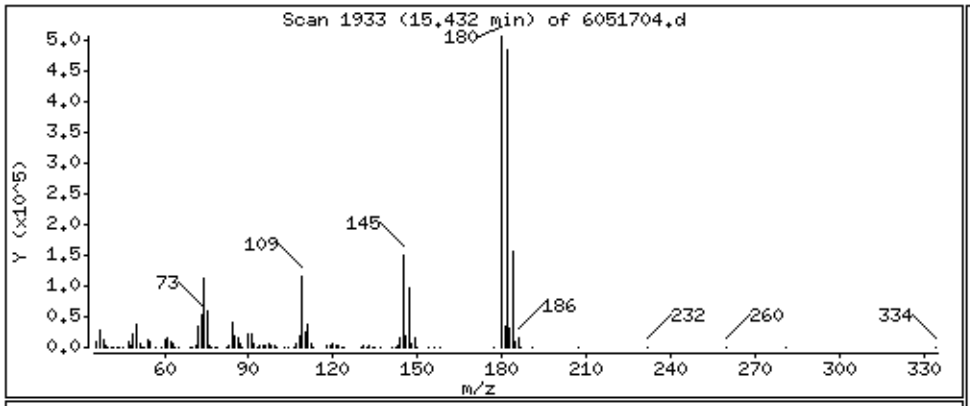
Operator: CT

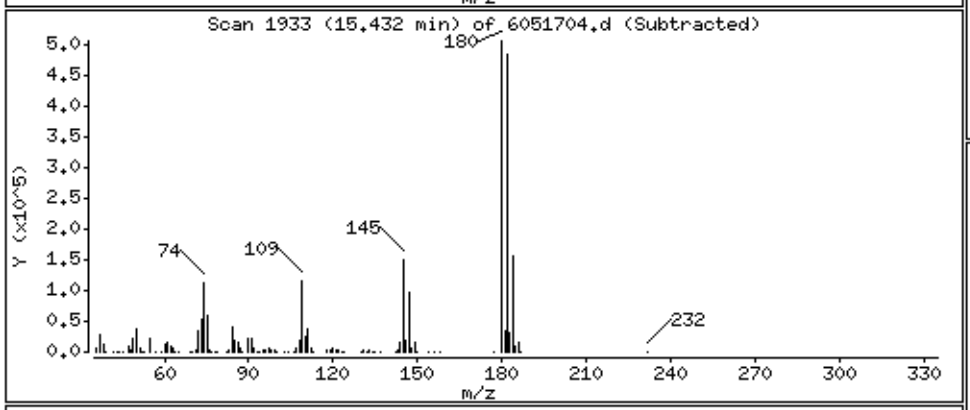
Column phase: RTx-624

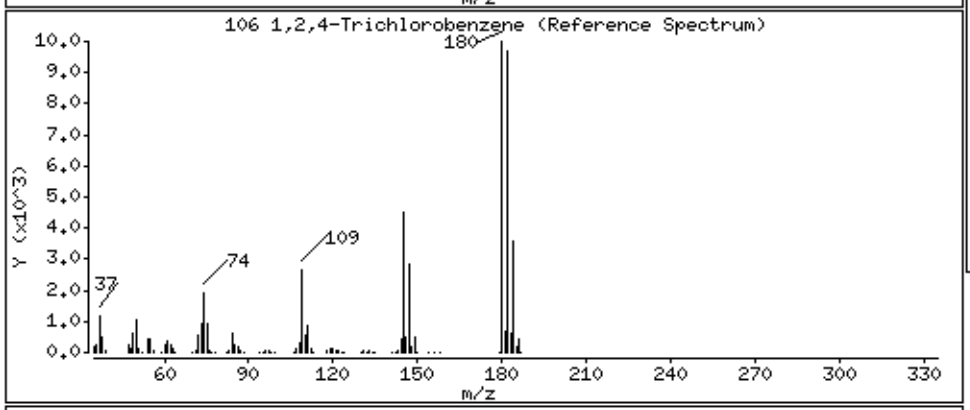
Column diameter: 0.53

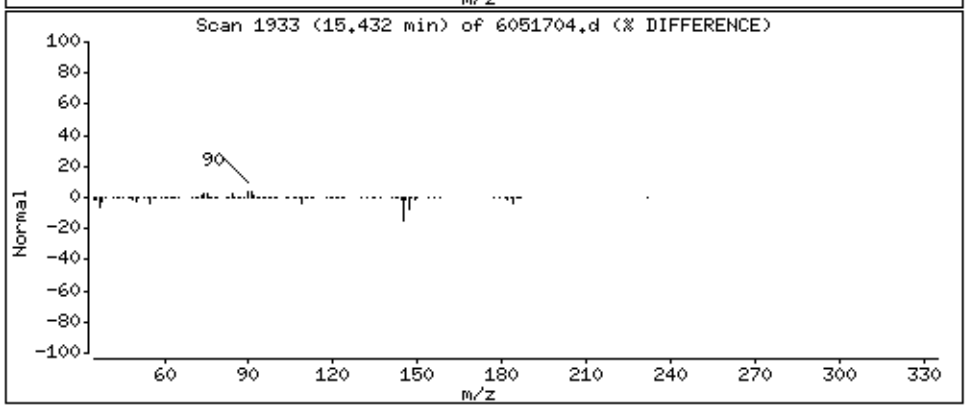
106 1,2,4-Trichlorobenzene

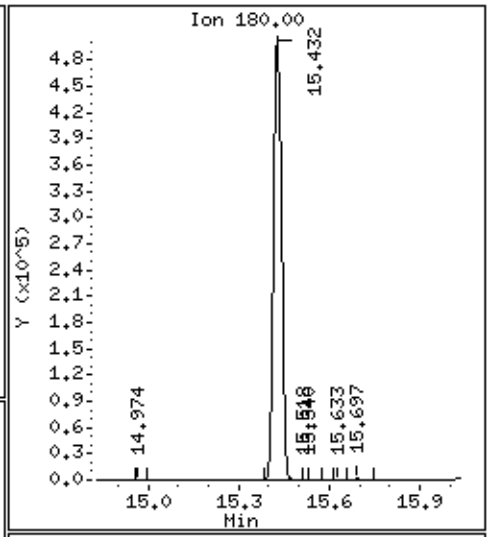
Concentration: 165.40 NG

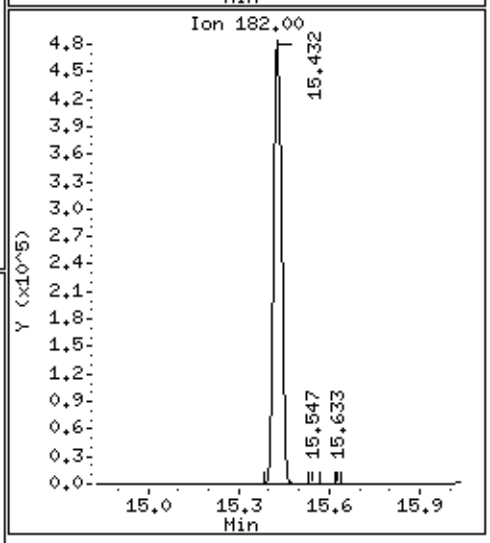












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

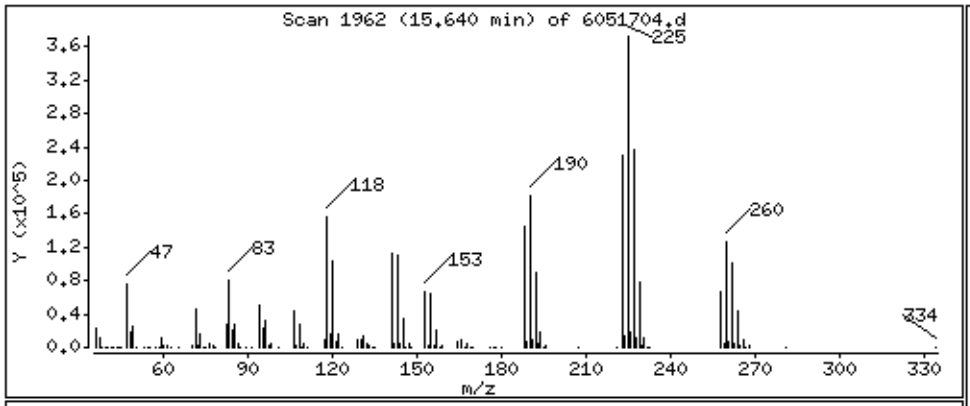
Operator: CT

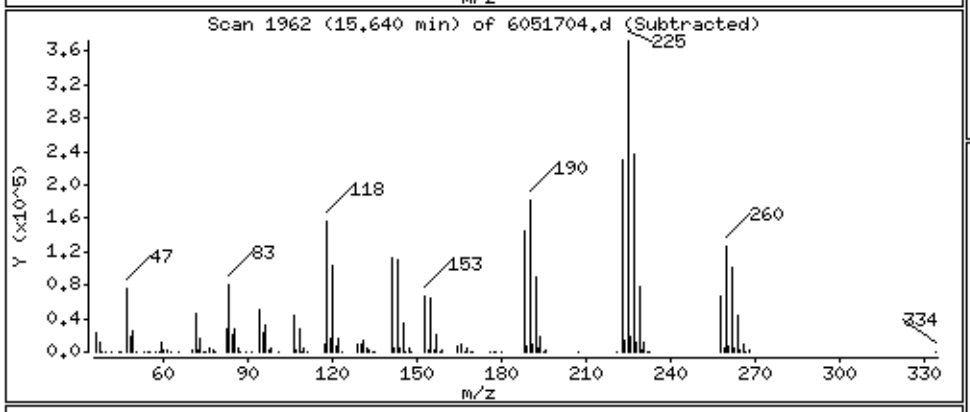
Column phase: RTx-624

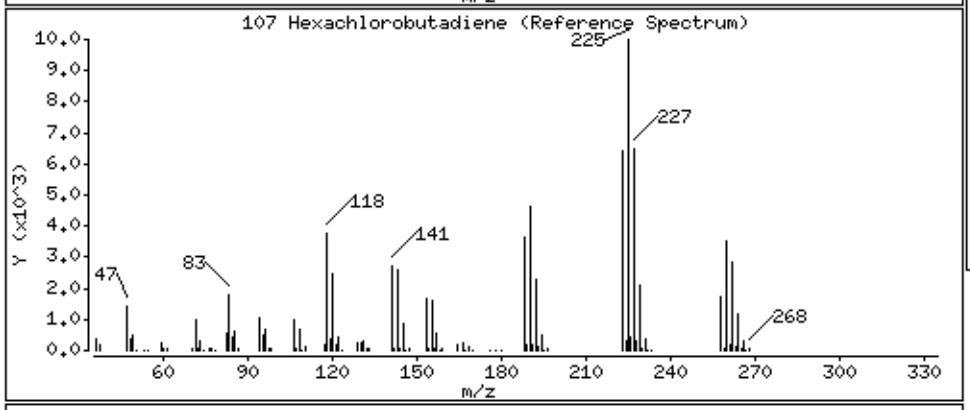
Column diameter: 0.53

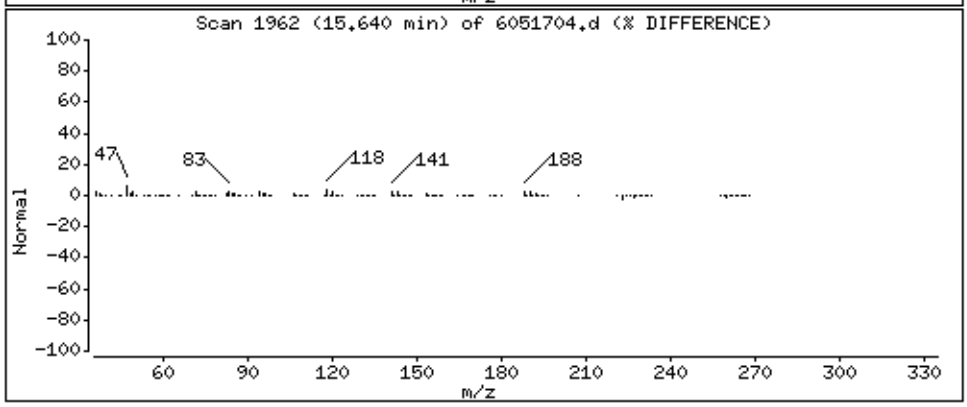
107 Hexachlorobutadiene

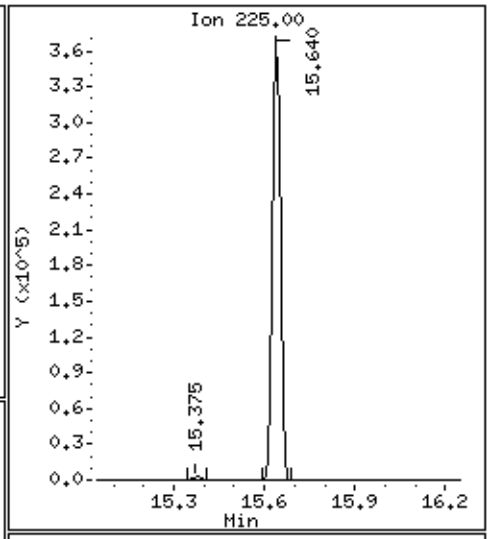
Concentration: 238.64 NG

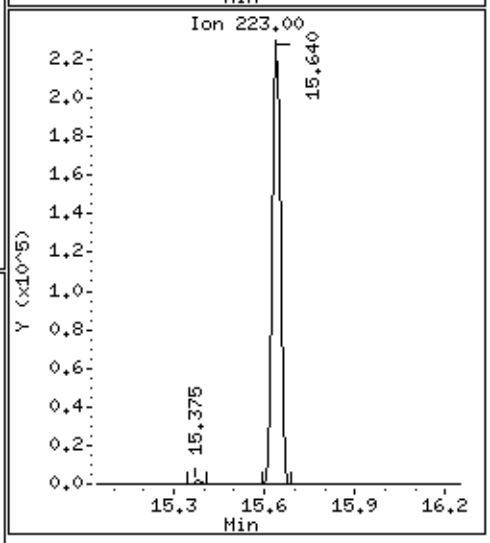












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

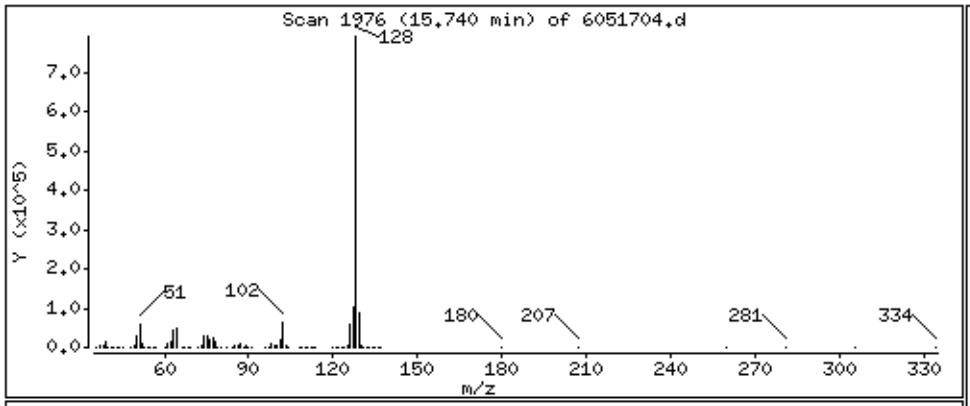
Operator: CT

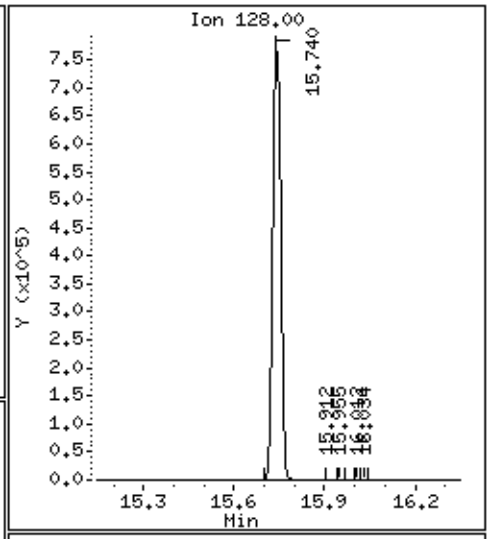
Column phase: RTx-624

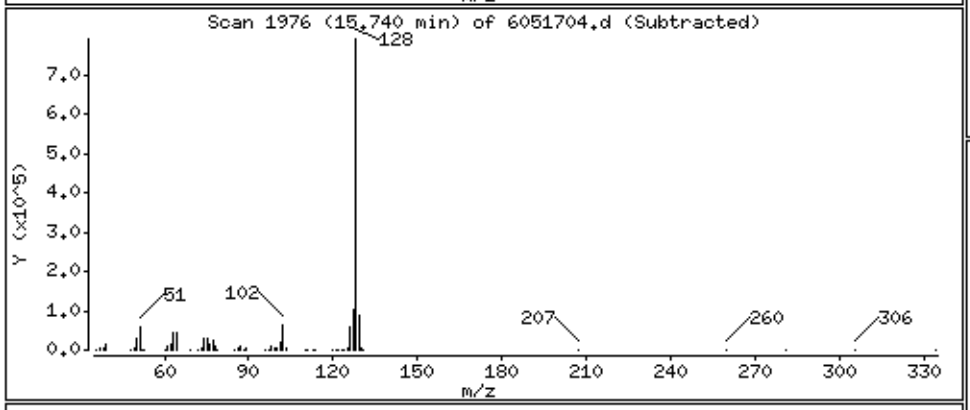
Column diameter: 0.53

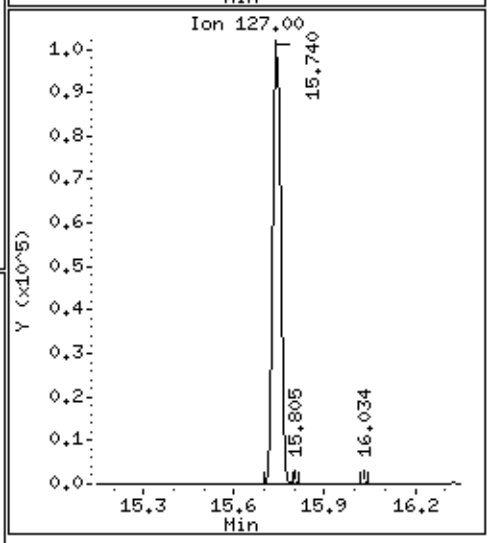
109 Naphthalene

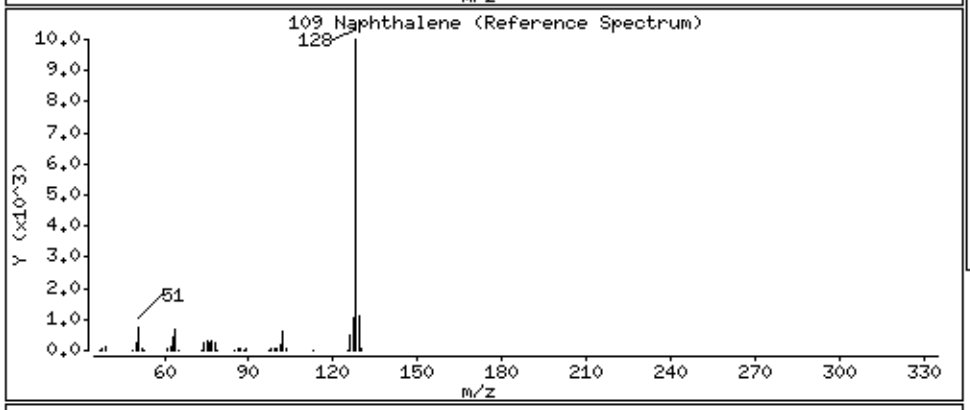
Concentration: 47.943 NG

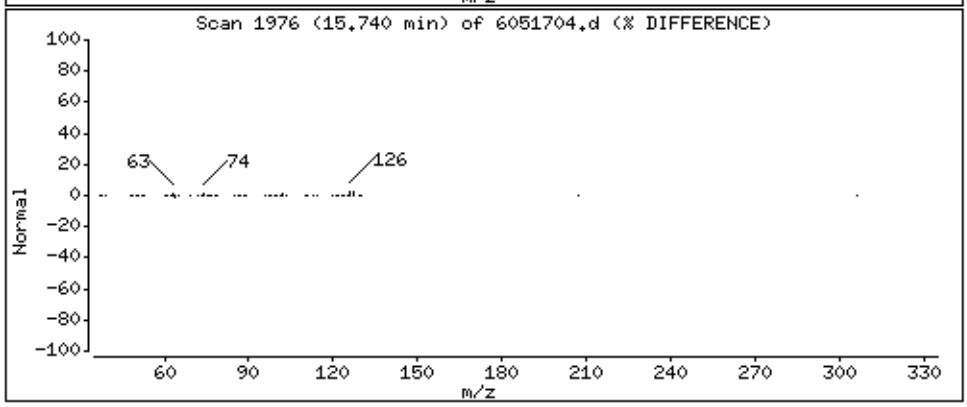












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

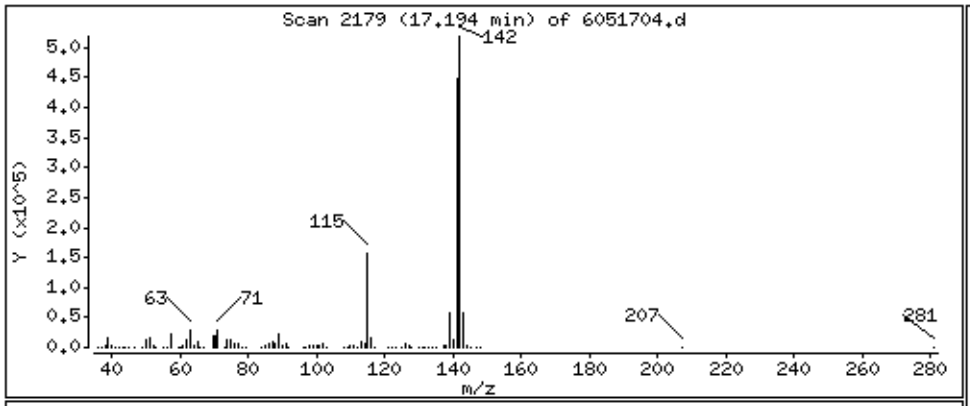
Operator: CT

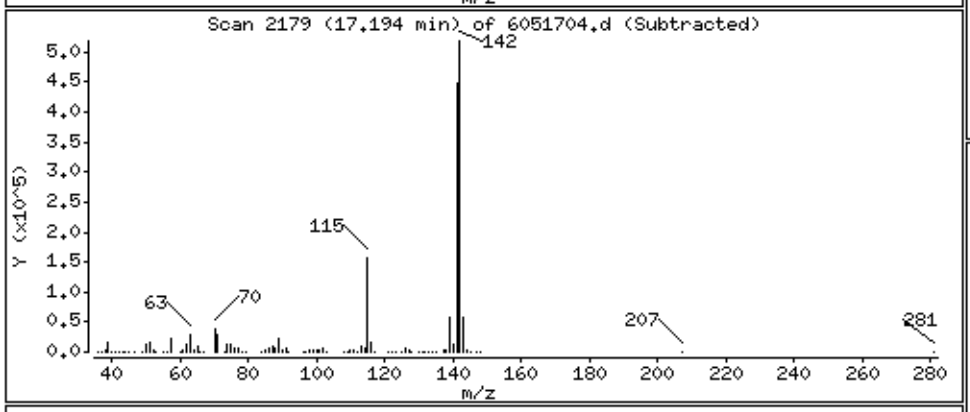
Column phase: RTx-624

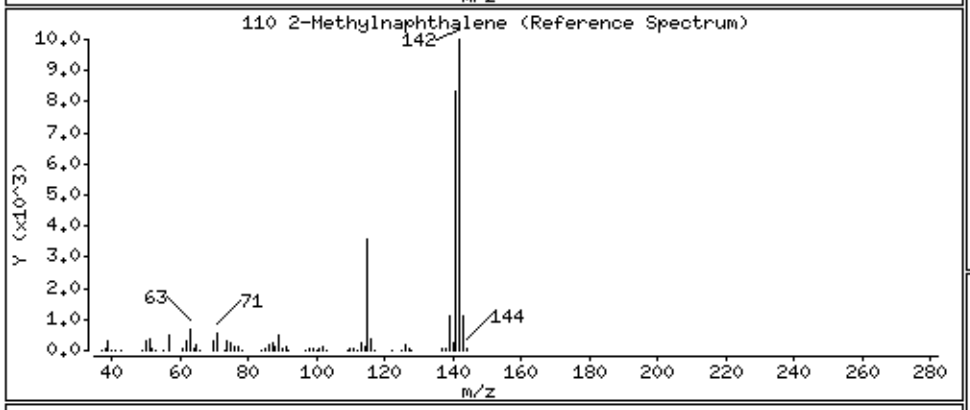
Column diameter: 0.53

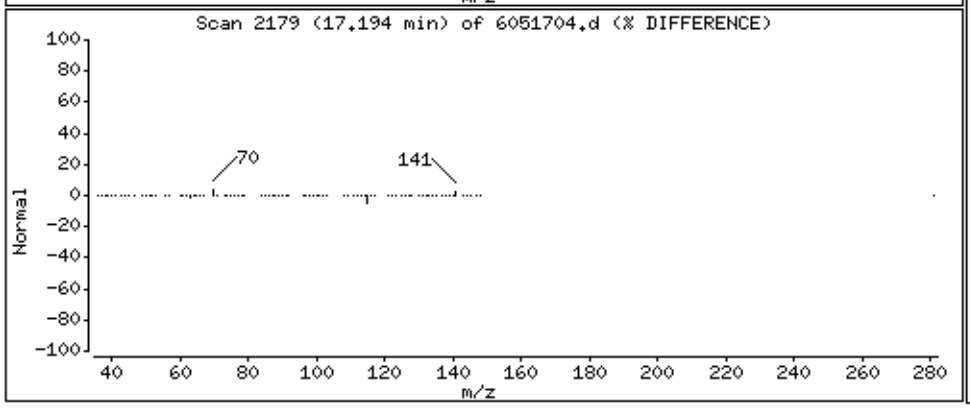
110 2-Methylnaphthalene

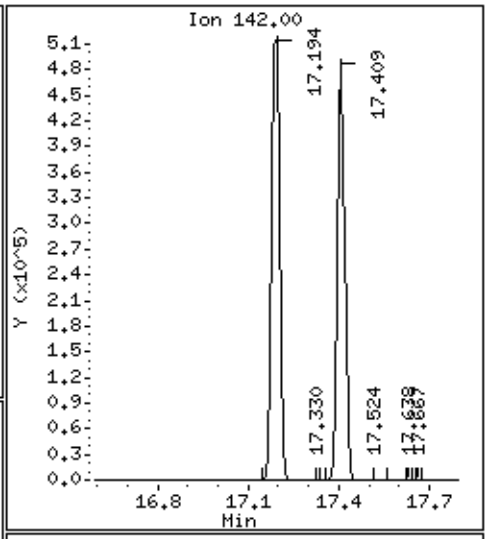
Concentration: 55.831 NG

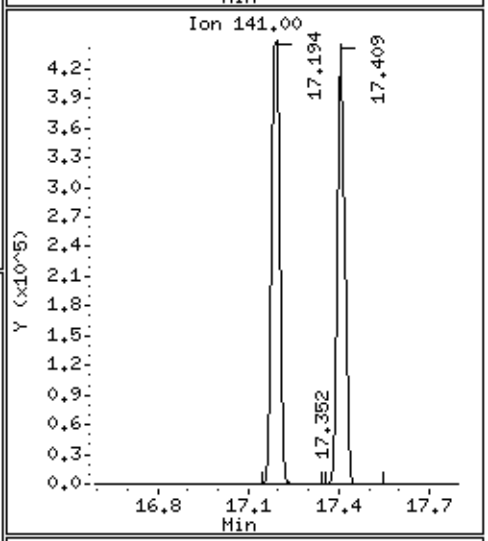


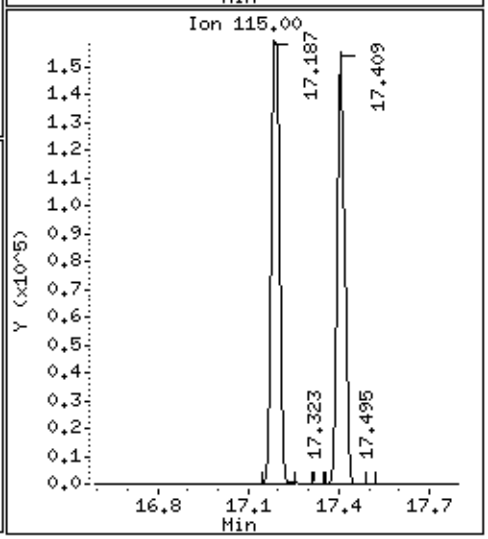












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

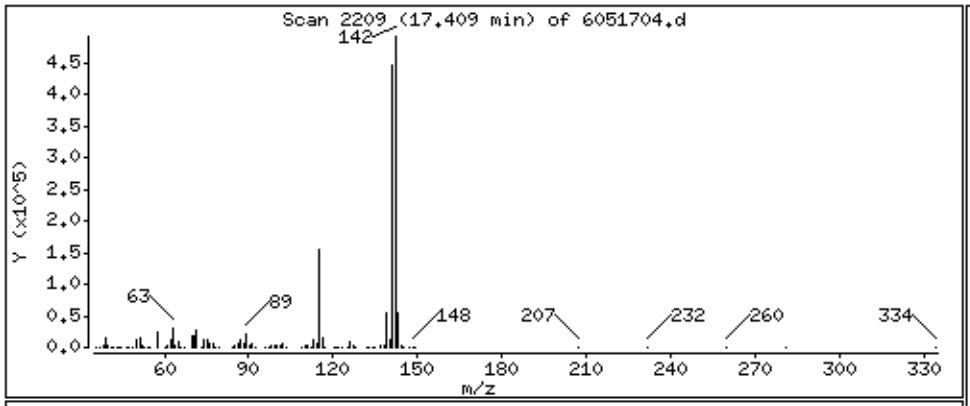
Operator: CT

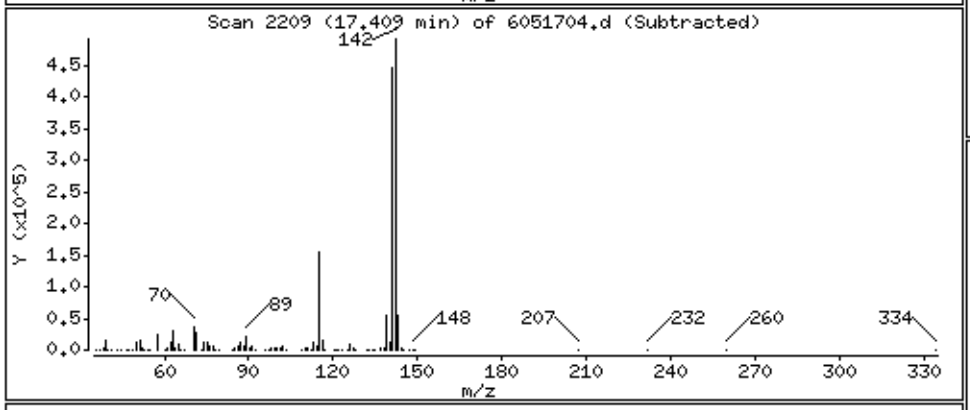
Column phase: RTx-624

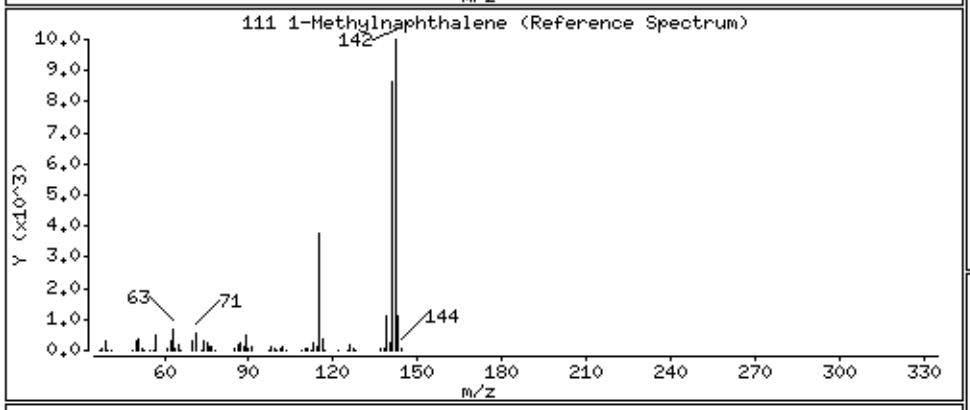
Column diameter: 0.53

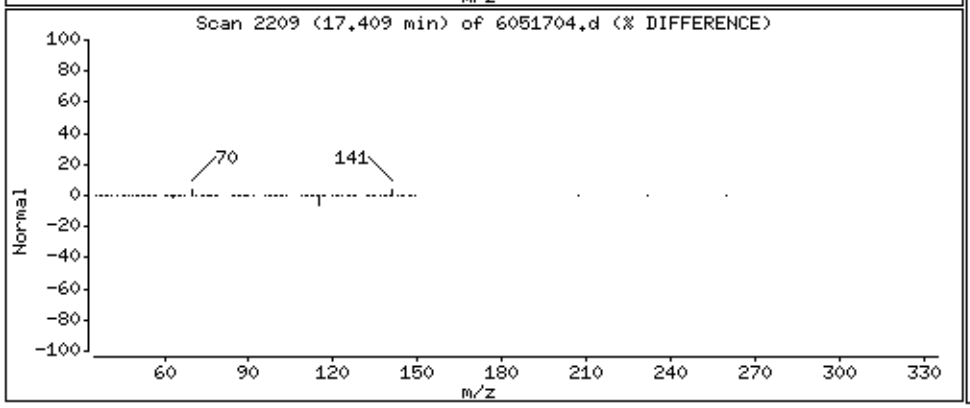
111 1-Methylnaphthalene

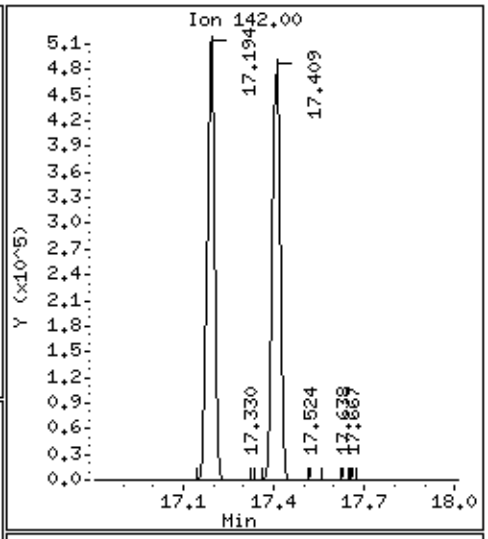
Concentration: 56.816 NG

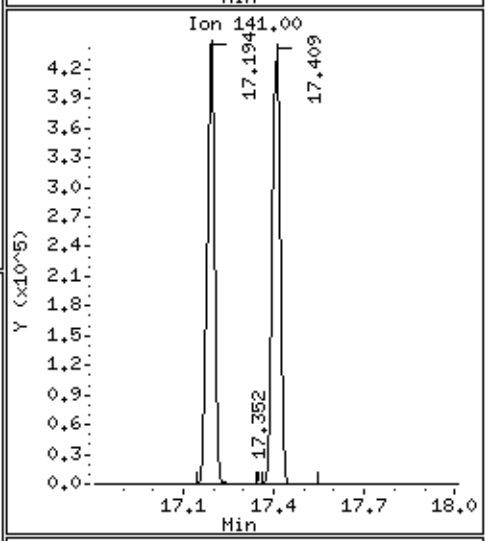


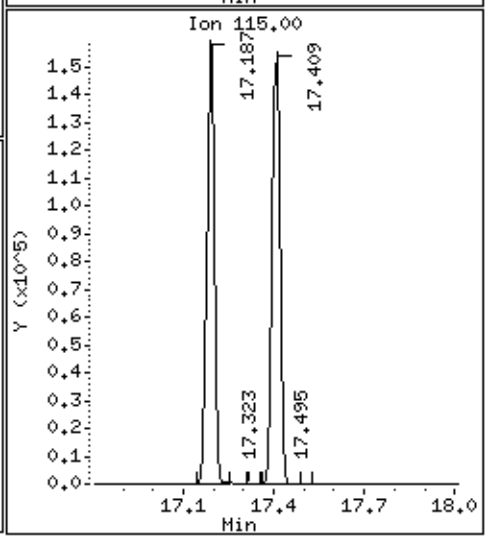












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

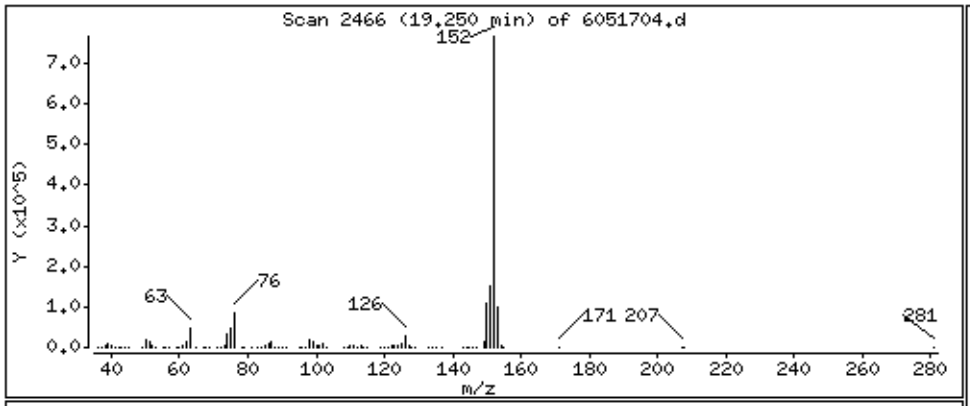
Operator: CT

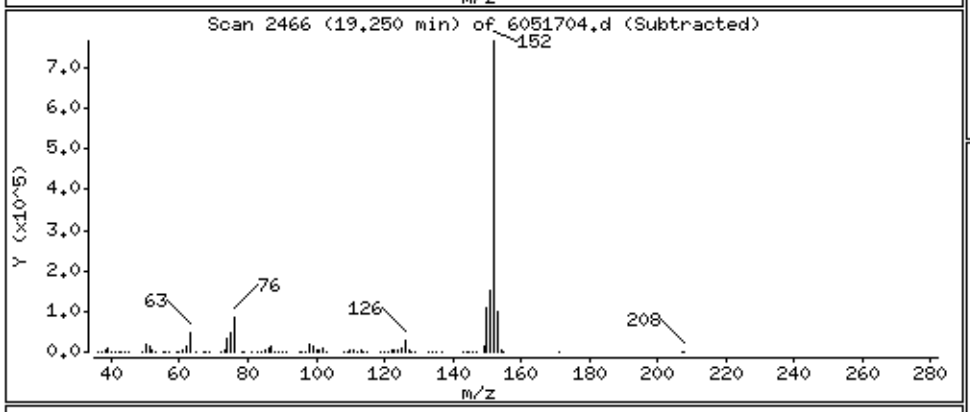
Column phase: RTx-624

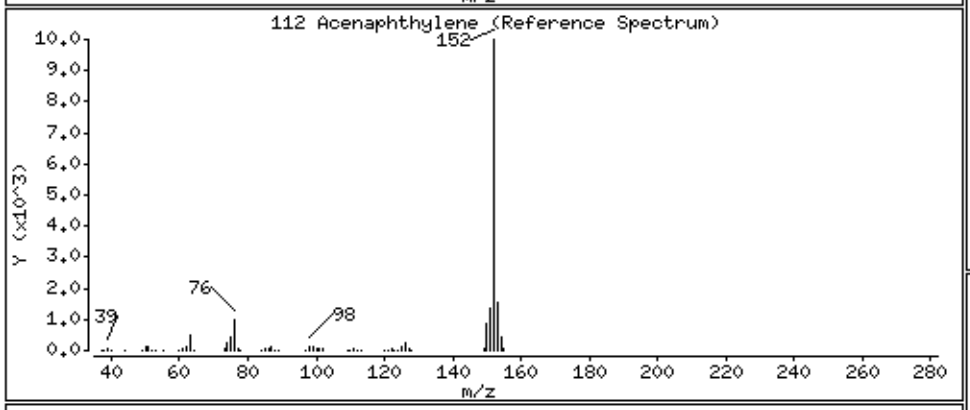
Column diameter: 0.53

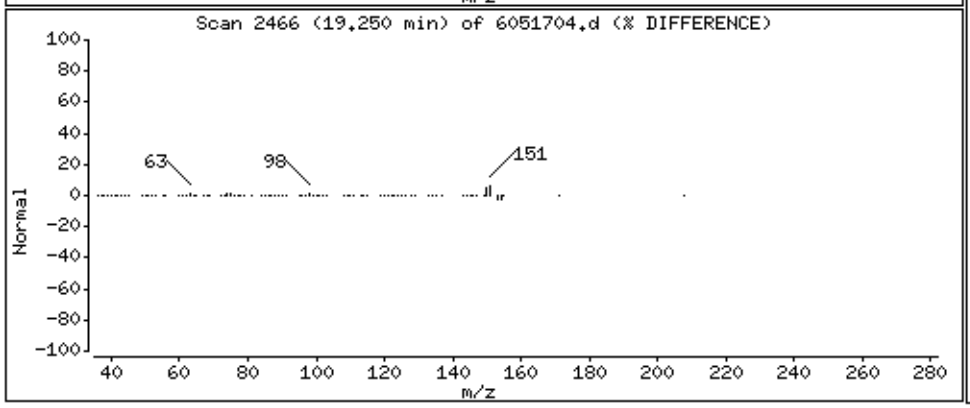
112 Acenaphthylene

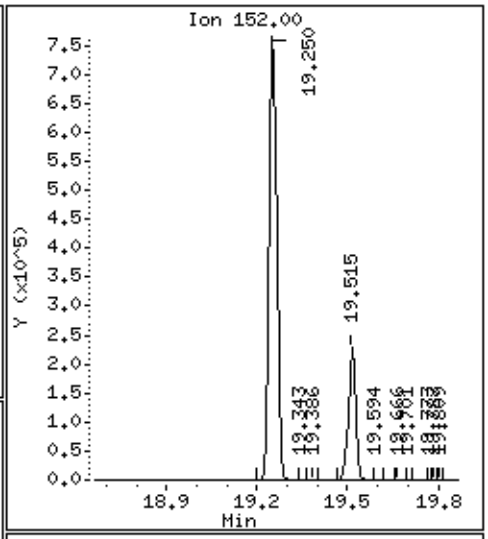
Concentration: 55.483 NG

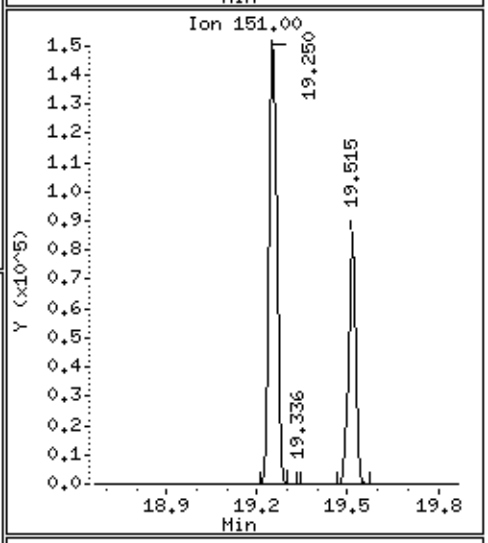


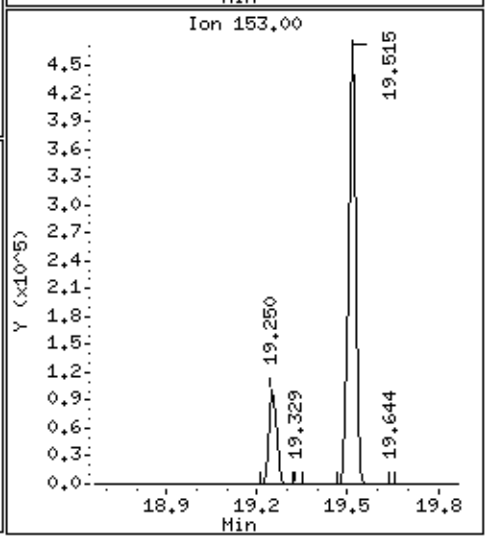












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

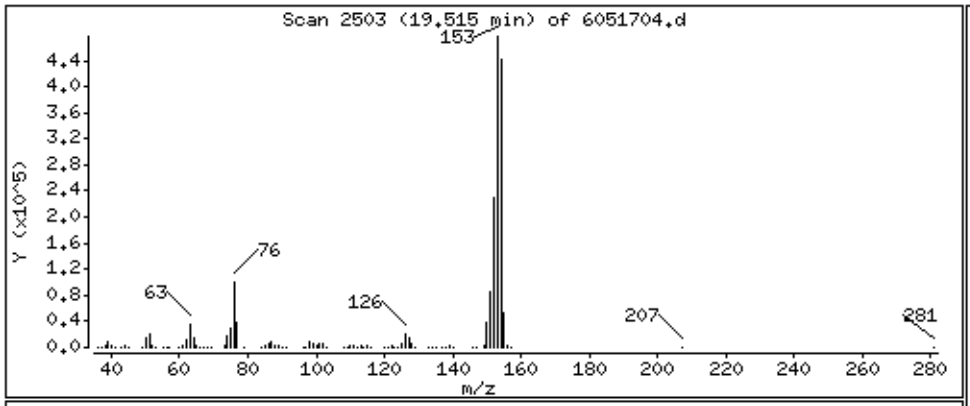
Operator: CT

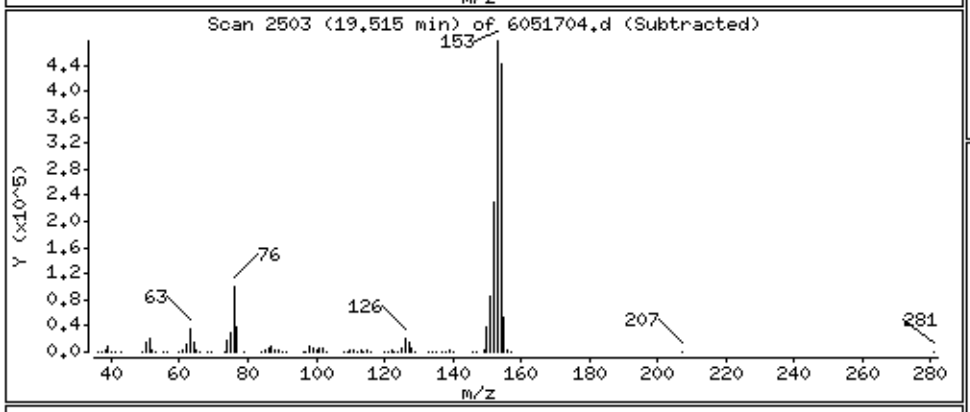
Column phase: RTx-624

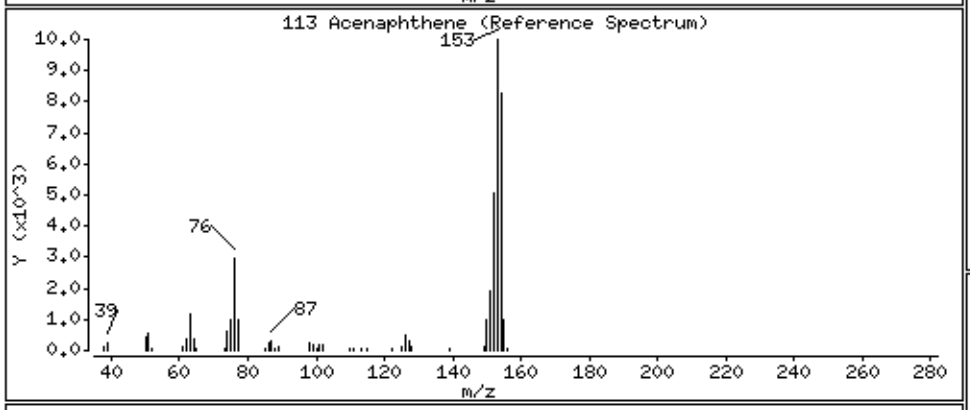
Column diameter: 0.53

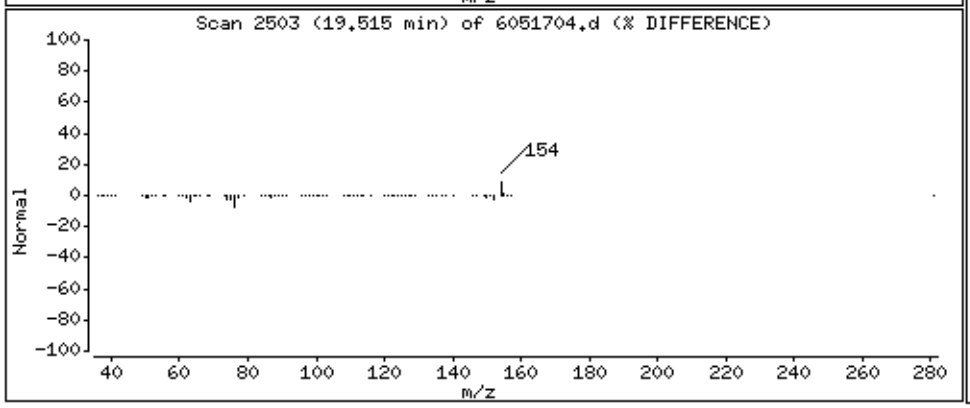
113 Acenaphthene

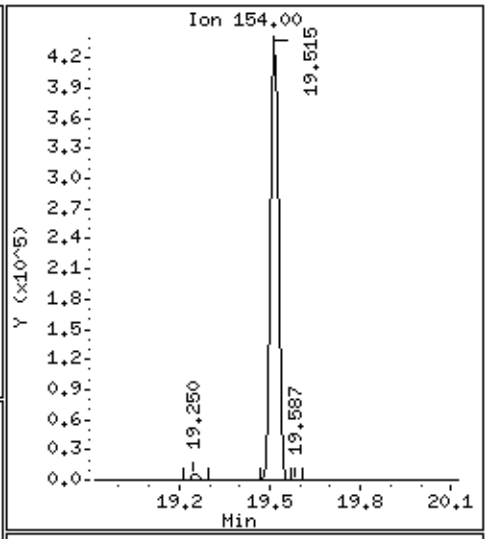
Concentration: 59.197 NG

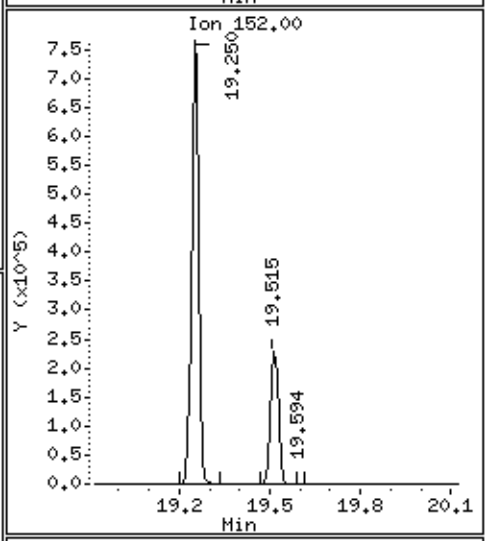


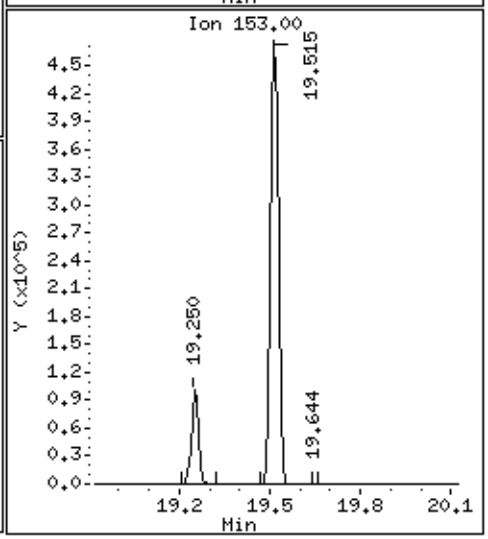












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

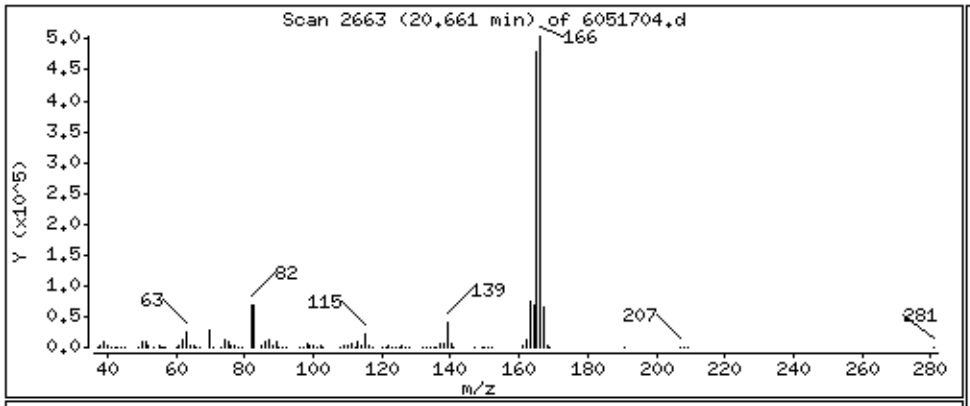
Operator: CT

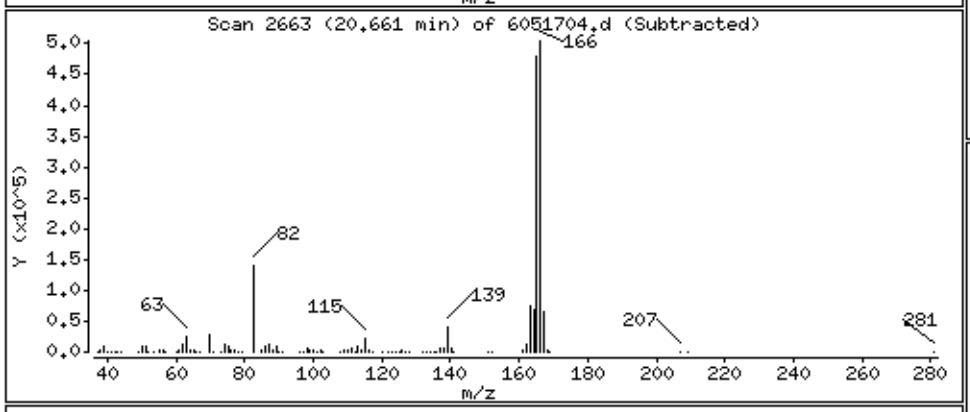
Column phase: RTx-624

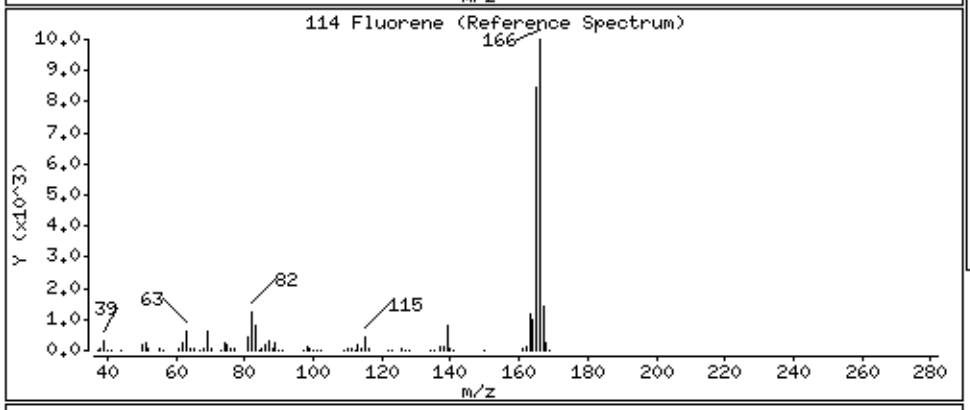
Column diameter: 0.53

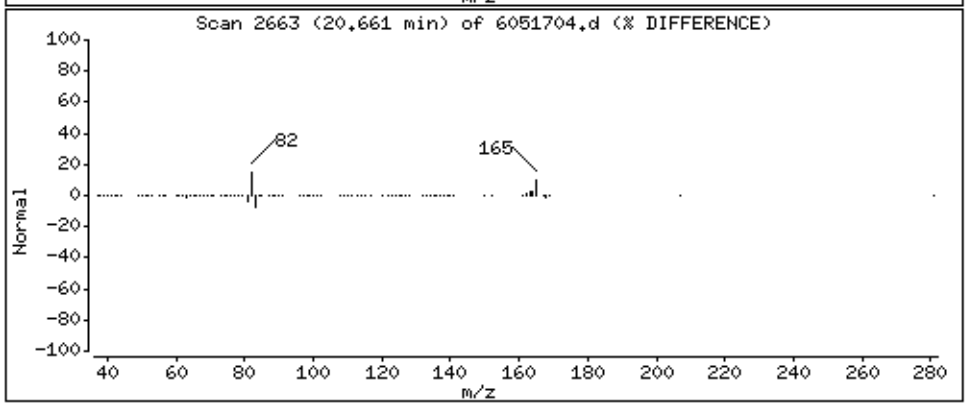
114 Fluorene

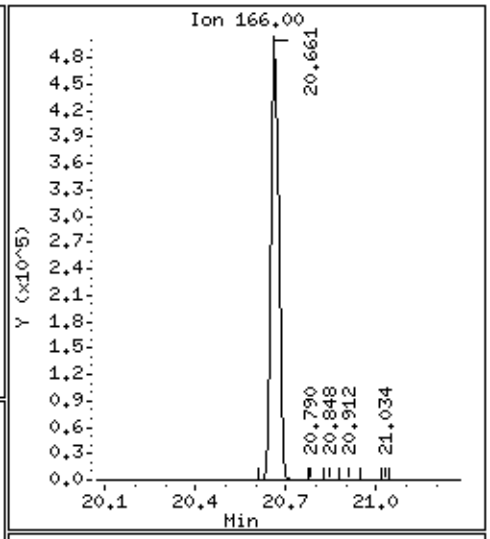
Concentration: 68.501 NG

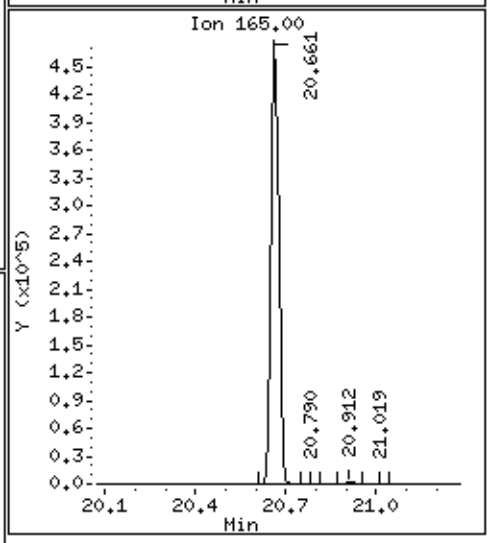












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

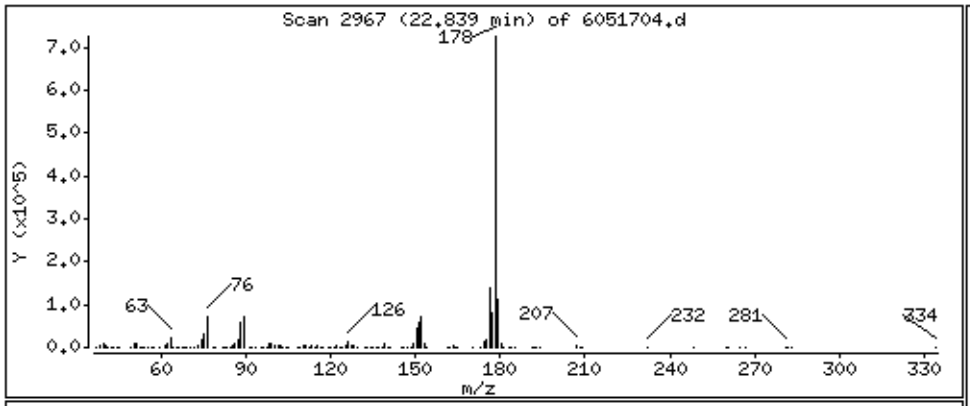
Operator: CT

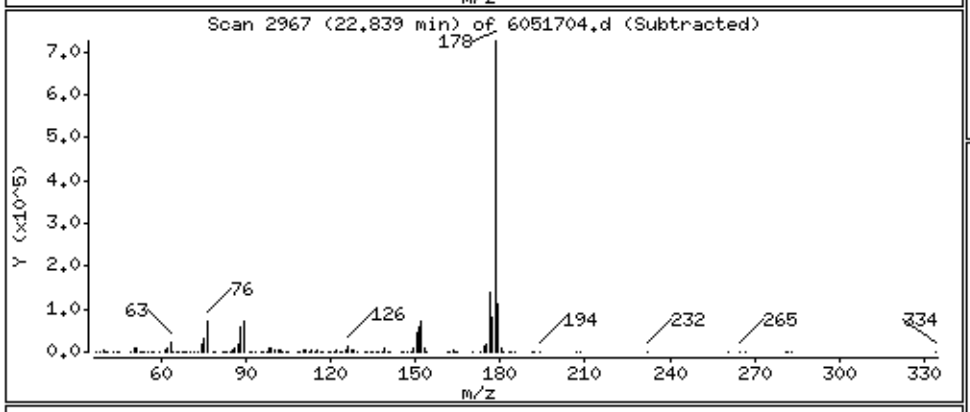
Column phase: RTx-624

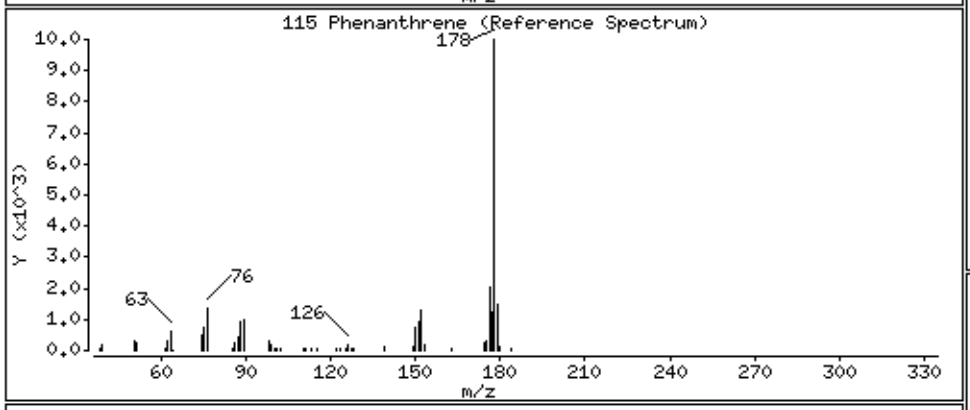
Column diameter: 0.53

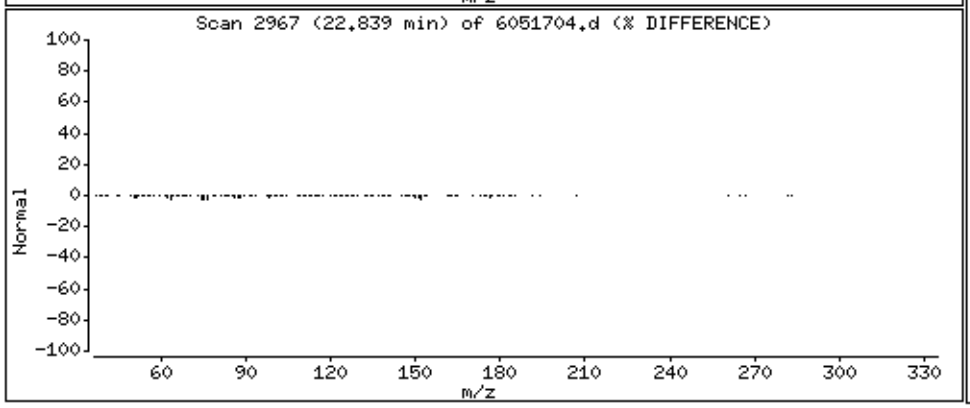
115 Phenanthrene

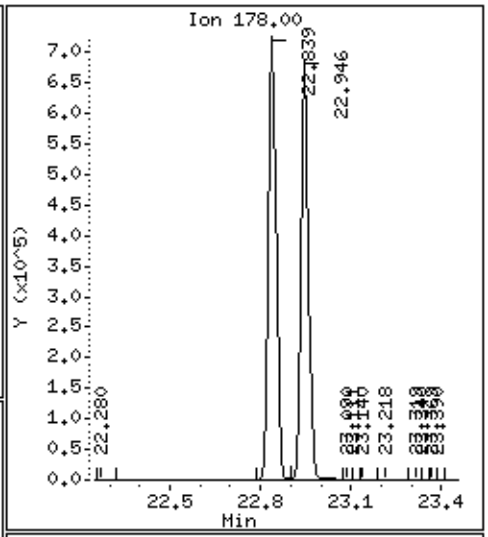
Concentration: 60.091 NG

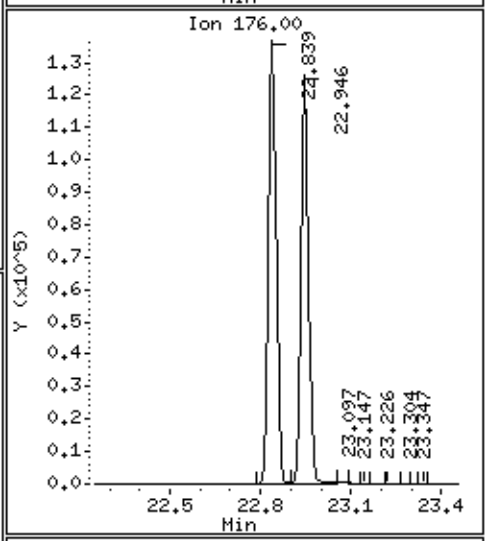


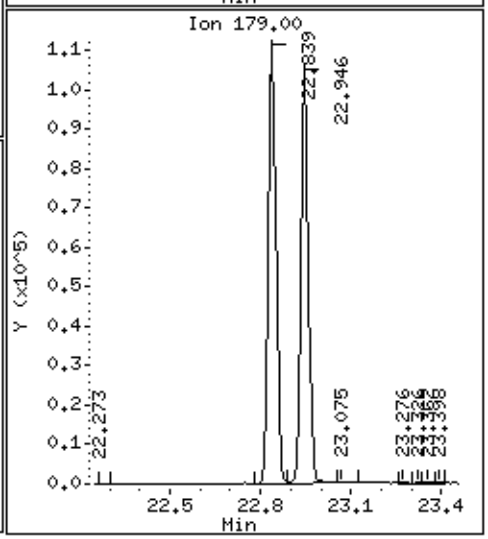












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

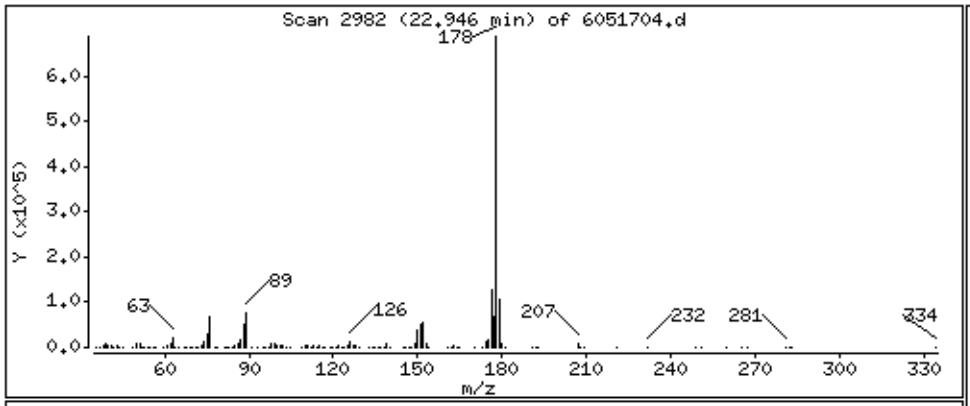
Operator: CT

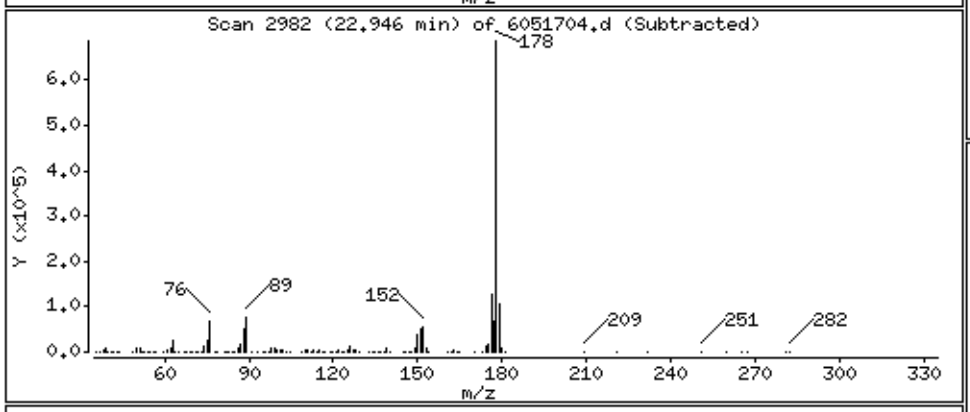
Column phase: RTx-624

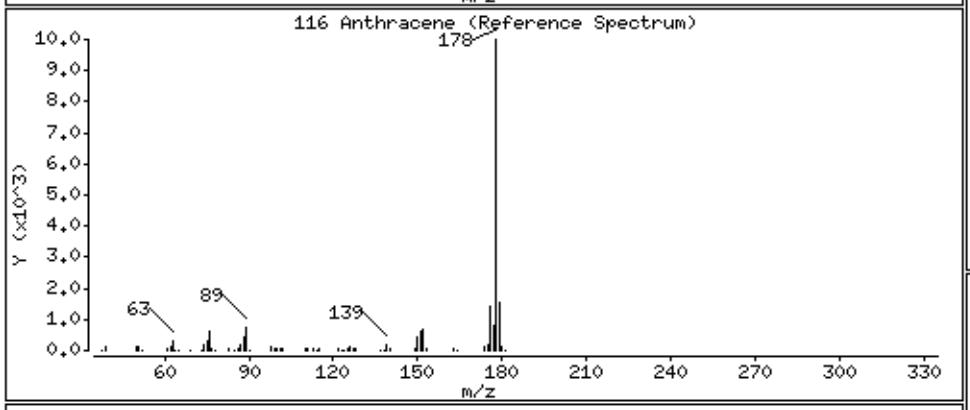
Column diameter: 0.53

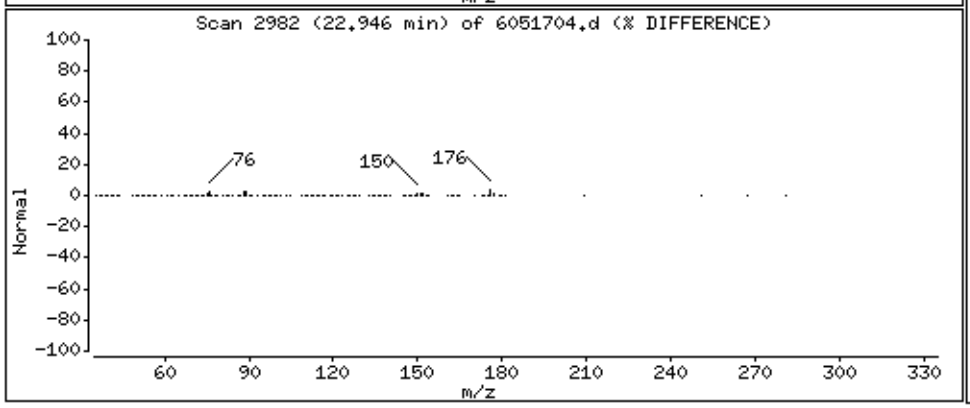
116 Anthracene

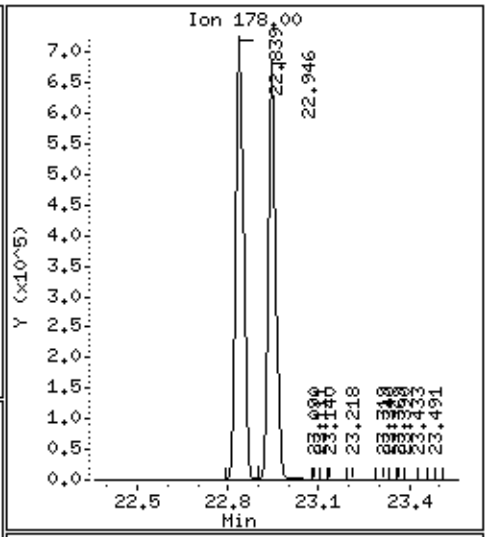
Concentration: 59.743 NG

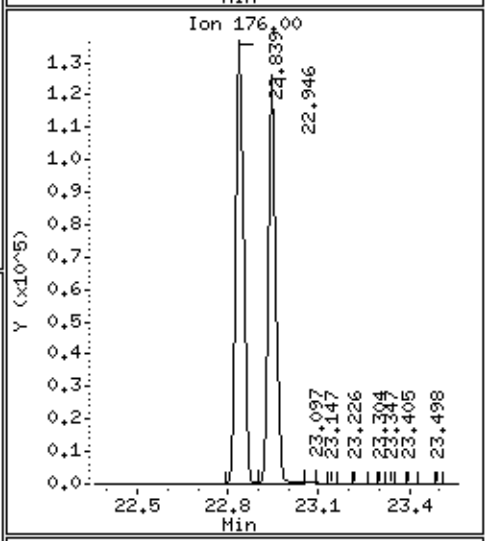


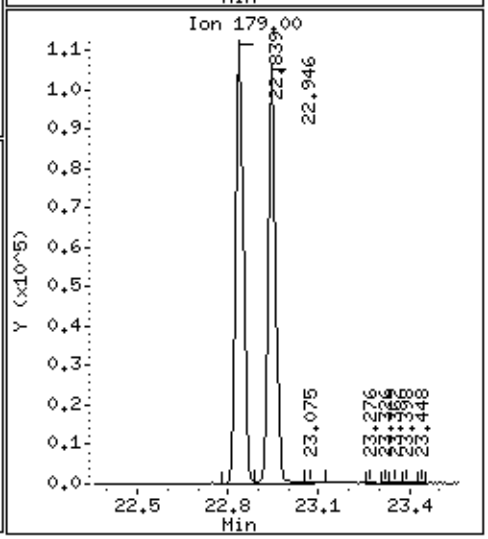












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

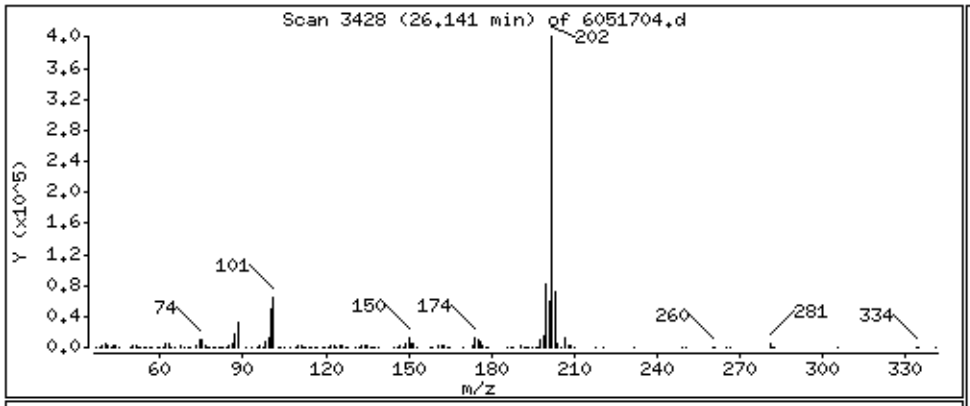
Operator: CT

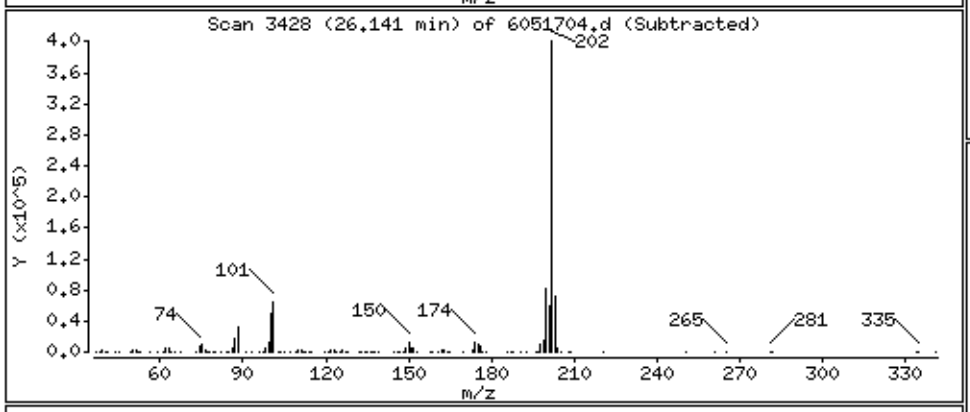
Column phase: RTx-624

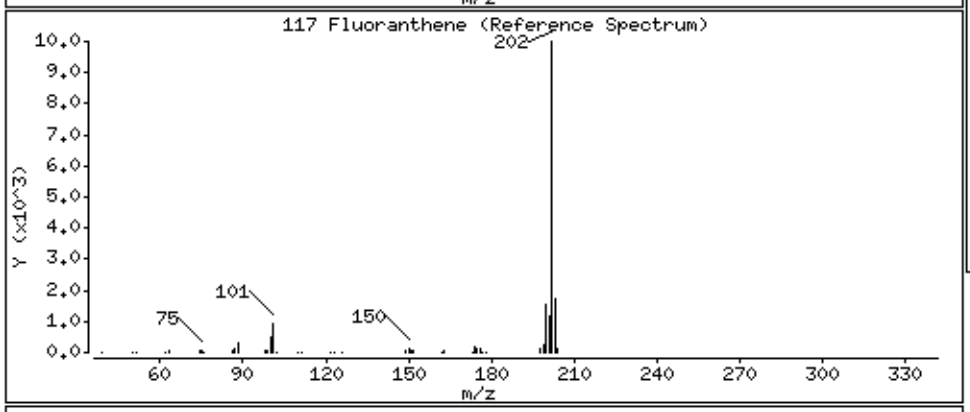
Column diameter: 0.53

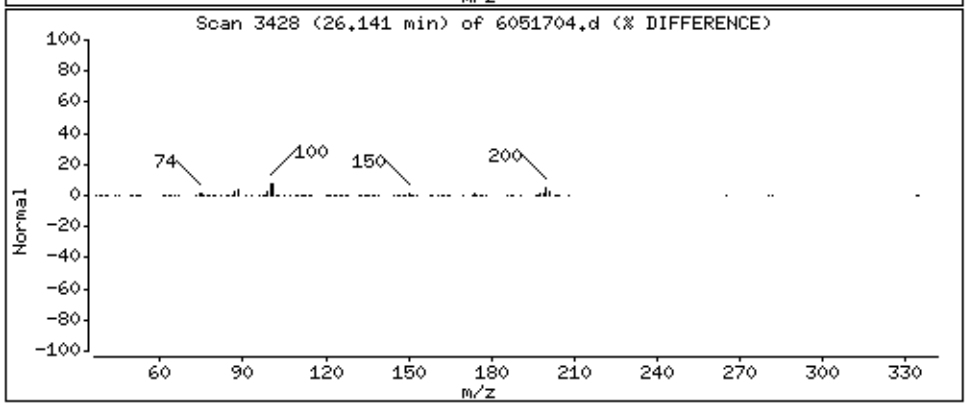
117 Fluoranthene

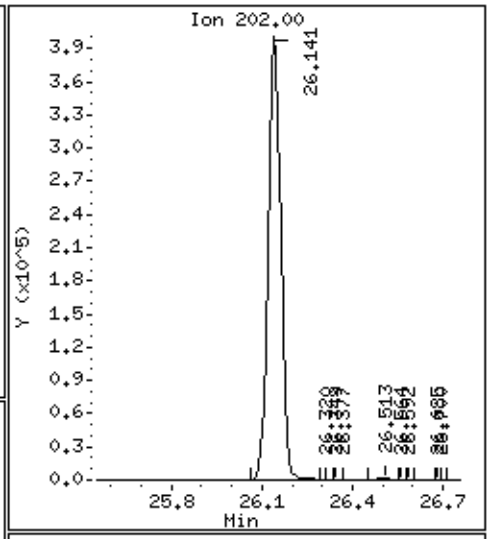
Concentration: 79.404 NG

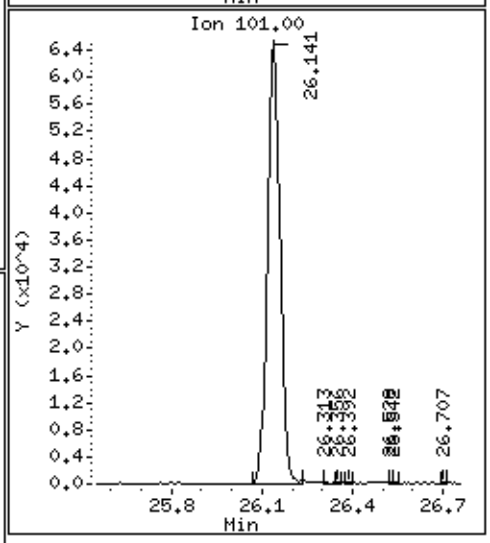












Data File: /chem/msd6.i/17may16.b/6051704.d

Date : 17-MAY-2016 12:09

Client ID: LCS

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCS;LCS

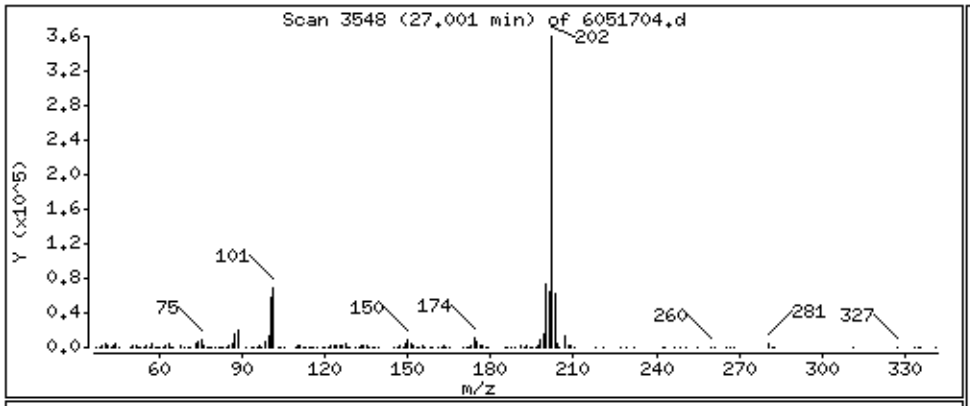
Operator: CT

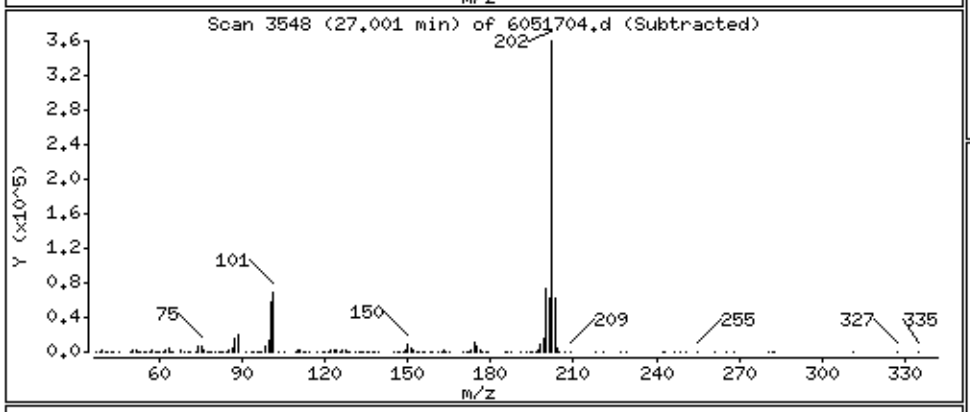
Column phase: RTx-624

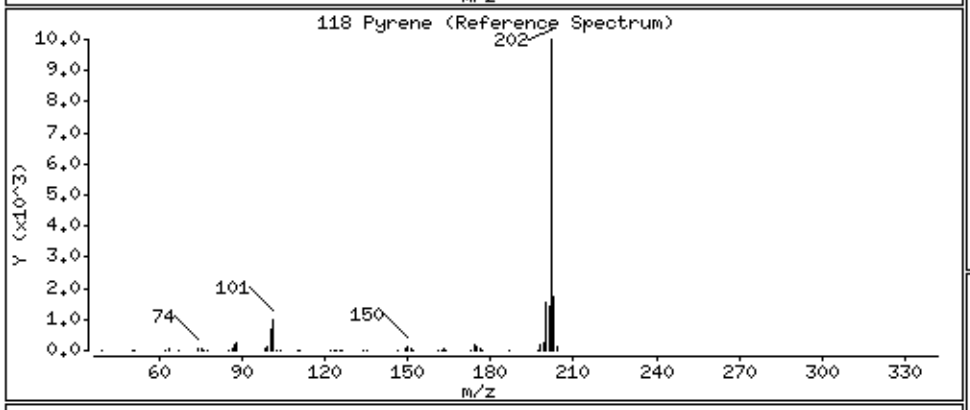
Column diameter: 0.53

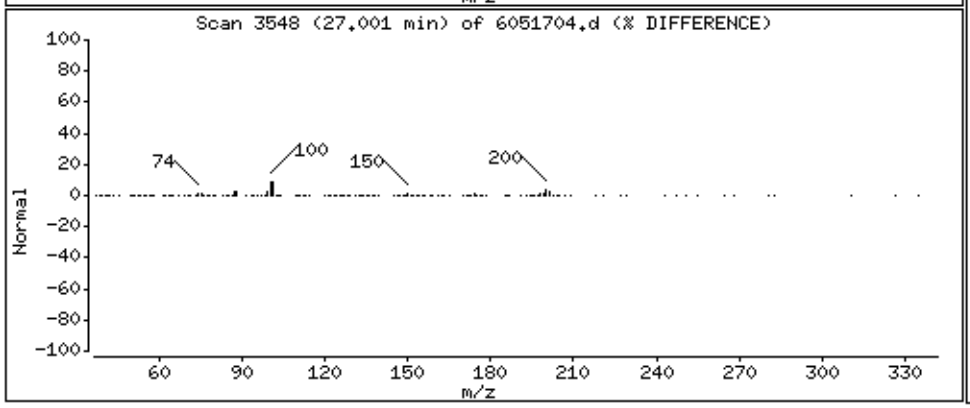
118 Pyrene

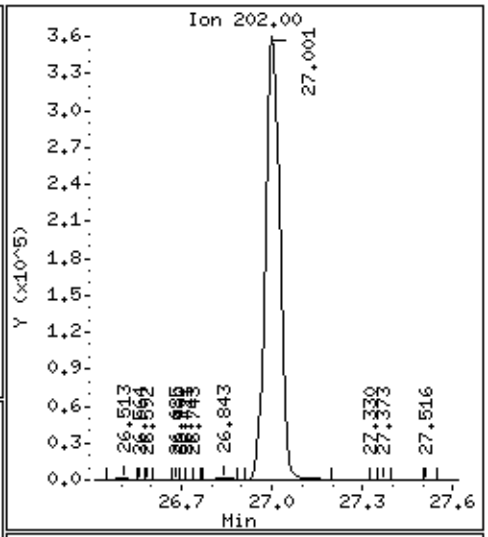
Concentration: 78.288 NG

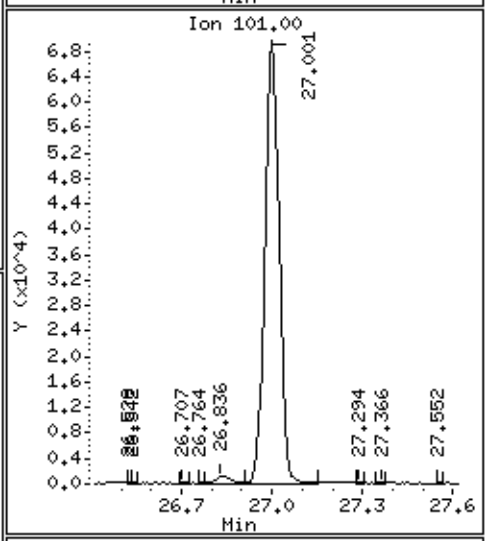


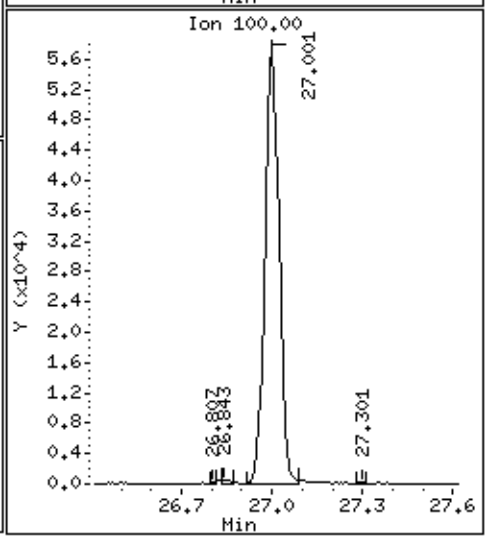












eurofins | Air Toxics

Client Sample ID: LCSD
Lab ID#: 1605307-12AA
EPA METHOD TO-17

File Name:	**6051706**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 5/17/16 01:33 PM**

Compound	**%Recovery**	**Method Limits**
Naphthalene	95	70-130

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Naphthalene-d8	84	50-150

Report Date: 17-May-2016 14:33

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 17may16
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: VI VOC+PAH LCSD
Client Smp ID: LCSD
Level: LOW
Operator: CT
Data Type: MS DATA
SampleType: LCSD
SpikeList File: VOC+PAHlcs50.spk
Quant Type: ISTD
Sublist File: VOC+PAH_ICAL.sub
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: 2516-240(7/20/16),2744-32-50(7/20/16)

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
3 Freon 114	139.80	145.37	103.99	70-130
6 Vinyl Chloride	51.100	55.847	109.29	70-130
7 1,3-Butadiene	44.200	40.759	92.22	70-130
9 Chloroethane	52.800	42.646	80.77	70-130
10 Isopentane	59.000	62.112	105.27	70-130
11 Trichlorofluoromet	112.40	106.27	94.55	70-130
14 1,1-Dichloroethene	79.300	90.240	113.80	70-130
15 Freon 113	153.30	168.58	109.97	70-130
18 Carbon Disulfide	62.300	56.151	90.13	70-130
19 2-Propanol	49.200	41.426	84.20	70-130
22 Methylene Chloride	69.500	67.549	97.19	70-130
25 trans-1,2-Dichloro	79.300	73.094	92.17	70-130
26 MTBE	72.100	76.031	105.45	70-130
28 Hexane	70.500	72.882	103.38	70-130
29 1,1-Dichloroethane	81.000	81.298	100.37	70-130
37 cis-1,2-Dichloroet	79.300	92.592	116.76	70-130
38 2-Butanone	59.000	66.637	112.94	70-130
44 Chloroform	97.700	98.439	100.76	70-130
45 1,1,1-Trichloroeth	109.10	90.263	82.73	70-130
46 Cyclohexane	68.800	68.545	99.63	70-130
47 Carbon Tetrachlori	125.80	112.19	89.18	70-130
48 Benzene	63.900	63.512	99.39	70-130
50 1,2-Dichloroethane	80.900	77.554	95.86	70-130
51 2,2,4-Trimethylpen	93.400	91.796	98.28	70-130
53 Heptane	82.000	81.297	99.14	70-130
56 Trichloroethene	107.50	106.03	98.63	70-130
58 Methyl Cyclohexane	80.300	80.876	100.72	70-130
59 1,2-Dichloropropan	92.400	91.079	98.57	70-130
60 1,4-Dioxane	72.100	70.433	97.69	70-130
65 4-Methyl-2-pentano	81.900	78.000	95.24	70-130
67 Toluene	75.400	72.915	96.70	70-130
70 1,1,2-Trichloroeth	109.10	107.08	98.15	70-130
71 Tetrachloroethene	135.70	142.07	104.69	70-130

SPIKE COMPOUND	CONC ADDED NG	CONC RECOVERED NG	% RECOVERED	LIMITS
72 2-Hexanone	81.900	76.843	93.83	70-130
74 1,2-Dibromoethane	153.70	144.43	93.97	70-130
81 Chlorobenzene	92.100	93.200	101.19	70-130
82 Ethyl Benzene	86.800	85.143	98.09	70-130
84 m,p-Xylene	86.800	83.377	96.06	70-130
88 o-Xylene	86.800	83.387	96.07	70-130
89 Styrene	85.200	77.596	91.08	70-130
91 Cumene	98.300	94.639	96.28	70-130
94 1,1,2,2-Tetrachlor	137.30	133.47	97.21	70-130
96 Propylbenzene	98.300	96.470	98.14	70-130
97 4-Ethyltoluene	98.300	93.505	95.12	70-130
98 1,3,5-Trimethylben	98.300	94.783	96.42	70-130
100 1,2,4-Trimethylben	98.300	94.571	96.21	70-130
101 1,3-Dichlorobenzen	120.30	119.17	99.06	70-130
102 1,4-Dichlorobenzen	120.30	118.47	98.48	70-130
105 1,2-Dichlorobenzen	120.30	120.43	100.11	70-130
106 1,2,4-Trichloroben	148.40	167.23	112.69	70-130
107 Hexachlorobutadien	213.30	245.57	115.13	70-130
109 Naphthalene	50.000	47.637	95.27	70-130
110 2-Methylnaphthalen	50.000	55.401	110.80	70-130
111 1-Methylnaphthalen	50.000	56.372	112.74	70-130
112 Acenaphthylene	50.000	54.818	109.64	70-130
113 Acenaphthene	50.000	57.285	114.57	70-130
114 Fluorene	50.000	64.291	128.58	60-140
115 Phenanthrene	50.000	54.765	109.53	60-140
116 Anthracene	50.000	53.588	107.18	60-140
117 Fluoranthene	50.000	67.093	134.19	60-140
118 Pyrene	50.000	63.897	127.79	60-140

SURROGATE COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	% RECOVERED	LIMITS
$ 49 1,2-Dichloroethane	25.000	19.279	77.11	50-150
$ 66 Toluene-d8	25.000	21.051	84.21	50-150
$ 108 Naphthalene-d8	25.000	21.141	84.56	50-150

Eurofins Air Toxics Inc.

EPA Method TO-17 GC/MS

Data file : /chem/msd6.i/17may16.b/6051706.d
Lab Smp Id: VI VOC+PAH LCSD Client Smp ID: LCSD
Inj Date : 17-MAY-2016 13:33
Operator : CT Inst ID: msd6.i
Smp Info : ;VI VOC+PAH LCSD;LCSD
Misc Info : 2516-240(7/20/16),2744-32-50(7/20/16)
Comment :
Method : /chem/msd6.i/17may16.b/616z0331vi.m
Meth Date : 17-May-2016 13:37 U5BT Quant Type: ISTD
Cal Date : 31-MAR-2016 10:19 Cal File: 6033124.d
Als bottle: 12 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: VOC+PAH_ICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
* 40 Bromochloromethane						CAS #: 74-97-5	
4.337	4.336 (1.000)	130	137768	26.0000		80.00- 120.00	100.00
4.337	4.336 (1.000)	128	106496			48.25- 108.25	77.30
4.337	4.329 (1.000)	49	179126			107.14- 167.14	130.02
* 54 1,4-Difluorobenzene						CAS #: 540-36-3	
5.970	5.970 (1.000)	114	571249	23.0000		80.00- 120.00	100.00
5.970	5.970 (1.000)	88	87932			0.00- 45.65	15.39
* 79 Chlorobenzene-d5						CAS #: 3114-55-4	
9.874	9.888 (1.000)	117	521577	24.0000		80.00- 120.00	100.00
9.874	9.888 (1.000)	82	270999			23.14- 83.14	51.96
* 92 Bromofluorobenzene						CAS #: 460-00-4	
11.428	11.449 (1.000)	174	358587	36.0000		80.00- 120.00	100.00
11.428	11.442 (1.000)	95	407865			92.70- 152.70	113.74
11.428	11.449 (1.000)	176	348094			68.24- 128.24	97.07
$ 49 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.261	5.261 (0.881)	65	58345	19.2786	19.279	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
$ 49 1,2-Dichloroethane-d4 (continued)								
5.261	5.261	(0.881)	67	30420			22.28- 82.28	52.14
$ 66 Toluene-d8						CAS #: 2037-26-5		
7.975	7.975	(0.808)	98	214271	21.0513	21.051	80.00- 120.00	100.00
7.975	7.968	(0.808)	70	22629			0.00- 40.54	10.56
7.975	7.975	(0.808)	100	141346			35.01- 95.01	65.97
$ 108 Naphthalene-d8						CAS #: 1146-65-2		
15.704	15.704	(1.374)	136	426986	21.1412	21.141	80.00- 120.00	100.00
15.704	15.704	(1.374)	108	37633			0.00- 39.41	8.81
3 Freon 114						CAS #: 76-14-2		
1.255	1.283	(0.289)	135	359730	145.375	145.37	80.00- 120.00	100.00
1.255	1.283	(0.289)	137	117699			2.17- 62.17	32.72
6 Vinyl Chloride						CAS #: 75-01-4		
1.381	1.395	(0.318)	62	216919	55.8474	55.847	80.00- 120.00	100.00
1.381	1.395	(0.318)	64	84893			12.66- 72.66	39.14
7 1,3-Butadiene						CAS #: 106-99-0		
1.395	1.395	(0.322)	54	151248	40.7591	40.759	80.00- 120.00	100.00
1.395	1.395	(0.322)	39	257906			133.58- 193.58	170.52
9 Chloroethane						CAS #: 75-00-3		
1.646	1.660	(0.380)	64	95055	42.6460	42.646	80.00- 120.00	100.00
1.646	1.660	(0.380)	66	29357			0.00- 58.31	30.88
1.646	1.660	(0.380)	49	28774			0.00- 59.65	30.27
10 Isopentane						CAS #: 78-78-4		
1.702	1.702	(0.393)	57	176804	62.1120	62.112	80.00- 120.00	100.00
1.688	1.702	(0.389)	43	280725			134.33- 194.33	158.78
11 Trichlorofluoromethane/Fr11						CAS #: 75-69-4		
1.814	1.814	(0.418)	101	466802	106.269	106.27	80.00- 120.00	100.00
1.814	1.814	(0.418)	103	302270			35.98- 95.98	64.75
15 Freon 113						CAS #: 76-13-1		
2.188	2.188	(0.504)	151	427482	168.583	168.58	80.00- 120.00	100.00
2.188	2.188	(0.504)	153	275152			34.66- 94.66	64.37
2.180	2.188	(0.503)	101	493346			88.64- 148.64	115.41
14 1,1-Dichloroethene						CAS #: 75-35-4		
2.188	2.188	(0.504)	98	159645	90.2402	90.240	80.00- 120.00	100.00
2.188	2.188	(0.504)	96	250509			127.15- 187.15	156.92
2.188	2.188	(0.504)	61	404265			230.60- 290.60	253.23

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
18 Carbon Disulfide					CAS #: 75-15-0		
2.367	2.374 (0.546)	76	581041	56.1514	56.151	80.00- 120.00	100.00
19 2-Propanol					CAS #: 67-63-0		
2.288	2.288 (0.528)	45	398824	41.4261	41.426	80.00- 120.00	100.00(a)
2.288	2.288 (0.528)	43	76489			0.00- 49.91	19.18
2.288	2.281 (0.528)	59	15368			0.00- 33.48	3.85
22 Methylene Chloride					CAS #: 75-09-2		
2.582	2.589 (0.595)	49	298541	67.5493	67.549	80.00- 120.00	100.00
2.582	2.589 (0.595)	84	212967			38.62- 98.62	71.34
2.582	2.589 (0.595)	51	89192			0.43- 60.43	29.88
25 trans-1,2-Dichloroethene					CAS #: 156-60-5		
2.839	2.839 (0.655)	98	129227	73.0937	73.094	80.00- 120.00	100.00
2.832	2.832 (0.653)	61	296776			200.79- 260.79	229.65
2.832	2.839 (0.653)	96	202853			126.39- 186.39	156.97
26 MTBE					CAS #: 1634-04-4		
2.811	2.811 (0.648)	73	560161	76.0313	76.031	80.00- 120.00	100.00
2.811	2.811 (0.648)	57	136733			0.00- 54.76	24.41
2.811	2.811 (0.648)	41	142150			0.00- 56.57	25.38
28 Hexane					CAS #: 110-54-3		
3.119	3.112 (0.719)	57	375745	72.8818	72.882	80.00- 120.00	100.00
3.112	3.112 (0.718)	43	262548			41.77- 101.77	69.87
3.119	3.112 (0.719)	86	53445			0.00- 43.88	14.22
29 1,1-Dichloroethane					CAS #: 75-34-3		
3.291	3.291 (0.759)	63	381926	81.2983	81.298	80.00- 120.00	100.00
3.291	3.291 (0.759)	65	121387			1.71- 61.71	31.78
37 cis-1,2-Dichloroethene					CAS #: 156-59-2		
4.000	4.000 (0.922)	98	175513	92.5922	92.592	80.00- 120.00	100.00
4.000	3.993 (0.922)	96	273585			126.11- 186.11	155.88
4.000	4.000 (0.922)	61	367073			179.91- 239.91	209.14
38 2-Butanone					CAS #: 78-93-3		
3.964	3.957 (0.914)	72	128931	66.6368	66.637	80.00- 120.00	100.00
3.964	3.957 (0.914)	43	616283			469.10- 529.10	477.99
3.957	3.957 (0.912)	57	54938			6.15- 66.15	42.61
44 Chloroform					CAS #: 67-66-3		
4.516	4.508 (1.041)	83	444153	98.4391	98.439	80.00- 120.00	100.00
4.516	4.508 (1.041)	85	291000			35.99- 95.99	65.52

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
46 Cyclohexane					CAS #: 110-82-7		
4.845	4.845 (0.812)	84	295913	68.5448	68.545	80.00- 120.00	100.00
4.845	4.845 (0.812)	56	385513			102.79- 162.79	130.28
4.845	4.845 (0.812)	41	235037			54.37- 114.37	79.43
45 1,1,1-Trichloroethane					CAS #: 71-55-6		
4.738	4.738 (0.794)	97	382072	90.2635	90.263	80.00- 120.00	100.00
4.738	4.738 (0.794)	99	247983			34.68- 94.68	64.90
47 Carbon Tetrachloride					CAS #: 56-23-5		
4.981	4.974 (0.834)	119	414952	112.188	112.19	80.00- 120.00	100.00
4.981	4.974 (0.834)	117	429664			73.19- 133.19	103.55
51 2,2,4-Trimethylpentane					CAS #: 540-84-1		
5.504	5.504 (0.922)	57	1202846	91.7962	91.796	80.00- 120.00	100.00
5.504	5.497 (0.922)	56	381761			1.74- 61.74	31.74
5.504	5.497 (0.922)	41	351336			0.34- 60.34	29.21
48 Benzene					CAS #: 71-43-2		
5.282	5.275 (0.885)	78	795662	63.5124	63.512	80.00- 120.00	100.00
5.282	5.275 (0.885)	77	187167			0.00- 53.53	23.52
50 1,2-Dichloroethane					CAS #: 107-06-2		
5.375	5.375 (0.900)	62	299132	77.5542	77.554	80.00- 120.00	100.00
5.375	5.375 (0.900)	64	97022			2.15- 62.15	32.43
53 Heptane					CAS #: 142-82-5		
5.805	5.805 (0.972)	71	239225	81.2970	81.297	80.00- 120.00	100.00
5.805	5.805 (0.972)	43	507779			188.80- 248.80	212.26
5.805	5.805 (0.972)	57	237563			71.78- 131.78	99.31
56 Trichloroethene					CAS #: 79-01-6		
6.285	6.278 (1.053)	95	364979	106.032	106.03	80.00- 120.00	100.00
6.285	6.278 (1.053)	130	386778			74.74- 134.74	105.97
6.285	6.278 (1.053)	97	235921			34.87- 94.87	64.64
58 Methyl Cyclohexane					CAS #: 108-87-2		
6.600	6.593 (1.106)	83	433483	80.8759	80.876	80.00- 120.00	100.00
6.600	6.593 (1.106)	98	191036			14.22- 74.22	44.07
6.593	6.593 (1.104)	55	369557			58.24- 118.24	85.25
59 1,2-Dichloropropane					CAS #: 78-87-5		
6.636	6.636 (1.112)	63	263268	91.0786	91.079	80.00- 120.00	100.00
6.636	6.636 (1.112)	62	183410			39.32- 99.32	69.67
6.636	6.629 (1.112)	41	157443			37.26- 97.26	59.80

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
60 1,4-Dioxane					CAS #: 123-91-1		
6.758	6.750 (1.132)	88	173622	70.4332	70.433	80.00- 120.00	100.00
6.758	6.750 (1.132)	58	123243			41.28- 101.28	70.98
6.758	6.750 (1.132)	57	60189			0.62- 60.62	34.67
65 4-Methyl-2-pentanone					CAS #: 108-10-1		
7.854	7.854 (1.316)	58	221321	78.0005	78.000	80.00- 120.00	100.00
7.854	7.854 (1.316)	43	628810			263.34- 323.34	284.12
7.861	7.854 (1.317)	85	97497			12.32- 72.32	44.05
67 Toluene					CAS #: 108-88-3		
8.068	8.061 (0.817)	91	913655	72.9150	72.915	80.00- 120.00	100.00
8.068	8.061 (0.817)	92	532781			28.18- 88.18	58.31
70 1,1,2-Trichloroethane					CAS #: 79-00-5		
8.670	8.670 (1.452)	97	309067	107.076	107.08	80.00- 120.00	100.00
8.670	8.677 (1.452)	99	192999			32.32- 92.32	62.45
8.670	8.670 (1.452)	83	259052			54.42- 114.42	83.82
71 Tetrachloroethene					CAS #: 127-18-4		
8.742	8.749 (0.885)	166	470435	142.069	142.07	80.00- 120.00	100.00
8.742	8.749 (0.885)	129	349085			47.21- 107.21	74.20
8.742	8.749 (0.885)	131	336593			44.68- 104.68	71.55
72 2-Hexanone					CAS #: 591-78-6		
8.978	8.985 (0.909)	58	290290	76.8434	76.843	80.00- 120.00	100.00
8.978	8.985 (0.909)	43	585748			181.19- 241.19	201.78
8.978	8.985 (0.909)	100	54543			0.00- 48.53	18.79
74 1,2-Dibromoethane					CAS #: 106-93-4		
9.258	9.272 (0.938)	107	449186	144.426	144.43	80.00- 120.00	100.00
9.258	9.272 (0.938)	109	424003			64.88- 124.88	94.39
81 Chlorobenzene					CAS #: 108-90-7		
9.917	9.924 (1.004)	112	747661	93.1996	93.200	80.00- 120.00	100.00
9.917	9.924 (1.004)	114	242249			2.37- 62.37	32.40
9.917	9.924 (1.004)	77	405612			25.58- 85.58	54.25
82 Ethyl Benzene					CAS #: 100-41-4		
10.067	10.081 (1.020)	106	371803	85.1428	85.143	80.00- 120.00	100.00
10.067	10.081 (1.020)	91	1163156			283.92- 343.92	312.84
84 m,p-Xylene					CAS #: 108-38-3		
10.246	10.260 (1.038)	106	472223	83.3774	83.377	80.00- 120.00	100.00
10.246	10.260 (1.038)	91	923660			168.48- 228.48	195.60

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   NG)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   88 o-Xylene                                        CAS #: 95-47-6
 10.726  10.747 (0.939)   106    450307 83.3868   83.387  80.00- 120.00   100.00
 10.726  10.747 (0.939)    91    933507                  179.05- 239.05   207.30
-------------------------------------------------------------------------------
   89 Styrene                                         CAS #: 100-42-5
 10.762  10.776 (0.942)   104    722619 77.5961   77.596  80.00- 120.00   100.00
 10.762  10.776 (0.942)    78    342721                   17.71-  77.71    47.43
-------------------------------------------------------------------------------
   91 Cumene                                          CAS #: 98-82-8
 11.220  11.234 (0.982)   105   1344084 94.6393   94.639  80.00- 120.00   100.00
 11.220  11.234 (0.982)   120    360286                    0.00-  56.88    26.81
 11.213  11.234 (0.981)    51    134291                    0.00-  40.57     9.99
-------------------------------------------------------------------------------
   94 1,1,2,2-Tetrachloroethane                       CAS #: 79-34-5
 11.643  11.664 (1.019)    83    626608 133.469   133.47  80.00- 120.00   100.00
 11.643  11.664 (1.019)    85    407266                   35.63-  95.63    65.00
-------------------------------------------------------------------------------
   96 Propylbenzene                                   CAS #: 103-65-1
 11.750  11.772 (1.028)    91   1620611 96.4702   96.470  80.00- 120.00   100.00
 11.750  11.772 (1.028)   120    389207                    0.00-  53.76    24.02
 11.750  11.772 (1.028)   105     60485                    0.00-  33.79     3.73
-------------------------------------------------------------------------------
   97 4-Ethyltoluene                                  CAS #: 622-96-8
 11.915  11.936 (1.043)   120    404079 93.5048   93.505  80.00- 120.00   100.00
 11.915  11.936 (1.043)   105   1323106                  299.98- 359.98   327.44
-------------------------------------------------------------------------------
   98 1,3,5-Trimethylbenzene                          CAS #: 108-67-8
 12.001  12.022 (1.050)   120    577493 94.7830   94.783  80.00- 120.00   100.00
 12.001  12.022 (1.050)   105   1152527                  169.84- 229.84   199.57
-------------------------------------------------------------------------------
  100 1,2,4-Trimethylbenzene                          CAS #: 95-63-6
 12.474  12.488 (1.091)   120    536948 94.5706   94.571  80.00- 120.00   100.00
 12.467  12.488 (1.091)   105   1217613                  188.24- 248.24   226.77
-------------------------------------------------------------------------------
  101 1,3-Dichlorobenzene                             CAS #: 541-73-1
 12.796  12.810 (1.120)   146    837406 119.170   119.17  80.00- 120.00   100.00
 12.796  12.810 (1.120)   148    537871                   33.94-  93.94    64.23
 12.796  12.810 (1.120)   111    326641                    9.99-  69.99    39.01
-------------------------------------------------------------------------------
  102 1,4-Dichlorobenzene                             CAS #: 106-46-7
 12.932  12.954 (1.132)   146    831252 118.474   118.47  80.00- 120.00   100.00
 12.932  12.954 (1.132)   148    535626                   33.56-  93.56    64.44
 12.932  12.946 (1.132)   111    311898                    8.12-  68.12    37.52
-------------------------------------------------------------------------------
  105 1,2-Dichlorobenzene                             CAS #: 95-50-1
 13.376  13.391 (1.170)   146    799631 120.426   120.43  80.00- 120.00   100.00
```

```
                                        CONCENTRATIONS
                                        ON-COL    FINAL
   RT   EXP RT (REL RT)  MASS  RESPONSE (   ng)  (   NG)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  105 1,2-Dichlorobenzene (continued)
 13.376  13.391 (1.170)   148    508901                    33.25-  93.25    63.64
 13.376  13.383 (1.170)   111    321178                    11.16-  71.16    40.17
-------------------------------------------------------------------------------
  106 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 15.425  15.432 (1.350)   180    763425 167.232   167.23  80.00- 120.00   100.00
 15.425  15.432 (1.350)   182    724004                    64.82- 124.82    94.84
-------------------------------------------------------------------------------
  107 Hexachlorobutadiene                           CAS #: 87-68-3
 15.640  15.647 (1.369)   225    576104 245.568   245.57  80.00- 120.00   100.00
 15.640  15.647 (1.369)   223    361583                    32.09-  92.09    62.76
-------------------------------------------------------------------------------
  109 Naphthalene                                   CAS #: 91-20-3
 15.740  15.747 (1.377)   128   1146018 47.6371   47.637  80.00- 120.00   100.00
 15.740  15.747 (1.377)   127    148862                     0.00-  43.01    12.99
-------------------------------------------------------------------------------
  110 2-Methylnaphthalene                           CAS #: 91-57-6
 17.194  17.194 (1.505)   142    770382 55.4013   55.401  80.00- 120.00   100.00
 17.194  17.194 (1.505)   141    670823                    57.55- 117.55    87.08
 17.187  17.194 (1.504)   115    239406                     2.88-  62.88    31.08
-------------------------------------------------------------------------------
  111 1-Methylnaphthalene                           CAS #: 90-12-0
 17.409  17.409 (1.523)   142    704891 56.3722   56.372  80.00- 120.00   100.00
 17.409  17.409 (1.523)   141    636870                    60.83- 120.83    90.35
 17.409  17.409 (1.523)   115    229465                     4.35-  64.35    32.55
-------------------------------------------------------------------------------
  112 Acenaphthylene                                CAS #: 208-96-8
 19.257  19.264 (1.685)   152   1119532 54.8175   54.818  80.00- 120.00   100.00
 19.257  19.264 (1.685)   151    222828                     0.00-  50.47    19.90
 19.257  19.264 (1.685)   153    146500                     0.00-  42.99    13.09
-------------------------------------------------------------------------------
  113 Acenaphthene                                  CAS #: 83-32-9
 19.522  19.522 (1.708)   154    632419 57.2847   57.285  80.00- 120.00   100.00
 19.522  19.522 (1.708)   152    333562                    23.49-  83.49    52.74
 19.522  19.522 (1.708)   153    693157                    81.41- 141.41   109.60
-------------------------------------------------------------------------------
  114 Fluorene                                      CAS #: 86-73-7
 20.675  20.675 (1.809)   166    704112 64.2914   64.291  80.00- 120.00   100.00
 20.675  20.675 (1.809)   165    674022                    66.52- 126.52    95.73
-------------------------------------------------------------------------------
  115 Phenanthrene                                  CAS #: 85-01-8
 22.853  22.853 (2.000)   178   1012557 54.7652   54.765  80.00- 120.00   100.00
 22.853  22.853 (2.000)   176    193811                     0.00-  49.64    19.14
 22.853  22.853 (2.000)   179    154811                     0.00-  45.22    15.29
-------------------------------------------------------------------------------
  116 Anthracene                                    CAS #: 120-12-7
 22.960  22.960 (2.009)   178    938430 53.5877   53.588  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (NG)	TARGET RANGE	RATIO
116 Anthracene (continued)								
22.960	22.960	(2.009)	176	173010			0.00- 49.04	18.44
22.960	22.960	(2.009)	179	141984			0.00- 45.28	15.13
117 Fluoranthene						CAS #: 206-44-0		
26.155	26.155	(2.289)	202	862858	67.0927	67.093	80.00- 120.00	100.00
26.148	26.155	(2.288)	101	138727			0.00- 48.21	16.08
118 Pyrene						CAS #: 129-00-0		
27.015	27.015	(2.364)	202	853641	63.8967	63.897	80.00- 120.00	100.00
27.008	27.008	(2.363)	101	164059			0.00- 51.09	19.22
27.008	27.015	(2.363)	100	134213			0.00- 47.66	15.72

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: msd6.i
Lab File ID: 6051706.d
Lab Smp Id: VI VOC+PAH LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: CT
Method File: /chem/msd6.i/17may16.b/616z0331vi.m
Misc Info: 2516-240(7/20/16),2744-32-50(7/20/16)

Calibration Date: 17-MAY-2016
Calibration Time: 12:53
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

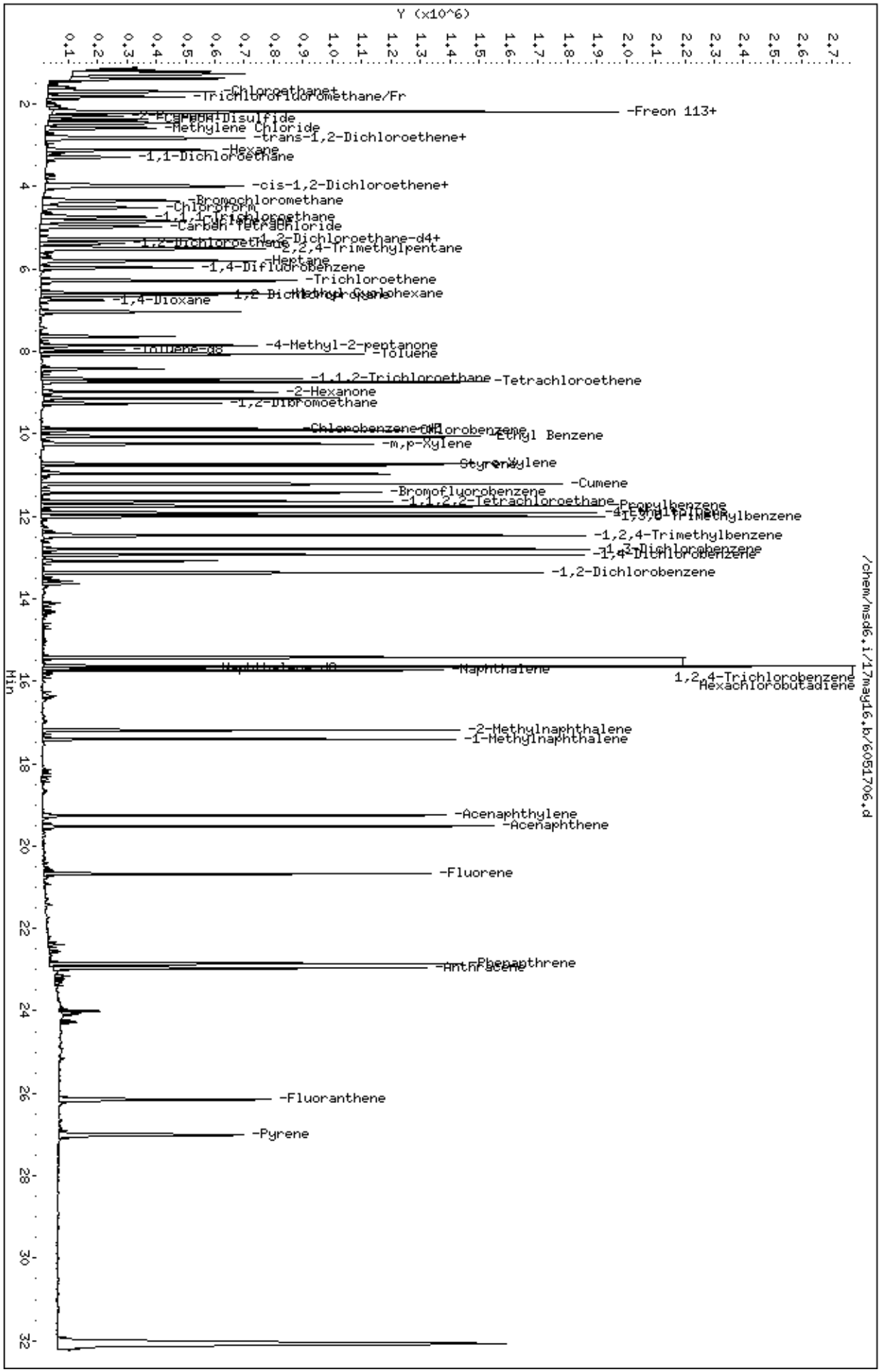
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	157036	94222	219850	137768	-12.27
54 1,4-Difluorobenze	635738	381443	890033	571249	-10.14
79 Chlorobenzene-d5	583554	350132	816976	521577	-10.62
92 Bromofluorobenzen	400960	240576	561344	358587	-10.57

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
40 Bromochloromethan	4.34	4.01	4.67	4.34	0.00
54 1,4-Difluorobenze	5.97	5.64	6.30	5.97	0.00
79 Chlorobenzene-d5	9.89	9.56	10.22	9.87	-0.14
92 Bromofluorobenzen	11.45	11.12	11.78	11.43	-0.19

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/msd6.i/17may16.b/6051706.d
Date : 17-MAY-2016 13:33
Client ID: LCSD
Sample Info: ;VI VOC+PAH LCSD;LCSD
Column phase: RTx-624

Instrument: msd6.i
Operator: CT
Column diameter: 0.53



Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

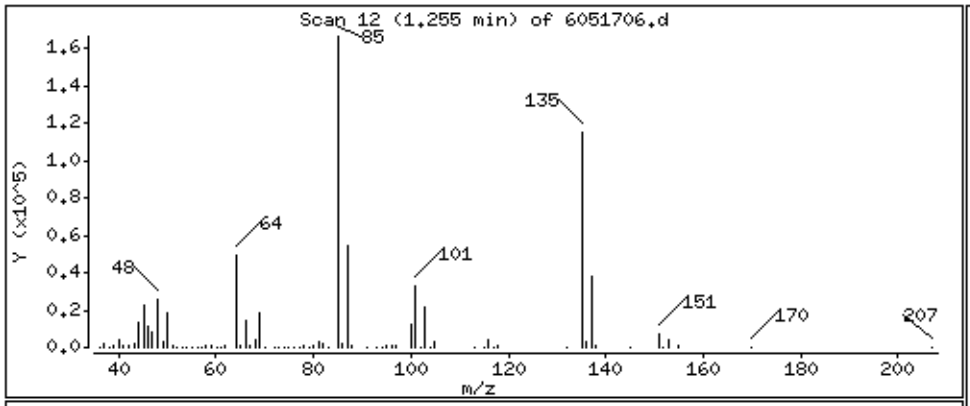
Operator: CT

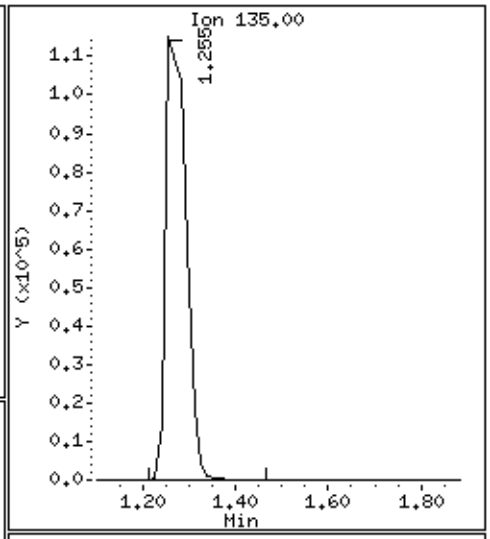
Column phase: RTx-624

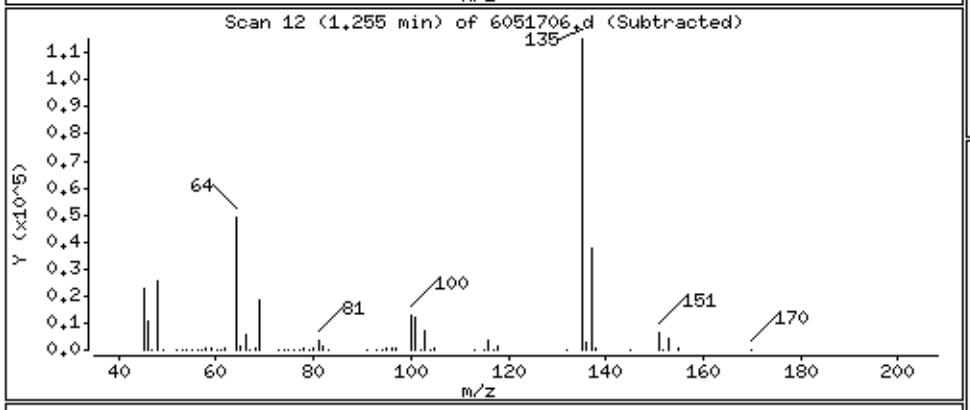
Column diameter: 0.53

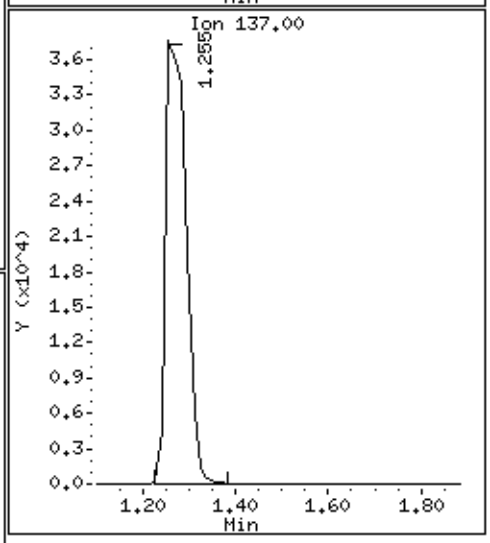
3 Freon 114

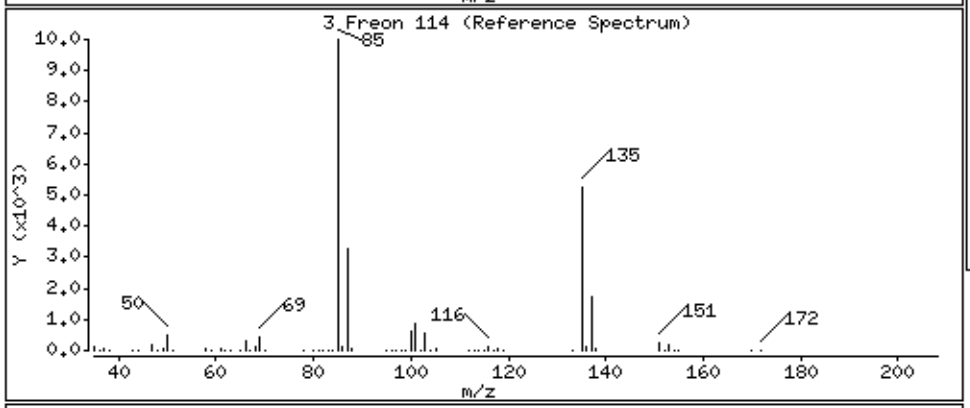
Concentration: 145.37 NG

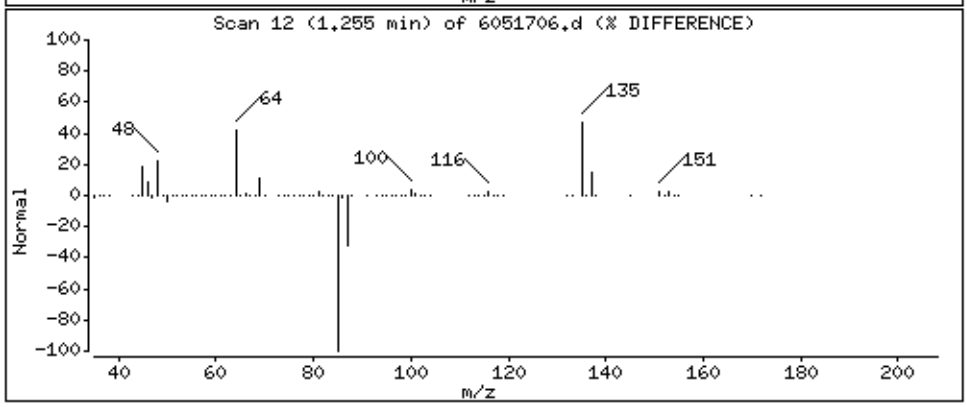












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

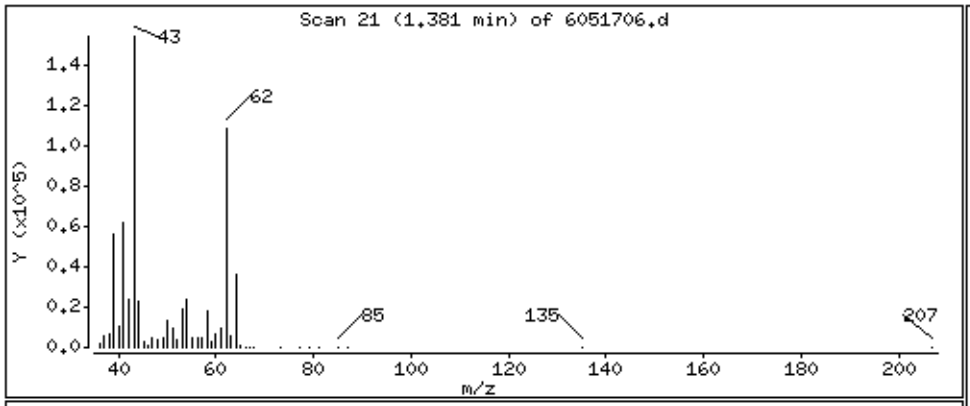
Operator: CT

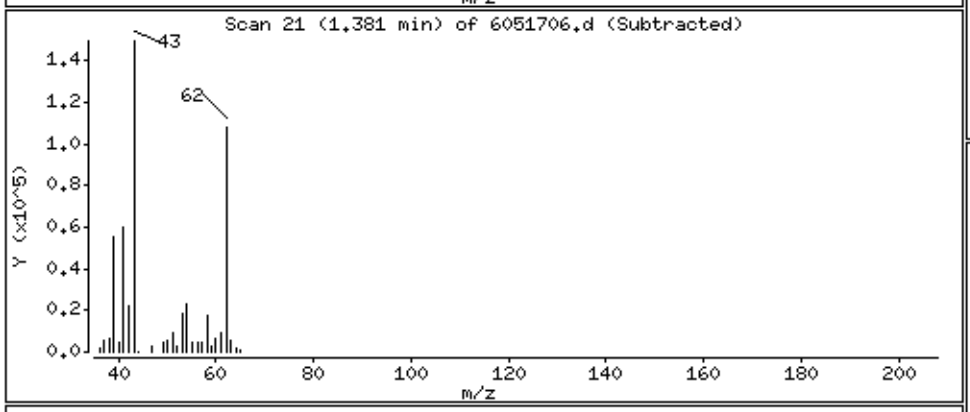
Column phase: RTx-624

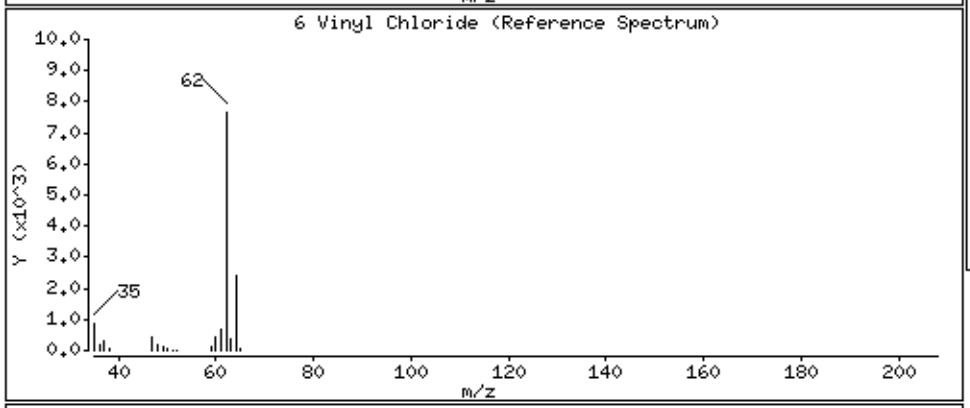
Column diameter: 0.53

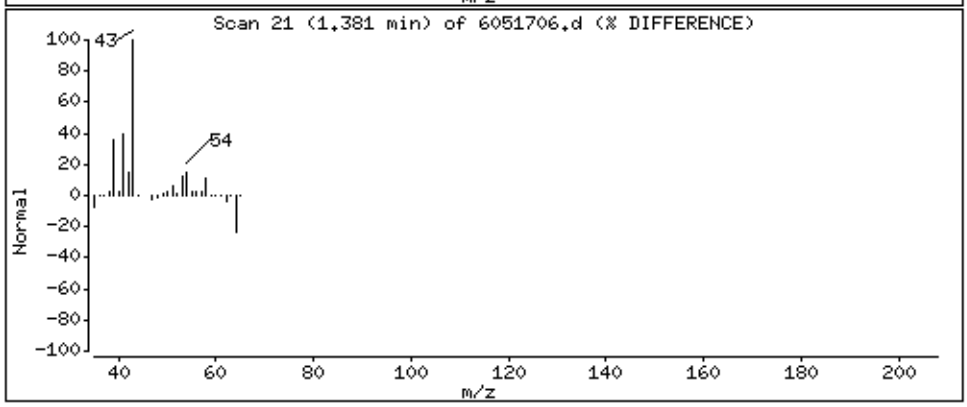
6 Vinyl Chloride

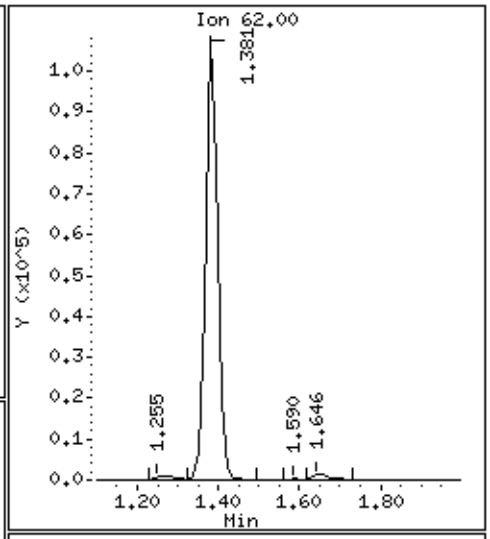
Concentration: 55.847 NG

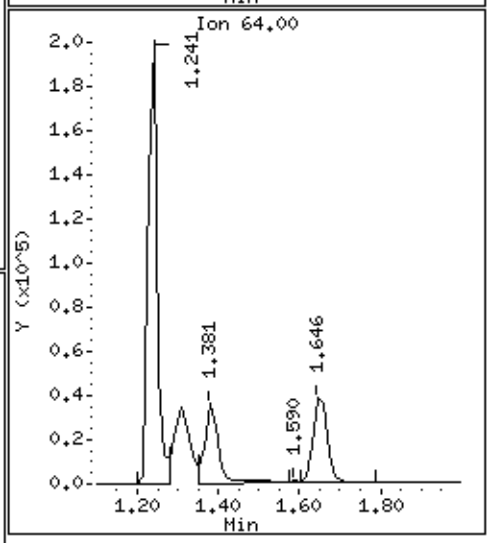












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

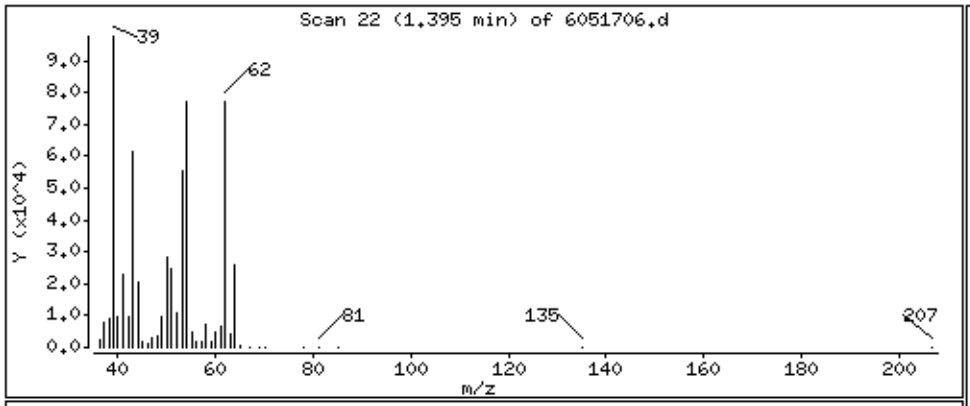
Operator: CT

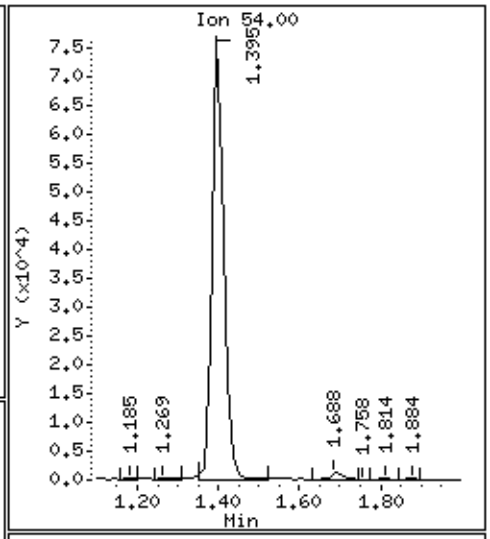
Column phase: RTx-624

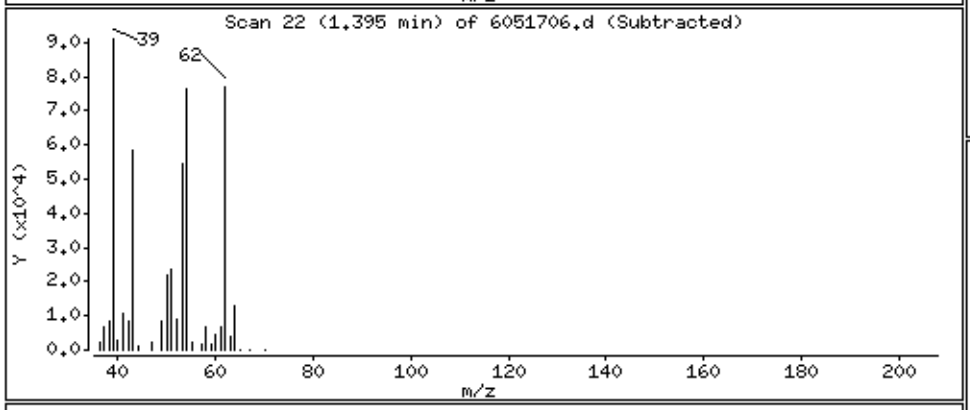
Column diameter: 0.53

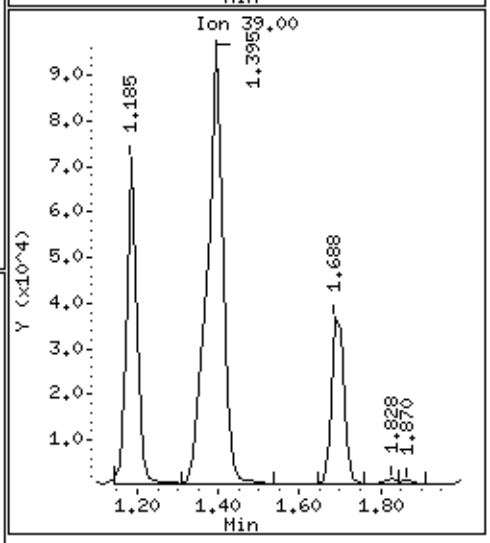
7 1,3-Butadiene

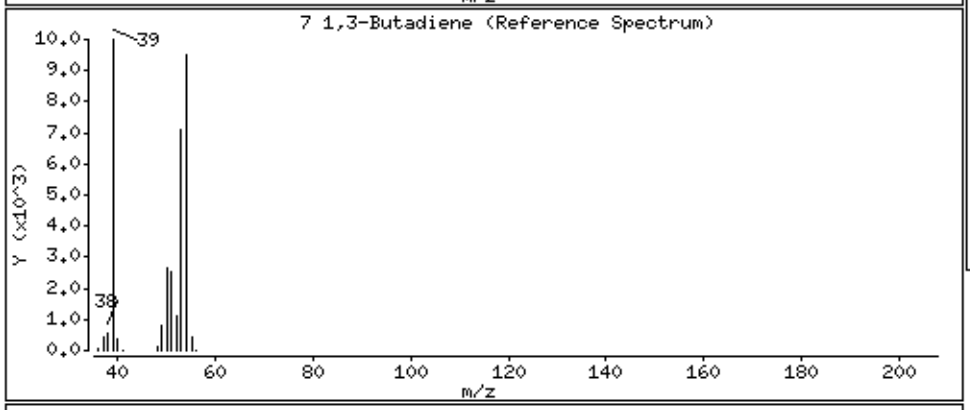
Concentration: 40.759 NG

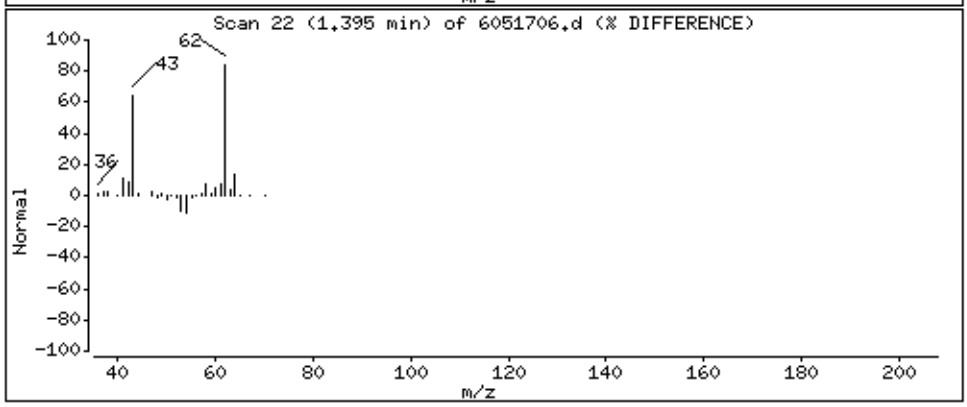












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

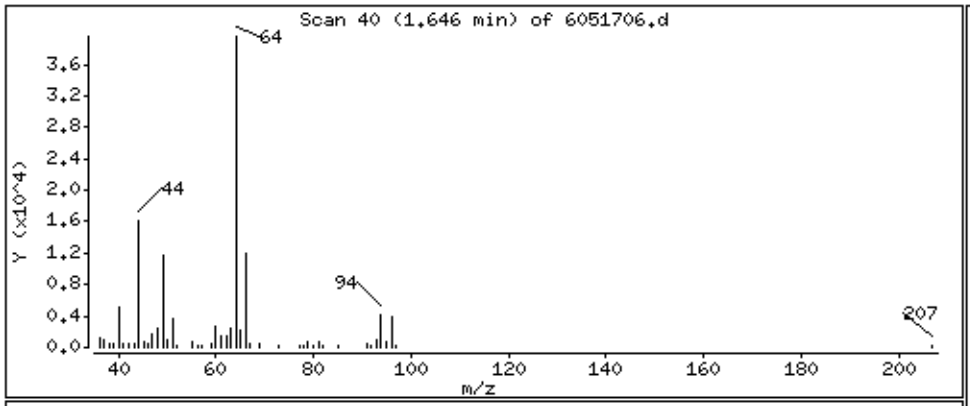
Operator: CT

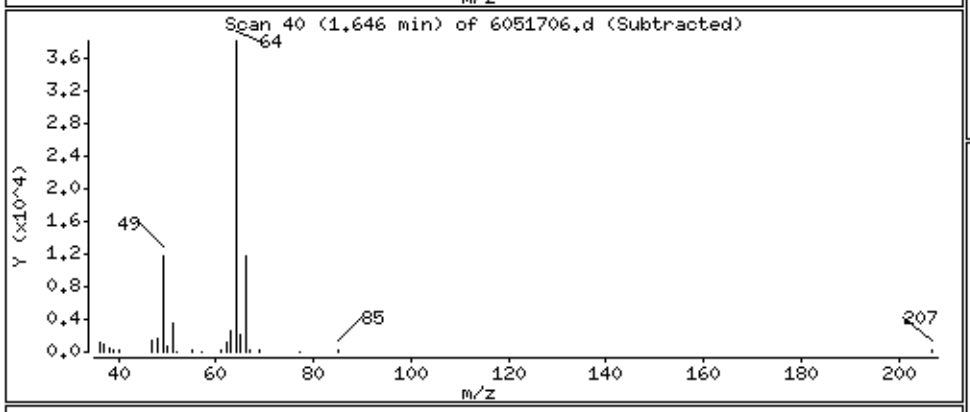
Column phase: RTx-624

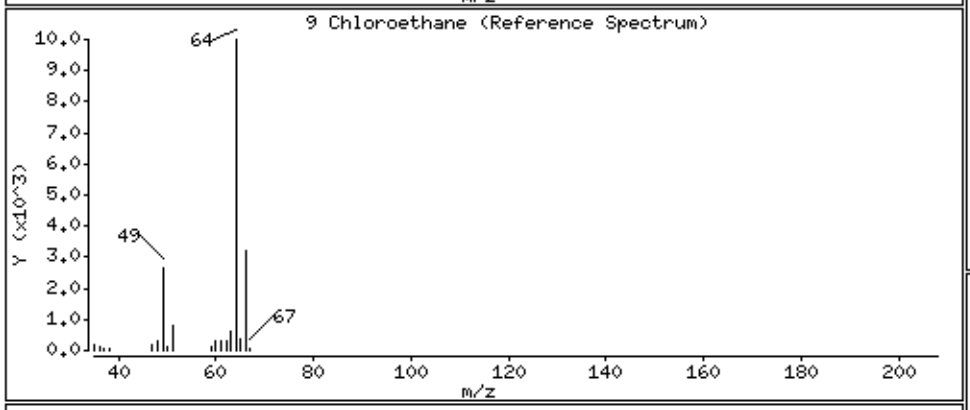
Column diameter: 0.53

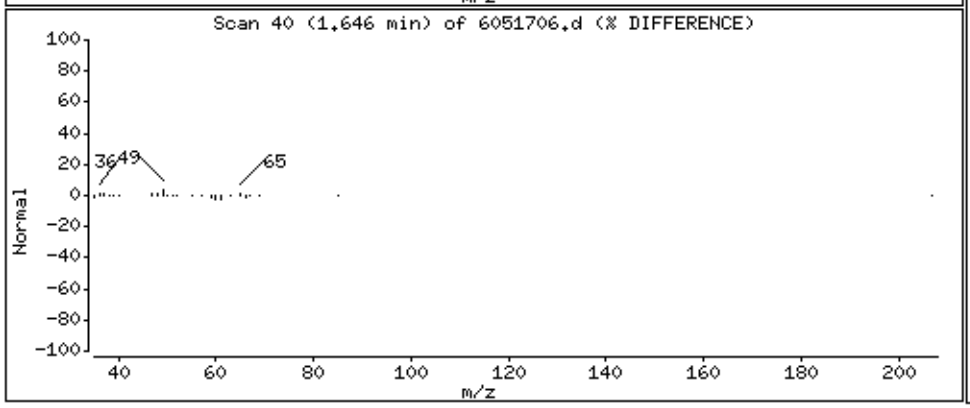
9 Chloroethane

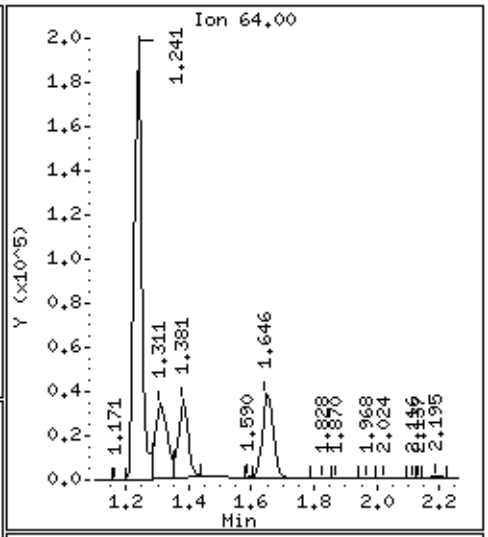
Concentration: 42.646 NG

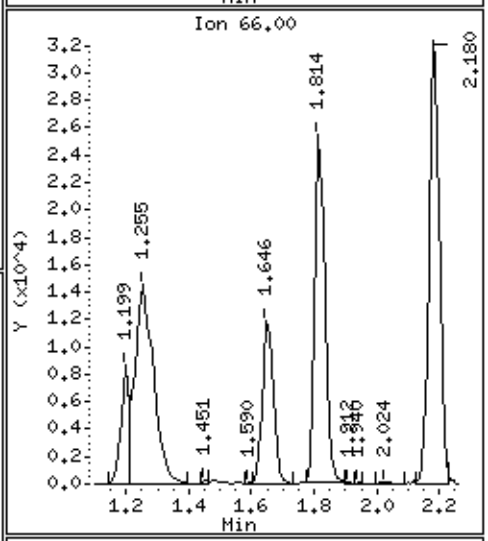


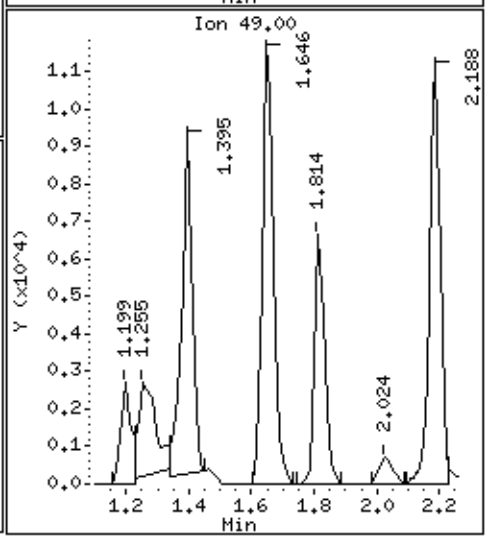












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

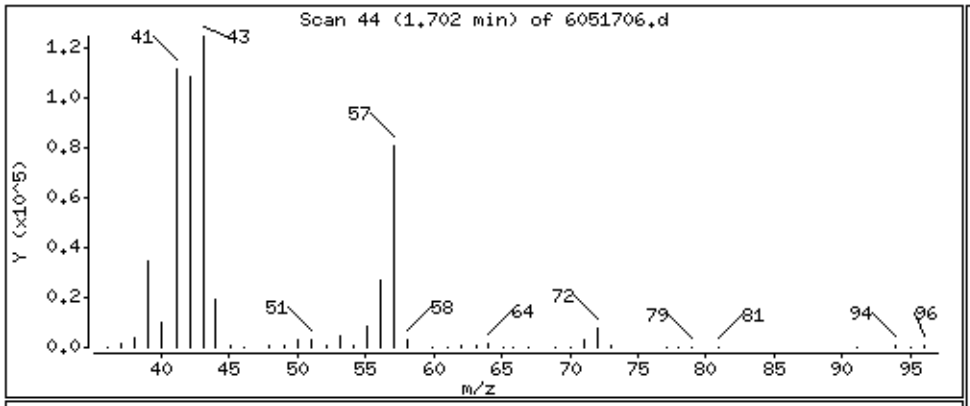
Operator: CT

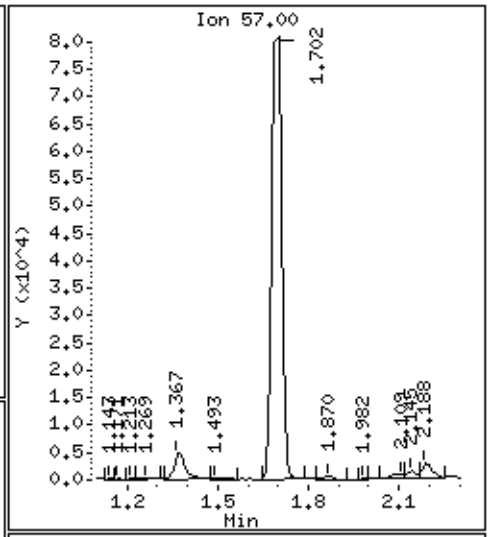
Column phase: RTx-624

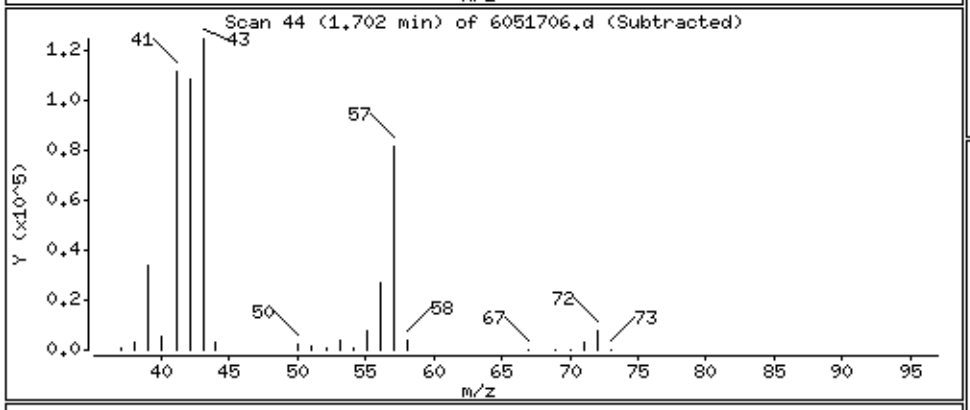
Column diameter: 0.53

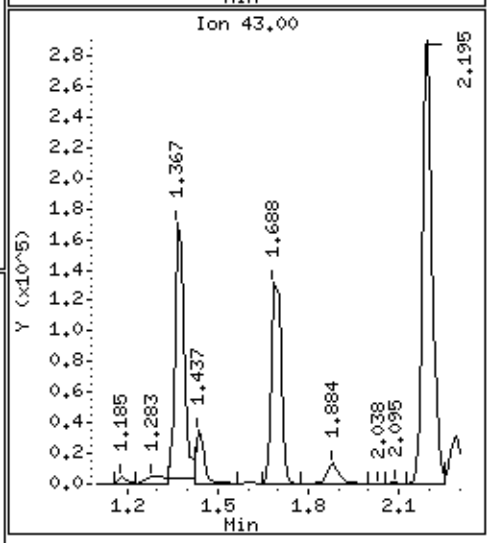
10 Isopentane

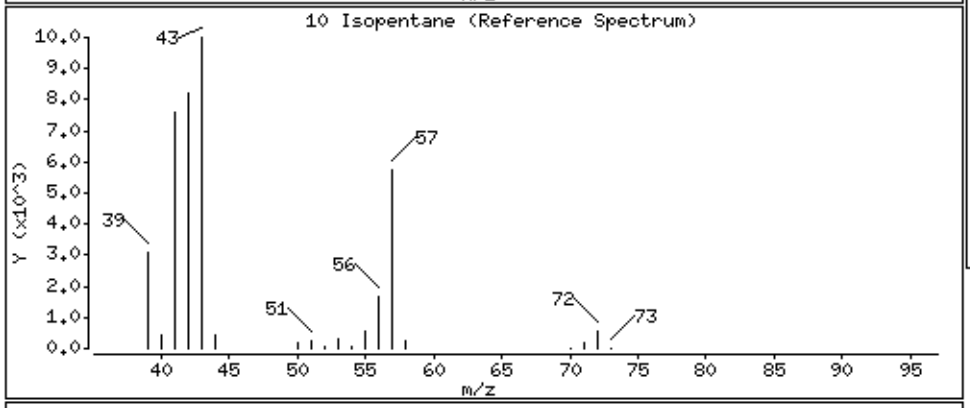
Concentration: 62.112 NG

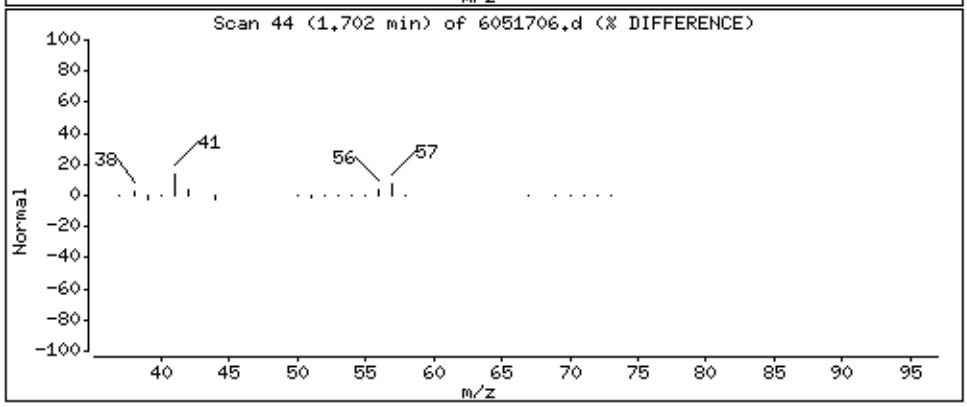












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

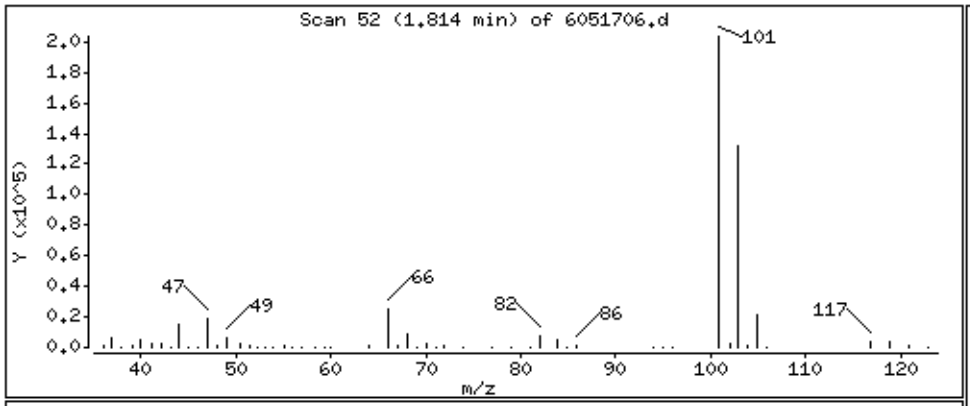
Operator: CT

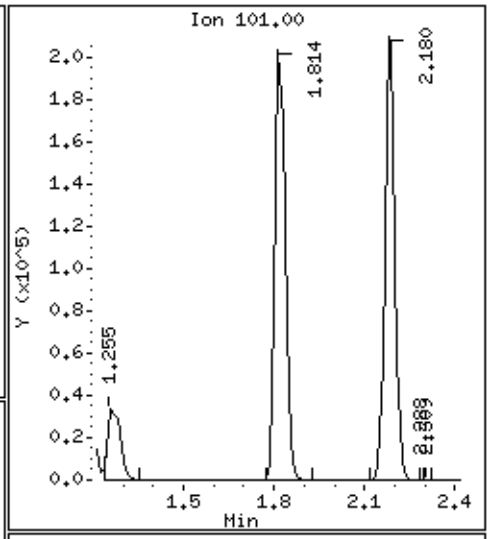
Column phase: RTx-624

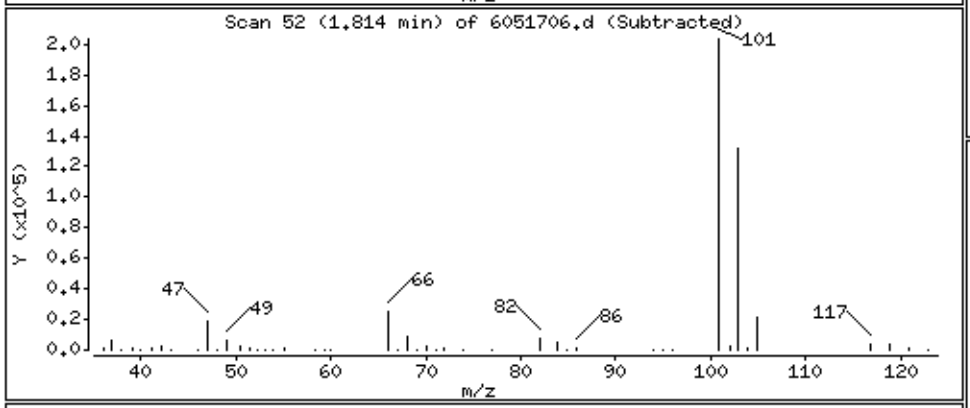
Column diameter: 0.53

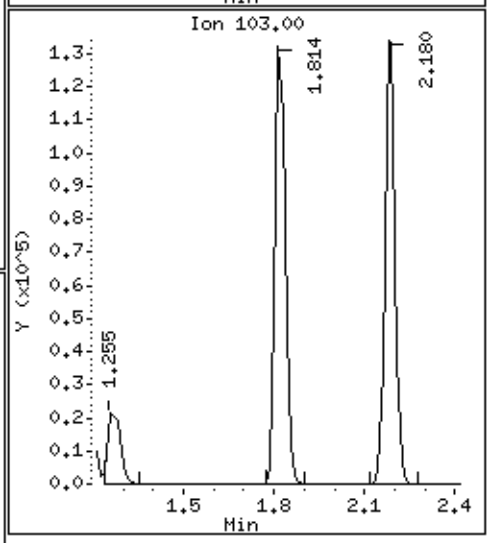
11 Trichlorofluoromethane/Fr11

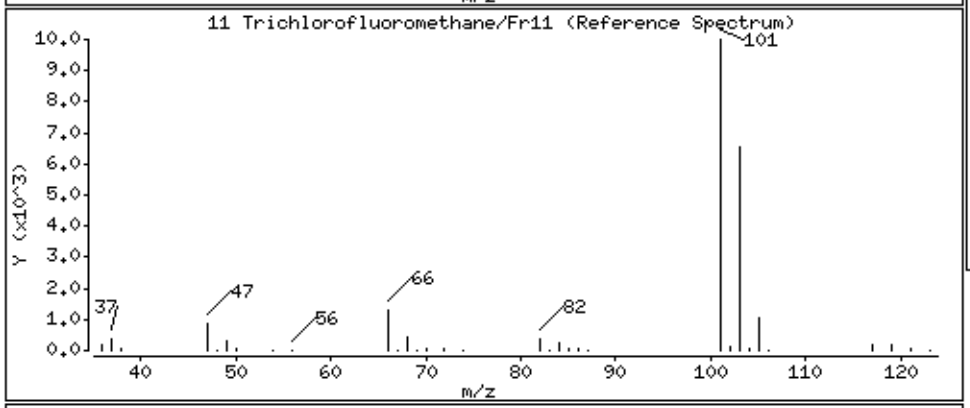
Concentration: 106.27 NG

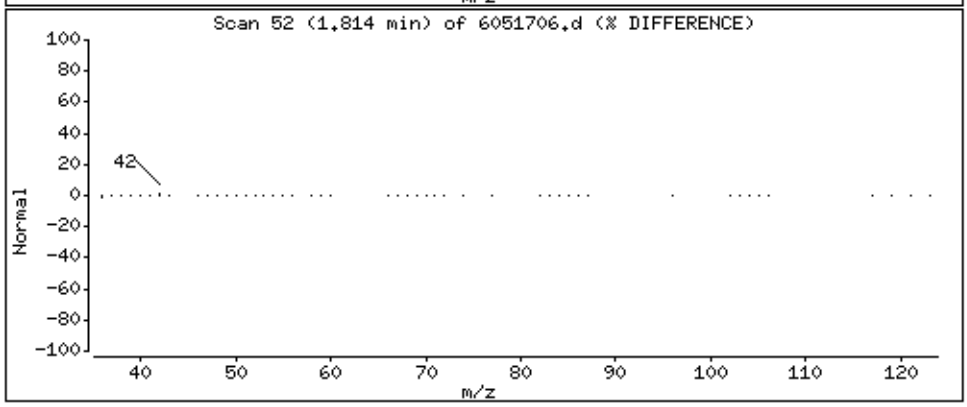












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

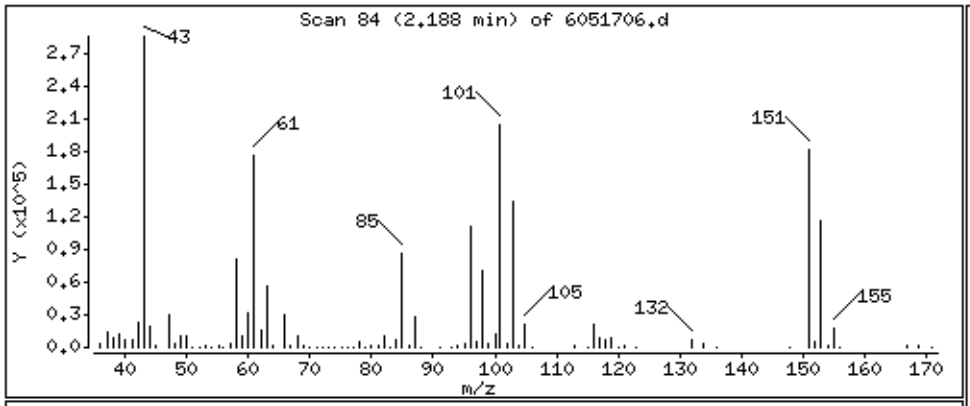
Operator: CT

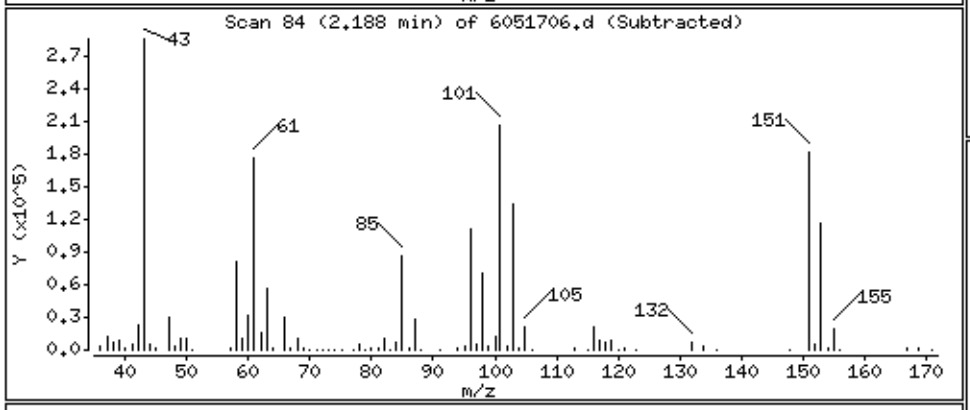
Column phase: RTx-624

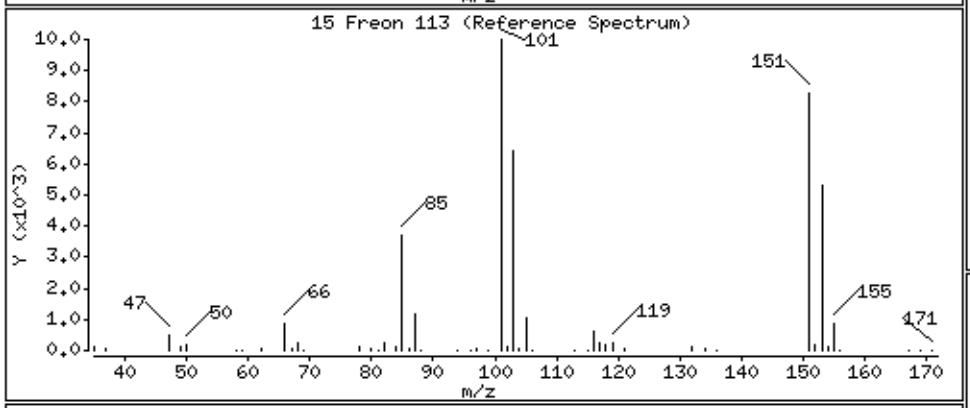
Column diameter: 0.53

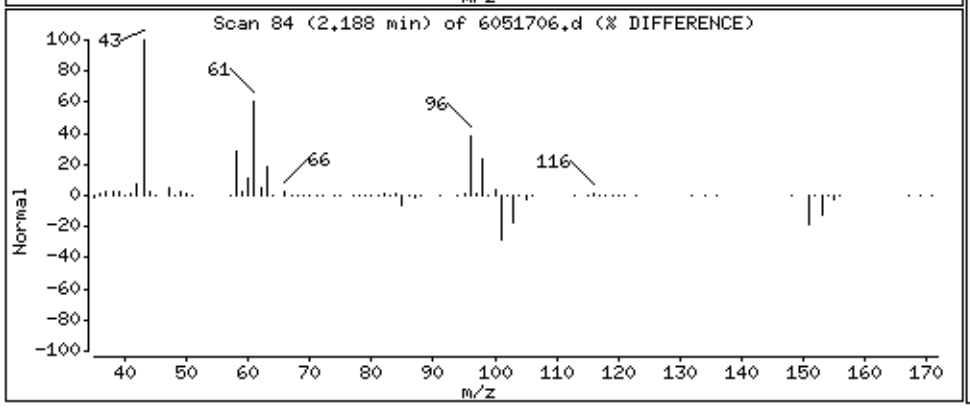
15 Freon 113

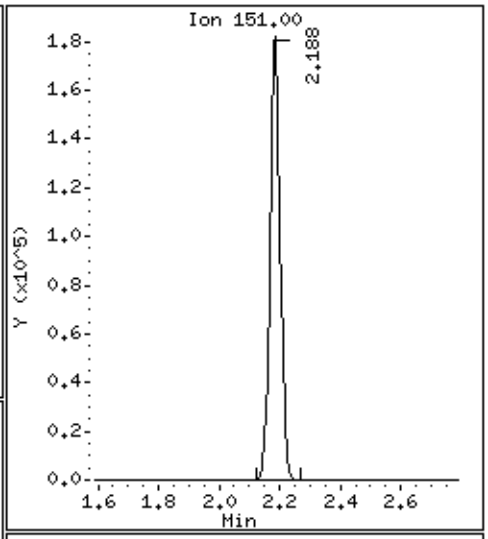
Concentration: 168.58 NG

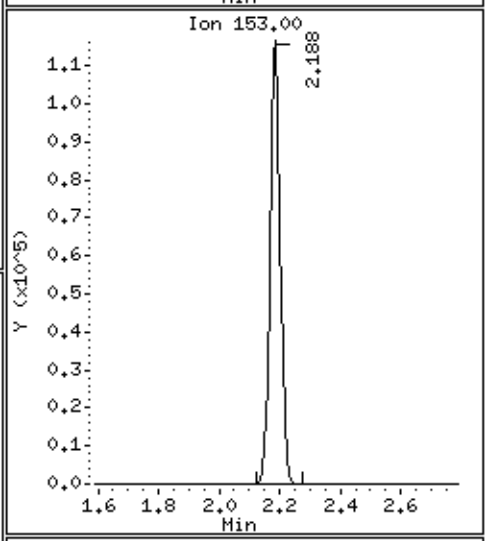


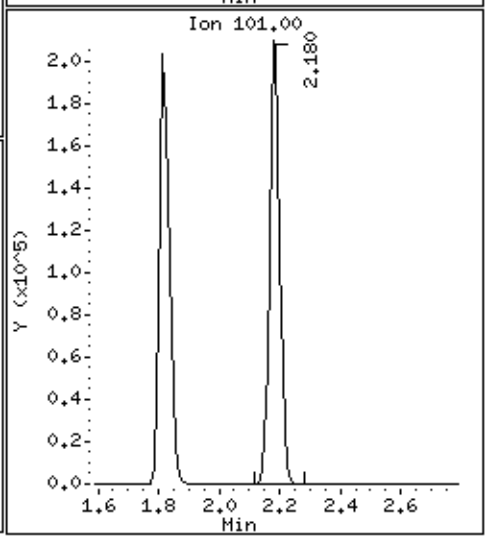












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

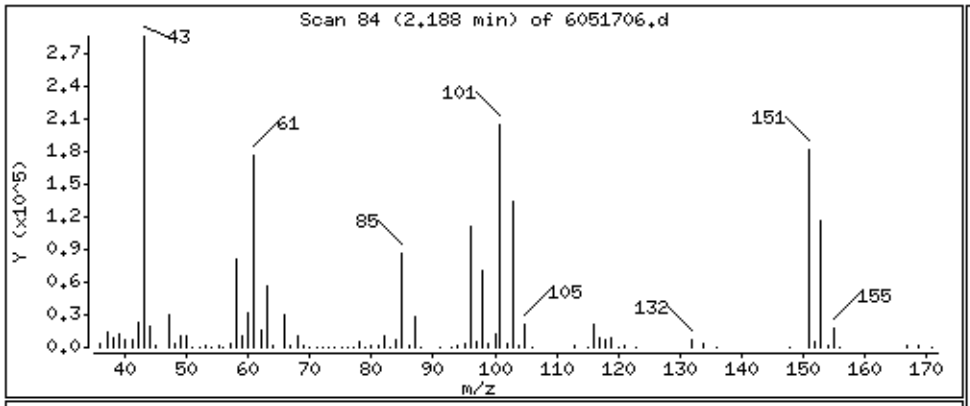
Operator: CT

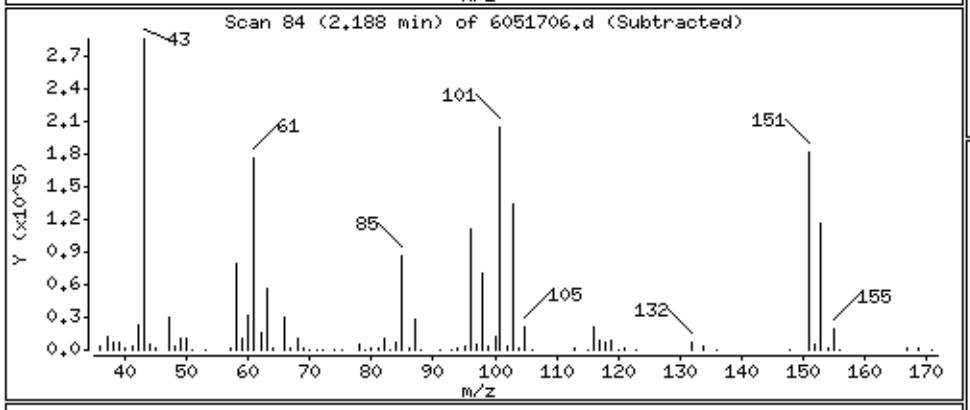
Column phase: RTx-624

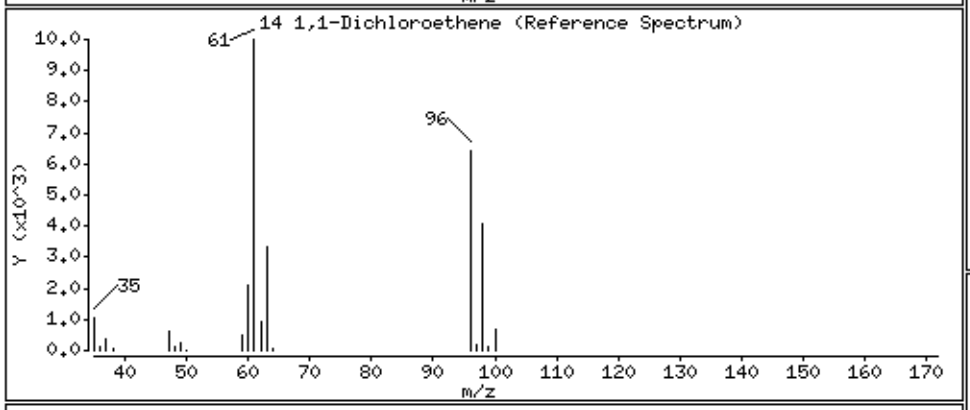
Column diameter: 0.53

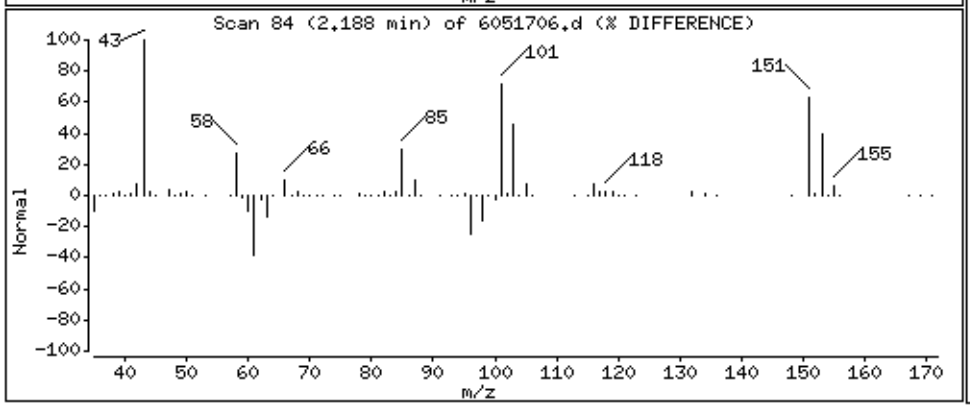
14 1,1-Dichloroethene

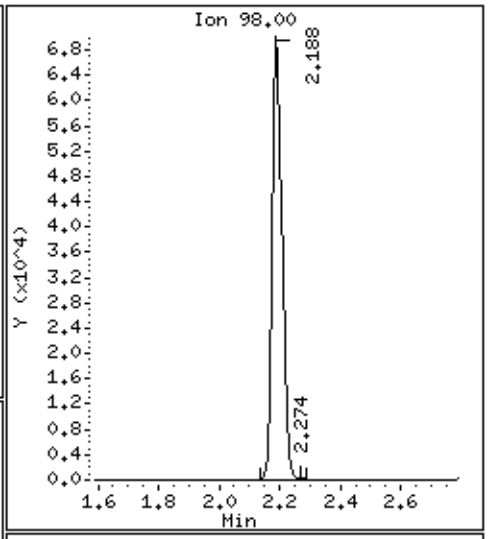
Concentration: 90.240 NG

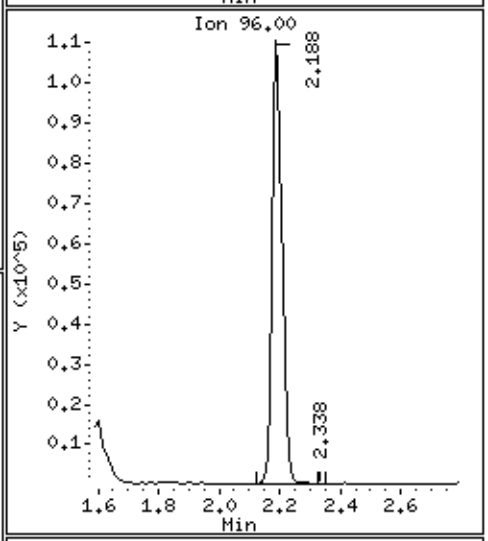


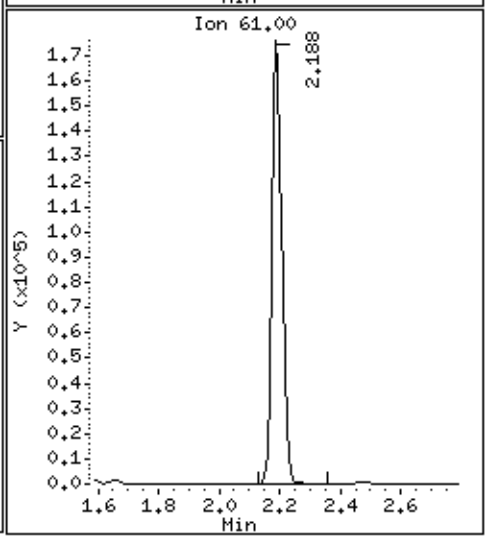












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

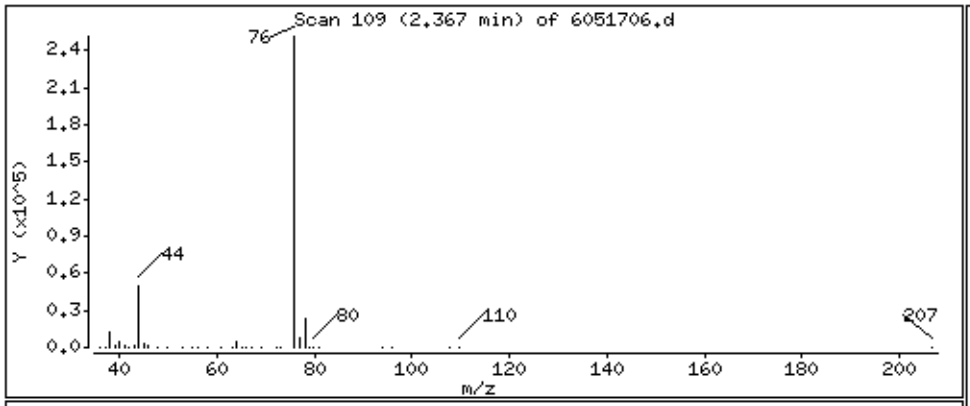
Operator: CT

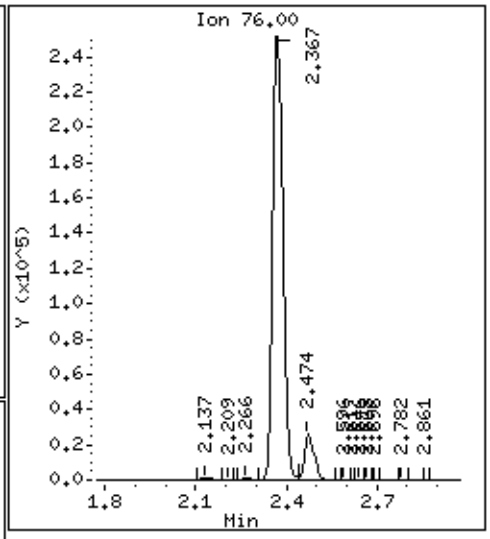
Column phase: RTx-624

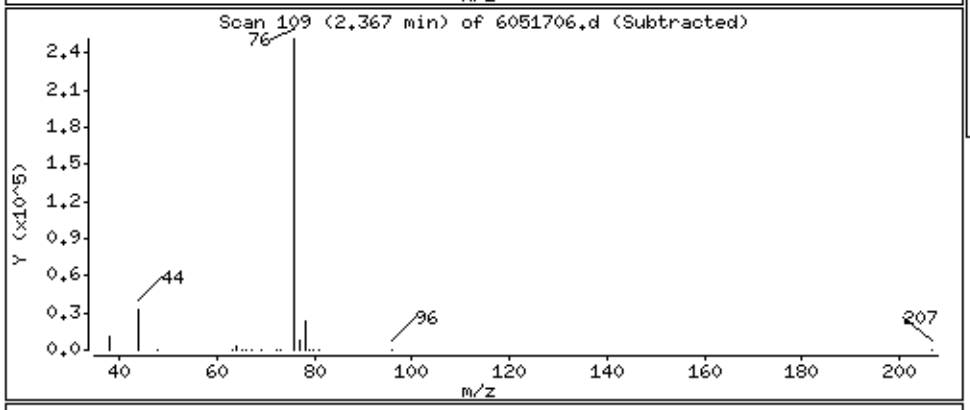
Column diameter: 0.53

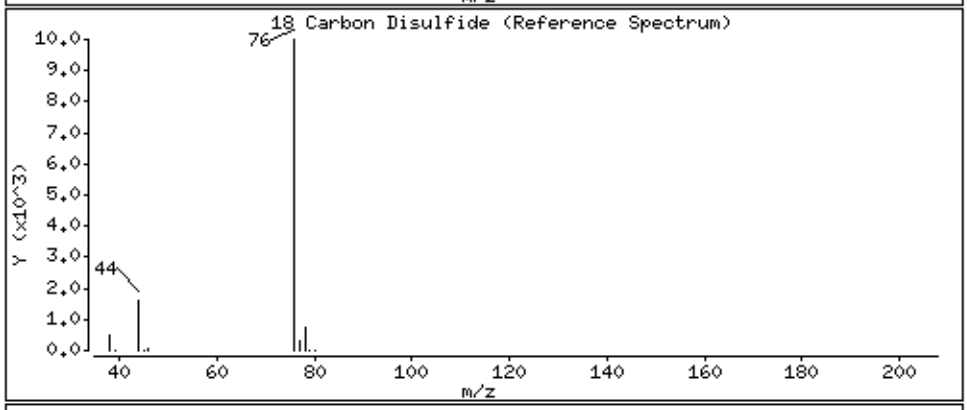
18 Carbon Disulfide

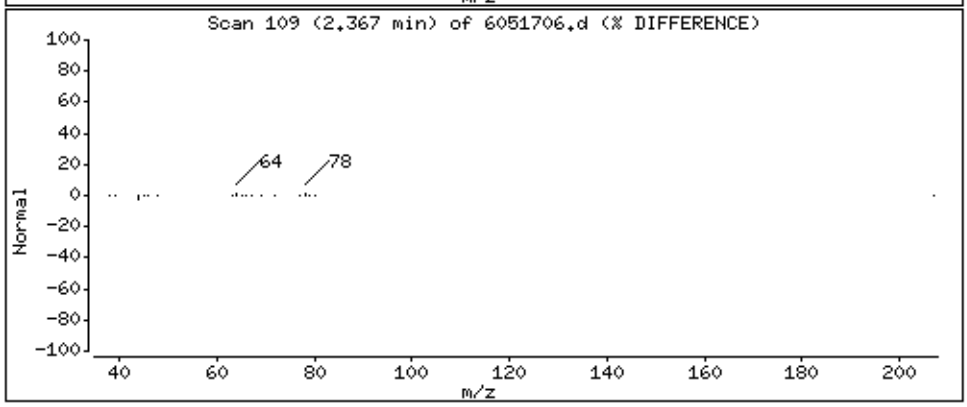
Concentration: 56.151 NG











Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

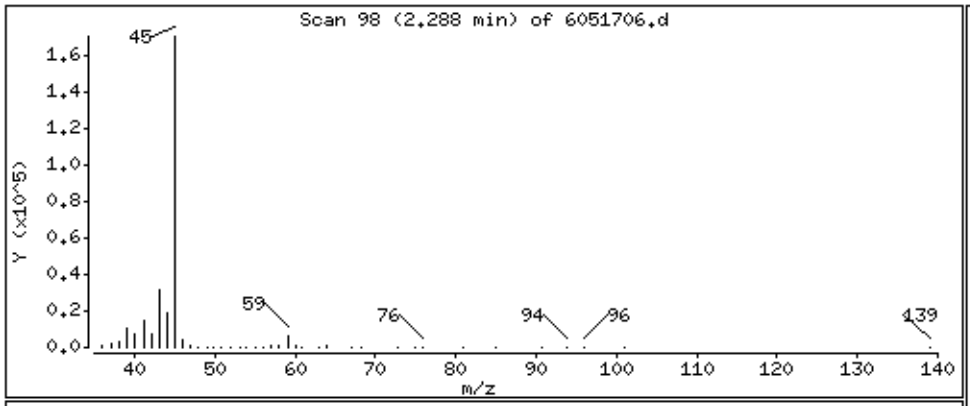
Operator: CT

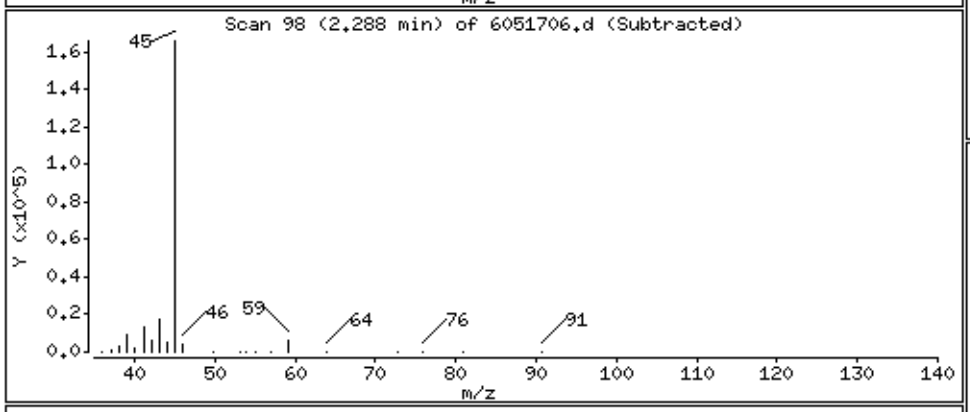
Column phase: RTx-624

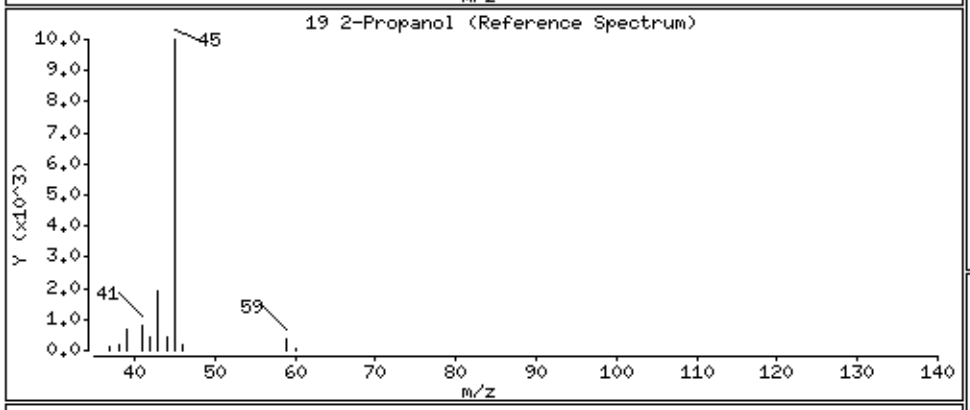
Column diameter: 0.53

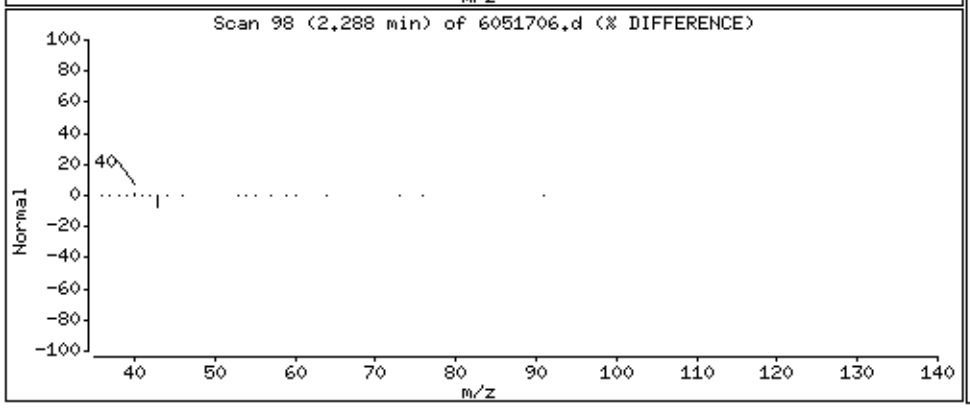
19 2-Propanol

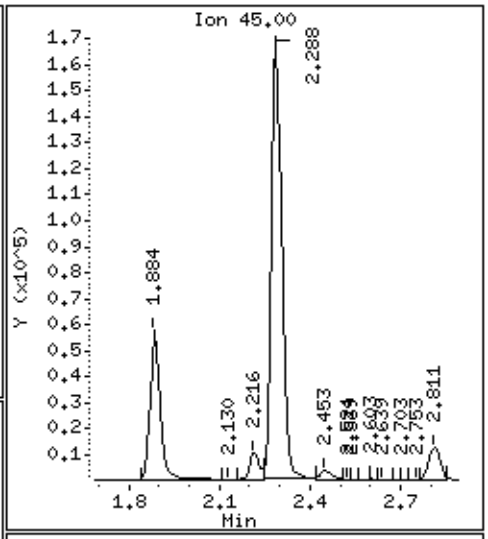
Concentration: 41.426 NG

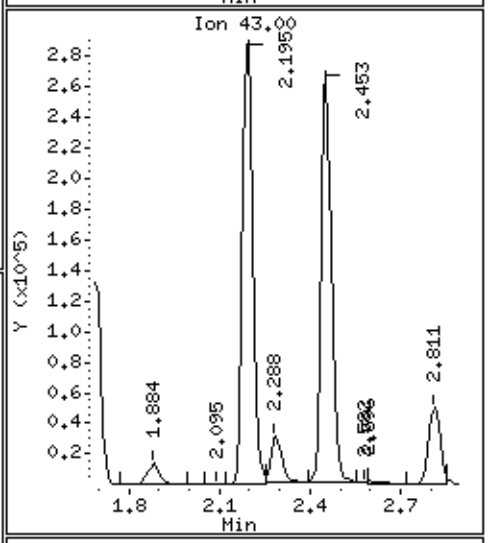


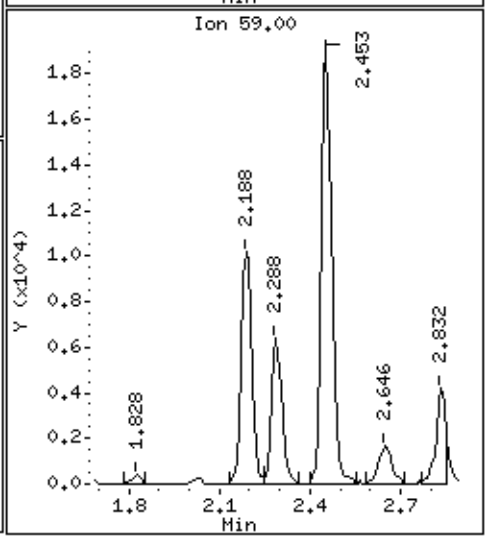












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

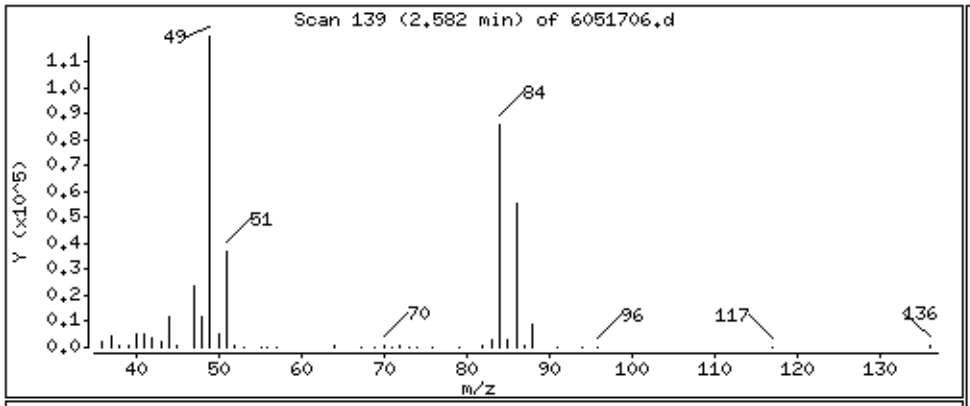
Operator: CT

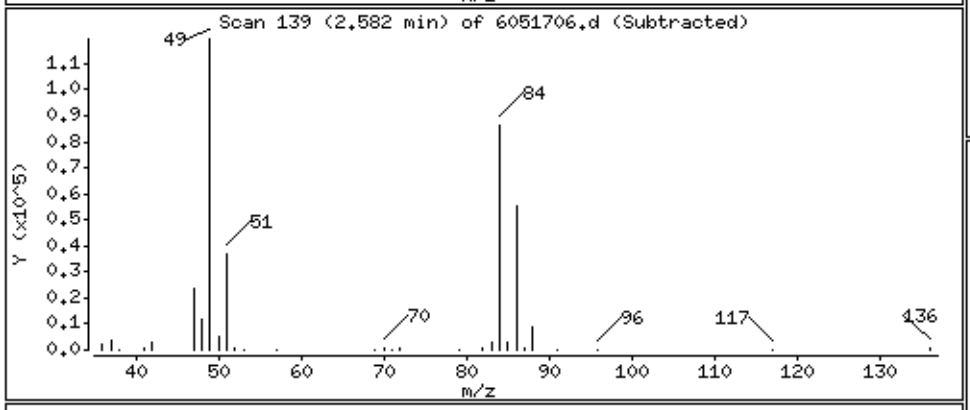
Column phase: RTx-624

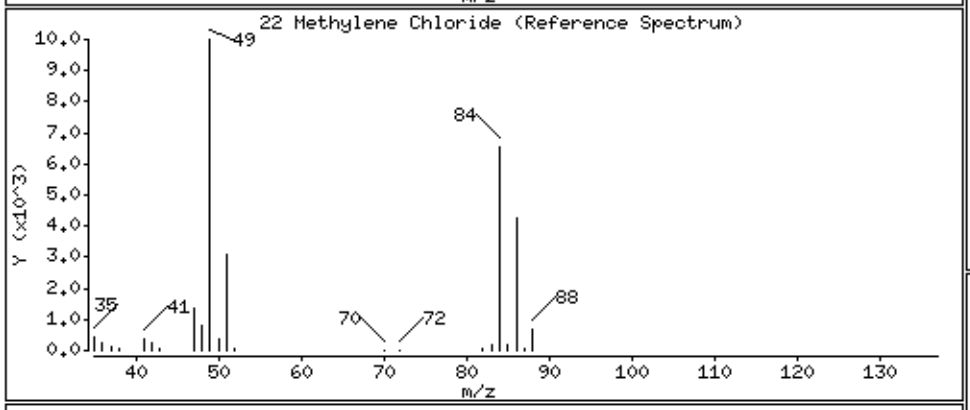
Column diameter: 0.53

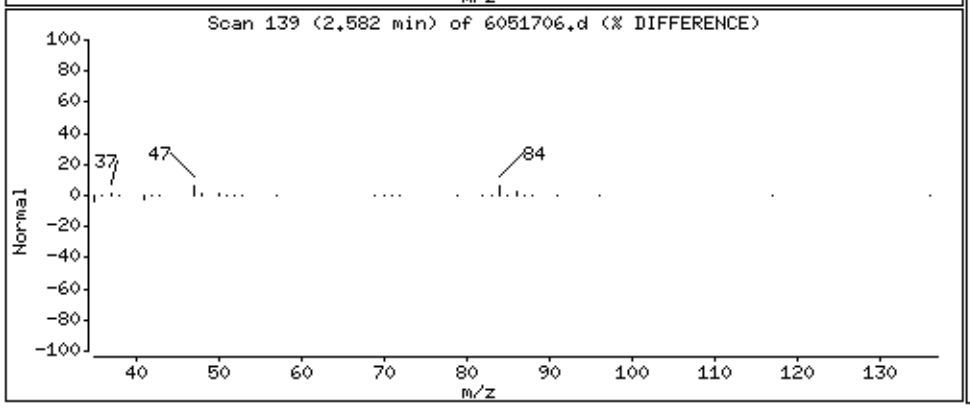
22 Methylene Chloride

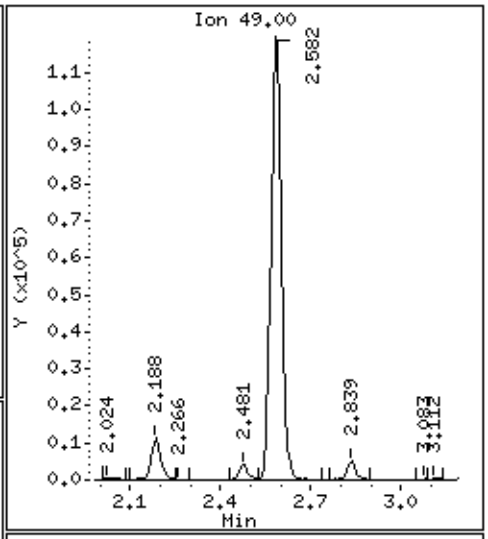
Concentration: 67.549 NG

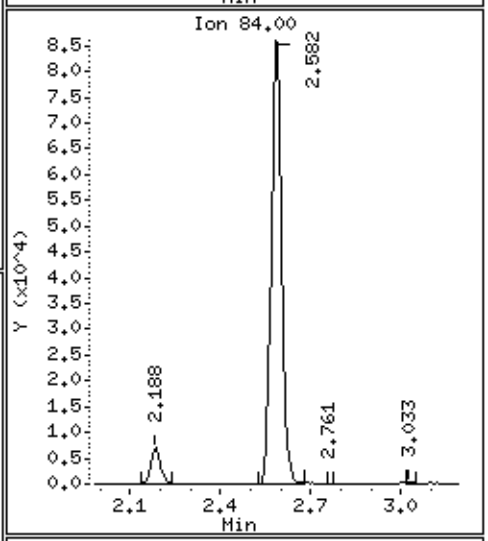


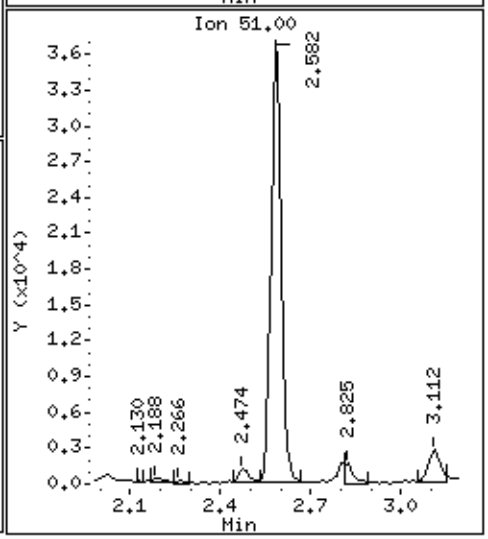












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

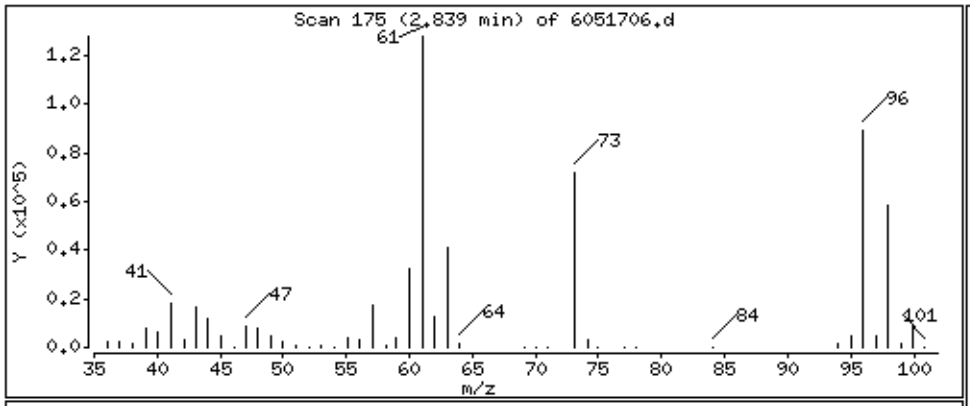
Operator: CT

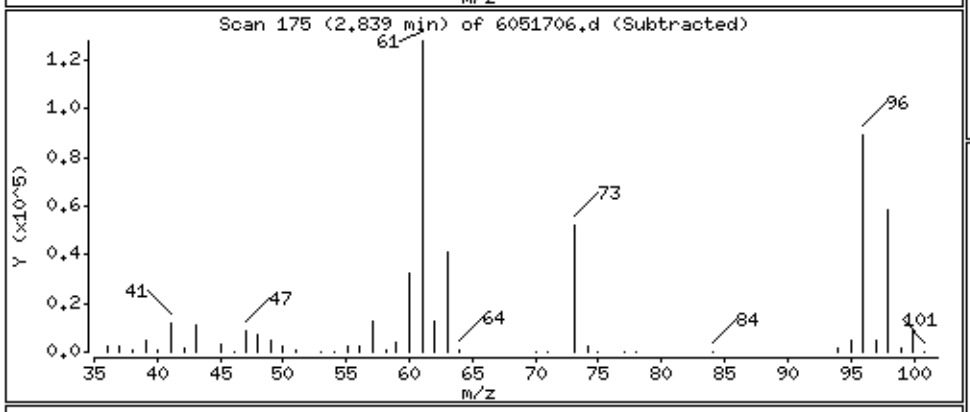
Column phase: RTx-624

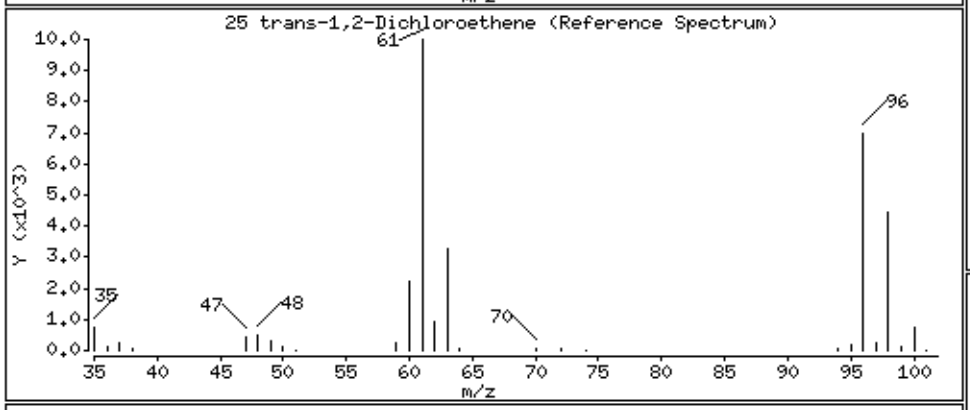
Column diameter: 0.53

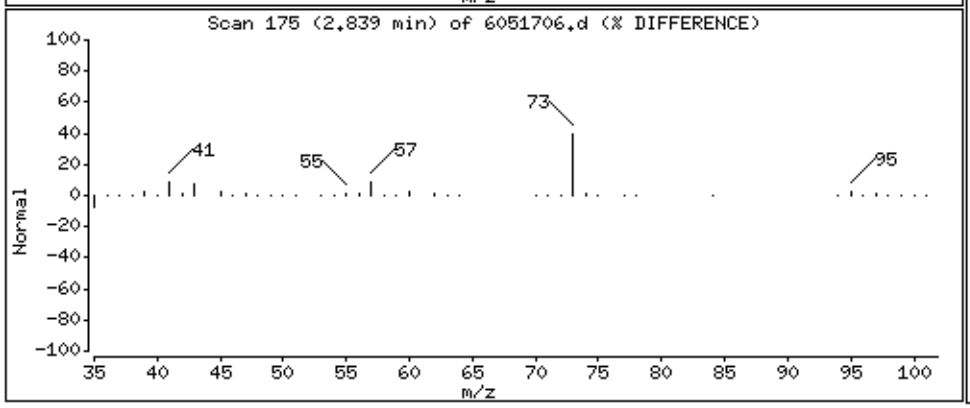
25 trans-1,2-Dichloroethene

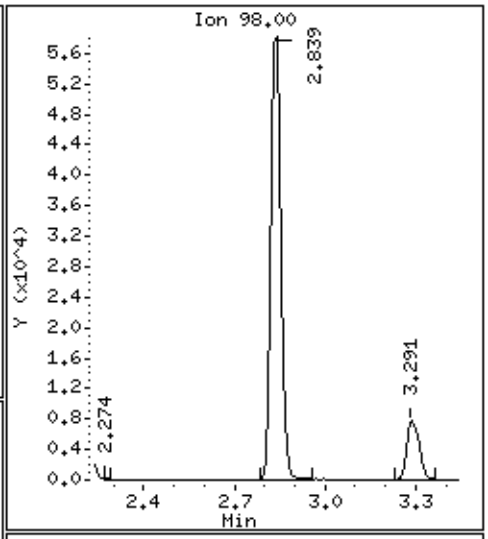
Concentration: 73.094 NG

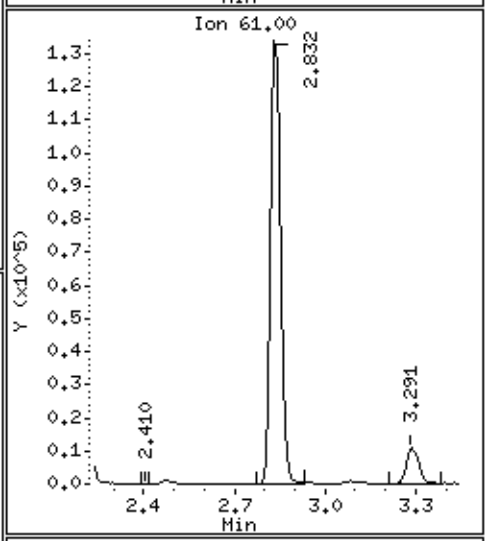


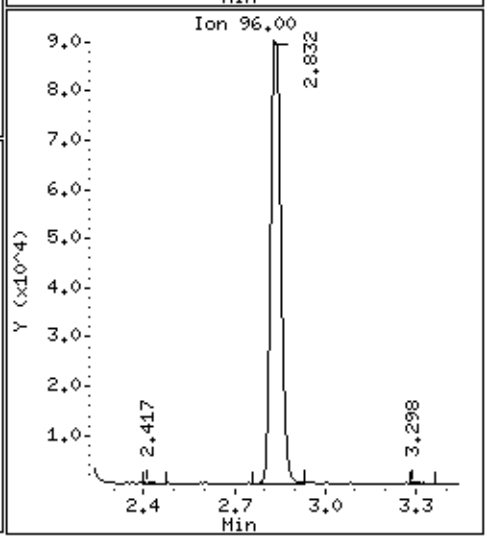












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

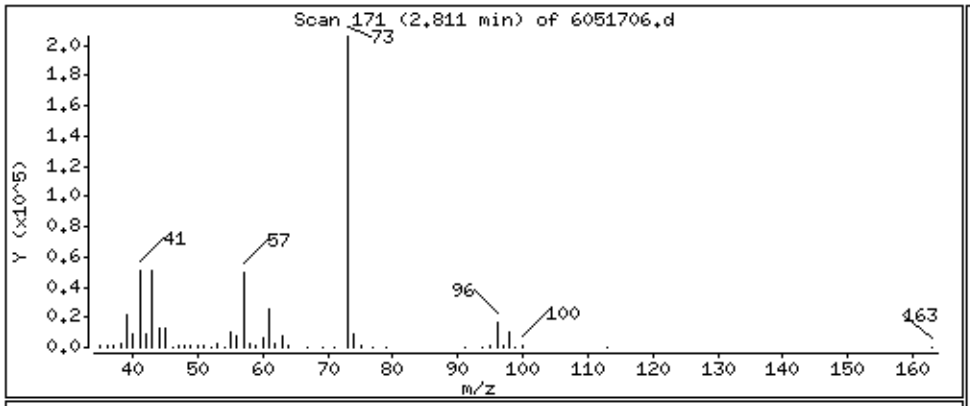
Operator: CT

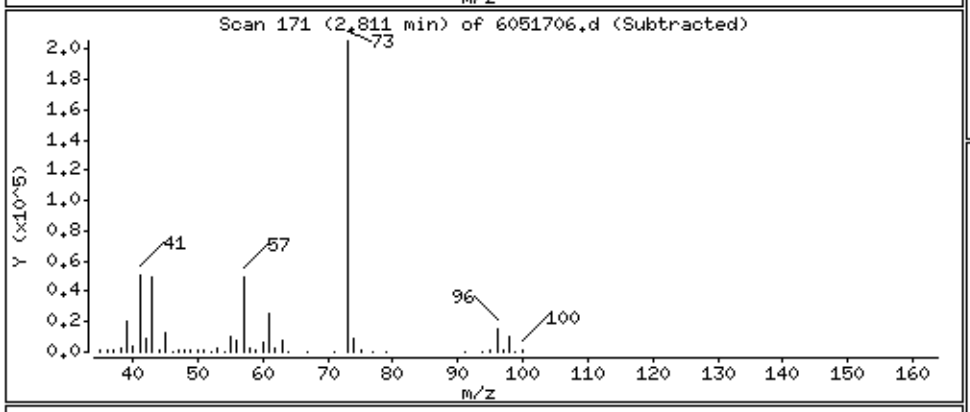
Column phase: RTx-624

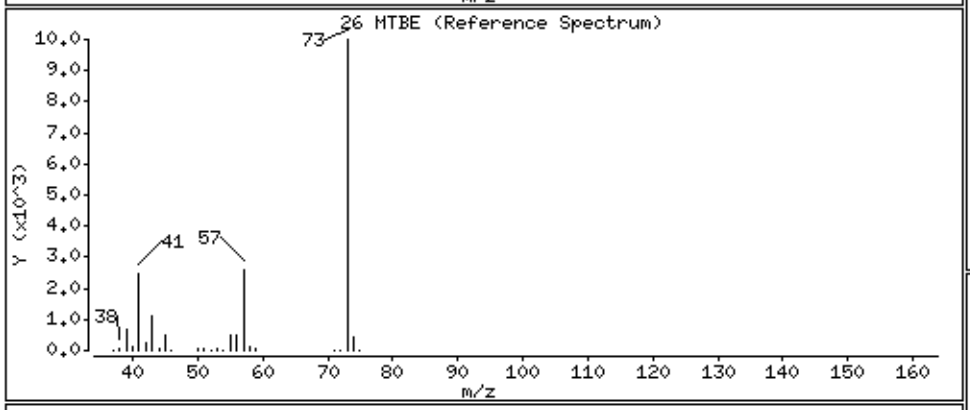
Column diameter: 0.53

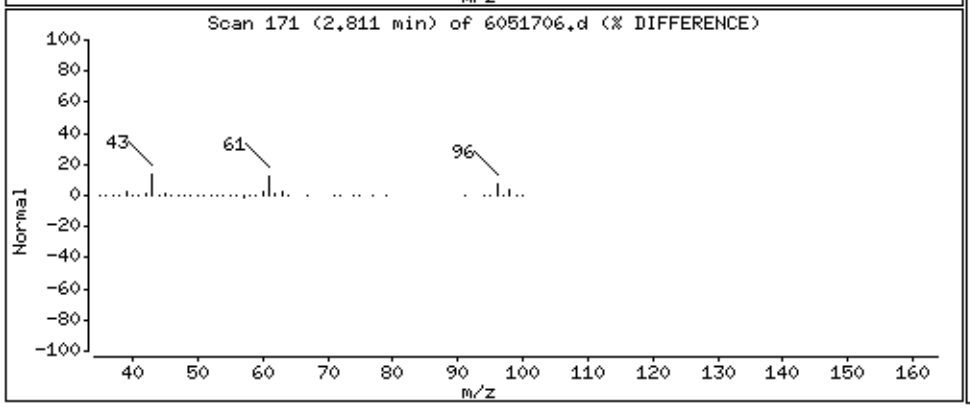
26 MTBE

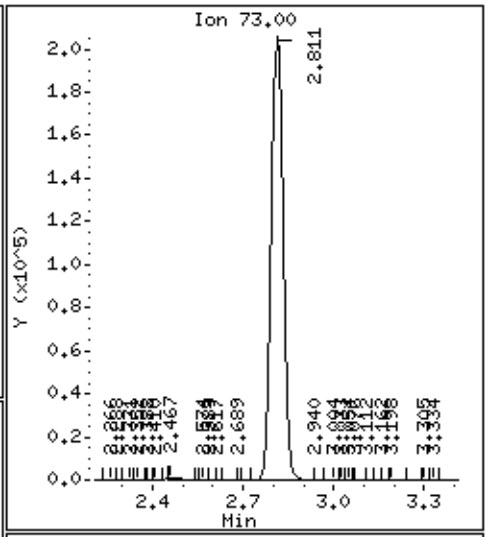
Concentration: 76.031 NG

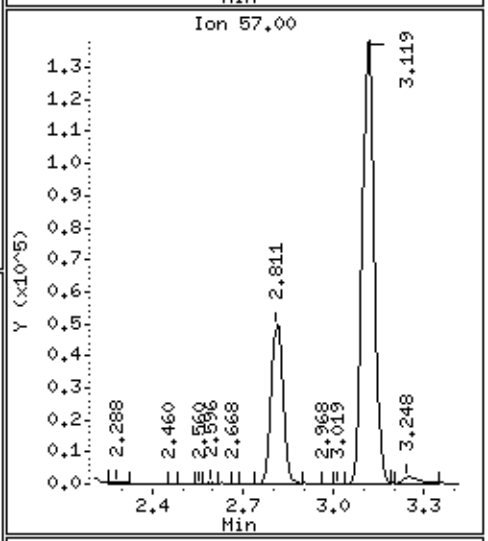


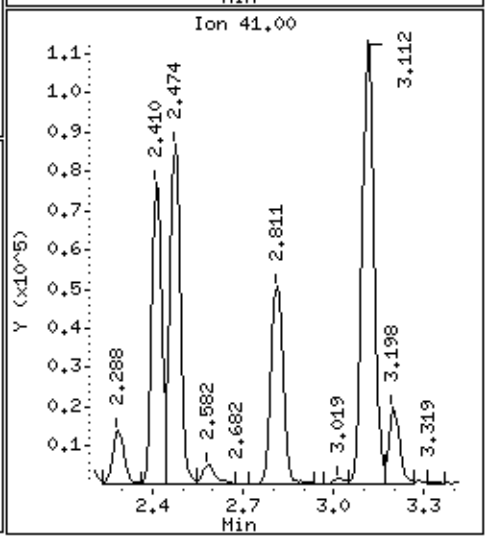












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

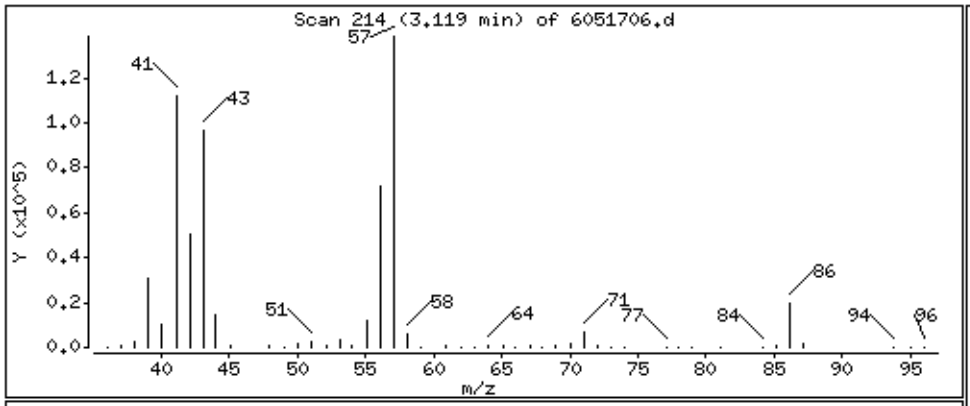
Operator: CT

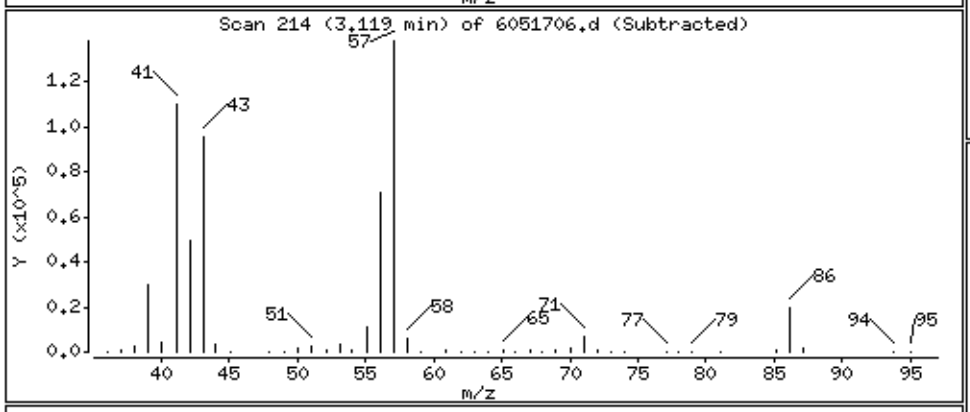
Column phase: RTx-624

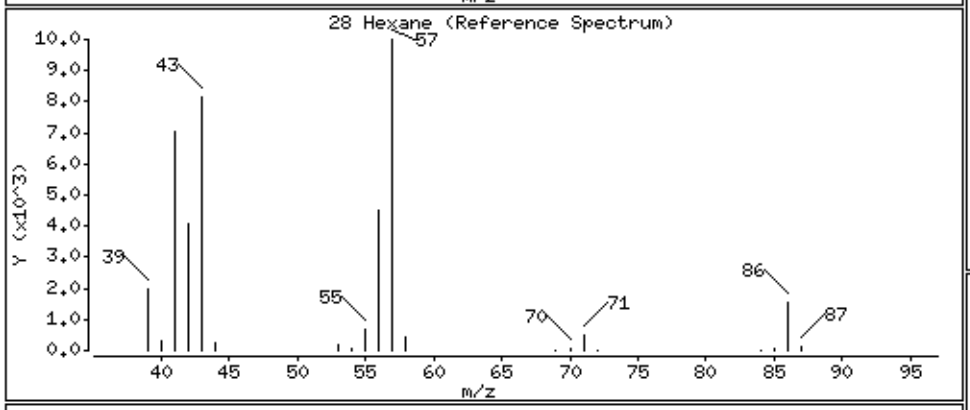
Column diameter: 0.53

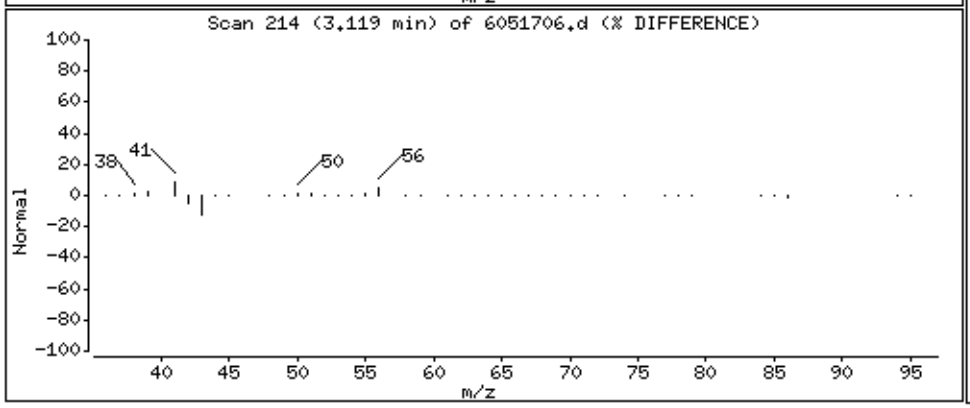
28 Hexane

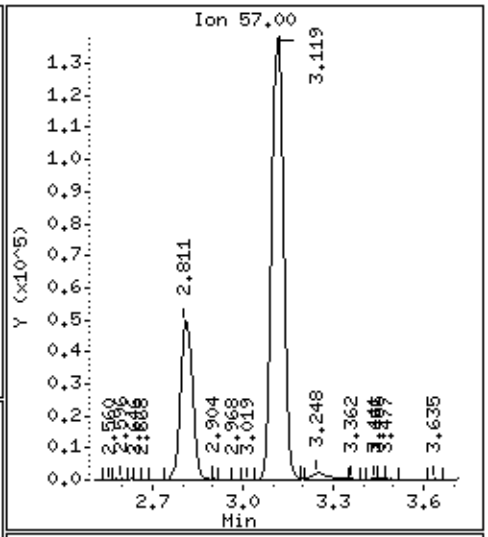
Concentration: 72.882 NG

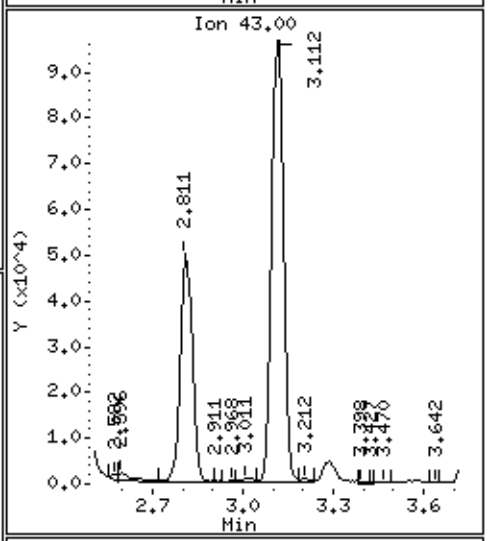


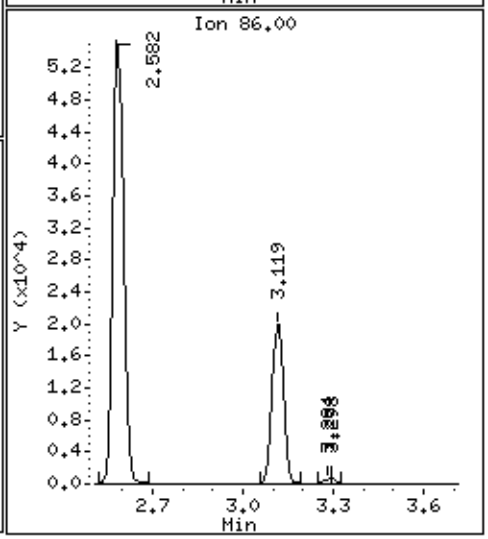












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

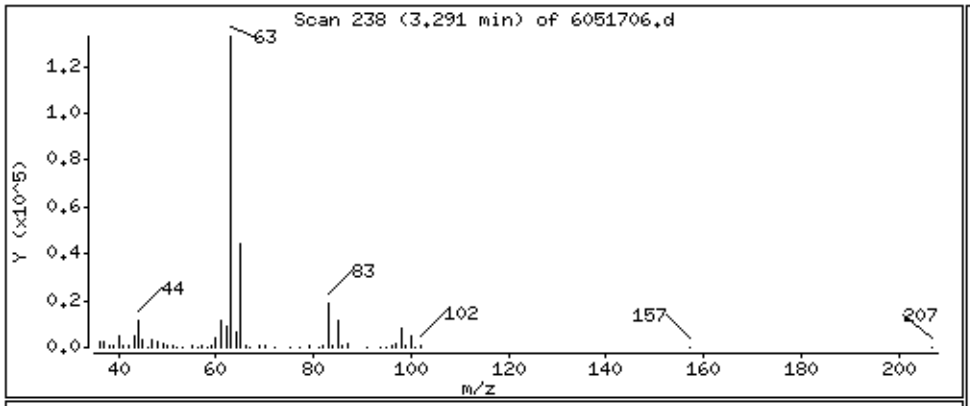
Operator: CT

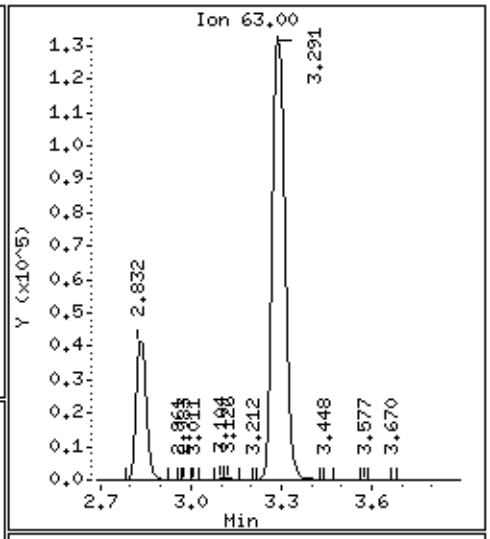
Column phase: RTx-624

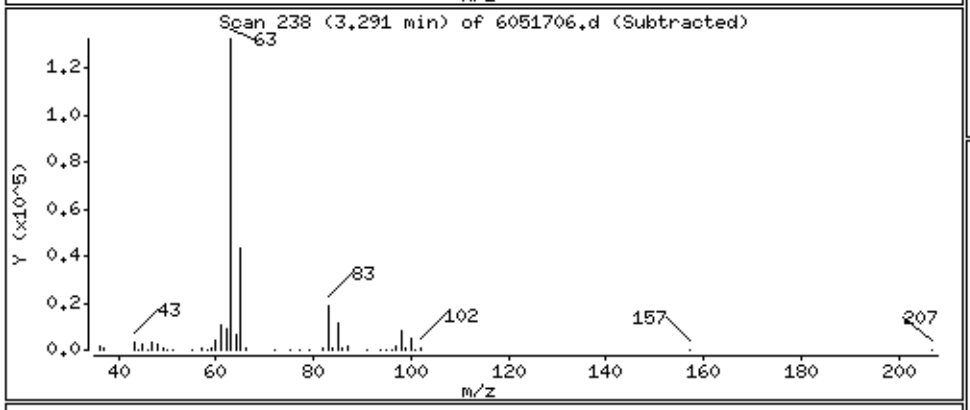
Column diameter: 0.53

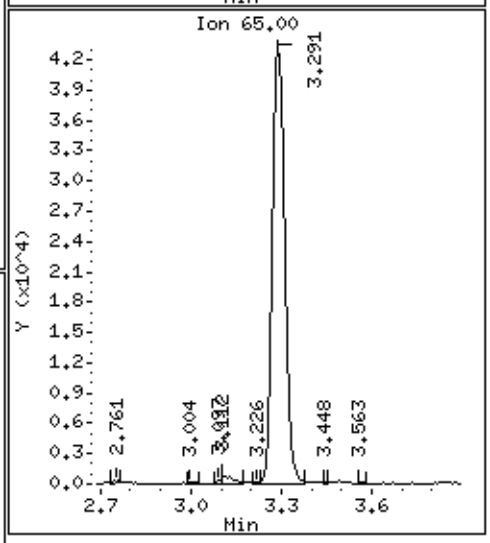
29 1,1-Dichloroethane

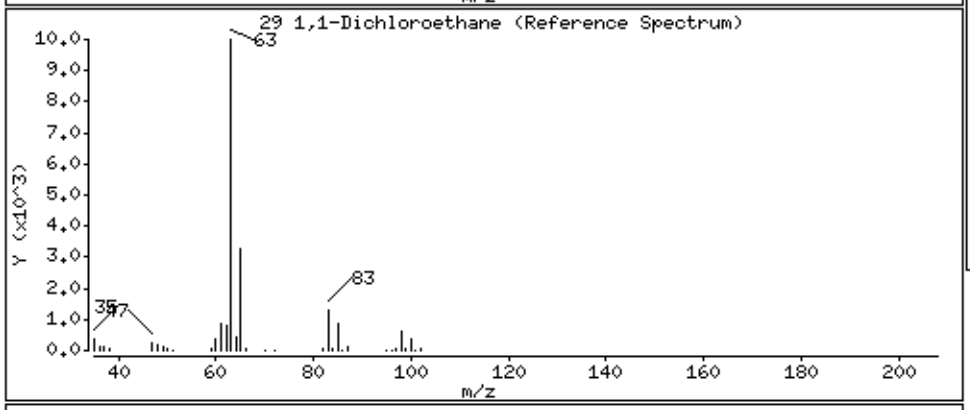
Concentration: 81.298 NG

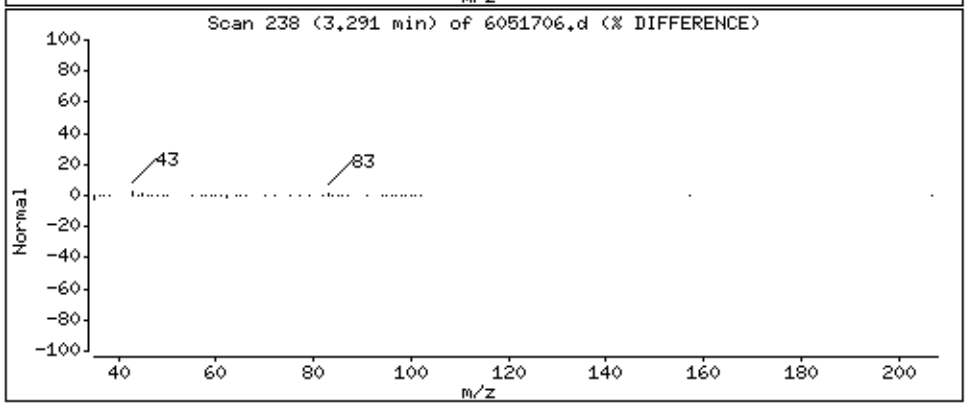












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

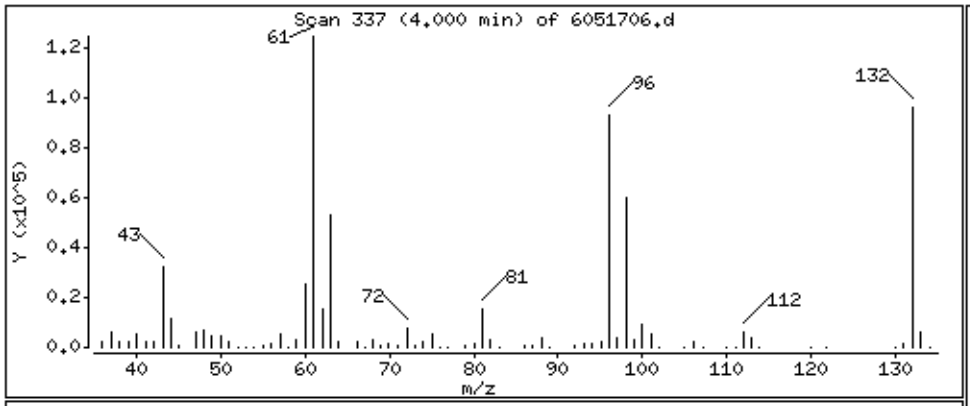
Operator: CT

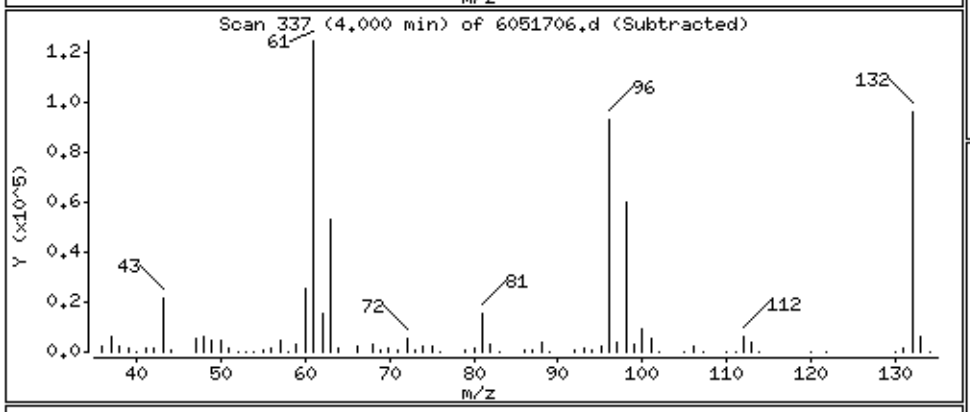
Column phase: RTx-624

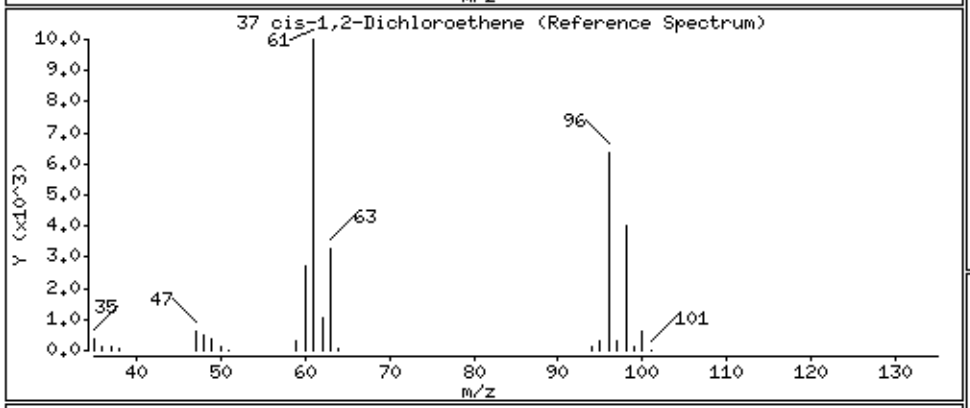
Column diameter: 0.53

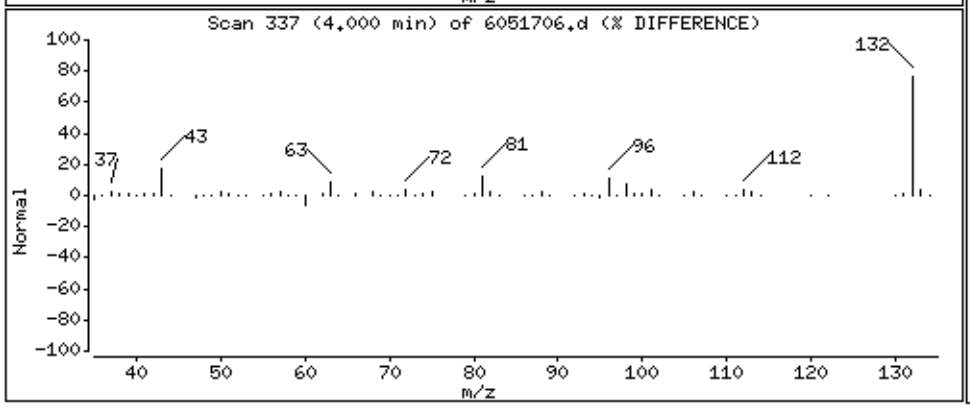
37 cis-1,2-Dichloroethene

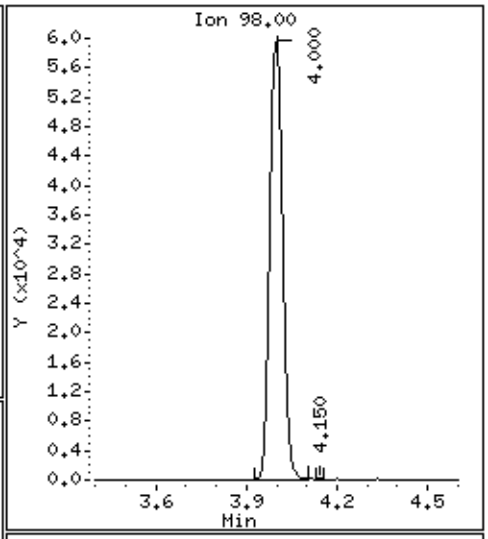
Concentration: 92.592 NG

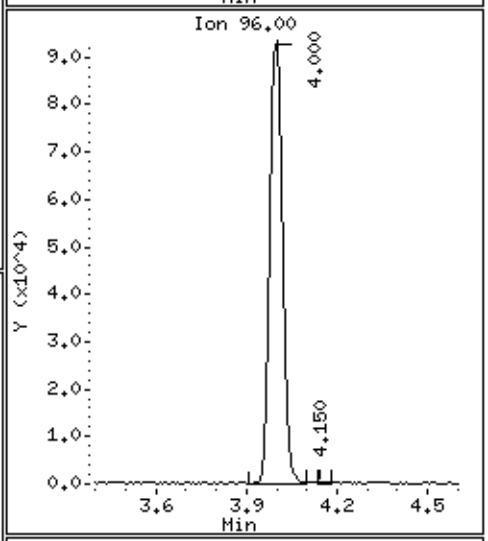


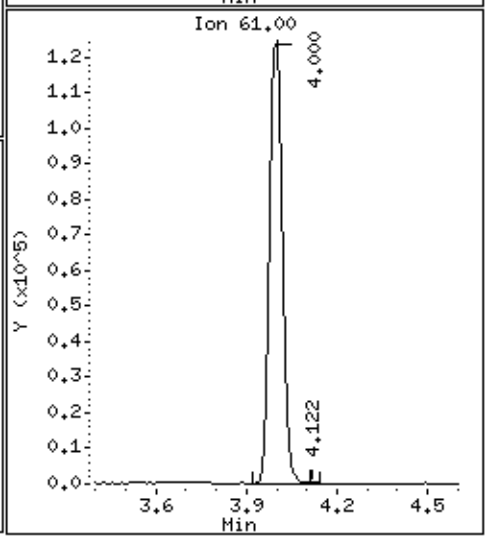












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

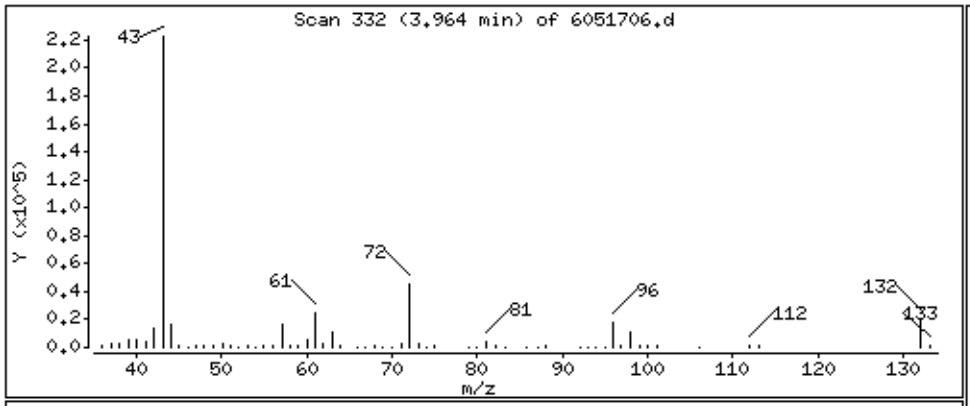
Operator: CT

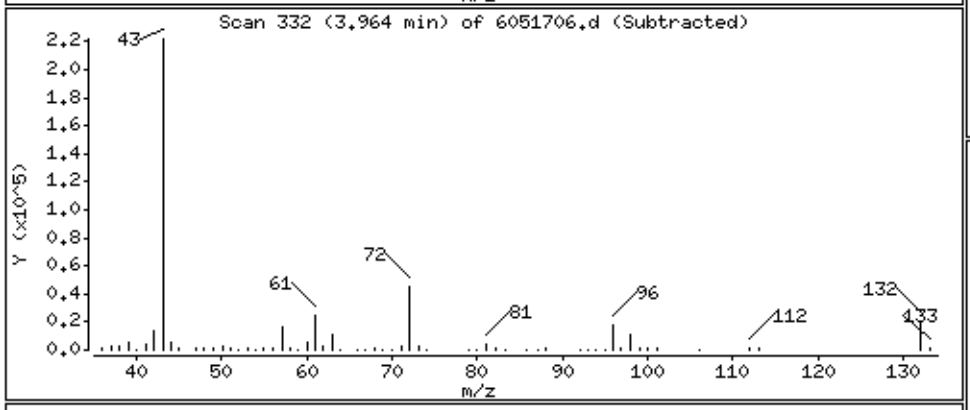
Column phase: RTx-624

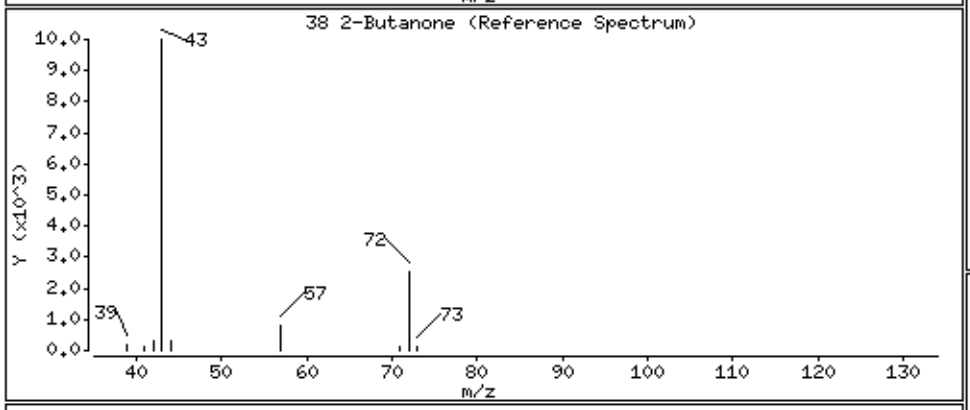
Column diameter: 0.53

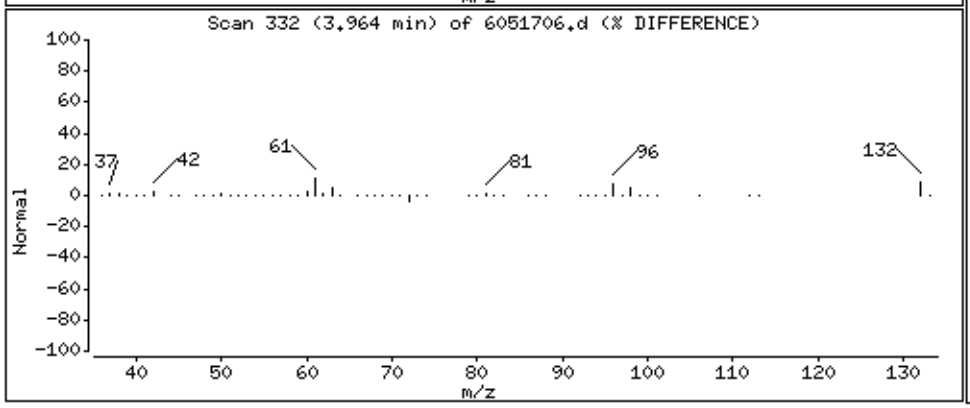
38 2-Butanone

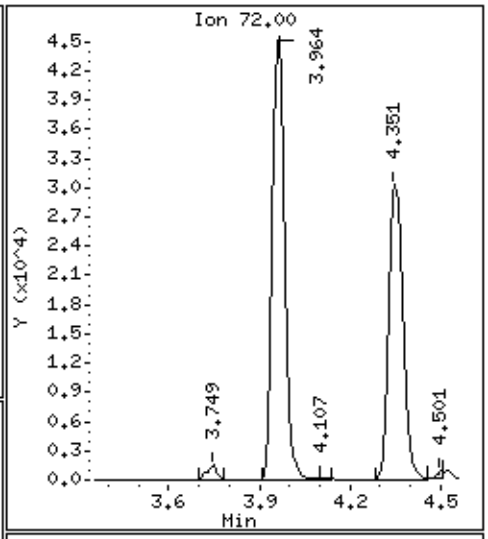
Concentration: 66.637 NG

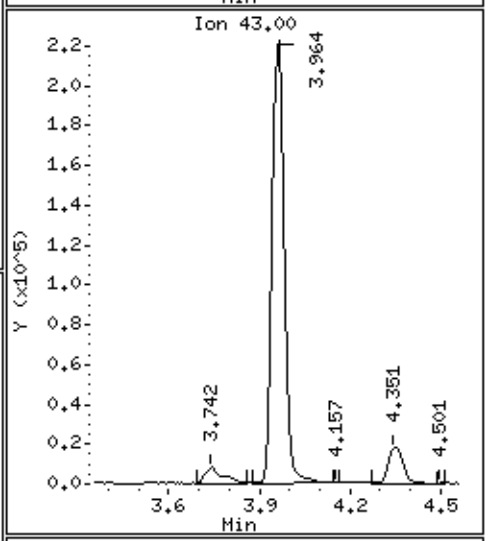


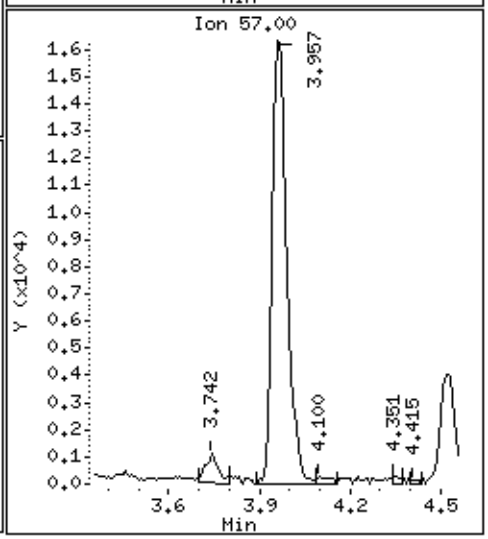












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

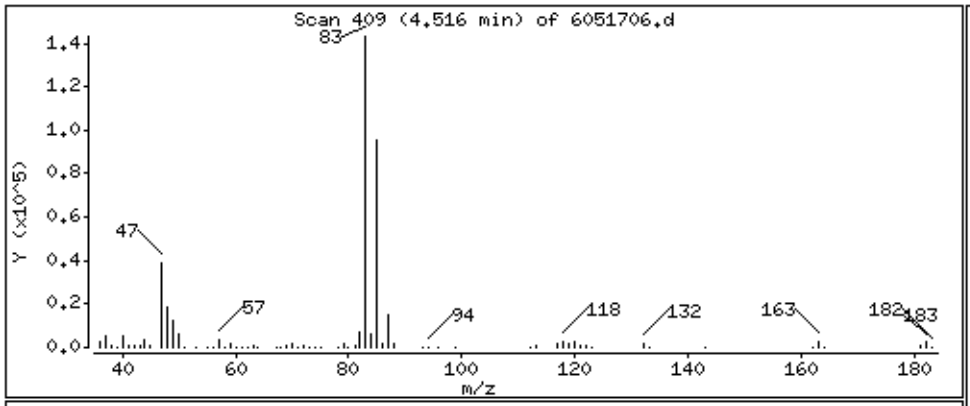
Operator: CT

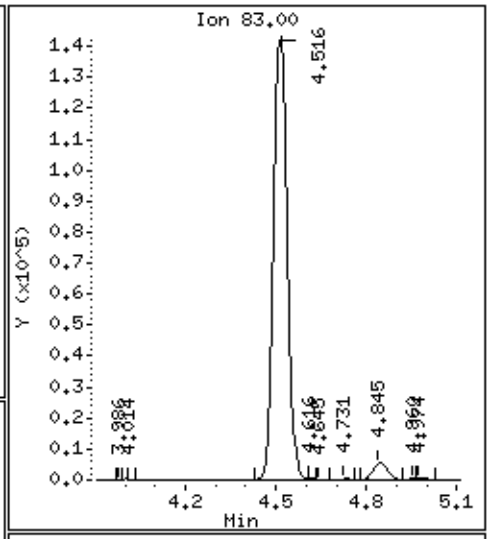
Column phase: RTx-624

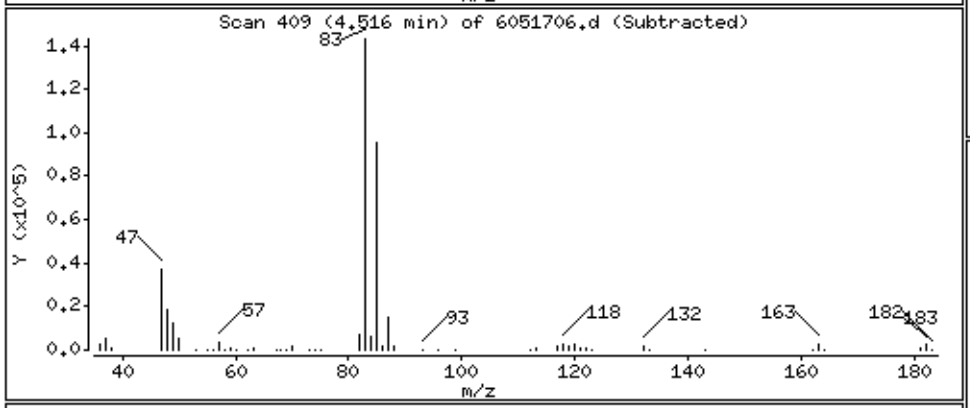
Column diameter: 0.53

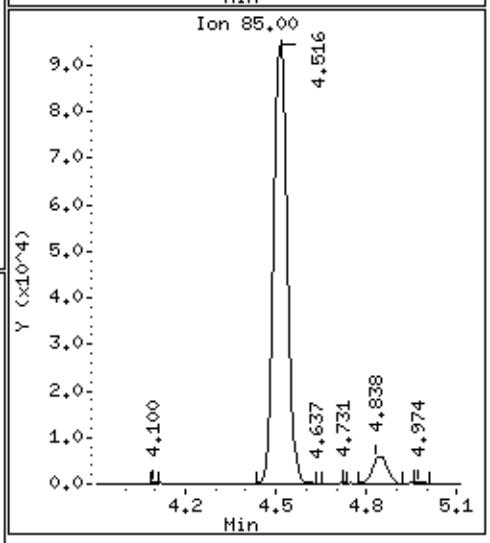
44 Chloroform

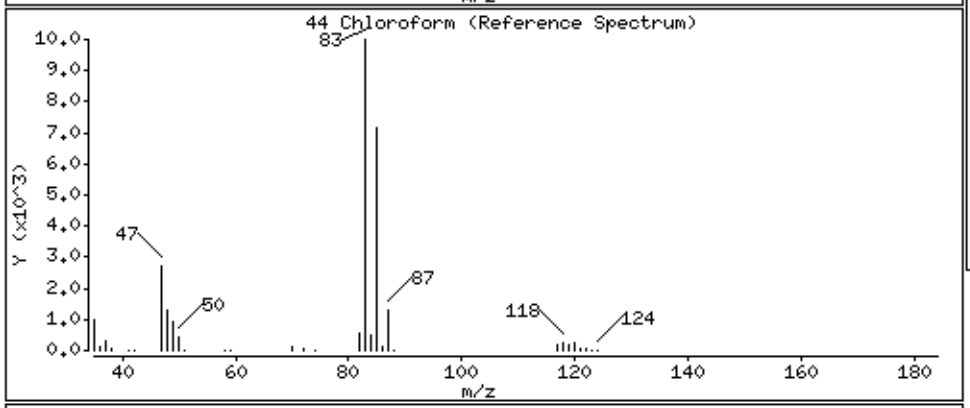
Concentration: 98.439 NG

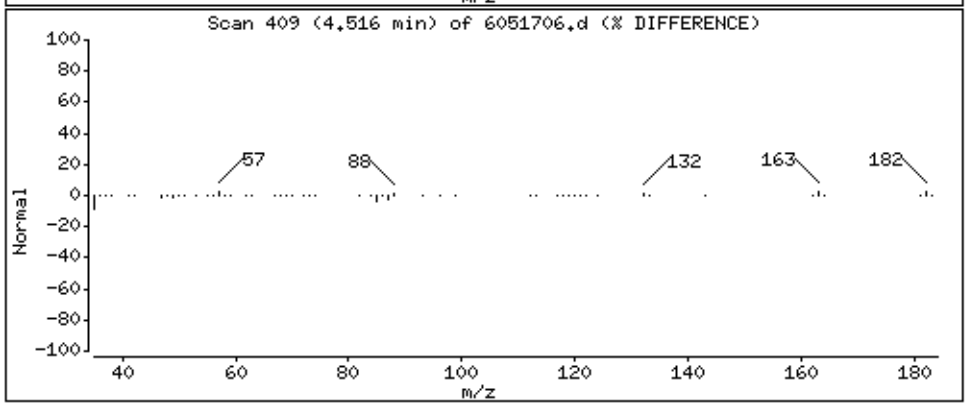












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

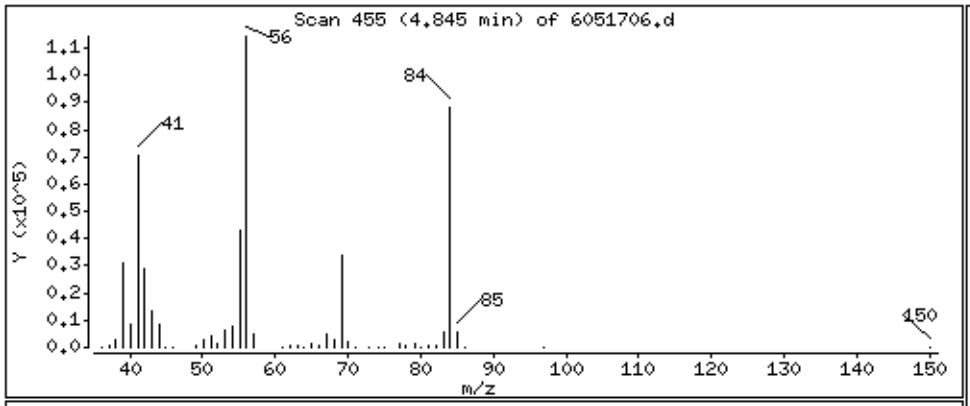
Operator: CT

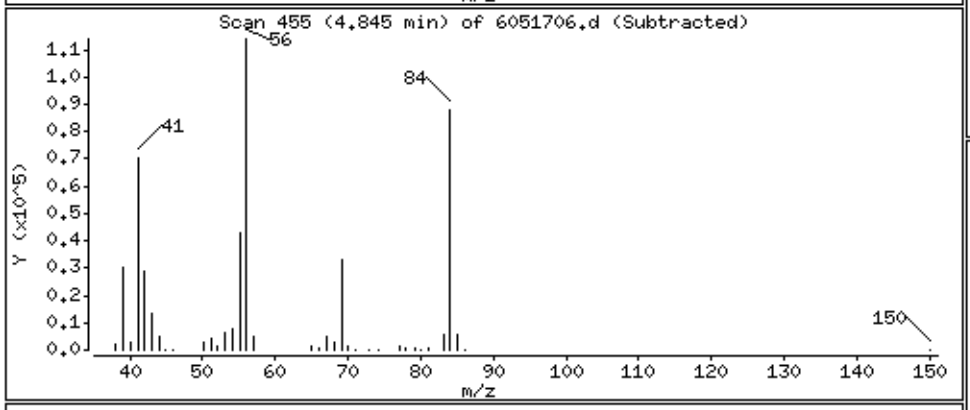
Column phase: RTx-624

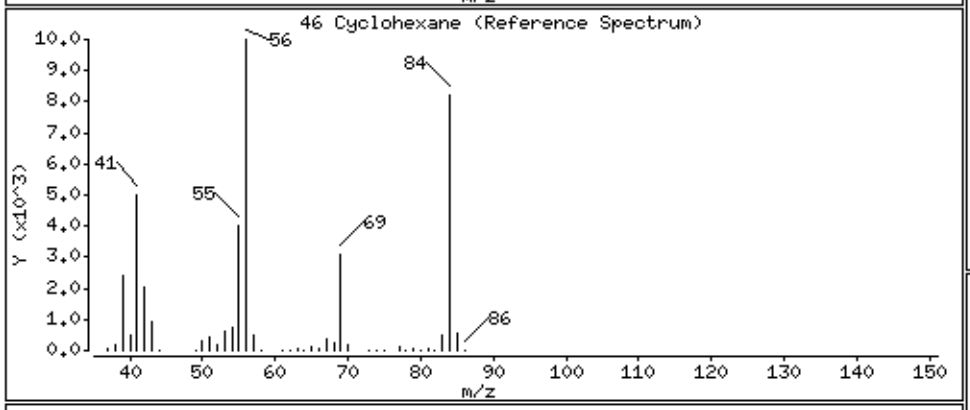
Column diameter: 0.53

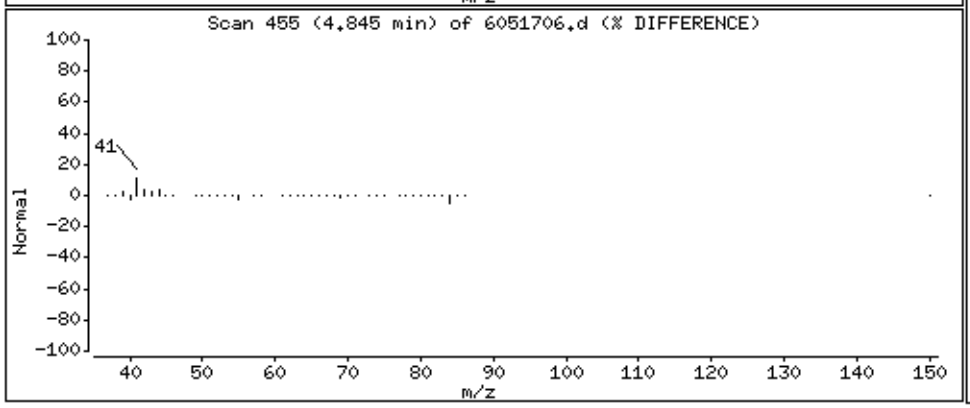
46 Cyclohexane

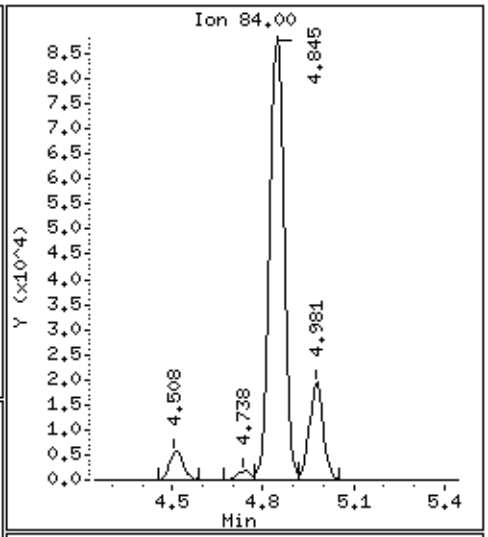
Concentration: 68.545 NG

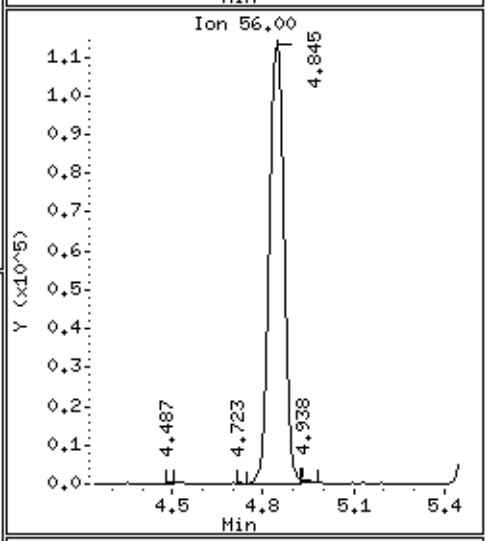


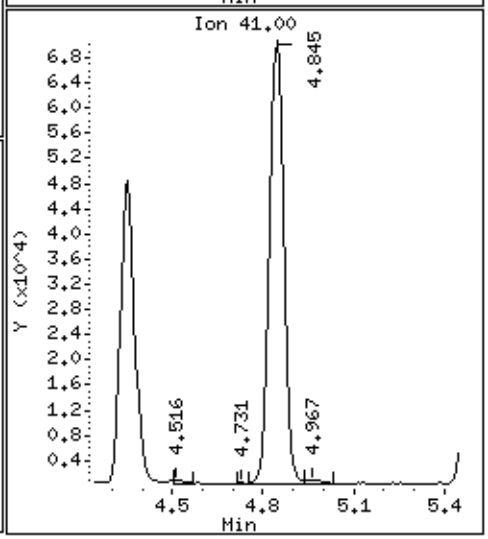












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

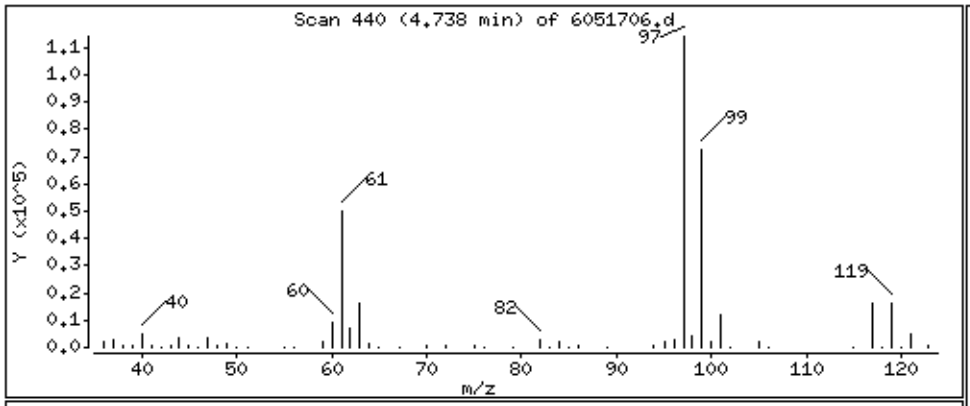
Operator: CT

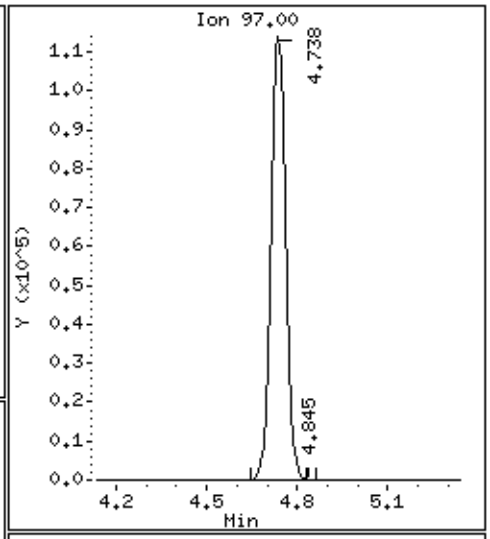
Column phase: RTx-624

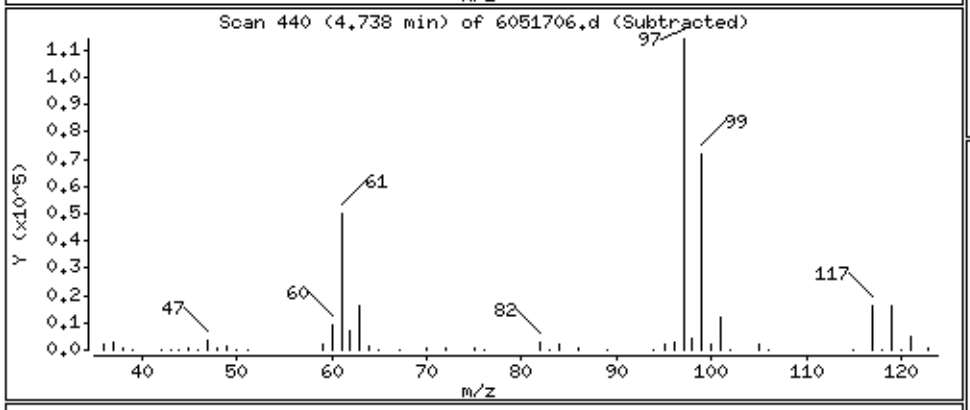
Column diameter: 0.53

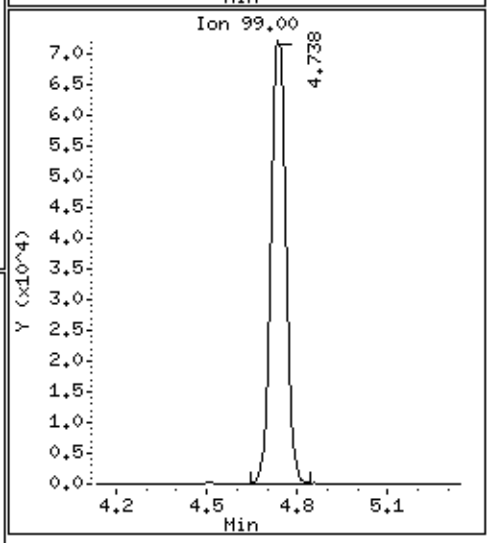
45 1,1,1-Trichloroethane

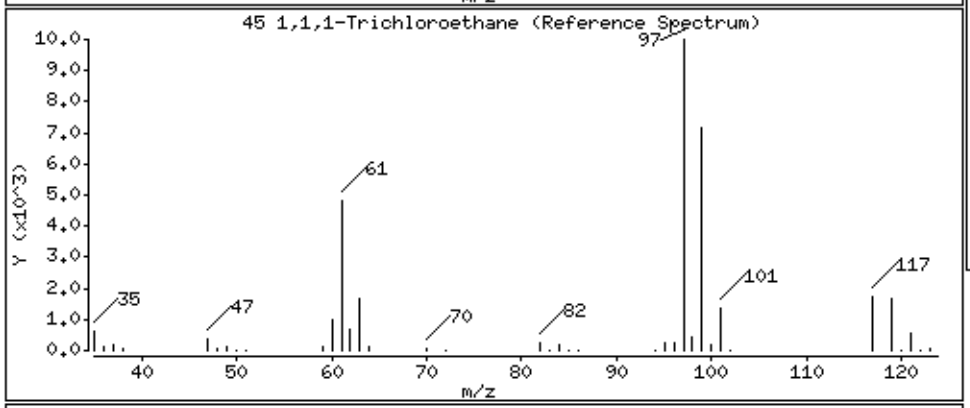
Concentration: 90.263 NG

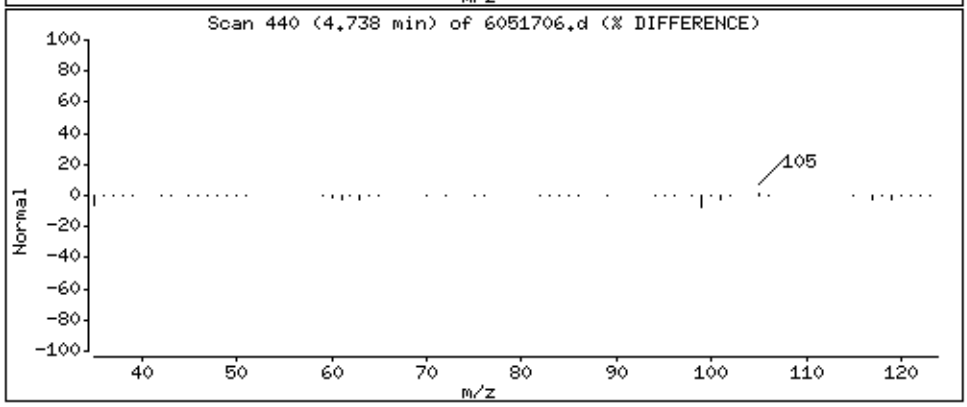












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

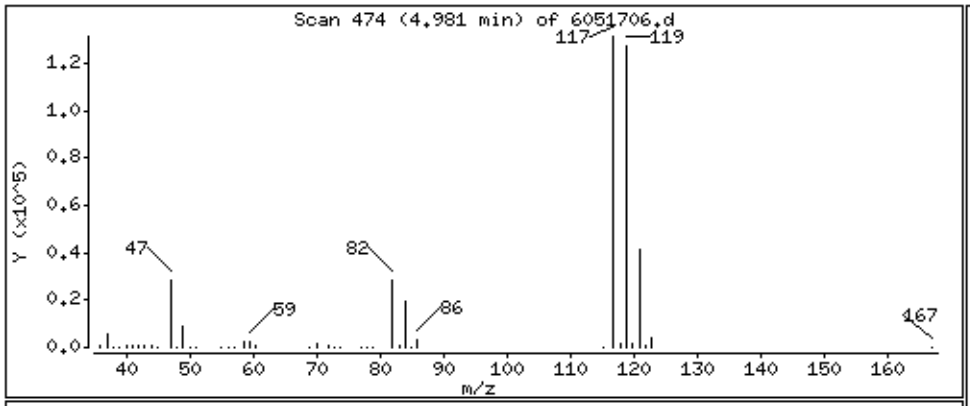
Operator: CT

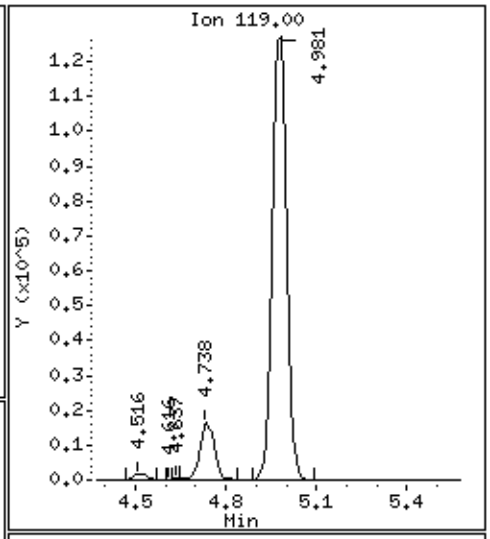
Column phase: RTx-624

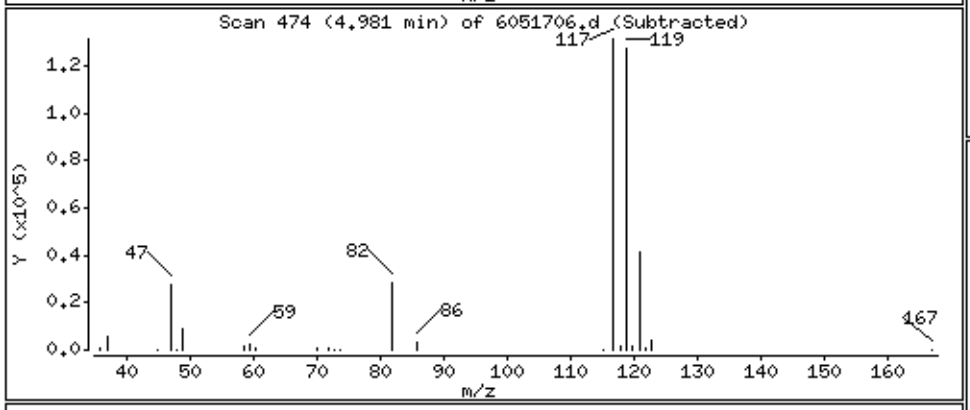
Column diameter: 0.53

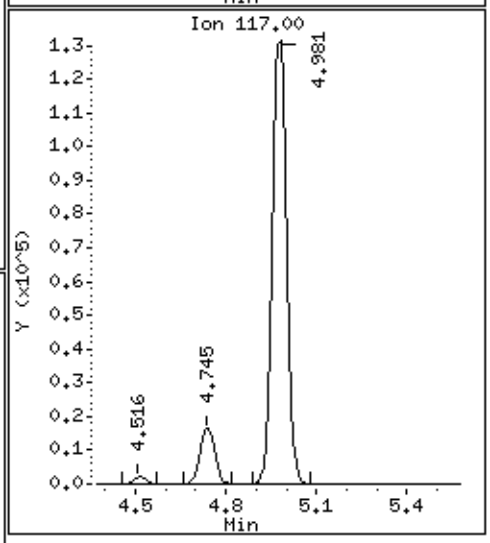
47 Carbon Tetrachloride

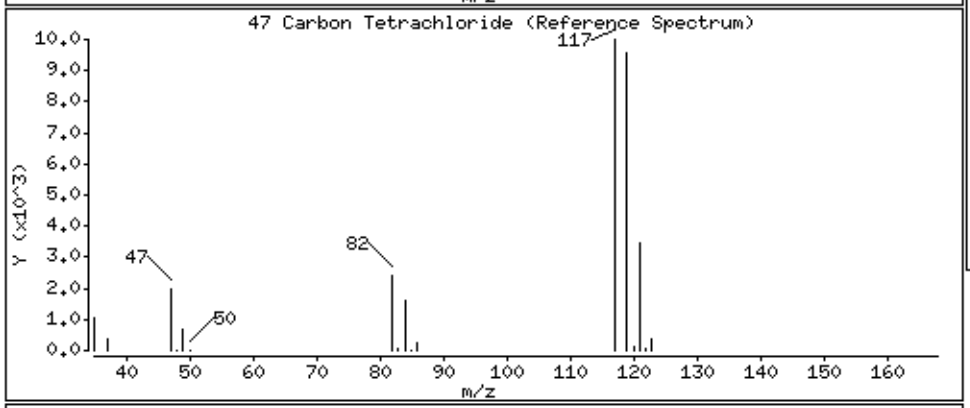
Concentration: 112.19 NG

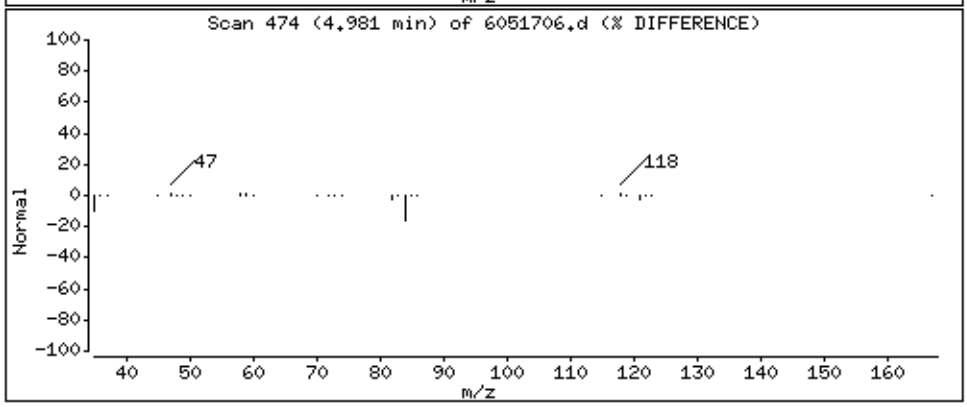












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

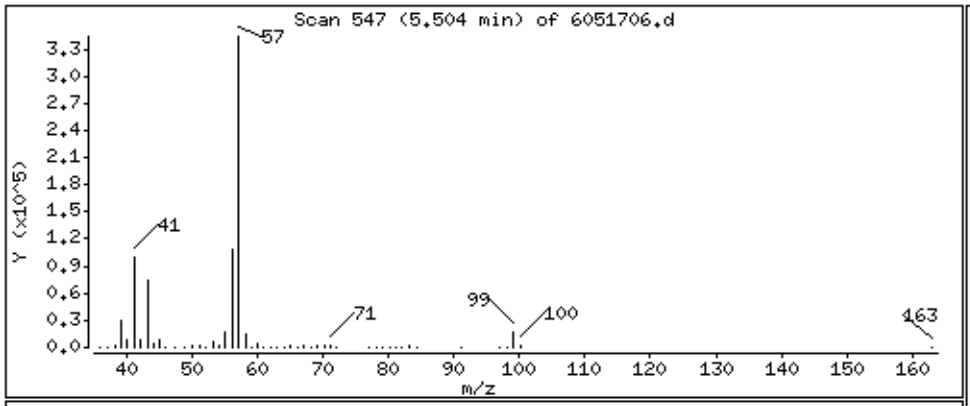
Operator: CT

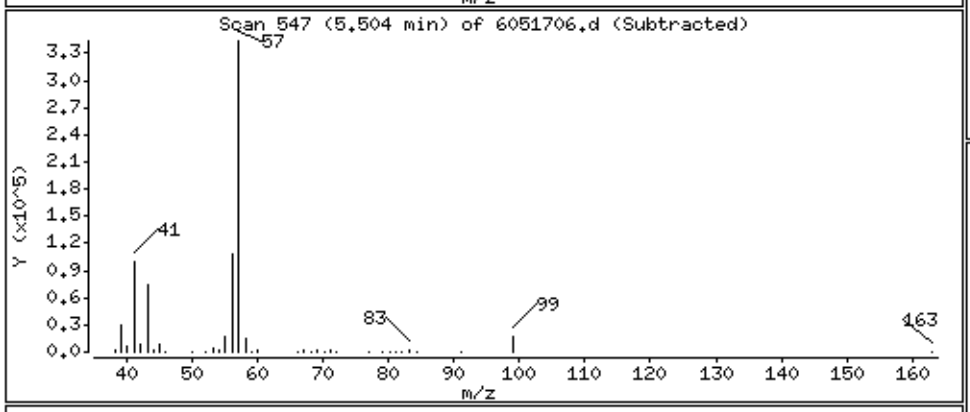
Column phase: RTx-624

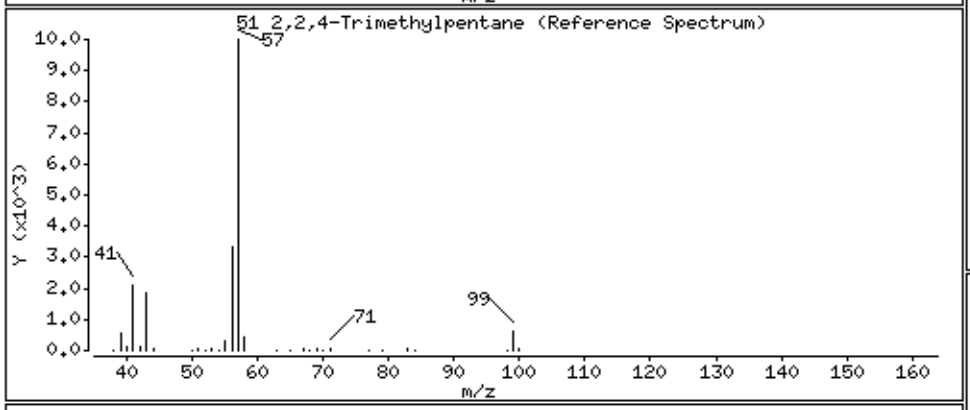
Column diameter: 0.53

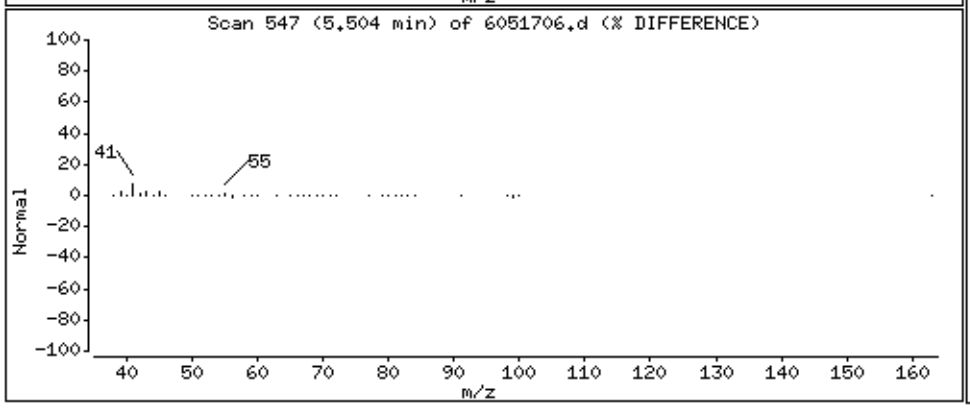
51 2,2,4-Trimethylpentane

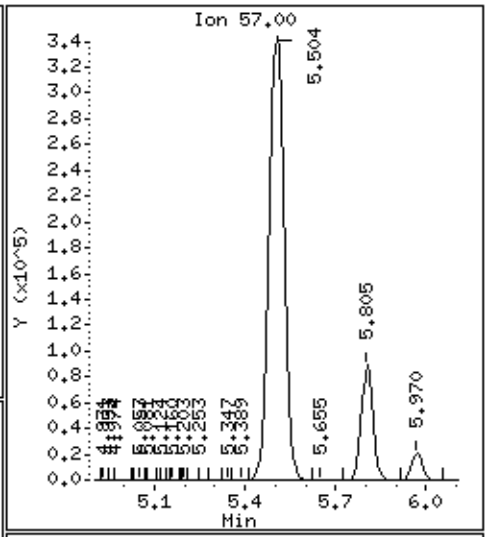
Concentration: 91.796 NG

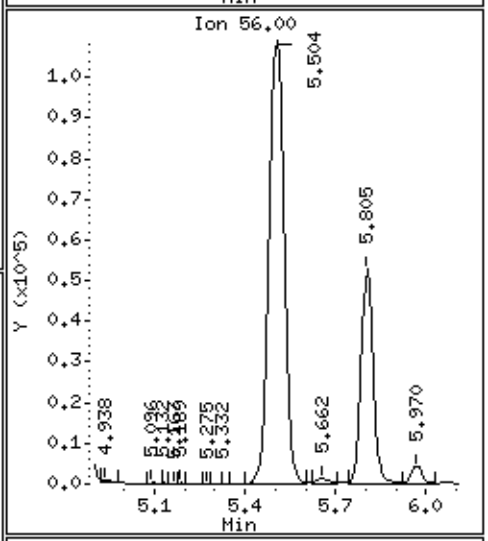


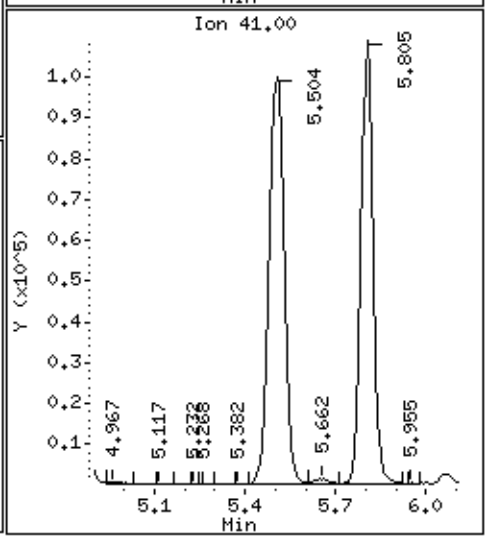












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

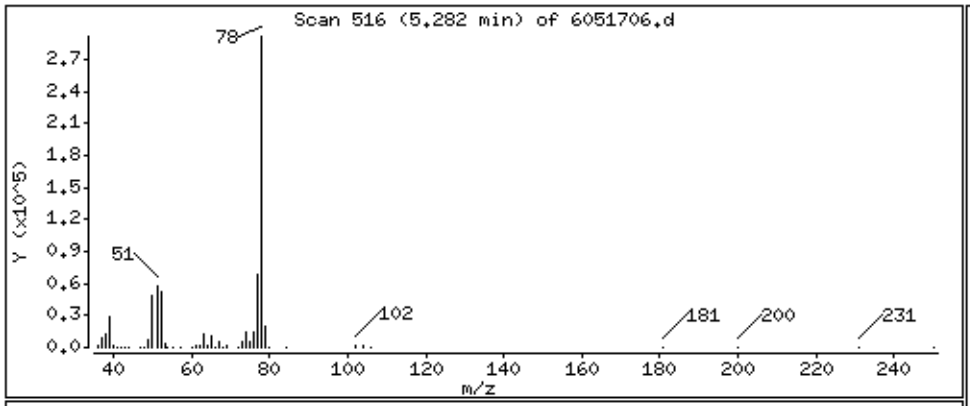
Operator: CT

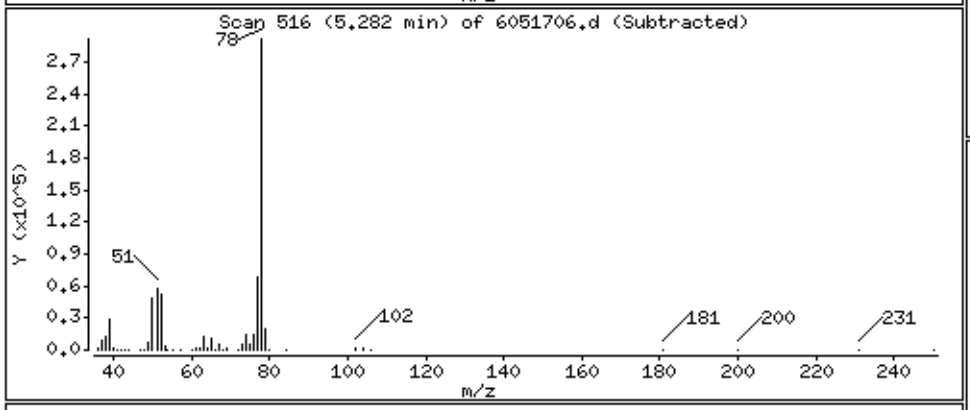
Column phase: RTx-624

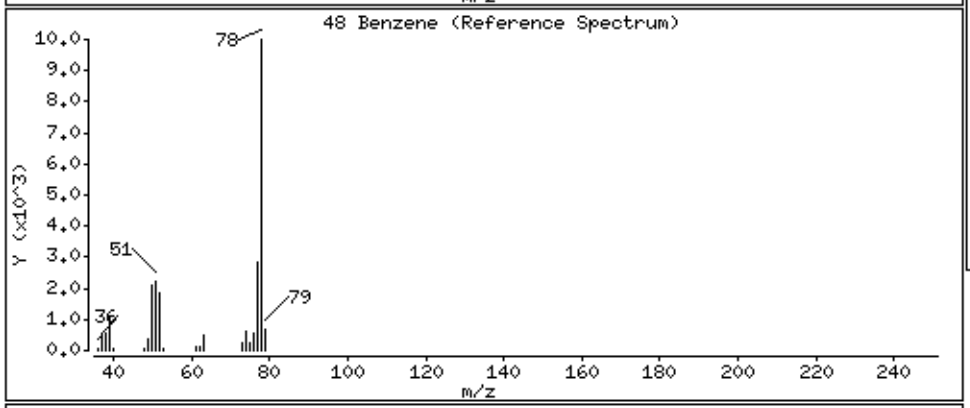
Column diameter: 0.53

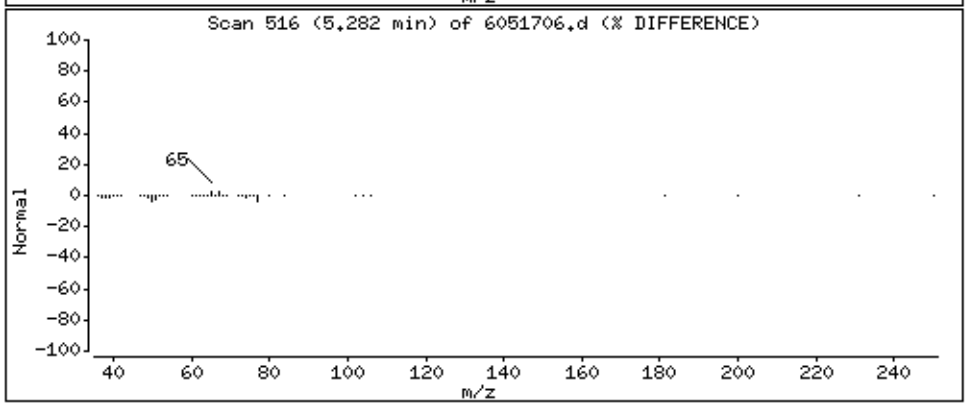
48 Benzene

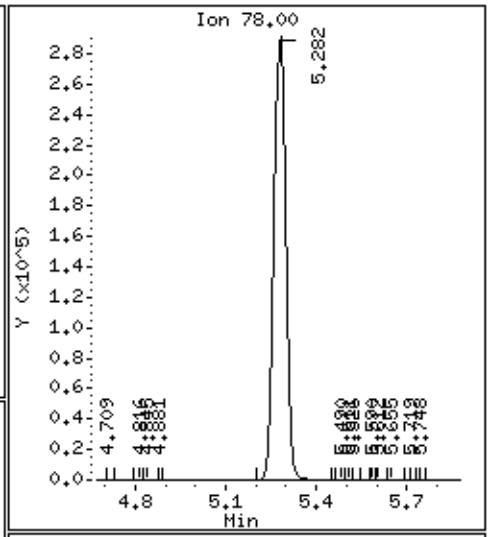
Concentration: 63.512 NG

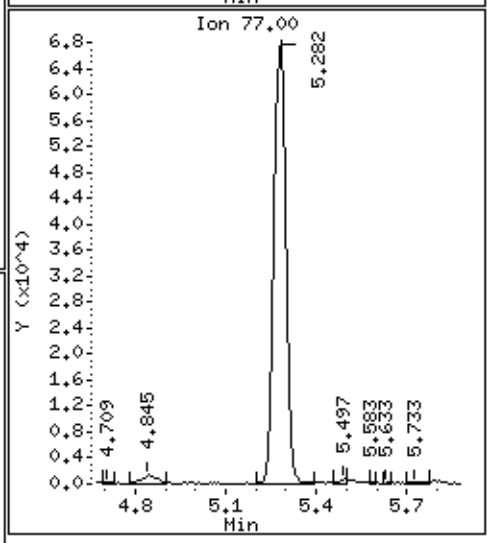












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

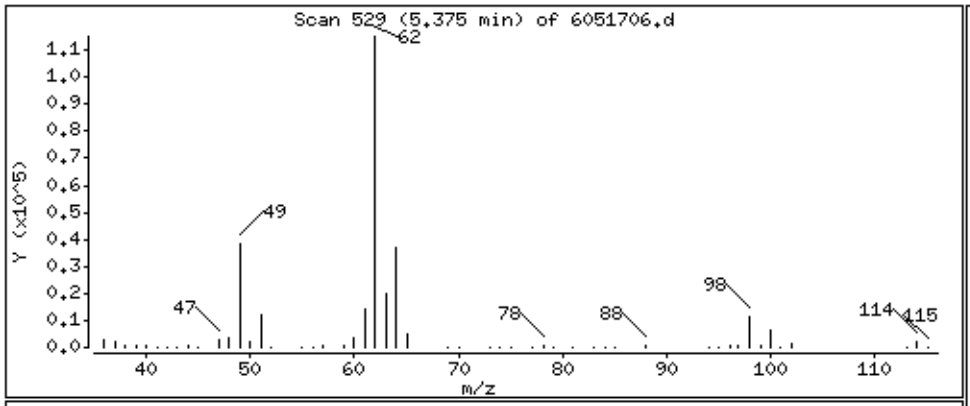
Operator: CT

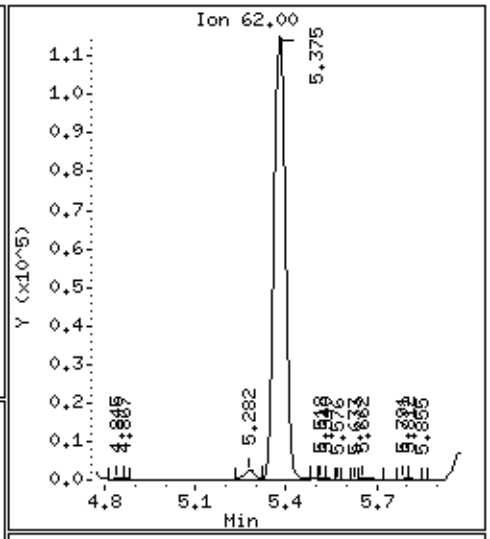
Column phase: RTx-624

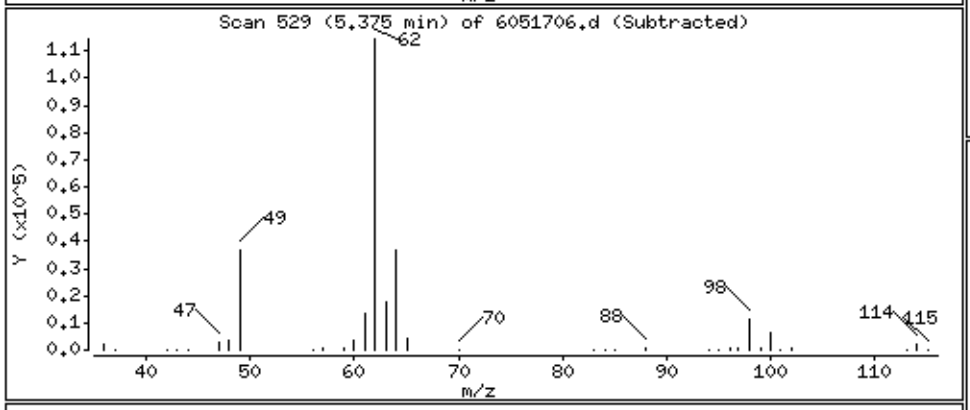
Column diameter: 0.53

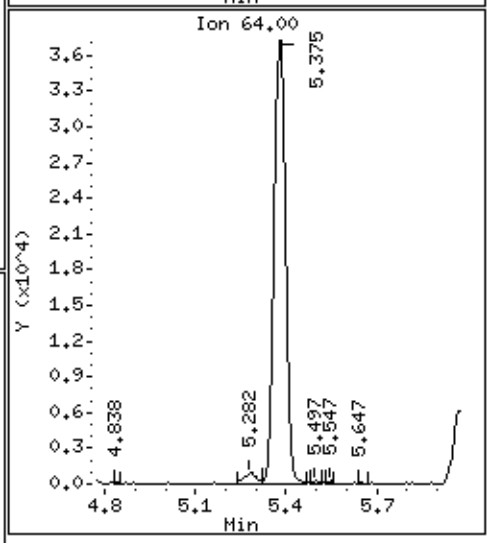
50 1,2-Dichloroethane

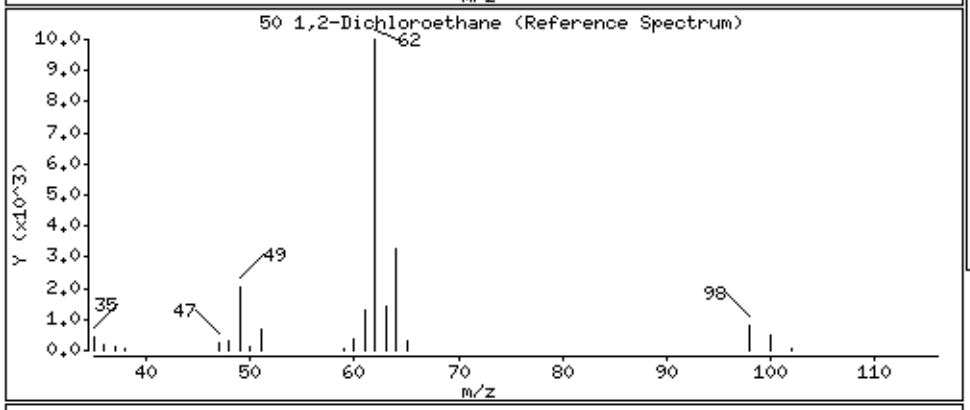
Concentration: 77.554 NG

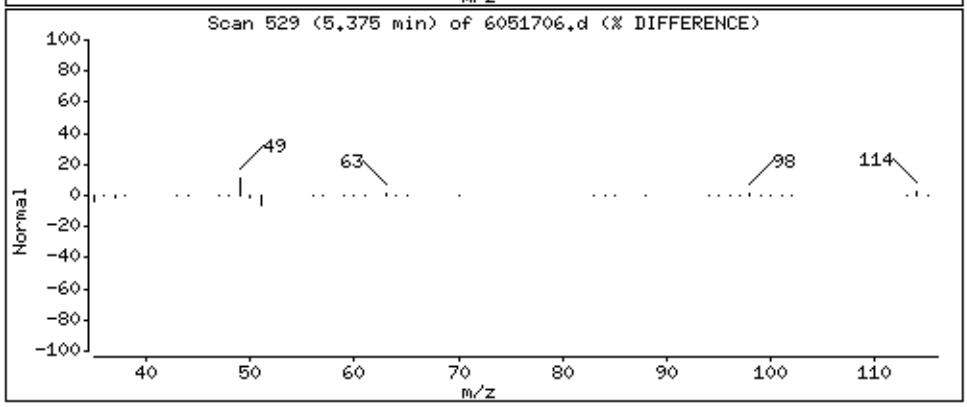












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

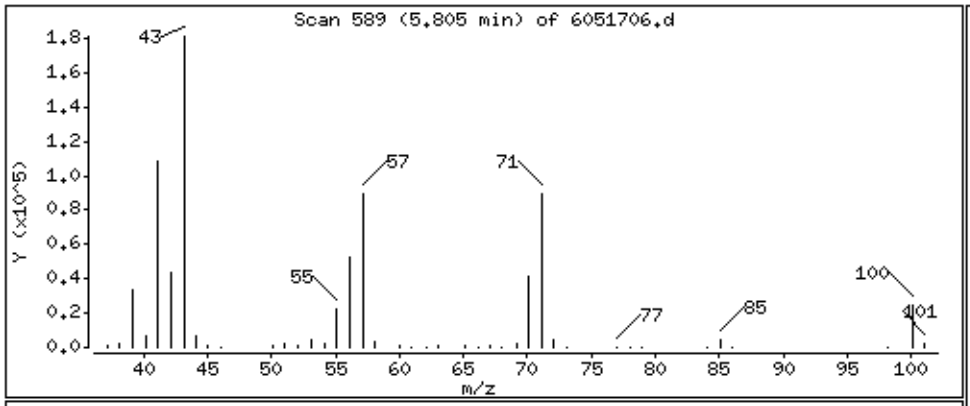
Operator: CT

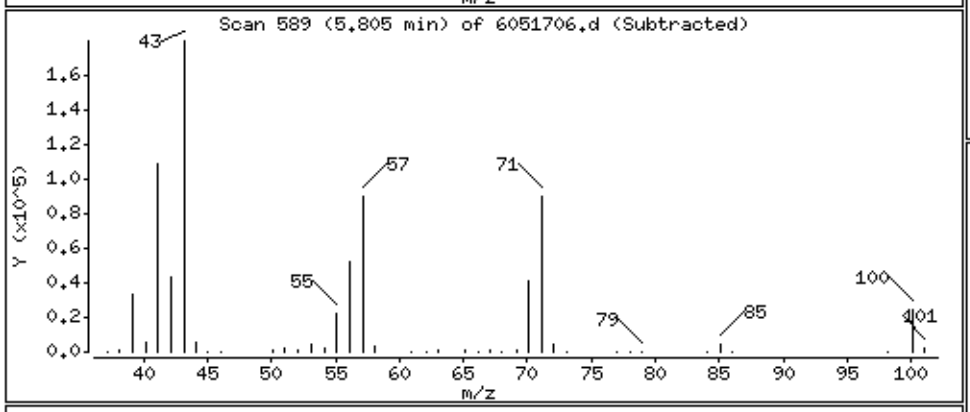
Column phase: RTx-624

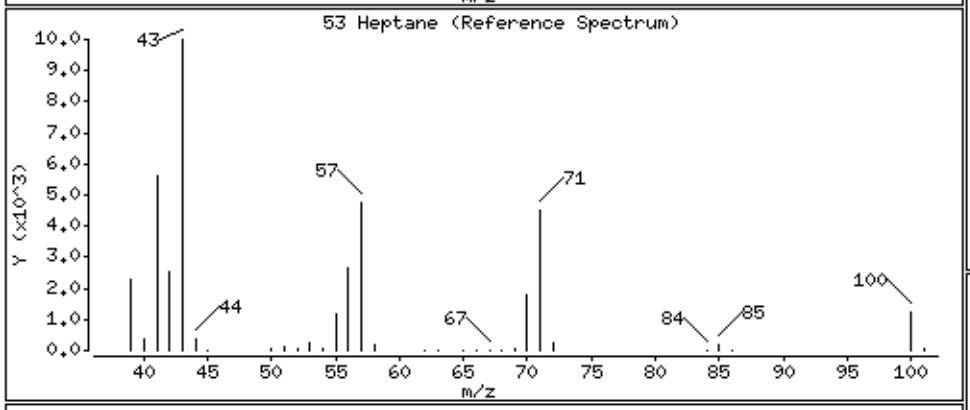
Column diameter: 0.53

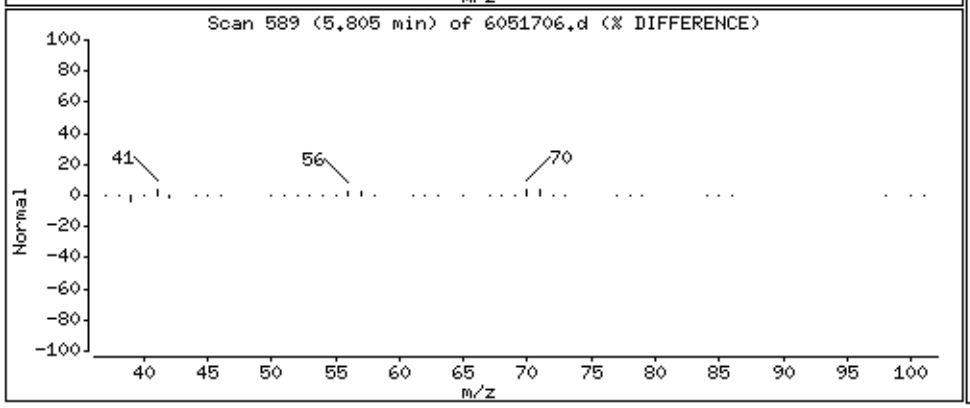
53 Heptane

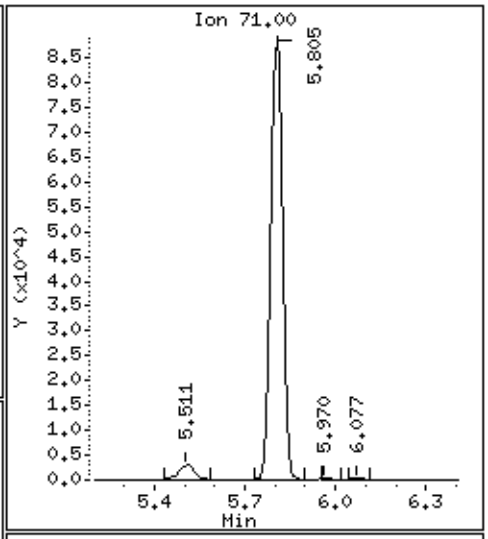
Concentration: 81.297 NG

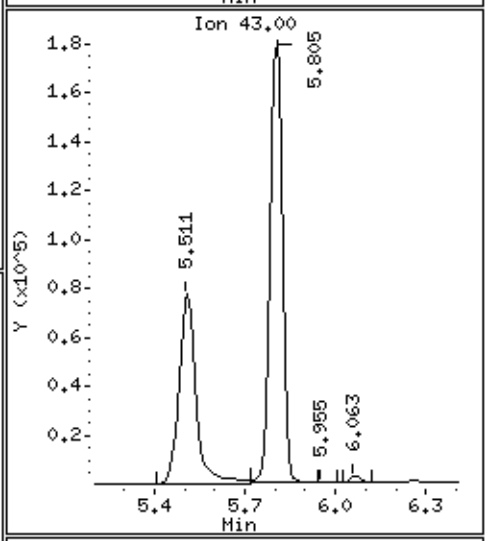


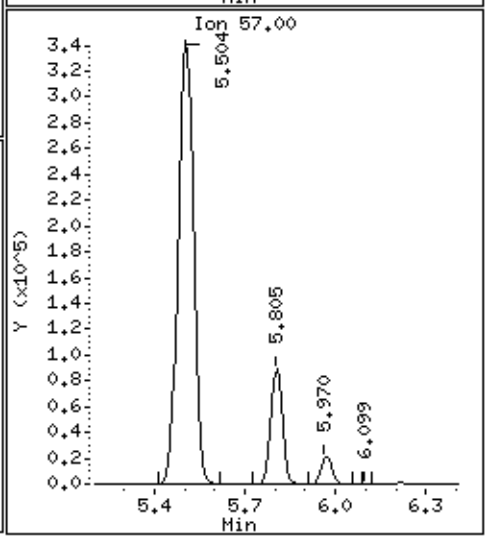












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

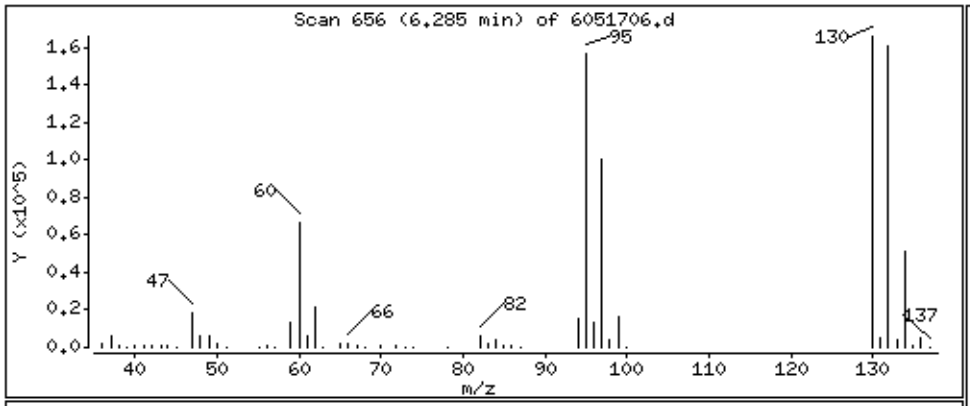
Operator: CT

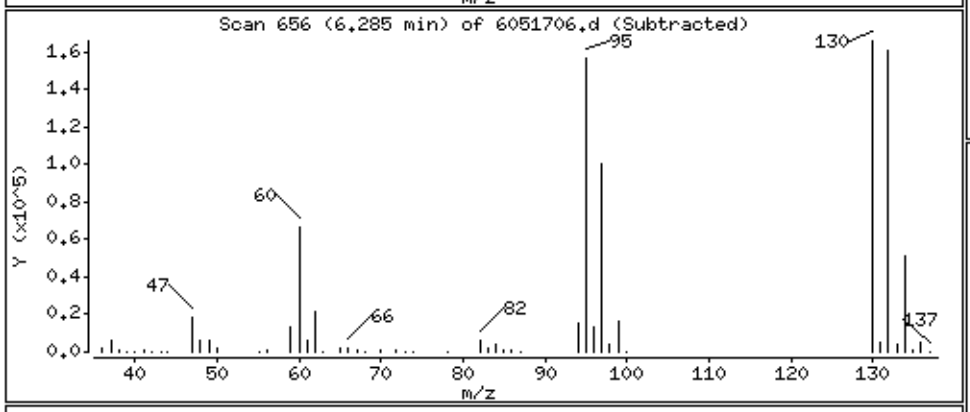
Column phase: RTx-624

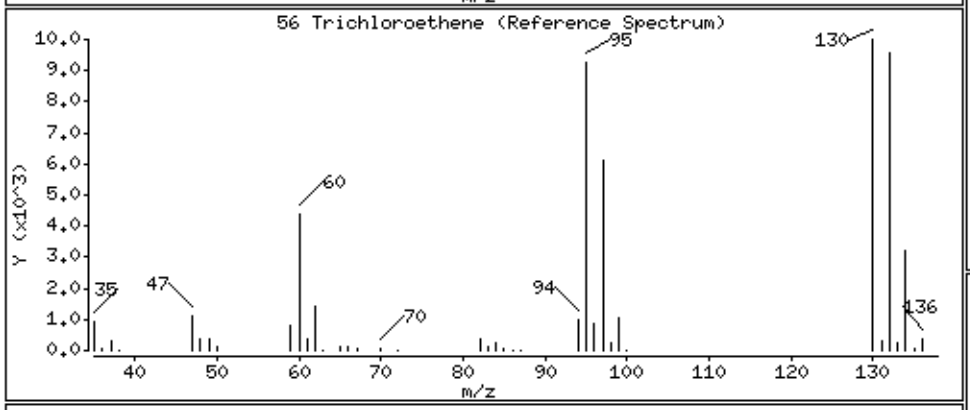
Column diameter: 0.53

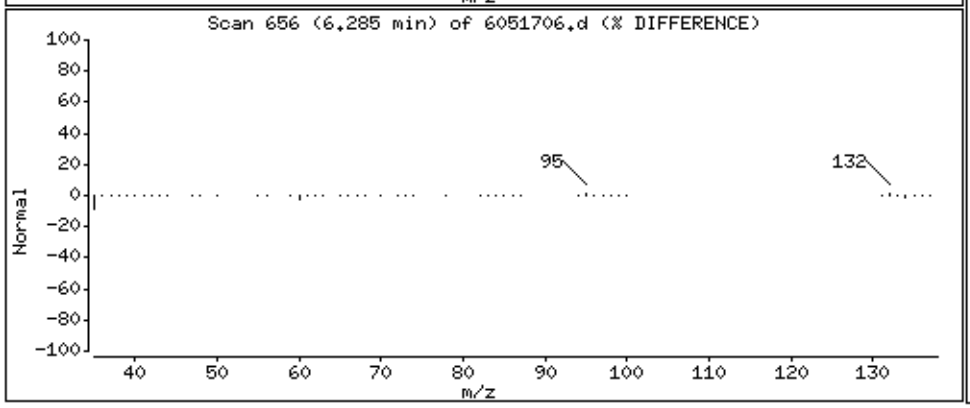
56 Trichloroethene

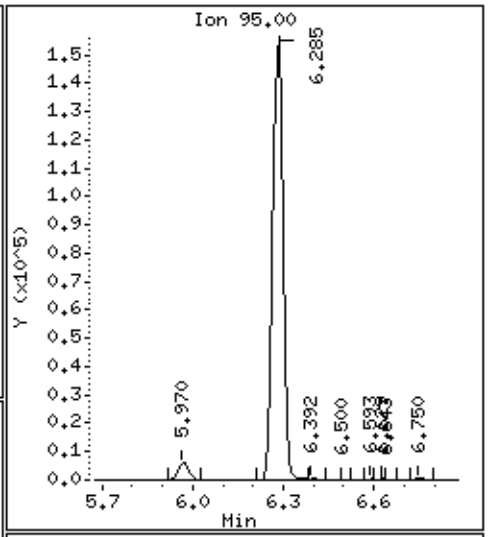
Concentration: 106.03 NG

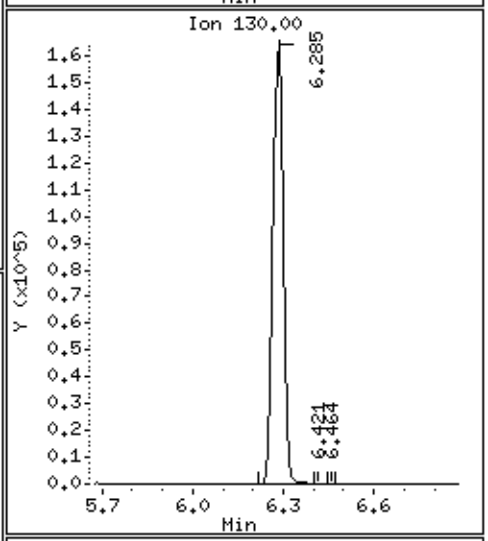


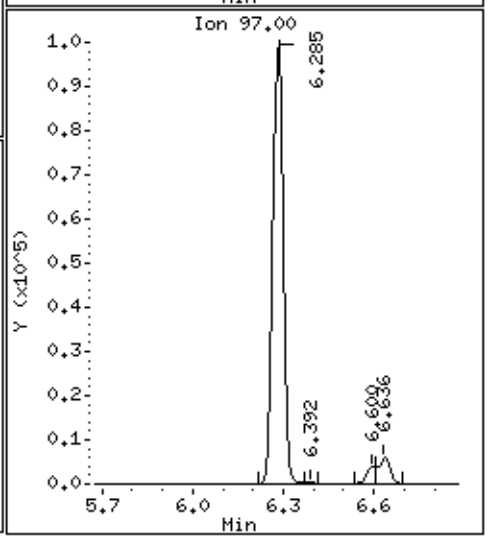












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

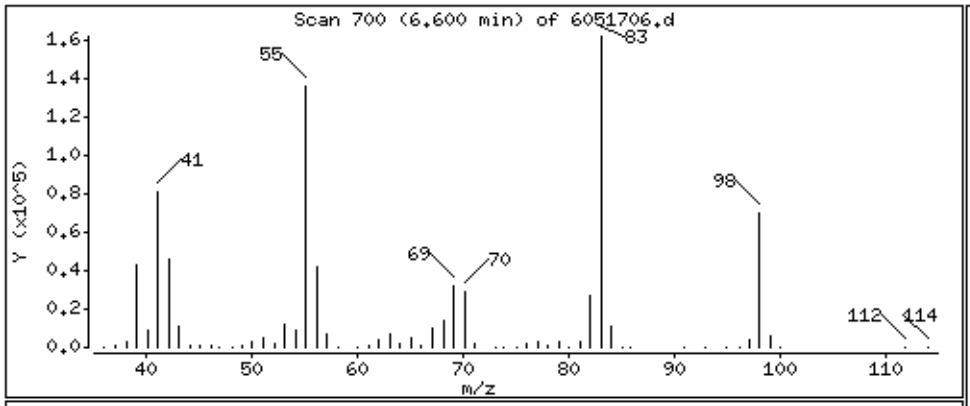
Operator: CT

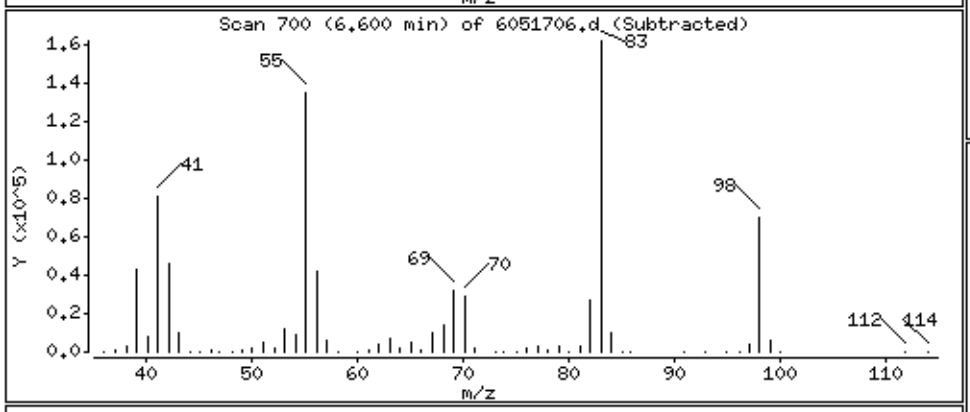
Column phase: RTx-624

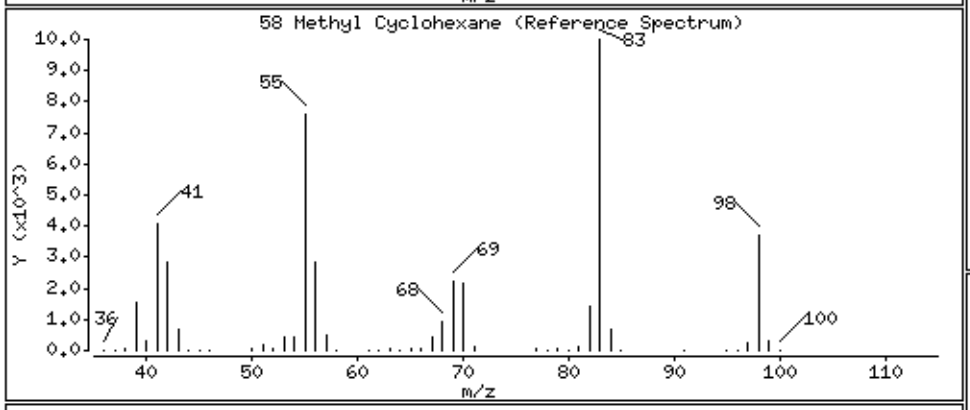
Column diameter: 0.53

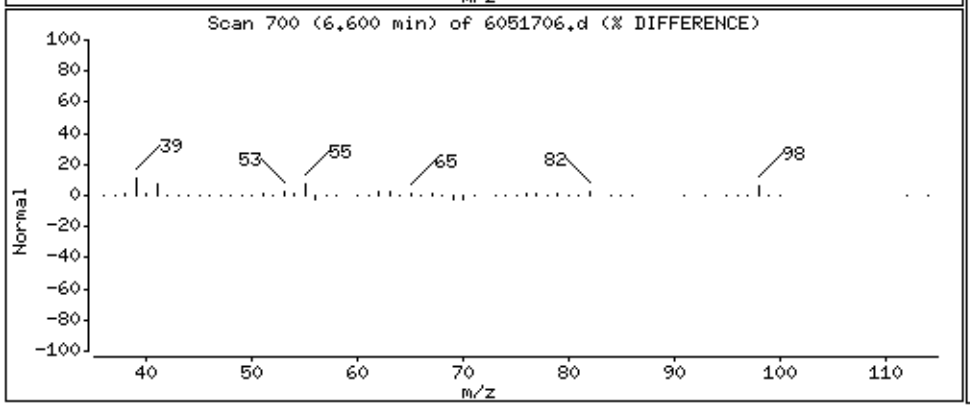
58 Methyl Cyclohexane

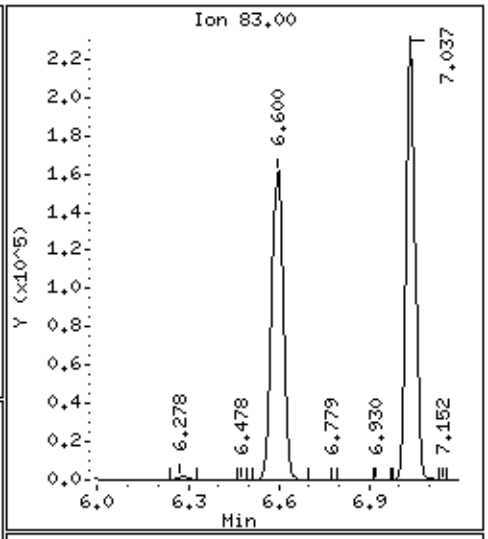
Concentration: 80.876 NG

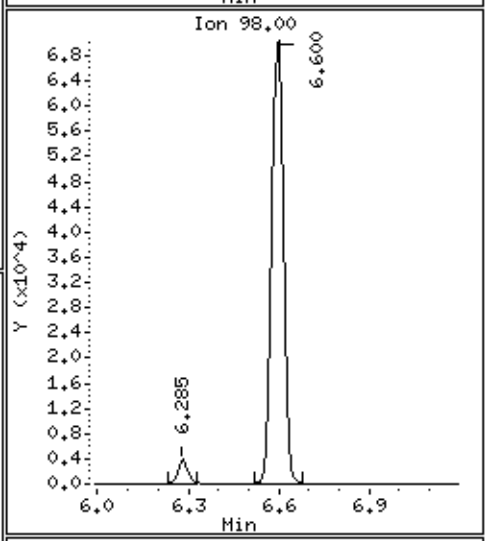


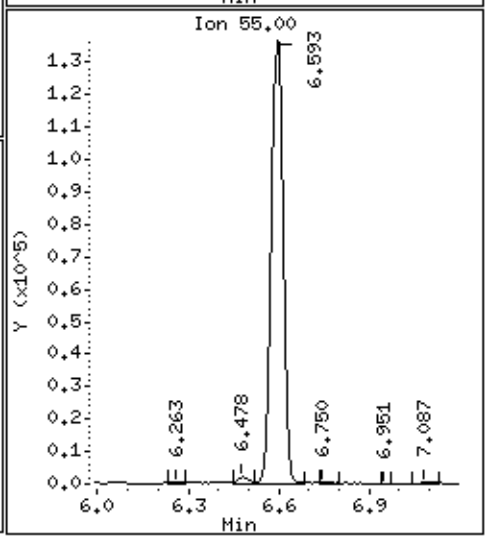












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

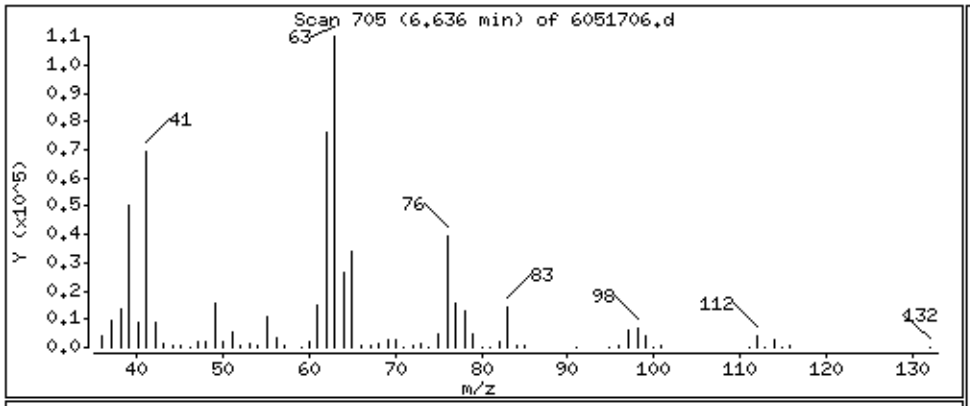
Operator: CT

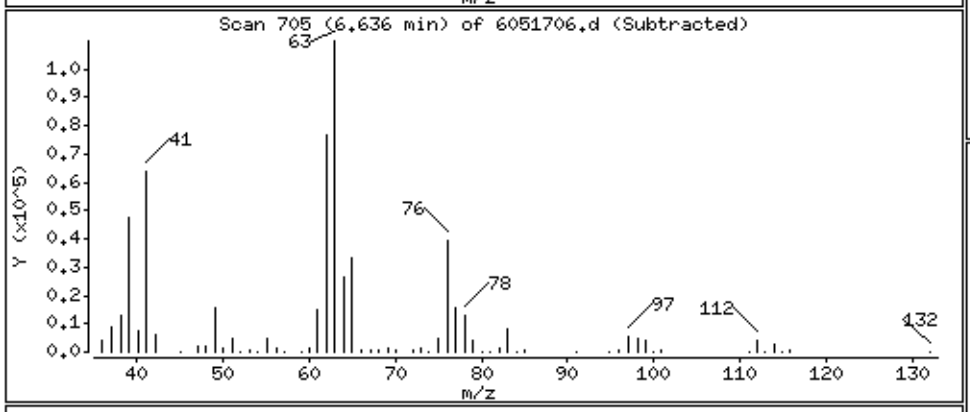
Column phase: RTx-624

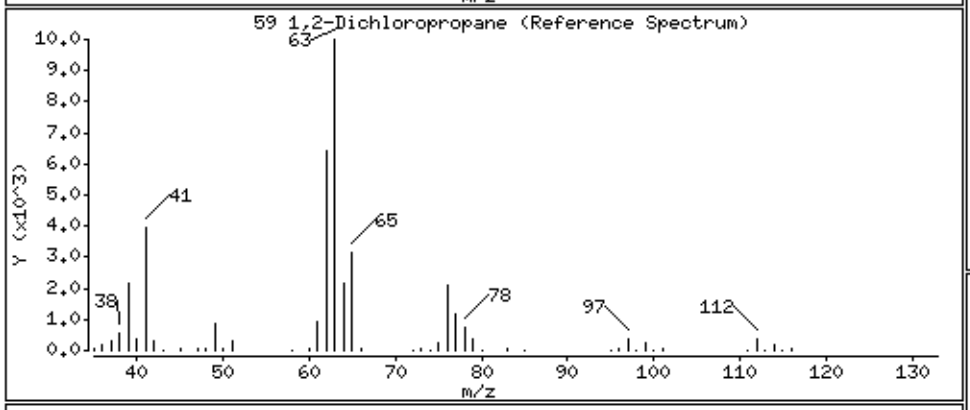
Column diameter: 0.53

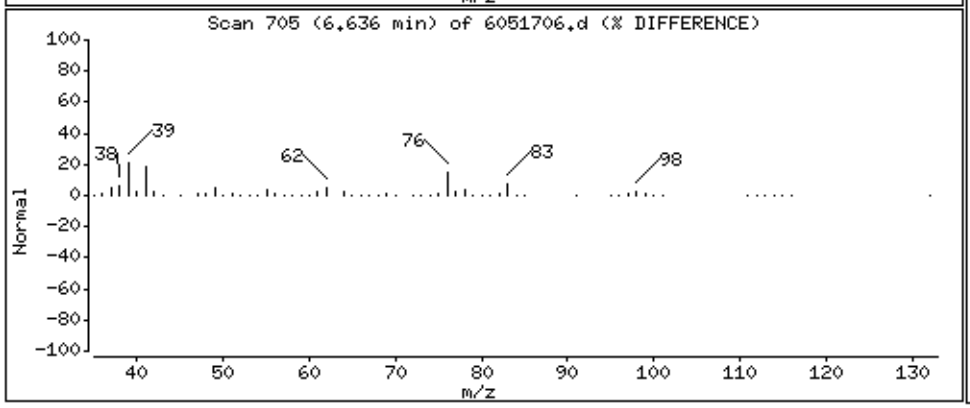
59 1,2-Dichloropropane

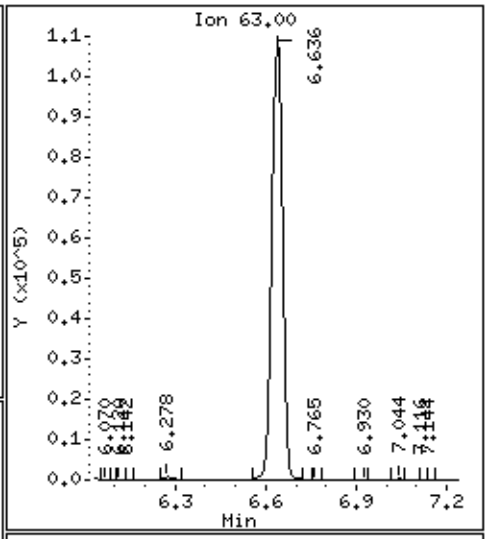
Concentration: 91.079 NG

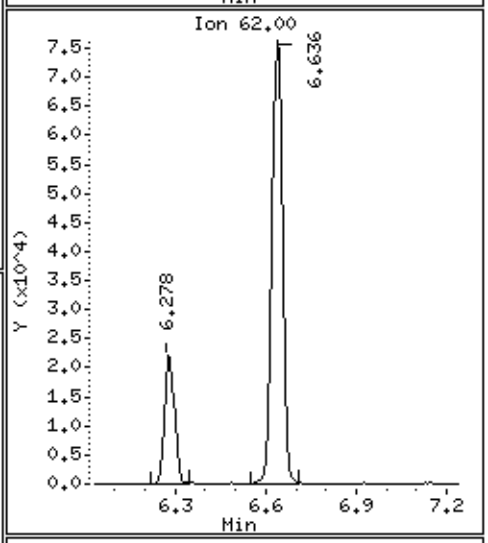


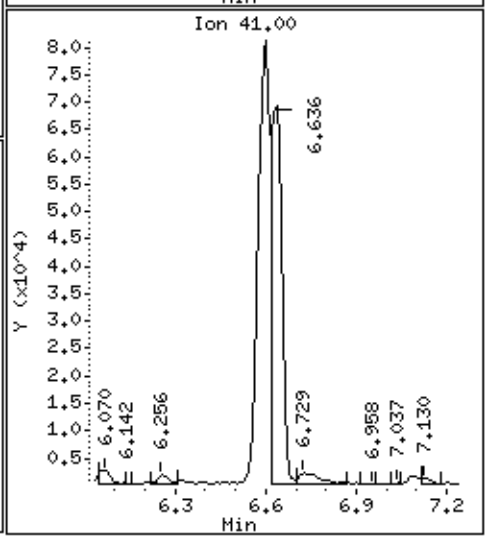












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

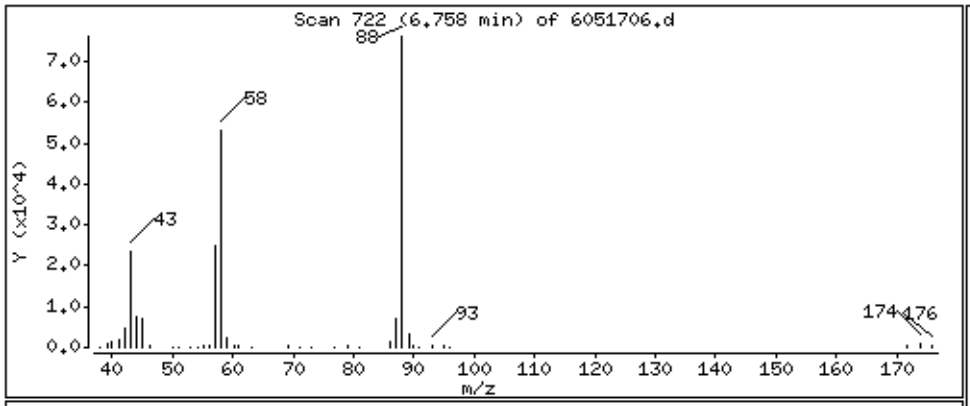
Operator: CT

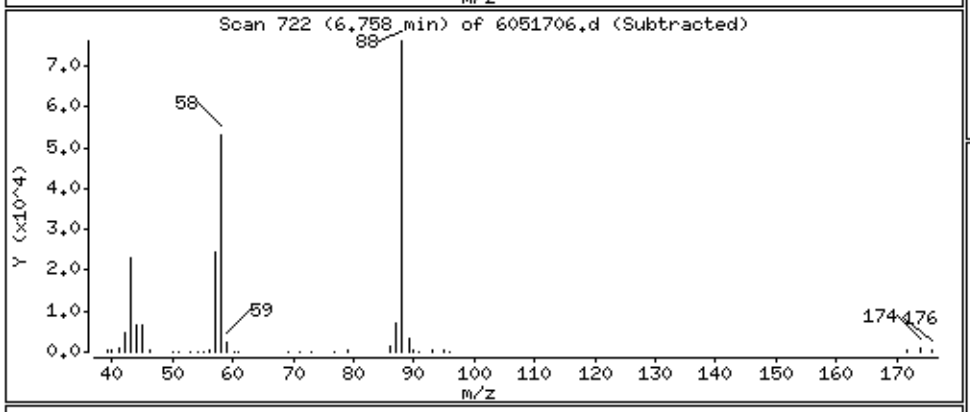
Column phase: RTx-624

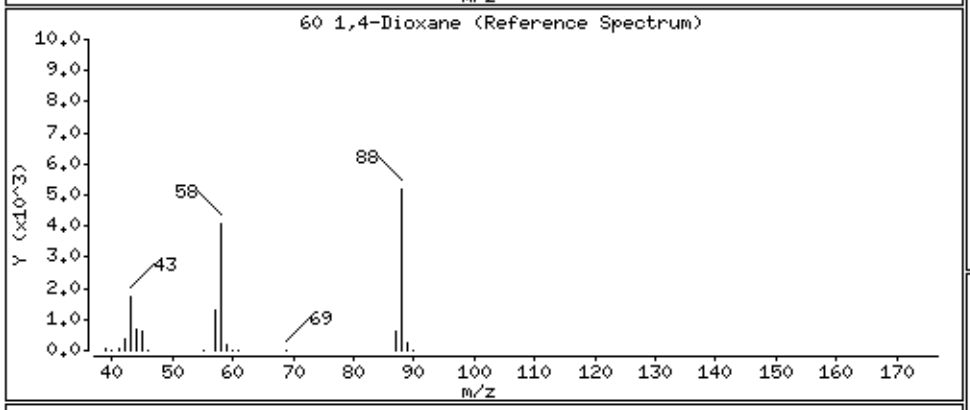
Column diameter: 0.53

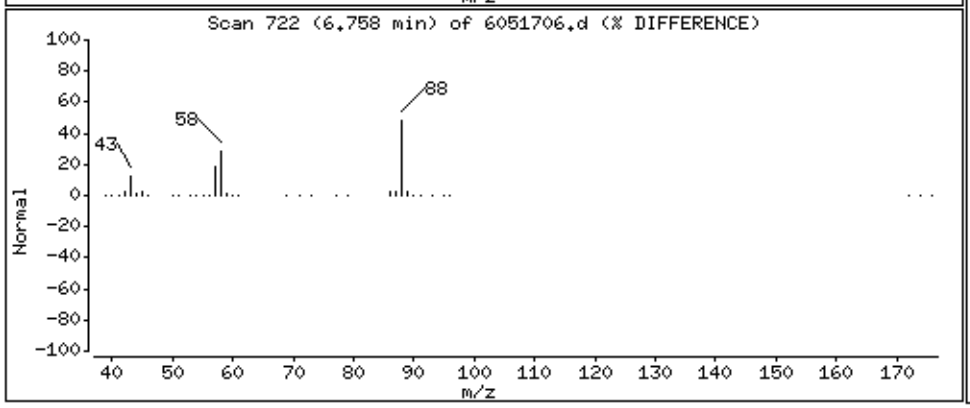
60 1,4-Dioxane

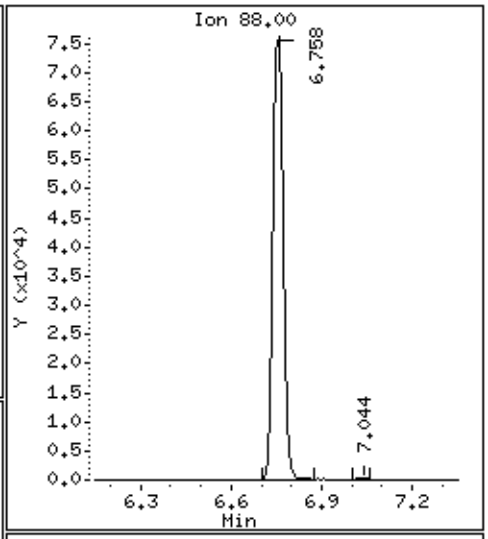
Concentration: 70.433 NG

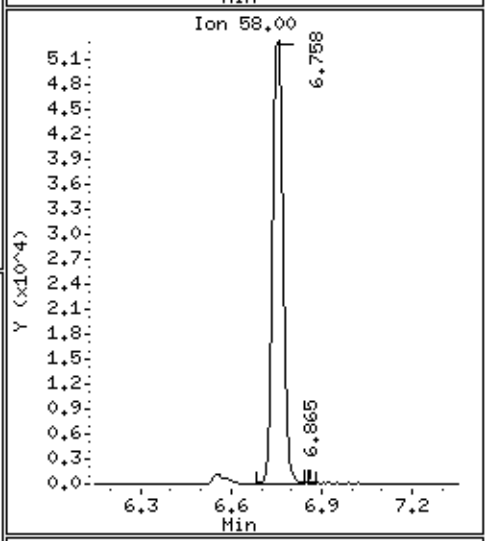


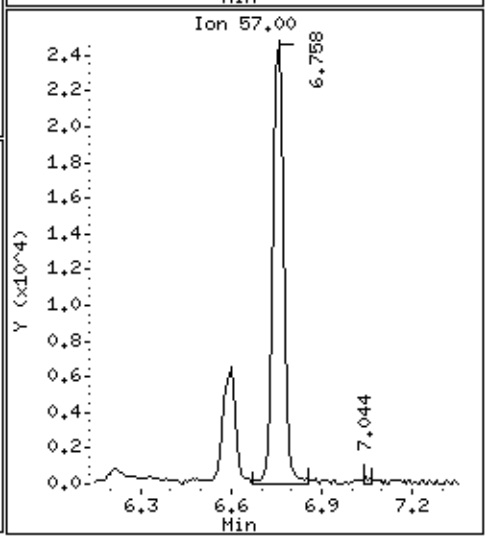












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

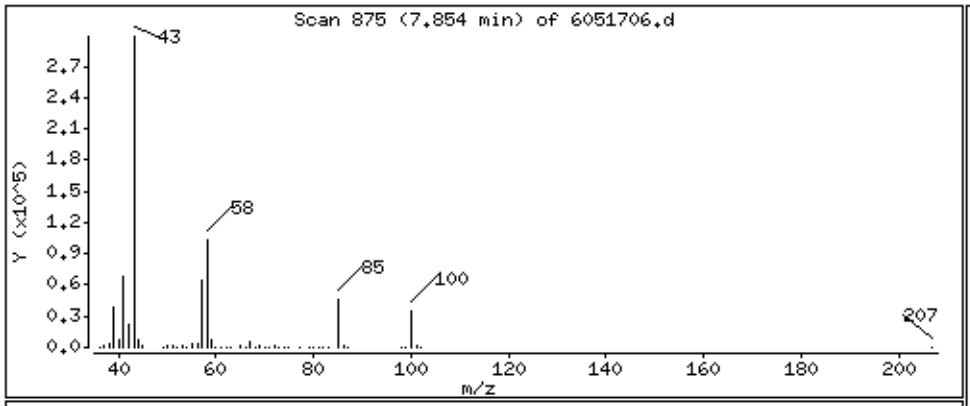
Operator: CT

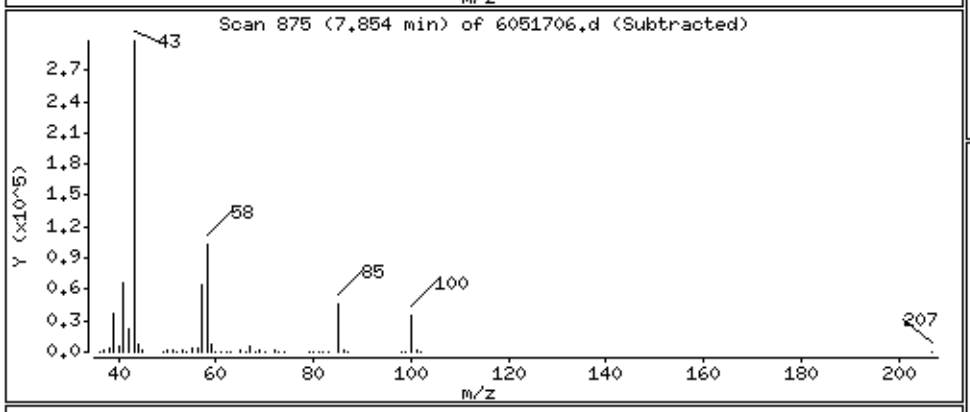
Column phase: RTx-624

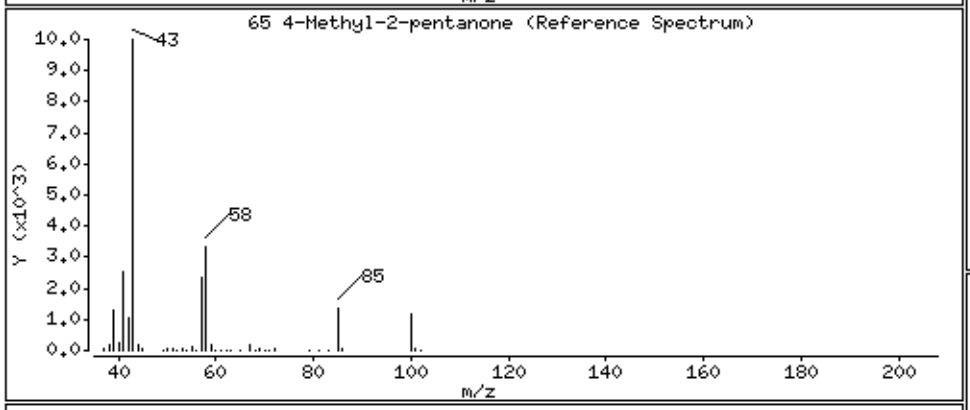
Column diameter: 0.53

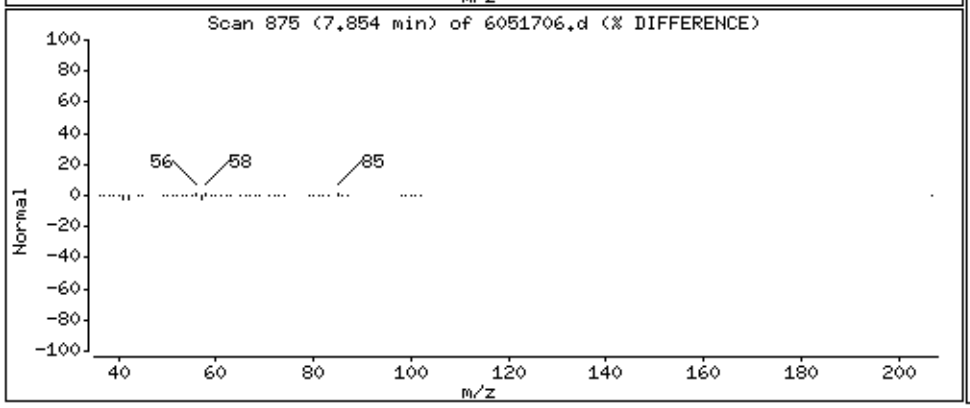
65 4-Methyl-2-pentanone

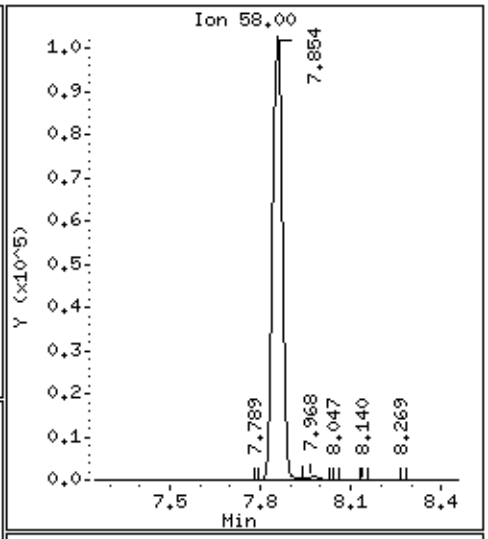
Concentration: 78.000 NG

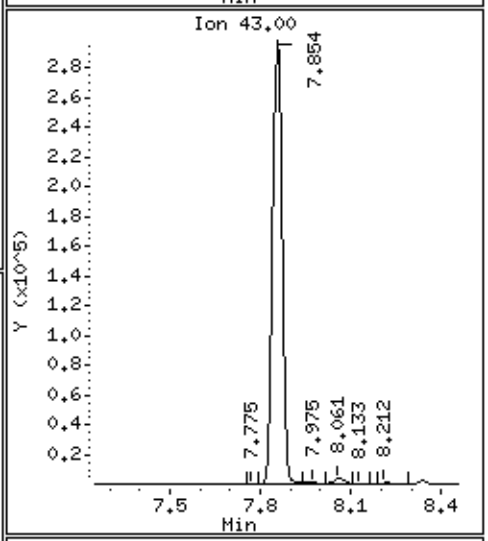


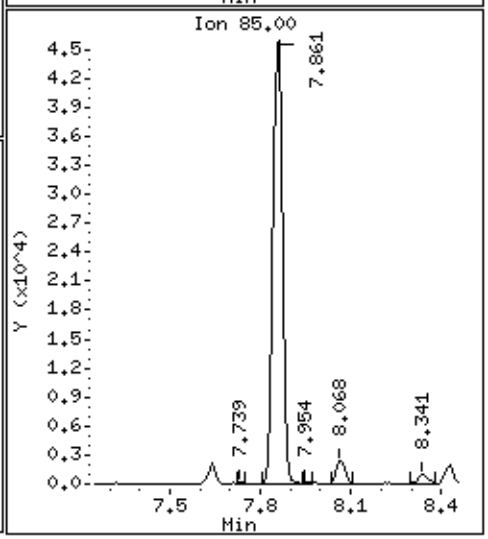












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

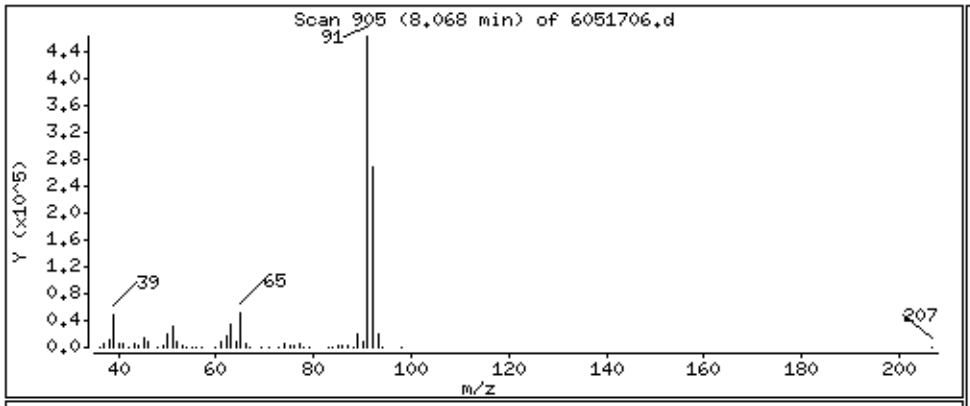
Operator: CT

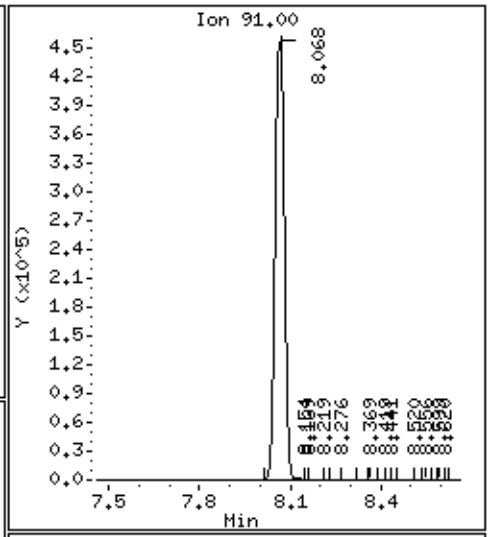
Column phase: RTx-624

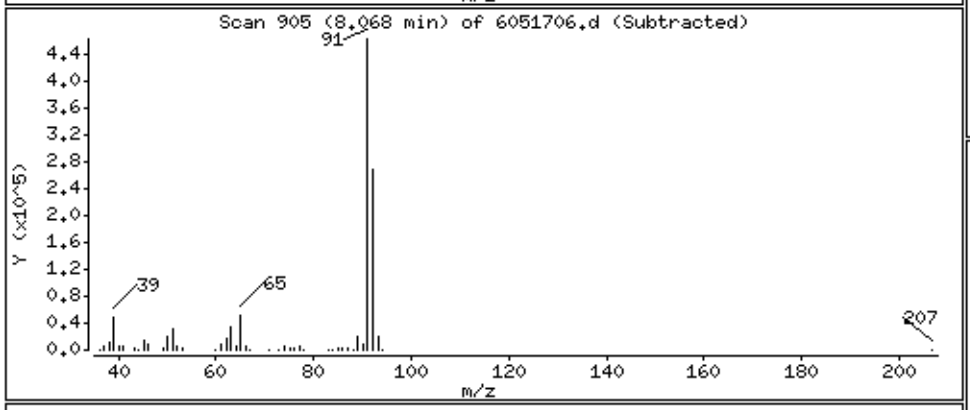
Column diameter: 0.53

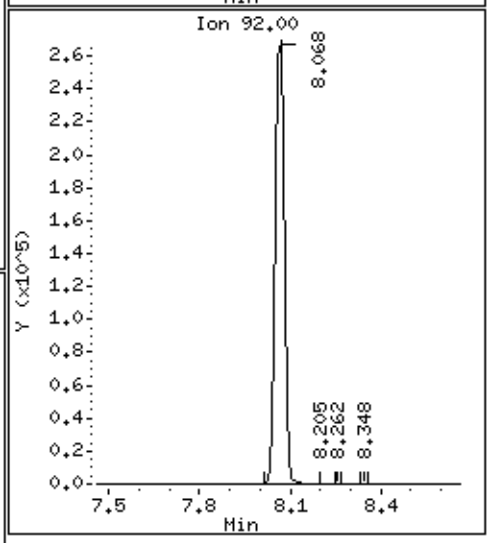
67 Toluene

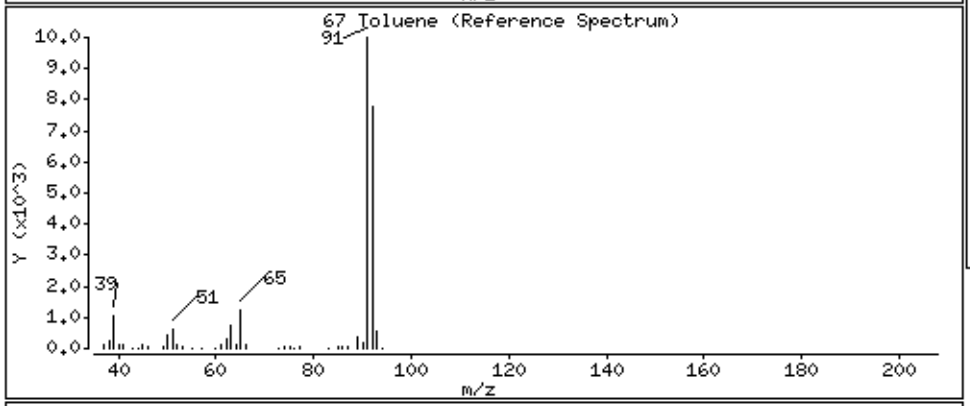
Concentration: 72.915 NG

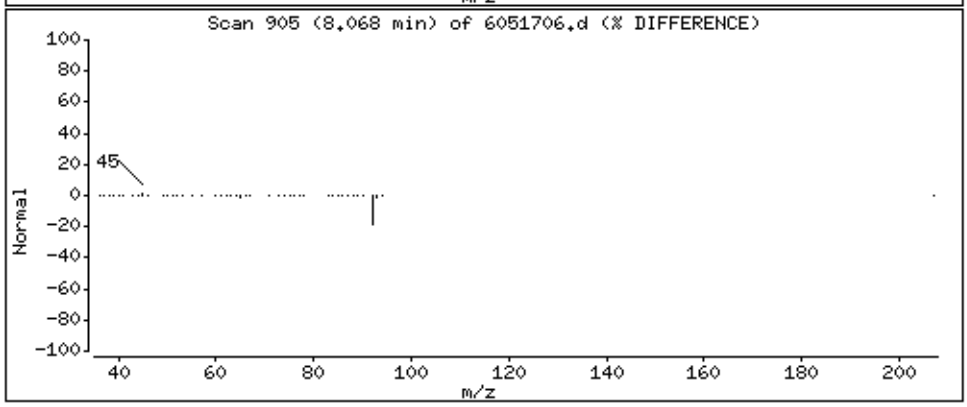












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

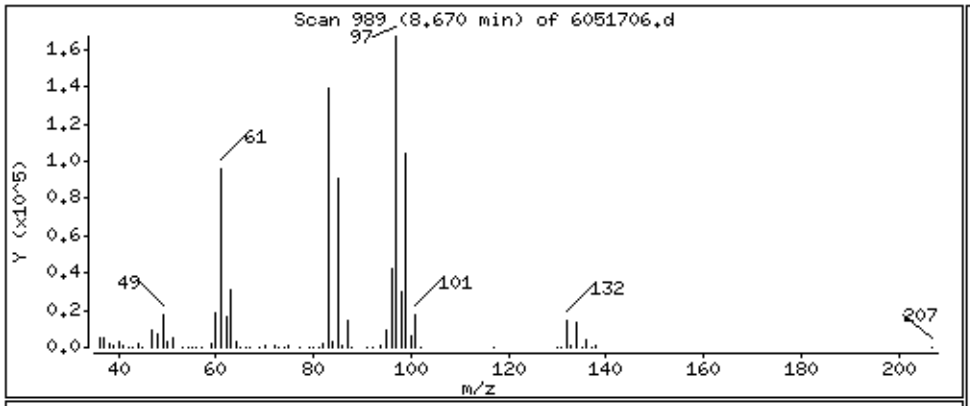
Operator: CT

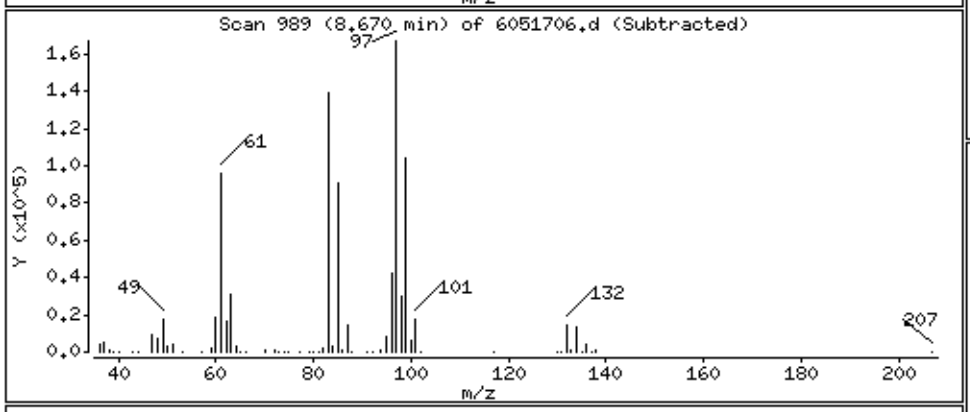
Column phase: RTx-624

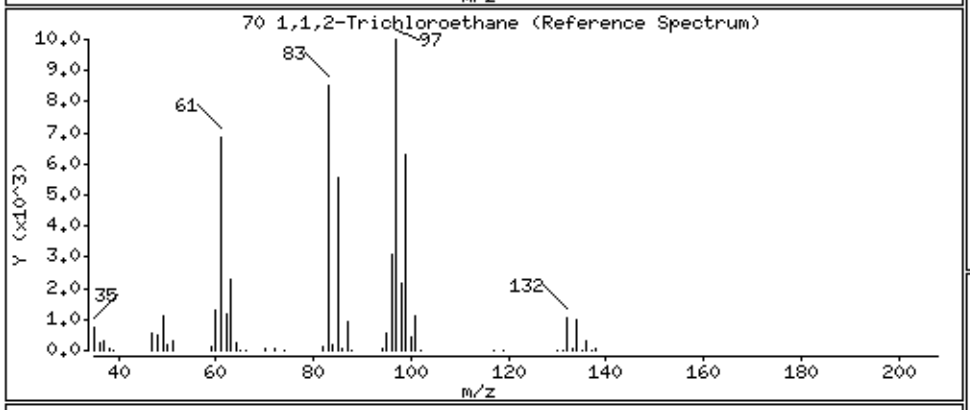
Column diameter: 0.53

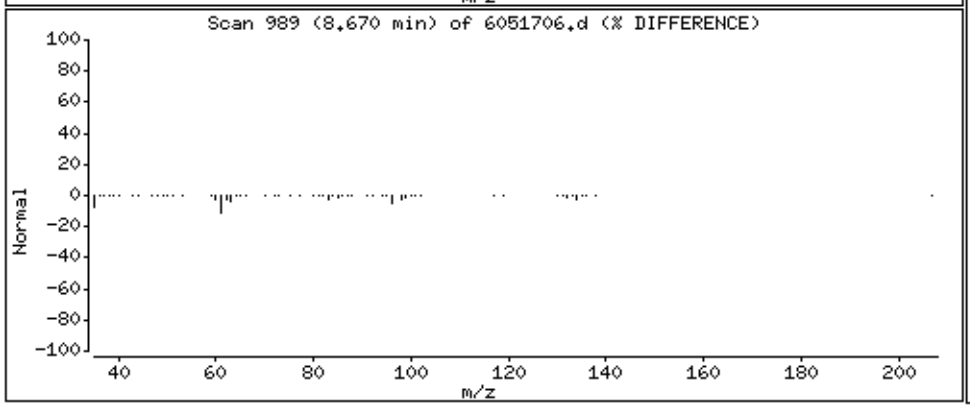
70 1,1,2-Trichloroethane

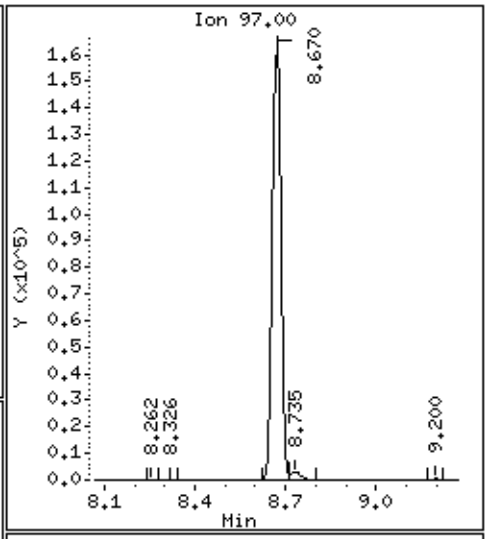
Concentration: 107.08 NG

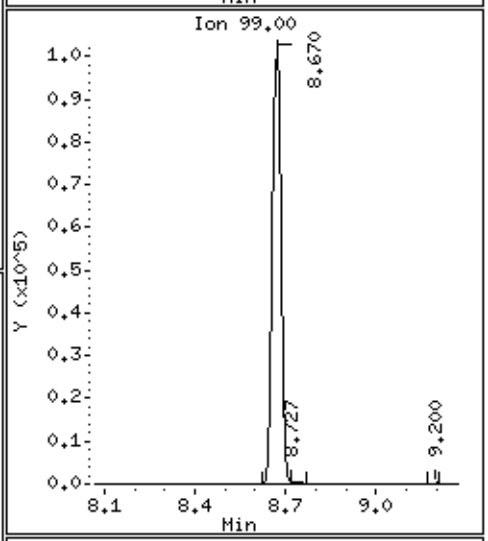


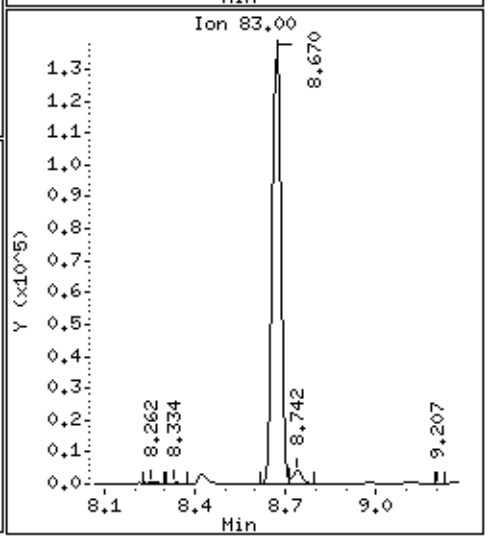












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

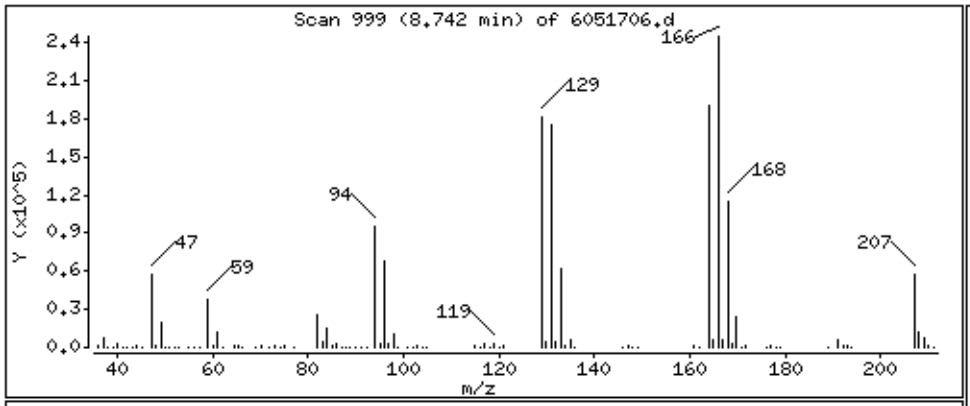
Operator: CT

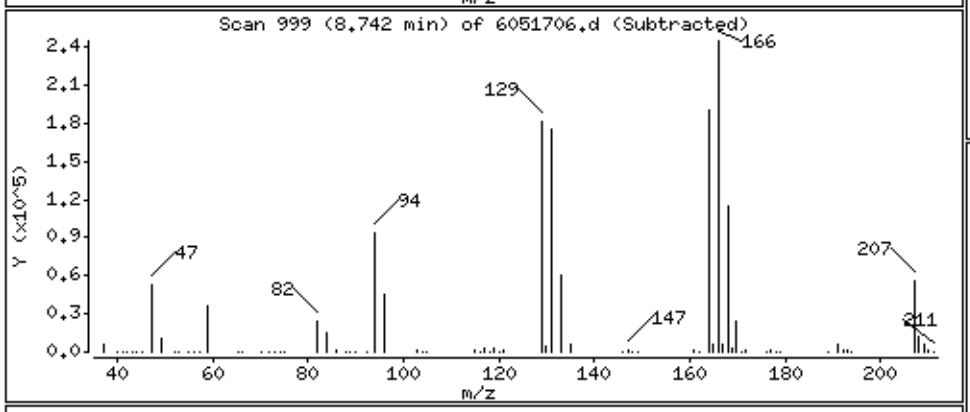
Column phase: RTx-624

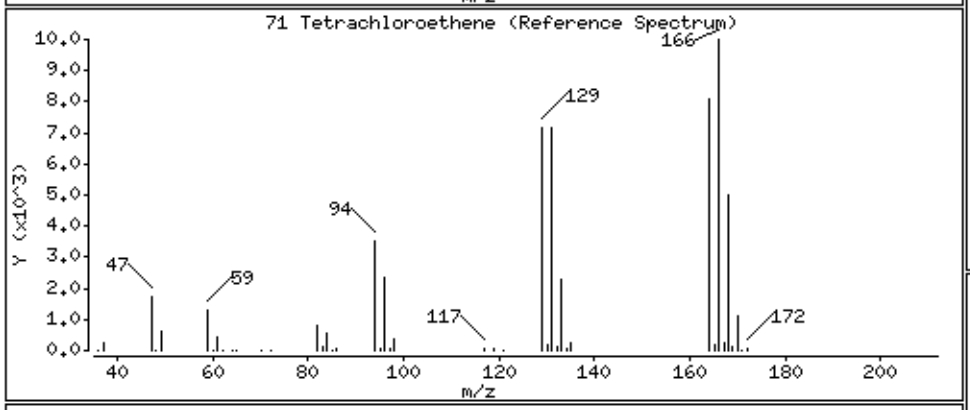
Column diameter: 0.53

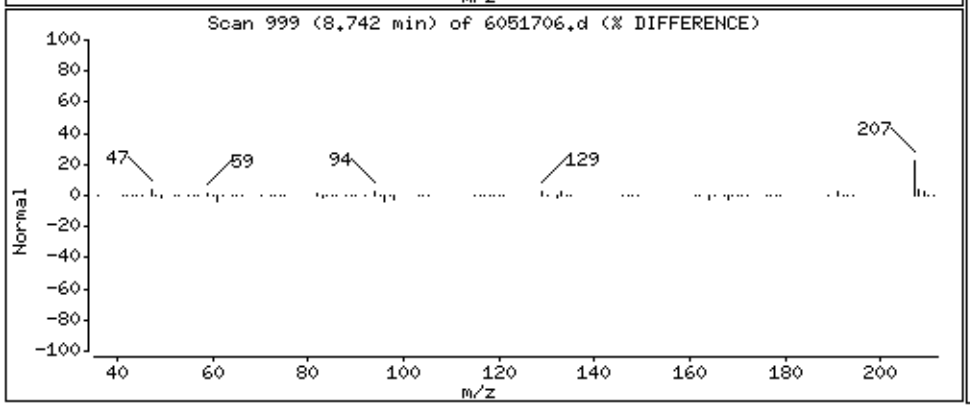
71 Tetrachloroethene

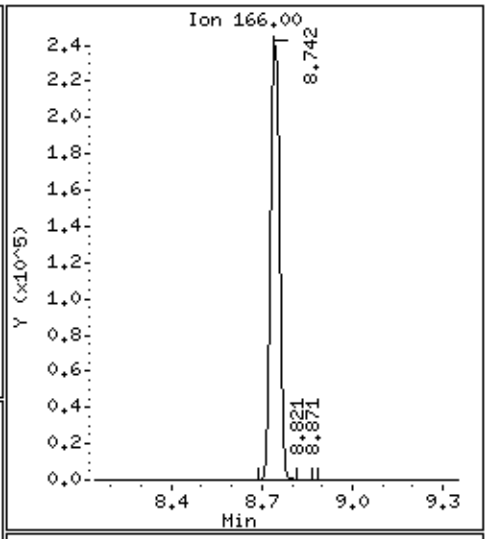
Concentration: 142.07 NG

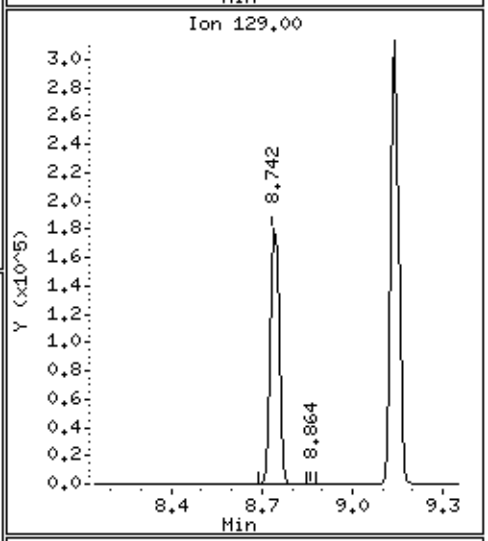


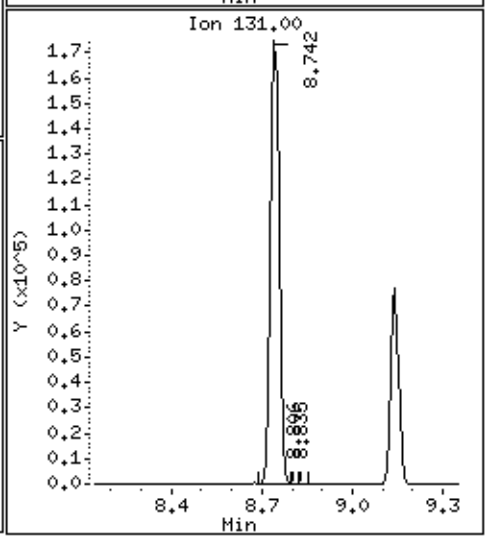












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

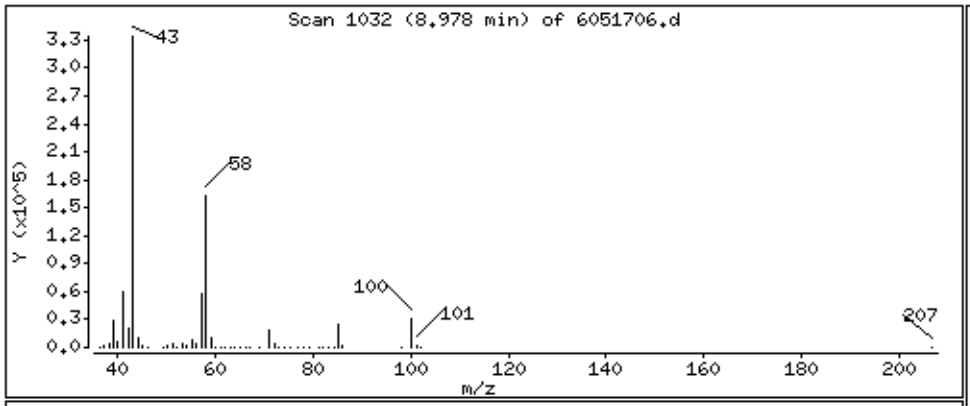
Operator: CT

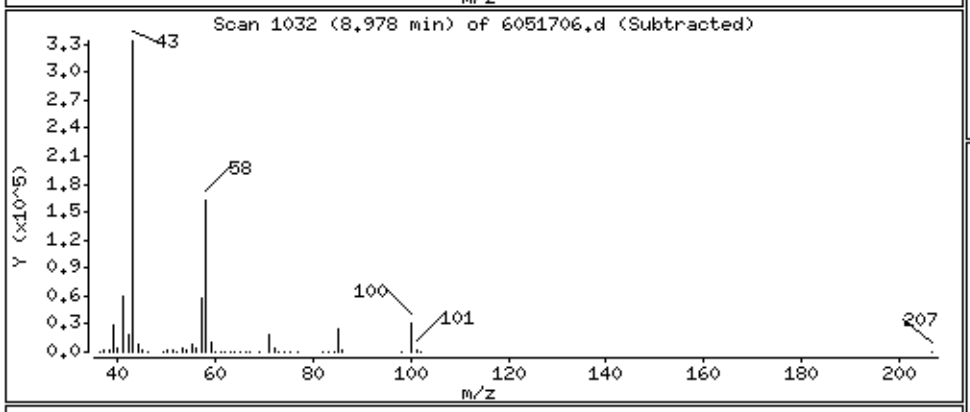
Column phase: RTx-624

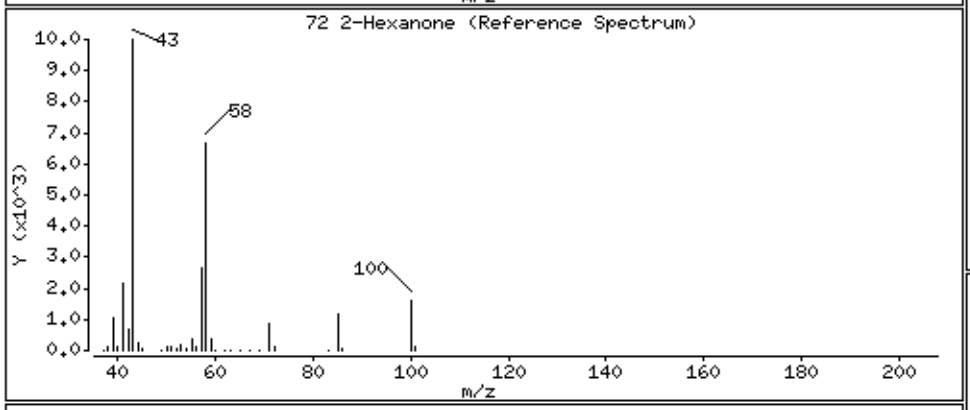
Column diameter: 0.53

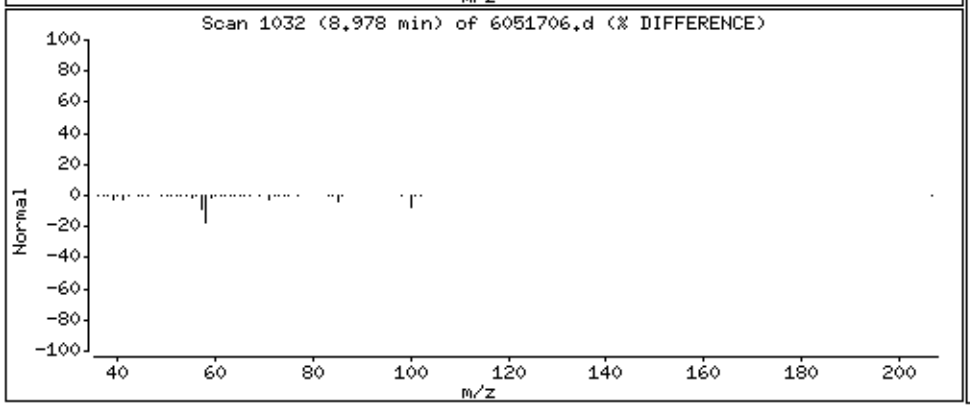
72 2-Hexanone

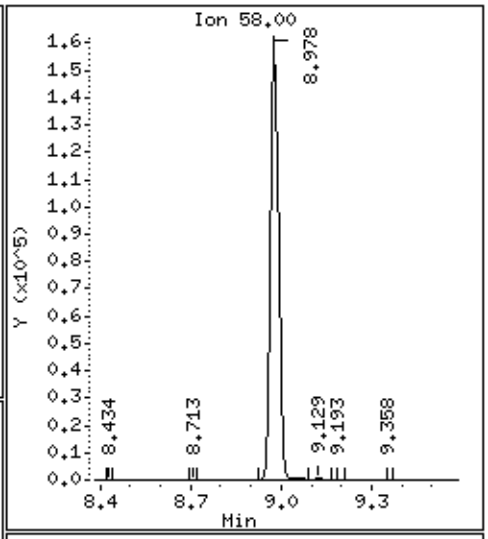
Concentration: 76.843 NG

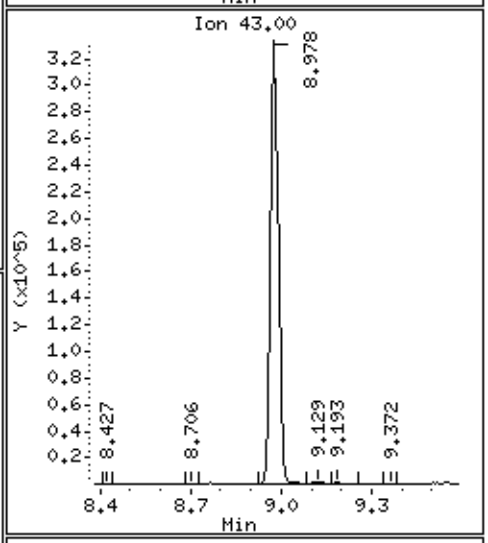


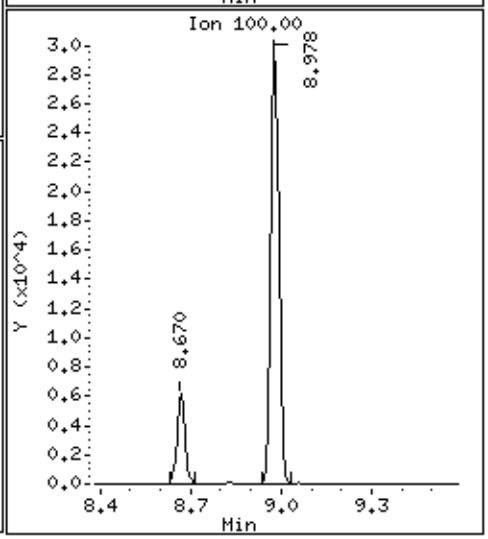












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

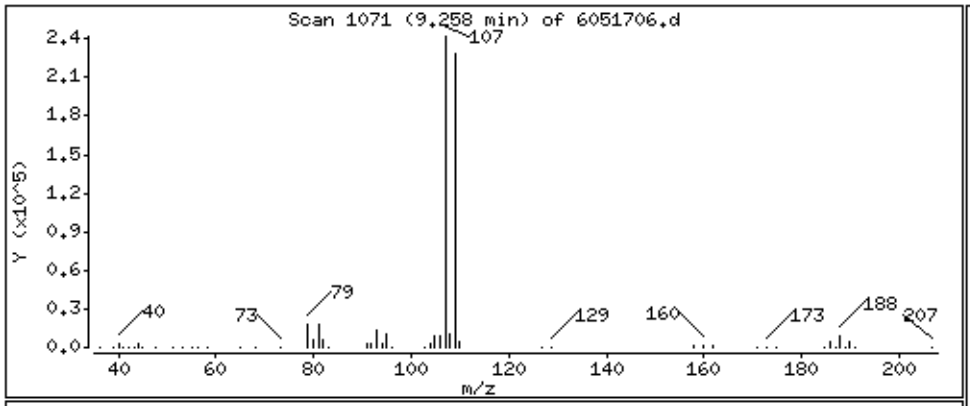
Operator: CT

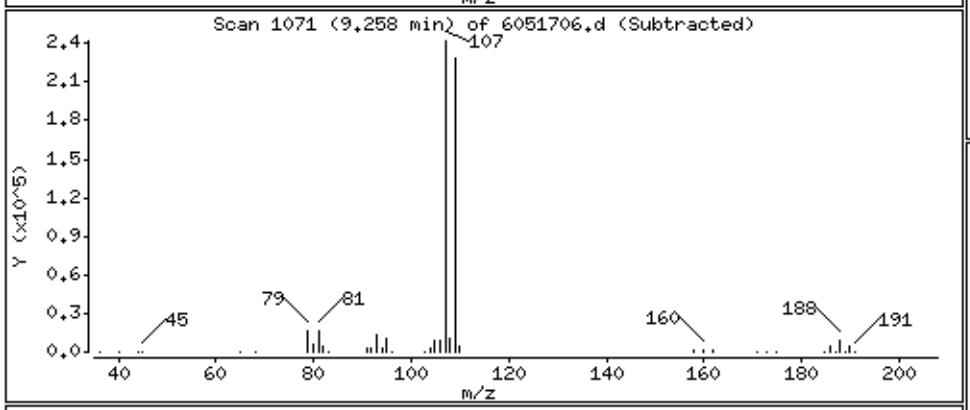
Column phase: RTx-624

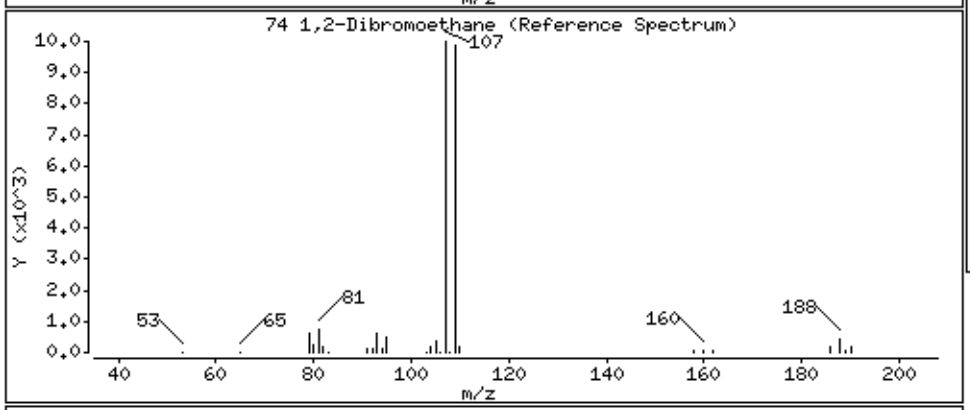
Column diameter: 0.53

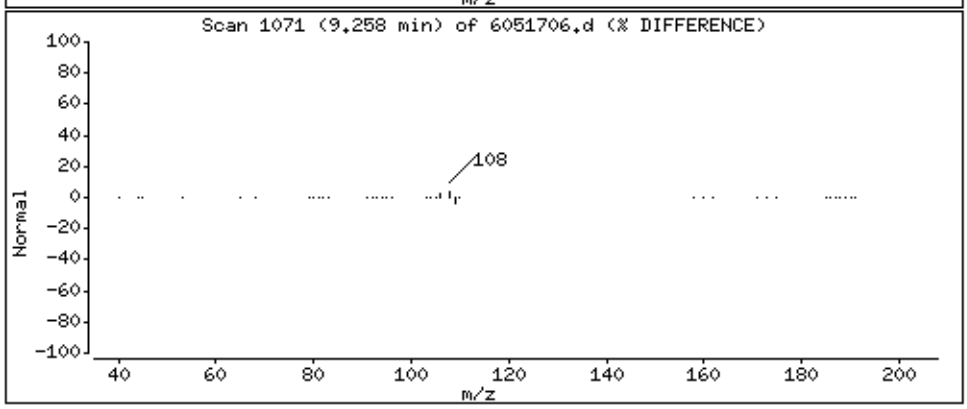
74 1,2-Dibromoethane

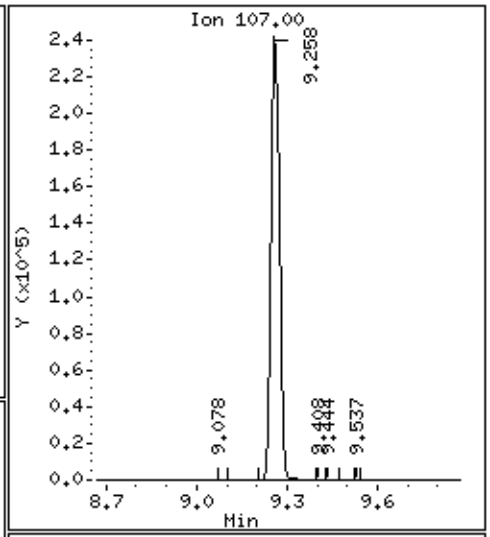
Concentration: 144.43 NG

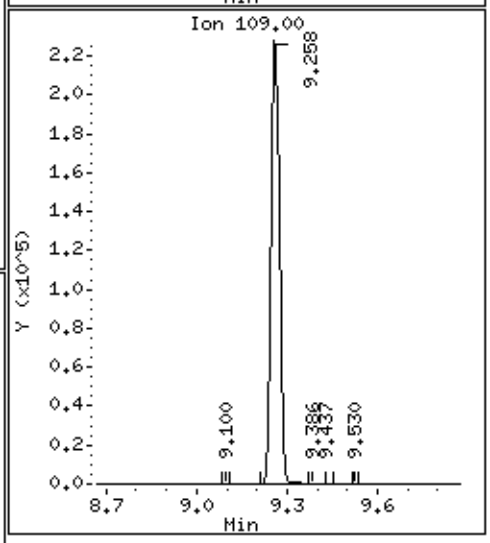












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

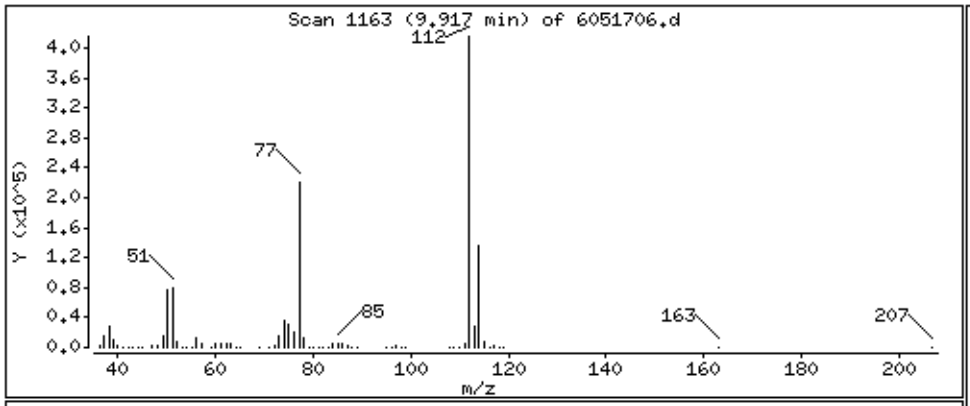
Operator: CT

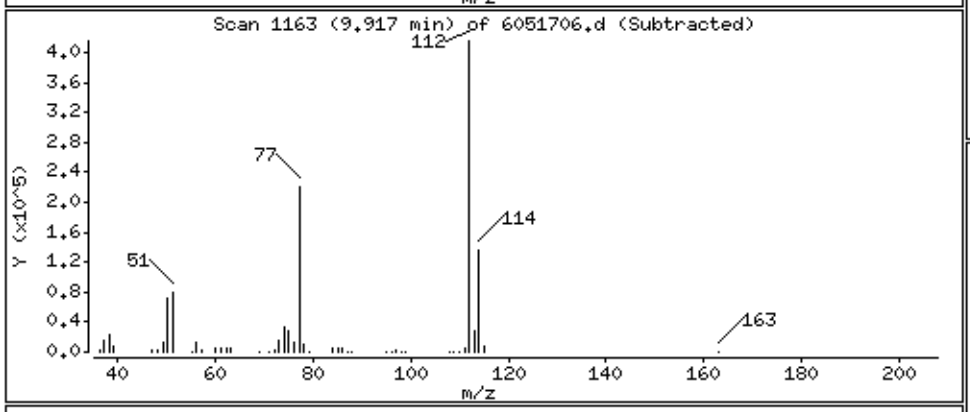
Column phase: RTx-624

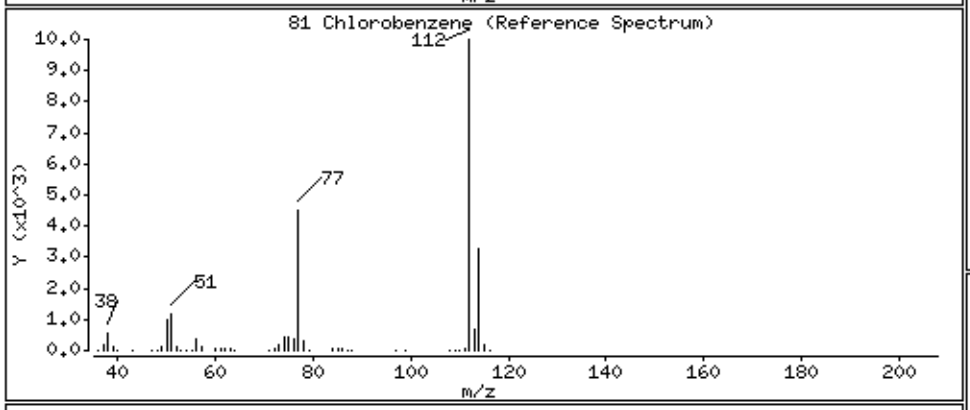
Column diameter: 0.53

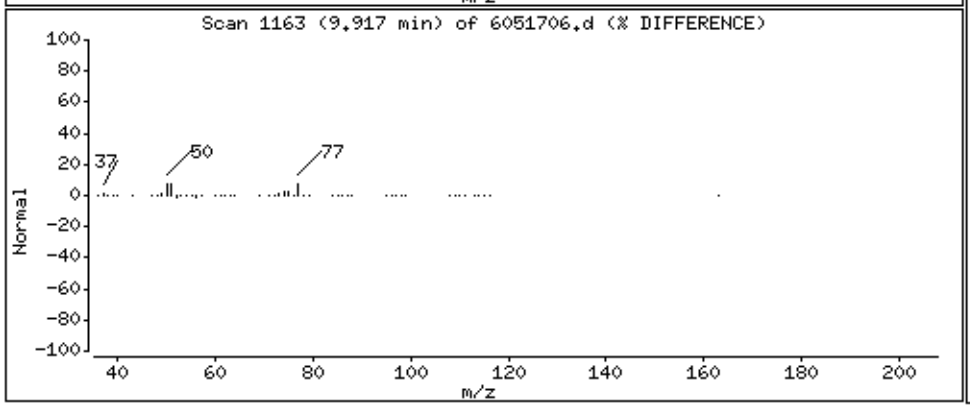
81 Chlorobenzene

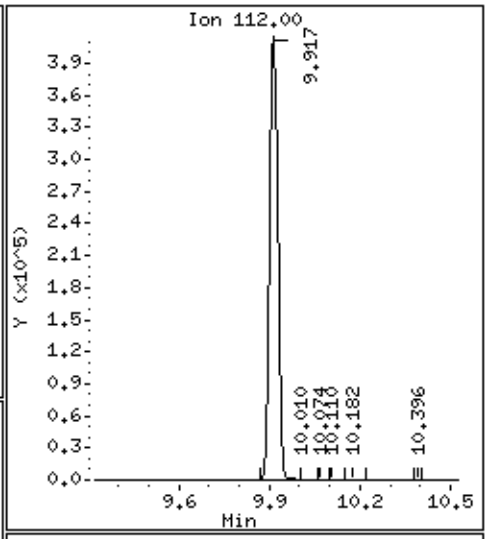
Concentration: 93.200 NG

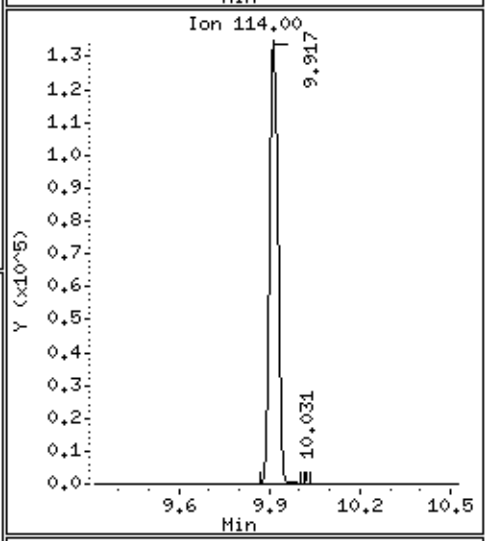


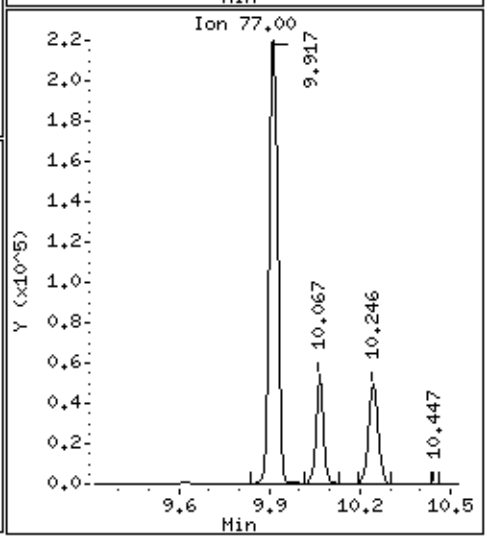












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

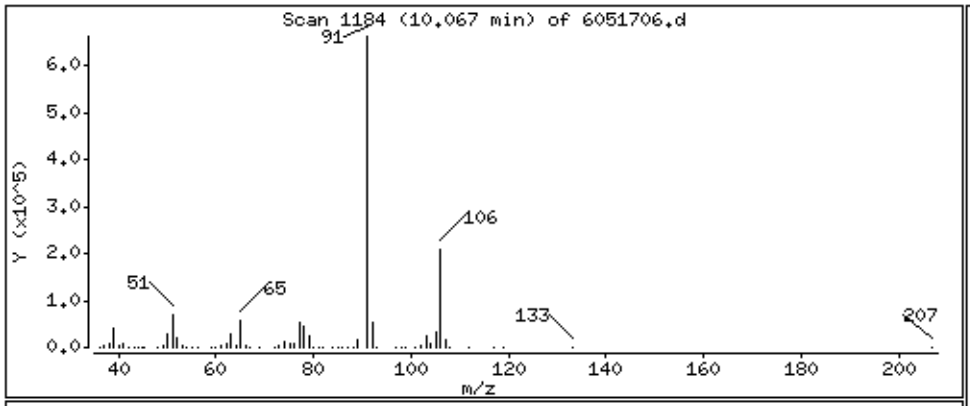
Operator: CT

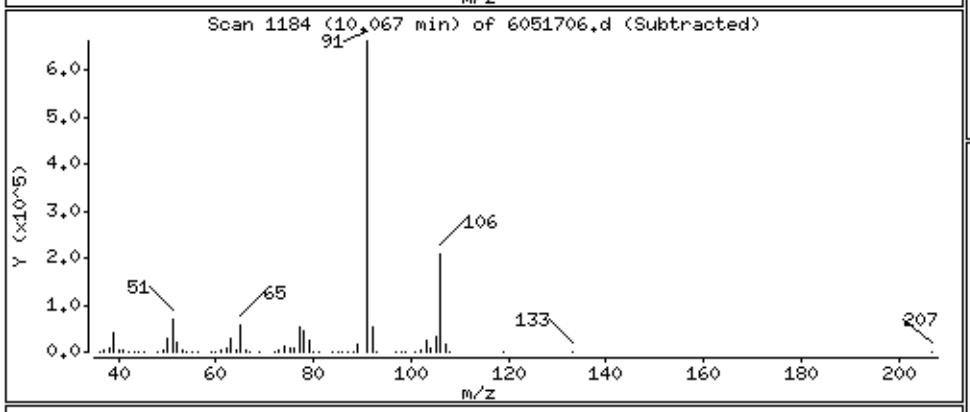
Column phase: RTx-624

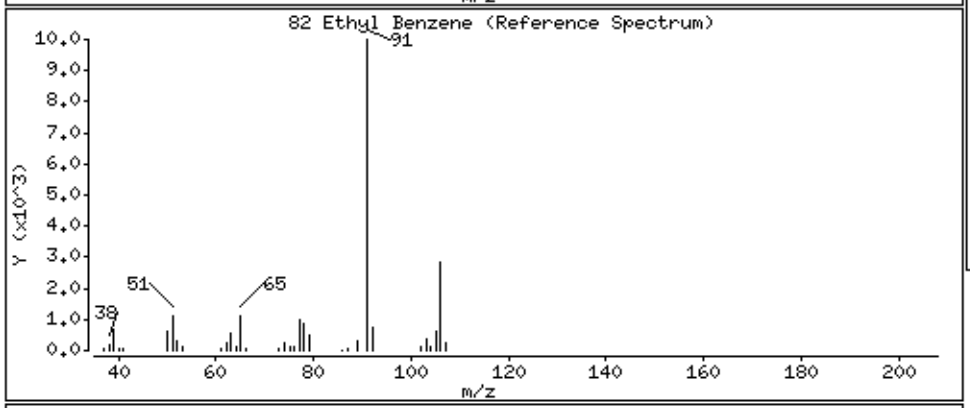
Column diameter: 0.53

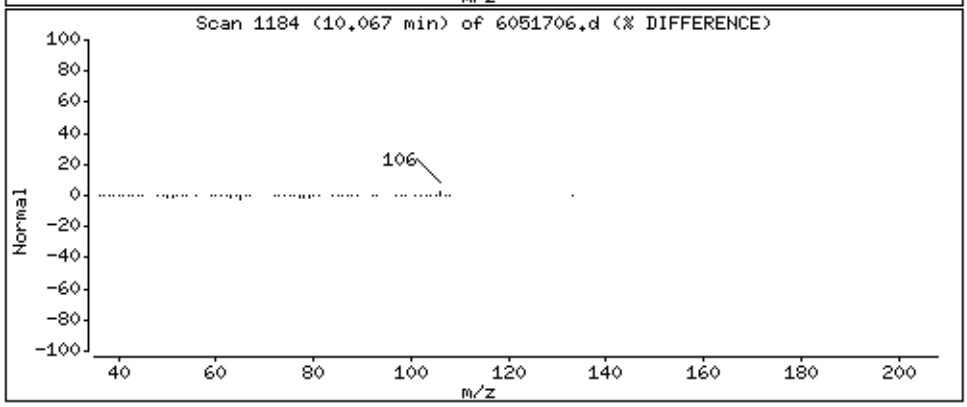
82 Ethyl Benzene

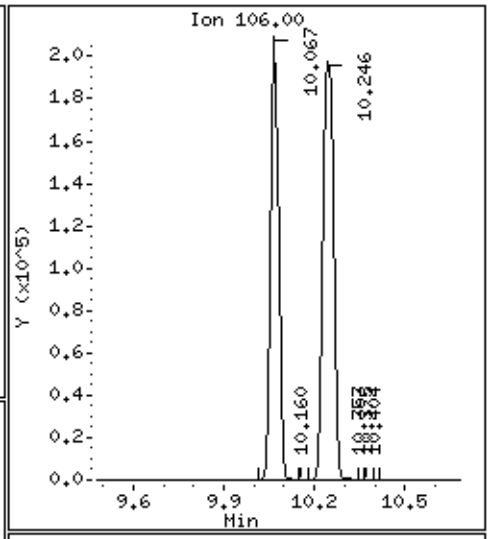
Concentration: 85.143 NG

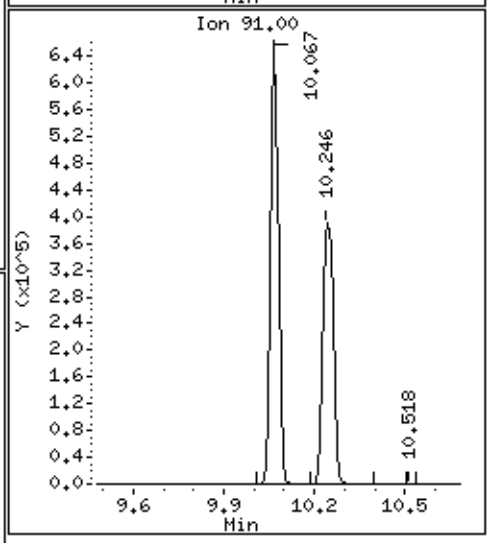












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

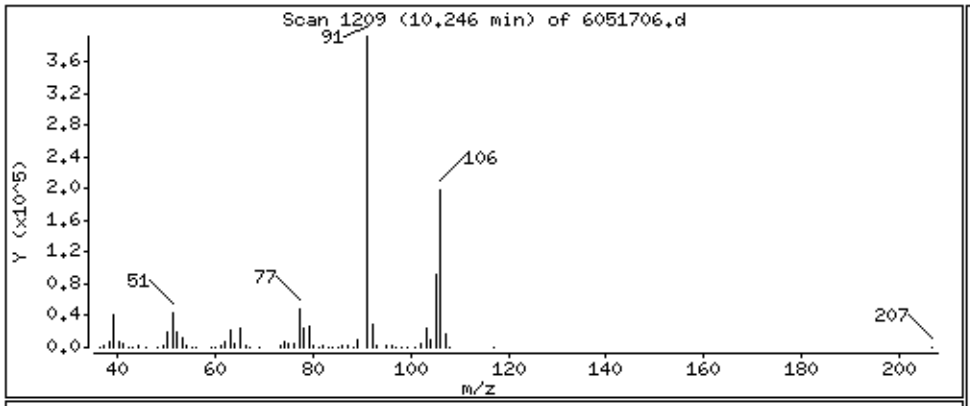
Operator: CT

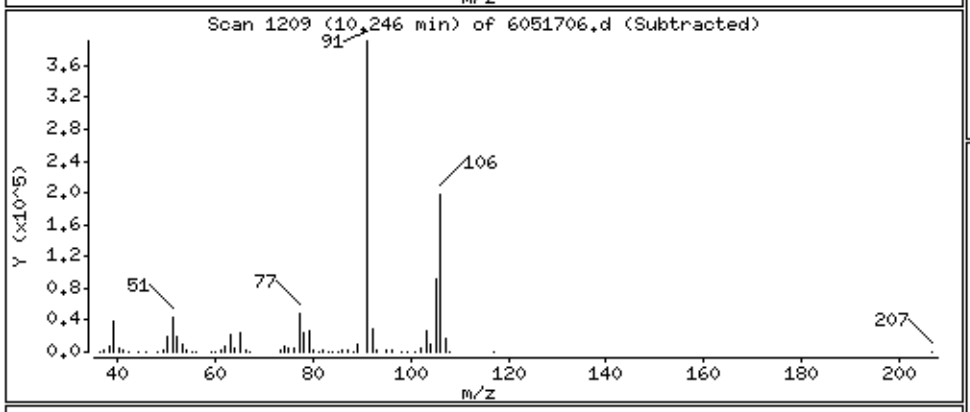
Column phase: RTx-624

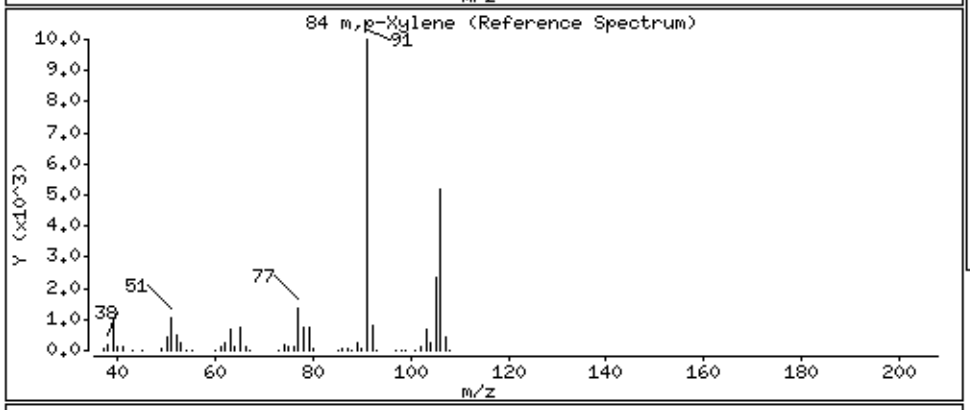
Column diameter: 0.53

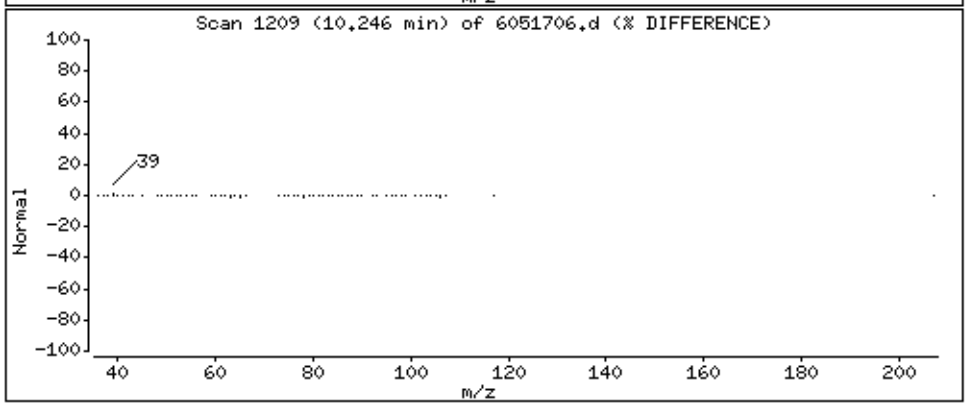
84 m,p-Xylene

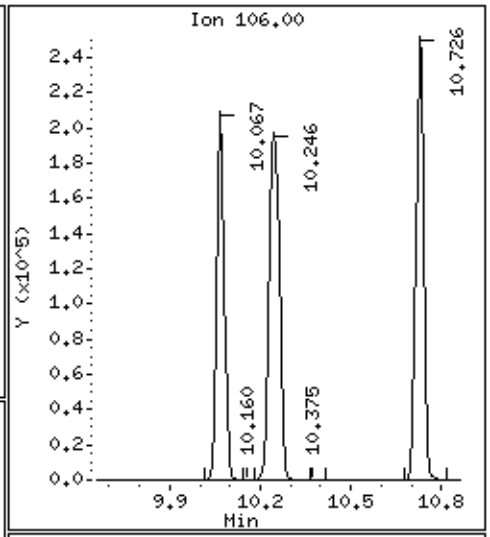
Concentration: 83.377 NG

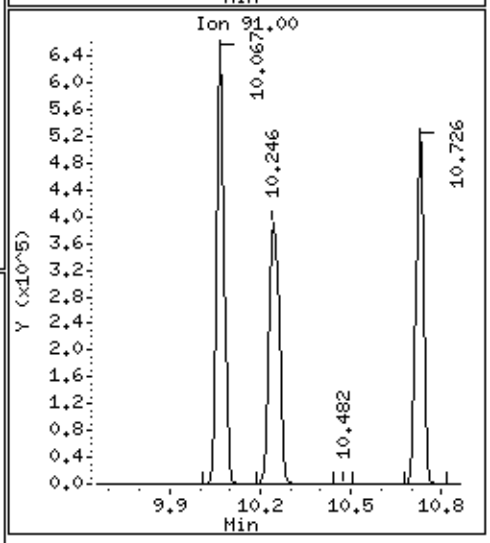












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

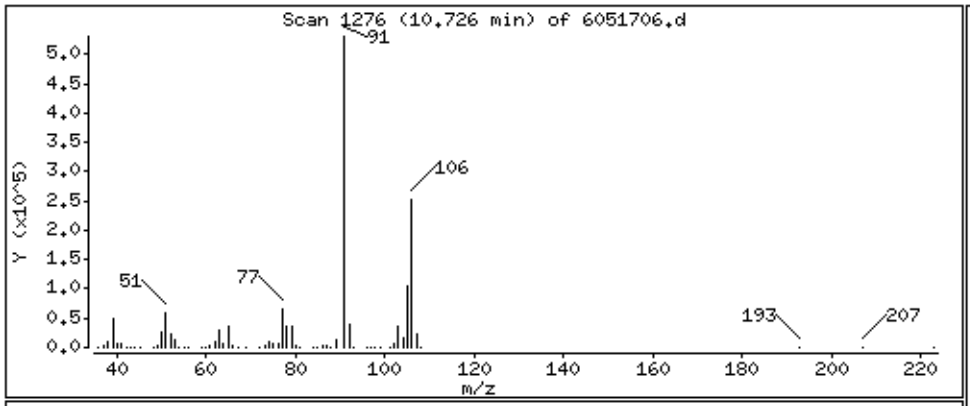
Operator: CT

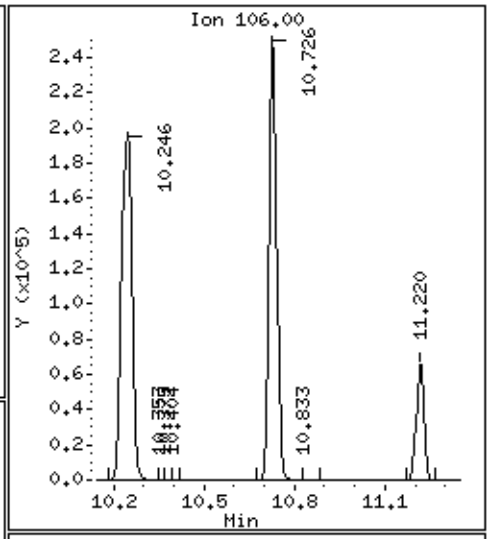
Column phase: RTx-624

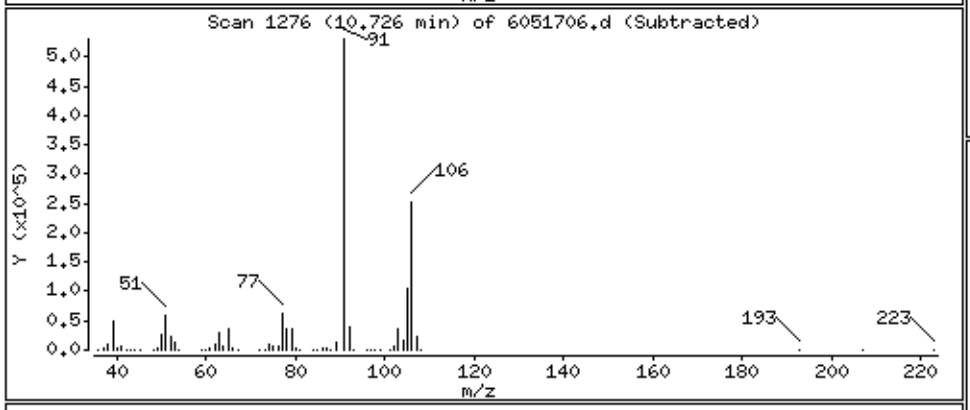
Column diameter: 0.53

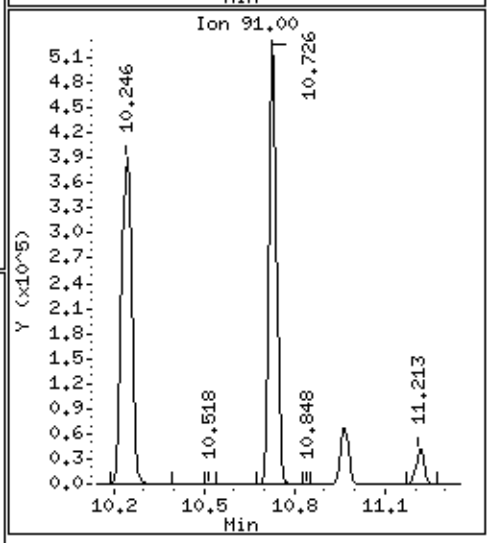
88 o-Xylene

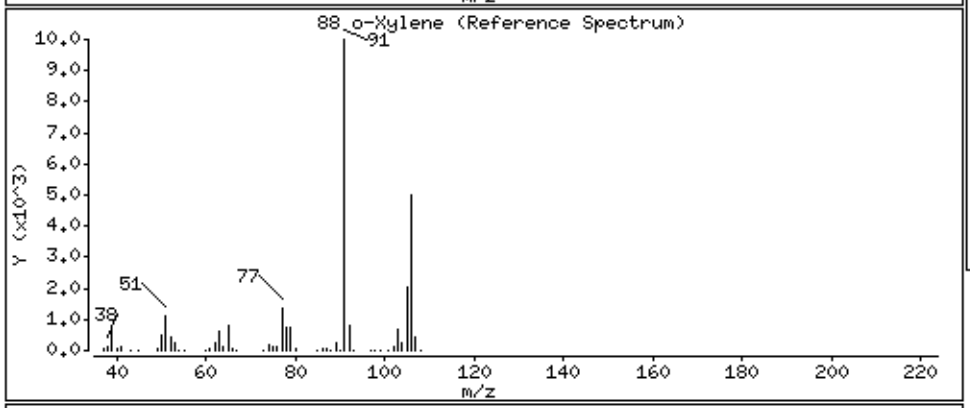
Concentration: 83.387 NG

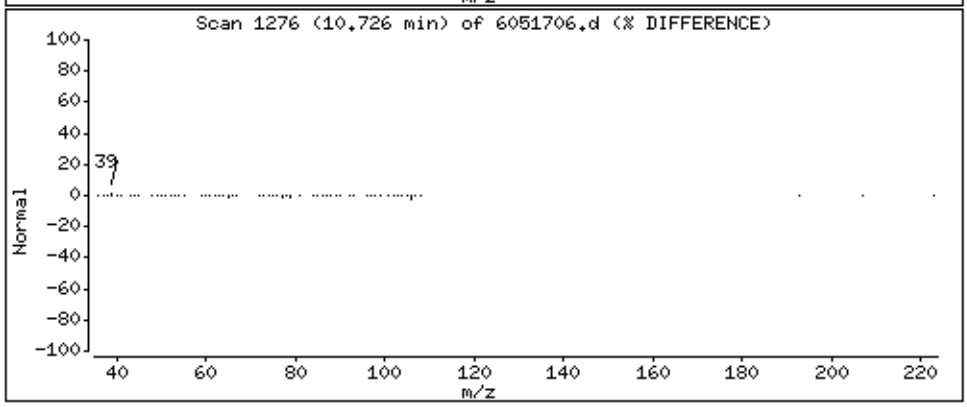












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

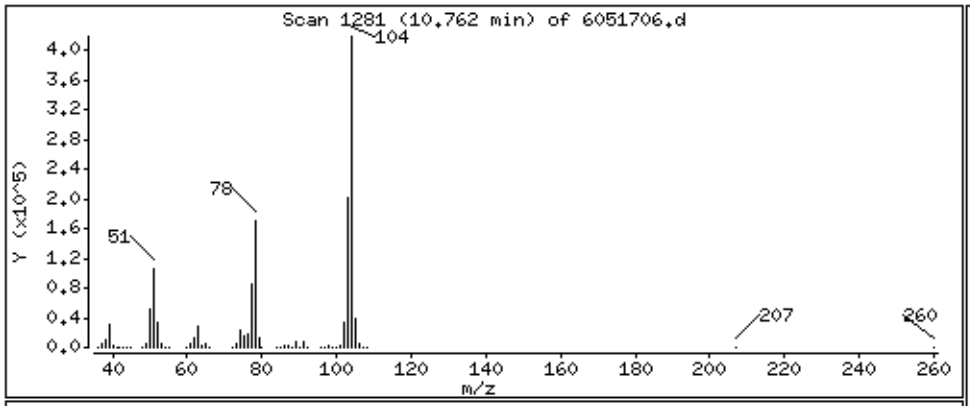
Operator: CT

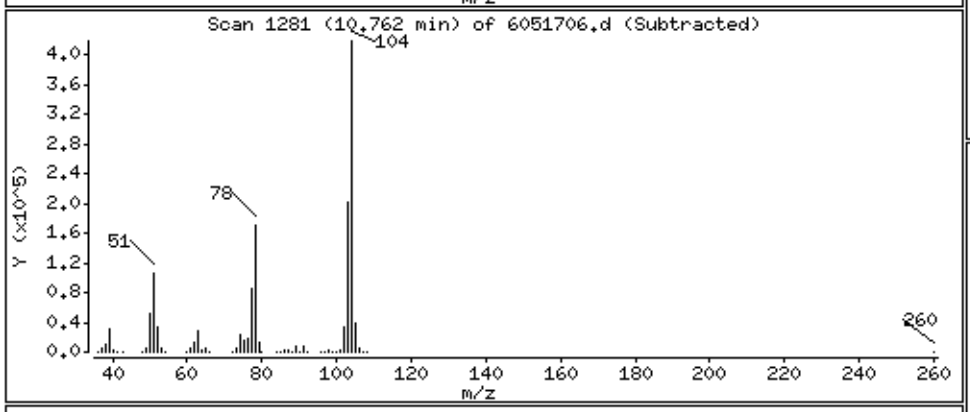
Column phase: RTx-624

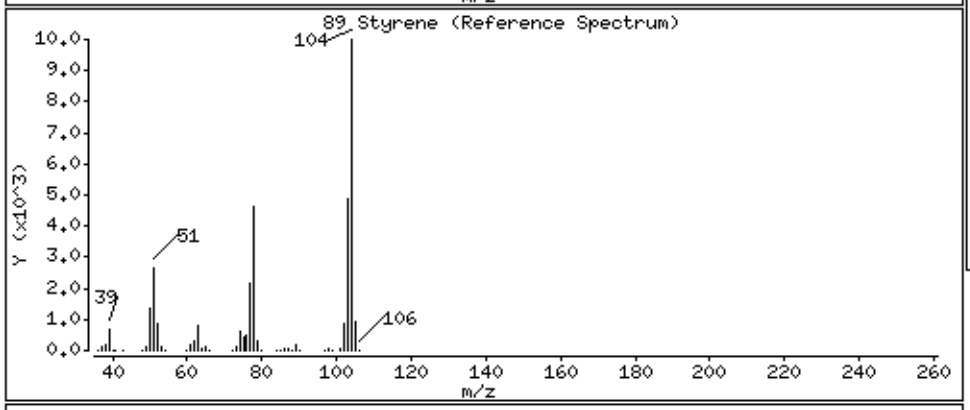
Column diameter: 0.53

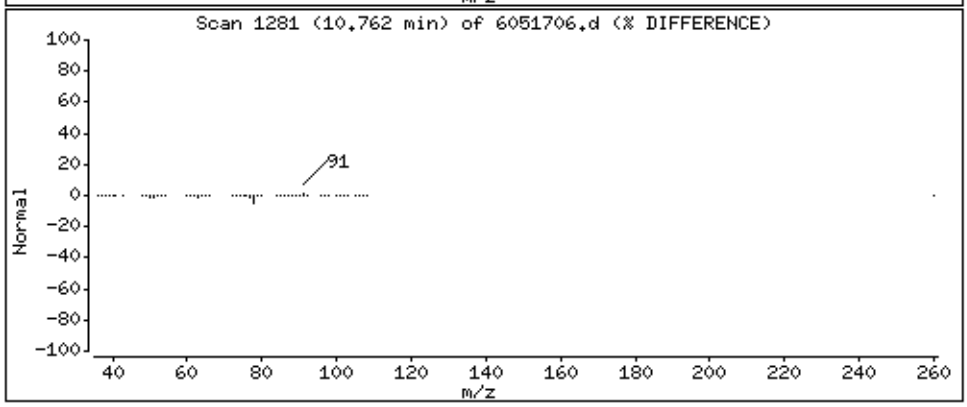
89 Styrene

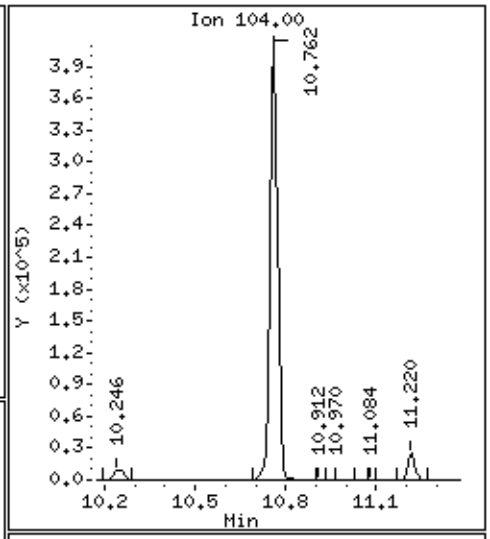
Concentration: 77.596 NG

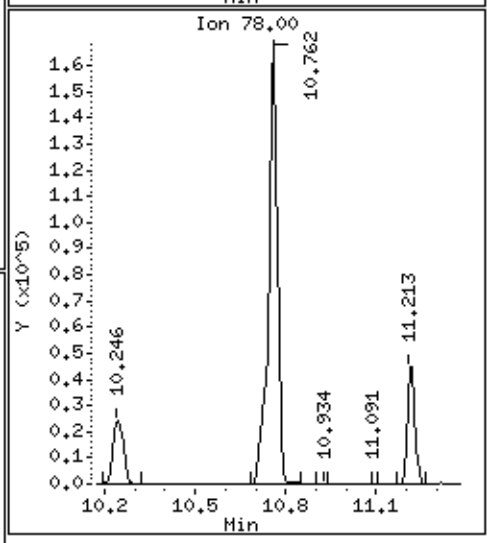












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

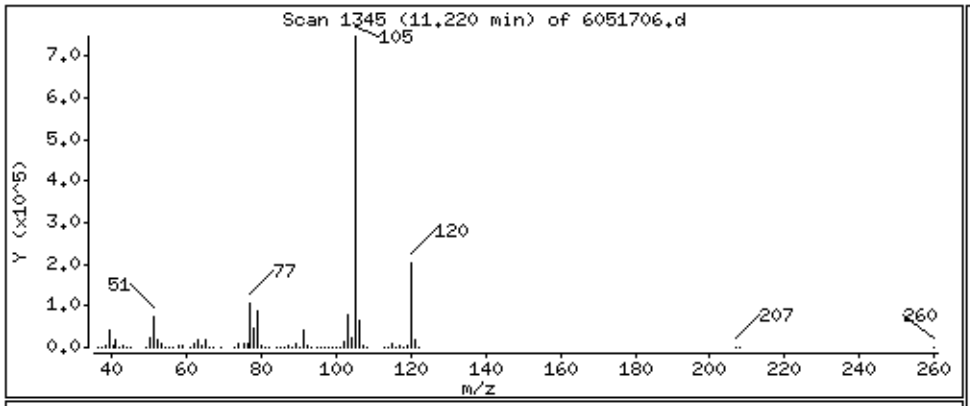
Operator: CT

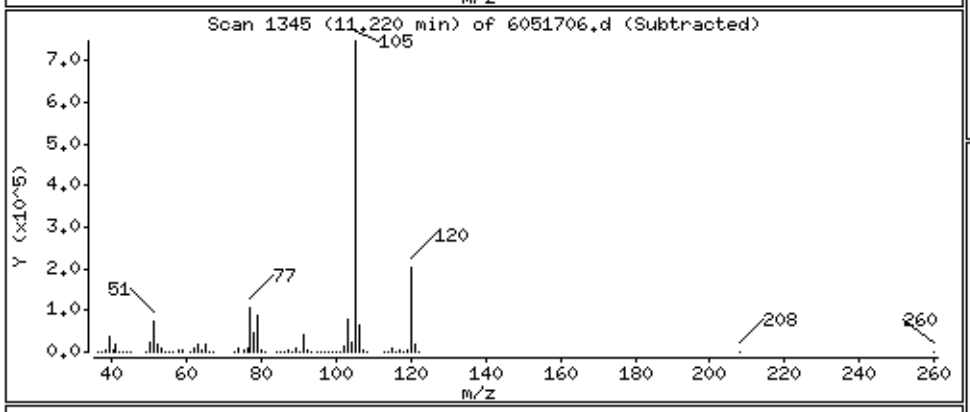
Column phase: RTx-624

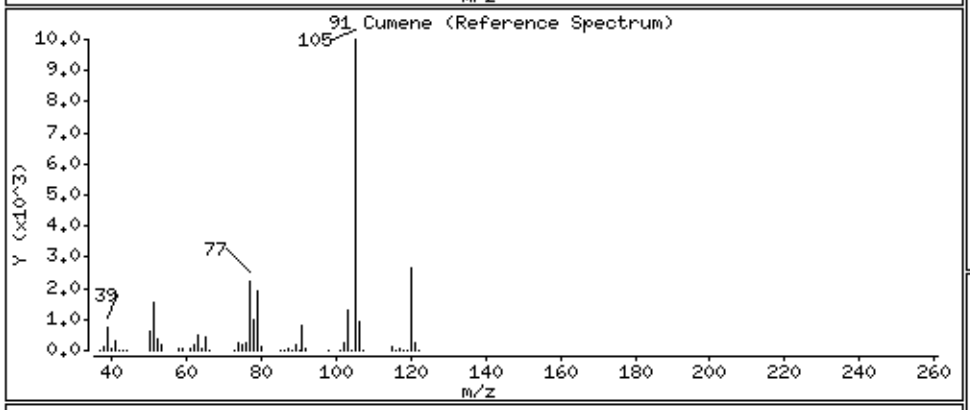
Column diameter: 0.53

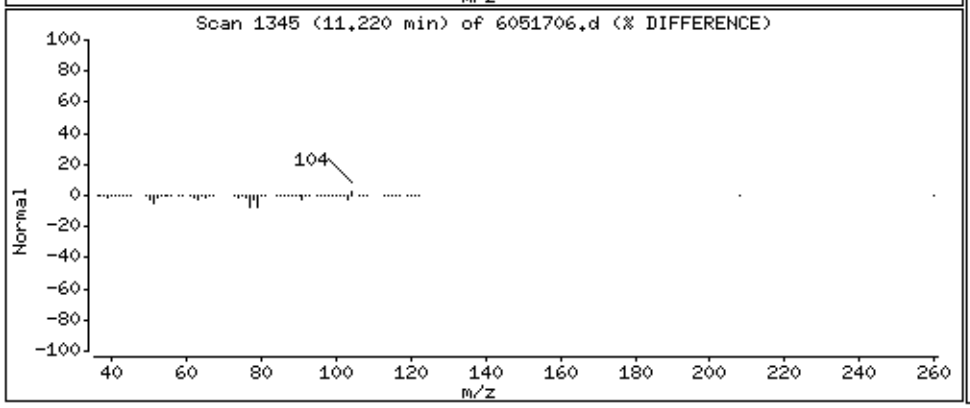
91 Cumene

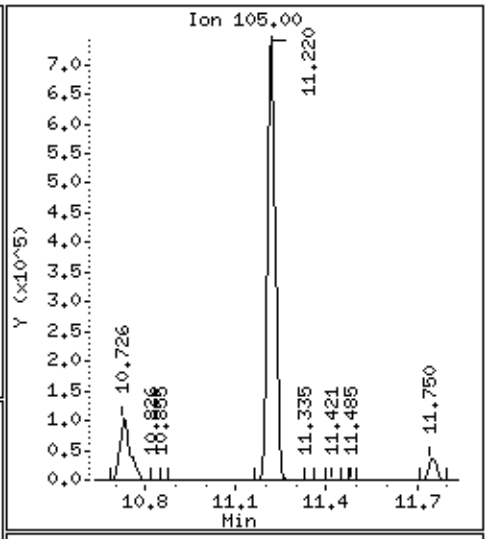
Concentration: 94.639 NG

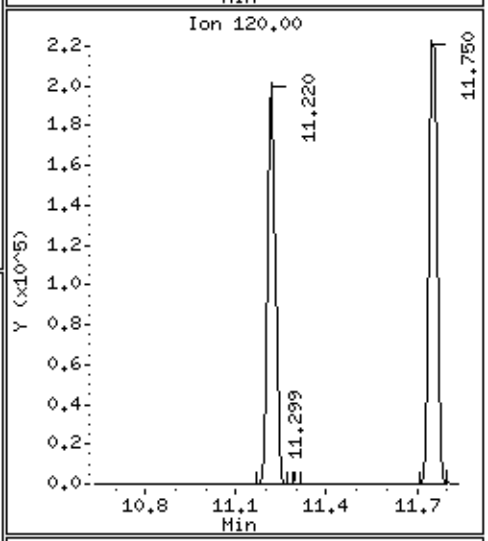


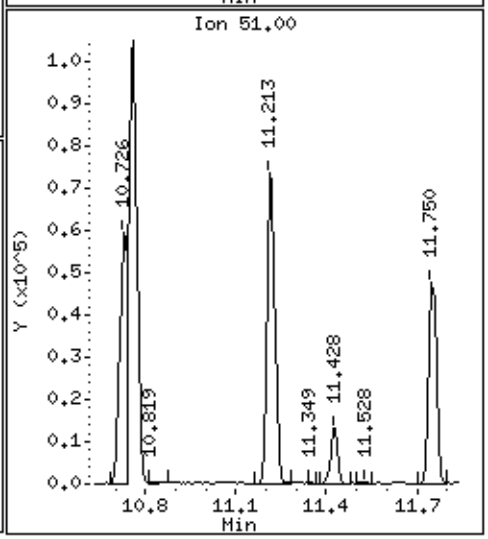












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

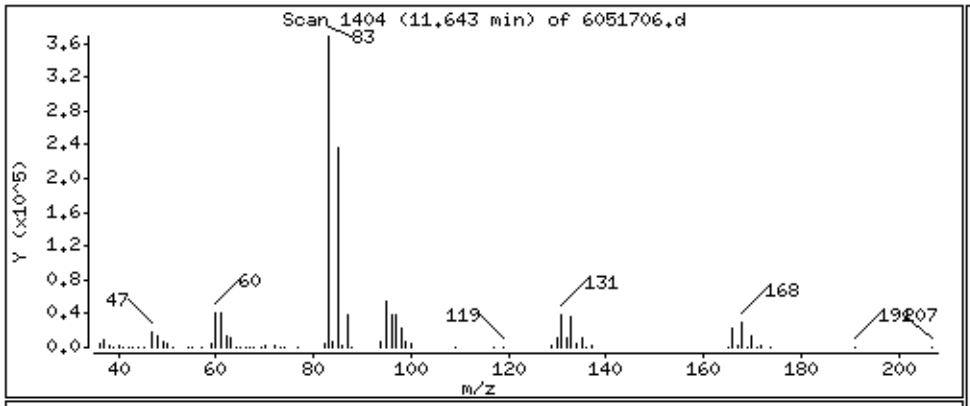
Operator: CT

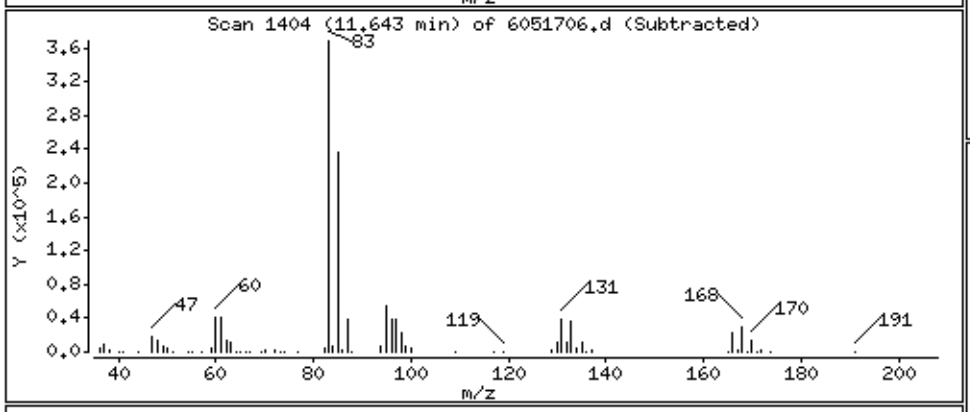
Column phase: RTx-624

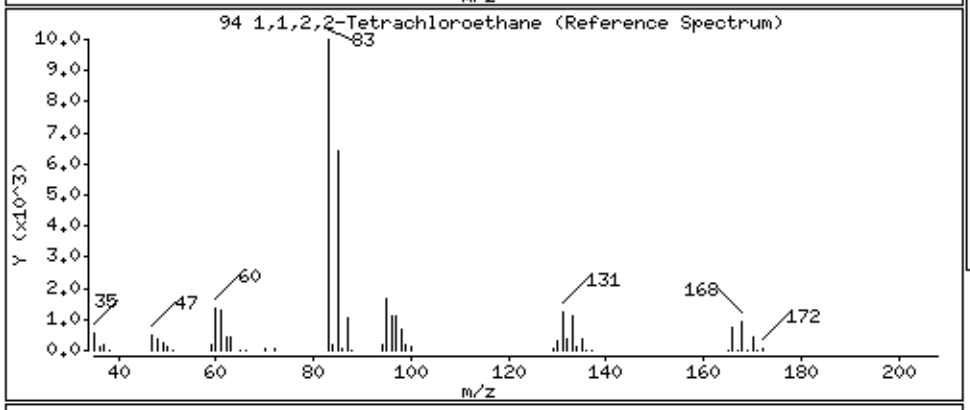
Column diameter: 0.53

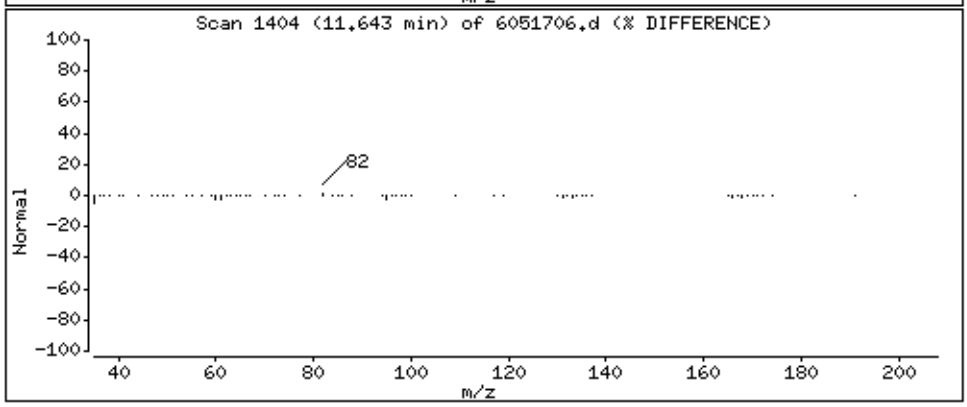
94 1,1,2,2-Tetrachloroethane

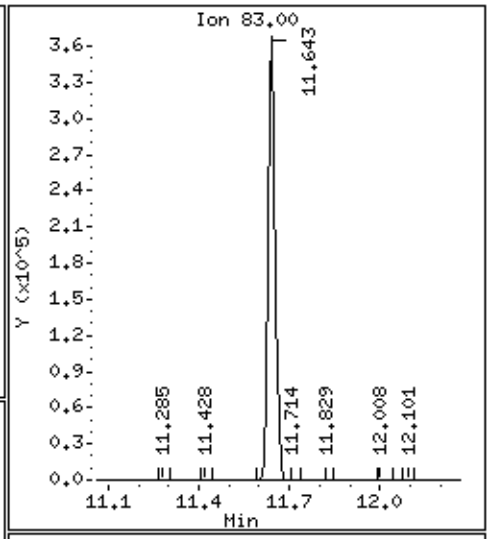
Concentration: 133.47 NG

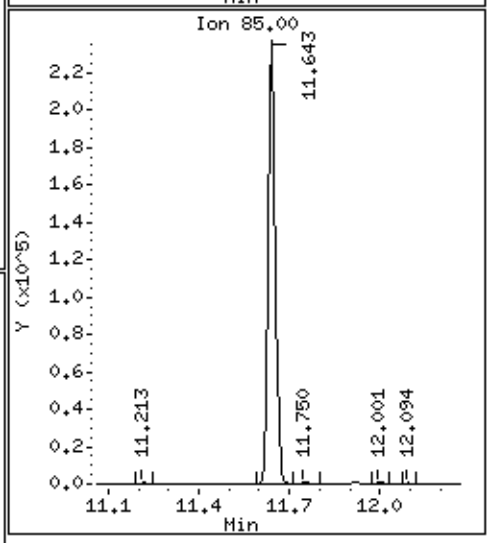












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

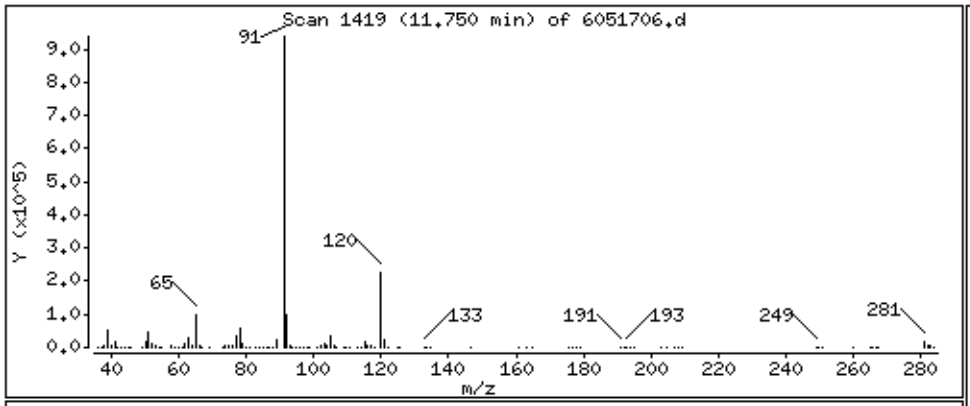
Operator: CT

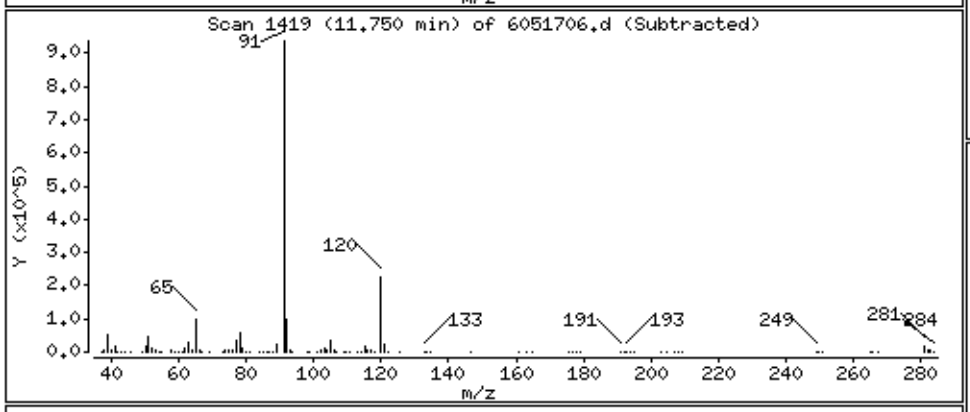
Column phase: RTx-624

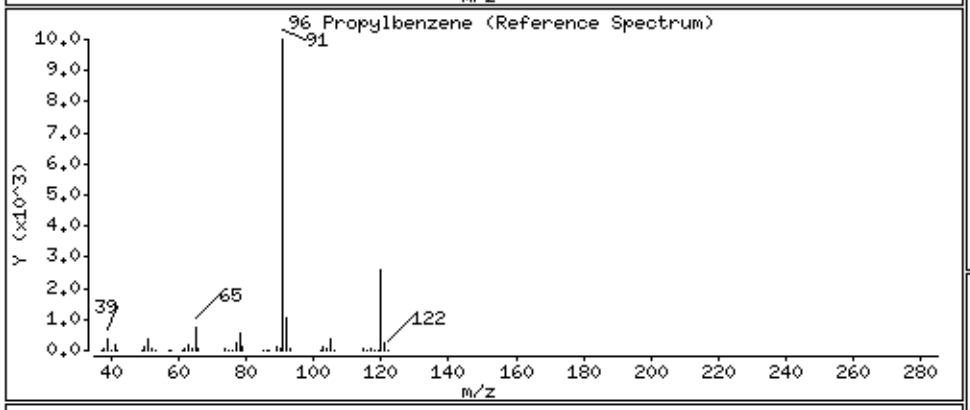
Column diameter: 0.53

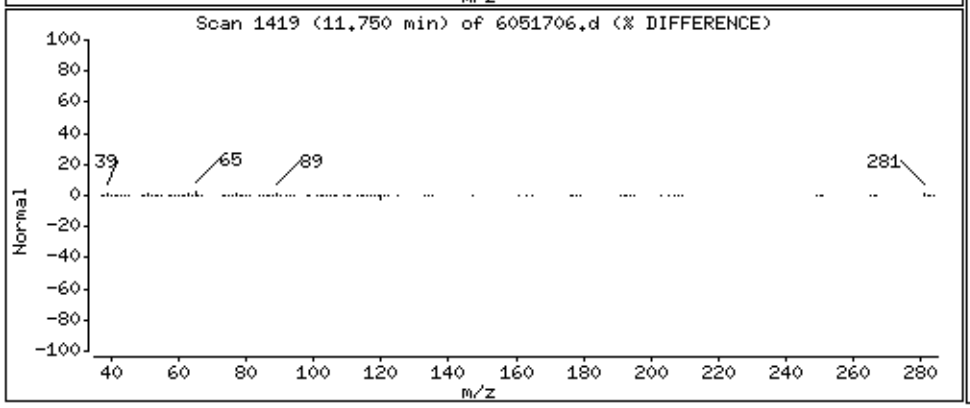
96 Propylbenzene

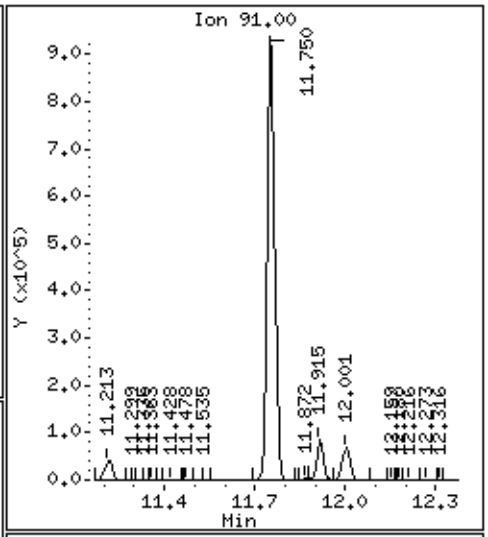
Concentration: 96.470 NG

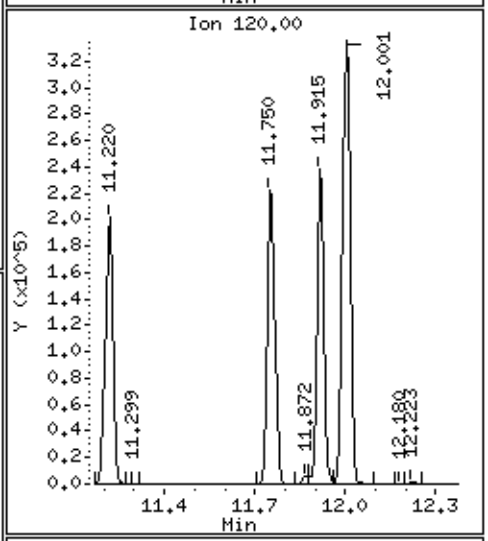


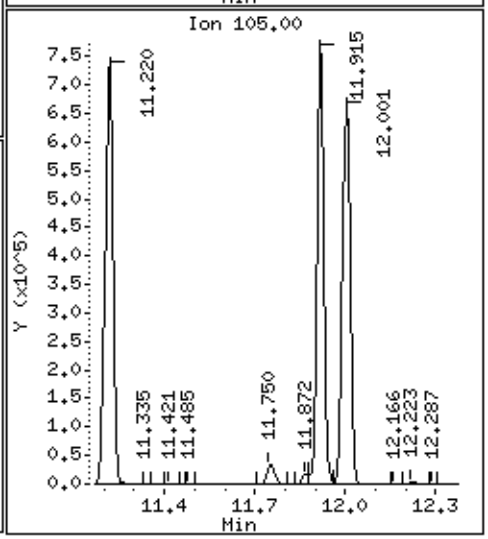












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

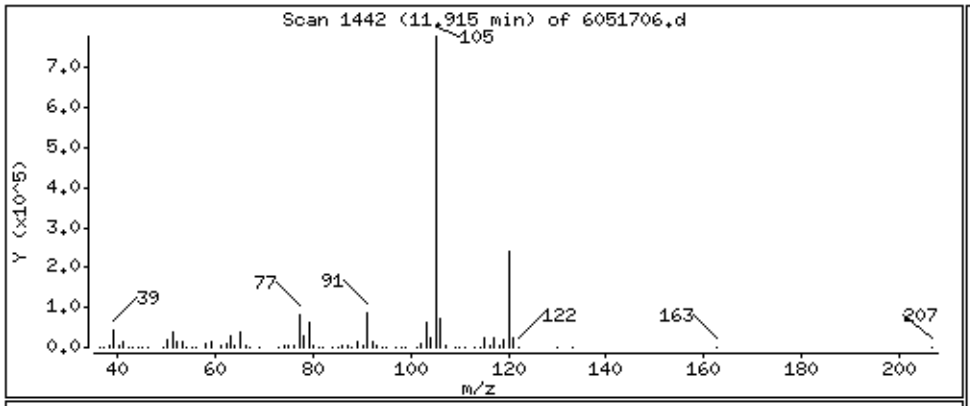
Operator: CT

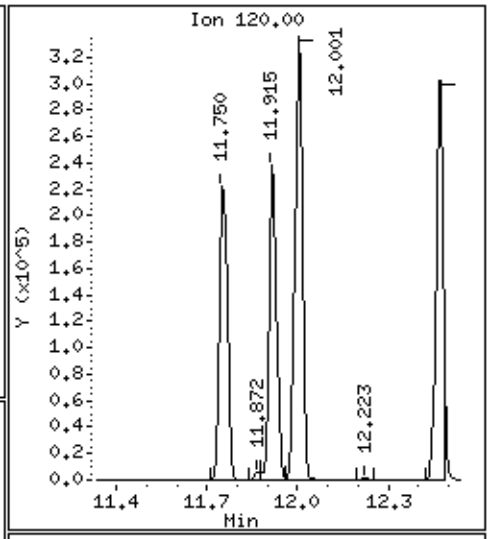
Column phase: RTx-624

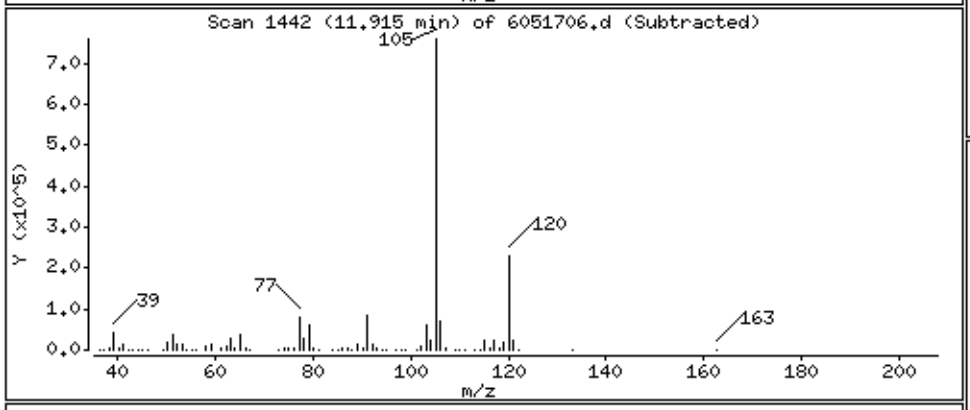
Column diameter: 0.53

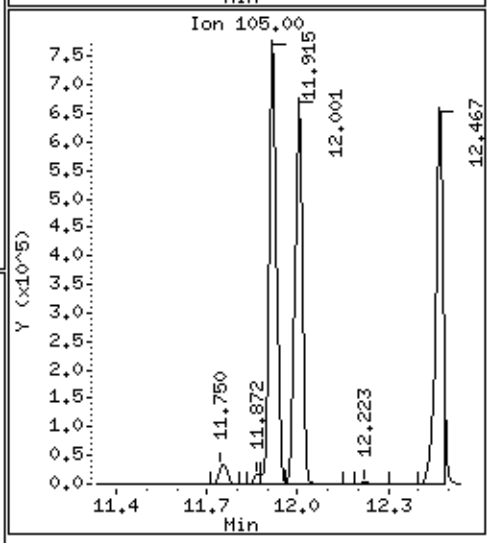
97 4-Ethyltoluene

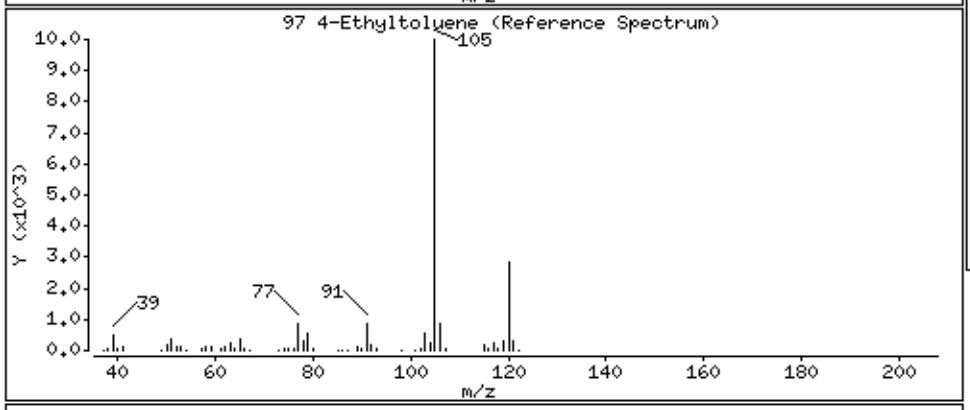
Concentration: 93.505 NG

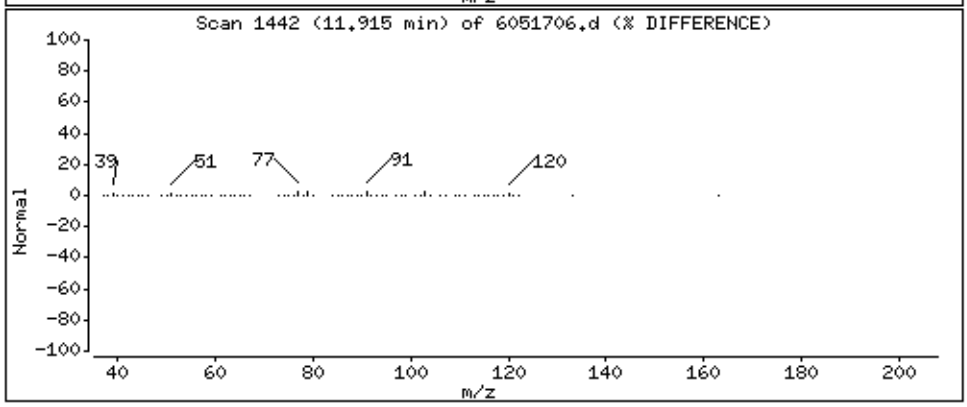












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

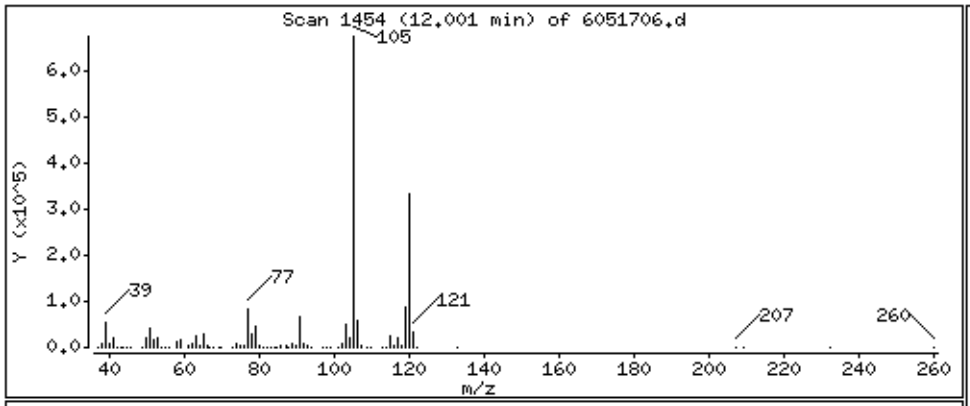
Operator: CT

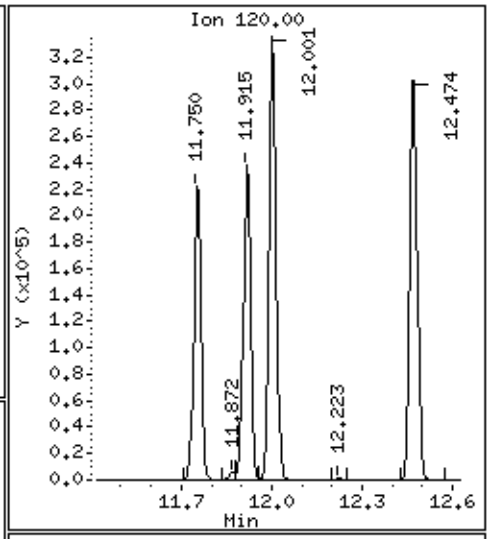
Column phase: RTx-624

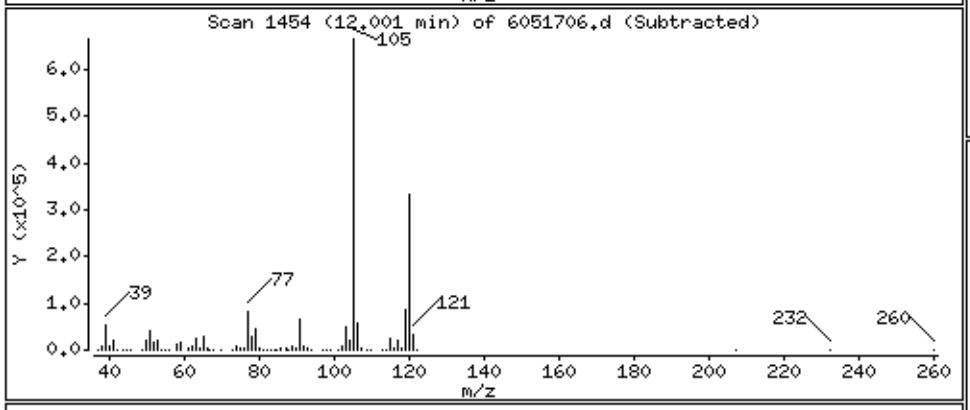
Column diameter: 0.53

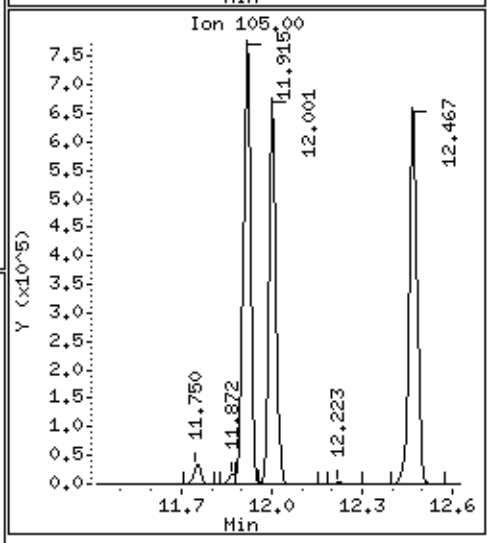
98 1,3,5-Trimethylbenzene

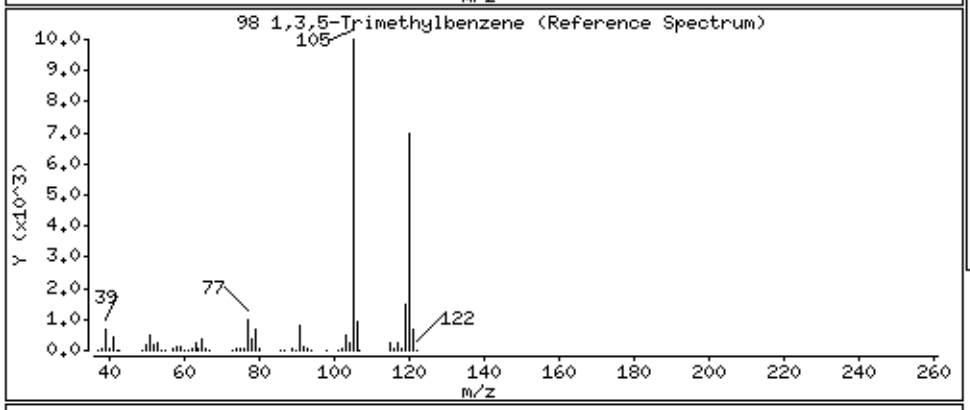
Concentration: 94.783 NG

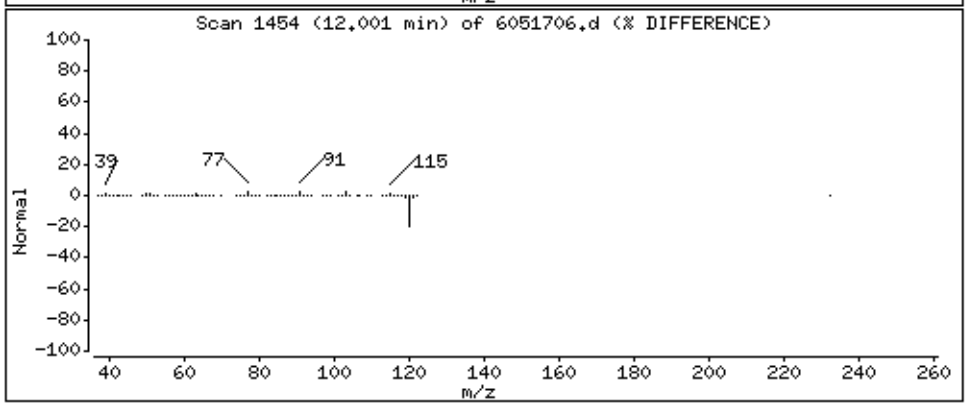












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

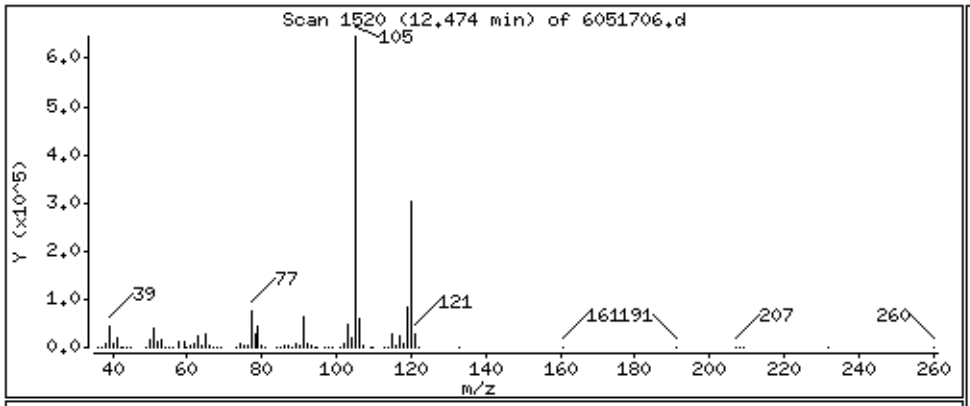
Operator: CT

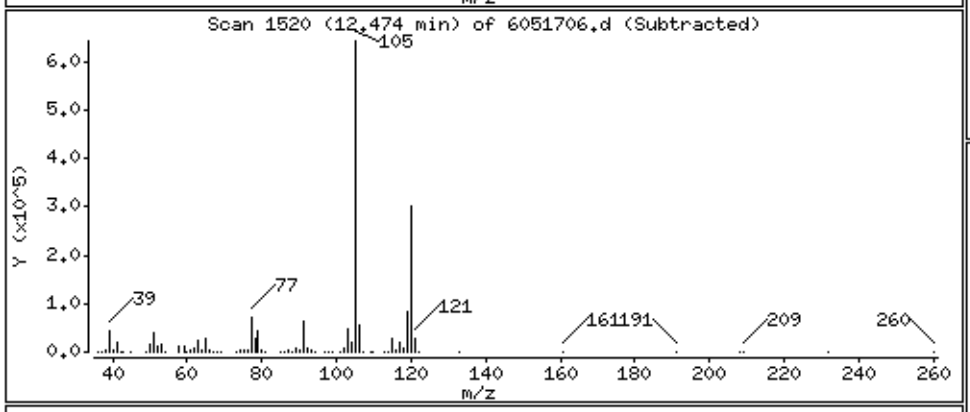
Column phase: RTx-624

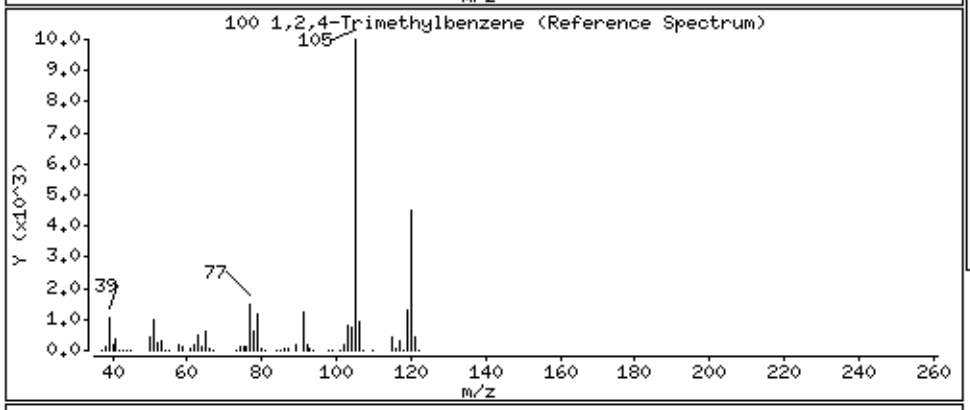
Column diameter: 0.53

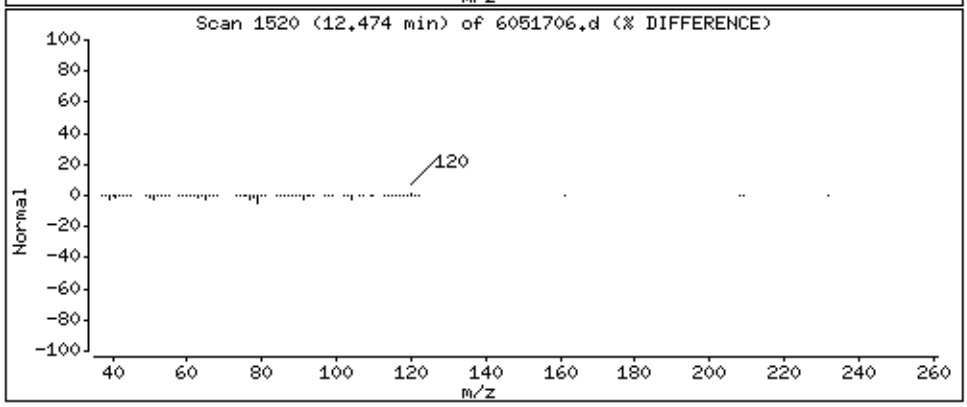
100 1,2,4-Trimethylbenzene

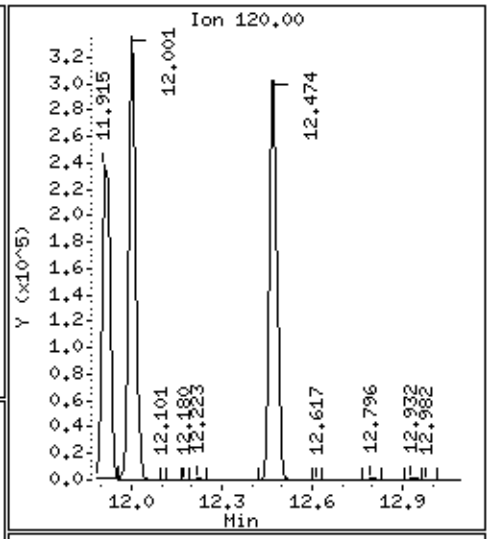
Concentration: 94.571 NG

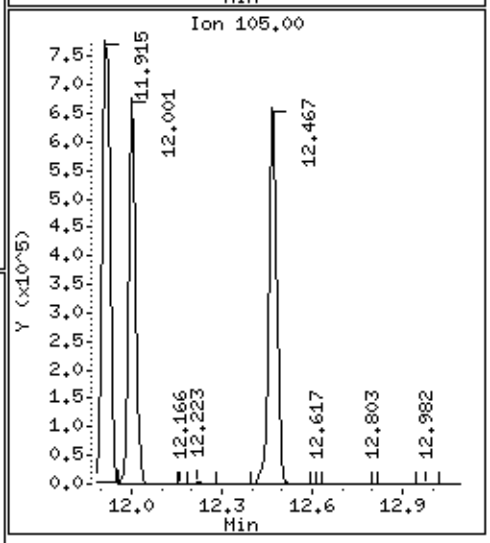












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

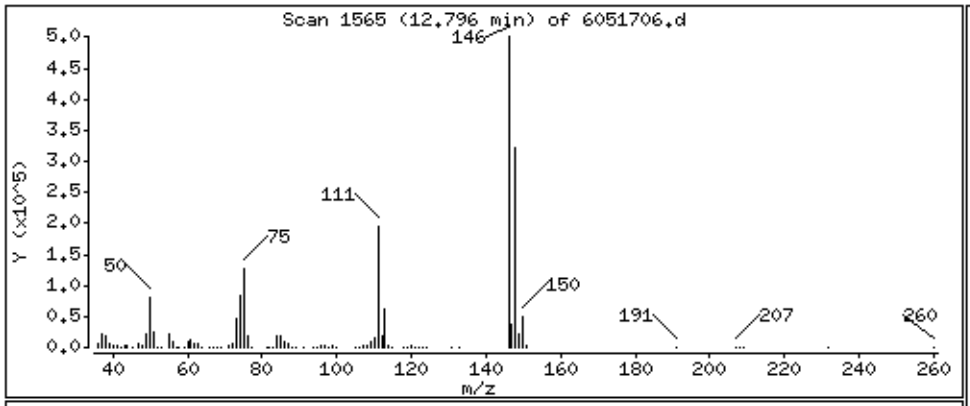
Operator: CT

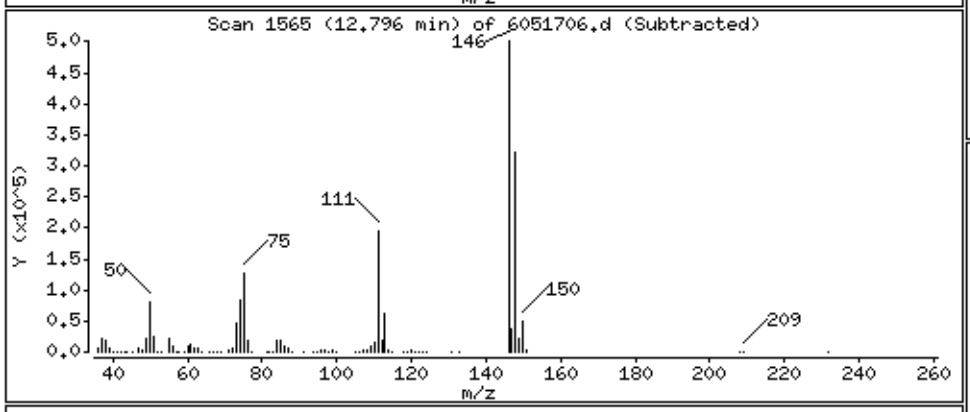
Column phase: RTx-624

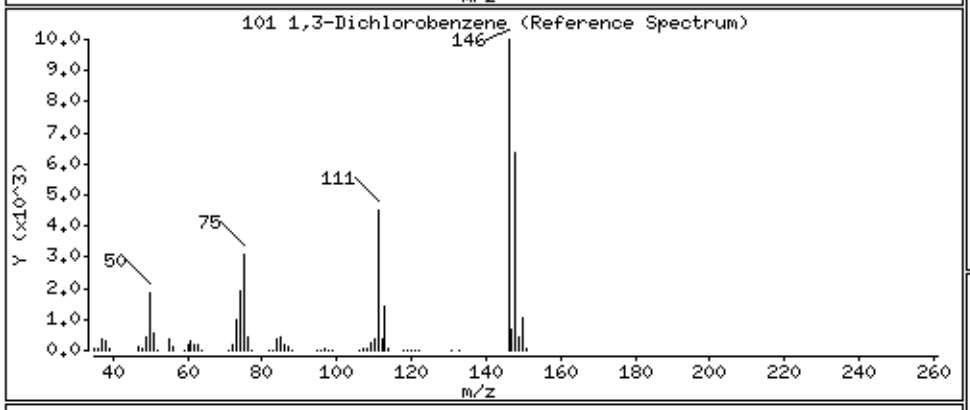
Column diameter: 0.53

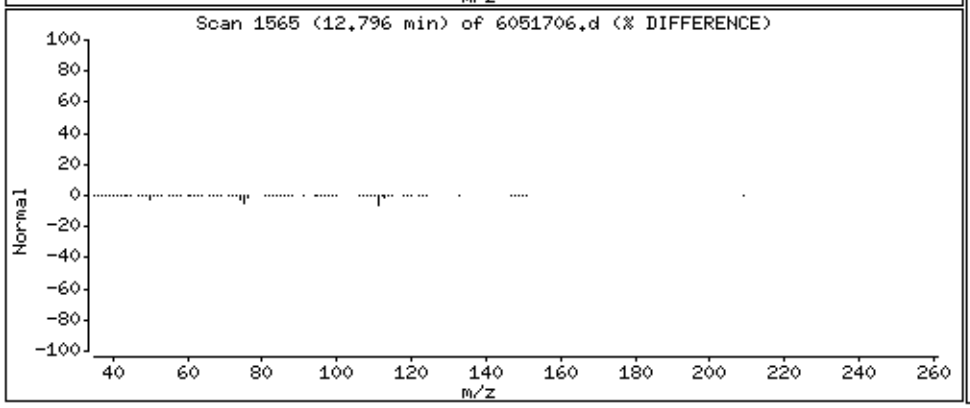
101 1,3-Dichlorobenzene

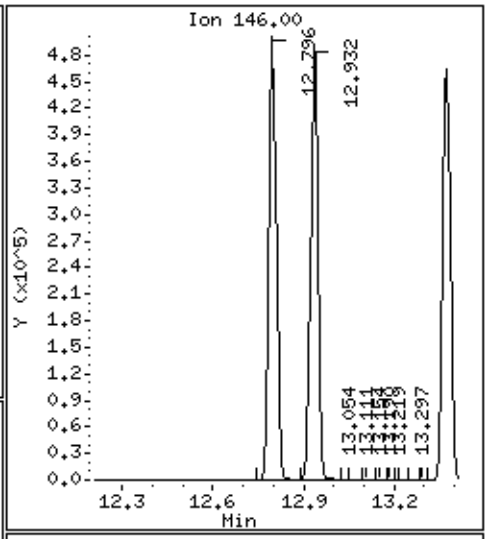
Concentration: 119.17 NG

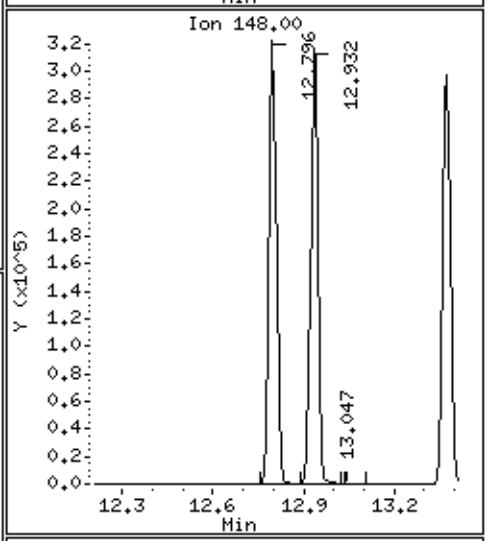


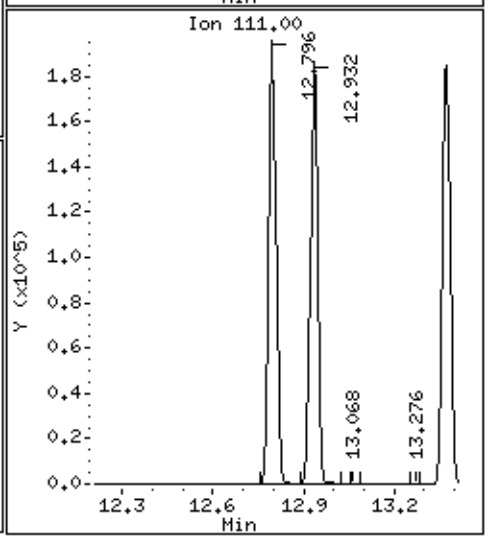












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

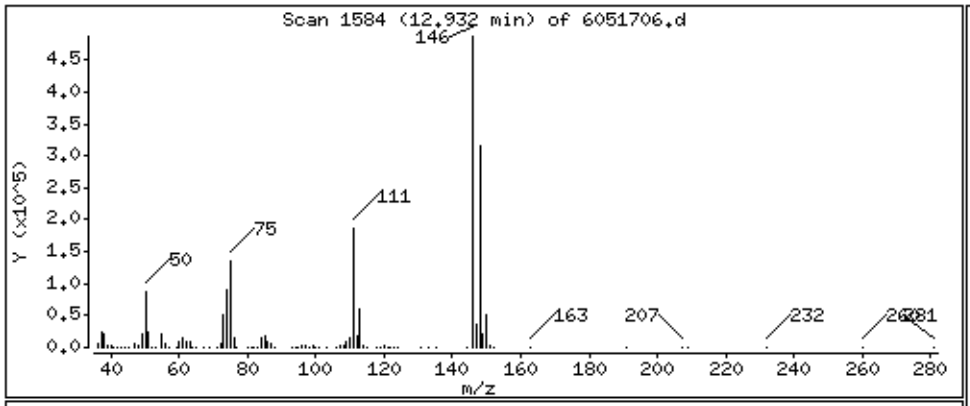
Operator: CT

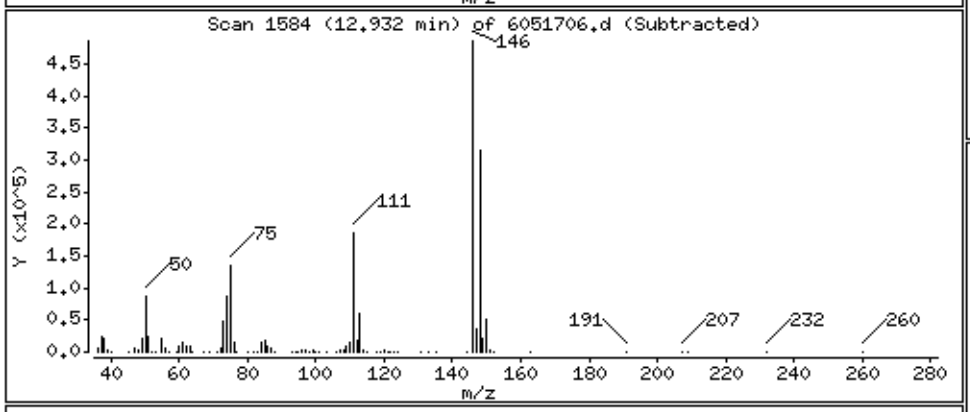
Column phase: RTx-624

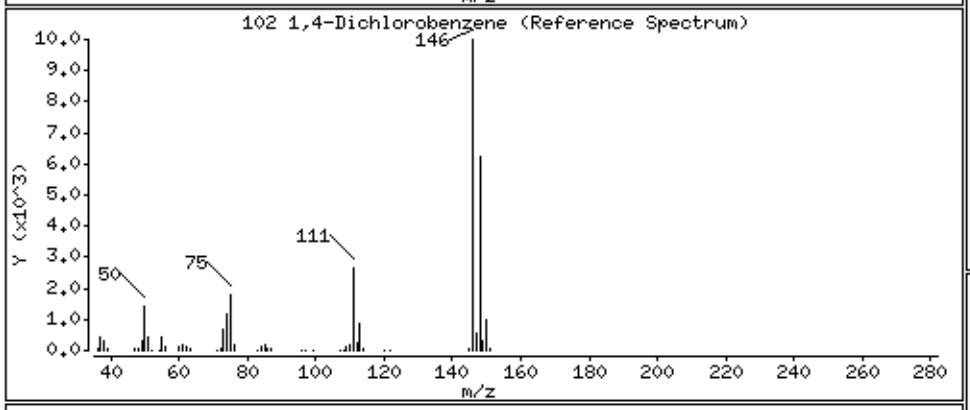
Column diameter: 0.53

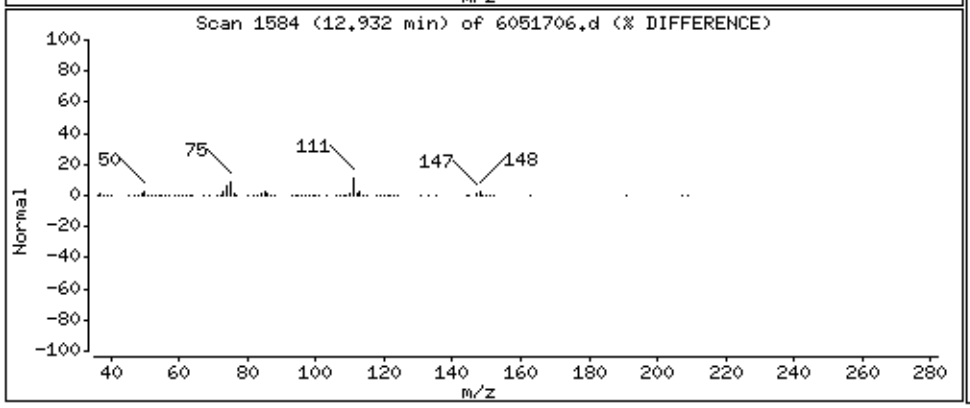
102 1,4-Dichlorobenzene

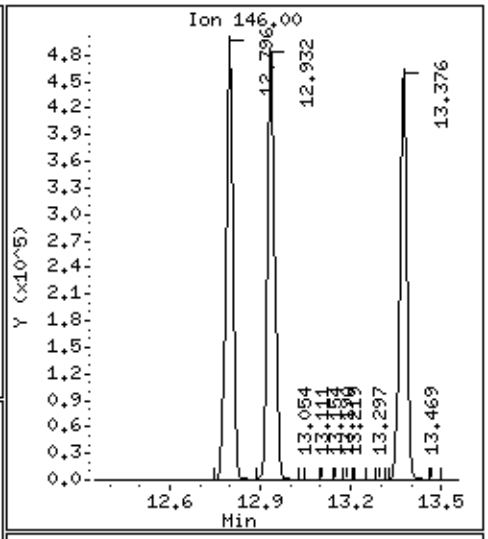
Concentration: 118.47 NG

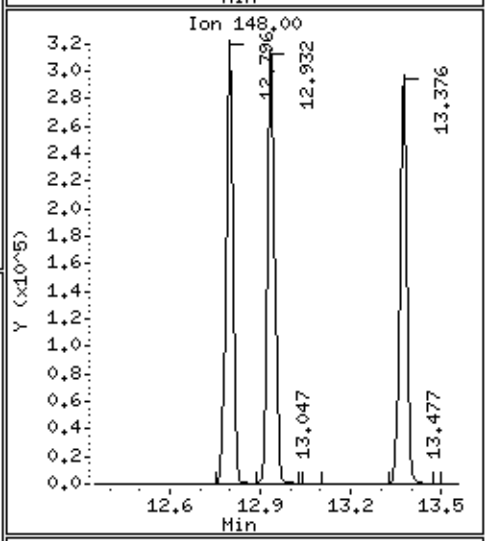


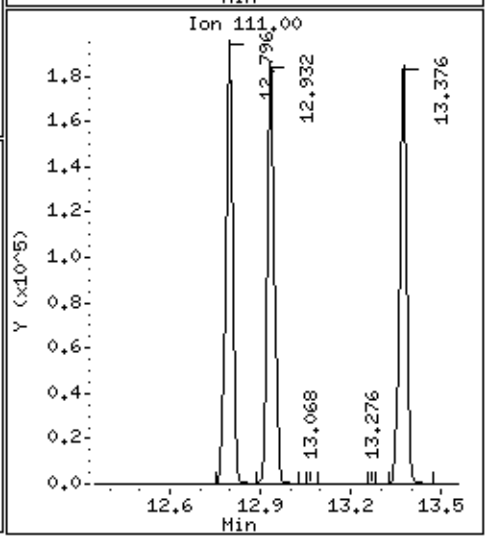












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

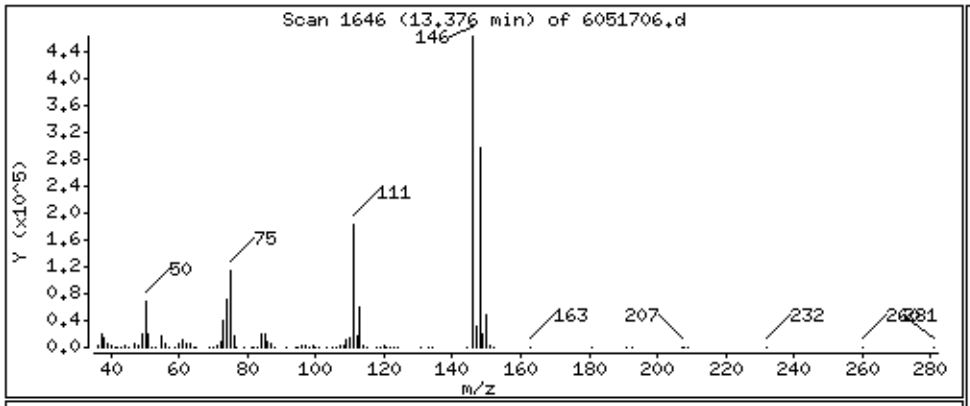
Operator: CT

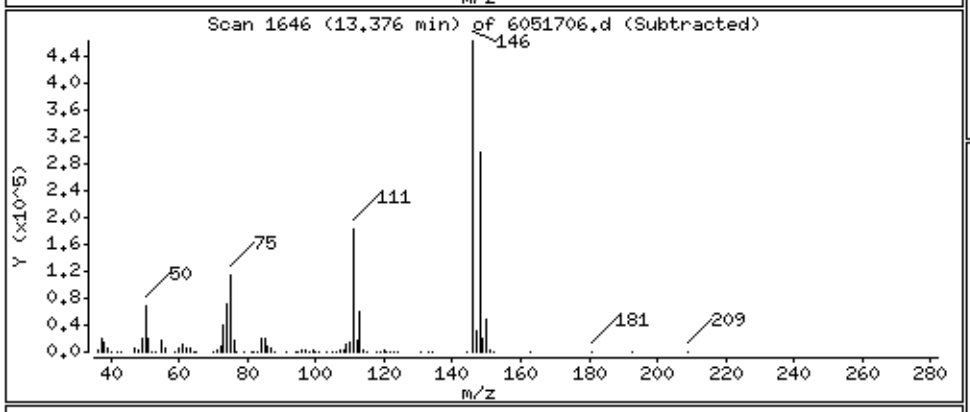
Column phase: RTx-624

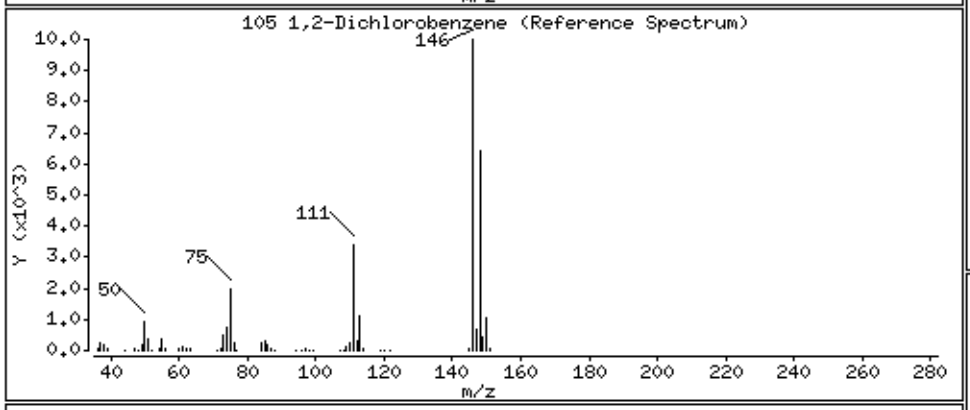
Column diameter: 0.53

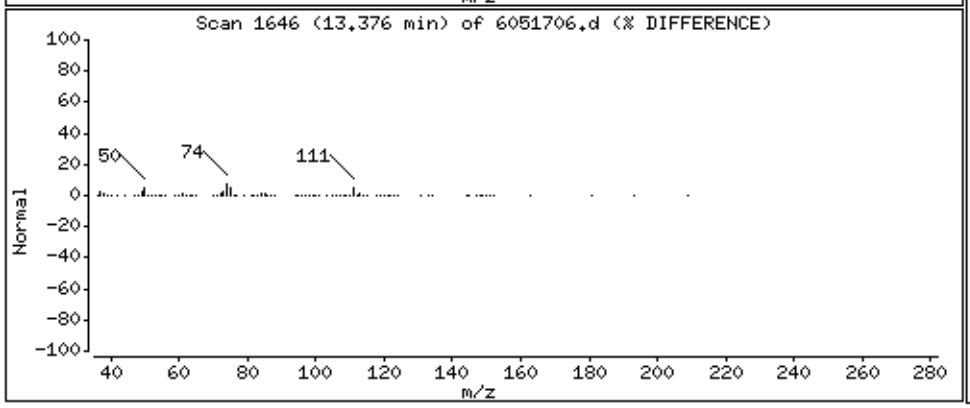
105 1,2-Dichlorobenzene

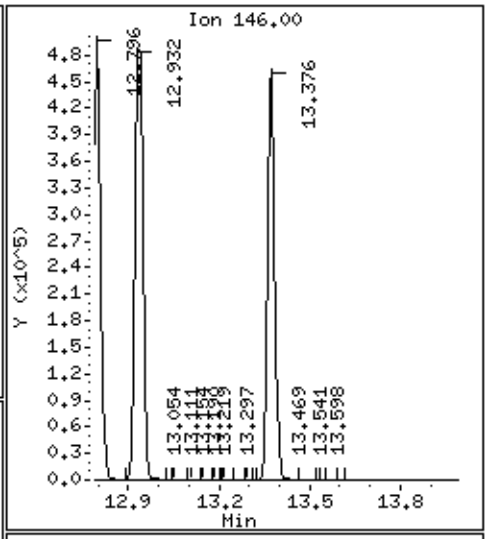
Concentration: 120.43 NG

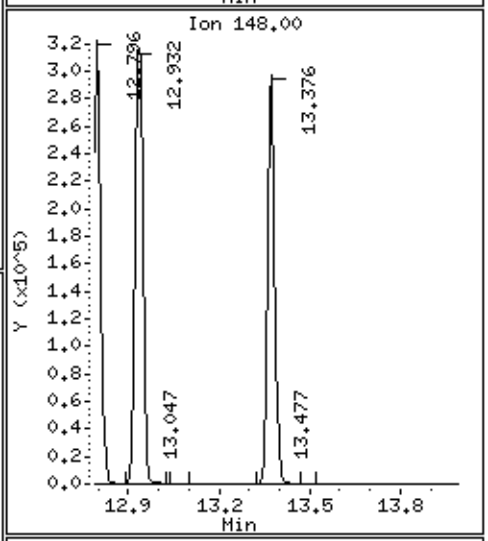


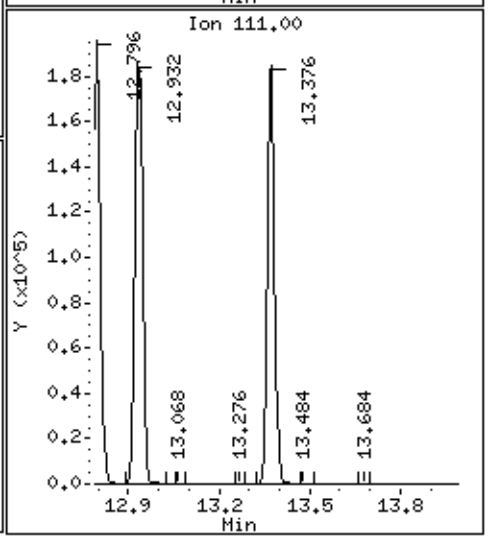












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

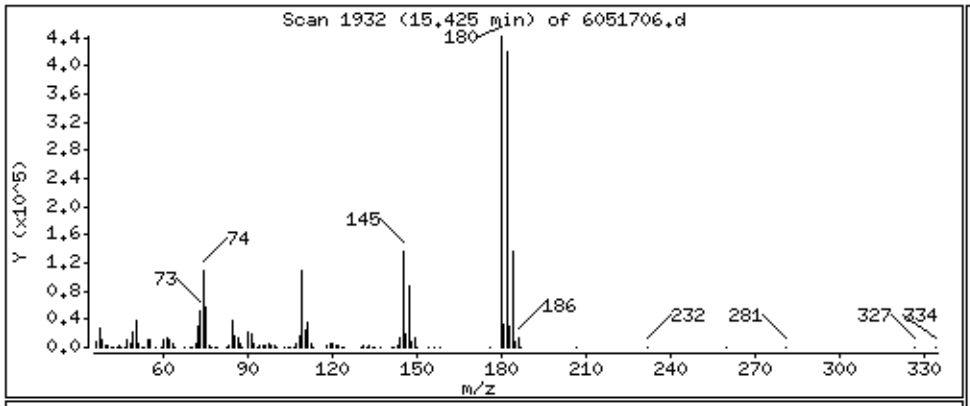
Operator: CT

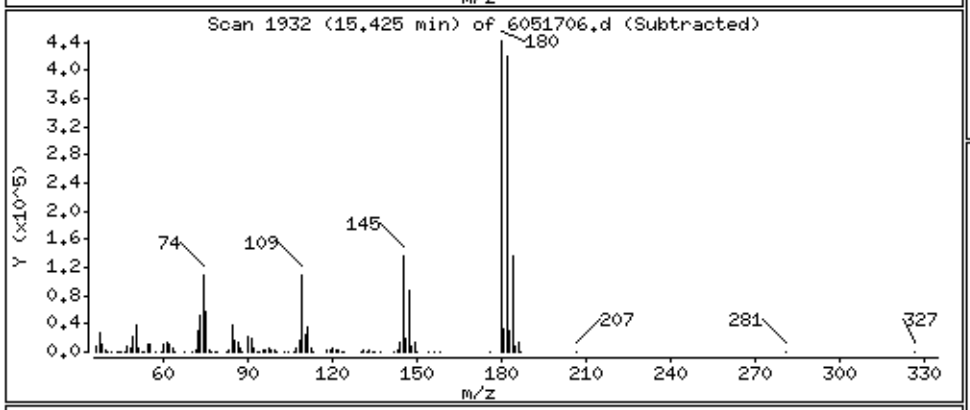
Column phase: RTx-624

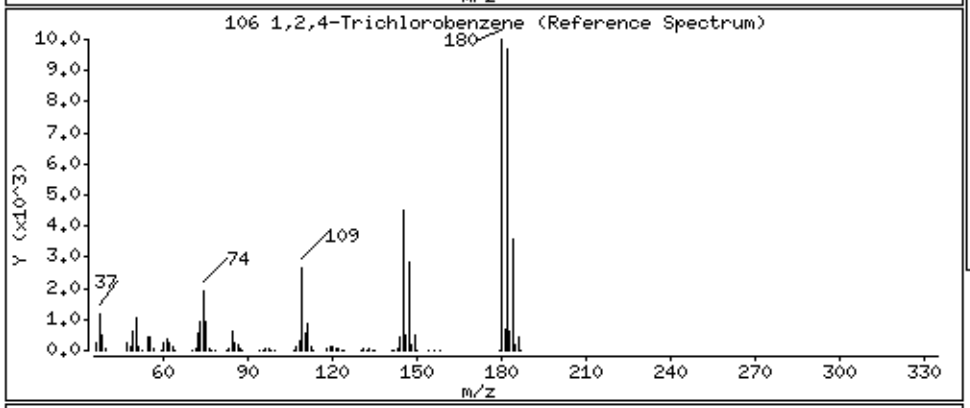
Column diameter: 0.53

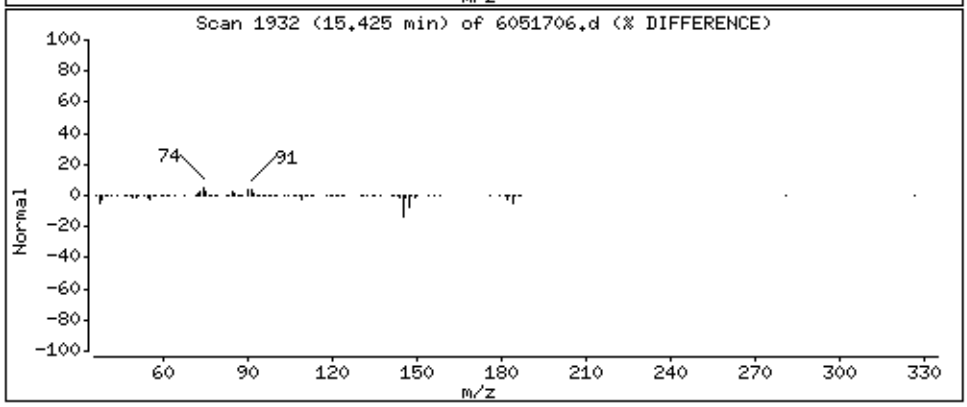
106 1,2,4-Trichlorobenzene

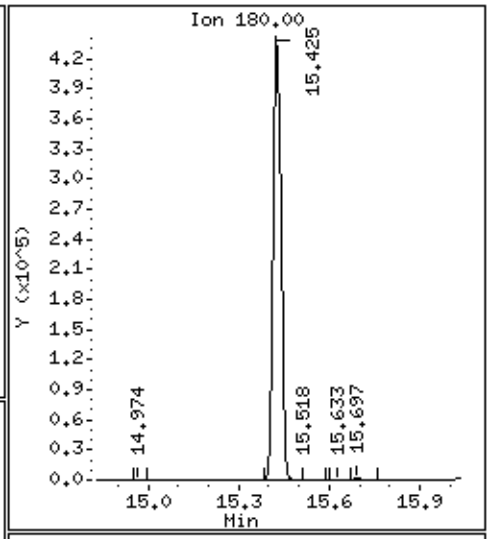
Concentration: 167.23 NG

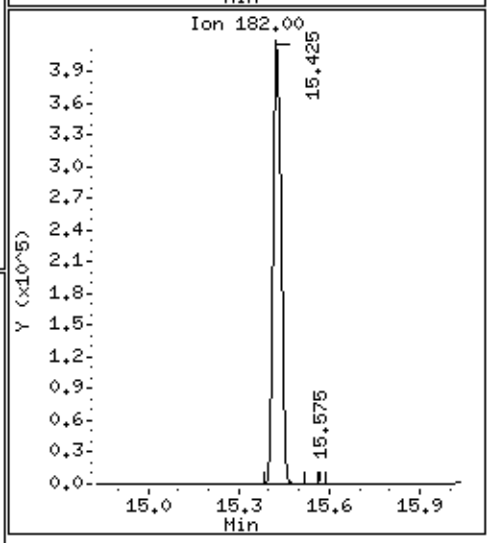












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

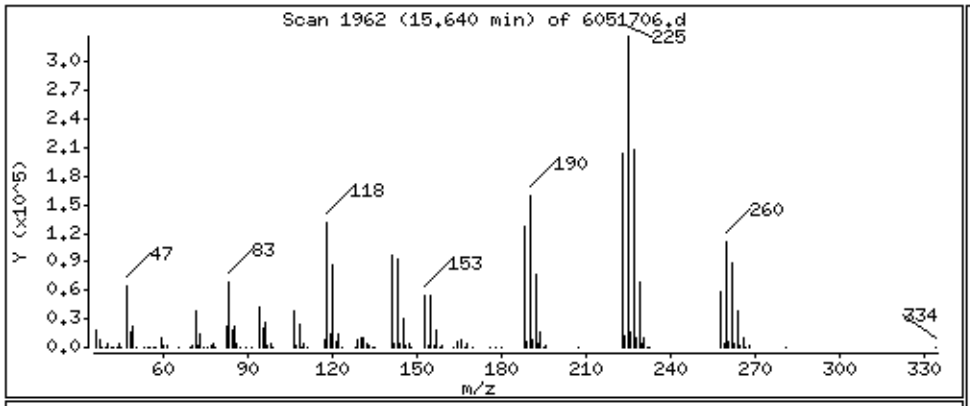
Operator: CT

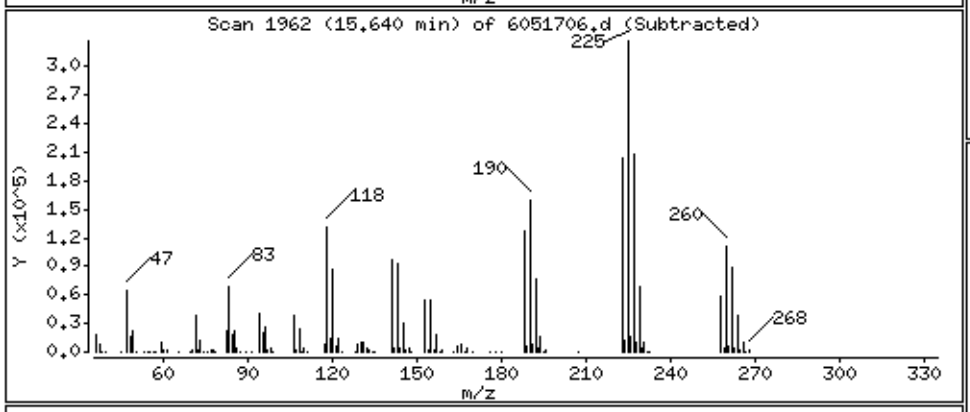
Column phase: RTx-624

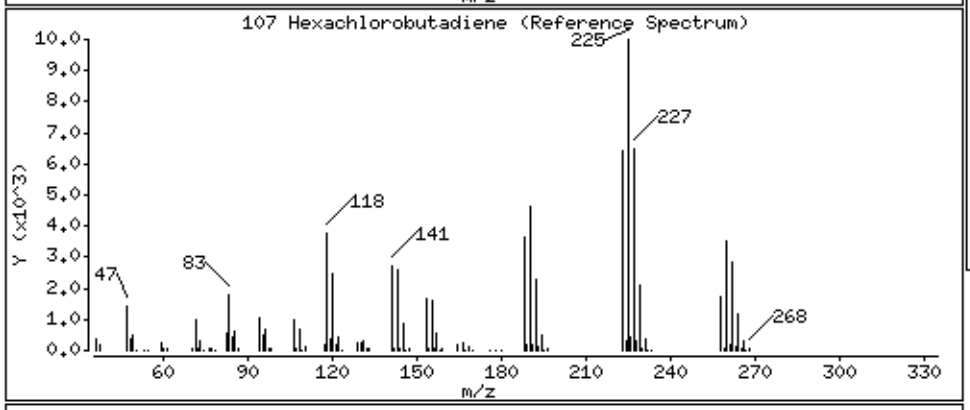
Column diameter: 0.53

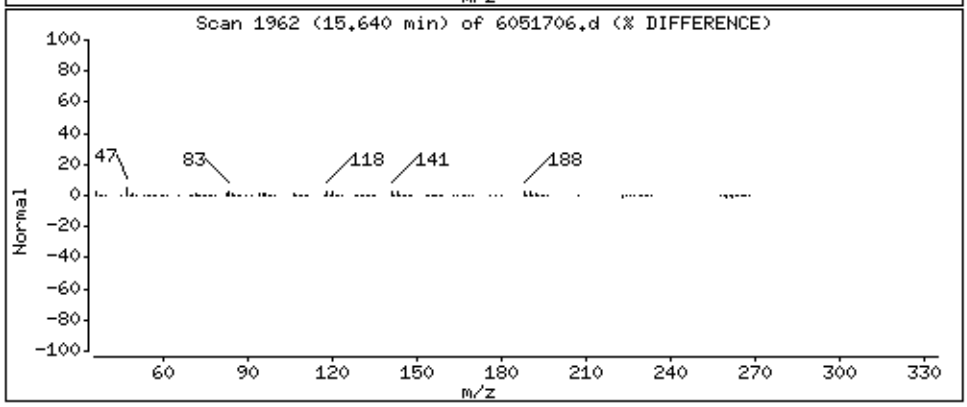
107 Hexachlorobutadiene

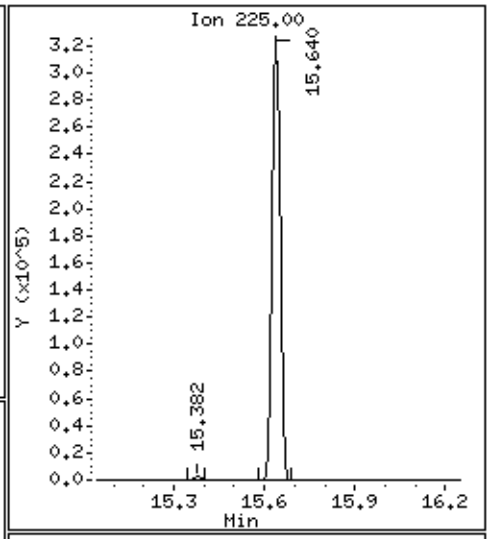
Concentration: 245.57 NG

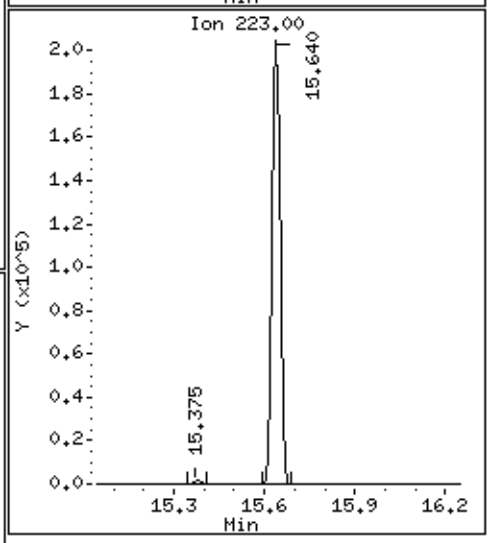












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

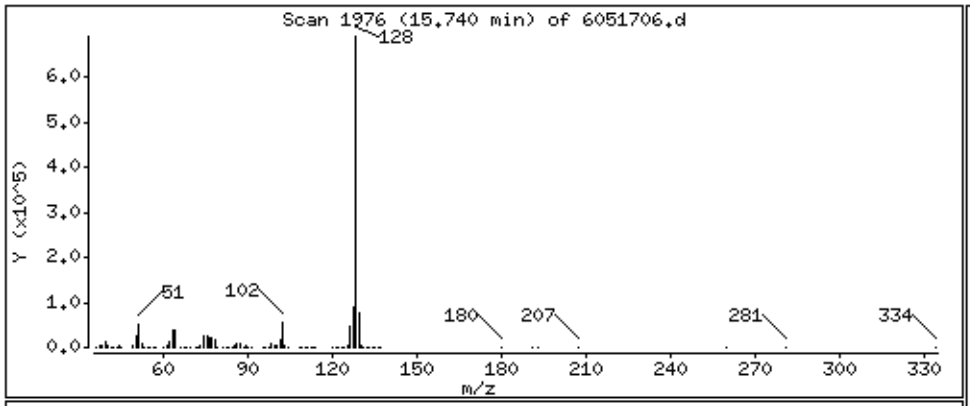
Operator: CT

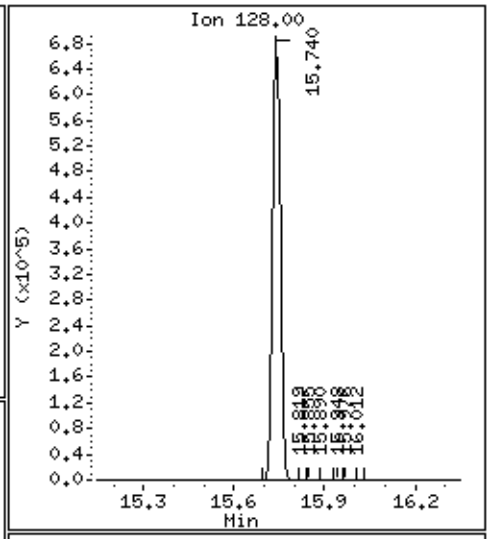
Column phase: RTx-624

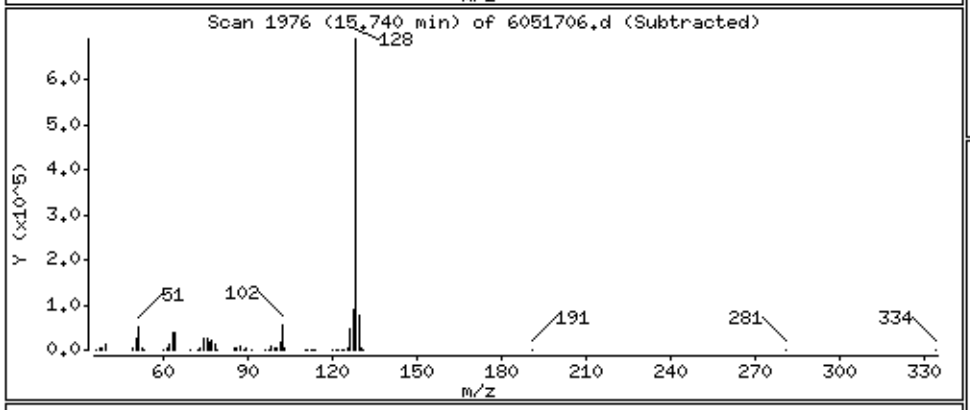
Column diameter: 0.53

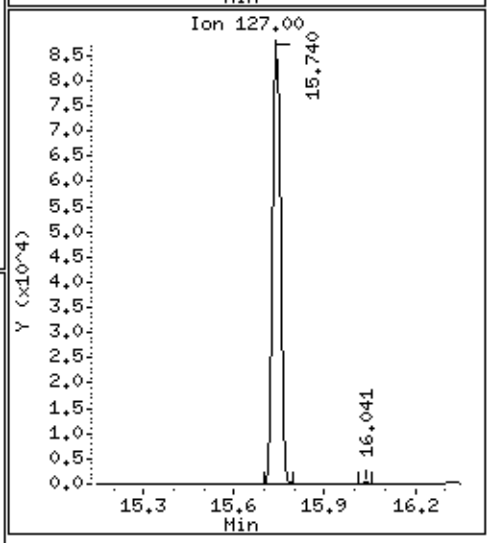
109 Naphthalene

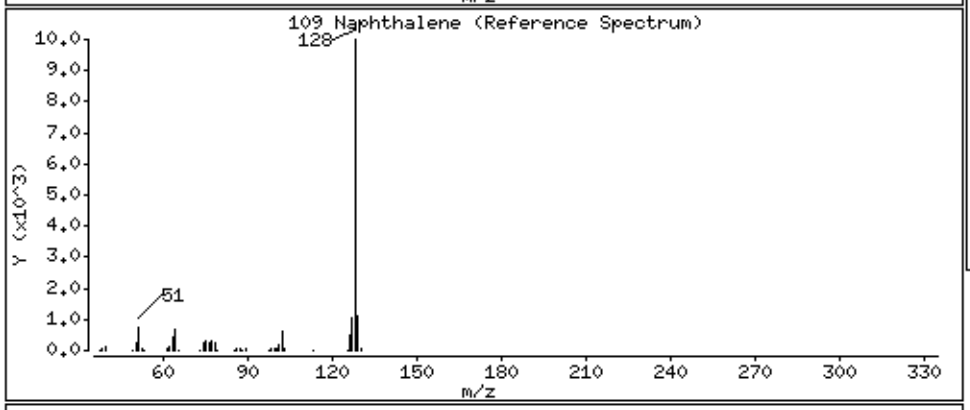
Concentration: 47.637 NG

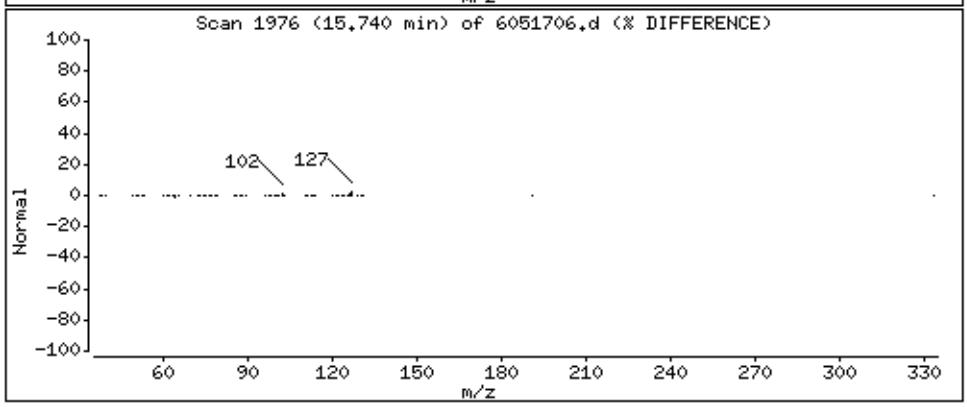












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

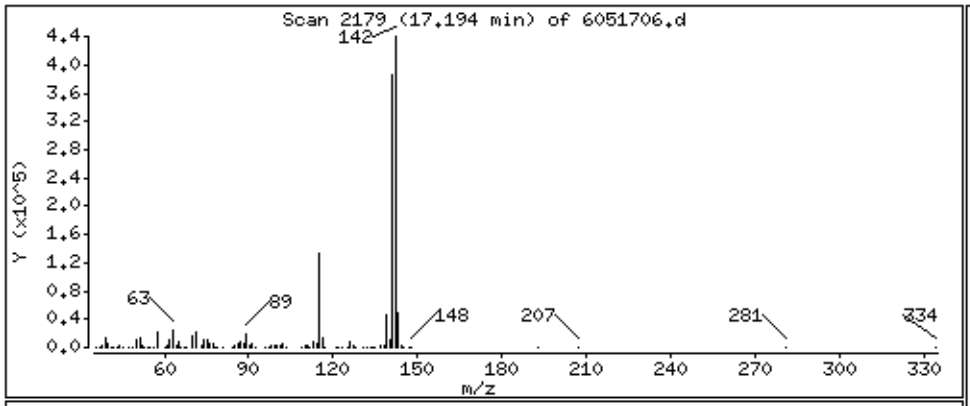
Operator: CT

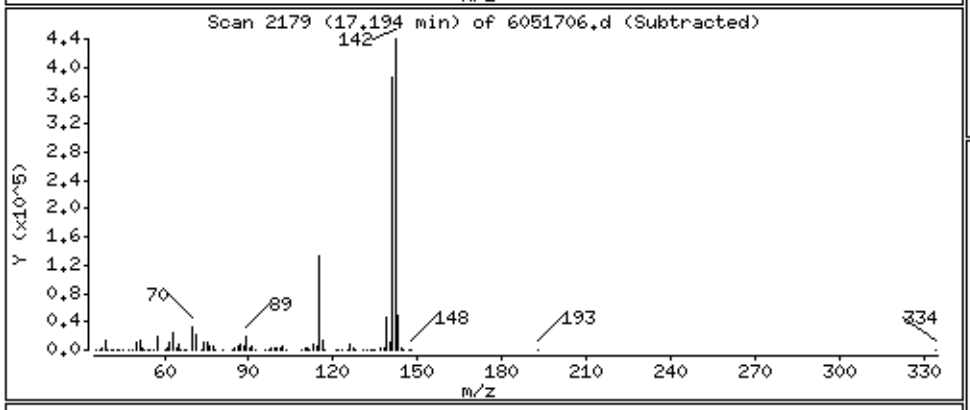
Column phase: RTx-624

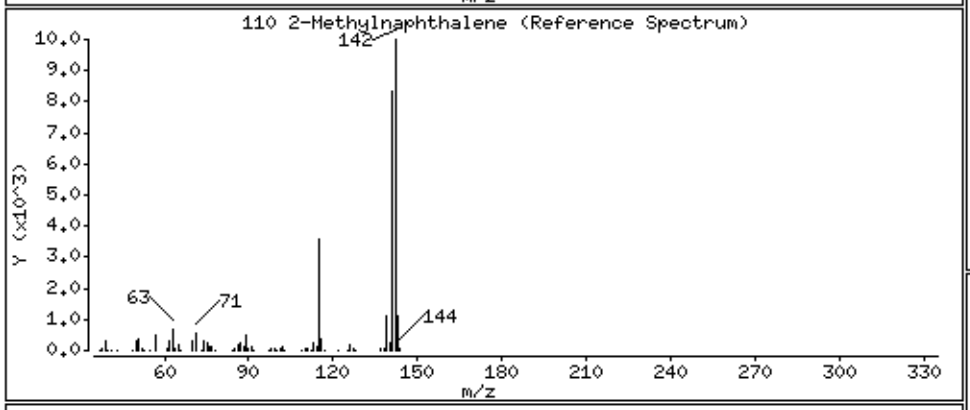
Column diameter: 0.53

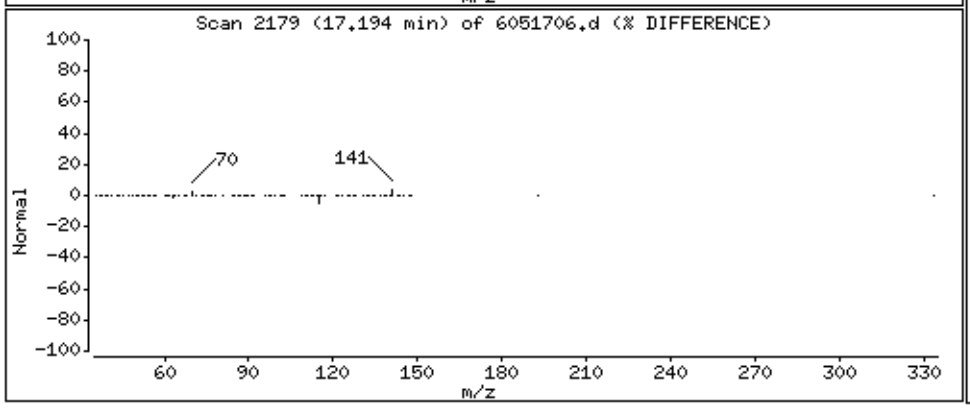
110 2-Methylnaphthalene

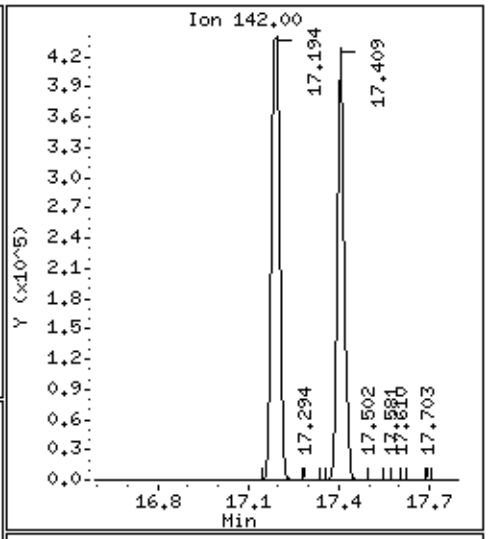
Concentration: 55.401 NG

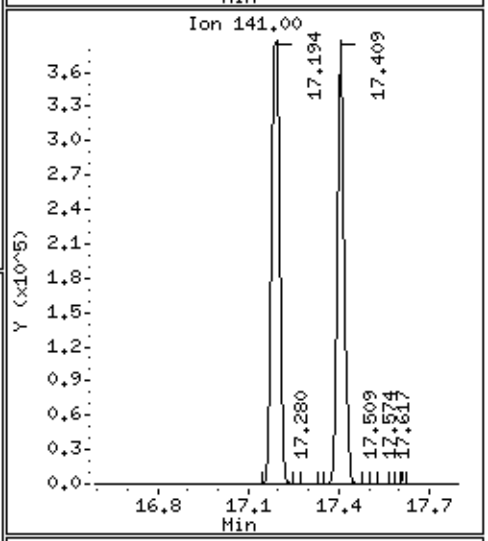


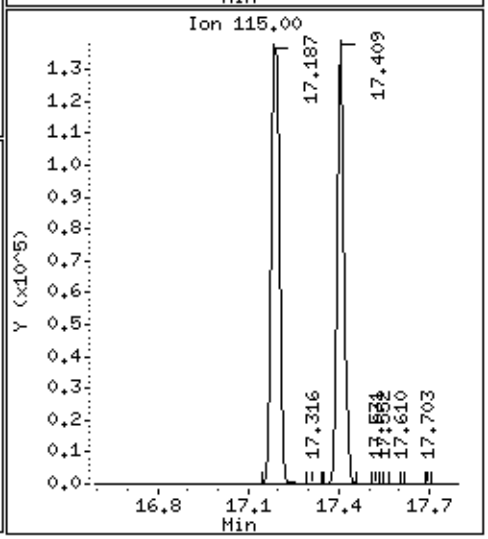












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

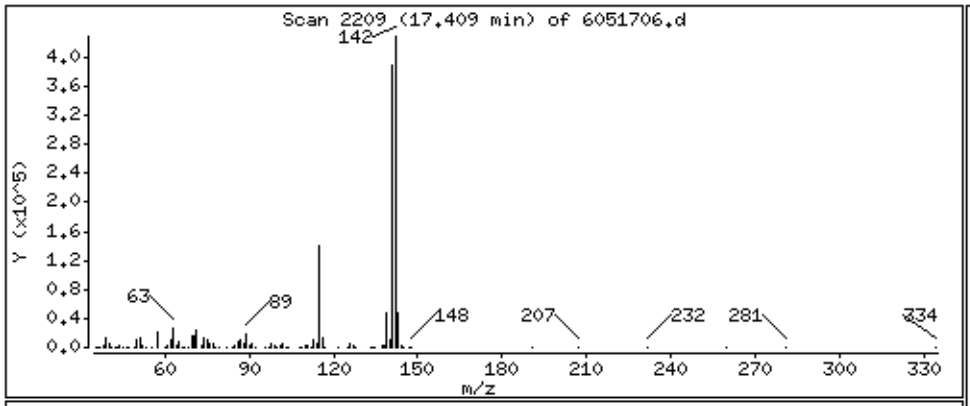
Operator: CT

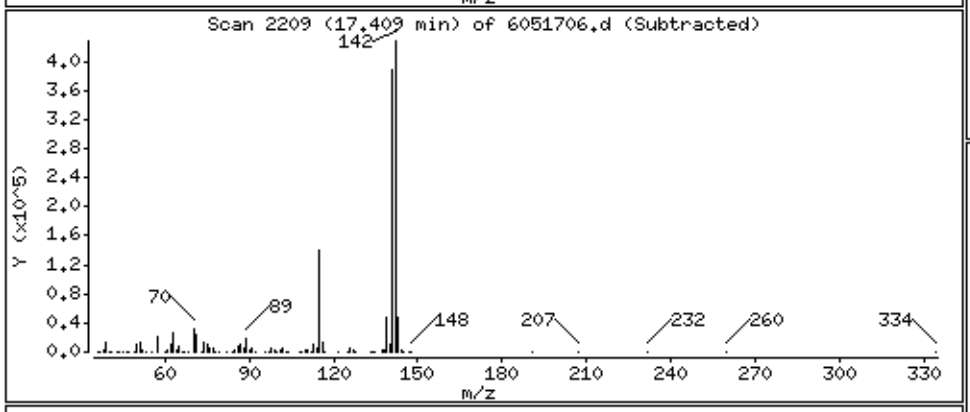
Column phase: RTx-624

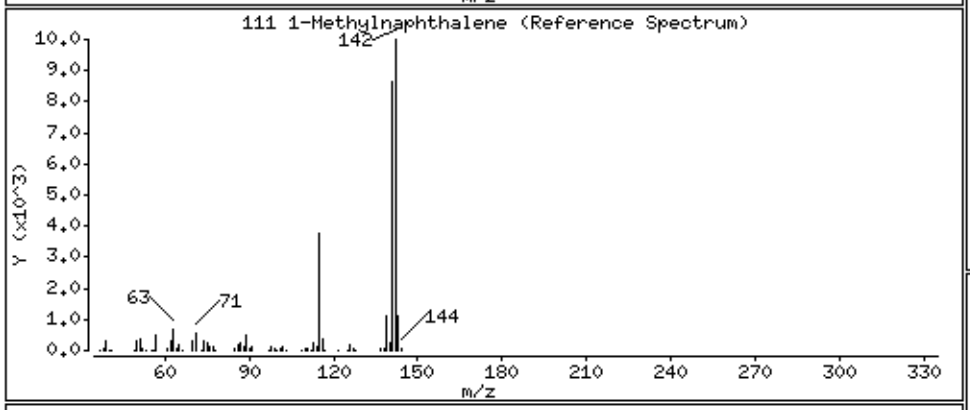
Column diameter: 0.53

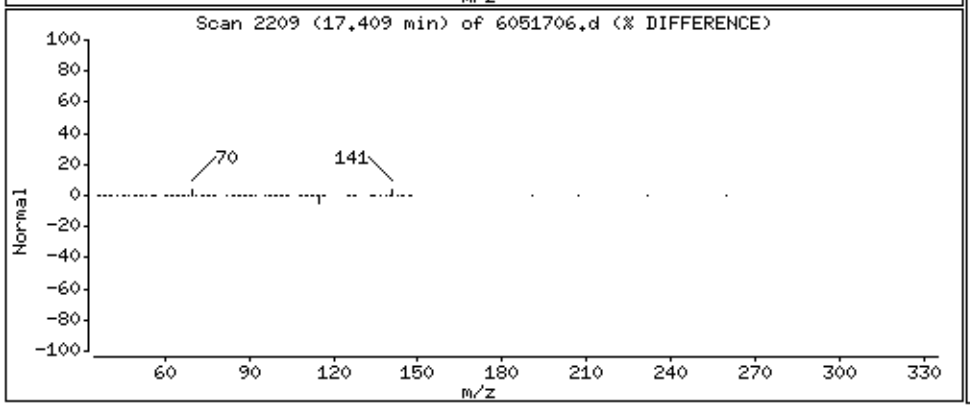
111 1-Methylnaphthalene

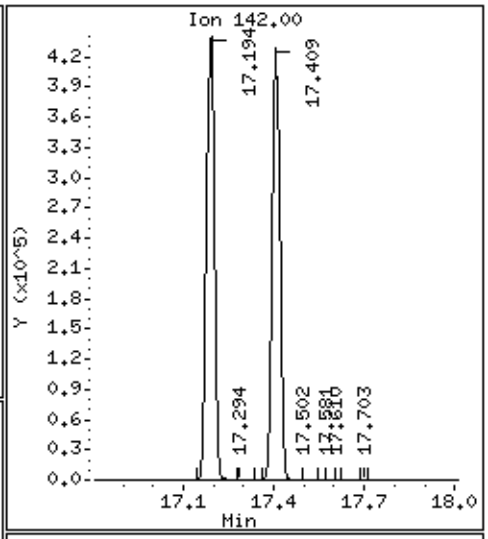
Concentration: 56.372 NG

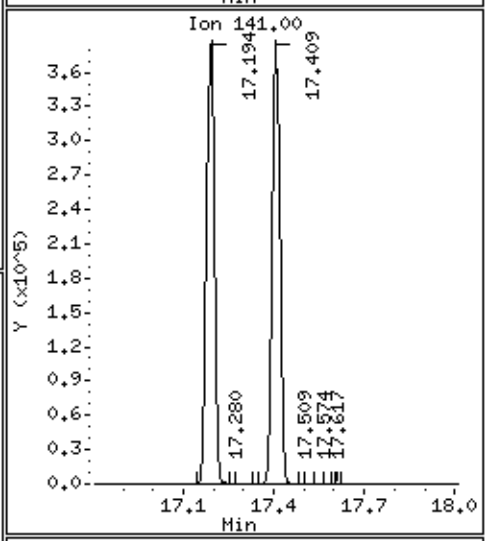


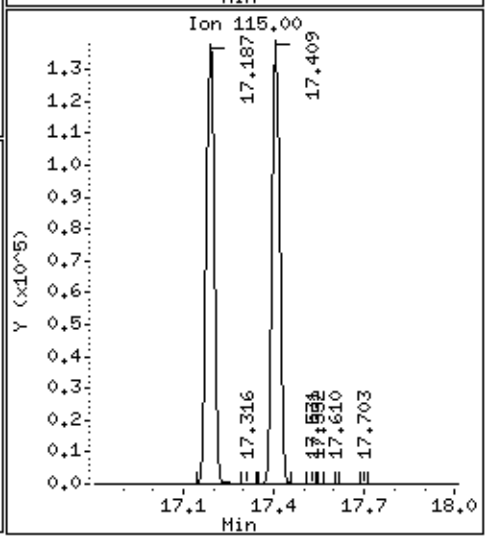












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

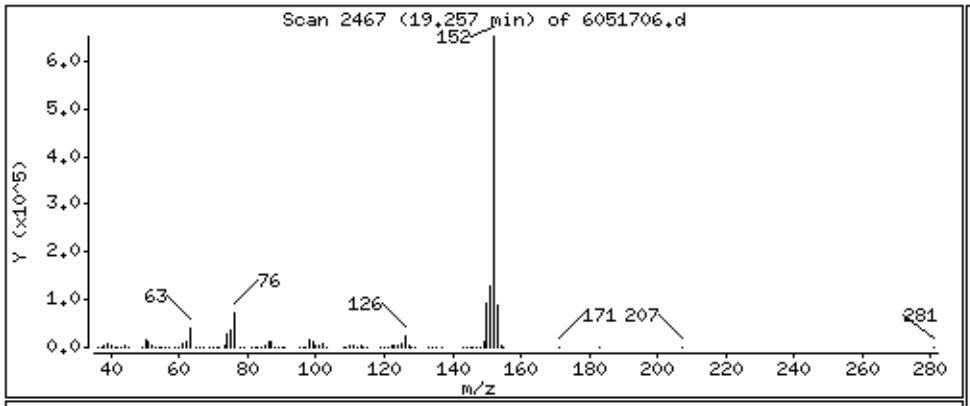
Operator: CT

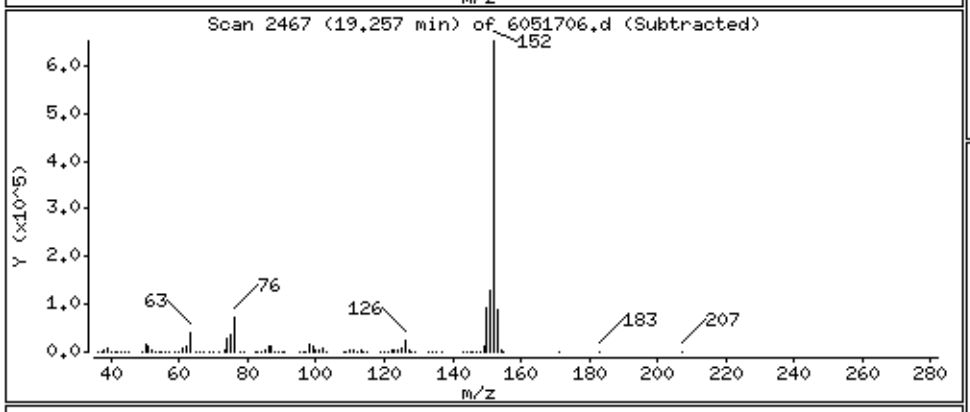
Column phase: RTx-624

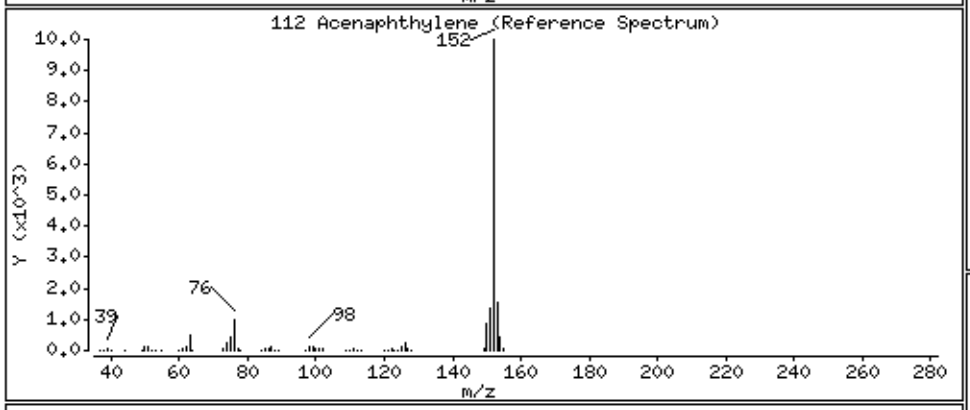
Column diameter: 0.53

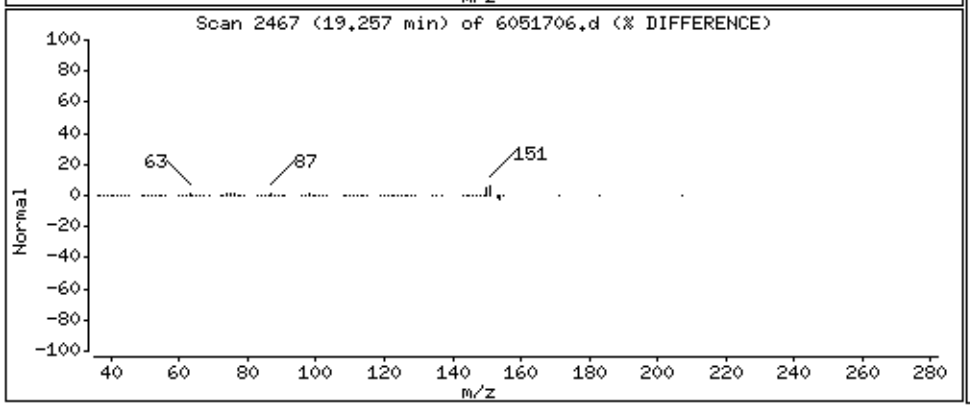
112 Acenaphthylene

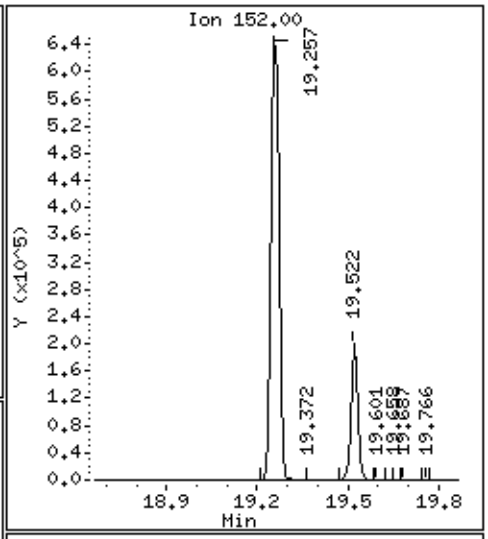
Concentration: 54.818 NG

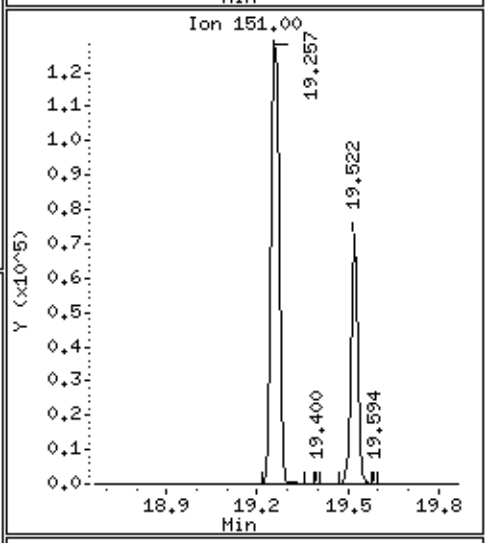


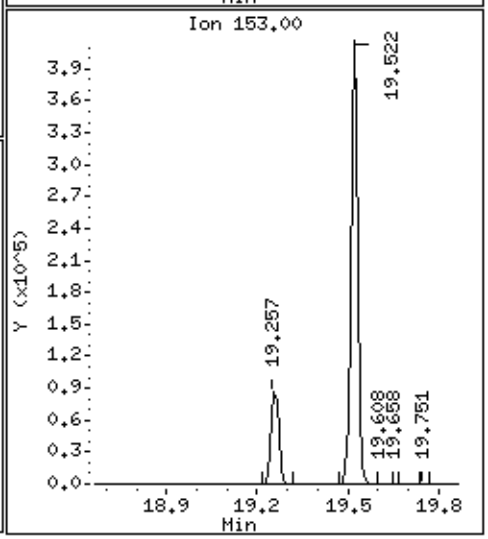












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

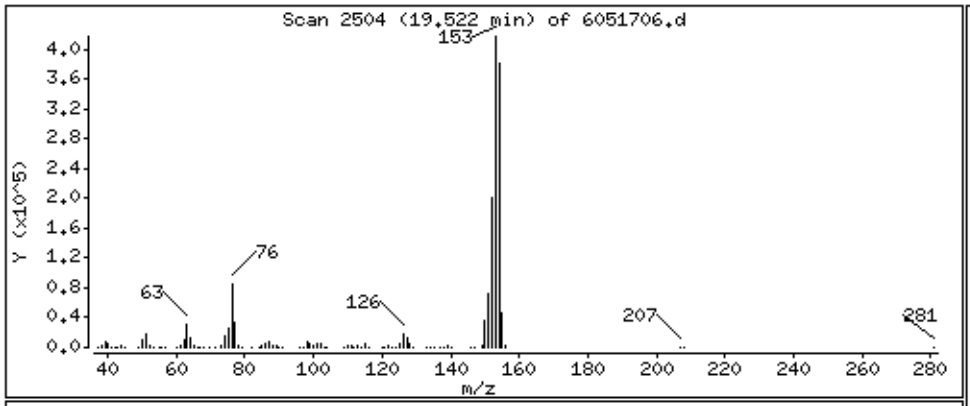
Operator: CT

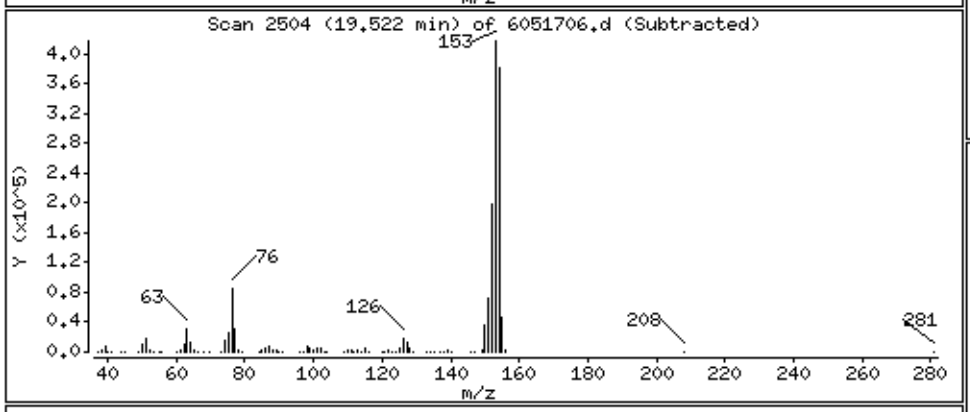
Column phase: RTx-624

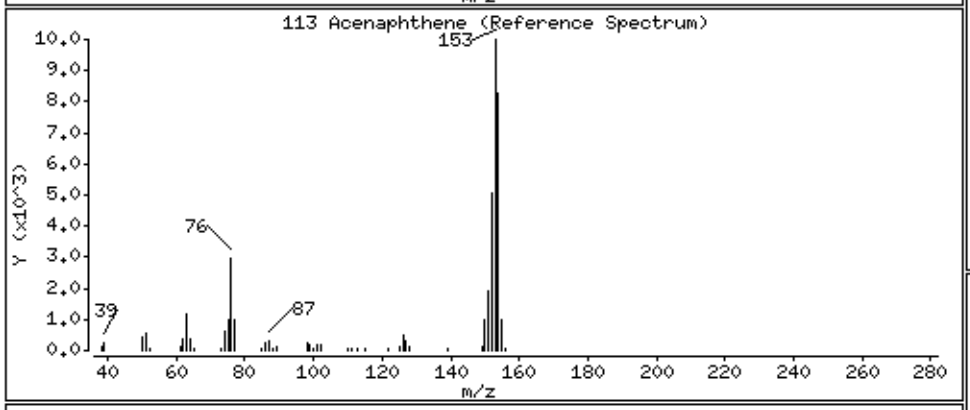
Column diameter: 0.53

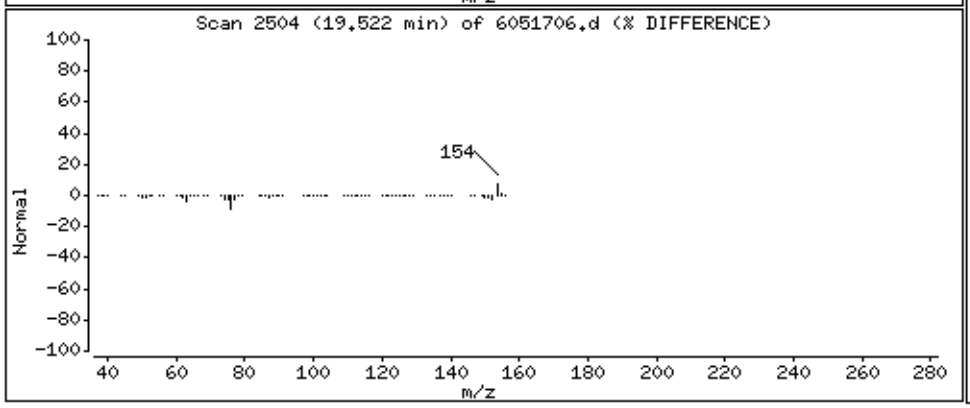
113 Acenaphthene

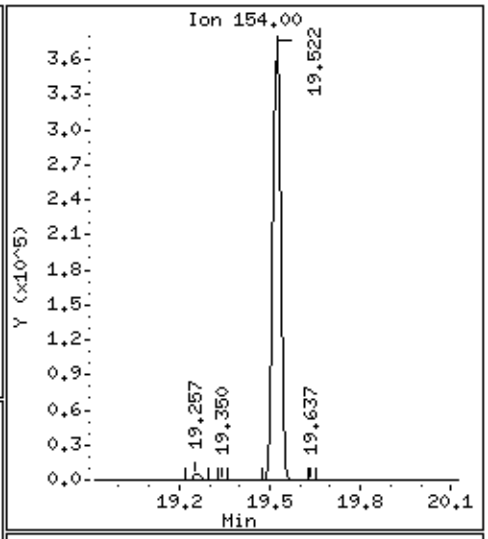
Concentration: 57.285 NG

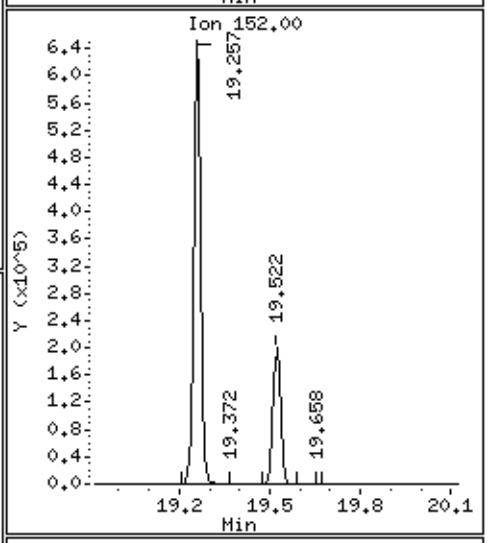


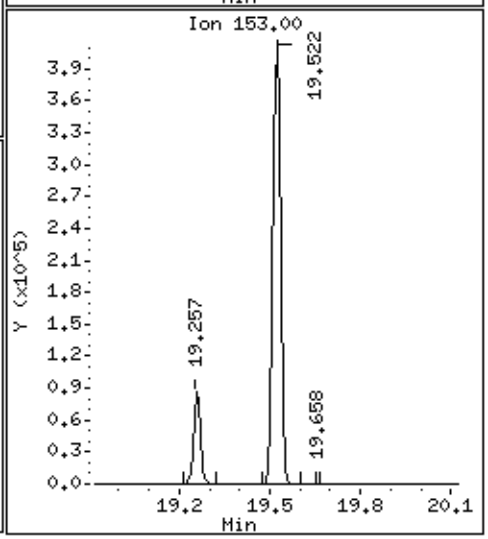












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

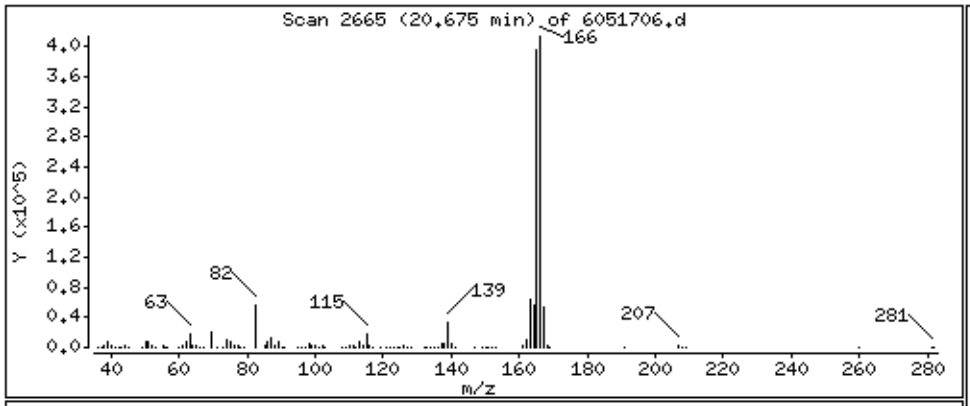
Operator: CT

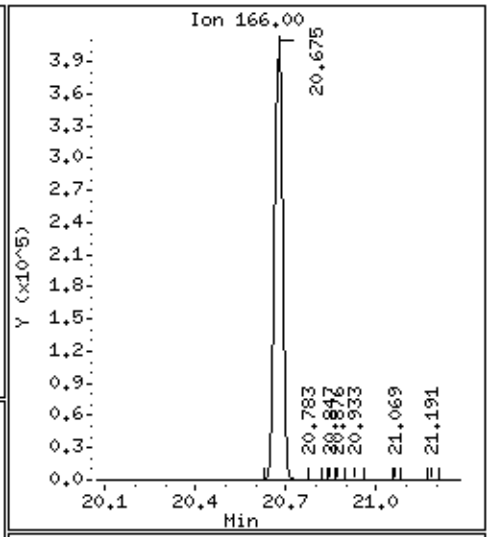
Column phase: RTx-624

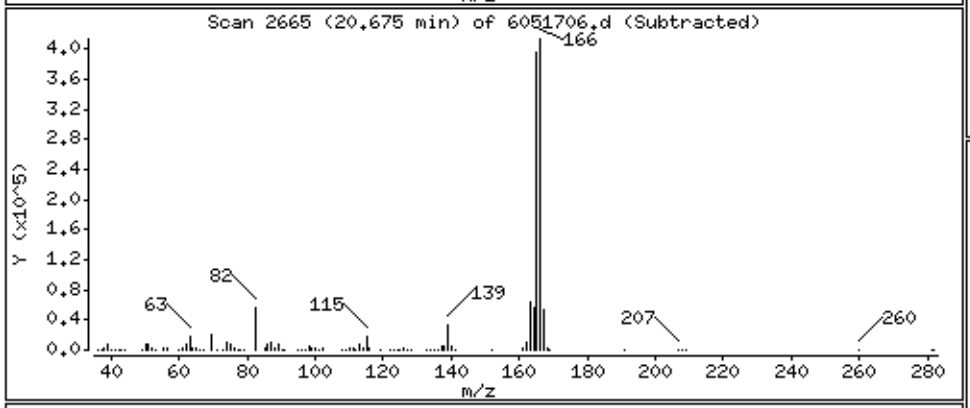
Column diameter: 0.53

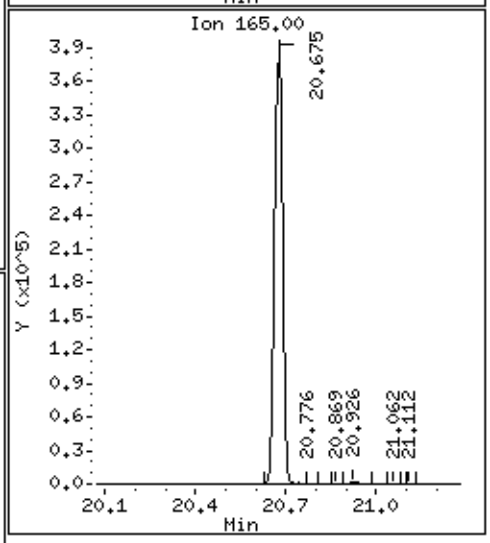
114 Fluorene

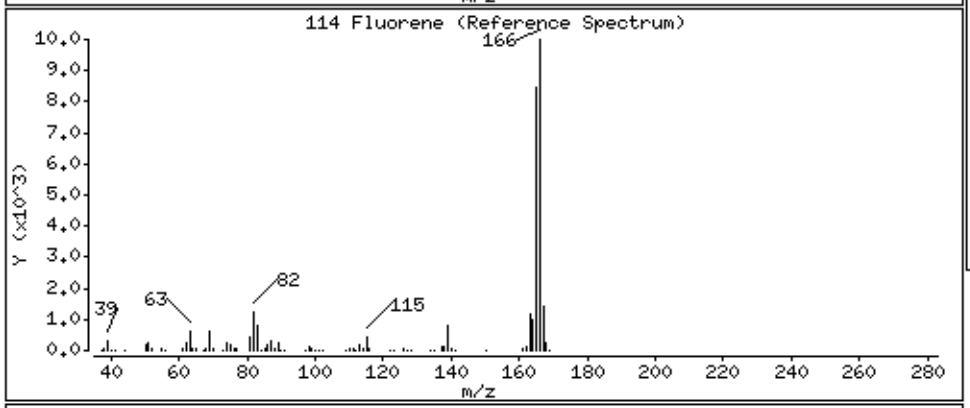
Concentration: 64.291 NG

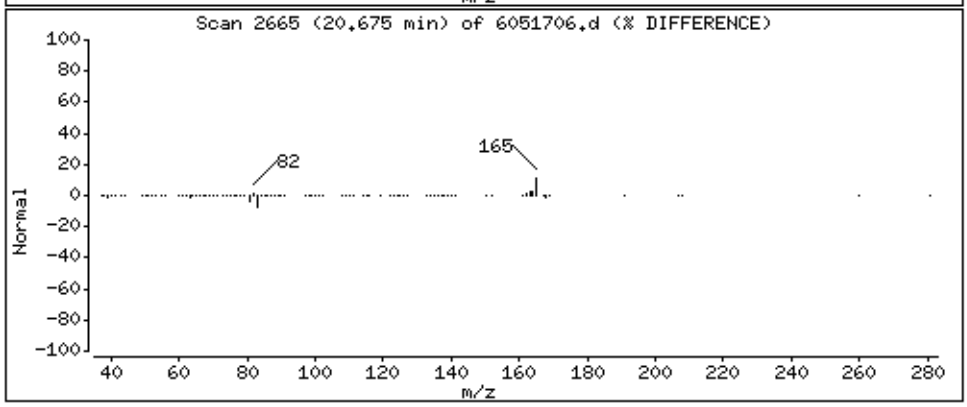












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

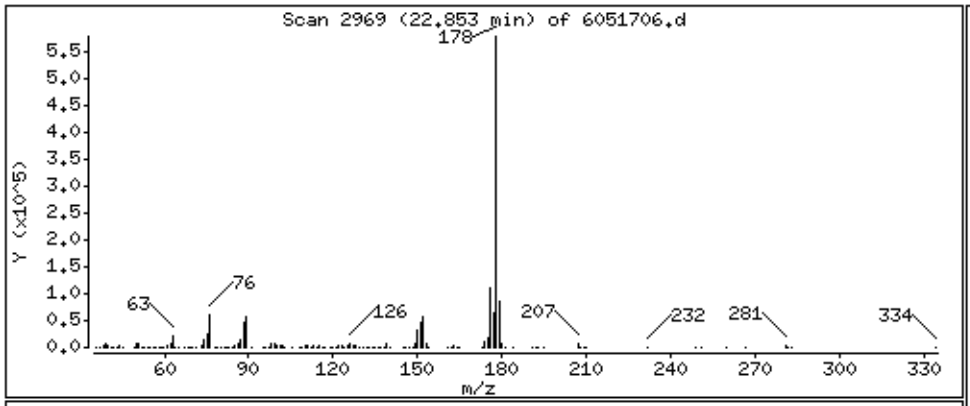
Operator: CT

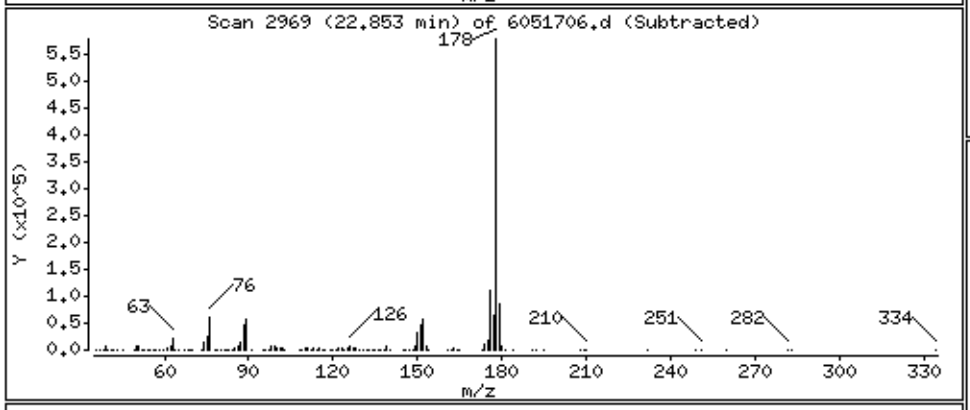
Column phase: RTx-624

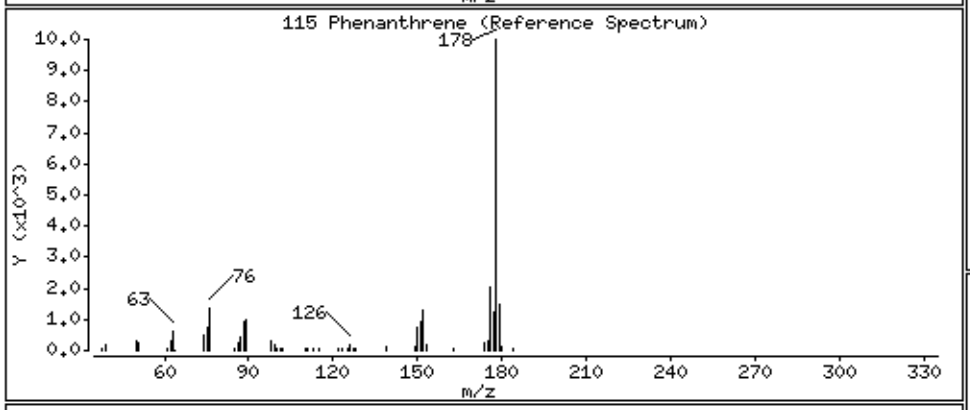
Column diameter: 0.53

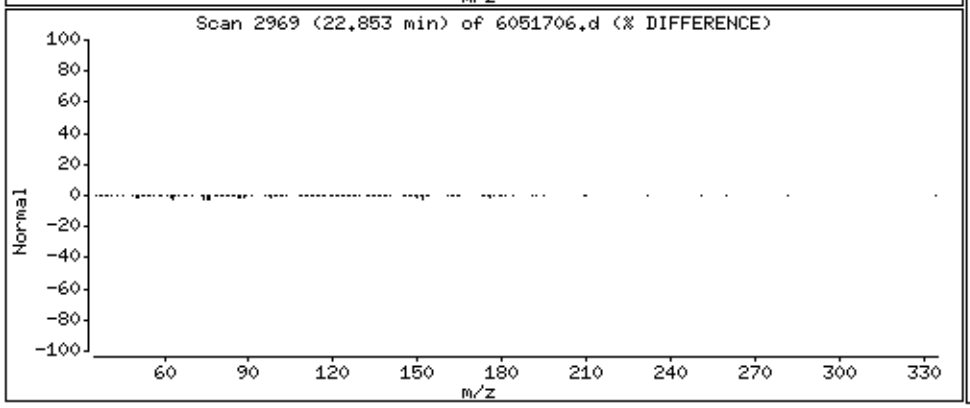
115 Phenanthrene

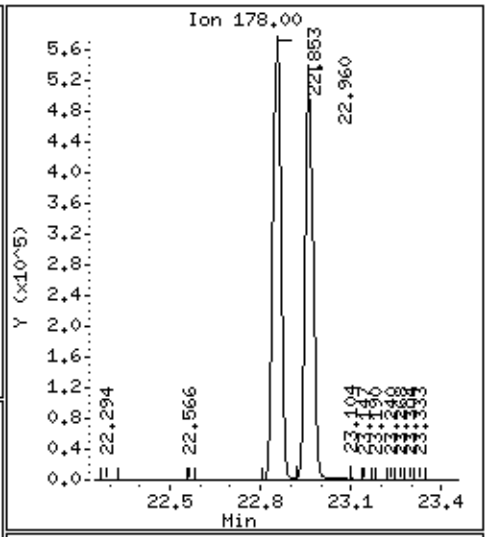
Concentration: 54.765 NG

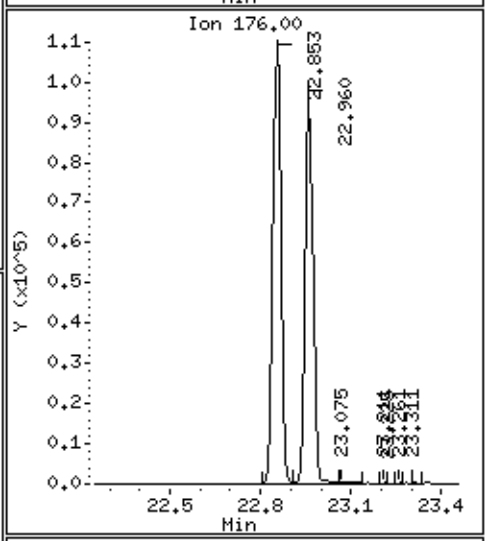


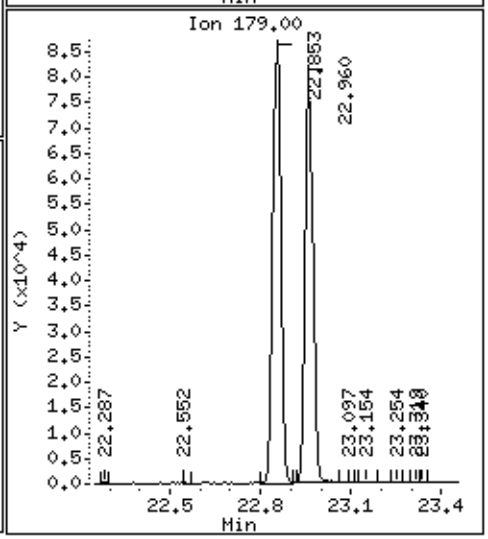












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

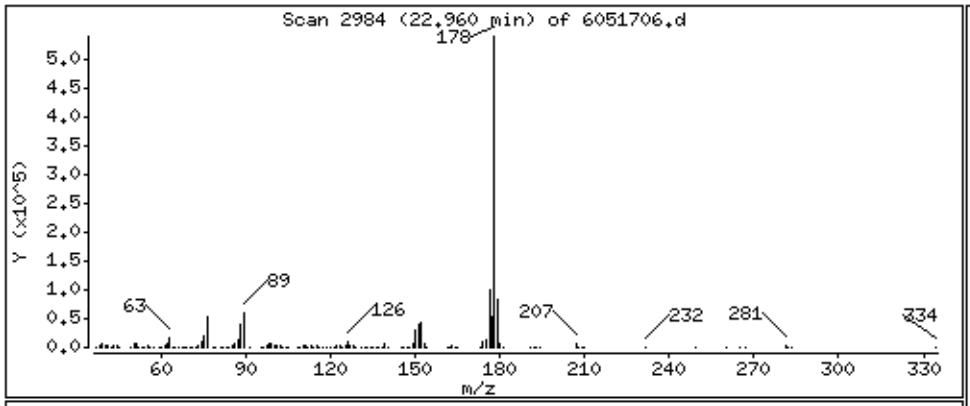
Operator: CT

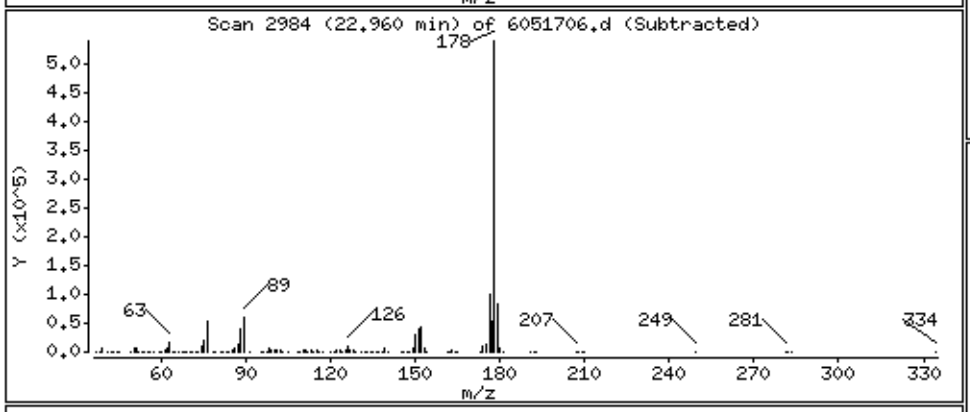
Column phase: RTx-624

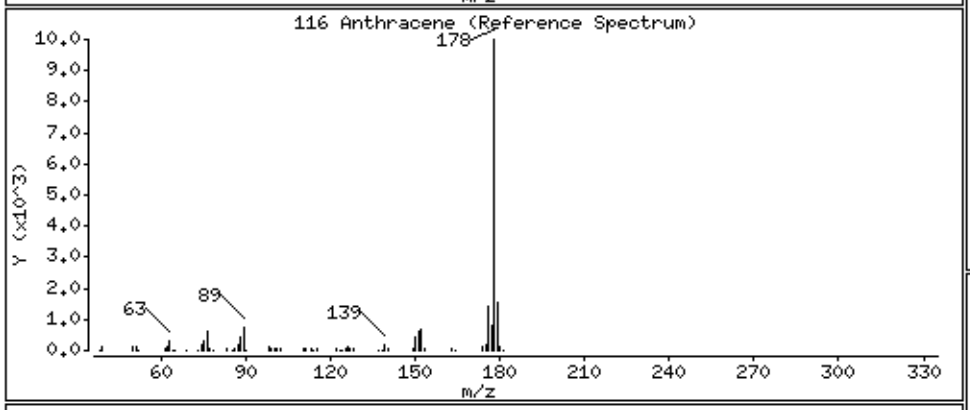
Column diameter: 0.53

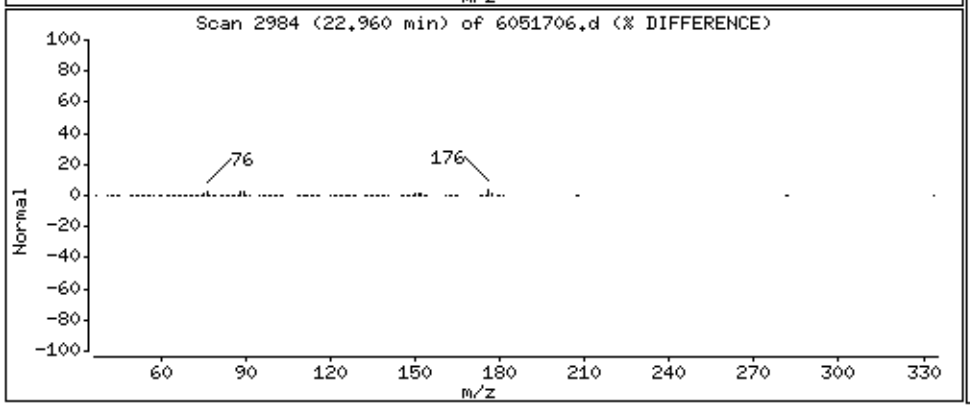
116 Anthracene

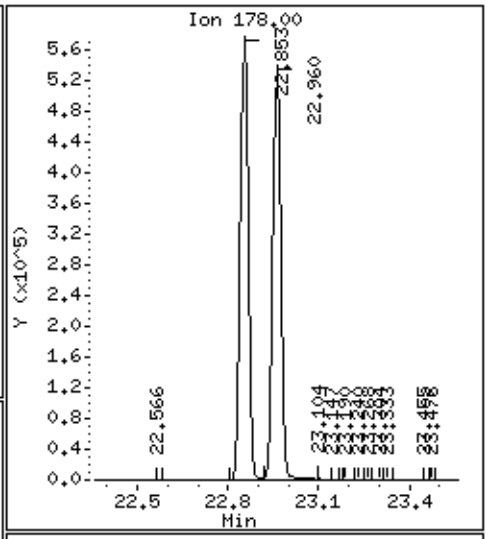
Concentration: 53.588 NG

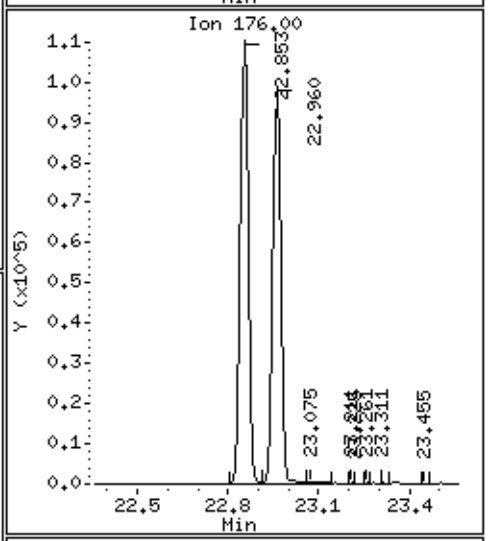


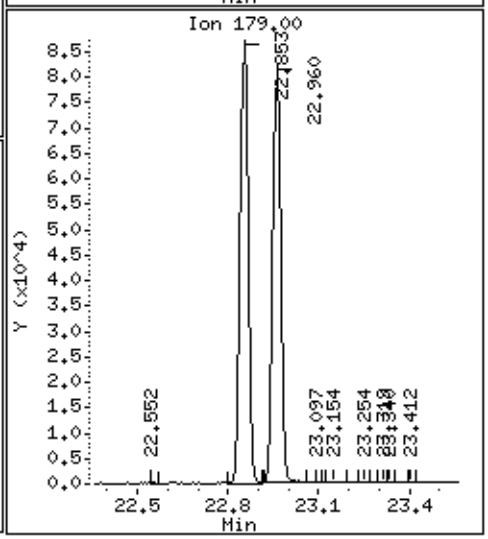












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

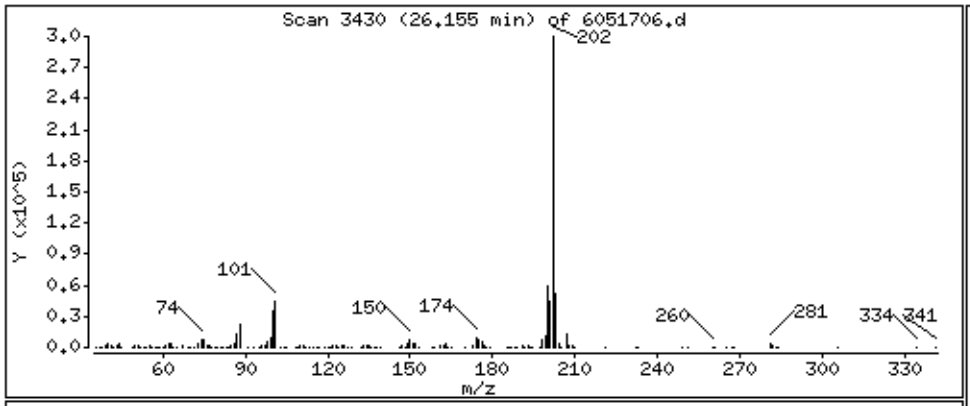
Operator: CT

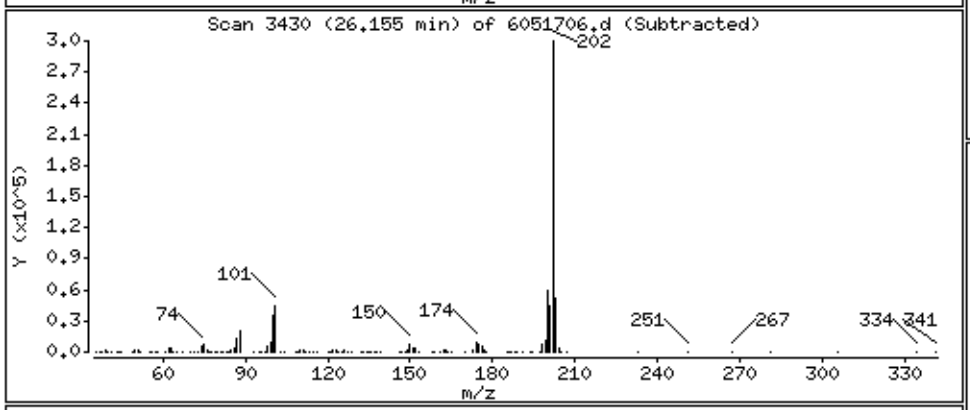
Column phase: RTx-624

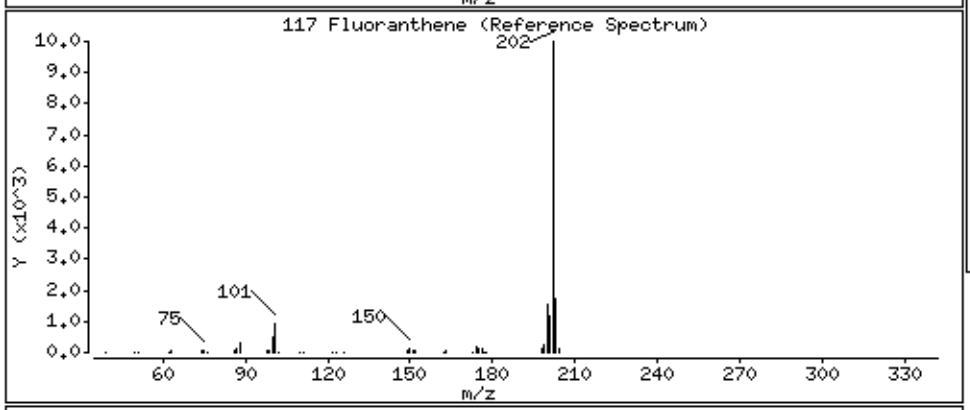
Column diameter: 0.53

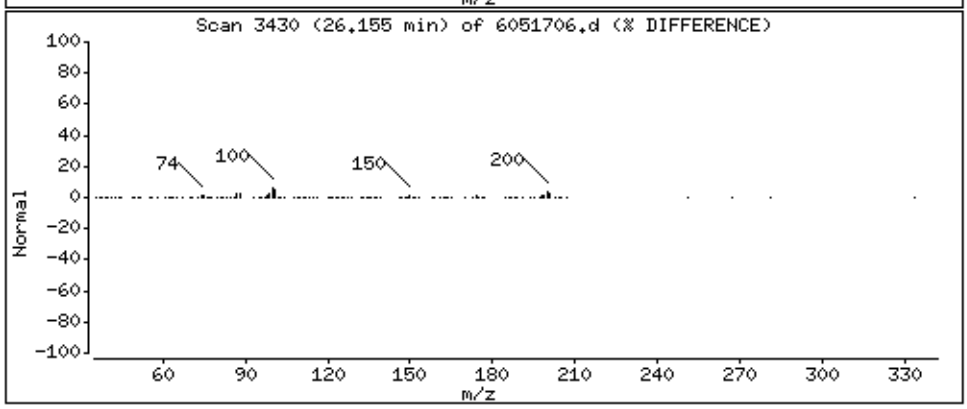
117 Fluoranthene

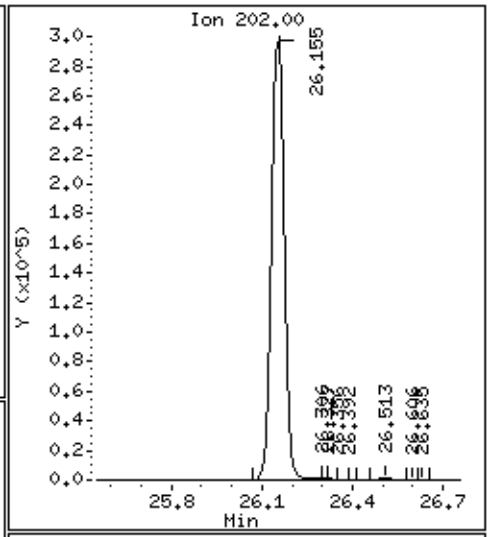
Concentration: 67.093 NG

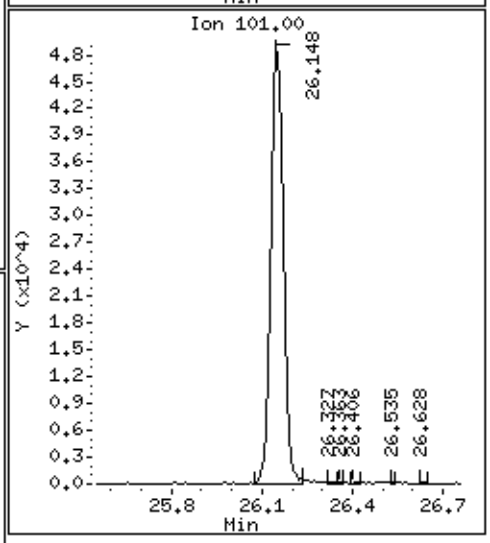












Data File: /chem/msd6.i/17may16.b/6051706.d

Date : 17-MAY-2016 13:33

Client ID: LCSD

Instrument: msd6.i

Sample Info: ;VI VOC+PAH LCSD;LCSD

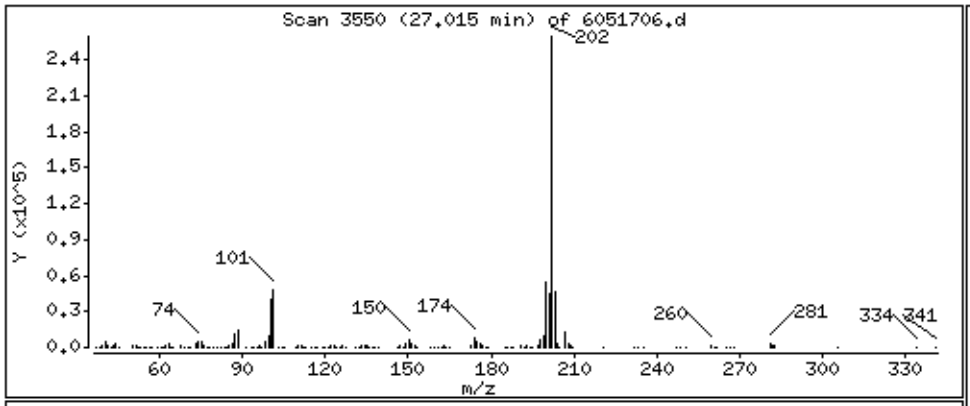
Operator: CT

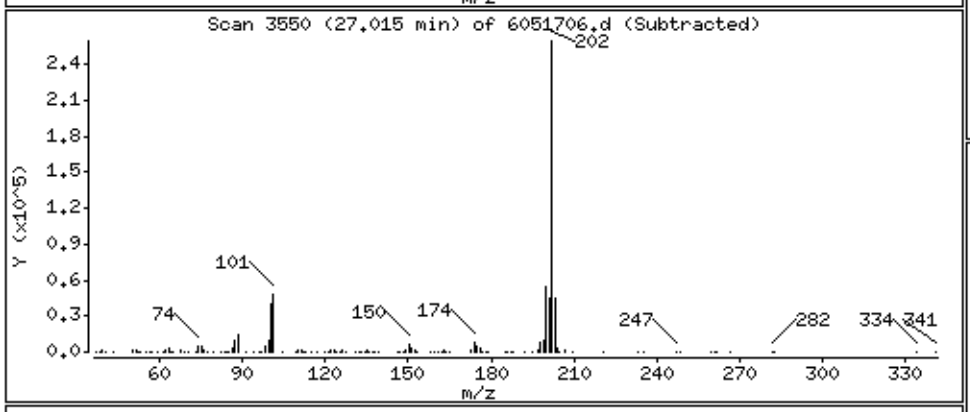
Column phase: RTx-624

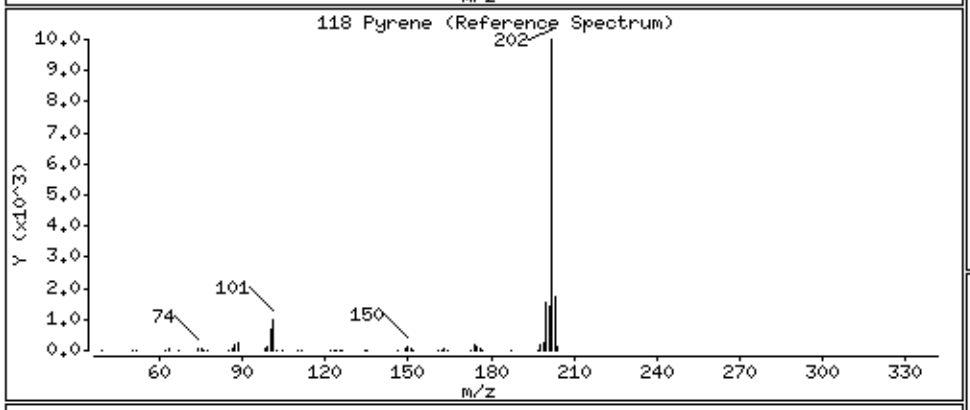
Column diameter: 0.53

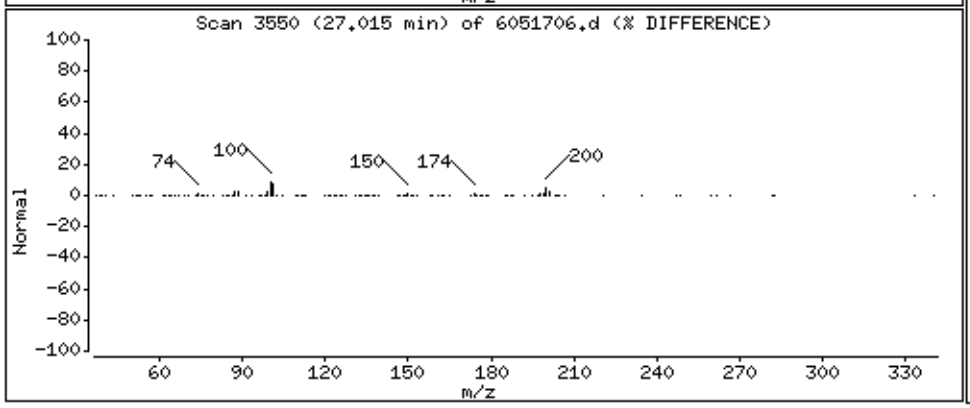
118 Pyrene

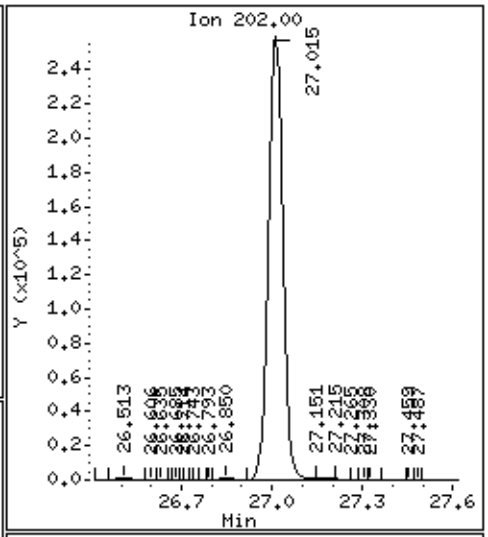
Concentration: 63.897 NG

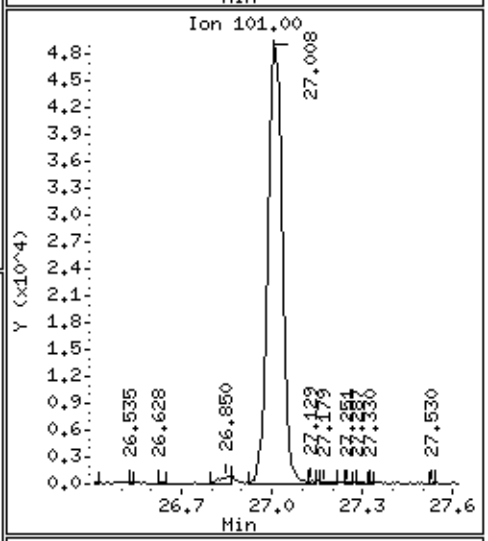


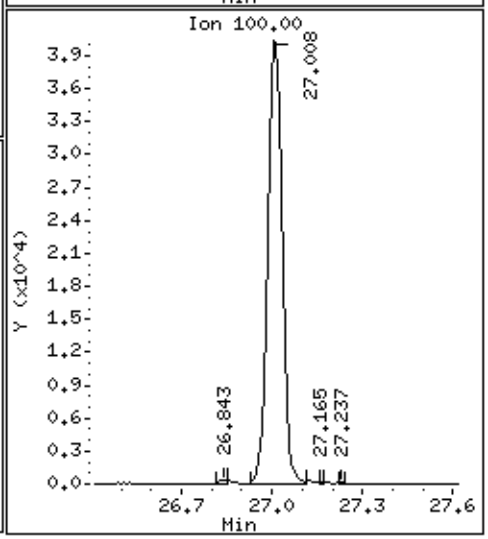












@ Air Toxics Ltd. Run Log for MSD-6 Method TO14 & TO15
BFB verification of 176/174 Ratio: (192810 / 197802) x 100% = 97.48%
Standard ID 2299-607 Exp. date 7/13/16
Bromochloromethane 157036 File ID: 6051705.d
1,4-Difluorobenzene 635738 Compound: Naphthalene
Chlorobenzene-d5 583554 InitialIS: ct
Bromofluorobenzene 400960
Verification CCV IS vs ICAL mid-point (-40%)
Calculation Check:

ppbv of compound = (Area of sample / Area of IS) * (Concentration of IS / RRF) = (1221946 / 400960) * (36.0 / 2.41520) = 45.425

Method: 6162033 Vi, m

Data Directory: C:\msdchem\1\DATA\17MAY16.B\

Use	SampleName		Port pos.	Injection Time		Init.
1) ✓	6051701.D Comments					
;BFB;BFB		2299-607, 36ng(7/13/16)	1	17 May 2016	10:10	ct
2) ✓	6051702.D Comments					
;BFB;BFB		2299-607, 36ng(7/13/16)	1	17 May 2016	10:50	
3) X	6051703.D Comments	tube leak				
;VI VOC+PAH CCV;CCV		2516-241(7/20/16),2744-31	11	17 May 2016	11:30	
4) ✓	6051704.D Comments					
;VI VOC+PAH LCS;LCS		2516-240(7/20/16),2744-32	12	17 May 2016	12:09	
5) ✓	6051705.D Comments					
;VI VOC+PAH CCV;CCV		2516-241(7/20/16),2744-31	11	17 May 2016	12:53	
6) ✓	6051706.D Comments					
;VI VOC+PAH LCSD;LCSD		2516-240(7/20/16),2744-32	12	17 May 2016	13:33	
7) X	6051707.D Comments	not used				
;Lab Blank;Lab Blank		DP G0139961	13	17 May 2016	14:13	
8) ✓	6051708.D Comments					
;Lab Blank;Lab Blank		DP G0143617	3	17 May 2016	15:20	
9) ✓	6051709.D Comments					
;1605307-09A		G0143690	21	17 May 2016	16:21	
10) ✓	6051710.D Comments					
;1605307-01A		G0148950	22	17 May 2016	17:01	
11) ✓	6051711.D Comments					
;1605307-02A		G0145528	23	17 May 2016	17:40	
12) ✓	6051712.D Comments					
;1605307-03A		G0137120	24	17 May 2016	18:20	
13) ✓	6051713.D Comments					
;1605307-04A		G0145501	25	17 May 2016	19:00	
14) ✓	6051714.D Comments					
;1605307-05A		G0143663	26	17 May 2016	19:39	
15) ✓	6051715.D Comments					
;1605307-06A		G0135691	27	17 May 2016	20:19	
16) ✓	6051716.D Comments					
;1605307-07A		G0147259	28	17 May 2016	20:59	
17) ✓	6051717.D Comments					
;1605307-08A		G0147721	29	17 May 2016	21:38	

Clarissa 5/18/16

Eurofins Air Toxics Inc.

Data file : /chem/msd6.i/31mar16.b/6033101.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 30-MAR-2016 17:35
Operator : CT Inst ID: msd6.i
Smp Info : ;BFB;BFB
Misc Info :
Comment :
Method : /chem/msd6.i/31mar16.b/bfb.m
Meth Date : 02-Jul-2015 09:23 lantonic Quant Type: ESTD
Cal Date : 11-OCT-2009 15:24 Cal File: l101104.d
Als bottle: 11 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		
11.464	11.005	0.459	95	332487			100.00- 100.00	100.00
11.464	15.676	-4.212	50	66946			8.00- 40.00	20.13
11.464	15.676	-4.212	75	153301			30.00- 66.00	46.11
11.464	15.676	-4.212	96	21912			5.00- 9.00	6.59
11.464	15.676	-4.212	173	0			0.00- 1.99	0.00
11.464	15.676	-4.212	174	272448			50.00- 120.00	81.94
11.464	15.676	-4.212	175	20149			4.00- 9.00	7.40
11.464	15.676	-4.212	176	266965			93.00- 101.00	97.99
11.464	15.676	-4.212	177	16746			5.00- 9.00	6.27

Data File: /chem/msd6.i/31mar16.b/6033101.d

Date : 30-MAR-2016 17:35

Client ID: BFB

Instrument: msd6.i

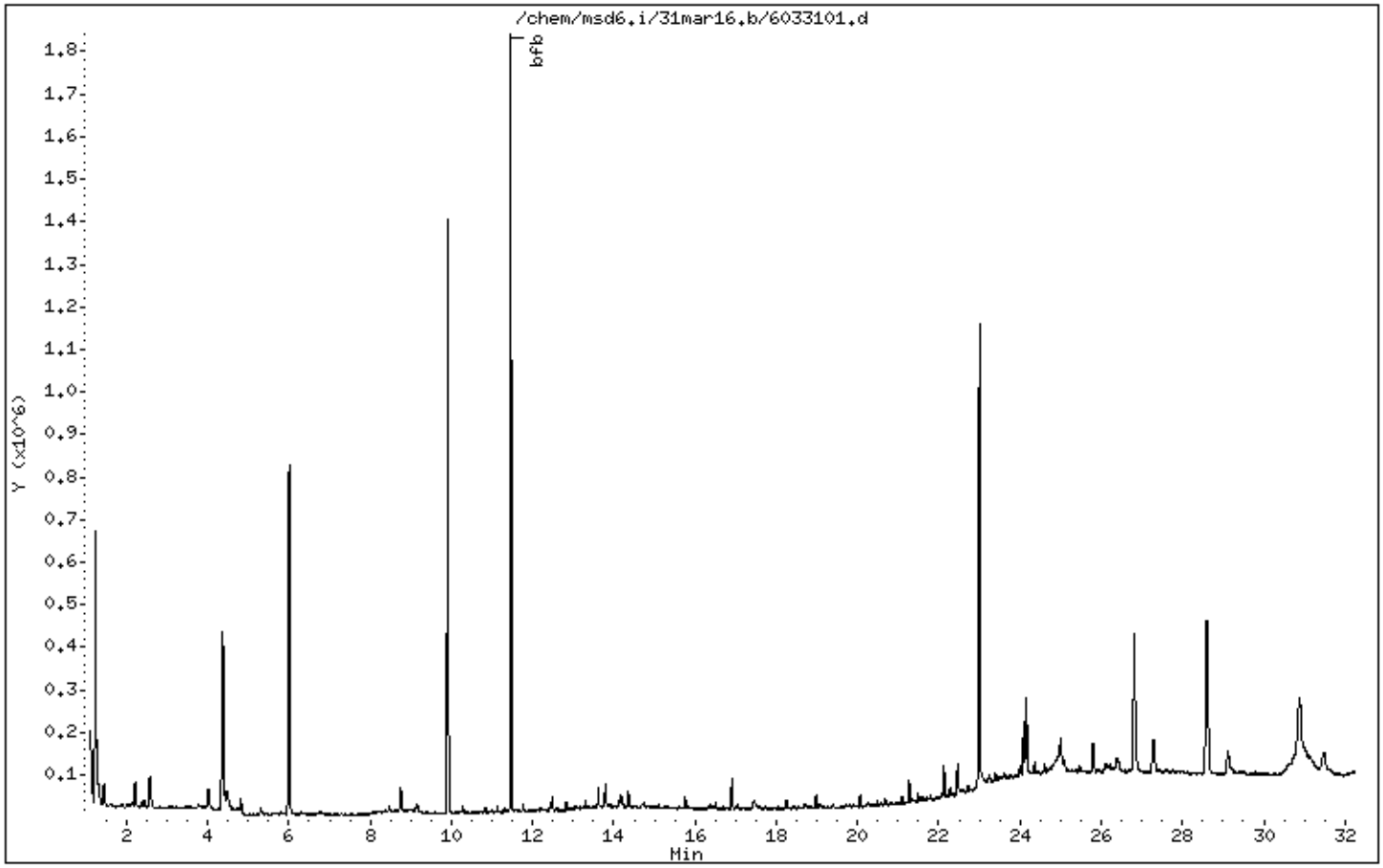
Sample Info: ;BFB;BFB

Volume Injected (uL): 1.0

Operator: CT

Column phase:

Column diameter: 2.00



Data File: /chem/msd6.i/31mar16.b/6033101.d

Date : 30-MAR-2016 17:35

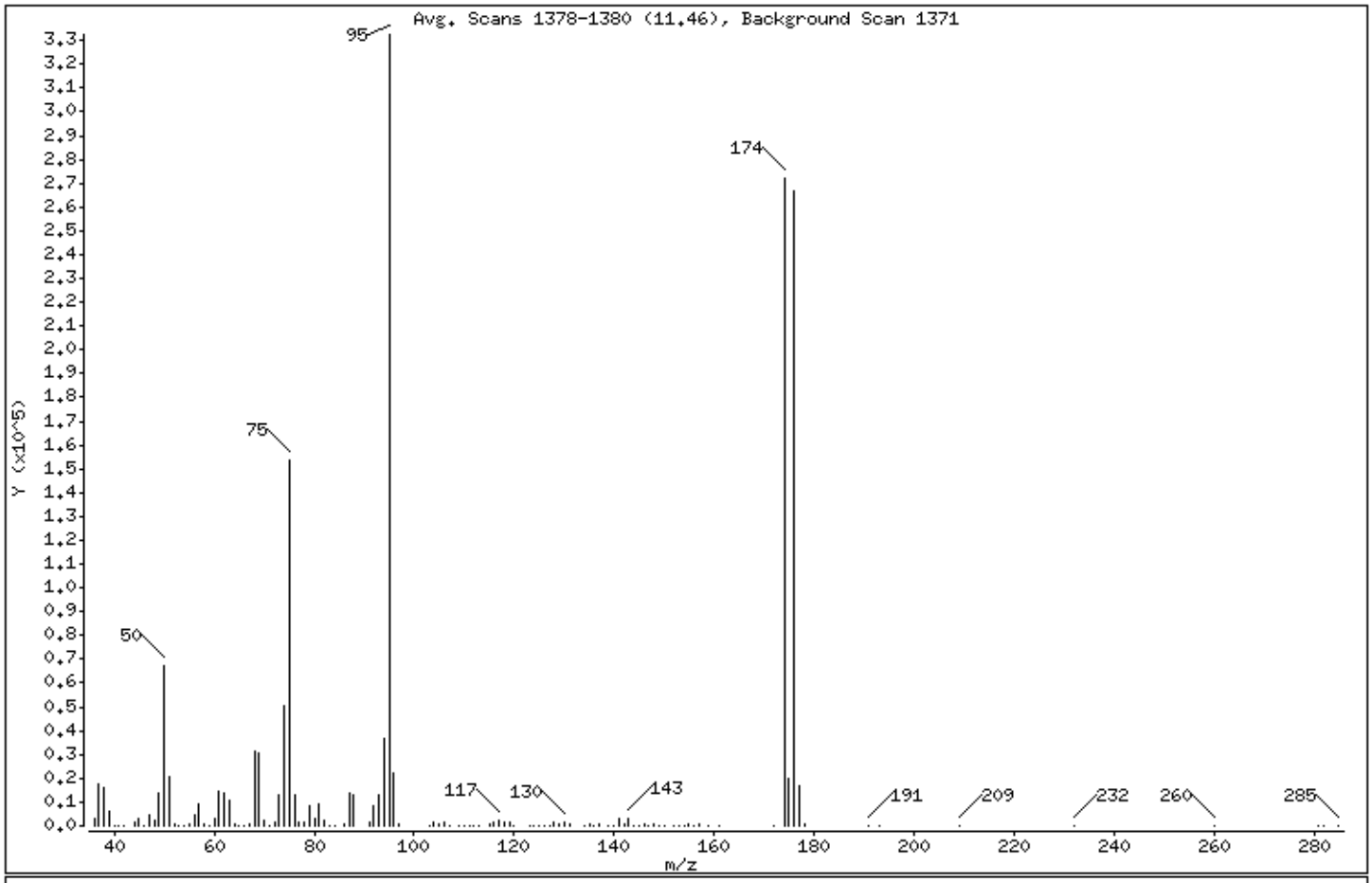
Client ID: BFB | Instrument: msd6.i

Sample Info: ;BFB;BFB

Volume Injected (uL): 1.0 | Operator: CT

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	20.13
75	30.00 - 66.00% of mass 95	46.11
96	5.00 - 9.00% of mass 95	6.59
173	Less than 1.99% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	81.94
175	4.00 - 9.00% of mass 174	6.06 (7.40)
176	93.00 - 101.00% of mass 174	80.29 (97.99)
177	5.00 - 9.00% of mass 176	5.04 (6.27)

Data File: /chem/msd6.i/31mar16.b/6033101.d

Date : 30-MAR-2016 17:35

Client ID: BFB

Instrument: msd6.i

Sample Info: ;BFB;BFB

Volume Injected (uL): 1.0

Operator: CT

Column phase:

Column diameter: 2.00

Data File: 6033101.d
Spectrum: Avg. Scans 1378-1380 (11.46), Background Scan 1371
Location of Maximum: 95.00
Number of points: 121

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3027	68.00	31224	107.00	349	145.00	271
37.00	17912	69.00	30696	109.00	113	146.00	498
38.00	15692	70.00	2312	110.00	325	147.00	131
39.00	6111	71.00	130	111.00	323	148.00	861
40.00	11	72.00	1535	112.00	261	149.00	289
41.00	10	73.00	12682	113.00	313	150.00	333
42.00	20	74.00	50488	115.00	405	152.00	217
44.00	1828	75.00	153280	116.00	1153	153.00	245
45.00	2918	76.00	12873	117.00	1976	154.00	233
46.00	221	77.00	1864	118.00	1273	155.00	812
47.00	4793	78.00	1386	119.00	1662	156.00	122
48.00	1980	79.00	8586	120.00	52	157.00	598
49.00	13901	80.00	2860	123.00	188	159.00	337
50.00	66944	81.00	9312	124.00	265	161.00	380
51.00	20360	82.00	2152	125.00	108	172.00	264
52.00	1029	83.00	273	126.00	238	174.00	272448
53.00	10	84.00	52	127.00	78	175.00	20144
54.00	13	86.00	550	128.00	1224	176.00	266944
55.00	874	87.00	13895	129.00	648	177.00	16744
56.00	4885	88.00	13319	130.00	1290	178.00	513
57.00	8919	91.00	1346	131.00	501	191.00	81
58.00	387	92.00	8638	134.00	108	193.00	62
59.00	186	93.00	13049	135.00	643	209.00	156
60.00	2888	94.00	36376	136.00	128	232.00	85
61.00	14849	95.00	332480	137.00	513	260.00	11
62.00	13698	96.00	21912	139.00	117	281.00	64
63.00	10590	97.00	769	140.00	299	282.00	72
64.00	971	103.00	231	141.00	2874	285.00	130
65.00	76	104.00	1460	142.00	405		
66.00	65	105.00	545	143.00	2986		
67.00	804	106.00	1414	144.00	259		

Eurofins Air Toxics Inc.

Data file : /chem/msd6.i/17may16.b/6051702.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 17-MAY-2016 10:50
Operator : CT Inst ID: msd6.i
Smp Info : ;BFB;BFB
Misc Info : 2299-607, 36ng(7/13/16)
Comment :
Method : /chem/msd6.i/17may16.b/bfb.m
Meth Date : 31-Mar-2016 12:20 lantonic Quant Type: ESTD
Cal Date : 11-OCT-2009 15:24 Cal File: l101104.d
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		
11.442	11.478	-0.036	95	223850		100.00	100.00- 100.00	100.00
11.442	11.478	-0.036	50	40893		8.00	40.00	18.27
11.442	11.478	-0.036	75	97789		30.00	66.00	43.69
11.442	11.478	-0.036	96	14344		5.00	9.00	6.41
11.442	11.478	-0.036	173	0		0.00	1.99	0.00
11.442	11.478	-0.036	174	197802		50.00	120.00	88.36
11.442	11.478	-0.036	175	14719		4.00	9.00	7.44
11.442	11.478	-0.036	176	192810		93.00	101.00	97.48
11.442	11.478	-0.036	177	12490		5.00	9.00	6.48

Data File: /chem/msd6.i/17may16.b/6051702.d

Date : 17-MAY-2016 10:50

Client ID: BFB

Instrument: msd6.i

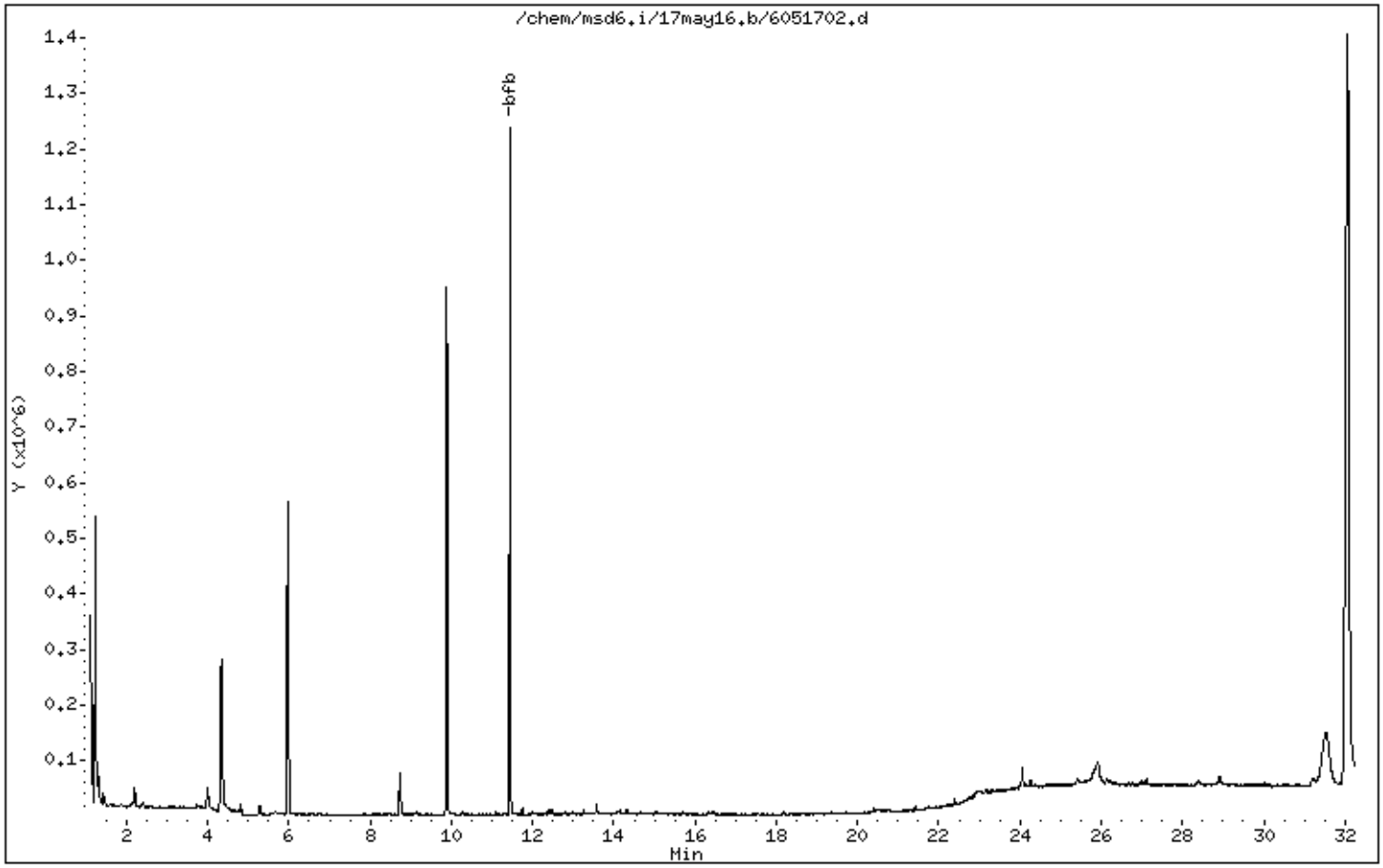
Sample Info: ;BFB;BFB

Volume Injected (uL): 1.0

Operator: CT

Column phase:

Column diameter: 2.00



Data File: /chem/msd6.i/17may16.b/6051702.d

Date : 17-MAY-2016 10:50

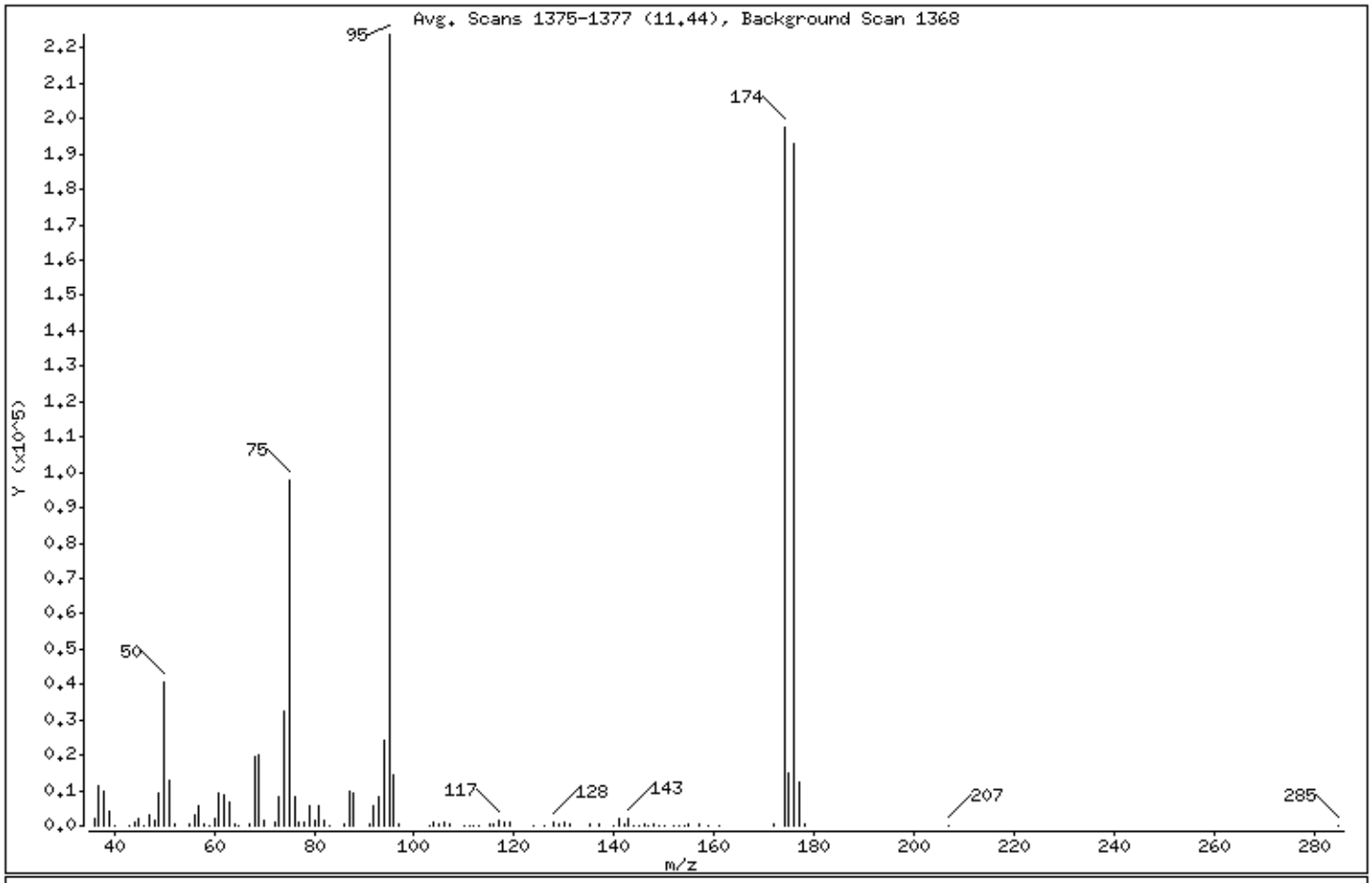
Client ID: BFB | Instrument: msd6.i

Sample Info: ;BFB;BFB

Volume Injected (uL): 1.0 | Operator: CT

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	18.27
75	30.00 - 66.00% of mass 95	43.69
96	5.00 - 9.00% of mass 95	6.41
173	Less than 1.99% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	88.36
175	4.00 - 9.00% of mass 174	6.58 (7.44)
176	93.00 - 101.00% of mass 174	86.13 (97.48)
177	5.00 - 9.00% of mass 176	5.58 (6.48)

Data File: /chem/msd6.i/17may16.b/6051702.d

Date : 17-MAY-2016 10:50

Client ID: BFB

Instrument: msd6.i

Sample Info: ;BFB;BFB

Volume Injected (uL): 1.0

Operator: CT

Column phase:

Column diameter: 2.00

Data File: 6051702.d
Spectrum: Avg. Scans 1375-1377 (11.44), Background Scan 1368
Location of Maximum: 95.00
Number of points: 100

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2134	67.00	669	103.00	52	144.00	105
37.00	11088	68.00	19680	104.00	907	145.00	223
38.00	9800	69.00	19920	105.00	352	146.00	370
39.00	3909	70.00	1535	106.00	891	147.00	147
40.00	89	72.00	1038	107.00	274	148.00	567
43.00	35	73.00	8112	110.00	116	149.00	194
44.00	908	74.00	32424	111.00	178	150.00	240
45.00	2005	75.00	97784	112.00	163	152.00	63
46.00	223	76.00	8447	113.00	189	153.00	133
47.00	3137	77.00	1259	115.00	273	154.00	117
48.00	1420	78.00	954	116.00	699	155.00	586
49.00	9044	79.00	5516	117.00	1381	157.00	444
50.00	40888	80.00	1771	118.00	858	159.00	254
51.00	12747	81.00	5583	119.00	1014	161.00	191
52.00	589	82.00	1335	124.00	191	172.00	301
55.00	626	83.00	67	126.00	52	174.00	197760
56.00	2904	86.00	330	128.00	875	175.00	14719
57.00	5455	87.00	9951	129.00	350	176.00	192768
58.00	282	88.00	9343	130.00	799	177.00	12490
59.00	50	91.00	720	131.00	340	178.00	404
60.00	1876	92.00	5727	135.00	468	207.00	52
61.00	9307	93.00	8191	137.00	345	285.00	50
62.00	8778	94.00	23960	140.00	123		
63.00	6655	95.00	223808	141.00	1861		
64.00	714	96.00	14344	142.00	300		
65.00	231	97.00	490	143.00	1899		

Shipping/ Receiving Documents

eurofins | Air Toxics

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

TO-17 SAMPLE COLLECTION

FedEx Tracking No.: 783081486749

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager: Terry Taylor
Collected by: (Print and Sign) Terry Taylor
Company: AMAI Email: ttaylor@amai-consult
Address: 2700 Westchester City: Purchase State: N Zip: 10571
Phone: 914-251-0400 Fax:

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

Turn Around Time: ☐ Normal ☒ Rush 1-day (specify)

Reporting Units: ☐ ppmv ☒ ppbv ☒ µg/m3 ☐ mg/m3

Lab I.D.	Field Sample I.D. (Location)	Engraved or Stamped Tube #	Date of Collection (mm/dd/yy)	Start Time (hr:min)	End Time (hr:min)	Pre-Test Flow Rate	Post-Test Flow Rate	Volume ℓ	Indoor/Outdoor % RH	Indoor/Outdoor Temp	Indoor Air	Outdoor Air	Soil Vapor	Other (Blank)
01A	B7IA-1	148950	5/14/16	2008	2008	35.1	36.2	17.3	69	84	☒	☐	☐	☐
02A	B7IA-1D	145528	5/14/16	2008	2008	35.1	35.7	17.1	69	84	☒	☐	☐	☐
03A	B7IA-2	137120	5/14/16	2025	2023	34.9	35.2	5.6	65	82	☒	☐	☐	☐
04A	B7IA-3	145501	5/14/16	2028	2028	35.0	36.1	17.2	68	83	☒	☐	☐	☐
05A	B7IA-4	143663	5/14/16	2105	0031	35.2	35.4	7.3	71	85	☒	☐	☐	☐
06A	B7IA-5	135691	5/14/16	1953	1953	35.0	35.4	16.9	68	83	☒	☐	☐	☐
07A	B7IA-6	147259	5/14/16	2052	2052	35.1	35.7	3.4	87	86	☒	☐	☐	☐
08A	B7AA-1(05132016)	147721	5/14/16	2130	0200	34.1	34.1	3.8	77	92	☐	☒	☐	☐
09A	Blank	143690	5/16/16	1035	1035	—	—	—	70	87	☐	☐	☐	☒
											☐	☐	☐	☐

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5/16/16: 1040	[signature]	05/16/16 1040
[signature]	05/16/16 1500	FedEx	
		Andrea Augustin EATL	5/17/16 1025

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		4.0°C	Good	Yes No (None)	1605307

Eurofins Air Toxics, Inc. **Dry Purge** **Logbook #: 2654**

Date: 5/17/16

Instrument: MSD-6

Drying Device: Short Path Thermal Desorption Conditioning System
Manufacturer: Scientific Instrument Services, INC. Ringoes, NJ USA
Model: CS-1
Drying Gas: Nitrogen (N_2) N1866127104

Calibration Tube#: G0147703

Temperature (°C): 40
Acceptance Range (°C): 35-45

Flow Meter: CN 2295

Position #	Workorder #/Lab ID #	Media Type	Tube ID #	Flow Rate (mL/min) Acceptance Range (mL/min): 45-55		Time		Comments
				Start	End	Start	End	
1	1605367-09A	VE		50.7	48.8	1326	1356	
2	-01A			49.8	49.2			
3	-02A			50.8	50.0			
4	-03A			50.2	49.6			
5	-04A			51.5	50.8			
6	-05A			50.2	50.0			
1	-06A			50.7	49.9	1423	1453	
2	-07A			50.0	48.0			
3	-08A			51.1	50.4			
~~4~~								
~~5~~ ct 5/17/16								
~~6~~								
								5/17/16 ct

ct
Reviewed

5/17/16
Date

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY

WORKORDER 1605307

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: 05/18/16 2:00 pm
Date Completed: 5/18/16
Date Received: 5/17/16
PO#:
Project#: BMS Building 7

Total $: $ 2,277.22
Logged By: AA

Fraction	Sample #	Analysis	Collected	Amount$
01A	B7IA-1	Modified TO-17 VI	5/14/2016	$200.00
02A	B7IA-1D	Modified TO-17 VI	5/14/2016	$200.00
03A	B7IA-2	Modified TO-17 VI	5/14/2016	$200.00
04A	B7IA-3	Modified TO-17 VI	5/14/2016	$200.00
05A	B7IA-4	Modified TO-17 VI	5/14/2016	$200.00
06A	B7IA-5	Modified TO-17 VI	5/14/2016	$200.00
07A	B7IA-6	Modified TO-17 VI	5/14/2016	$200.00
08A	B7AA-1 (05132016)	Modified TO-17 VI	5/14/2016	$200.00
09A	Blank	Modified TO-17 VI	5/16/2016	$200.00
10A	Lab Blank	Modified TO-17 VI	NA	$0.00
11A	CCV	Modified TO-17 VI	NA	$0.00
12A	LCS	Modified TO-17 VI	NA	$0.00
12AA	LCSD	Modified TO-17 VI	NA	$0.00

Misc. Charges	Shipping Charges ()	$77.22
	TO-17 VI Tube (10) @ $40.00 each.	$400.00

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: Other MS

REMARKS: A 100% surcharge is applied for a 24 hour turnaround time.

TERMS:

Reporting Method: TO-17 VI (Sh)-Naph only-1.0 ng

Other Records

Compound List

TO-17 VI (Sh)-Naph only-1.0 ng

CAS Number	Compound	Detection Limit ng	Type
91-20-3	Naphthalene	1.0	
1146-65-2	Naphthalene-d8		

Eurofins Air Toxics, Inc.	Data Review Checklist			Release Date: 02/23/16
Workorder # 1605307	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:** AG MSD 6 5/18/16	**S2:**	**S3:**	**S4:**
✓				■	Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria				
NA				■	Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder				
NA				■	Manual Integrations included and approved				
✓					Chain of Custody verified for special comments (add comments below)				
✓				■	Non-standard Target sublist verified (MDL, LOD, RL, control limits, etc.)				

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

J- Flag to Hr. MDL

A1	A2	A3	A4	D	***Section 2* – Sample Analysis**				
					Initials/Date	**A1:** AG 5/18/16	**A2:**	**A3:**	**A4:**
✓					IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, and Canister #s Verified				
NA					**a)** Tedlar Bag IDs verified against COC **b)** Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument				
NA					Manual Integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply)				
✓				■	12/24 Hr clock time & Hold Time met for all samples				
✓					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, Blank Sample < RL
01A/02A FD ok

D1	D2	D3	D4	T	3T	***Section 3* – Target Data Reduction**	**Technical Review Needed? Circle one: Yes/No**		**T:**	
						Initials/Instrument/ Date	**D1:** AG 5/18/16	**D2:**	**D3:**	**D4:**
NA					■	CAR # *(if applicable)*				
✓					■	Spectra Verified *(documentation of spectral defense included if applicable)*				
NA					■	TICs resemble reference spectra/ TICs between sample dups. are consistent *(if applicable)*				
✓						Lab Narrative is correct				
NA					■	TPH/NMOC calculations complete and included in folder				

Special notes: Samples were dry purged

A	3T	***Section 4*- Atlas Data Entry**	**Lumen verified and included in folder**	**Circle one: Yes/No**
		Initials/Date: AG 5/18/16	**3rd Tier:** *(needed only for DOD or per client request)*	
NA		Sample Discrepancy Report (SDR) complete and approved *(if applicable)*		
NA		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: Sample volumes provided by the client. 173 L used to report DNA + LB

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